

Original Research Article

Comparing reproductive health communication with mothers between urban and rural adolescent girls

Tanjeemay Tamanna^{1*}, A. S. Priyanka¹, D. G. Sourav², Mahfuja Khatun Moni³,
Rakib Uz Zaman⁴, Nusrat Jahan⁵, Khandokar Tasmia⁶, M. Nazmul Husain⁷

¹Department of Infectious Disease, International Centre for Diarrheal Disease Research, Bangladesh (ICDDR), Dhaka, Bangladesh

²Department of Admin, Armed Forces Institute of Pathology, Dhaka, Bangladesh

³Department of Community Medicine, Prime Medical College and Hospital, Rangpur, Bangladesh

⁴Department of Pediatrics, Holy Care Hospital Chowmuhoni, Noakhali, Bangladesh

⁵Department of Obstetrics and Gynaecology, Reproductive Endocrinology and Infertility, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh

⁶Department of Pediatrics, Square Hospital Limited, Dhaka, Bangladesh

⁷Department of Project and Research, Dhaka Community Hospital Trust (DCHT), Dhaka, Bangladesh

Received: 19 June 2024

Accepted: 25 July 2024

*Correspondence:

Dr. Tanjeemay Tamanna,

E-mail: tisha29rpmc@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Reproductive health (RH) communication between mothers and adolescent girls is critical for fostering knowledge and healthy behaviors. This communication varies significantly between urban and rural settings due to different socio-cultural contexts and access to information. The aim of this study was to compare RH communication with mothers between urban and rural adolescent girls.

Methods: This cross-sectional comparative study was conducted from January to December 2020 in Mithapukur upazila (rural) and Rangpur city (urban) in Bangladesh. A total of 112 adolescent girls aged 14 to 17 from class 9 and 10 were interviewed, with 56 girls from each area.

Results: Socio-demographic characteristics were similar in both groups. In both urban and rural areas, 67.9% of respondents communicated with their mothers about RH, while 32.1% did not. In the past six months, 58.9% of urban and 57.1% of rural girls had no RH discussions. Menstruation and pubertal changes were the most common topics in both areas, while other RH topics were less frequently discussed. Discussions often began at the onset of menstruation or between ages 9-12, with some starting during high school entry or initiated by the girls themselves, though 32.1% in both areas had not started discussions. The majority were only informed about necessary RH parts.

Conclusions: The results of this study demonstrate that RH communication among urban adolescent girls was higher as compared to the rural adolescent girls.

Keywords: RH communication, Mothers, Adolescent girls, Urban and rural area

INTRODUCTION

Adolescence is a transitional phase of the life cycle between childhood to adulthood that involves rapid social, physical and emotional changes. World health organization (WHO) has defined adolescence as the age

group 10-19 years. During these ages the body is going through a rapid physiological growth, emotional development and sexual maturation.¹ Early adolescence is the period between the ages of 10 and 14 and is described by initial physical changes and rapid brain development. Middle adolescence is the period between the ages of 15

and 16 when sexual orientation gradually changes. In late adolescence stage (17-19 years old), individual may look and act like adults, but they may not be fully mature.² Individual in this age group manifest different and evolving needs depending on their personal development stages and life circumstances. They are learning to think abstractly, which allows them to design their futures. The opportunities and challenges that adolescents, especially the females come through as they grow up, need parental assistance, for example, the issue of sexual and RH (SRH).³ Adolescents learn about RH and sexual matters by observing the behavior of the adults around them by listening to peers and the older siblings, through the media in all its forms and by acquiring the knowledge of parents or other trusted mentors. Such information however is limited and sometimes even erroneous.⁴ Adolescent felt more comfortable communicating with parents about physical changes during puberty. Girls generally preferred advice from the mother especially for minor problems.⁵ But in our society, parents hesitate to discussing such matter with their children most of the time. Many adolescents often lack strong and stable relationship with their parents which are necessary to openly discuss RH concerns. Therefore, many teenagers do not have access to reliable information regarding their RH needs.⁶ Some parents expressed that it is difficult to have conversations on RH with their children because they are afraid that discussion might make sexual activities seem attractive. Parents are likely to use religious instruction rather than direct communication on SRH.¹ Majority of adolescents still do not have access to information and education on sexuality, reproduction and SRH and rights, nor do they have access to preventive and curative service.⁷ The effects of globalization, rising age at marriage, rapid urbanization and greater opportunities for socialization in Bangladesh have heightened the risk of STIs, HIV/AIDS, adolescents need to be aware of their RH. However, cultural and programmatic barriers inhibit the provision of RH information and services to adolescents.⁸ At the time of adolescent period, they seek help for their different problem, from the wrong sources, such as their friends who are needless to say; of the same age groups. This leads to them becoming confused.⁹ Only guardians can help, being sympathetic towards them. Otherwise, it might lead them to danger. So, in time care, handling and soft sympathetic attitude can lessen this danger.¹⁰ Health knowledge is considered as one of the key factors that enable adolescent girl to be aware of their rights and health status in order to seek appropriate health services. It is very important to study the overall situation and to know the differences between rural and urban Bangladeshi adolescent girl's communication with their mother in order to focus on RH issues.¹¹ Strong efforts are needed to improve communication and to clarify misconceptions about RH. Improved access to mass media and education could improve both urban and rural Bangladeshi adolescent girls' knowledge and awareness about RH.

