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Using qualitative research methods to identify problems faced by adolescent girls in rural Andhra Pradesh

Geethika Koneru*, N. S. Sanjeeva Rao, B. Swapna, T. S. R. Sai

Department of Community Medicine, NRI Medical College, Guntur, Andhra Pradesh, India

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*Correspondence: Dr. Geethika Koneru,

E-mail: geethikakoneru@gmail.com

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ABSTRACT

Background: Adolescence lays the foundation for physical wellbeing, emotional stability and mental ability. Quantitative methods often lack depth of understanding on crucial issues and leave many lacunae in the information available about the problems faced by adolescent girls in India. Using qualitative methods, a researcher can go beyond the surface and gather hidden information and associated feelings. Objective of the research was to qualitatively assess the knowledge, attitude and practices of health among adolescent girls (15-19 years) living in a rural area.

Methods: This qualitative study to explore issues surrounding the health of adolescent girls in a rural area was conducted from August 2018 to November 2018 in the rural field practice area of the NRI Medical College. The qualitative methods used to gather information were focus group discussions (FGDs) and in-depth interviews (IDIs). Triangulation of information was done through key informant interviews (KIIs) with professionals working with adolescents.

Results: The themes identified were causes of stress, education & marriage, safe pregnancy, prevalent diseases, exercise and leisure, health seeking behaviour and domestic violence. In-depth interviews with girls having significant social and psychological risk factors revealed a sense of loss of freedom, decision making power and resignation to their fate. Key informants revealed the neglect of adolescents in health programmes.

Conclusions: Adolescent girls have poor knowledge about important health issues. Interventions that focus both on the continuation of the girls' education and creating options for generating income are necessary along with non-judgmental counseling services and adolescent friendly health care facilities.

Keywords: Adolescent girls, Qualitative, Focus group, Key informant, In-depth interview

INTRODUCTION

Adolescence is a critical period involving rapid growth and development; physiological, psychological and social.¹ It is a transitional period between childhood and adulthood laying a foundation to emotional skills as well as physical and mental abilities and therefore requires special attention.2 In India, adolescents constitute around 22% of the population.³ A myriad of social, economic and health factors undermine the ability of the adolescents to lead full and productive lives.4

Adolescent girls in India face several issues like social restrictions, gender discrimination and nutritional deprivation among other things. The psycho-social behavior of adolescents, a result of the complex interaction between mental growth, social environment, education and exposure to the outer world, also affects health related outcomes.⁵ Health related behaviours as adults are usually shaped by the biological and social behaviour changes influenced by the risks, protective and social determinants that occur at puberty.6

Around adolescence, biological maturity precedes psychosocial maturity which leads to risky exploration and experimentation. According to the National Family Health Survey-4 (NFHS-4) done between 2015 and 2016, women married before age 18 years in rural Andhra Pradesh (AP) was 35.7%. Women aged 15-19 years who were already mothers or pregnant at the time of the survey were 13.2% in rural AP.8 Quantitative methods often lack depth of understanding on crucial issues and leave many lacunae in the information available about the problems faced by adolescent girls in India. An effort to improve the well-being of adolescents is a definite step towards the social and economic development of the country.

Qualitative research

Qualitative research is a process of inquiry that seeks indepth understanding of social phenomena within their natural setting. It focuses on the "why" rather than the "what" of social phenomena and relies on the direct experiences of human beings in their everyday lives. Qualitative researchers use multiple systems of inquiry including biography, case study, ethnography, grounded theory and phenomenology. Quantitative methods like surveys, often lack depth of understanding on crucial issues. Researchers can also go beyond the facades and gather hidden information in the participants own words and also note the strength of feeling behind them.

Agampodi et al from Sri Lanka found in their focus group discussions with adolescents between 17-19 years of age that issues regarding menstrual cycle and sexuality are the commonest health problems. Girls mainly sought help on reproductive health matters from friends. Health services were perceived to lack confidentiality and friendliness. ¹⁰

Interviews and focus groups remain the most common methods of data collection in qualitative research. Interviews can be used to explore the views, experiences, beliefs and motivations of individual participants. Triangulation refers to the use of multiple methods or data sources to develop a comprehensive understanding of phenomena. Triangulation is also a qualitative research strategy to test validity through the convergence of information from different sources. The integration of qualitative research into intervention studies is a research strategy that is gaining increased attention across disciplines. Samples of the convergence of the integration of qualitative research into intervention studies is a research strategy that is gaining increased attention across disciplines.

