

# Health Status of Adolescents and their Perceived Need for an Adolescent Health Service in a Selected Urban Area of Vellore District

Sarah Emma Rosalind. J<sup>1</sup>, Rajeswari Siva<sup>2</sup>, Sindhu. J<sup>3</sup>, Vaishnavi<sup>4</sup>

<sup>1,2</sup>M. Sc (N)

<sup>3</sup>GNM

<sup>4</sup>B. Sc (N)

**Abstract:** Adolescence is an important developmental stage filled with health opportunities, as well as health risks. During this stage, health behaviours are established that pave the way for adult health, productivity and longevity. A cross sectional descriptive research design was used to assess the general health status of adolescents and their perceived need for an adolescent health service. Data were collected from 200 adolescent boys and 200 adolescent girls residing in Ramanayakanpalayam which is an urban area of Vellore district using systematic random sampling. Data were collected using demographic proforma, Indian Adolescent Health Questionnaire and perceived needs assessment Questionnaire prepared by the investigator. The findings revealed that majority of the adolescents (60.5%) perceived their health status as good. Majority (75%) of them had normal mental health scores. Majority (69%) of them perceived the need for an adolescent health service in the selected area of study. The health care needs of the adolescents should be addressed through appropriate intervention programmes.

**Keywords:** Adolescents, Health status, perceived need, Adolescent health service

## 1. Introduction

Adolescence is a period of transition from childhood to adulthood, a time when many important social, cultural, economic and biological events take place which set the stage for adulthood. Adolescents account for 1.2 billion of the world's population. As per the UNICEF "The State of the World's Children, 2011 report, India has the largest National population of adolescents. The Census 2011 data shows that there are more than 225 million adolescents in India, who account for almost 21 percent of the country's population. Major health issues among adolescents include nutritional disorders (malnutrition as well as obesity), substance abuse, high risk sexual behaviours, stress, common mental disorders, and injuries (including road traffic injuries, suicides and different types of violence). Many of these are precursors of communicable and non-communicable diseases (including mental disorders) and injuries, which inflict high morbidity, mortality, disability and economic burden on adolescents, their households and health systems.

Adolescents comprise of both girls and boys but in India, girls are deprived of equal opportunities and are subjected to neglect and inequality which is also reflective in the negative sex ratio of the country. The Government of India has developed the Adolescent Reproductive and Sexual health Programme (ARSH) to ensure improved service delivery for adolescents during routine sub centre clinics. ARSH programme envisages creating an enabling environment for adolescents to seek health care services through adolescent friendly clinics, counselling services and outreach activities.

NFHS-3 data shows, in the age group of 15-19, about 11% of adolescent boys and 1% of adolescent girls had consumed

alcohol, in that 3% consume it daily. The overall large number of adolescent population in India and the vulnerability of adolescents and their specific needs points towards an urgent need of spreading awareness, enhancing school enrolment, raising the age at marriage and first birth, meeting nutritional needs and empowering and capacity building of adolescents so that they can deal with the challenges of life in a more effective way.

Gopi Krishna B et al (2013) did a study on adolescent girls and found that the commonest problems reported were educational (85.6%) and health related (79.4%). Fear and concern about future career among adolescents was 46.7%. Among health problems, 27.6% were suffering from aches and tiredness. Among psychological problems, 26.4% were having anxiety. In a comparative study done by Hussain A & Khan S (2015) to compare the nutritional and health status among adolescent boys and girls, prevalence of malnutrition among adolescents was 42%. The degree of malnutrition was higher among girls when compared to boys. The prevalence of high blood pressure was 3.7% which was higher among boys than girls.

The existing adolescent health programmes in India focus on rendering services like immunization, health education for reproductive and sexual health, nutritional education and supplementation, anemia control measures and counseling. Adolescent health programmes are fragmentary and not comprehensive to address all the needs of adolescents. There is no direct access, space for privacy, and ideal timing for the target population. It is important to identify the felt needs of the adolescents and the services should be demand driven. It is also important to create awareness among the adolescents about the significance and the need of the services and motivate them to avail the services. Therefore it will be useful to have a multidimensional approach to cover

all the adolescent health problems with special emphasis on mental health, behavior change communication towards healthy lifestyle and positive social environment to acquire social skills which will make them productive adults in the future.

