

Exploring health status of adolescent girls in District Prayagraj with special reference to village Bani

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Abstract

India has the largest cohort of adolescent population in the world, about 253 million, and every fifth person is between 10 to 19 years of age. Adolescents are often impacted by both malnutrition and under nutrition, mental illness, drug use and violence. Girls are especially the sufferers due to various societal factors. Menstruation generally disturbs the lives of girls in ways that are unimaginable and in India nearly 42% of girls use clothes rather than disposable sanitary napkins. The study is an attempt to assess the health and nutrition related problems faced by adolescent girls in the village. The present study tries to explore the menstrual practices being followed among adolescent girls and the problems faced by them. The respondents heavily lag behind in their knowledge about any aspect of menstruation. They are unaware about the process of menstruation, why is it important to females. The primary source of knowledge for girls about menstruation is their mothers. They preach the practices they know themselves. Therefore, lack of appropriate and right knowledge about menstruation is evident amongst all the ladies of the village. Dysmenorrhea is the most common problem prevalent among the respondents followed by body pain, headache, weakness, and anorexia. Weakness and anorexia are one of the indicators of anemia which is the most common ailment after puberty among girls worldwide. The study suggests different ways through which the adolescent girl's health may be improved.

Key words: Adolescent, health, malnutrition, BMI, menstruation, menarche

Introduction

Adolescence is a period of rapid growth and development, characterised by physical, physiological, and behavioural changes. According to World Health Organisation (WHO) adolescent age group lies between 10 to 19 years age. This is the phase of transition from childhood to adulthood when there is rapid and intense physiological, psychological, and sexual growth. Adolescents constitute about 1.2 billion people globally and account for around 21% of India's population. India has the largest cohort of adolescent population in the world, about 253 million, and every fifth person is between 10 to 19 years of age.¹The adolescence phase is the time of growth and transition and increased physical activities therefore, it requires extra

nutrients as compared to adults.² Poor health or harmful behaviours during adolescence have long-term implications for adult health. Most of the morbidity and death in this age range is attributable to avoidable causes. Young children have limited awareness and understanding of the physical and psychological changes that occur during puberty, as well as the illnesses that affect them.

The nutritional status of adolescent girls is significantly contributing to the nutritional status of the community.³ Adolescents are often impacted by both malnutrition – either nutrient deficiency (underweight) and excess nutrition (over-weight or obesity) which leads to both physical and mental health problems. According to UNICEF, girls are especially vulnerable, 56%

girls are affected with anemia.⁴ Due to malnutrition, adolescent girls are more susceptible to infections, face difficulties in recovering from illness and delivering child in future. Childbirth in adolescence has negative consequences for future generations by raising the chance of babies with low birth weight and poor development, as well as by continuing the intergenerational poverty cycle. Commitment to accelerate efforts to promote teenage health is included in the Global Strategy to improve Women's, Children's, and Adolescents' Health (2016–2030).⁵

In view of this, the present study is exploring the health status of adolescent girls in Prayagraj district of Uttar Pradesh. Addressing the malnutrition status among adolescent girls will help to plan effective interventions to achieve Sustainable Development Goal of ending malnutrition.

Review of Literature

A study was carried out by the National Journal of Community Medicine on "Health Status of Rural Girls" (2011)⁶ to see if gender discrimination was one of the root causes of the current health status of young girls. Later it was observed that malnutrition was more prevalent in females than in males. It was also found that malnutrition is caused not only by poverty and lack of healthy food, but also due to lack of respect for females. There are discriminatory feeding practices in place. The nutritional intake of the girl is of poor quality and quantity. Malnutrition is a gender-based problem in this country; it begins in childhood and persists through puberty and adulthood. These discriminatory practices were still prevalent in remote Indian villages. It was suggested that both male and female teenagers can benefit from a small comparative nutritional and health examination.

To determine the general and reproductive health conditions of teenage females, as well as their awareness of the most common generic and reproductive diseases that affect teens a study was conducted by Geetha A. Joseph, Sara Bhattacharji, Abraham Joseph and P.S.S. Rao in their research "General and Reproductive Health of Adolescent Girls in Rural South India

(1997)".⁷ Girls were found to be in poor health, according to the report. They were afflicted to illnesses associated with hunger and reproductive difficulties. These young women were not aware of the importance of adequate reproductive hygiene and sanitation. The research was done in 1997, and a lot has happened since then. When it comes to adolescent girls' health, it's crucial to know if they're more informed about things like diet, menstruation, pregnancy, and childcare.