The objective of the research was to qualitatively assess the knowledge attitude and practices of health among the adolescent girls (15-19 years) living in a rural area.

METHODS

This qualitative study to explore issues surrounding adolescent girls in a rural background was conducted from August 2018 to November 2018 in the villages of Peddaparimi and Venigandla which are part of the field practice area of the NRI Medical College, Department of

Community Medicine. Prior to starting the study, ethical approval was attained from the institutional ethical committee.

Anganwadi centres in the villages were approached for a list of 15-19 year old girls in the village. A purposive sample of 20 unmarried and 20 married adolescent girls from varying socio-economic statuses were selected. The primary investigator made sure to include girls from single-parent families, school dropouts and those who did not avail the Anganwadi centre services in the sample. With the help of Anganwadi teachers, the selected girls were approached. The girls who were out of station and those not willing to participate in the study were excluded. Finally, a total of 29 girls were included in the study. The qualitative methods used to gather information from the girls were focus group discussions (FGDs) and in-depth interviews (IDIs). The topic discussed were regarding their knowledge and attitudes towards education, marriage, domestic violence, stress, menstruation, pregnancy, family planning, sexually transmitted diseases (STDs) and health seeking behaviour. Triangulation of the information obtained was done by conducting key informant interviews (KIIs) with professionals and workers experienced in adolescent issues.

FGDs

Three FGDs were conducted, each comprising of 8 to 10 girls. The girls chosen for the FGDs were selected from the village areas based on their availability. One FGD comprised only of unmarried girls, while one FDG comprised of only married girls. The third FGD included both married and unmarried girls from varying socioeconomic and educational levels. The girls were gathered at the nearest Anganwadi centre for each FGD session. In each FGD, the girls were seated in a circle while the principal investigator acted as the moderator. Each FGD was carried on until reaching an information saturation point. Each session was recorded using an audio recorder and was later transcribed diligently.

IDIs

Ten of the adolescent girls with known social and psychological risk factors were invited to participate in indepth interviews. These interviews were conducted one-on-one with the principal investigator at their homes after ensuring privacy. Each interview was done until an information saturation point was reached. The interviews were recorded using an audio recorder and were later transcribed.

KIIs

Three KIIs were conducted, two with the local integrated child development services (ICDS) Anganwadi workers and one with a gynaecologist from a nearby town (Mangalagiri). Each KII was done one-on-one with the principal investigator at the place of work of the key

informant, after ensuring privacy. The purpose of the study and its findings were explained to them and they were asked to give their professional opinions and observations regarding the issues. All the sessions were recorded and transcribed diligently. Emerging themes were identified about knowledge and behaviour.

RESULTS

Three FGDs were conducted, out of which, one included only unmarried girls, and one included only married girls, all of whom were 15-19 years of age. The themes identified are presented in Table 1. Findings from key informant interviews are presented in Table 2.

IDIs

Adolescent girls having significant social and psychological risk factors (married girls, girls from broken

families and girls living with a deformity) were invited to partake in the in-depth interviews. Being unable to pursue a career and lack of emotional support from the adults in their lives seemed to be the main reasons causing unhappiness. Some of them are presented here. All names used are fictitious to keep their real identities secret.

Madhu's story

Madhu is a married adolescent girl. When asked about her daily routine, she said "I cook, do chores, cook again, rest, watch some television in the evening, wash dishes after dinner and then sleep."

When asked about her future plans she said proudly "I have studied up to 10th class!" However she adds sadly "My inlaws promised that they would let me continue my studies after marriage. But it has been four years and I am still waiting for them to keep their promise."

Table 1: Focus group discussions with adolescent girls-themes identified.