Objectives

Objectives of the study was to compare RH communication with mothers between urban and rural adolescent girls.

METHODS

This cross-sectional comparative study of two sample situations was conducted partly in Mithapukur upazila of Rangpur district under Rangpur division of Bangladesh which was considered as rural area and partly in Rangpur city corporation area which was considered as study location for urban population in the study, during the period from January to December, 2020. Total 112 adolescent girls of class 9 and class 10 (aged from 14 to 17 years) were interviewed from urban and rural area, with 56 girls from each area. Before starting the data collection, permission to carry out the study was granted by the respective authority of the school. For conducting the study, formal ethical approval was obtained from the ethical institutional review board (IRB) of the national institute of preventive and social medicine (NIPSOM). The status of RH communication was measured based on communication frequency, content, timing and style. Total 5 questions were asked to identify communication status. The mean score for communication was used to divide groups based on whether communication was good/poor. Cut-off points were set based on the following mean score for communication: 4.5 (SD=1.9). Filled questionnaire were checked daily for completeness. SPSS (Statistical package for social science) version 25 and Microsoft excel was used for data analysis.

Inclusion criteria

Adolescent girl students from class 9 and class 10, adolescent girls who are living with their mothers, respondents who will give written assent were included in study.

Exclusion criteria

Adolescent girls who are sick and adolescent girls whose mothers are not alive were excluded.

RESULTS

Table 1 presents the socio-demographic characteristics of the study subjects. The age distribution shows that the majority of urban subjects (51.8%) are 16 years old, while the largest group among rural subjects (55.4%) is 15 years old. The mean age is slightly higher in urban areas (15.63 ± 0.752) compared to rural areas (15.07 ± 0.783). In terms of religion, most participants are Muslim, with a higher proportion in urban (98.2%) than in rural areas (89.3%). The majority of urban subjects are in class 10 (66.1%), whereas most rural subjects are in class 9 (76.8%). Family type distribution shows that nuclear families are predominant in both urban (89.3%)

and rural (85.7%) areas. Figure 1 shows that, in urban area, 38 (67.9%) of the respondents mentioned 'yes' and 18 (32.1%) of the respondents mentioned 'no' when they were asked about if they ever communicate with their mother about RH. In rural area, 38 (67.9%) of the respondents mentioned 'yes' and 18 (32.1%) of the respondents mentioned 'no' when they were asked about if they ever communicate with their mother about RH. Table 2 shows the distribution of respondents according to their frequency on RH related discussion in the past six months. There was no discussion occur in the past six months 33 (58.9%) and 32 (57.1%) in urban and rural adolescent girls respectively. The 21 (37.5%) and 21 (37.5%) of the respondents discussed about RH with their mother one to three times in urban and rural area respectively. Very low percentage of adolescent girls 2 (3.6%) and 1 (1.8%) in urban and rural area respectively discussed about RH more than four times in the past six months. Table 3 shows that in urban area, most of the respondents 33 (86.8% of cases) discussed about menstruation with their mother, 23 (60.5% of cases) discussed about pubertal changes, 6 (15.8% of cases) discussed about function of reproductive organs, 5 (13.2% of cases) discussed about conception and only 2 (5.3% of cases) discussed about STI. In rural area, most of the respondents 23 (60.5% of cases) discussed about

