



RESEARCH ARTICLE

TRAINING NEED ASSESSMENT OF MEDICAL OFFICERS REGARDING ADOLESCENT HEALTH IN  
TWO DISTRICTS OF KASHMIR VALLEY

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ABSTRACT

**Introduction:** Adolescence is the phase of life which is characterized by acceleration of physical growth and, psychological and behavioural changes. These issues have not only a huge socioeconomic impact but also impact on National Health Indicators. Medical Officers working in the peripheral hospitals frequently come across the adolescents and hence need to be trained to deliver the best care to them. National Health Mission under RKSK is organizing trainings of Medical Officers in collaboration with Department of SPM Govt Medical College Srinagar.

**Objectives:** To assess the knowledge of Medical Officers regarding adolescent health before the training, and to assess the impact of training upon the knowledge of Medical Officers regarding adolescent health.

**Methodology:** Department of SPM GMC Srinagar conducted 6 three-day training workshops in collaboration with NHM under RKSK. In total 117 Medical Officers from two districts of Anantnag and Baramulla of Kashmir valley were trained from January 2015 upto April 2015. A self-administered questionnaire was introduced to all the participants at the start of workshop and the same questionnaire was again introduced at the end of the workshop. Descriptive analysis was performed using percentages.

**Results:** Overall 37% improvement in the knowledge of adolescent health was observed among Medical Officers after three-days training workshop.

**Discussion:** Maximum improvement was seen in the domain of General knowledge (41.75%), indicating the need for such training programs and minimum improvement was seen in the domain of Reproductive health (30%), indicating the need for reassessment of training material and training approach of resource personnel in that domain. Overall a total of 37% improvement was seen which is appreciable. Hence such training programs should regularly be conducted among Medical Officers to update and refresh their knowledge.

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INTRODUCTION

Adolescence is the phase of life which is characterized by acceleration of physical growth and psychological and behavioural changes thus bringing about transformation from childhood to adulthood. These issues have not only a huge socioeconomic impact but also impact on National Health Indicators. Adolescence is the age of change and it includes the age-group of 10 to 19 years (Park's Textbook of preventive and social medicine 23<sup>rd</sup> edition). It is a vulnerable time when kids can develop unhealthy habits that grow into problems in their adult life. Behavior issues of adolescence, which are quite common, also crop up during this time, making it impossible for parents to reach out to their teenagers. Some hospitals are

training their resident doctors how to perform better while dealing with seriously ill and dying patients (Lagnado, 2016). Similarly doctors should also be trained specifically regarding adolescent health issues and how to manage them. The most common specific problems of adolescents (Gongala, 2017) include the following: 1. Physical changes, 2. Emotional changes and problems, 3. Behavioral changes, 4. Substance Use and Abuse, 5. Educational challenges, 6. Health problems, 7. Psychological problems, 8. Social problems – dating and relationships, 9. Sexual health – unplanned pregnancy and STIs, 10. Addiction to cyberspace and 11. Aggression and violence. Globally, the leading causes of death among adolescents (WHO 2012) are road injury, HIV, suicide, lower respiratory infections and interpersonal violence. HIV-related deaths have more than tripled since 2000, making it the number 2 cause of death among adolescents worldwide. Depression, road injuries, iron deficiency anaemia, HIV and suicide are the

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major causes of disability-adjusted life years lost in 10–19 year olds. Nearly 35% of the global burden of disease has roots in adolescence. Medical Officers working in the peripheral hospitals frequently come across the adolescents and hence need to be trained to deliver the best care to them. There are presently no specialization courses for doctors in adolescent health in the country and also such courses, if present, would be less cost-effective as compared to the short-term trainings. Results from a 2015 survey (Marlais et al., 2016) of foundation and early years surgical trainees done by the Royal College of Surgeons of England showed that in an average week, trainees perceive that 70% of their time is spent on service delivery, rather than training. Thus in a country like India where resources are scarce short-term trainings of medical officers working in field would be a good alternative. National Health Mission under RKSK (Rashtriya Kishore Swastha Karyakram) is organizing trainings of Medical Officers in collaboration with Department of Community Medicine (Social & Preventive Medicine/SPM) Government Medical College, Srinagar.

### Objectives

1. To assess the knowledge of Medical Officers regarding adolescent health before the training.
2. To assess the impact of training upon the knowledge of Medical Officers regarding adolescent health.

### Methodology

Department of Community Medicine (SPM) GMC Srinagar conducted 6 three-day training workshops in collaboration with NHM under RKSK. The trainers included the faculty and senior residents of the department of Community Medicine. In total 117 Medical Officers from two districts of Anantnag and Baramula of Kashmir valley were trained from January 2015 upto April 2015. The Medical Officers were trained in different domains of adolescent health including General knowledge about adolescent health; Reproductive health; Nutrition, Growth and Development; Adolescent health services; and Mental health. A self-administered questionnaire was introduced to all the participants at the start of workshop and they were given 20 minutes to complete the questionnaire. The questionnaire contained 20 multiple choice questions covering all the aspects of adolescent health. The participants just had to tick the correct answer out of the four different options. No identification mark was asked to be written on the paper and it was marked as PRE-TEST. The same questionnaire was again introduced at the end of the third day on the completion of training workshop using the same procedure and marked as POST-TEST.