Theme	Findings
Menstruat -ion	Usual age of menarche is around 13 years. A little late is not worrisome
	Menstrual cramps are uncomfortable, but do cause stress
	Pain relief medication should not be taken for menstrual pain as it will affect the body and decrease
	tolerance for pain. This might cause problems during child birth.
	Most do not know the cause for menstruation. General belief is that it is 'waste blood'
Causes of stress	The main cause of stress is having to get up early every day to study
	Whether one would be able to score a seat in the inter exams and get into a good college.
	None of the unmarried girls were worried or stressed about having children and raising them – "things will sort themselves out when the time comes".
Education and	The best age to get married was 21-25 years, because then they would have a mature mind and would be
	able to handle marriage.
	All girls should study at least up to inter, some saying at least up to degree.
marriage	Career was important so they need not depend on husband for financial security.
	Most of the married girls wanted to continue their studies and find gainful employment, but were not encouraged by their in-laws and husband.
	They had almost no knowledge about family planning methods, or its importance.
Safe pregnancy practices and child rearing	They had no knowledge about complications they may face in pregnancy, or in motherhood.
	They knew nothing about taking care of a child. But the ones who had already given birth were aware they needed to give breastfeeding to the baby up to at least a year, because it would 'give strength to the baby'.
	Most of them who had already given birth had not taken iron folic acid tablets because they gave them gastritis and they "didn't think taking them was very important".
	Only the ones who had already had a child had knowledge about vaccinations, and even they didn't know why they were important.
	When asked if they were worried about the responsibility of raising a child, they said they would get used to it, just like they got used to being married.
Disease and STDs	They were aware of diseases such as diabetes, hypertension but not about the prevention aspects.
	AIDS was the only STD they had heard about and they didn't feel it was important for them to know about it – "Why do we need to care about diseases like that?"
	They were aware of depression, and said it could be avoided by talking to friends and families about any problems. All of them said they had such friends/family members they could freely talk to and consult. Going for counselling to the psychiatrist as an option, although the absence of any nearby made it implausible.
Exercise and	They knew the importance of exercise, being physically fit, avoiding obesity, preventing heart disease. Many of them were practicing yoga every day, which they were taught in school.

Theme	Findings
leisure activities	Other than yoga and games at school, they were not doing any other physical exercise, mainly due to lack to time during weekdays (and during weekends they just wanted to relax) and lack of space, such as parks etc. to do it.
	They admitted to watching TV every day, and a lot during weekends.
	They were aware of internet and used it for social media, and sometimes to look up things about studies, but never for seeking information pertaining to health.
Health seeking behaviour	Most of them admitted to visiting the local RMP for health issues, instead of the RHC or other doctors. They said the RMP was good enough to deal with minor ailments such as fever and headache. "He will refer us to a specialist if necessary".
	Despite being regularly exposed to mass media, none of them were aware of any government initiatives towards the adolescent girls. Neither were they being contacted nor educated by the Anganwadi worker.
Domestic violence	Most of them had either witnessed or heard about physical violence on wives. They said it was wrong, however, all of them unanimously said that it was normal and expected for the husband to hit his wife if she was being "persistently annoying". A few girls were aware of domestic violence in the neighbourhood. But they were told to not meddle in other family situations. The women who were hit, would sometimes complain to their neighbours, but never reported the abuse to authorities. The girls said they wouldn't report to the authorities either, because "we are not supposed to".

Table 2: Key informant interviews.

Theme	Findings
Interview with Anganwadi workers	When asked regarding her activities involving adolescent girls, she said she educated them regarding nutrition and menstruation whenever possible.
	Her main focus was on under-five children.
	She admitted to not being able to give more attention to adolescent girls, despite it being a part of her duties.
	She said it was because the adolescent girls rarely attended the Anganwadi despite her advice.
	According to her, the Anganwadi workers had a demanding workload placed on them by the government programmes and were very overworked.
	Polycystic ovary syndrome (PCOS) incidence amongst adolescent girls has been on the rise during recent decades.
	This was a major cause of fertility related problems during marriage life which caused a great deal of stress to both the woman and her family.
	There has also been a rising trend of eating disorders where the girls ate too much or ate too little due to body image issues.
Interview	Compulsive and impulsive eating was a major sign of mental stress which had physical and physiological implications on health.
with local gynaecologist	Studies were the main stressors and with children focusing more on studies since early years of schooling, they gave less importance to physical activity and had irregular sleep cycles and unhealthy food habits which impacted their health.
	Stress due to studies and career also gave rise to anxiety which in turn lead to mood disorders and unhealthy coping mechanisms.
	Illegal abortions were also a cause of concern especially in pre-marital pregnancies which could lead to life-threatening complications.
	Early marriage was also a major contributor to impaired psychological and physical health of the woman in later years.

Nirmala's story

Nirmala dropped out of school despite having a keen interest in studies and a good academic record. She says "I had to drop out of school because my family could afford to educate only one child, and being a male child, my brother had to be educated. Now that I cannot study anymore, I would like to be a tailor. But what's the point? I will be married off soon and then I will be too busy with

household chores and raising my children to have the time to use my tailoring skills."

Sunitha's story

Sunitha suffers with a deformity due to childhood polio. Her father had left her house while she was still a child and she now lives with her mother, running a street food stall in the village in order to support herself and her mother.