This research study is aimed to gain insight of the health status of the adolescents in the urban community and also to know about their expectations of an adolescent health service.

## 2. Objectives

- 1) To assess the general health status of adolescents in a selected urban area of Vellore district
- 2) To identify the perceived need of adolescents for an adolescent health service in the selected urban area.

## 3. Methods

A cross sectional descriptive design was used. The study was conducted among the adolescent boys and girls residing in Ramnayakanpalayam which is an urban area of Vellore district. 200boys and 200 girls were selected by systematic random sampling. Adolescents who were pregnant and lactating were excluded.

## 4. Instruments

- 1)Demographic proforma was used to collect information about the study participants' age, religion, education, occupation, type of family.
- 2)The Indian Adolescent Health questionnaire was used to collect information about the general health status of the adolescents. The IAHQ is a standardized questionnaire which consists of 111 questions within the following 12 modules:

- Demographic information
- Physical health
- Physical activity
- Nutrition
- Hygiene
- Medical care and medical history
- Hiv/aids
- Tobacco, alcohol and drugs
- Domestic violence and unintentional injury
- Mental health
- Family and home environment
- School environment

This study was conducted after obtaining permission from the concerned authorities

- 3)Perceived needs assessment questionnaire prepared by the investigator was used to collect information about the perceived need of adolescents for an adolescent health service and the type of service needed by them.

## 5. Results and Discussion

### 1) Demographic information

Majority (66%) of the subjects were 14 years of age and the mean age of the subjects was 14.79. Majority (74.5%) of

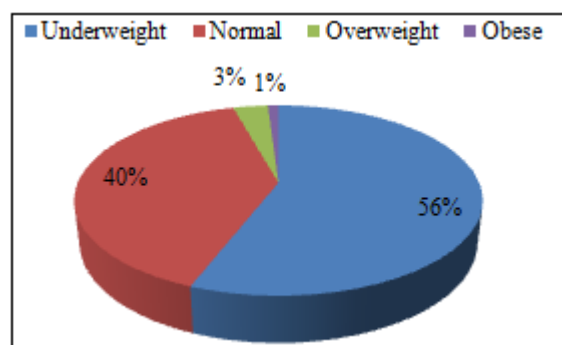
them belonged to Muslim religion. Most of them (71%) were from nuclear families. Majority (43.5%) of them completed middle school education and 3% of them were school drop outs. About 91.5% of the samples were students while 3.3% of them were self employed. Out of the 200 girls 153 had attained menarchy. The minimum age of menarchy was 10 years and the maximum age of menarchy was 16. The mean age of menarchy was 12.69.

### 2) Physical health

**Table1:** Distribution of the adolescents according to the perception of their general health status

| General health status | Perception of their health status |            |
|-----------------------|-----------------------------------|------------|
|                       | No                                | Percentage |
| Excellent             | 105                               | 26.25      |
| Good                  | 242                               | 60.50      |
| Satisfactory          | 48                                | 12.0       |
| Poor                  | 5                                 | 1.25       |

Table 1 shows that majority (86.75) of the adolescents perceived their general health status as good to excellent and only 1.25% expressed that their health status is poor. This is similar to a study done by Omidvar.S(2017) where they reported that 83.3% of the adolescents ranked their health status as good to excellent.



**Figure 1:** Distribution of adolescents according to their BMI.

Figure 1 shows the classification of adolescents according to their BMI. Majority (55.9%) of them are underweight followed by 39.8% of them who are of normal weight. 3.3% are overweight and 1% of them are obese. A similar study done by Vohra et al (2011) among school going children revealed that 60.44% of them were underweight, 34.64% were normal, 4.17% were overweight and 0.73% were obese

**Table 2:** Distribution of adolescents according to their duration of sleep during the night

| Duration of sleep during the night | No  | Percentage |
|------------------------------------|-----|------------|
| Less than 6 hours                  | 30  | 7.50       |
| 6-7 hours                          | 130 | 32.50      |
| 8-9 hours                          | 185 | 46.25      |
| More than 10 hours                 | 55  | 13.75      |

Table 2 shows that majority of the adolescents (46.25%) sleep for 8-9 hours during the night followed by 32.5% of them who sleep for 6-7 hours. Few of them (7.5%) sleep for less than 6 hours.

