

# SOUVENIR



## INTERNATIONAL CONFERENCE ON YOUTH AND ADOLESCENT HEALTH

ORGANISED BY

**INDIAN ASSOCIATION FOR ADOLESCENT HEALTH**

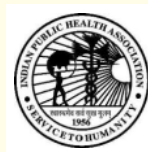
14-16 April, 2017 held at Convention Center, NDMC, Parliament Street, New Delhi, INDIA

Theme : **"Young Generation : Our Global Edge"**



In collaboration with :

Organizer





जगत प्रकाश नड्डा  
Jagat Prakash Nadda



स्वास्थ्य एवं परिवार कल्याण मंत्री  
भारत सरकार  
Minister of Health & Family Welfare  
Government of India



## MESSAGE

I am pleased to know that the Indian Association for Adolescent Health (IAAH) along with Department of Community Medicine, Vardhman Mahavir Medical College and New Delhi Municipal Corporation are organizing the International Conference on Youth and Adolescent Health with a theme "**Young Generation : Our Global Edge**" during 14<sup>th</sup>-16<sup>th</sup> April, 2017 at New Delhi.

The young population of India is its strength and future. Investing in and nurturing this group will have positive global impact. Our Government is committed for health development of younger population. Our National Adolescent Health Program has been designed to deliver appropriate and comprehensive health services. However, more comprehensive and need based action plan is required to cater this section. I am sure that this Conference will help to bring all the possible services and stakeholders on one platform and helps in identifying problems, challenges in this arena and formulating strategies, policies and mechanisms for implementation of programmes so designed for adolescent health.

I congratulate the organizing committee of this International Conference on "Youth and Adolescent Health" and wish for its successful completion.

(Jagat Prakash Nadda)

**Dr. Jagdish Prasad**  
M.S. M.Ch., FIACS  
Director General of Health Services



भारत सरकार  
स्वास्थ्य एवं परिवार कल्याण मंत्रालय  
स्वास्थ्य सेवा महानिदेशालय  
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दिनांक/Dated .....

### Message

I am glad to learn that the Indian Association for adolescent Health (IAAH) in collaboration with Department of Community Medicine, Vardhman Mahavir Medical College & Safdarjung Hospital and New Delhi Municipal Corporation (NDMC) are organizing the International Conference on Youth and Adolescent with the apt theme '**Young Generation : Our Global Edge' during 14-16 April 2017** at New Delhi.

Resurgence of India on globally can only be sustained by virtue of her strength of vibrant population of youth & adolescents. India has the largest young population in the world that makes her biggest asset. All those concerned with continued development of India must leverage this important resource. This could be achieved by nurturing this resource in various ways from our chosen professional fields particularly health.

I have learned that three day deliberations along with workshops would be organized by experts and outcome of these discussions would be made available to all concerned people and departments for planning and implementation of program on youth and adolescent health.

I convey my best wishes for the success of this conference.

(Dr. Jagdish Prasad)



नरेश कुमार, आइ.ए.एस  
अध्यक्ष  
*Nareesh Kumar*, IAS  
Chairman

नई दिल्ली नगरपालिका परिषद्  
NEW DELHI MUNICIPAL COUNCIL  
पालिका केन्द्र, संसद मार्ग, नई दिल्ली-110001  
Palika Kendra, Sansad Marg, New Delhi-110001

## MESSAGE


It gives me an immense pleasure to know that the Department of Community Medicine, Vardhman Mahavir Medical College (VMMC) & Safdarjung Hospital, New Delhi is organizing an International Conference on Youth and Adolescent Health on the theme of "Young Generation : Our Global Edge" from 14<sup>th</sup> to 16<sup>th</sup> April 2017, and on this occasion, the department is bringing out a Souvenir with Stimulating thought on the subject matter.

VMMC and Safdarjung Hospital New Delhi have been identified as premier Institutions for imparting not only quality medical education, but are also frontrunners of caring the health issues of the people.

The conference is dedicated to the latest issues of the Young Generation and towards the advancement of their basic. It will also provide the deeper understanding in the discipline of Youth and Adolescent Health by encouraging the qualitative comparison and performance evaluation on the emerging components of the field.

I hope that this International Conference will achieve their goal in the field of Youth and Adolescent Health.

My hearties congratulations to the organizers of this International Conference. I wish them all the success.

  
(NARESH KUMAR)  
23/3/17



## INTERNATIONAL CONFERENCE ON YOUTH AND ADOLESCENT HEALTH

14-16 April, 2017, New Delhi, India



### Message from President I.A.A.H Professor Prema Bali

Date :- 3<sup>rd</sup> April, 2017

Dear Friends,

It is my delight to welcome you all to participate in this "International Conference on Youth and Adolescent Health and Development". The uniqueness of this conference is that we have invited national and international students to discuss the positive aspects, as well as the negative issues which impede their development. We also have invited the eminent speakers from various fields like sports, education, performing arts, esthetics & grooming, psychology, personality development, spirituality and the medical disciplines. So that we collectively discuss the strategies for the skill development and to potentiate the energies of young generation in a positive and holistic manner.

It is further expected that the young participants carry a positive message to their respective places and countries for their peers. Hence, it is heartfully expected that the contemporary youth become responsible individuals for their families, society and nations at large by their own efforts.

Keeping the W.H.O definition of health in mind we wish that these future citizens of all countries to respect their own cultural values and comprehend the concept of healthful living and keep up good spirit to be constructively creative.

With my best wishes

A handwritten signature in black ink that reads 'Prema Bali'.

Dr. Prema Bali

President

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#### CONFERENCE SECRETARIAT

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प्रो. जयन्त दास, एम.डी.  
निदेशक  
Prof. Jayanta K. Das., M.D.  
Director



राष्ट्रीय स्वास्थ्य एवं परिवार कल्याण संस्थान  
National Institute of Health & Family Welfare



## Message

I am happy to note that the "International Conference on Youth and Adolescent Health with the theme Young Generation: Our Global Edge" is being organized by Indian Association of Adolescent Health (IAAH), in New Delhi, India, during April 14-16, 2017.

Adolescents aged 10-19 years constitute about 21% of India's population which in absolute numbers translates to 253 million. The increasing share of adolescents and youth in India's population can translate into a demographic dividend only if policies and programmes focus on the health and well-being of this large, yet very vulnerable population.

By investing in adolescent health today, we invest in the workforce, parents, and leaders of tomorrow, and break the inter-generational cycle of poor health. Investments in adolescents will have an immediate, direct and positive impact on India's health goals and on the achievement of several Millennium Development Goals (MDGs).

I am sure the Conference will be an apt platform for scholars, experts and all stakeholders of youth and adolescent health to discuss their role in achievement of sustainable development goals and acquire insights and skills to effectively address the issues of adolescents and youth.

I congratulate the organizers for organizing this Conference and wish the Conference and grand success.

**(Jayanta K. Das)**



## Message

Today India needs urgent training in scientific method from school level to higher education. Early education in systematic scientific training will take the youngsters in deep learning and systematic progress.

In fact the training in scientific method should commence at very early stage, from primary level. Questioning, doubting and openness should be the criteria so that the students will apply the same method in all walks of life. Parents should allow their children for open and methodical learning without imposing their personal beliefs. Hereditary prejudices, beliefs are acquired by parents from their ancestors and carry them to their off spring. Of course they do this without any bad intention since they themselves do not know the impact.

Scientific method and its application to all disciplines will take the generations into great future. When scientists follow scientific method in their own discipline but do not extend the same methodical thing to other fields leads to superstitions, blind beliefs. Hence it should be the normal criteria that all disciplines should apply scientific method.

We have great scientists, writers, thinkers like Carl Sagan, Isaac Asimov, Julian Huxley, Rene Dubois, M N Roy, Erich Fromm, Karl Popper, A.B.Shah who has shown us the right way. I wish and hope that this conference will pave the right way to younger generation on these scientific lines.

I wish the deliberations great success.

**GUEST SPEAKERS  
ABSTRACTS**



**Dr Harish K Pemde**

*Director Professor*, Department of Pediatrics, Lady Hardinge Medical College, and Kalawati Saran Children's Hospital, New Delhi, INDIA

**Adolescent Health – tracing the roots from clinic to community**

India has largest population of adolescents (253+ million) in the world. We, the health professionals have a responsibility to keep them healthy and also to take care of them when they are sick or injured. Adolescents are not same as 6 years old or 36 or 76 years old. Their needs are unique hence they require special attention.

For providing adolescent friendly health services in India, we can learn some lessons from similar experiences in other parts of the world especially western nations. I shall try to discuss some of the milestones in development of the specialty of adolescent health and medicine in developed world and to find similar milestone in India through my personal involvements and contributions in this journey. However, this description may not be comprehensive and I may miss some important events/developments.

It began in England in 1884 when Dr G Stanley Hall of Medical Officers of School Association wrote an article mentioned in *Index Medicus* “Adolescence: Its Psychology and its Relations to Anthropology, Sociology, Sex, Crime, Religion and Education”. American Academy of Pediatrics organized a symposium on adolescent health in 1941. Themes were physical fitness, emotional health, and nutrition in adolescents. This meeting is considered by many as the initiating force incorporating adolescent medicine into the domain of pediatric practice. First adolescent in-patient unit was established in Boston in 1951. The first academically complete program in adolescent medicine was initiated in the Bronx by the Division of Adolescent Medicine at Montefiore Medical Center/Albert Einstein College of Medicine in 1967. Society for Adolescent Medicine (SAM) was formed in 1968. The American Academy of Pediatrics formed the Committee on Adolescence in 1976 to help the executive leadership by better informing their discussions of teen issues. In 1979, the Academy formally organized a Section on Adolescent Health, which has been instrumental in providing continuing medical education in the field of adolescent medicine for the practicing pediatricians. Canada, Australia and New Zealand also started their Adolescent Health Associations. Thus, professional academies/organizations played a vital role in development of this specialty/sub-specialty.

The formation of the International Association for Adolescent Health (IAAH) occurred in 1987 at the Fourth International Symposium in Sydney under the auspices of the Australian Association for Adolescent Health. A charter for IAAH, signed by 16 delegates from 13 countries, created an Interim Committee chaired by Dr. Murray Williams. Dr Prema Bali represented Asia in this 16 member committee. SAM changed to Society for Adolescent Health and Medicine (SAHM) in 2010.

Indian Association for Adolescent Health was formed by Dr Prema Bali in 1987. Dr Bir Singh contributed as Secretary. The first meeting took place in 1991 and Dr Jugal Kishore designed its logo in 1991. IAAH organizes conferences and other programs regularly.

Indian Academy of Pediatrics declared year 2000 as Year of Adolescent Care and organized a symposium on adolescent health. IAP Delhi organized conference on Adolescent Health in 2000. Since then annual conferences are happening regularly. IAP Chapter on Adolescent Pediatrics was formed in 2000. IAP organized International Training Program in Adolescent Health at New Delhi in 2002. I was member of organizing committee as well as a faculty in this conference. IAP Delhi organized IAP Training Program in Adolescent Health at New Delhi in 2004 and I was Organizing Secretary. CDC University of Kerala started PG Diploma in Adolescent Pediatrics in 2004. Thus, in India too professional organizations spearheaded this movement.

In 2004, I was asked by Dr AK Dutta to start Adolescent Clinic in Kalawati Saran Children's Hospital, Delhi. I began it with help of a school teacher working on the rolls of KSCH. Later some nurses joined. Initially we named it as ACKSCH (Adolescent Clinic of KSCH). This was once-a-week clinic. Dr AK Dutta also released a circular that in Pediatrics we shall take care of children up to 18 years of age. That was a milestone circular. We still admit children and adolescents up to 18 years of age. Later, we were involved in national adolescent reproductive and sexual health program.

At national level in MoHFW Govt of India approved the establishment of Adolescent Clinics/services with the support of WHO in 5 places in Delhi (2 hospitals), Kolkata, Chandigarh and Surat in 2002. Simultaneously, they were adopting WHO programs and their training manuals. I took training in WHO Orientation Program on Adolescent Health in 2005. This paved the way of national program on adolescent reproductive and sexual health (ARSH). I participated in regional trainings as master trainer in various parts of India.

In 2007, IGNOU decided to include Adolescent Health in its course PGDMCH. I was given the responsibility of editing adolescent health unit. Later, I was involved in training the faculty from 30 medical colleges of India participating in IGNOU PGDMCH in the module on Adolescent Health. Meanwhile, we re-designated our center as Center for Adolescent Health and faculty from other departments joined hands with us. We organized several WHO supported programs on ARSH, including validation of WHO Adolescent Job Aid in 2011.

In 2013, MoHFW GoI planned to further the issue of Adolescent Health and wanted to convert ARSH strategy/program to National Adolescent Health Program. They constituted a Technical Resource Group on Adolescent Health and I was invited to become a member of this group. Our center was given the responsibility of editing training manuals for medical officers and for ANM/LHVs. I ensured inclusion of adolescent health in pre-service training as part of national adolescent health strategy of 2014. The latter guided adolescent health program of India – Rashtriya Kishor Swasthya Karyakram, which was launched in 2014. I also ensured inclusion of WHO Adolescent Job Aid in RKSK training material as the focus of national program also changed from changing the attitude of medical officers to empowering them to manage common adolescent health related issues and diseases. We conducted training of national master trainers for medical officers and for ANMs/LHVs from all states and UTs of India. Currently, we are updating the training modules of RKSK for MOs and for ANMs/LHVs.

I was awarded WHO fellowship in Care of Adolescents at University of Melbourne, Australia in

2015. Later, in 2016 our center hosted 2 trainees for WHO fellowship in Adolescent Health at LHMC, New Delhi.

I have also done research on several issues of adolescent health and medicine through ICMR supported project and with UG and PG students. A brief of these studies will be presented. I also worked very actively with IAP Adolescent Health Chapter now known as Adolescent Health Academy. I have served as Executive Board Member, Treasurer, Secretary (2 terms) and Vice President. During these terms, AHA was adjudged as Best IAP Chapter twice and 2<sup>nd</sup> Best IAP Chapter once. AHA is playing a very important role in empowering pediatricians to take care of adolescents in health and in illness.

Currently our Center for Adolescent Health is providing clinical care to adolescents, screening services in some schools, training to UG and PG students, and in-service physicians and nurses, supporting research, and policy making at national level. Thus, our services spread from Clinic to Community.

As In-Charge of Center for Adolescent Health I coordinate the activities. I acknowledge the support provided by Dr Srikanta Basu (Pediatrics) Dr Manju Puri (Obstetrics and Gynecology), Dr DK Kataria (Psychiatry), Dr Ramchander (Dermatology) and Dr SK Rasanias and Dr JG Prasuna (Community Medicine). Supports of Mrs Pratima Sharma (School Teacher) and Mrs Saroj Tanwar and Mrs Komal Chandra (Nursing staff) are hugely acknowledged.