When asked about the way her deformity had affected her life, she said "I considered committing suicide, because I will never have a normal life like other girls. But I cannot do that and leave my mother all alone. Now, I don't have the time to wonder whether I am happy or not. I am too busy trying to put food in our plates every day."

Anjali's story

Anjali is a victim of sexual abuse. Her parents had passed away several years ago and she was being supported by her older married sister. Reluctantly, she stated that her older sister beat her often, almost every week, mainly due to frustrations at work.

However, Anjali does not blame her because she knew that her sister was having a hard time earning for the family. When asked why she didn't ask for help from her relatives or school teacher, she said "Nothing anyone can do will change the situation I am in. I should just accept my fate. I don't talk to anyone or ask for help because I don't trust them. They won't understand."

DISCUSSION

Dixon found that methodologies of qualitative interviewing were appropriate for studying issues regarding adolescent girls. The three important aspects outlined were ethical issues, power dynamics, and building trust. ¹⁴ In the current study it is seen that various issues are of concern to adolescent girls. However, the knowledge necessary to cope with issues is lacking or superficial with very poor support systems. In keeping with the current system, pursuing an education with lucrative job potential seems to be of topmost concern for these young girls.

Menstruation

Many young girls are uninformed and unprepared for menarche. Mothers, other female family members and female teachers, who are the primary source of information, may not be equipped to provide necessary knowledge. Exclusion and shame lead to misconceptions and unhygienic practices during menstruation. Rather than seek medical consultation, girls tend to miss school, self-medicate and refrain from social interaction. Relatives and teachers are often not prepared to respond to their needs. 16

Most of the girls accepted that menstruation is something which comes on at around the 13th year of their life. They were not too concerned if it was a little later. Most of them did not know what causes the menstrual flow. In fact many did not know that the flow is from the uterus. Most of them believed that it was waste blood. In fact it was evident that the girls did not worry too much about menses and related issues.

"I do have cramps during my periods. It is very uncomfortable. I have learnt to ignore it and not be too stressed about it. Taking tablet for it is not good. We will get used to it. It will also cause problems later. You know....when I have a baby" - 15 year old FGD participant.

"Why should I worry about having children and raising them? These things will sort themselves out when the time comes. My main cause of stress is having to get up early every day to study....whether I will be able to score well in the inter exams and get into a good college." - 18 year old unmarried participant.

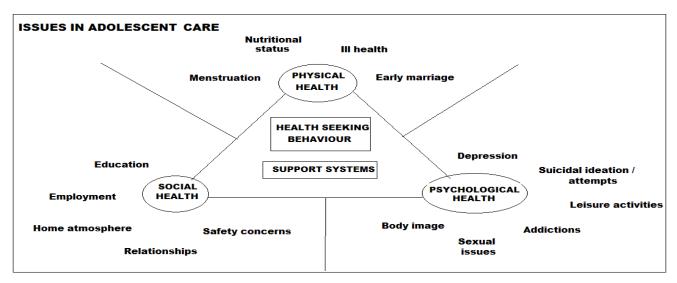


Figure 1: Schematic drawing of issues in adolescent health.

Education and marriage

Many of the girls felt that the best age to get married was 21-25 years. The reason they gave was that by then they

would have a mature mind and would be able to handle marriage. They felt that all girls should study at least up to intermediate (class 12), some saying at least up to degree. Most of them thought that a career was important so they need not depend on husband for financial security. Most of the married girls wanted to continue their studies and find gainful employment, but were not encouraged by their inlaws and husband.

"I studied till 10th class! When my marriage was fixed my in-laws promised to let me continue my studies. But after the wedding they said "Let us see". It has been four years now. I am still waiting for them to keep their promise."- A married adolescent girl from Peddaparimi village.

It was also clear that most of the married girls wanted to continue their studies and get a job, but unfortunately, were not encouraged by their in-laws and husband.

Safe pregnancy practices and child rearing

Most of the adolescent girls interviewed had almost no knowledge about family planning methods, or its necessity. They also had no knowledge about the complications that they may face in pregnancy, or in motherhood. They knew nothing about taking care of a child.

Shahbuddin et al in Bangladesh also found that in terms of knowledge about childbearing, most of the adolescent girls did not have any concrete information about the consequences of early pregnancies but somehow understood that being pregnant at young age carried risks for mother and child.¹⁷

The girls who had already given birth were aware that they needed to give breastfeeding to the baby up to at least a year, because it would 'give strength to the baby'. Most of them who had already given birth had not taken iron folic acid tablets because they gave them gastritis and they "didn't think taking them was very important". Only the ones who had already had a child had knowledge about vaccinations, and even they didn't know why they were important. When asked if they were worried about the responsibility of raising a child, they said they would get used to it, just like they got used to being married.