menstruation with their mother, 19 (50.0% of cases) discussed about pubertal changes, 3 (7.9% of cases) discussed about function of reproductive organs and there was no discussion occurred regarding conception, STI/AIDS and contraceptives. Table 4 shows that in urban area, most of the respondents 30 (53.6% of cases) were started discussion on RH when their first menstruation occurred, 8 (14.3% of cases) respondents were started at the time between 9-12 years of old, 7 (12.5% of cases) were started their high school entry time, 4 (7.1% of cases) started by herself and 18 (32.1% of cases) were not started yet. In rural area, 18 (32.1% of cases) were started discussion on RH when their first menstruation occurred, 13 (23.2% of cases) respondents were started at the time between 9-12 years of old, 7 (12.5% of cases) started by herself, 4 (7.1% of cases) were started their high school entry time, and 18 (32.1% of cases) were not started yet. Table 5 shows the distribution of respondents according to their pattern on RH related discussion. 33 (58.9%) and 36 (64.3%) of the respondents were informed only necessary part regarding RH in urban and rural area respectively. 4 (7.1%) and 3 (5.4%) of the respondents were fully informed by their mother about RH in urban and rural area respectively and only 1 (1.8%) was not allowed to ask about RH to her mother in urban area.

Table 1: Socio-demographic characteristics of the study subjects, (n=112).

Characteristics	Urban, N (%)	Rural, N (%)	Total, N (%)
Age groups (in years)			
14	4 (7.1)	12 (21.4)	16 (14.3)
15	18 (32.1)	31 (55.4)	49 (43.7)
16	29 (51.8)	10 (17.9)	39 (34.8)
17	5 (8.9)	3 (5.4)	8 (7.2)
Mean±SD	15.63±0.752	15.07±0.783	15.35±0.768
Educational status			
Class 9	19 (33.9)	43 (76.8)	62 (55.4)
Class 10	37 (66.1)	13 (23.2)	50 (44.7)
Family types			
Joint	6 (10.7)	8 (14.3)	14 (12.5)
Nuclear	50 (89.3)	48 (85.7)	98 (87.5)

Table 2: Distribution of respondents according to their frequency on RH related discussion in the past six months, (n=112).

Component	Response	Urban, N (%)	Rural, N (%)	Total, N (%)
No discussion at all	Yes	33 (58.9)	32 (57.1)	65 (58.0)
	No	23 (41.1)	24 (42.9)	47 (42.0)
One to three times	Yes	21 (37.5)	21 (37.5)	42 (37.5)
	No	35 (62.5)	35 (62.5)	70 (62.5)
More than four times	Yes	2 (3.6)	1 (1.8)	3 (2.7)
	No	54 (96.4)	55 (98.2)	109 (97.3)

Table 3: Distribution of respondents according to their RH related topics, (n=112).

Topics	Urban, N (%)	Rural, N (%)	Total, N (%)
Function of reproductive organs	6 (15.8)	3 (7.9)	9 (11.8)
Pubertal changes	23 (60.5)	19 (50.0)	42 (55.3)
Menstruation	33 (86.8)	23 (60.5)	56 (73.6)

Continued.

Topics	Urban, N (%)	Rural, N (%)	Total, N (%)
Conception	5 (13.2)	0 (0)	5 (6.6)
STI/AIDS	2 (5.3)	0 (0)	2 (2.6)
Contraceptives	0 (0)	0 (0)	0 (0)

Table 4: Distribution of respondents according to their timing of first RH related discussion with mother, (n=112).

Timing	Urban, N (%)	Rural, N (%)	Total, N (%)
Between 9-12 years old	8 (14.3)	13 (23.2)	21 (18.7)
Menarche	30 (53.6)	18 (32.1)	48 (42.8)
High school entry	7 (12.5)	4 (7.1)	11 (9.8)
Self-starter	4 (7.1)	7 (12.5)	11 (9.8)
Not started	18 (32.1)	18 (32.1)	36 (32.1)

Table 5: Distribution of respondents according to their pattern of discussion with mother on RH, (n=112).