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**Dr. DS Martolia**

**Principal and Professor of Community Medicine, Govt Medical College, Kanauj, Uttar Pradesh**

### **Adolescent Health: Bridging the generation gap**

Adolescents need support in finding their proper role in life. They are the most vulnerable age group because they have to deal with hormonal, emotional, physical and psychological changes. The modern times are a dilemma for the adolescents who have to cope up with parental domination as well as contemporary competition from the peers. If they listen to their parents they are classified as backward, if they imitate their peers they are labeled as thoughtless, whereas it is a struggle to strike a balance between their peers and their parents. This leads to psychological problems, which are the reason for an increase in rates of suicide and substance abuse among the adolescents. The adolescent age group of today is addicted to cigarettes, tobacco, alcohol, marijuana, cannabis, heroin, hookah and even LSD. Depression, anxiety and stress are very common among adolescents. Internet addiction is also a big problem. There is a need for counseling both the children and the parents and a providing a well equipped education system and health system to bridge this generation gap and promote the mental and physical health of the adolescents. A balanced mind is a prerequisite for a healthy body and a happy life. If we talk of adolescent health, we need to address the discrepancies in the principles and ideologies of the two generations and propose a middle path where the internet generation can come to terms with the traditional older generation and have a harmonious life without stress, depression or any kind of addiction and have a healthy life and a bright future.

## Invited Speech

### Role of sexual socialization in adolescent health

Dr. Swati Shiradkar Professor and Head of Gynecology, MGM Medical College

Development of reproductive system is part of natural development. But sexuality expressed as a result of this development is governed by manmade rules in humans contrary to nature's rules in animals. So conflicts amongst cultures and generations with references to sexuality are very common. This is basic reason why sexuality education is a debatable topic.

There are 2 parts in this sexuality education-sexual literacy i.e. knowledge about changes in body during adolescence and reason for these changes. Being scientific information this is not variable. The other part is sexual socialization. As this is perception and expression of one's identity in relation to gender, it is variable. Unless these two aspects are aligned, sexuality education will not be able to achieve its goal i.e. making adolescents sexually healthy. Until now we are working on children, which will take care of sexual literacy, but parents and teachers responsible for sexual socialization receive no training, leading to controversies and failure of sexuality education. Their main role is to normalize the process of reproductive development helping them to develop positive attitude, to provide free atmosphere to discuss problems related to sexuality, to avoid judgmental reactions in the matter and to assure timely, appropriate help to adolescents without stigmatization.

To empower them in the matter, it is required to remove negative effect of sexual socialization on them, provide them medically correct knowledge and ensure effective communication skills where ever adolescents are concerned. Sexual socialization should start very early in one's life, to have desirable effect of sexual liberty.

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## SPORTS NUTRITION FOR ADOLESCENT AND YOUNG ATHLETES

**Vani Bhushanam Golla**

**Junior Scientific Officer (Sports Nutrition), Human Performance Lab,  
Sports Authority of India, New Delhi**

India is home to a diverse population playing many different sports across the country. Adolescents participate in sports for many reasons including fun, personal motivation, fitness, socialization, economic benefits, status symbol, parental or societal pressures, and media influence. Nearly 7 lakh children, adolescents and young population are engaged in competitive sport in India.

Sport participation can be positive or negative depending up on the motivation, goals, and expectations of the adolescent, his or her parents, and the society at large. It can have life-long positive impact in prevention and control of major diseases that have enormous personal and public health implications.

Sport nutrition has been well documented as being an invaluable tool in any athlete's training and competition programme. It is the single most complementary factor to any physically active individual or elite athlete.

Adolescent athletes with inadequate diets may have insufficient fuel for workouts, nutrient deficiencies that can lead to illness or fatigue, impaired bone growth and maintenance, and may not reach their genetic potential for muscle growth. All of these, reflect on their performance, regardless of their determination. Many young athletes struggle with energy balance, fatigue, recovery, sub-optimal performance, use of ergogenic foods and other nutrition related factors. The young and adolescent athletes can overcome these problems and push their limits and reach their full potential through proper nutritional advice.

Although many of the sports nutrition principles identified for adults are similar to those for young athletes, there are some important differences. These include a higher metabolic cost of locomotion and preferential fat oxidation during exercise, thermoregulatory disadvantage due to a higher surface area to weight ratio, a slower acclimatization, and lower sweating rate. An appropriate dietary intake is recommended to ensure clean and fair sports participation by young athletes.

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## **The Psychology of Aesthetic Dermatology**

**Dr. Shruti Barde**

MBBS, DALM (Germany), PGDCD (London)

Skin and hair problems are common among the adolescents and affect their social life, mood, self-esteem and academic performance.

It is estimated that not only hormonal changes but also environmental factors such as eating habits and stress contribute to skin and hair issues in this period. Acne, Hair fall, pigmentation disorders, skin infections are a few dermatological problems that we see in this age group.

Strikingly there are other set of skin and face related issues triggered because of the vulnerability of this age group to perceptions created in the society we live in. Fairer skin, glowing skin, straighter nose, plumper lips, higher cheek bones, sharper jaw line are aesthetically more desirable. Social inhibitions, interpersonal and psychological problems and problems of sexual difficulties arising in this critical growth phase are deeply impacted by skin health or so the perception of what a healthy skin or a beautiful face should look like. These perceptions of beauty are complicated and have deep evolutionary roots. Glutathione injections and supplements for fairness are a huge market in the cosmetic industry even though they promise a temporary (if at all) reduction in melanin production. Software enhanced facial beauty are encouraging “Magical thinking” and unrealistic expectations. These should not be ignored as they have far reaching consequences in body- image building.

It is well known that physical attractiveness has long been associated with social power and status. Skin forms a major part of this physical attribute. Advances in aesthetic dermatology and laser medicine have enabled us in managing conditions like acne scars, moles, cutaneous melanosis, telangiectasia, hair fall etc. more quickly effectively but outcomes of such procedures are complex. A good outcome following a cosmetic procedure is not only actual improvement in the concerned part but should also involve losing self-consciousness about it and an integration into an adjusted body image thereby letting go of the anxiety-provoking concealing behaviours.

**POSTER  
ABSTRACTS**

### Abstract No-1

#### Efficacy of Unani Guidelines for *Ilaj-bil-ghiza* for Adolescents: A Review

Sayed Shifa Zaidi<sup>1</sup>, Aisha Perveen<sup>2</sup>, Kamar Sultana<sup>1</sup>

1-P.G scholar, Department of Tahaffuzi-Wa-Samaji Tib, Faculty of Medicine(U), Jamia Hamdard, New Delhi 2-Assistant Professor, Department of Tahaffuzi-Wa-Samaji Tib, Faculty of Medicine (U), Jamia Hamdard, New Delhi

**Overview**-Nutrition and physical growth are co-related. Adequate nutrition is essential for achieving normal growth potential. Failure to consume an adequate diet at adolescent age results in delayed sexual maturation or slow overall growth. At adolescent stage, nutrition also prevents adult diet-related chronic diseases, such as cardiovascular disease, cancer, and osteoporosis. *Ilaj-bil-ghiza* aimed at gaining the person's original harmony, brought about by any disease or malnutrition. Unani system of medicine provides different diets for different ages, built etc., like an old person's diet is different from the young one and the food requirement of a pregnant woman is different from a non-pregnant woman. In Unani tibb anything we eat is categorized into different parts like herbs, spices, therapeutics and pharmaceuticals. Food is also categorized on the basis of its temperamental properties. There are specific foods which have hot temperament, but with different levels of either dryness or moistness. As well as, there are other foods which have cold temperament, but with either dryness or moistness. In Unani Tibb this quality is linked to the effect of different foods have on the metabolism and formation of the humours (ikhlat). Hot temperament food will increase the basic metabolic rate of body, and cold temperament food will have the opposite effect.

**Keywords:** Nutrition, ilaj-bil-ghiza, adolescent, temperament of food.

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### Abstract No-2

#### A Preliminary Study on Overweight and Obesity Among School Going Adolescent Girls In a District of Eastern Uttar Pradesh

Nirpal Kaur Shukla<sup>1</sup>, Siraj Ahmad<sup>2</sup>, Mukesh Shukla<sup>3</sup>, Ram Shukla<sup>4</sup>

1-M.D. III<sup>rd</sup> year student, 2-Professor, Department of Community Medicine, Hind Institute of Medical Sciences, Lucknow Metro, Uttar Pradesh. 3-Assistant Professor, Department of Community Medicine, Hind Institute of Medical Sciences, Sitapur, Uttar Pradesh- 261303. 4-Faculty, Department of Rural Management, Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh-226025.

**Introduction:** Obesity among adolescents is emerging as a major global public health problem. Thus, making the upcoming adult generation more preponderant towards associated morbidities and mortalities in the later stages of their lives.

**Objective:** To assess the magnitude of overweight and obesity among adolescent school going girls of Barabanki, Uttar Pradesh, India and to determine the factors associated with it.

**Material and Methods:** A cross-sectional study amongst 537 school going adolescent girls enrolled in 6<sup>th</sup>- 12<sup>th</sup> class in schools was conducted from December 2016 to February 2017 using

multistage sampling technique. Information about diet intake, food preferences and physical activity was collected using pre-designed, pre-tested schedule. Anthropometric measurements were also taken which included body mass index (BMI), waist and hip circumference. Obesity and Overweight were assessed using age specific BMI cut-off value (Khadilkar's criteria).

**Results:** Of the 537 adolescent girls, 95 (17.6%) were overweight, 23 (4.2%) were obese. “Higher socio-economic status” (odds ratio 1.11; 95% confidence interval 1.02-1.22;  $p = 0.02$ ); “frequent intake of junk food items” (odds ratio 3.4; 95% confidence interval 1.56-7.85;  $p = 0.01$ ) and; “sedentary lifestyle” (odds ratio 2.56; 95% confidence interval 1.13-5.85;  $p = 0.01$ ) were found to be the independent predictors of overweight and obesity.

**Conclusion:** Adolescents belonging to higher socio-economic status, consuming comparatively more fast food items and involved in no or irregular physical activity were more susceptible to overweight and obesity.

**Keywords:** adolescent; BMI; overweight; obesity

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### Abstract No-3

#### Rising Prevalence Of Polycystic Ovarian Syndrome (Pcos): Is Lactose Intolerance The Reason?

Ms. Ishwarpreet kaur, Amarjeet Singh, S.V. Rana ,Vanita Suri

Ph.D. Student, Dept. of Community Medicine, Professor, Dept. of Community Medicine, Professor, Dept. of Gastroenterology, Prof. & Head, Dept. of Obstetrics and Gynaecology PGIMER, Chandigarh

**Introduction-**The prevalence of PCOS ranges from 3.7% to 22.5% among Indian women. This has emerged as one of the most common endocrine disorders among women. Many factors are suggested to be associated with the condition e.g. diet, however, what exactly causes PCOS is still not completely known. Milk and dairy products is usually suggested to be avoided in the condition. But the reason for this is never explained to the patients. Research in this area is scarce. To understand why this can have beneficial effects we *evaluated* the prevalence of lactose intolerance in PCOS cases. The incomplete digestion and thereby fermentation of milk in gut could result in dysbiosis and poor gut health. This can lead to leaky gut and symptoms of PCOS.

**Objective:** To evaluate the relationship between lactose intolerance and PCOS in cases registration in Gynaecology, PGIMER.

**Methods:** PCOS cases were recruited from Gynaecology OPD of PGIMER, India. Their socio-demographic status, diet and physical activity profile were noted. Hydrogen breath tests were done to detect lactose malabsorption in 67 women in reproductive age group.

**Results:** The average age of PCOS cases was  $23.21 \pm 4.28$  years. More than half of the 67 women investigated; 40 (59.7%), were diagnosed with lactose intolerance.

**Conclusion:** A high prevalence of lactose intolerance in women with PCOS as compared to ~30% reported in general



**Abstract No-4****Prevalence of Depression in school going adolescents in District Hapur****Sonal Agarwal<sup>1</sup>, Ranjana Singh<sup>2</sup>, Daya Chand<sup>3</sup>**

1. Post Graduate, Department of Community Medicine 2. Professor & Head, Department of Community Medicine 3. Professor & Head, Department of Paediatrics Saraswathi Institute of Medical Sciences, Hapur

**Introduction:** As per the Global Health Observatory Visualization data unipolar depression is the top cause of Disability Adjusted Life Years (DALY) in adolescents, globally in both genders. Researches have shown that that half of all lifetime cases of mental illness begin by age 14, but remain untreated and undetected. Early detection, intervention, and appropriate treatment can promote remission, prevent relapse, and reduce the burden of the disease. Since the prevalence of depression in adolescent was not studied in district Hapur we conducted this study.

**Objectives:** To estimate the prevalence of depression in school going adolescents of district Hapur.

**Material and Methods:** The cross-sectional study was conducted on 505 adolescents over a period of one year from May 2015 to April 2016. Study population comprised of adolescents in age 10- 19 years from four schools, two each in urban and rural catchment area of RHTC Pilakhuwa and UHTC Hapur. Participants were screened for depression using self-report questionnaire, CES-DS. A cut-off score of >16 was considered depressed. To promote clarity among the participants, questionnaire was explained in detail. Any questionnaire with 4 or more unanswered questions was excluded from the study.

**Results:** Study revealed that overall depression of 11.5% among school going adolescents. Prevalence of depression was 12.4% and 10.6% among urban and rural adolescents respectively. Prevalence of depression was more in females (13.3%) than males (9.7%). The difference in prevalence based on residence and gender was found to be statistically significant ( $P < 0.001$ ).

**Conclusion:** The present study showed that a significant population of adolescents were screened positive for depression. Depression has bias for female gender. Urban population had higher prevalence than rural population.

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**Abstract No-5****Adolescent Rubella Vaccination Drive: An Approach to prevent Congenital Rubella Syndrome and Healthy Motherhood****Deepak Sharma, Utkarsh Shah, Uday Shankar Singh**

Pramukhswami Medical College, Department of Community Medicine, PSMC, Gokal Nagar Karamsad-388325 Anand Gujarat

**Introduction:** Rubella, also called German measles or “three day measles”, is viral fever, which occurs worldwide and is normally a mild childhood disease. However, infection during early pregnancy may cause fetal death or the congenital rubella syndrome.

**Objective:** To vaccinate adolescent girls in the age group of 14 to 18 years and conduct interviews of School and College principal and the trustees for their views on their initiative of rubella vaccination.