Disease and STDs

Many of them were aware of diseases such as diabetes, hypertension but not about the prevention aspects. Acquired immunodeficiency syndrome (AIDS) was the only STD they had heard about and they didn't feel it was important for them to know about it – "Why do we need to care about diseases like that?" They were aware of depression, and said it could be avoided by talking to friends and families about any problems. All of them said they had such friends/family members they could freely talk to and consult. Going for counselling to the psychiatrist was not an option as they did not know how to get access to one.

Knowledge about non communicable diseases (NCDs) and healthy lifestyle-practices were poor among school

students aged 17-19 years. Lack of knowledge about healthy behaviours highlights the importance of carrying out regular surveillance for risk factors, and initiating programs for the prevention of NCDs amongst adolescents.¹⁸

Exercise and leisure activities

All the girls felt that exercising daily was important. They knew that exercise would help one to be physically fit. avoid obesity and prevent heart disease. Some said that they were practicing yoga every day, which they were taught in school. Other than yoga and games at school, they were not doing any other physical exercise, mainly due to lack to time during weekdays (and during weekends they just wanted to relax) and lack of space, such as parks etc. to do it. They admitted to watching television every day, and a lot during weekends. They were aware of internet and used it for social media, and sometimes to look up things about studies, but never for seeking information pertaining to health. The local gynecologist stated, in the interview, that the incidence of polycystic ovarian syndrome (PCOS) has been on the rise in the recent decades, which later lead to fertility issues, further adding to the stress of the young women. The adolescent girls gave more importance to the studies and less to physical activity, which lead to mood disorders and body image issues later on. Physical exercise influences cognitive, emotional, learning and neurophysiological domains, both directly and indirect, thereby rendering it essential that this noninvasive, non-pharmacological intervention ought to form a part of children's and adolescents' long-term health programs. 19

Health seeking behaviour

Most of them admitted to visiting the local rural medical practitioner (RMP) for health issues, instead of the rural health clinic (RHC) or other doctors. They said the RMP was good enough to deal with minor ailments such as fever and headache - "He will refer us to a specialist if necessary". Despite being regularly exposed to mass media, none of them were aware of any government initiatives towards the adolescent girls. They were also not being contacted nor educated by the Anganwadi worker. On interviewing the Anganwadi worker, she admitted to not being able to give more attention to the adolescent girls as her focus was more on the under-five children. The demanding workload placed on the Anganwadi workers by the various government health programmes might me the reason the adolescents' health issues are being neglected in the rural areas. The provision of confidential care encourages adolescents to share sensitive information with health-care providers.20

Domestic violence

Most of the girls had either witnessed or heard about physical violence on wives. All of them unanimously said that it was normal and expected of the husband to hit his wife if she was being "persistently annoying". The fact that most of the girls felt that it was alright for a husband to physically assault his wife is of particular concern. Another cause of concern is that these girls were conditioned to accept such behaviour. A few girls were aware of domestic violence in the neighbourhood. But they were told to not meddle in other family situations. The women who were hit, would sometimes complain to their neighbours, but never reported the abuse to authorities. The girls said they wouldn't report to the authorities either, because "we are not supposed to".

CONCLUSION

Adolescent girls, though very important in the life cycle approach to maternity and child care, seem to be neglected in terms of resources allotted to their care and nurture. The qualitative study brings out many issues concerning adolescent girls. It is evident that there is poor involvement of village health functionaries with this population group. While many lacunae in knowledge exist in the minds of these young people, their only resource is friends and relatives who may give false or misleading information. It has been shown that dropping out from school after marriage restricts adolescent girls' broadening of knowledge about reproductive health. Interventions that focus both on the continuation of the girls' education and creating options for generating income (i.e. life skills training) are also worthwhile towards increasing their reproductive health knowledge and in strengthening their decision-making autonomy. The issue at stake in these young girls is the loss of decision making power. There is a sense of resignation to their ultimate role in life as housewives. The risk of them being at the receiving end of domestic violence is very much there. There is need for non-judgmental and genuine counselling which may be an important first step in their seeking further support.

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REFERENCES

 World Health Organization, United Nations Population Fund & United Nations Children's Fund (UNICEF). (1989). The reproductive health of adolescents: a strategy for action / a joint WHO/UNFPA/UNICEF statement. World Health Organization. 1989. Available at: https://apps.who.int/iris/handle/10665/39306. Accessed on: 20 May 2020.