Adolescent girls require more iron to compensate for monthly blood loss. According to the National Family Health Survey, anemia affects 54 percent of teenage girls aged 15 to 19. *International Journal of Contemporary Medical Research* conducted "A Study of Nutritional Health Problems of Adolescent Girls in Rural Area of Nagpur District: A School Based Cross Sectional Study" (2020)⁸, which took place in rural regions around Nagpur. It looked at several disease variables linked to anemia, as well as women's hygienic practices during menstruation and their vulnerability to Reproductive Tract Infections (RTI). The Ministry of Health and Family Welfare established the Weekly Iron and Folic Acid Supplementation (WIFS) Program in 2012 to address the high prevalence and incidence of anemia in teenage girls and boys. The study suggested interventions to put the WIFS programme into action and reinforcement by ensuring consistent supply.

The health of tribal teenagers was studied in "Adolescent girls' health, nutrition and wellbeing in rural eastern India: a descriptive, cross-sectional community-based study" (2017).⁹ The researchers of this study conducted a cross-sectional survey to analyse the health, nutrition, and well-being of teenage girls in rural Jharkhand, eastern India, where Scheduled Tribes account for 26% of the population. Physical and mental health, disability, nutrition, sexual and reproductive health, gender norms, decision-making, education, and violence were some of the subjects included in the study. Teenage girls in tribal areas were given special consideration. It was observed that Adolescent girls' health might be deteriorating because of discrimination based on societal factors. Since this segment of the population has less access to resources, they are at a disadvantage.

Menstruation is generally considered unclean. As a result of being isolated and having restrictions imposed by family members, girls develop a negative viewpoint. The study *“Knowledge and Practices Among Adolescent Girls Regarding Menstruation in Rural Areas of Aligarh”* (2016)¹⁰ was conducted to find out about menstrual knowledge and practices, as well as the type of absorbent material used during menstruation and other related issues. Menarche has been associated to an increase in absenteeism or school dropout among school-aged girls in several studies. The researchers were particularly interested in the basic menstruation routines of rural adolescents. It also focused on the primary source of knowledge for these girls regarding menstruation and its various features, which was, in most cases, their mother.

Objective of the study

1. To explore the menstrual practices being followed among the adolescent girls and the problems during mensuration.
2. To determine their level of knowledge about menstruation and the primary source of information on the subject.
3. To assess the health and nutrition related problems faced by adolescent girls in the village.
4. To discover the teenage girl’s knowledge on sanitation related hygienic practices.
5. To analyse the condition of rapid repeat pregnancies in the village.

Study area: The present study was conducted in village Bani situated on the outskirts of Phulpur tehsil in Bahadurpur block of District Prayagraj, Uttar Pradesh. The Sub District Headquarter/Tehsil is 18 km from the village. The district head quarter, Prayagraj, is 20 km from the village. Nearest town is Jhunsi which is at a distance of 10 km from the village. The total number of households is 497. The total population of the village was 2744 out of which 1329 were females. The village has 11 different communities. Bani village has a sex ratio of 939, which is higher than the state average of 912 in Uttar Pradesh.

Methodology

Adolescent girls between ages 12-19 years in the village were identified and selected based on stratified random sampling where a total of 42 respondents, 35 adolescent girls and 7 married women below the age of 30 years, were interviewed. The girls and women’s details and relative information was gathered through a door-to-door survey near the village. The survey was carried out by interviewing all the respondents with questions on physical and mental health, nutrition.

Key Findings:

A. Socio-demographic, Economic and Educational Characteristics

The majority of those surveyed (71.4 percent) went to school before the COVID-19 pandemic. The remaining 28.5 percent were dropouts who stopped going to school for various reasons. The majority of respondents' mothers were illiterate, with 11.43 percent having a secondary education and three having only an elementary education. In their families, about fifty percent of the fathers worked as daily wage labors, and nearly seventy percent mothers were housewives. Self-employment (mostly as a milkman) and farming was additional job of fathers, whereas females were busy in farming, or working as farm labors, or even as daily wage workers (particularly in the Musahar community).

A. Menstruation

Menstruation, sometimes known as "period," is the monthly cycle (also known as 'menstrual' cycle) of a woman's vaginal bleeding. The body prepares for pregnancy every month. The uterus, or womb, removes its lining if no pregnancy develops. Menstrual blood is a mixture of blood and uterine tissue from the uterus.

Menarche: Menarche, marks the onset of menstrual cycle in females i.e., the age when they experience their first periods, is a turning point for adolescent girls as it is commonly associated with the ability to ovulate and reproduce. The female’s body undergoes extensive physical and

physiological changes during this period. However, the appearance of menarche does not guarantee either ovulation or fertility.