**Materials and Methodology:** The present study was a qualitative study. This study has two parts. A. The active intervention in terms of rubella vaccination is a part of routine activity and not a part of the current study. The study comprises of seeing the post vaccination events. Adolescent girls (N=445) from a School and College of village Bhadran were vaccinated with Rubella vaccine with active participation and support of college, school staff, PHC staff and Medical college team. B. Interview of the School and College principals and the trustees Thirty minutes interview was conducted.

**Results:** As per priority criteria of WHO Adolescent girls were successfully vaccinated by rubella vaccine without any AEFI. Prior consent of the parents of beneficiaries was taken. The trustees during their work with health care foundation came to know about rubella as an infection during pregnancy can result in disabilities besides poliomyelitis. The Principals found it very beneficial as the girls are protected against the rubella infection.

**Conclusion:** This demonstrates commitment to improve health by protecting adolescents against a specific vaccine preventable disease.

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### Abstract No-6

#### Nutritional Status of Adolescent Girls In Rural And Urban Schools Of Haldwani: A Cross Sectional Study

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Assistant Professor, Prof. & Head, Associate Professor, Dept Of Community Medicine, TMMC & RC Moradabad

**Introduction:** Adolescence is a nutritionally vulnerable period for a number of specific reasons, including their high requirements for growth, their eating patterns and lifestyles, their risk-taking behaviour and their susceptibility to environmental influences. In India, 47% girls in the age group of 11 to 19 years are underweight, which is highest in the world.

**Materials and Methods:** A cross-sectional study was carried out in urban as well as rural schools of Haldwani, district Nainital from October 2012 to March 2014. Multistage random sampling was used to select the requisite number of girls. A total of 770 (443 rural and 327 urban) school going adolescent girls of 10 to 19 years of age were interviewed and anthropometric measurements were recorded for assessing the nutritional status. WHO 2007 growth reference was followed. Height-for-age Z scores and BMI-for-age Z scores were calculated with help of WHO Anthro plus Software version 1.0.4. Data was analyzed using SPSS v.20.

**Results:** Mean weight and mean BMI of urban school girls was significantly higher than rural school girls while mean height in two groups was not significantly different. Prevalence of stunting, thinness, severe thinness, overweight and obesity among rural girls was found to be 15.8%, 21.2%, 9.9%, 4.7% and 1.1% respectively, while respective prevalence among urban girls was 21.7%, 14.70%, 8.3%, 4.6% and 1.8%. The mean height-for-age of the study girls was

below the -1SD curve of the 2007 WHO reference throughout the adolescent period, but above -2SD curve except at 10 and 12 years of age. The mean BMI-for-age of the study girls was below the -2SD of reference curve throughout the adolescent period except at 10 and 19 years.

**Conclusions:** Prevalence of thinness was significantly higher in rural girls, while that of stunting in urban girls. No significant differences in prevalence of overweight and obesity.

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### Abstract No-7

#### A preliminary study on overweight and obesity among school going adolescent girls in a district of Eastern Uttar Pradesh

Nirpal Kaur Shukla<sup>1</sup>, Siraj Ahmad<sup>2</sup>, Mukesh Shukla<sup>3</sup>, Ram Shukla<sup>4</sup>

<sup>1</sup>M.D. III<sup>rd</sup> year student, <sup>2</sup>Professor, <sup>3</sup>Assistant Professor, <sup>4</sup>Faculty, Department of Community Medicine, Hind Institute of Medical Sciences, Lucknow Metro, Uttar Pradesh. Pin- 225003.

**Introduction:** Obesity among adolescents is emerging as a major global public health problem. Thus, making the upcoming adult generation more preponderant towards associated morbidities and mortalities in the later stages of their lives.

**Objective:** To assess the magnitude of overweight and obesity among adolescent school going girls of Barabanki, Uttar Pradesh, India and to determine the factors associated with it.

**Material and Methods:** A cross-sectional study amongst 537 school going adolescent girls enrolled in 6<sup>th</sup> - 12<sup>th</sup> class in schools was conducted from December 2016 to February 2017 using multistage sampling technique. Information about diet intake, food preferences and physical activity was collected using pre-designed, pre-tested schedule. Anthropometric measurements were also taken which included body mass index (BMI), waist and hip circumference. Obesity and Overweight were assessed using age specific BMI cut-off value (Khadilkar's criteria).

**Results:** Of the 537 adolescent girls, 95 (17.6%) were overweight, 23 (4.2%) were obese. "Higher socio-economic status" (odds ratio 1.11; 95% confidence interval 1.02-1.22; p = 0.02); "frequent intake of junk food items" (odds ratio 3.4; 95% confidence interval 1.56-7.85; p = 0.01) and; "sedentary lifestyle" (odds ratio 2.56; 95% confidence interval 1.13-5.85; p = 0.01) were found to be the independent predictors of overweight and obesity.

**Conclusion:** Adolescents belonging to higher socio-economic status, consuming comparatively more fast food items and involved in no or irregular physical activity were more susceptible to overweight and obesity.

**ORAL AND POSTER  
PRESENTATION**

**Abstract No-1****Effect of skipping breakfast on young girls menstruation**Dileep Dandotiya<sup>1</sup>, Manju Toppo<sup>2</sup>, Angelin Priya<sup>3</sup>

1- Post Graduate Student, 2- Associate Professor, 3- Post Graduate Student

**Introduction:** Menstrual disorders frequently affect the quality of life of adolescents and young adult women. Breakfast as a part of healthful diet and lifestyle can positively impact children's and young adult's health and wellbeing. Daily eating habits significantly influence menstrual function in young women. Eating breakfast is important for the health and development of young women. Nearly 15% of college girls rarely or never ate breakfast, and those who ate breakfast almost every day (and did not often eat between meals) reported slightly but significantly better physical health than skippers. We conducted the study to explore the association of skipping breakfast on menstruation.

**Objective:** To find out the effect of breakfast skipping on menstrual cycle among young females.

**Method and Material:** A cross sectional study was used. The studied sample consisted of 90 female students of Bhopal city. Data was collected by using an interviewing questionnaire. Analysis of the findings was done using Epi Info 7 software.

**Results:** Mean age of study participants was 20+3.66. Out of 90 students 82% were found to have been skipping breakfast for more than 3 days a week. The study also revealed that dysmenorrhea was more in girls who skipped the breakfast than in those who had breakfast(P=0.0001).

**Conclusion:** From the above finding we can conclude that episodes of dysmenorrhea occurred more in female students who skipped the breakfast meal more than those who took breakfast regularly.

**Abstract No-2****Severe Maternal Morbidity and Maternal near miss in women less than 20 years in a tertiary hospital of Delhi, India**

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**Department of Community Medicine and Department of Obstetrics and Gynaecology,**  
**University College of Medical Sciences and GTB Hospital, Delhi-110095**

**Introduction:** In addition to maternal mortality information on maternal near miss and severe maternal morbidity are important indicators in maternal health care. Young women are at higher risk of adverse maternal and fetal outcome.

**Objectives :** The study was conducted to determine the causes, outcome and socio demographic and obstetric factors associated with severe maternal morbidity and near miss in a tertiary care teaching Hospital in Delhi with special reference to women less than 20 years.

**Material and methods:** A case control study was conducted to include a total of 261 near miss cases, 522 controls and 434 cases with severe morbidity as defined by the WHO study group. Information was obtained from interview and hospital records. Univariate and multivariate analysis was done to study the association.

**Results:** About 10% of the women were less than 20 years old. Hypertensive disorders and haemorrhage were the most common causes of near miss and severe morbidity. Age less than 20 years or more than 35 years, illiteracy, age less than 18 years at marriage, lower income, gravida four or more, and residence outside Delhi were significant factors for near miss. Women less than 20 years were less likely to have antenatal registration done while delay in seeking care and low birth weight babies was more common. The prevalence of Eclampsia was highest among women less than 20 years.

**Conclusion:** the burden of near miss and severe maternal morbidity is high with women less than 20 years contributing to adverse maternal and fetal outcome.

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### Abstract No-3

#### **A Study to Assess the Self-Harm Behaviours among Adolescents in a Selected University of Delhi with A View to Develop and Disseminate An Information Booklet on Prevention of Self-Harm Behaviours**

**Sivasankari. N<sup>1</sup>, Bindu Shaiju<sup>2</sup>, Jahanara Rahman<sup>3</sup>**

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**2-Assistant Professor, Rufaida College of Nursing, Jamia Hamdard, New Delhi, India**

**3-Tutor, Rufaida College of Nursing, Jamia Hamdard, New Delhi, India**

**Introduction:** Adolescence is the period of life between 10 to 19 years of age in human growth and development that occurs after childhood and before adulthood. It represents one of the critical transitions in the life span and is characterized by a tremendous pace in growth and change that is second only to that of infancy. Many factors could lead adolescents to commit deliberate self-harm (DSH). Self-harm refers to deliberate, self-inflicted destruction of body tissue without suicidal intent and for purposes not socially sanctioned.

**Objectives:** The study aimed to investigate the point prevalence, nature, extent and risk factors of self-harm behaviours among the adolescents aged 17-19 years and to seek the relationship between self-harm behaviours, selected variables and risk factors as well. The objectives also included development of information booklet on prevention of self-harm behaviours.

**Methods:** The descriptive survey included 92 adolescents aged 17-19 years studying in Rufaida College of Nursing, New Delhi using Total enumeration technique. A structured questionnaire was used for data collection and the data was analyzed using descriptive and inferential statistics.

**Results-**Results revealed that the maximum number of adolescents who self-harmed, had moderate severity of self-harm behaviours and most common behaviour indulged was cutting. The area wise analysis of the risk factors revealed that the highest risk factor was socioeconomic

status. Information booklet was prepared and disseminated on prevention of self-harm behaviours for adolescents.

**Conclusion-**Self-harm behaviours among adolescents have been implicated in the development of low self-esteem and hopelessness and may serve as risk factors for the development of adolescent depression and suicide.

**Key Words:** Self-harm behaviours, Nature, Extent, Risk factors, Information Booklet.

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#### Abstract No-4

##### **Knowledge of student nurses on prevention of swine flu and preparation of an information booklet on the prevention of swine flu in a selected College of Nursing, New Delhi**

**Anjali Kaushik**

Clinical Instructor, Ruffaida College of Nursing, Jamia Hamdard

**Introduction-**Estimating the number of individual Swine flu cases is very challenging because many people with flu don't seek medical care and only a small number of those that do seek care are tested.

**Objectives-**The objective of the study was to assess the knowledge of student nurses regarding prevention of swine flu and to enhance their knowledge, by disseminating an information booklet to the students of selected nursing college.

**Results-** A total of 100 students in the age group of 17-19 years were selected for the study from Ruffaida college of Nursing by convenience sampling technique. A structured knowledge questionnaire was used to assess the knowledge of student nurses. A descriptive survey design was adopted. Majority of students (72%) had inadequate knowledge about swine flu.

**Conclusion-** There is a need to disseminate proper information to the public on the status of the H1N1 virus and to achieve a broad awareness of the potential risks and the optimum code of behaviour during the pandemic.

**Key words:** Knowledge, Student nurses, Swine flu.

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#### Abstract No-5

##### **Knowledge, attitudes and practices related to menstruation in adolescent girls: Impact of an educational intervention**

**Manisha Gohel<sup>1</sup>, Ajay Phatak<sup>2</sup>**

**1.Community Medicine Department, Pramukhswami Medical College, Karamsad, Dist: Anand, Gujrat 2.Ajay Phatak, Manager, Central Research Services, Shree Krishna Hospital, Charutar Arogya Mandal, Karamsad, Dist: Anand, Gujrat**

**Introduction:** The onset of menstruation is the most important changes occurring among girls during the adolescent years. Having necessary knowledge, facilities and cultural environment to

manage menstruation hygienically and with dignity is a key priority of adolescent girls.

**Objectives:** To understand adolescent girls' knowledge, attitude and practices about menstruation and empower them with scientific basis of physiology of menstruation and hygiene.

**Material & Methods:** Four schools were selected conveniently and girls in 8-12 standards were included in the study. A pre-test was conducted using a structured questionnaire to assess their knowledge, attitudes and practices about menstruation. The questionnaire included topics concerning physiology of menstruation, menstrual hygiene and beliefs and restrictions related to menstruation. This pre-assessment was followed by an interactive educational intervention using PowerPoint presentation, videos, posters, flip charts and role play. A post-test conducted and private consultation session was organized to enable participants to interact individually.

**Results:** Total 360 (359 pre-test and 358 post-test) girls from 4 schools in the age group 12-17 years participated in the study. Most girls [284(79.1%)] identified menstruation as normal physiological process. Yet a sense of impurity leading to social and cultural restrictions was quite prevalent. The knowledge about hygiene practices and common issues during menstruation was poor. Most girls complained of weakness [254(70.8%)] and about half [179(49.9%)] felt 'unwell' during menstruation. The knowledge and attitudes improved significantly after the educational intervention.

**Conclusions:** Adolescent girls showed poor knowledge, attitudes and practices about menstruation and hygiene. A comprehensive 'Adolescent Health' program encompassing sex education & menstrual hygiene should be implemented.

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#### Abstract No-6

##### **Pattern and Determinants of physical activity in rural and urban adolescents of North India: A population based study**

**Farzana Islam<sup>1</sup>, Rambha Pathak<sup>2</sup>, Anmol Gupta<sup>3</sup>**

1. Associate Professor, HIMSR, Jamia Handard 2. HOD, Community Medicine, HIMSR, Jamia Hamdard 3. Asstt. Professor, Mulana Medical college, Ambala

**Introduction:** Developing countries are experiencing an epidemic of physical inactivity. Few studies have focused on domains and pattern of physical activity (PA) among adolescents.

**Objective:** This study attempts to find out the region specific environmental and social determinants of physical activity in 10-19 years age group.

**Methodology:** A descriptive cross-sectional survey was conducted in the government and private Schools of district Ambala, Haryana situated in North India over a period of one year (2013-14). Stratified random sampling technique was used for recruiting 1714 sample size. Physical activity was assessed using an interviewer-administered youth physical activity questionnaire which prompts volunteers to self report the mode, frequency and duration of PA and sedentary activities in different domains, including school time and leisure time over the past seven days.



**.Results:** Average duration of screen time per day was reported significantly higher among females as compared to male adolescents; however it was more than two hours among both the genders. Average total moderate to vigorous PA duration consistently remained less than 60 minutes per day and MET minutes decreased significantly ( $p=0.00$ ) with an increasing age after 12 years. Being overweight and obese had 30% less chances of carrying out MVPA as compared to those with BMI <85<sup>th</sup> percentile (OR;95%CI: 0.70; 0.59-0.82).

**Conclusion:** The current study reported an overall higher duration of sedentary activity as compared to moderate to vigorous physical activity among adolescents of North India. Physical activity was most associated with environmental factors and inactivity was most associated with socio demographic factors.