### Statistical Analysis

- Descriptive analysis was performed using percentages.

### Observations and Results

- The baseline knowledge among medical officers was 48.25%.
- The knowledge after the training program was 85.55%.
- Overall 37% improvement in the knowledge of adolescent health was observed among Medical Officers after three-days training workshop.
- Maximum improvement was observed in the General knowledge domain of questionnaire (41.75%).

- Minimum improvement was observed in the Reproductive Health domain of questionnaire (30%).

### General knowledge about adolescent health

S. No	Question	Pre-test knowledge (%)	Post-test knowledge (%)	Gain in knowledge (%)
1	Adolescent age group.	48	92	44
2	Special attention group among adolescents.	31	78	47
3	Percentage of Indian population who are adolescent.	35	86	51
4	Common health problems that adolescents face.	58	83	25
Mean		43	84.75	41.75

### Reproductive health

S. No	Question	Pre-test knowledge (%)	Post-test knowledge (%)	Gain in knowledge (%)
1	Contraceptive method which prevents STI/RTI.	72	85	13
2	Complications of pregnancy in adolescents.	42	86	44
3	Complications of abortion in adolescents.	33	80	47
4	Transmission of HIV.	76	92	16
Mean		55.75	85.75	30

### Nutrition, Growth and Development

S. No	Question	Pre-test knowledge (%)	Post-test knowledge (%)	Gain in knowledge (%)
1	Nutritional problems among adolescents.	53	86	33
2	Prevalence of nutritional anemia and stunting among adolescents.	31	76	45
3	Biological difference between women and men.	41	76	35
4	Consequences of anemia in girls.	58	90	32
5	Nutritional anemia in adolescents on the basis of hemoglobin levels.	38	86	48
6	Nature of changes during adolescence.	43	82	39
Mean		44	82.67	38.67

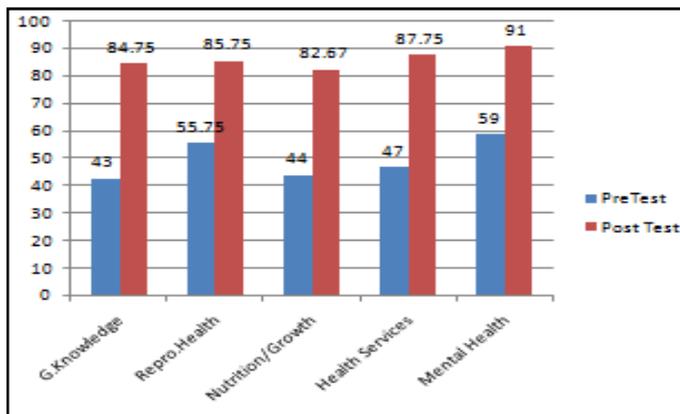
### Adolescent health services

S.No	Question	Pre-test knowledge (%)	Post-test knowledge (%)	Gain in knowledge (%)
1	Components of counselling.	54	81	27
2	HEADS Approach.	16	80	64
3	Supplies required to provide adolescent services.	56	92	36
4	Functions of health care providers at primary level.	62	98	36
Mean		47	87.75	40.75

**Mental health**

S. No	Question	Pre-test knowledge (%)	Post-test knowledge (%)	Gain in knowledge (%)
1	Components of mental wellbeing.	63	92	29
2	Management of mental health difficulties and disorders.	55	90	35
Mean		59	91	32

**Comparison of pre-test and post-test knowledge (%)**



**DISCUSSION**

The estimate of baseline knowledge of 48.25% in adolescent health among medical officers is not that good and needs to be improved. An overall improvement of 37.3% through the three-day training program is appreciable. Maximum improvement was seen in the domain of General knowledge (41.75%), from 43% to 84.75%. This is a significant improvement and almost doubled the knowledge among medical officers. This much of improvement signifies the need for such training programs. Minimum improvement was seen in the domain of Reproductive health (30%), from 55.75% to 85.75%, indicating the need for reassessment of training material and training approach of resource personnel in that domain. It could also be the result of the fact that the medical officers were already having good amount of knowledge (55.75%) in this field and the scope for improvement was not too much.

**Conclusion**

- Though in some aspects of adolescent health, Medical Officers already have a good amount of knowledge and in some aspects there is not much improvement after the training, in majority of aspects of adolescent health there is a good amount of improvement.
- A total of 37% improvement is appreciable.
- Hence it is concluded that such training programs should regularly be conducted among Medical Officers to update and refresh their knowledge.

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