Beena Sachan et al.¹¹ in study on school-going adolescent girls of a North Indian district observed the mean age at menarche to be 13.6 years. The data collected for the current study also revealed that the average age of menarche in the village is 13 years which is close to the average age for menarche (13.5 years). In the present study, the age of menarche ranges from 10 years to 18 years.

Knowledge: Approximately 77% of those surveyed were having no knowledge of menstruation prior to menarche. Moreover, half of these girls (54.29 percent) got the information about menstruation from their mothers, and some got it from relatives (31.43 percent). When they first got their periods, most of the responders were afraid and ashamed, and some even started weeping. Even years after the onset of menstruation, these girls are hesitant and even feel embarrassed discussing it. In many cases, the questions were answered by the respondents' mothers rather than the girls themselves. In a traditional family setting in developing countries, mothers are usually the care takers of their daughters during these critical phases of physical and emotional development.¹²

When it came to menstruation, 94.3% of the total adolescent females had no idea what it was, and 97.1% respondents had no idea about why they bled every month. According to 25.7 percent of girls, menstruation lasts for an average of 5 days in everyone. Almost half of those interviewed believe that blood shed during menstruation is unhygienic, and none of them know where this blood comes from. According to most respondents (68.7%), menstruation, despite being uncomfortable, does not interfere in their academic performance.

Irregular Periods: The term "irregular cycles" or "irregular periods" refers to a fluctuation in the length of a woman's menstrual cycle. It is termed irregular when a single menstrual cycle takes less than 24 days or more than 38 days. The time between two cycles is a key indicator of menstrual health, and 22.9% of respondents had a period gap of more over 45 days. The average number of days when menses (bleeding) is noticed by the responders is four. Bleeding might linger anywhere from one to ten days in some circumstances. Three to seven days of blood flow per month is considered normal. Menses that persist longer than 10 days are considered irregular, and the individual should consult a doctor right away.

A female loses nearly 50 ml of blood on an average during her period, which is normal. To get a sense of the volume of blood lost per period, the respondents were asked whether their blood flow during periods was heavy, moderate, or scanty depending on how often they had to change their absorbent or how wet that absorbent was at the time of its disposal. Almost half of them (51.4%) stated they had considerable (Moderate) blood loss during their periods, and 28.6 percent indicated their blood loss was minimal (Scanty).

Some of the most common symptoms mentioned by the responders are abdominal discomfort (dysmenorrhea), back pain, and pain in the inner thighs. Dysmenorrhea has been reported to be commonest menstrual problem by other researchers also.^{13 14 15} Headaches, anorexia, weakness, and nausea are some of the other issues that accompanied with these. Except for one girl, all the females said they have stomach pain, and most of them have a combination of the conditions listed above. Even though 68.57 percent of respondents claimed to be aware of menstrual hygiene, six of them were unable to explain their habits. However, maintaining hygiene in private parts, replacing the absorbent on a regular basis,

and properly disposing off the absorbent were all mentioned by the respondents.

Absorbent used and Menstrual Hygiene:

Forty percent girls said that they use a clean cloth during their periods, while thirty percent claimed that they used sanitary pads. According to their preferences, 28.6% used both cloth and pads. Six out of ten people liked to change pads/cloth twice a day, whereas 20% preferred to change pads only once a day. Because of their price, respondents seemed to prefer clothing over pads.

Only 22.9 percent of those asked do not wrap used absorbents before throwing them away. The most frequently used wrapping material among responders is plastic bags (65.71 percent). The most prevalent ways of disposal are burying the pad or cloth wrapped in the ground (54.2%) or dumping it in a pond (40.0%).

According to the findings, eighty percent girls said that they never missed school due to their periods, and 77.1 percent said that they have never used any type of medication for their periods, though eighty percent respondents admitted of taking pain relievers on the first two days of their periods. More over 75% of individuals surveyed stated that they had toilets in their houses and they used them appropriately, including while they were menstruating. 65.7 percent of adolescent respondents claimed that they clean their private areas with soap and water every day and keep them clean.

B. Growth and Dietary Diversity

Dietary diversity is a qualitative measure of food consumption that indicates availability of a variety of food item in the house and also serves as a nutritional adequacy indicator. For nutrient sufficiency and optimal growth and development, a diverse diet (DD) that contains all food groups (vegetables, fruits, grains, meat, and dairy products) is essential.