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#### Abstract No-7

### Impact of Lifestyle Intervention For Management Of The Modern Life Scourge Of Polycystic Ovarian Syndrome Among Girls – A Case Series

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**Introduction:** Polycystic ovarian syndrome (PCOS) is a complex endocrine disorder affecting various body organs. Oligomenorrhea, hirsutism, insulin resistance, obesity and polycystic ovaries are its hallmark features. Usual medicines for PCOS which focus on blood glucose and hormonal regulation. Diet, exercise and lifestyle changes for losing weight provide relief from symptoms. We describe here few PCOS cases enrolled in an RCT (Ph.D. thesis).

**Objectives:** To ascertain the impact of the lifestyle intervention for management of the modern life scourge of polycystic ovarian syndrome among girls.

**Methods** - Eight PCOS females were called for follow-up every month after advice for healthy diet plans and exercise regime. Anthropometric assessments and biochemical parameters including reproductive hormones, insulin resistance, were performed on at baseline and after 6 months of intervention. Change in their health profile was noted.

**Results:** Menstrual regularity was achieved in all cases. The average weight loss was 4.07 kg (range 2.5-14kg). The average BMI reduced from 26.6 to 25.0 & waist circumference from 94.1 to 86.6. At the end of intervention five cases had normal ovarian size, LH:FSH was normal in 3 cases. Out of 6 with insulin resistance only one tested positive after intervention. One of the subjects said “I am very satisfied with the treatment. Almost all of my problems have been resolved - periods are regular, lab reports are normal, mood has improved. Weight has reduced; other people ask me how I have lost weight.

**Conclusion:** Simple change in lifestyle can easily cure PCOS without consuming hormonal pills.

**Abstract No-8****STATUS AND PATTERNS OF INTERNET USE AMONG MEDICAL COLLEGE STUDENTS: A CROSS SECTIONAL DESCRIPTIVE ANALYSIS****Lovesh Saini, Kusum Gaur, Yashvi Gehlot , Rinku Saini, Disha Meena**

**Introduction:** There has been an explosive growth in the use of internet not only in India but also worldwide in the last decade. The number of internet users in India has grown five-fold since 2005. The understanding that internet use can be a disorder is still in its initial stages in India.

**Objective:** This present study is aimed to study Status and patterns of Internet Use and their associating factors.

**Method:** A descriptive analysis was done on 490 medical students in year 2016. For measuring various degree of internet use, Young's Internet Addiction Test (IAT) tool was used. To find out associations Chi-square test and ANOVA test were used.

**Result:** Among medical students surveyed, 17.55% were either Internet addicts or Possible Internet addicts. Maximum (98.57%) used gadgets was Mobile and 25.92% remain permanent online. Internet was maximally used for Music (87.96%) followed by Education, Chatting, Social Networking, News updates, Games, shopping, Pornography and other. Internet addiction was found to be associated with age, sex, religion, caste and year of use of internet. Internet addiction was found significantly more in students using it for games and Pornography. It was also found significantly more in students who believed in peer influence and virtual interaction.

**Conclusion:** Internet addiction or Possible Internet addiction was found in about one fifth of students. Internet addiction was found significantly more in students using it for games and Pornography. It was also found significantly more in students who believed in peer influence and virtual interaction.

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**Abstract No-9****Prevalence of Hypertension and Associated Risk Factors Among School Going Adolescents of Gorakhpur City****Manish Kumar Singh<sup>1</sup>, Nandeshwar Amardip Anna<sup>2</sup>, A K Upadhyay<sup>3</sup>, Mahima Mittal<sup>4</sup>**

1-Department of Community Medicine, GMC Kannauj, 2-Medical Officer, Maharashtra Health Services, 3-Ex Professor & Head, Community Medicine, BRDMC Gorakhpur, 4-Associate Professor, Pediatrics, BRDMC Gorakhpur

**Introduction-** Children with persistently high blood pressure have increased risk of becoming hypertensive in adulthood. Early detection of hypertension and associated risk factors is essential to undertake corrective measures.

**Objective-** To determine the prevalence of Hypertension and associated risk factors among school going adolescents of Gorakhpur city.

**Material & Methods-**The present study was carried out on school going adolescent less than 16 years of age in Gorakhpur city. The study design was cross sectional and a sample of 520

adolescents were enrolled for the study using multistage sampling. Study tool comprised of a semi structured schedule. Blood pressure was measured using a mercury sphygmomanometer.

**Results-**Overall prevalence of hypertension was found to be 5.4% (4% in early adolescents & 7.2% in mid adolescents). Prevalence of hypertension in male students was 6.6% and female student was 4%. Prevalence was significantly higher in students with smoking, tobacco addiction and sleep of less than 6 hours. Stress and regular fast food consumption was also found to be significantly higher in adolescents with hypertension. Prevalence of hypertension was higher in adolescents with family history of hypertension and in those with low level of physical activity however it was not significant.

**Conclusion:** Stress, Smoking & tobacco consumption, sleep deprivation, unhealthy feeding habits, low physical activity were the major modifiable risk factors associated with higher prevalence of hypertension in adolescents.

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#### Abstract No-10

#### The effectiveness of structured teaching program using information booklet on knowledge of adolescents, about obesity and life style modification in a selected school of New Delhi

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1-Keshlata College of Nursing Bareilly 2-Director Professor & Head of Department of Community Medicine, Vardhman Mahavir Medical College, New Delhi

**Introduction:** Obesity results in many problems in adolescents and children such as cardiovascular problem, diabetes, high cholesterol and blood pressure, and poly cystic ovarian syndrome, these can evoke fear, anxiety and many other psychological problems in adolescents who are already grappling with changes in their body image. Our education system needs to stress more on preparing the young adults to face the challenges that life has to offer. Objectives: To assess the knowledge on obesity and life style modification among adolescents, to develop Structured Teaching Program on obesity and life style modification for adolescents, to evaluate the effectiveness of Structured Teaching Program on obesity and life style modification, to determine the association between post-test knowledge scores and socio-demographic variables.

**Methods:** One group pre-test post-test design was used in Kendriya Vidyalaya, New Delhi where 80 adolescents were selected by purposive sampling technique. After assessing their baseline characteristics a Structured Teaching Programme was developed on obesity and life style modification. Data gathered was analyzed and interpreted by using descriptive and inferential statistics.

**Results:** The mean post-test knowledge scores (39.2) of adolescents regarding obesity and life style modification was higher than their mean pre –test knowledge scores (25.7) indicated that there was gain in knowledge in all the subjects ( $p < 0.05$ ). The association between post-test knowledge scores of adolescents and selected variables i.e. age, occupation of father, monthly family income, type of family, dietary pattern and education of mother. Age (.949), Occupation

of father (0.176), Income (0.654), Type of family (.803), Dietary pattern (.649), Education of mother (.071) were not significant at 0.05 level.

**Conclusion:** There was a deficit of knowledge in all areas in varying degrees on obesity and life style modification. The STP was effective in enhancing the knowledge of adolescents on obesity and life style modification. However, the booklet of STP should be used on larger sample in different settings to assess its feasibility at the national level.

**Keywords:** Obesity, Lifestyle modification, Adolescents, Structured Teaching Program.

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### Abstract No-11

#### Assessment of Stress among Students of 12th Standard in six Higher Secondary Schools of Anand, Gujarat, India

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**Introduction:** The modern Era is full of competition. Students face a wide variety of stresses like academic, parental, peer pressure, socioeconomic status and many others.

**Objective:** To identify and assess the level of stress among 12<sup>th</sup> standard students.

**Materials and Methods:** A cross Sectional study was done in six higher secondary schools among 303 students from each stream Science, Arts and Commerce by taking gender equality into consideration. Educational Stress Scale for Adolescents (ESSA), Patient Health Questionnaire 9(PHQ 9) and Rosenberg Self-Esteem Scale(RSE) questionnaires were used to assess stress among students.

**Result:** Analysis was done by using SPSS 15.0 software. 45.2%, 25.0% and 29.8% were under high stress respectively from Science, Arts, Commerce stream. There is a strong association between perceived stress and student's academic performance among students of Science stream. Based on PHQ-9 for assessment of depression, 38.0% students showed minimal depressive symptoms, 21.5% shows major depression with mild severity, 4.3% students had major depression with moderate severity, 0.7% had major depression with severe severity. Whereas 21 students of Arts stream perceived high stress,76.2% living in urban areas {Cronbach's alpha= 0.774 and 0.734 for ESSA and RSE respectively}.

**Conclusion:** Students of Science stream perceived more stress; reasons are pressure for study, workload, worry about grades and despondency. Students of Arts stream belonging to urban areas facing more stress. As the stress level increases, there is increase in depressive symptoms as well as decrease in self-esteem seen.

**Abstract No-12****Menstrual Hygiene : how much our girls are aware about it????**

**Dr Ritu Khatuja<sup>1</sup>, Dr Prachi Ranjhan<sup>1</sup>, Dr Sumita Mehta<sup>2</sup>, Dr Nivedita Sarda<sup>1</sup>, Dr Dolly Chawla<sup>1</sup>**

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**Introduction-**Menstrual hygiene is an important issue for adolescents girls.

**Objectives:**To assess the awareness of adolescent girls regarding menstrual hygiene.

**Material & Methods:** The study was conducted on 340 adolescent girls aged 12-19 years, belonging to an urban slum area of Delhi. This was a questionnaire based cross-sectional study conducted over a period of 9 months in a tertiary hospital.

**Results:** 69.1% (n=235) girls were between 16-19 years. Source of information about menstruation in majority of the cases was mother (60.2%). Only 47.9% girls knew menstruation before menarche and 23.8% girls knew uterus is the organ for menstruation. 71.17% (n=242) girls used sterile sanitary napkins as absorbent. Satisfactory changing of pads (>2pads/day) was done by 68.5% (n=233) and 77% (n=262) girls cleaned the genitalia satisfactorily (>2 times/day). Social restrictions during menses in the form of religious activities, drop out from school, avoiding certain foods etc were practiced in many families.

**Conclusion:** Although the menstrual practices appear to be satisfactory in major percentage of girls but knowledge regarding menstrual hygiene is worrisome, as maximum girls are unaware of menarche and physiology of menstruation. Inclusion of such information in the school curriculum and wider coverage in mass media will help to bridge this gap.

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**Abstract No-13****Pattern and correlates of substance use among adolescents attending Psychiatry OPD in Secondary Care Government General Hospital**

**Dr. Roopam Kumari<sup>1</sup>, Dr. Namita Deka<sup>1</sup>**

1-Dr Baba Saheb Ambedkar Medical College & Hospital, Rohini, Delhi,

**Introduction-**Now a days, substance abuse among adolescents have increased to such level that is hazardous for their growth and development.

**Objectives:** We sought to assess the pattern of substance use and its correlates among adolescent patients attending Psychiatry OPD in the Secondary care Government General Hospital situated in North-west Delhi.

**Method:** This was a descriptive study that included 30 patients aged between 12-18 years attending Psychiatry OPD over a period of 3 months and diagnosed with Mental and behavioural disorders due to psychoactive substance use according to ICD-10 criteria were enrolled in the study. Data was collected via face-to-face interview with the patient and the informant using a semi-structured questionnaire.

**Results:** All patients belonged to urban areas. Almost all patients (n=29,96.7%) were males and 43% (n=14) were polysubstance users mostly using two substances. The mean age of patients was 15.8 years. Smoking was the route used by the most. Most common substance used were nicotine (n=18,60%) followed by cannabinoids (n=15,50%) opioids (n=11,36.6%) and then inhalants(n=1,3.3%). Reported Peer pressure (n=25,83.3%) was identified as the most common reason for initiation of substance use. 43.3% (n=13)patients were school-dropouts, 50% (n=15) studied in Government Schools, 6.6% (n=2) studied in Private Schools. Family history of substance use was positive in 53.3%(n=16) patients. 23.3% (n=7) had history of childhood abuse.

**Conclusion:** This study highlights the pattern of substance use mostly nicotine in adolescents who are mostly males and its related factors which can be used for making preventive strategies.

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#### Abstract No-14

### Obesity In Female Youth In A Rural Area Of Delhi

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Department of Community Medicine, Maulana Azad Medical College, New Delhi.

**Introduction:** Overweight and obesity are proven risk factors for non-communicable diseases (NCD). People who are obese have a higher risk of developing cardiovascular diseases and diabetes mellitus. It is seen that central adiposity (waist circumference above 80 cm) is associated with increased risk of cardiovascular disease and diabetes. The prevalence of overweight and obesity in rural areas is seen to be increasing as the lifestyle of the rural population is undergoing significant changes in terms of educational status, family income, better transport facilities and changing food habits.

**Objective:** To find out the prevalence of obesity in the female youth.

**Materials and Methods:** It is a community based cross-sectional study conducted at Barwala, Delhi in female youth (18-24 years) who were not pregnant and not seriously ill. Systematic random sampling was used for selecting households. Anthropometric measurements were taken which will include height (cm), weight (kg) and waist circumference (cm). Instruments used were measuring tape (non-stretchable), with accuracy to the nearest ½ cm and digital weighing scale, with accuracy to the nearest 100gm. BMI was calculated by dividing weight by height in metre square. The criteria for BMI for obesity and overweight as given by the WHO for international use and suggested by WHO (WPRO) for Asians was used and the cut-off for waist circumference was taken as >80cm.

**Results:** The mean age was 20.76 (2.36), mean waist circumference was 69.90 (6.99), mean BMI was 20.48 (2.62). The prevalence of central obesity was 8.6% (WC>80cm) while according to BMI 27.6% were underweight, 55.2% had normal BMI, 12.1% were overweight and 5.2% were obese.

**Conclusion:** While underweight still seems to be a pressing problem in the young females, the prevalence of overweight/obesity is also on the rise and this puts these females at a higher risk of developing non-communicable diseases later in their life.

**Abstract No-15****Psychosocial and Behavioral Problems in School Going Adolescents of Urban Bhopal, Madhya Pradesh.**

**Soumitra Sethia, Mahesh Gupta, Manju Toppo, Angelin Priya**  
**Department of Community Medicine, Gandhi Medical College, Bhopal.**

**Introduction:** Adolescence has been identified as a period in which young people develop abstract thinking abilities, become more aware of their sexuality, develop a clearer sense of psychological identity and increase their independence from parents. Adolescence is a period of immense behavioral, psychological, social changes and challenges.

**Objectives-** Objectives were to quantify the proportion of different psychosocial and behavioral problems as perceived among adolescents.

**Materials and Methods:** This was a community-based mixed method study conducted in schools situated in the field practice area of GMC, Bhopal. The study population consisted of 530 adolescents of class 10th, 11th and 12th present on the days of study. Study was undertaken from the month of August 2015 to October 2015 for a period of three months.