- World Health Organization, Adolescents: health risks and solutions. 2018. Available at: http://www.who.int/en/news-room/factsheets/detail/adolescents-health-risks-and-solutions. Accessed on: 20 May 2020.
- Census of India. Ministry of Home affairs, Government of India. 2011. Available at: https://censusindia.gov.in/. Accessed on: 25 May 2020.
- UNICEF India. Adolescents in India: A desk review of existing evidence and behaviours, programmes and policies. New Delhi: Population Council & UNICEF. 2013. Available at: http://4dj7dt2ychlw3310xlowzop2.wpengine.netdna-cdn.com/wp-content/uploads/2016/09/Adolescents_in_India.pdf. Accessed on: 25 May 2020.
- 5. Mala V, Kumar D, Dwivedi S, Dabral SB. Psychosocial Behaviour Pattern of Unmarried Adolescent Girls in Urban Area of Allahabad, Uttar Pradesh. Ind J Comm Med. 2007;32(1):79-81.
- 6. Sawyer SM, Afifi RA, Bearinger LH, Blakemore SJ, Dick B, Ezeh AC, Patton GC. Adolescence: a foundation for future health. The Lancet. 2012;379:1630-40.
- 7. World Health Organization. Health for the world's adolescents: a second chance in the second decade: summary. 2014. Available at: http://apps.who.int/adolescent/second-decade/section2. Accessed on: 25 May 2020.
- 8. NFHS-4, 2015-16, State Fact Sheet Andhra Pradesh, International Institute for Population Sciences (Deemed University) Mumbai, Ministry of Health and Family Welfare, GOI. Available at: http://rchiips.org/nfhs/pdf/NFHS4/AP_FactSheet.pd f. Accessed on: 25 May 2020.
- 9. What is qualitative research? Emma Eccles Jones Research Centre, University of Utah, College of Nursing. Available at: https://nursing.utah.edu/research/qualitative-research/ what-is-qualitative-research.php. Accessed on: 25 May 2020.
- 10. Agampodi SB, Agampodi TC, Piyaseeli UK. Adolescents' perception of reproductive health care services in Sri Lanka. BMC Health Services Res. 2008;8(1):98.
- 11. Gill P, Stewart K, Treasure E, Chadwick B. Methods of data collection in qualitative research: interviews and focus groups. Br Dent J. 2008;204(6):291.
- 12. Carter N, Bryant-Lukosius D, DiCenso A, Blythe J, Neville AJ. The use of triangulation in qualitative research. Oncol Nurs Forum. 2014;41(5):545-7.
- 13. Pathak V, Jena B, Kalra S. Qualitative Research. Perspect Clin Res. 2013;4(3):192.
- 14. Dixon CS. Interviewing Adolescent Females in Qualitative Research. The Qualitative Report. 2015;20(12):2067-77. Available at: https://nsuworks.nova.edu/ tqr/vol20/ iss12/12. Accessed on: 14 August 2019.

- Balla CP, Nallapu SSR. Knowledge, perceptions and practices of menstrual hygiene among degree college students in Guntur city of Andhra Pradesh, India. Int J Reprod Contracept Obstet Gynecol. 2018;7:4109-15.
- Chandra-Mouli V, Patel SV. Mapping the knowledge and understanding of menarche, menstrual hygiene and menstrual health among adolescent girls in lowand middle-income countries. Reproduct Health. 2017;14(1):30.
- 17. Shahabuddin ASM, Nöstlinger C, Delvaux T, Sarker M, Bardají A, Brouwere VD, et al. What Influences Adolescent Girls' Decision-Making Regarding Contraceptive Methods Use and Childbearing? A Qualitative Exploratory Study in Rangpur District, Bangladesh. PLoS one. 2016;11(6):e0157664.
- 18. Gamage AU, Jayawardana PL. Knowledge of noncommunicable diseases and practices related to

- healthy lifestyles among adolescents, in state schools of a selected educational division in Sri Lanka. BMC Public Health. 2017;18(1):64.
- 19. Archer T. Health Benefits of Physical Exercise for Children and Adolescents. J Nov Physiother. 2014;4:203.
- 20. Fuentes L, Ingerick M, Jones R, Lindberg L. Adolescents' and Young Adults' Reports of Barriers to Confidential Health Care and Receipt of Contraceptive Services. J Adolesc Health. 2018;62(1):36-43.

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