3) Physical activity

Table 3: Distribution of adolescents according to their physical activity

| Physical Activity  | No  | Percentage |
|--|-----|------------|
| Number of physically active days (atleast 30 minutes) in a week      |     |            |
| 0 days   | 115 | 28.75      |
| 1-3 days   | 94  | 23.50      |
| 4-6 days   | 66  | 16.50      |
| 7 days   | 125 | 31.25      |
| Time spent for sitting activities(watching TV,Computer time) per day |     |            |
| Less than 1 hour   | 158 | 39.50      |
| 1-2 hours  | 97  | 24.25      |
| 2-4 hours  | 100 | 25.00      |
| More than 4 hours  | 45  | 11.25      |

Table 3 shows the physical activity of the adolescents. Majority (31.25%) of the adolescents were physically active on all 7 days of the week whereas 28.75% of them were not physically active at all. The mean number of physically active days is 4.5 days. The time spent by the adolescents per day for sitting activities like watching television or working with computer is also shown in this table. Majority (39.5%) of them spend less than an hour for sitting activities followed by 25% of them who spend 2- 4 hours per day for sitting activities.

4) Nutrition

Majority of the adolescents (67.5%) are non vegetarians and 32.5% are vegetarians. The frequency of intake of vegetables, fruits, Junk foods and carbonated drinks is shown in figure 2.

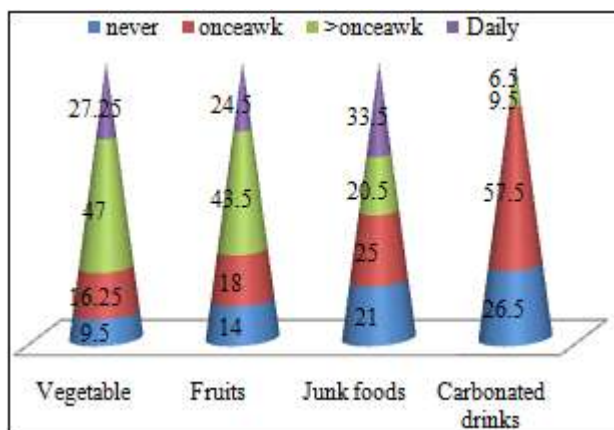


Figure 2: Distribution of adolescents according to the intake of food items

Figure 2 shows that majority of the adolescents 47% and 43.5% ate vegetables and fruits respectively more than once a week. It is also surprising to note that majority of them (33.5%) took junk foods everyday and most of them (57.5%) consumed carbonated drinks more than once a week.

5) Hygiene

Table 4: Distribution of adolescents according to their hygienic practices

| Hygienic practices                      | No  | Percentage |
|---|-----|------------|
| Frequency of brushing teeth             |     |            |
| Once a week                             | 8   | 2.0        |
| More than once in a week                | 10  | 2.5        |
| Once daily                              | 286 | 71.5       |
| Twice daily                             | 96  | 24.0       |
| Practice of washing hands before eating |     |            |
| Never                                   | 13  | 3.25       |
| Sometimes                               | 44  | 11.0       |
| Most of the time                        | 78  | 19.5       |
| Always                                  | 265 | 66.25      |

Table 4 shows that majority of the adolescents (71.5%) brushed their teeth once daily and there were quiet few (2%) who brushed their teeth only once a week. Majority (66.25%) of them washed their hands before eating.

6) Medical Care and Medical History

Table 5: Distribution of adolescents according to their ability to go a health centre during illness

| Able to go to a health centre during illness | No  | Percentage |
|--|-----|------------|
| Never  | 22  | 5.5        |
| Rarely                                       | 94  | 23.5       |
| Sometimes                                    | 69  | 17.25      |
| Most of the time                             | 28  | 7.0        |
| Always                                       | 187 | 46.75      |

Table 5 shows that majority (94.5%) of them were able to go a health centre during illness.

Medical illness: Among the 400 adolescents, 4 of them had asthma, 3 of them had tuberculosis, and 12 of them had anaemia which were diagnosed by medical practitioners and were on treatment for these illnesses.

7) HIV/AIDS

Majority (63%) of them are aware of HIV/AIDS. They received information about HIV mainly through mass media.