**Results:** The mean age of all the respondents was 16.42. Most of the adolescent males perceived stress followed by depression to be the major mental problems in their routine life, while the females faced loneliness followed by anxiety as major psychological problem. The adolescents prefer education (29.81%) as their first priority followed by making career (29.62%). The male respondents admitted body built (38.71%) and beard problems (30.97%) major physical and sexual concern. The female respondents admitted body built and breast size to be their major physical and sexual concern.

**Conclusion-** The top most challenges faced by the adolescents were peer pressure (41.12%) & conflicted relationship with parents and generation gap were the biggest reason for problems in their family.

**Keywords:** Psychosocial problems, Mental health, Perceived stress, School adolescents.

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**Abstract No-16****Unmet Need Of Contraception Among Young Married Women (15-24 Years) Living In Urban Slums Of Lucknow.**

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**Introduction:** Urban growth in India presents a daunting picture. The Age Specific Marital Fertility Rate (ASMFR) is highest in Uttar Pradesh in the age group of 20-24 years (383.9) followed by 15-19 years (271.0). The current use of contraceptives among Young married women (15-24 years) is 27.75% and the unmet need is 30.5%.

**Objectives:** To know the unmet need of contraceptives among Young married women (15-24 years) and the factors associated with it.

**Methodology:** A cross sectional study was carried out in the urban slums of Lucknow. From each of the eight Nagar-Nigam zones in Lucknow, one Urban Primary Health Centre was selected randomly. In the catchment area of that Urban Primary Health Centre, 2 slums were selected randomly. From each slum, all the households were visited until 34 young married women (15-24 years) were interviewed using a pre tested questionnaire to obtain the desired sample size of 535. The data was analyzed using SPSS. Chi-square test and logistic regression analysis was done.

**Results\*\*:** Unmet need of contraception was found to be 55.3% (For limiting- 14.4% and for spacing- 40.9%). Embarrassment / hesitancy / shyness about family planning, lack of knowledge about family planning methods, opposition to contraceptive use and fear of side-effects were found to be the major reasons of unmet need for contraception. *\*\*Further results are being analyzed.*

**Conclusion:** The accessibility and utilization of good quality family planning services appropriate according to both health standards and client satisfaction should be improved for reducing the high levels of unmet need and thereby leading to improved maternal and child health.

**Keywords:** Unmet need, Young married women, Urban slums

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#### Abstract No-17

#### A Study On Internet Addiction And Depression Among Medical Students, Gurugram

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**Introduction-** Internet use in India is increasing globally and has become a major part of daily life. Use of technology by health professionals for education and clinical care is evolving interest. College students are vulnerable to developing dependence on internet due to ease of use ,unlimited access ,limited supervision. They use internet for social media, email and online medical records.

**Objectives-** 1) To assess the pattern of internet usage among medical students 2)To find the Prevalence of internet addiction and associated risk factors 3)To find association (if any) between internet addiction and depression among them

**Material And Method-** A cross-sectional study was done among randomly selected 130 medical students. A predesigned pretested questionnaire using Young's Internet Addiction scale and Becks depression scale was used to elicit pattern of internet usage, internet addiction and depression among medical students. Pearson's chi square test was used to find association between different variables with  $p < 0.05$  being significant.

**Result** The mean age of participants was  $20.15 + 1.89$  years. Majority, 83% belonged to 17-20



age group. About 23.08% were severely addicted to internet. Most common gadget used by participants for internet access was mobile. 11.54% reported of being online more than 6hrs. About 8.46% were severely depressed. Gender was significantly associated with internet addiction, girls being more addicted than boys ( $p < 0.05$ ). Significant association was also found between internet addiction and depression ( $p < 0.05$ )

**Conclusion** All teachers, health care providers should pay closer attention to students who show internet addiction and depression. For the detection of high-risk students, it is important to regularly screen. In order to prevent the transition to addiction there is need to develop preventive interventions including counselling.

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### Abstract No-18

#### College Absenteeism and Menstrual Hygiene Management Among Medical Students, Gurugram

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**Introduction** Menstrual hygiene management has not received adequate attention in the developing countries, exposing girls to the risk of RTIs. However, menstrual hygiene is not just about the management of the menstrual period but also the need to address societal beliefs and taboos surrounding the issue. Doctors being main health care provider should have adequate knowledge about menstruation in order to promote reproductive health.

**Objectives** 1. To assess the knowledge & practices regarding menstrual hygiene management among female medical students. 2. To find prevalence of college absenteeism during menstruation. 3. To find distribution of symptoms of premenstrual syndrome. 4. To find association between knowledge and parents education, religion. **Methodology:** A cross sectional study was conducted among 260 female medical students from Nov 2016-Feb 2017. A pretested questionnaire was used to collect information on knowledge, practices, PMS & college absenteeism during menstruation. Knowledge was evaluated using a scoring pattern (0-5 poor, 6-9 average, 10-12 good). Statistical analysis was done using simple proportions, association was analysed using Pearson's chi-square ( $p < 0.05$  as significant).

**Result** The mean age of participants was  $19.95 \pm 1.41$  years. The mean age of menarche was  $13.38 \pm 1.28$  years. 82.31% participants had good knowledge about menstruation. 98.46% used sanitary pad as absorbent and 97.69% washed genitals daily. Surprisingly, prevalence of college absenteeism was 45.38%. The most common reason for absenteeism was pain and discomfort. 80% participants reported of premenstrual symptoms. A significant association of knowledge was found with parent's education and religion.

**Conclusion** Menstrual hygiene, is a vital aspect of health education. Majority of participants had adequate knowledge on menstrual hygiene and followed good practices. However, few participants reported to follow restrictions and taboos during menstruation.

**Abstract No-19****An Interventional Study to assess the effect of Health Promotion and Behaviour Modification For quitting Tobacco Among Youth Of Haryana**

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**Introduction:** Cigarette smoking in the adolescent population remains a public health concern. A significant portion of the adolescent population currently uses tobacco. Nicotine is particularly addicting in adolescents, and quitting is difficult.

**Objectives:** 1) To assess prevalence of nicotine dependence 2) Assessment of motivation to quit smoking.

**Materials and Methodology:** The interventional study was conducted in the educational institutes located in MM University, Mullana, Ambala, Haryana. 830 male students between 18 and 25 years were included. Modified Fagerstrom questionnaire was used to assess the nicotine dependence level. Motivation to quit smoking was measured by the Contemplation Ladder. Motivational tools used were: cost calculator (personal saving calculator for calculating cost of smoking), photograph of tobacco related diseases used as a health itinerary and telephonic calls /sms.

**Results:** Mean age of the study population was found to be 21.8 (SD 3.348). It was observed that 47.24% had low nicotine dependence and 42.51% have moderate dependence on nicotine and 10.23% were highly nicotine dependent. 66.17% had high motivation to quit smoking. Out of the total 127 current smokers 16.5% quit smoking after 6 months, during which they were motivated to quit smoking, 76.37% did not quit smoking and 7.08% were lost to follow up.

**Conclusion and Recommendation:** . Efforts should be made to continuously educate college students in their curriculum regarding the harmful effects of smoking. Increasing the legal age to purchase tobacco products to 25 years could be helpful.

**Abstract No-20****A study to assess the prevalence of Anaemia among adolescent girls residing in Anna Nagar Slum of Bhopal city**

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**Introduction-** Adolescence has been defined by the WHO as the period of life spanning the ages between 10 to 19 years. This is a vulnerable period in the human life cycle for the development of

nutritional anaemia, which has been constantly neglected by public health programs. The prevalence of anaemia among adolescents is 27% in developing countries, and 6% in developed countries.

**Objectives-** The study was done with the objective to study the prevalence of anaemia among adolescent girls of Urban Slums of Bhopal.

**Materials & Methods-** A cross sectional study was conducted in February 2017 on adolescent girls residing in Anna Nagar slum of Bhopal. 200 adolescent girls were selected using convenient sampling. The data regarding their socio-demographic profile, general examination including pallor, height and weight were collected using a pre-designed semi-structured questionnaire. Hemoglobin level was also estimated using Hemocue (Hb 201) and participants were classified as no, mild, moderate and severe anemia. Data was compiled using Ms Excel and analysed using Epi info 7.

**Results-** Anemia was present in 72% girls. Out of which 57.9% had mild, 32.4% had moderate and 9.7 had severe anemia. 18% of study participants who were diagnosed as anemia were currently taking IFA tablets (weekly supervised dose) provided by their respective Anganwadi centres or school.

**Conclusion-** The overall prevalence of anemia was high among study participants. School going adolescents were getting IFA tablets from their schools while school dropouts were getting IFA from AWCs. But many of the school going girls were neither getting IFA tablets from AWCs nor from their schools.

**Keywords-** Anemia, Adolescents, IFA tablets, slums.

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#### Abstract No-21

##### A study to assess the prevalence of Polycystic Ovarian Disease among adolescent females in Bhopal city

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**Introduction-** Polycystic Ovarian Syndrome is most common endocrine disorder among females. It is one of the leading causes of female sub fertility. It has a Heterogeneous Presentation which includes hyperandrogenism, hirsutism and ovulatory dysfunction. It is a disorder of peri-pubertal onset, so it is a disorder of significant health concern, this necessitates estimation of proportion of women affected by PCOS in the population. This study was conducted to find out the prevalence of PCOS amongst adolescent females in Bhopal city.

**Materials & Methods-** A cross sectional study was conducted for duration of 4 month from November 2016 to February 2017. 840 girls of age group of 15-21 years were interviewed regarding PCOS using ROTTERDAM Criteria in 3 schools and 3 colleges in Bhopal city. After screening for PCOD, all suspected girls were confirmed by USG. Data was compiled using Ms Excel and analysed using Epi info 7.

**Result-** Out of 840 Females, 217(25.5%) complained of irregular menses, out of which only 96(44%) were approached for USG screening. PCOS was present in 77(80.2%) females out of 96 females screened with USG. Also, PCOS was present in 43.2% females with BMI >25 and 50.8% girls having Waist Hip Ratio more than 0.96.

**Conclusion-** This study estimated prevalence of about 8.34% in the study population. Lack of awareness (health seeking behaviour) was prominent in the study population. Significant association was found between PCOS and BMI, WAIST/HIP Ratio. More education session should be held in school and colleges about PCOS.

**Keywords-** PCOS, Adolescent females, risk factors, USG.

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#### Abstract No-22

### Pattern and Determinants of physical activity in rural and urban adolescents of North India:

#### A population based study.

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**Introduction:** Developing countries are experiencing an epidemic of physical inactivity. Few studies have focused on domains and pattern of physical activity (PA) among adolescents. Objective: This study attempts to find out the region specific environmental and social determinants of physical activity in 10-19 years age group.

**Methodology:** A descriptive cross-sectional survey was conducted in the government and private Schools of district Ambala, Haryana situated in North India over a period of one year (2013-14). Stratified random sampling technique was used for recruiting 1714 sample size. Physical activity was assessed using an interviewer-administered youth physical activity questionnaire which prompts volunteers to self report the mode, frequency and duration of PA and sedentary activities in different domains, including school time and leisure time over the past seven days.

**Results:** Average duration of screen time per day was reported significantly higher among females as compared to male adolescents; however it was more than two hours among both the genders. Average total moderate to vigorous PA duration consistently remained less than 60 minutes per day and MET minutes decreased significantly (p-0.00) with an increasing age after 12 years. Being overweight and obese had 30% less chances of carrying out MVPA as compared to those with BMI <85th percentile (OR;95%CI: 0.70; 0.59-0.82). Conclusion: The current study

reported an overall higher duration of sedentary activity as compared to moderate to vigorous physical activity among adolescents of North India. Physical activity was most associated with environmental factors and inactivity was most associated with socio demographic factors.

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### Abstract No-23

#### Association of socio-demographic factors to risk behaviors among Adolescents of class 11-12<sup>th</sup>, Jaipur city; Rajasthan.

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**Introduction:** Adolescent is prone to risky behaviors due to physical and hormonal spurt clubbed with various socio-cultural factors in up-bringing leading to many health hazards.

**Objectives:** To assess the magnitude of risk behaviors (tobacco consumption, alcohol consumption, road safety, unsafe sexual behavior, bullying/ violent behavior, unhealthy dietary habits, suicidal tendency/ depression) in adolescents of class 11-12<sup>th</sup> in Jaipur city and to find their association with socio-demographic factors.

**Material And Methods:** Indianized version of Youth Risk Behavior Survey (YRBS) questionnaire was used to collect data on 900 students of Jaipur City; from 8 randomly selected schools (one government and one private from each zone).

**Results:** Majority participants (67.56%) were 13-16 years old, 94.45 % were Hindu, 56.12% were males, 67% belong to middle-class; and 8% to upper class. Only 12.11% were eating 3 big meals with 2 small meals daily, 88.41% of vehicle users were at risk on roads. Seventy two percent car drivers and 76.64% two wheeler drivers drive without license, > 50% car drivers and 27% two-wheeler drivers used mobile while driving, seat belt and helmet was not used by 28% car drivers and 49.48% of two wheeler drivers, 10.58% car drivers and 5.14% two wheeler users drove under influence of alcohol, 50% were indulged into violence and bullying, 10.4% carried weapon to school. One tenth consumed alcohol and tobacco, 9.22% attempted suicide and 4.4% had sexual experience. Sixty seven percent adolescent were abused once and only 6.25% were abused more than six times. The risk on roads is inversely proportionate to parent's occupation (P = 0.000). Adolescent of private schools and educated mothers fought less at places other than home, (P = 0.021 and P = 0.045) respectively. Males of age group 13–16 years were more aggressive; (P = 0.012). Science stream adolescents consumed tobacco less (P= 0.045). Higher the occupation of parents; more was the use of tobacco (P = 0.006). Adolescents of 17-19 years were at high risk of alcohol use (P = 0.040). Adolescent of lower most class were at more risk of indulging in drug use (P=0.012). Adolescent of government school and of ill-literate mothers indulged in sexual activity more (P=0.037 and P= 0.049 respectively). Seventy eight percent of the sexually active females were lesbians while only 4.56% of the males were gay (P=0.000), more of the underweight adolescents had low body image (P=0.048) and physical activity were performing well in studies (self assessed) (P=0.031). Adolescent doing vigorous physical activity ate daily breakfast (P = 0.016) and cumulatively time spent on TV and computer games affected school performance inversely (P = 0.016).

**Conclusion:** Magnitude of risk behaviours observed among adolescents is alarming. Although pubertal factors dominate over socio-demographic factors yet parents and teachers can play a major role in guiding adolescents towards healthy behaviours.