Pattern of discussion	Response	Urban, N (%)	Rural, N (%)	Total, N (%)
Give full information	Yes	4 (7.1)	3 (5.4)	7 (6.3)
	No	52 (92.9)	53 (94.6)	105 (93.7)
Necessary information	Yes	33 (58.9)	36 (64.3)	69 (61.6)
	No	35 (62.5)	20 (35.7)	55 (49.1)
Not allowed to ask	Yes	1 (1.8)	0 (0)	1 (1.8)
	No	55 (98.2)	56 (100)	111 (99.1)

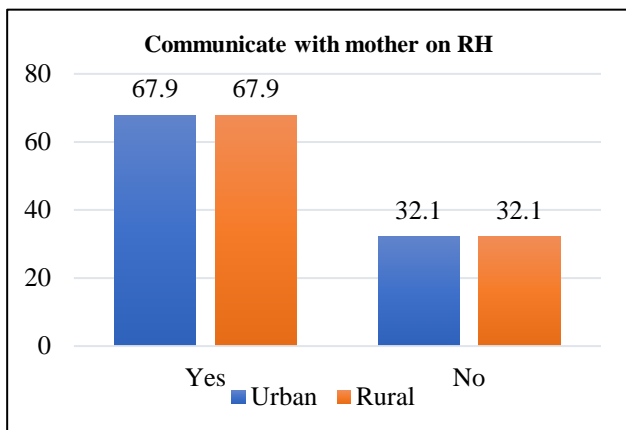


Figure 1: Distribution of respondents according to their discussion about RH with mother ever, (n=112).

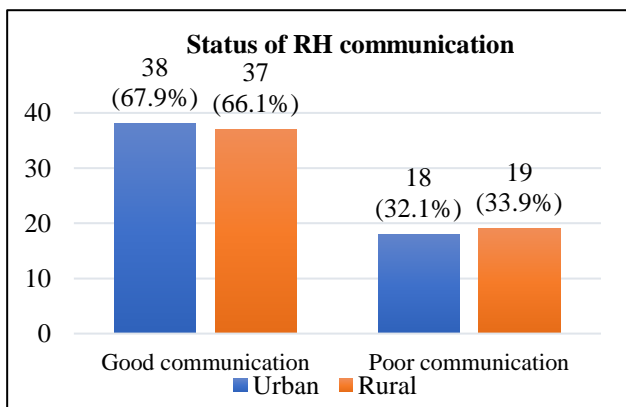


Figure 2: Distribution of respondents according to their status of communication with mother on RH, (n=112).

DISCUSSION

Youth represent the energy of the present and the aspiration of the future. Only healthy and fit adolescent seedlings of today can evolve into a beautiful tree of future.¹² This study was conducted to assess and compare the status of RH communication with mother between urban and rural adolescent girls. Socio-demographic variables such as age of the adolescent girls, educational status, occupation of the adolescent's mothers, family type, number of family members, monthly family income of adolescent girls, perception on RH communication and knowledge on RH were analyzed under the present study. On the basis of the score calculation from answers of the 5 questions. Urban and rural adolescent girls RH communication status with their mother was two categories by two categories (good communication and poor communication). The study revealed that, the age of adolescent girls was range from 14 to 17 years and the mean age of the adolescent girls were 15.35 years with $SD \pm 0.768$ years. This age group was chosen because it is a time when adolescent girls undergo major physical and emotional changes during puberty and communication between mothers and daughters is very crucial. This result was matched with the result which conducted by Mulatuwa et al.¹³ Most of the adolescent girls came from nuclear family in both areas that was in urban (89.3%) and rural (85.7%) and only urban (10.7%) and rural (14.3%) came from joint family respectively, which is similar to another study conduct in Bangladesh.¹⁴ The study revealed that (77.8%) in urban and (79.2%) in rural adolescent girls possessed good RH knowledge were more likely to discuss about RH with their mothers compared with those who had poor knowledge on RH. This result is supported by a study conducted in Central