8) Use of tobacco, alcohol and illegal drugs

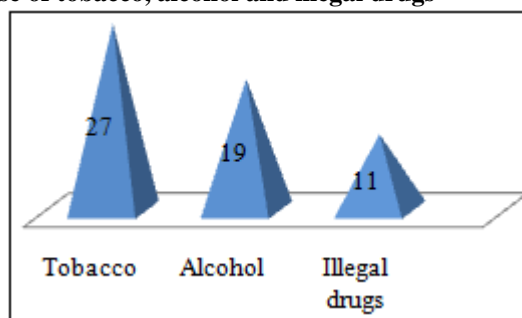


Figure 3 Distribution of adolescents according to their use of substance

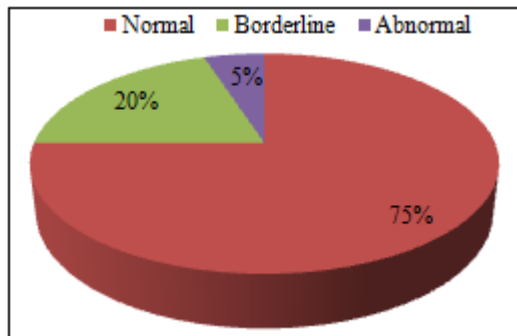
Figure 3 shows that 27(6.75%), 19(4.75%), 11(2.75%) adolescents use tobacco, alcohol and illegal drugs respectively. Tsering (2010) in their study reported that the overall prevalence of substance use was 12.5%.

9) Violence, abuse and injury

The use of helmet is very minimal among the adolescents. Only 32(8%) of them used helmet while riding on a motorbike or bicycle. 17(4.25%) of them reported that they

had not gone to school sometime because they felt they were unsafe either at school or on their way to school. 19% of them expressed that they have seen an act of violence at home, school or neighbourhood. 6% and 4% of adolescents felt that were not safe at home and school respectively.

#### 10) Mental Health



**Figure 4:** Distribution of adolescents according to their mental health scores

Figure 4 shows that the mental health scores of the adolescents were normal for majority of them (75%). A similar study done by Long (2013) showed that 70.3% of the participants had normal mental health scores, 20.2% had borderline scores and 9.5% had abnormal scores.

#### 11) Family and Home Environment

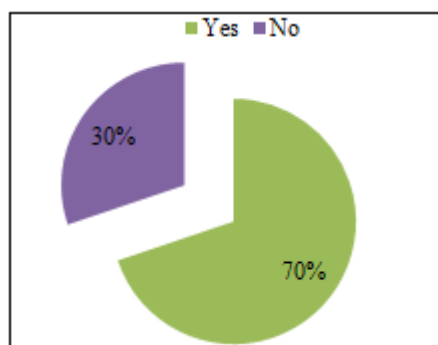
Majority of the adolescents (97%) had both parents living together. Majority of them (80%) reported that their parents understood their problems always. 20% of them reported that their parents never understood their problems.

#### 12) School environment

Majority (81.25%) of them reported that doing well in school is very important for them. Majority (50.5%) of them travelled to school by walk and 24.5% of them travelled to school by bicycle.

#### 13) Perceived need for adolescent health service

The second objective of the study is to assess the perceived need of adolescents for an adolescent service in their area.



**Figure 4:** Distribution of adolescents according to their perceived need for an adolescent health service

Figure 4 shows that majority 278 (69%) of the adolescents perceived the need for an adolescent health service in the selected area of study through special health clinics for adolescents and also by providing counselling services. A study by Joseph (1997) reported that most adolescent girls

expressed the need for a separate clinic run only by women doctors and were against combining such services with maternal and child health clinics.

## 6. Conclusion

The study findings show that majority of the adolescents perceived their general health as good. Yet there are some lacunae in certain aspects of their health status for which they need guidance and support. The nutritional status shows that almost 60% of the adolescents are underweight and 33.5% take junk foods every day. Almost 29% of the adolescents are not physically active on all the days. Substance use was found in almost 14% of the adolescents and 9.5% of the adolescents had abnormal mental health scores. Majority (69%) of the adolescents have expressed the need for an adolescent health service. These findings suggest the need to plan and implement adolescent health services more sensitively and effectively on a regular basis through home visits or adolescent clinics which will meet the health care needs of the adolescents through health check up, health education and counselling services.

## 7. Conflicts of interest

The authors have declared no conflicts of interest.

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