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#### Abstract No-24

### A Study to find the relation between school bag weight and musculo-skeletal discomfort in school going adolescents

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**Introduction**-An application of external forces in the form of school bags causes postural deviations and musculoskeletal disorders. School bags load exceeding 10% of the body weight increases energy consumption, increases the neck and trunk forward lean and musculoskeletal pain. Despite this, there is still no consensus about guideline weight and other factors associated with carrying a schoolbag.

**Objectives**-1. To assess the weight of school bags in relation to body weight among school going adolescent. 2. To assess the prevalence of musculoskeletal problems amongst them. 3. To investigate association between prevalence of musculoskeletal problems of school bag weight.

**Methodology** -Convenience sample of four Schools was included in the study.934adolescents participated and informed consent was taken from them. Inclusion criteria: age 10-19 yrs. Exclusion criteria: Pre-existing Orthopedic complaints or pain. Weight of students with and without the bags was recorded. Author-assisted questionnaire was completed with students. They were then asked to mark the modified Nordic Body Map Questionnaire. Statistical analysis was done using MS-Excel and Epi-info 7. Appropriate test of significance were applied.

**Result**- The mean weight of school bags is 7kgs and that of students was 45kgs. The mean bag weight as a percentage of body weight is 18.335%. 68% reported pain /discomfort in any part of the body. There was a significant association between school bag weight and musculoskeletal problem (P<.05)

**Conclusion**-The aim of this study was to investigate the mean weight of schoolbags and the effects of schoolbag carriage on musculoskeletal system. The mean weight came out to be 7kg which is over and above the recommended 10% of mean body weight that was 45 kg.

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#### Abstract No-25

### Assessment of Utilization of STI services amongst Men having sex with Men in Bhopal

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**Introduction** – An estimated 122,000 sexually transmitted infections are documented in designated STI clinics of Madhya Pradesh per year out of which females are 75.49% & males are

24.4% .Given the scope of this public health challenge and the importance of prompt treatment and follow up to reduce future STI related risk behaviour ,we sought to qualitatively explore these issue.

**Objective** -To obtain a range of perspectives on health seeking behavior of High Risk Groups namely Men having sex with men (MSMs).

**Methods** –A cross sectional study was conducted in Bhopal. We did Six focus group discussions among three high risk groups namely IDUs, CSWs and MSMs and in each group two FGDs were conducted. Issues related to STIs were asked to all the respondents and responses were recorded by voice recorders and noted down.

**Results**- 10.8%of the MSMs were adolescents while the rest were in age group 20-39 year age group.35.83% were graduates of a professional college. Most of the participants had appropriate knowledge regarding the inclusion of diseases like HIV and Hepatitis B among the diseases transmitted sexually. They also agreed about the difficulty they faced at the government health clinics. Regarding risk they fully agreed that they were at the greatest risk because of their sexual practice.

**Conclusion** - In spite of various programmatic efforts under the RCH programme the desired results, in terms of generating demand for health services at the community level,are not so visible in the behaviour of different sections of the high risk population.

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#### Abstract No-26

### Road Safety Among Adolescents: A Comprehensive Review

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**Introduction**- There is no denying of the fact that adolescents are energetic and don't mind taking risks, especially on roads. Whilst the risk-taking actions of adolescents can be considered a normative developmental process, it undoubtedly has serious injury consequences. And, injury is the major cause of death and hospitalisation among adolescents. It has been observed in various researches that mortality rates resulting from injury among adolescents are directly associated with their risk-taking behaviour, consistently involving transport and violence. According to the report published by WHO, traffic injury is one of the main causes of global adolescent deaths in the world. Road traffic injuries were the leading cause of death in 2012, with some 330 adolescents dying every day. It is also true that many teenagers are not aware that they are more likely to be killed or injured in a road collision than any other age group. But, proper counselling and pro-active measures can save many lives and injuries. For instance you can teach your young kid how to judge speed and distance of approaching vehicles on busy streets, or you can even point out people who are endangering themselves. The safety measures for the prevention of road injuries will be described in full paper. Keywords: Road Safety, Adolescents, Road Injury Deaths, Road Injury Prevention.

**Abstract No-27****Association Between Depression and Smartphone Addiction Amongst Medical Students****Zakirhusain Shaikh****Assistant Professor, Department of Community Medicine, Hamdard Institute of Medical Sciences & Research, Jamia Hamdard**

**Introduction:** Medical education is one of the most stressful education systems, with high levels of Depression and other psychiatric morbidities amongst medical students. Similarly, the medical students are also dangerously affected by smartphone addiction. The two morbidities may be associated. Objectives The study aimed at finding out the association between Depression and Smartphone Addiction amongst Medical students.

**Materials and Methods:** The study was conducted in a Medical college of Delhi, with participants from first Professional year to Internship. All the students were offered to participate in this cross-sectional study. The students were tested for Depression using Public Health Questionnaire-9, which is a validated, self-administered questionnaire. DSM-IV criteria were used for diagnosis of Major Depressive Syndrome and Other Depressive Disorder. Smartphone Addiction was assessed using Smartphone Addiction Scale – Short Version, which is a validated, self-administered instrument.

**Results:** Total participants were 206. Average age – 21.5 years. 55 students had Depressive disorder (26.7%). 20 students had Major Depressive Disorder (9.7%). 9 students (4.4%) were having persistent thoughts of suicide or self-harm. 67 students of 206 (32.5%) were having smartphone addiction. On an average, a student spent 4.4 hours with smartphone per day. There was a significant positive association between Depression and Smartphone Addiction. There was no significant difference across sex and professional years for Depression or smartphone addiction.

**Conclusion :**There is a substantial prevalence of depression with suicidal ideation amongst Medical students alongwith Smartphone Addiction. An enabling environment needs to be created so that they come forward to seek requisite diagnosis and treatment.

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**Abstract No-28****Opinions of Teachers and Adolescent Students Regarding Mentoring For Addressing Reproductive and Sexual Health Needs****Dinesh Kumar, Munesh K. Sharma, Naveen K. Goel**Department of Community Medicine, Government Medical College and Hospital,  
Chandigarh, India

**Introduction:** Reproductive and sexual health challenges of adolescents and young youths may also be addressed through mentoring programs in schools.

**Objectives:** To explore opinions of teachers and adolescent students regarding mentoring as a strategy for reproductive and sexual health needs of adolescent students.



**Material and Methods:** A cross-sectional survey among 1819 adolescent students and 376 teachers in 12 schools of Chandigarh, India, using stratified multi-stage random sampling under ICMR sponsored survey.

**Results:** Majority of 1819 students (73.8%) were not aware of mentoring. About 43% boys and 52.2 % girls felt need of mentors. Some desired qualities of mentors included: caring nature (91.3%), hardworking(67.2%) and honesty (59.4%). Qualities of mentors perceived by teachers included friendly nature (85.4%), motivation (81.6%), and willingness to guide 295 (78.5%). About 40% teachers perceived them to be preferred mentor by students. According to 86(22.9%) teachers, mentoring can give proper guidance and motivation to students. Perceived qualities of mentors by teachers included friendly nature (85.4%), motivating (81.6%) and willing to guide 295(78.5%). There were 335(89.1%) respondents who were willing to have pre mentoring sessions. About 77.0% respondents were found in favor of giving freedom to the students to choose their mentors. About 86.7% respondents were of the opinion that mentoring can be helpful in promotion of adolescent health. Mentoring was acceptable by 73% surveyed teachers.

**Conclusions:** Mentoring has potential for addressing several Reproductive and Sexual Health (ARSH) needs of adolescents for their planned parenthood. Mentoring during adolescence may strengthen the adolescent friendly health initiatives.

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#### Abstract No-29

#### Cross sectional study to Find out the Prevalence of Tobacco Use among IX to XII Class Students of Government Schools of Bhopal

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Gandhi Medical College, Bhopal

**Introduction** - Tobacco usage at early age among children is an impulsive factor for its addiction thus creating a load on economy of India in terms of health, youth power and money accounted in the treatment of diseases due to tobacco use Very few studies related to use of tobacco in early age by children and prevalence of tobacco and type of tobacco use in school children in our country.

**Objectives** –1.To find out the prevalence of tobacco usage among the students of high school and higher secondary class students of government school of Bhopal.2.To find out the age of initiation of tobacco use among the study group.3.To find out the risk factors among the study group.

**Methods**–Cross sectional study. Two stage cluster sampling method adopted. Sample size calculated 990. Study duration of one year from Feb 2016 to January 2017.

**Results** : Prevalence of tobacco use (smoked form and non smoking form ) among the students (girls and boys ) found to be 30%±2.5 The age of initiation of tobacco use was 14-15 years of age in 18 % of students.19% of parents of the study group were using tobacco.

**Conclusion:** The prevalence of non smoked form of tobacco use was found higher in students where their parents were also using tobacco.

**Abstract No-30****Awareness about the Behavioral Addiction among emerging adults: Observation from visitors of a health camp****Neha Dahiya<sup>1</sup>, Suneela Garg<sup>1</sup>, Rachna Bhargava<sup>3</sup>, Yatan Pal Singh Balhara<sup>4</sup>**

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3-National Drug Dependence Treatment Center,

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**Introduction-** Behavioral addictions (including gaming addiction, internet addiction, social media addiction, selfie addiction etc) are being recognized as a major source of distress and dysfunction. Recent studies have reported an increase in prevalence of behavioral addictions. However, there is limited literature on awareness of behavioral addictions among emerging adults.

**Objectives-** The current study reports findings from a health camp organized for general public visiting an international event. The health camp assessed the awareness about behavioral addictions as part of preventive health check up.

**Materials and methods** The visitors at the health camp were invited to complete a semi-structured questionnaire aimed at assessing the awareness about behavioral addictions. The data were analysed using SPSS ver 21.

**Results-** A total of 320 emerging adults completed the semi-structured questionnaire. The mean age of the participants was 21.50 (SD 2.20) years. Around 38% of the respondents rated their awareness about the behavioral addictions as 'very good'. Around 25% reported it to be 'limited'. Around 37% reported that they thought that they might have mobile technology based behavioral addiction. Between 16 and 29% of the respondents endorsed the possibility of having various behavioral indicators of mobile technology based behavioral addiction.

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**Abstract No-31****Level of Understanding, Information Needs and Practices of Adolescent Girls about selected Puberty related Health and Nutritional Problems****Risha Gupta, Amarjeet Singh**

SCHOOL OF PUBLIC HEALTH, PGIMER, CHANDIGARH

**Introduction:** Adolescents comprise of one-fifth of the Indian population. Adolescent girls represent one of the most vulnerable sections of the society. Their felt needs pertaining to routine health problems remain unaddressed.

**Objective:** To ascertain the level of understanding, information needs and practices of rural and urban adolescent girls of Chandigarh about puberty related health and nutrition problems.

**Methods:** It was a cross-sectional study with a sample size of 120 girls (30 from each of the two schools of urban area and two schools of rural area, U.T Chandigarh). Multi-stage sampling was done. Data was collected by means of self-administered, structured questionnaire constituting

elements on level of information regarding puberty, nutrition and related health problems, practices and needs. Data analysis was done through Epidata and SPSS statistical software. **Results:** Many respondents (43.3%) reported menstruation as the most disturbing factor followed by changes in body shape (e.g. appearance of pubic hair) and size. Some (28.3% rural and 40% urban girls) reported the problem of acne while fatty body was major problem for rural girls. Excess facial hair growth was also reported by many (21.7% urban and 6.7% rural) girls. More than 70% girls experienced pain during menstruation. Hygienic practices including usage and disposal of sanitary pads were found to be adequate.

**Conclusion:** Hygienic practices were found to be adequate but the girls got disturbed due to the various puberty related health problems. Hence, there is a dire need to impart education to the girls to address their health care information needs.

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### Abstract No-32

#### Knowledge, Attitude and Practice Regarding Menstruation Among Women Aged 18-24 Years in an Urban Area in Delhi

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**Introduction:** Menstruation is a phenomenon unique to the females. The onset of menstruation is one of the most important changes occurring among the girls during the adolescent years. Most of the girls have poor knowledge regarding menstrual hygiene and physiology, as it is infrequently discussed at homes or at schools.

**Objective:** To study knowledge, attitude and practices regarding menstruation among women aged 18-24 years in an urban area in Delhi.

**Materials and Methods:** A community based cross-sectional study was conducted in an urban area, Gokalpuri, from November 2015 to May 2016. A structured questionnaire was utilized to collect data from sample population. 150 women of 18-24 years of age were interviewed. The data was entered into excel spread and frequencies and proportions were calculated.

**Results:** 62.5% women were aware about menstruation prior to attainment of menarche. Mother was the first informant in 61.2% women. 94.2% women were aware about correct reason of bleeding. Only 33.5% subjects knew about correct source of bleeding. Most of the women were aware about the correct duration and interval of the menstrual cycle. 78% women were using sanitary napkins as absorbent material during their menstrual cycle.

**Conclusion:** There is a need to educate women about menstruation and its importance so that they can lead a healthy reproductive life.

**Keywords:** Menstruation, knowledge, attitude, practices

**Abstract No-33****PREVALENCE AND DETERMINANTS OF DEPRESSION AMONG ADOLESCENTS AGED 17 TO 19 YRS IN KANPUR**

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**Introduction:** Twenty one percent (210 million) of India's population is in the age group of 10-19 years. During this period, children need special care as they undergo a complex process of emotional, physical and social changes. At times, failure to adjust with these changes leads to mental health problems.

**Objectives:** 1. To estimate the prevalence of depression in school going adolescent children. 2. To find out the factors associated with depression.

**Material and Methods:** A Cross-sectional study was conducted for detecting the symptoms of depression among school going adolescents aged 17 to 19 yrs studying in standard X to XII. A list of public schools was obtained from DIOS. A total of 700 students were randomly selected from two schools and all the students studying in classes X to XII presented on the day of survey were included. A predesigned and pretested questionnaire was used to assess the socio demographic factors and diagnosis of depression was made using HAMILTON D scale. Statistical analysis was done with Chi-square test using SPSS17.

**Results:** Prevalence of depression was observed to be 38% among the stud subjects. The prevalence were found more in females (63.15%) as compared to the males(36.8%). About 44.73% of depressed study subjects belongs to higher socio economic status. Around 48.12% of adolescents belongs to three generation family had depression. More the siblings more the chances of depression in study subjects. Majority of depressed adolescents had less frequency of going out for outing, extracurricular activities.

**Conclusion:** The study highlights the common but ignored problem of depression in adolescence. The teachers and parents should be made aware of this problem with the help of school counselors so that the depressed adolescent can be identified early and helped rather than suffer silently.