Ethiopia and another in Northern Ethiopia. This might be because adolescent girls who know about RH may ask their mothers to know more about the issue. The frequencies of adolescent girls and their mothers RH communication (67.9%) in both areas in this study is higher than that of other countries, for example, India, and Zimbabwe and lower than the USA.¹⁵⁻¹⁷ Traditionally, adolescent girls in Bangladesh have a trusting relationship with their mothers due to gender homogeneity. They pass more time in the home with their mothers because movement outside of the house is constricted in rural areas especially due to patriarchal culture.¹⁴ The topics of discussion between adolescent girls and their mothers were also explored in this study, which indicated the range of discussion was narrow and restricted to menstruation in urban (86.8%) and rural (60.5%) and pubertal changes (60.5%) and (50%) in both areas respectively. These findings were much higher than others study conducted in Ghana and Eastern Ethiopia.^{18,19} In Bangladesh, these essential topics about puberty are usually discussed by mothers as they are the primary source of knowledge for their adolescent girls whereas, in different countries, adolescent girls are being informed on these issues by the media and school.²⁰ The discussion rate of other topics regarding RH assessed in this study such as pregnancy, contraceptive methods, STI and function of reproductive organs is much lower than other studies.^{19,21} These differences may be ascribed to cultural and behavioral incongruity. In Bangladesh, mothers usually prefer to limit their discussion to safe topics and are often reluctant to talk about sexual health in spite of the urgent need of it. Sometimes, mothers think that prior knowledge of sexual health may lead to become sexually active.¹⁴ In this study, more than two-third of the respondents reported that mothers started RH discussion with them, which is consistent with the study of Ayalew et al.²² It is also perceptible that among the respondents who initiated a discussion with mothers, (53.6%) in urban and (32.1%) in rural adolescent girls had first communication with mother after getting menarche, which may insinuate that experiencing with this biological changes may lead them to communicate with mothers. Most of the mothers didn't start puberty discussion in advance. It may be due to the perception of taboo, conservative attitude and the traditional belief that being informed about sexual and reproductive issues in teenage a girl may engage in the risky sexual practice. Therefore, surviving to RH communication may cause by these socio-cultural impediments.¹⁴

This study results also revealed that more than half of the mothers of urban (58.9%) and rural (64.3%) adolescent girls were given only necessary information in spite of full information regarding RH. As regards the RH communication status between adolescent girls and mothers in both urban and rural area, the current study revealed that, more than half in urban (67.9%), rural (66.1%) were identified good, these results were consistent with the findings by Bhatta et al and were inconsistent Muhwezi et al.^{23,24}

Limitations

This study was conducted only in selected urban and rural school of Rangpur district. So that would be difficult to generalize the result in the context of all adolescent girls of Bangladesh. As it was a cross-sectional study, it is the inherent weakness of the study. During pandemic situation estimated sample size was difficult to achieve, after considering the sample size and existing situation during the study high effort was given to collect the sample size as close as possible. Only mother and adolescent girls' communication on RH from the perspective of adolescent girls was reported on. Therefore, studies from the perspective of both mother and adolescent girls would provide a more comprehensive picture.

CONCLUSION

The results of this study demonstrate that RH communication among urban adolescent girls was higher as compared to the rural adolescent girls. Overall RH communication status was good. Majority of the adolescent girl's common discussion topic was menstruation in both areas. A large portion of rural adolescent girls were unknown about contraception. In both areas mothers gave only necessary information about RH instead of giving full information. Although the study does not depict the scenario of the adolescent girls RH communication status with mothers overall in Bangladesh. Subsequent study is needed to draw the final conclusion.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Chandra-Mouli V, Camacho AV, Michaud PA. WHO guidelines on preventing early pregnancy and poor reproductive outcomes among adolescents in developing countries. *J Adolescent Health.* 2013;52(5):517-22.
2. Noe MTN, Saw YM, Soe PP, Khaing M, Saw TN, Hamajima N, Win HH. Barriers between mothers and their adolescent daughters with regards to sexual and reproductive health communication in Taunggyi Township, Myanmar: What factors play important roles? *PloS One.* 2018;13(12):e0208849.
3. Feyissa M, Nigussie T, Mamo Y, Aferu T. Adolescent Girl-Mother Communication on Sexual and Reproductive Health Issues Among Students in Fiche Town, Oromia, Central Ethiopia. *J Primary Care Community Health.* 2020;11:2150132720940511.
4. Paudel DP, Paudel L. Perceived behavior and practices of adolescents on sexual and reproductive