The demography on which this survey was done primarily comprised of low-income households. As a result, there wasn't a lot of dietary variety there. People's eating choices were influenced by lack of understanding and the influence of western culture in the community. During the research, it was found that 23.8% of the participants did not have the recommended three meals per day. While conversing, a few of them admitted that they got up around 5 or 6 a.m. to complete household chores, but their first meal was around 12 p.m. for lunch. Going for heavy periods on an empty stomach might cause a variety of health problems, the most common of which is weakness. Almost every respondent mentioned having tea and biscuits for breakfast. For lunch and dinner, they usually ate dal (mainly Arhar), rice, roti, and Sabji. With some probing, the girls admitted that they ate seasonal, readily available, and inexpensive vegetables throughout the year. Even those who could afford it, girls from well-off families were not concerned about their eating choices. They preferred fast food for breakfast or late-night snack.

Due to the herculean task these girls complete the entire day, their bodies require a wider variety of nutrients to provide them with enough energy, strength, and immunity to function properly. However, a lack of resources and understanding causes them to eat food that may satisfy their hunger but does not give adequate nourishment.

While speaking with a few girls about their eating habits, their mothers, who were present and listening intently, interjected. While some moms marveled at how they could eat everything that was requested of them on such a meagre budget, others bemoaned their daughters' habits. Many girls have been discovered to have a similar practise, which leads to low dietary intake. Some respondents stated that they do not eat fruits or consume dairy products because they dislike them.

The BMI (Body Mass Index) distribution of these respondents with regard to their ages reflects their eating habits. Ten of the thirty-five people who responded are underweight. Despite the fact that 65.7 percent of the girls have a normal BMI, many are on the higher end of the scale.

Rapid Repeat Pregnancy

Rapid Repeat Pregnancy is defined as a pregnancy occurring within 24 months of a live birth or a birth occurring within 33 months of a live birth. These measures are similar, implying a nearly three-year delay between births.

RRP (rapid repeat pregnancy) has been associated to poor maternal and infant outcomes. Anemia is the major nutritional deficiency found in this group in India and other developing countries.¹⁶ Poor neonatal outcomes include small for gestational age, low birth weight, preterm labour, and prenatal death, whereas adverse maternal outcomes include anemia, uterine rupture, and decreased socioeconomic status.

Age at different Pregnancies: The data obtained from the respondents reveals that 86% married women underwent rapid repeat pregnancies with gaps between two pregnancies ranging from as low as eleven months to two years.

Infant health at every pregnancy: Generally, it is found in rapid repeat pregnancy cases that the health of the infant born in subsequent pregnancies deteriorated. In the village, the scenario was completely different. Only in 15% cases there was a decrease in the weight of last baby and it was the lowest weight recorded during the study, which is 1.9 kg. Though there were many significant variations in the infant's weight at birth.

Miscellaneous Problems: All the respondents of the study, after undergoing multiple pregnancies complain of dizziness, weakness in the body and some even complaint of fainting.

The respondents revealed that all of them were working actively throughout their pregnancy up till their eighth months. They mentioned receiving proper and timely care from the ASHA workers. The ladies were vaccinated properly in all their pregnancies as well. The only major issues they all seemed to have faced in their pregnancies is that their body never got the time to recover. Apart from repeated pregnancy and working while they were pregnant, they even resumed to their household chores right after two to three days of delivery, the only rest they received was when the parturition was cesarean.

Conclusion

The study primarily points to the fact that there was lack of adequate knowledge and awareness about menstruation among girls which can be attributed to lack of proper education in girls and their mothers. Anganwadi and ASHA workers should be trained to create awareness about reproductive health and hygiene and should visit every household having adolescent to educate them properly about menstrual hygiene.

The most common problem among adolescent girls was dysmenorrhea. The use of old cloths as absorbent was common among young girls. The respondents possess poor disposal habits of wrapping the absorbent in plastic bags and then disposing in water bodies or dumping in ground, this contributes to pollution and many other problems in the area.

There should be provision for distribution of sanitary pads at no cost or at a subsidized rate through public distribution system on priority basis to assist the weaker section of the population. Provisions can be made of improvising and implementing techniques of MHM (Menstrual Health Management) and also for implementation of Weekly Iron and Folic Acid Supplementation (WIFS) programme to meet the challenge of prevalence and incidence of anemia amongst the girls. The constant anorexia and weakness are probable indicator of anemia in the respondents. As the respondents of the study, after undergoing multiple pregnancies complain of dizziness, weakness in the body and some even complaint of fainting, there must be multi-dimensional approach in solving the nutritional problem of women.

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