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**Abstract No-34****Comparative Impact of administering two Population Based Intervention Packages On The Level Of Understanding Of Adolescent Girls About Selected Puberty Related Health And Nutrition Problems**

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**Introduction:** Adolescent girls represent one of the most vulnerable sections of the Indian society. Their felt needs pertaining to routine puberty related health problems remain unaddressed.

**Objective:** To compare the impact of two educational intervention packages on the level of understanding of adolescent girls about puberty related health and nutrition problems.

**Methods:** The present 2 group non-randomized trial was done to improve the level of understanding, information needs and practices of rural and urban adolescent girls. Multi-stage sampling was done (n=120 girls; 60 in each intervention group). Intervention A was self-instruction module (SIM) and intervention B was interactive power-point presentation. Data was collected by means of self-administered, structured questionnaire in the baseline as well as end-line survey. Data analysis was done through Epidata and SPSS statistical software. Outcome variable was improvement in the level of understanding of adolescent girls about puberty related health and nutrition problems after the introduction of educational intervention packages.

**Results:** Pre-test mean overall score was 17.38 and post-test mean overall score was 23.17. More improvement was seen with group B intervention i.e. power point presentation (78.3% girls scored good or excellent grade in post-test) as compared to group A intervention i.e. information booklet (70%). **Conclusion:** Imparting education in a comprehensive way has a great potential to address the health care information needs of the adolescent girls. Both educational interventions led to significant improvement in the overall score in the level of understanding. Power point based interactive session was more effective than SIM.

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### Abstract No-35

#### A Study of Anemia and its Causes among Adolescent Females In Urban Population

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**Introduction:** Anemia in females is a serious health problem in India. Adolescent females are usually the backbone of any country's health and it is important to analyse their health status.

**Objectives:** To determine and analyse the prevalence of anemia among adolescent females and to study the social factors contributing to it.

**Materials and Methods:** A cross-sectional survey was carried out in urban population of Kanpur, Uttar Pradesh. A total of 200 adolescent females (10–19 years old) were included in this study. Duration of the study was 6 months. A detailed questionnaire was prepared and subjects were taken from different socioeconomic sections of the society. The analysis was done keeping in view the different family backgrounds, dietary habits, place of residence, sanitation, water supply, age group, weight and height.

**Results:** The prevalence of anemia in all adolescent females was found to be 40.0%. A significant association of anemia was seen with age, socio-economic status, educational status of parents and dietary habits. Observation was made that average height and weight of subjects with anemia was significantly less than subjects without anemia.

**Conclusions:** Anemia is still a persistent problem in the society specially in the lower socioeconomic status but faulty dietary habits are also making adolescent females anemic

**Keywords:** Adolescent female, anemia, height, urban, weight, socioeconomic.

**Abstract No-36****FACE BOOK INTRUSION VS BRIEF SELF CONTROL AMONG DENTAL STUDENTS OF MEERUT****Davey Anuradha, Davey Sanjeev****Associate Professor, Subharti Medical college, Associate Professor, Muzaffarnagar Medical College**

**Introduction:** Social media has become one of the main form of communication among teens these days and also plays integral role in their lives. Social media refers to any website that allows for social interaction and exchange of ideas(O'Keefe & Clark Pearson 2011).

**Objective:** To find out the association between face book intrusion and brief self-control on the usage pattern.

**Methodology:** Study design: Cross sectional study, Study area: Subahrti dental College, Study units: Undergraduate students of Dental College 2014 and 2015, Sampling technique: Convenience sampling at the time of data collection, sample size : 200 students (All students present at the time of data collection), study tool: validated the Facebook Intrusion Questionnaire, developed by Elphinston and Noller (2011) and The Brief Self-Control Scale by Tangney et al. (2004), Data Analysis: SPSS 19.

**Results:** Students who disagreed for the point that they often think about facebook when not using it, also disagreed for resisting the temptation to use social media like facebook. This correlation was statistically significant ( $p < 0.05$ ). Significant association was also found in the fact that student do not feel stress when not able to access it, were also said that they can stop seeing it when they know it is wrong( $p = .032$ ).

**Conclusion:** Though interaction on social media like face book is quite tempting to surf but their self-control on it is quite good to make them distress.

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**Abstract No-37****Self perception of Bodyweight And Weight Management Practices Among Students of a Medical College Gurgaon****Priyanka Sachdeva, Shalini Ray****PG Student, Assistant Professor, Dept. of Community Medicine, SGT University Gurgaon**

**INTRODUCTION:** Weight loss practices are growing popular worldwide. Proportion of youth and college students attempting to control weight is growing exponentially. Body weight perception motivates weight control practices and helps in predicting weight control behaviour. With this background, present study was conducted with objectives.

**OBJECTIVES:** 1. To study the self perception of bodyweight among students of medical college. 2. To explore the various weight management practices and reasons for the same. 3. To find associated factors if any.

**METHODOLOGY:** A cross sectional study was conducted among 121 medical students from Dec 2016-Feb 2017 .A pretested semistructured questionnaire was used to elicit information on body weight perception and weight control practices. Anthropometric measurements BMI, waist circumference and WHR were measured using standardised instruments. Univariate analysis was done and p value < 0.05 was considered to be significant.

**RESULTS:** The mean age of participants was 20.52+1.46 years. Among the subjects, 54.55% were females and 45.45% males. The prevalence of overweight was 19%, underweight 14.88% and majority 66.12% were normal. 29.75% subjects were willing to lose weight and 10.74% wanted to gain weight. The most common reason cited for trying to lose weight was to feel healthy, followed by improved self esteem. Statistically significant association was found between self perception of body weight and actual BMI (p<0.05).A significant association was found between gender and different categories of BMI (p<0.05) and between junk food consumption and overweight.

**CONCLUSION:** Statistically significant difference between percentage weight perception and actual weight status shows the high prevalence of false weight perception. Students should be educated on the importance of monitoring their weight and BMI in order to prevent deviation from healthy weight.

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#### Abstract No-38

#### Practices and Restrictions Regarding Menstruation Among School Going Adolescent Girls In A Rural Block Of Haryana

Garima Sangwan

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**Introduction:** The World Health Organization (WHO) has defined adolescence as the age group of 10-19 years.<sup>1</sup> Adolescence is a transition phase through which a child becomes an adult. It is characterized by rapid growth and development; physiologically, psychologically and socially. Adolescence in girls has been recognized as a special period in their life cycle that requires due attention.

**Objectives:** To study practices and restrictions regarding menstruation among rural school going adolescent girls.

**Methods:** There were 18 government high and senior secondary schools in block Lakhanmajra. Out of these 5 were exclusively girls' schools, 10 were co-ed schools and 3 were exclusively boys' schools. All the 5 schools meant exclusively for girls were included in the study. All girls studying in 6th to 12th classes from these schools, after applying the exclusion criteria were included in the study. Statistical Analysis performed: Percentages and proportions.

**Results:** Around 95% of the girls had restrictions during menstruation. 38.0% of the girls reported that they were unprepared for menstruation after menarche. 82.3% of the girls used sanitary pads and 59.5% of the girls were still using cloth as menstrual absorbent. dustbin is the most common mode of absorbent disposal used by majority of the girls (70.3%) followed by

washing (21.9%), burning (11.9%), dumping (11.3%), throwing roadside (7.5%) and throwing in the farm (6.6%).

**Keywords:** Menstruation, Menstrual Practices, Restrictions.

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### Abstract No-39

#### **Title: Bullying, cyber addiction, depression and sex education among school adolescents in East Delhi**

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2. Director Professor & Head Community Medicine, Vardhman Mahavir Medical College, New Delhi

**Introduction:** Adolescent is the age of transition and need careful handling. However, they are commonly suffered from cyber addiction and depression. Not much is known among school adolescents in East Delhi.

**Objectives:** To study the self-esteem, bullying, cyber addiction and depression level among school adolescents.

**Methods:** A Cross sectional data collection was made by using a pre-tested questionnaire after getting the consent from a private school authority. 80 students (40 boys and girls each) from 12 standard were selected from all disciplines (Science, Commerce, and art stream). Data was fed in excel and analysed by SPSS 16 version.

**Results:** Out of 40 boys 16 (40%) as compared to out of 40 girls (15%) had problem in socializing and this difference is significant ( $X^2=0.11$ ,  $p=0.01$ ). 37 (92.5% of boys) and 40 (100% of girls) knew about hormones and developmental changes happened by them; 11 (27.5% of boys) as compared to 8 (20% of girls) believed that these changes depress them or hurt their self-esteem. 14 boys (35%) and 8 girls (20%) had bullied others whereas 17 (42.5% of boys) and 14 (35% of girls) had bullied by someone with main reason being academics and appearance in boys and physical appearance in girls. 22 boys (55%) and 27 girls (69.2%) had considered depression as an illness while a big number of students think it as of attitude or personality of some individual. 30 boys (75%) knew only one while 8 boys (20%) know multiple symptoms of depression whereas 16 girls (40%) knew one while 25 girls (62.5%) know multiple symptoms of depression. 13 boys (32.5%) and 13 girls (32.5%) said that they had in depression with main reasons being low SES, poor performance in academics and sports or no one listens to them. 22 boys (55%) and 22 girls (55%) claimed that they were cyber addicted and girls were spending more hours on internet than boys. Majority of boy (85%) and girls (95%) didn't think that giving sex education in school is against the Indian ethics. 29 boys (72.5%) and 19 girls (47.5%) wanted to take sex education from teachers in school. 18 each of gender (45%) wanted sex education to be add in curriculum from 9th class. 38 boys (97.4%) and 34 girls (85%) have chosen subjects by their own interest whereas 1 boy (2.6%) and 6 girls (15%) were compelled by parents to choose their subjects of study.

**Conclusion:** Although today is the era of digital socialization, still teenagers face problem in socializing in real life. Depression prevails in this age group which necessitates need for



adequate intervention. Bullying or being bullied by someone is seen among school students. Cyber addiction is a growing concern and constantly being ignored. Sex education, sexuality are the issues where most of current running programs are not at par. Stress about careers among students require counselling of both parents and their wards.

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#### Abstract No-40

### Adolescent Rubella Vaccination Drive: An Approach to Prevent Congenital Rubella Syndrome and Healthy Motherhood

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**Introduction:** Rubella, also called German measles or “three day measles”, is viral fever, which occurs worldwide and is normally a mild childhood disease. However, infection during early pregnancy may cause fetal death or the congenital rubella syndrome.

**Objective:** To vaccinate adolescent girls in the age group of 14 to 18 years and conduct interviews of School and College principal and the trustees for their views on their initiative of rubella vaccination.

**Materials and Methodology:** The present study was a qualitative study. This study has two parts. A. The active intervention in terms of rubella vaccination is a part of routine activity and not a part of the current study. The study comprises of seeing the post vaccination events. Adolescent girls (N=445) from a School and College of village Bhadran were vaccinated with Rubella vaccine with active participation and support of college, school staff, PHC staff and Medical college team. B. Interview of the School and College principals and the trustees Thirty minutes interview was conducted.

**Results:** As per priority criteria of WHO Adolescent girls were successfully vaccinated by rubella vaccine without any AEFI. Prior consent of the parents of beneficiaries was taken. The trustees during their work with health care foundation came to know about rubella as an infection during pregnancy can result in disabilities besides poliomyelitis. The Principals found it very beneficial as the girls are protected against the rubella infection.

**Conclusion:** This demonstrates commitment to improve health by protecting adolescents against a specific vaccine preventable disease.

**Abstract No-41****An epidemiological study on burden and associated factors of gender based violence among female youth in Delhi**

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Director Professor, Department of Community Medicine

**Introduction** Gender-based violence is a global health and human rights issue with individual and social determinants. Youths in India are at particular risk for complications associated with gender-based violence. Violence against women is rooted in gender-based discrimination and gender stereotypes that perpetuate such violence. This study was done to determine the magnitude and associated factors of gender based violence among female youth. **Materials and methods** It was a hospital based cross-sectional study conducted in a tertiary care hospital located in Central Delhi. All females in age group of 15-24 years reporting in antenatal Out-patient Department (OPD) constituted the study population. Data was collected using a pre tested semi structured questionnaire with items on socio-demographic profile like age, type of family, number of people in the house, total monthly family income, religion, educational level, exposure to gender based violence etc. Data analysis was done using SPSS version 17. Chi square test was used for analysing any difference between categorical variables. P value less than 0.05 was considered significant. **Results** The mean age of study subjects was 21.9 + 1.58 years. Mean age of marriage was 19.66 + 2.24 years with 91 (11.5%) subjects being illiterate. A little less than one third; 232 (29.4%) of the subjects reported to be victim of gender based violence. The gender based violence was not associated with education of subject or partner and occupation. **Conclusion** Gender based violence is prevalent among female youths. There is a need to take immediate measures for its prevention.

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**Abstract No-42****DEVELOPMENT AND VALIDATION OF COMPETENCY GAP ASSESSMENT TOOL FOR REPRODUCTIVE HEALTH CURRICULUM IN INDIAN CONTEXT**

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**Background:** The study was conducted to construct a validated integrated tool serving dual purpose of establishing specific competencies to attain in reproductive health for Undergraduate students.

**Method:** A listing of potential competencies in reproductive health was done through Delphi technique in the background of theoretical framework. The refined competencies list (39 items) was shared with 29 experts for assessing the content validity. Items with CVI<0.80 were removed. The structured questionnaire with 34 items was distributed among 140 faculties from 12 medical colleges. Responses were analyzed for normality and suitability for Principle

Component Analysis. Reliability of the questionnaire was ascertained by split half reliability and Chronbach Alfa

**Result:** Out of the 39 items finalized through consensus, five items having Item Validity Index < 0.80 were removed. Suitability for Principle Component Analysis was checked by R-matrix determinate value ( $R=0.045$ ) and by KMO test (0.634). Five factors emerged namely- exposure to theoretical knowledge for decision making, demonstration of relevant skills, exposure to Health activism, exposure to personal attributes and advocacy to evidence based practices. Promax rotation methods was used for factor loading (component co-relation matrix value of 0.40 between factor-1 and factor-2). Internal consistency value was determined as 0.907. The correlation between sums of each item was computed as 0.545. Spearman Brown coefficient value was detected as 0.705.

**Conclusion:** A reliable and valid tool has been developed which can measure the curricular exposure to reproductive health competencies at primary care level.

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#### Abstract No-44

### Road Traffic Accidents and Head Injury: A Time -Trend Analysis in a Tertiary care-center

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**Introduction:** India, along with other Low-and-middle-income countries (LMICs) leads in Road traffic accidents (RTAs) related deaths accounting for about 90% deaths. Objectives: To study the socio-demographic profile of cases of with head injury and to assess the variation in RTAs with head injury with season, day of week and time.