- health and associated factors in Kathmandu, Nepal. *Muller J Med Sci Res.* 2014;5(2):106.
5. Agampodi SB, Agampodi TC, Piyaseeli UKD. Adolescents perception of reproductive health care services in Sri Lanka. *BMC Health Services Res.* 2008;8(1):1-8.
6. Ayed MMA, Thabet AM, Esia EEER, Mostafa NEH. Adolescent girls communication with their mothers on sexual and reproductive health matters among secondary and preparatory Schools Students. *J Am Sci.* 2016;12(7):36-7.
7. Kotecha PV, Patel S, Baxi RK, Mazumdar VS, Misra S, Modi E, et al. Reproductive health awareness among rural school going adolescents of Vadodara district. *Indian J Sexually Transmitted Dis AIDS.* 2009;30(2):94.
8. Bhuiya I, Rob U, Chowdhury AH, Rahman L, Haque N, Adamchak SE, et al. Improving adolescent reproductive health in Bangladesh. *FRONTIERS Final Report.* Dhaka: Population Council. 2004.
9. Akther N, Begum N, Chowdhury S, Sultana S. Knowledge on reproductive health issues among the unmarried adolescent girls. *J Family Reproduct Health.* 2012;169-76.
10. Uddin MJ, Choudhury AM. Reproductive health awareness among adolescent girls in rural Bangladesh. *Asia Pacific J Public Heal.* 2008;20(2):117-28.
11. Haque M, Hossain S, Ahmed KR, Sultana T, Chowdhury HA, Akter J. A comparative study on knowledge about reproductive health among urban and rural women of Bangladesh. *J Family Reproduct Health.* 2015;9(1):35.
12. Latif S, Mayedah S, Bano N. Awareness of Reproductive Health Among Adolescent and Young Adult Females; A Comparative Study in Urban and Rural Areas. *J Society Obstetr Gynaecol Pak.* 2018;8(4):243-8.
13. Mulatuwa Ayalew MA, Bezatu Mengistie BM, Agumasie Semahegn AS. Adolescent-parent communication on sexual and reproductive health issues among high school students in Dire Dawa, Eastern Ethiopia: a cross sectional study. *Reproduct Health.* 2014;11(1):77.
14. Zakaria M, Xu J, Karim F, Cheng F. Reproductive health communication between mother and adolescent daughter in Bangladesh: a cross-sectional study. *Reproduct Health.* 2012;16(1):1-12.
15. Jejeebhoy SJ, Santhya KG. Parent-child communication on sexual and reproductive health matters: Perspectives of mothers and fathers of youth in India. *New Delhi: Population Council;* 2011:1-70.
16. Kim YM, Kols A, Nyakauru R, Marangwanda C, Chibatamoto P. Promoting sexual responsibility among young people in Zimbabwe. *Int Family Planning Perspectives.* 2001;27(1):11-9.
17. Eisenberg N, Spinrad T, Sadovsky A. Empathy-related responding in children. In *Handbook of moral Development.* 2006;535-68.
18. Manu AA, Mba CJ, Asare GQ, Odoi-Agyarko K, Asante RK. Parent-child communication about sexual and reproductive health: evidence from the Brong Ahafo region, Ghana. *Reproductive health.* 2015;12:1-3.
19. Dessie Y, Berhane Y, Worku A. Parent-adolescent sexual and reproductive health communication is very limited and associated with adolescent poor behavioral beliefs and subjective norms: evidence from a community based cross-sectional study in eastern Ethiopia. *PloS Oone.* 2015;10(7):e0129941.
20. Melaku YA, Berhane Y, Kinsman J, Reda HL. Sexual and reproductive health communication and awareness of contraceptive methods among secondary school female students, northern Ethiopia: a cross-sectional study. *BMC Public Health.* 2014;14:1-1.
21. Jerman P, Constantine N. Demographic and psychological predictors of parent-adolescent communication about sex: a representative statewide analysis. *J Youth Adolesc.* 2010;39(10):1164-74.
22. Ayalew M, Mengistie B, Semahegn A. Adolescent-parent communication on sexual and reproductive health issues among high school students in Dire Dawa, Eastern Ethiopia: a cross sectional study. *Reproduct Health.* 2014;11(1):1-8.
23. Bhatta BR, Kiriya J, Shibanuma A, Jimba M. Parent-adolescent communication on sexual and reproductive health and the utilization of adolescent-friendly health services in Kailali, Nepal. *Plos one.* 2021;16(2):e0246917.
24. Muhwezi WW, Katahoire AR, Banura C, Mugooda H, Kwesiga D, Bastien S, et al. Perceptions and experiences of adolescents, parents and school administrators regarding adolescent-parent communication on sexual and reproductive health issues in urban and rural Uganda. *Reproduct Health.* 2015;12:1-6.

Cite this article as: Tamanna T, Priyanka AS, Sourav DG, Moni MK, Zaman RU, Jahan N, et al. Comparing reproductive health communication with mothers between urban and rural adolescent girls. *Int J Res Med Sci* 2024;12:2767-72.