**Material and methods:** A hospital based cross-sectional study was conducted in casualty and neurosurgery ward, JNMCH, AMU, Aligarh on all registered patients of RTAs with head injury in age-group 15-45 years. It was a purposive sampling conducted from August 2010 to July 2011 i.e., one year.

**Results:** Maximum number of patients belonged to 15-24 years age-group. There were (81.2%) Males and (18.8%) females. 59.8% patients belonged to rural areas whereas 30.2% were unemployed. Maximum risk of RTA was found in upper-lower class (55.1%) i.e. class IV. Seasonal variation was found significant in present study with rainy season accounting for largest number of cases. Highest number of accidents occurred on Friday. Most accidents occurred either between 4.00 -7.59 p.m. or between 8.00-11.59 p.m. and a continuous rise in number of accidents with time of day was noticed from morning till night with peaking at 4.00-7.59 p.m.

**Conclusion:** Young males are at increased risk of RTAs. Increase in level of education provides no immunity to accidents. There is considerable increase in RTAs leading to head injury during rainy season. Keywords: Road traffic accident, head injury, hospital based study.

**Abstract No-44****Problems Faced by Street Children of Bhopal City****Dr. Pradeep Dohare (Post Graduate students), Dr. Manju Toppo (Associate Professor)**

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**Introduction:** Like all other children although street children have the basic rights to develop, survive and thrive, they encounter innumerable problems. To do so at first it is necessary to address these children in terms of what problems they face in their everyday life, what is their survival mechanism and in a broad sense their livelihood process. This research is an attempt to shed light on these cruxes in the context of Bhopal city in Madhya Pradesh.

**Objectives** -1) Examine the lifestyle of the street children, 2) Identify the problems faced by the street children, and 3) Assess their survival and coping mechanism in response to the problems they encounter.

**Method And Materials**-The present study is a cross sectional study to access various problem faced by street adolescent of Bhopal city .street children is identified using snowballing techniques and data from these street children is obtained through interview using a checklist having various parameters about the street children according to study needs. About 100 street children were identified and enrolled for study.

**Results**-According to certain indicators like dwelling condition, income level, food habit, education and health the street children who were interviewed mostly landless lower-class category & most them educated below 5 std. The respondents were of ages between 5 and 10 years. Most of them were Hindu. Most street children sleep at their home and used open defecation. Most of them not got sufficient food .major work reported was rag picking and beggars'. Main problem faced during work were lack of skill. Lack of security & protection and no defined work. Major coping mechanism was keep patience and endure the problem until found any solution.

**Conclusion**- The present menace of mushrooming of different categories of disadvantaged, abandoned, vulnerable, destitute street living, working and playing children in the cities has posed an intense threat to humanity and child rights. The livelihood trajectories of the street children entangled with terrific and aggregated predicaments and problems is nothing but the presentation of their endangered and chaotic livelihood that requires very selective and careful choice and application of coping mechanisms to survive on the streets.

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**Abstract No-45****Leprosy Case Detection Campaign (LCDC): an approach for early case detection and stop transmission of leprosy in National Leprosy Eradication Programme (NLEP), India****Deepika Karotia<sup>1</sup>, Dr. Anil Kumar<sup>2</sup>, Dr. Jugal Kishore<sup>3</sup>, Dr. (Prof.) Jagdish Prasad<sup>4</sup>,**

<sup>1</sup>Consultant, <sup>2</sup>DDG, Central Leprosy Division, National Leprosy Eradication Programme, DGHS, MoHFW, <sup>3</sup>Director Professor, Department-Community Medicine, Vardhman Mahavir Medical College & Safdarjung Hospital; <sup>4</sup>Director General of Health Services, Ministry of Health & Family Welfare, Government of India.

**Introduction:** After the achievement of elimination in December, 2005 under NLEP, India it has been observed that trend of indicators i.e. Annual New Case Detection Rate (ANCDR) and Prevalence Rate (PR) are almost static. In addition, the number of grade II disabled amongst new cases detected has been increased from 3015 (1.87%) in 2005-06 to 5851 (4.60%) in 2015-16 and percentage of MB cases increased from 45.31% in 2005-06 to 51.27% in 2015-16, indicating late detection of cases and there may be several cases which are lying undetected or hidden. Hence, Leprosy Case Detection Campaigns (LCDC), introduced specifically for high endemic districts as an approach for early case detection and stop transmission.

**Objectives:** 1) To detect leprosy cases early in the community. 2) To increase awareness regarding leprosy; and 3) To build capacity of Human resources working in National Leprosy Eradication Programme.

**Method:** Various committees formed at each administrative level for planning and implementation. Intensive IEC activities & focused training of health functionaries at various levels were conducted in 163 districts of 20 States. During LCDC house to house visits for 14 days was conducted by search teams composed of one female and one male volunteer to do physical examination of each and every person, under minimal clothing in well lighted area inside house. Suspects identified referred to Medical Officer (PHC) for confirmation. Systematic collection of reports was followed and Post LCDC evaluation was conducted after campaign.

**Result:** More than 34000 confirmed leprosy cases have been identified till date with MB  $\approx$  33 % and PB  $\approx$  67%. Out of which more than 4000 (25% MB and 75% PB) cases are children i.e., age < 15 years. Approximately 7.2 lakhs Male and Female field volunteers have been trained. Inter personal IEC activities done at doorstep of around 720 lakh households by 3.6 lakh search teams.

**Conclusion:** LCDC is an important step to achieve early case detection, stop transmission and reduce disability in young population. Increased awareness and capacity building of the manpower are added benefits.

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#### Abstract No-46

##### A Study of Problematic Mobile Phone (PMPU) use, Internet Addiction and Sleep Quality among Medical Students of South Delhi

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**Introduction:** Technologies like mobile phones may not always work positively but they may have unforeseen adverse effects. Literature on problematic mobile phone use, internet addiction and its effect on sleep quality among Indian medical student is limited. This study was conducted to find the proportion of students who experienced problematic mobile phone use, internet addiction and sleep disturbances, as well as the pattern of the mobile phone usage among college students.

**Method:** A cross-sectional study was carried out at Vardhman Mahavir Medical College and Safdarjung Hospital Delhi among undergraduate medical students by using a pre-tested, semi-structured questionnaire. Students were assessed on their internet activities using Young's internet Addiction Test (IAT), MPPUS -27, Pittsburgh Sleep Quality Index. Mean, chi-square test unpaired t-test were used for data analysis.

**Results:** The study was conducted among calculated sample size of 250 in 17-25 years undergraduate of medical college. The study population consisted of 156 males (62%) and 94 females (38%). The mean age was  $20.3 \pm 1.39$  years. Among mobile phone users 16% of students had severe form of PMPU and internet addiction also 60% of participants with PMPU and internet addiction had sleep disturbances.

**Conclusions:** PMPU and internet addiction among medical undergraduates appears to be ubiquitous and thus constitutes a important health issue. Although further longitudinal studies are required to test whether PMPU is a transient phenomenon or a chronic and progressive condition, our study successfully identified socio-demographic and psychological risk factors for PMPU. This study opens up new avenues in terms of prevention health education and regulation policies.

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#### Abstract No-47

### Public Private Partnership: Need of the Hour to Improve Community Oral Health of Under Fives, School Age and Adolescents in India

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**Introduction:** Oral health is an important component of general health, with dental caries affecting a person's ability to eat, speak or socialize. Dental caries is an infectious microbial disease of multifactorial origin in which diet, host, and microbial flora interacts over a period of time in such a way. The prevention of dental caries has long been considered as an important task for the health professionals. Scientists are continuing their research in identifying the best practices for diagnosis, treatment, and prevention. Although dental caries has been declining globally in adult population, the caries prevalence in younger ones has not shown a significant decline. Most of the surveys have targeted either adult population or school going children for measurement of dental caries. The present study among preschool children showed the prevalence of dental caries as 48.3%. The findings of present study are comparable with other studies done on oral health status of preschool children in India and abroad on dental caries.

The National Oral Health Survey conducted in 2004 in India has shown prevalence of dental caries as 50.0% in 5 year-old children. A study by Mandal et al in the Eastern states of India showed the prevalence of 52.4%, 56.0%, and 61.8% in West Bengal, Orissa and Sikkim respectively. Prevalence of caries was 44% in children aged below 4 years in Kerala. A study among 1500 children by Mahejabeen et al showed the prevalence of dental caries as 54.1% in the age group of 3-5 years of Hubli -Dharwad city. The prevalence of dental caries in the primary dentition among 5 year old children of urban Pondicherry was 44.4%. However, few studies in India have shown higher prevalence of dental caries in preschool children. A study done among children aged 3-5 years of anganwadi in Mangalore showed higher prevalence of dental caries as 81.4. Karnataka, prevalence of dental caries among preschool children was found to be higher (81.2%). The prevalence of dental caries was found to be 61.4% in children aged 5-6 years of Akola city. The higher prevalence of dental caries among preschool children in India may be due to lack of awareness about importance of oral health and also due to unavailability and non-affordability of dental services. Very few studies in India has shown prevalence of caries below

40%. Tewari et al in 509 primary school children of age group of 3-7 years in Haryana showed slightly low prevalence of caries of 33.8%. The study by Shang et al in China, in age group of 2 to 6 years showed prevalence of dental caries of 53%. Another study in Miranda, Venezuela indicated higher prevalence of dental caries as 64.4%, 72.8 and 72.8% in children with 4, 5 and 6 years of age respectively. The prevalence of caries was also found to be high (62.7%) in preschool children in Saudi Arabia. The high prevalence of dental caries abroad may be due to more consumption of refined food in this urbanized society. In India, a study by Jose and King on early childhood caries lesions in children below 4 years in Kerala showed that the mean dmft was 2.87. According to National Oral Health Survey.

**Recommendations:** Dental caries was found to be the major public health problems among both the government and private school children of which need immediate attention. Regular dental checkups and practice of routine oral hygiene procedures will enable them to lead a healthier life. There is an urgent need to implement Preventive and Curative Oral health programs for children. As anganwadis are run by State Government, a public-private partnership between the government, Private Dental colleges, and NGOs would prove useful toward providing oral health care to these children.

**Keywords:** Public private partnership, oral health programs, oral hygiene.

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#### Abstract No-48

#### A study to assess the knowledge and attitude regarding anorexia nervosa among adolescent girls in selected pre-university colleges at Bengaluru.

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Staff nurse, Govt. General Hospital, Yelahanka, Bengaluru, Karnataka state.

**Introduction:** Anorexia nervosa is a eating disorder most commonly found in girls under age of 18 years. Adolescence is a common time for the anorexia nervosa, a condition characterized by the marked caloric restriction due to fear of gaining weight. In adolescents with anorexia nervosa, many medical consequences such as cardiac arrhythmias, electrolyte imbalances, vitamins and mineral deficiencies, osteoporosis, and hormonal changes, have been identified.

**Objectives:** 1. To assess the knowledge regarding anorexia nervosa among adolescence girls. 2. To assess the attitude regarding anorexia nervosa among adolescent girls. 3. To find out association between knowledge regarding anorexia nervosa among adolescent girls with selected demographic variables. 4. To find out association between attitudes regarding anorexia nervosa among adolescent girls with selected demographic variables. 5. To find out correlation between knowledge and attitude regarding anorexia nervosa among adolescent girls.

**Methodology:** A descriptive research design and exploratory approach was used to study. Random sampling, in which lottery method was used to collect the data from 60 adolescent girls from selected pre-university colleges at Bengaluru. Data was collected using a structured knowledge questionnaire and attitude scale. The results were analyzed by using descriptive and inferential statistics.

**Results:** Regarding demographic variables majority of the subjects (50%) were in the age group of 16 years, majority of the subjects (66.7%) were from 1<sup>st</sup> PUC and majority of the respondents (50%) were from arts group. Majority of respondents belonged to Hindu religion (75%). 58.3%

of the adolescent girls had one siblings, 58.3% of adolescent girls were from rural area, 66.7% of adolescent girls were vegetarians, 58.3% of adolescent girls did not have any previous knowledge regarding anorexia nervosa and 15% of the respondents had got information from mass media. Regarding knowledge out of 60 adolescent girls 36(60%) have adequate knowledge, 18(30%) had moderate knowledge and 6(10%) had adequate knowledge regarding anorexia nervosa. Out of 60 adolescent girls, 06(10%) have negative attitude, 12 (20%) have neutral attitude and 42(70%) have positive attitude towards anorexia nervosa.

**Conclusion:** The overall findings of the study clearly showed that adolescent girls had inadequate knowledge and positive attitude towards anorexia nervosa.

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#### Abstract No-49

##### Is there a role of mobile dental clinics to cater to adolescent health in India?

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**Introduction:** India is the second most populous nation with rich diversity based on ethnicity, geography, culture, religion and languages. The limited studies conducted to evaluate the cost-effectiveness of mobile and portable dental services in comparison with fixed private and public clinics have found them to be better. Hence an effort has been made to study the existing Mobile Dental Clinic network in India to make these services further accessible.

World Health Organization (WHO) recommends a dentist to population ratio of 1:7500 and in India it is 1:10,000 and in rural India it is 1:250,000. The oral health-care delivery in India is predominantly by private dental practitioners residing in affluent urban localities and in the public sector, it is offered only through the network of primary health centers and community health centers (CHC). Mobile and portable dental services (MPDS) may address disparity in dentist population ratio between urban and rural areas, and provide dental care accessibility to the extensive underserved population. Although, MPDS have been successfully implemented in some developed and developing countries especially to reach the underserved, India is lagging behind. A Malaysian study showed that 62% of the beneficiaries were satisfied with the services offered. In Sri Lanka dental care is delivered free of cost through dental clinics and MDPS is used to reach remoteness. WHO and Government of India in a joint operation between September 2008 to May 2009, found that mobile clinics were able to deliver to significantly higher proportion of patients as compared to the CHC and beneficiaries opined for continuation of the services. NGO's Faith works India in and Catholic Church Caritas, Goa, merged both health and oral health. A study conducted in rural areas of Delhi, India recommended to recruit more dental workers, provide all services, and conduct programs often with publicity.

**Recommendations:** Expanding the mobile dental services along with a continued effort to establish permanent Community based dental care. There is a need of dental health classes and policy makers that have relevant qualifications and training in Public health dentistry to understand the unique needs and resources for the development of an effective oral health policy. Professional dental organizations can also support government programs to prove basic oral health needs of extensive underserved population of the country. Financial incentive



programs for return of service are one of the few health policy Interventions intended to improve the distribution of human resources for health on which substantial evidence exists.

**Keywords:** Mobile and portable dental services, portable dental units, oral health policy.

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**Abstract No-50**

**Menstrual hygiene management and school absenteeism among girls of delhi**

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Research**



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