

The Financial Cost of Managing Menstrual Hygiene in Schools in the Health District of Bla in Mali

Kane, F^{1*}, Diallo, S¹, Bah, B¹, Boire, S⁵, Diarra, M. A¹, Camara, S¹, Traore, B⁶, Sidibe, A⁴, Toumagnon, B¹, Fomba, D⁷, Sidibe, M¹, Diassana, M³, Traore, T²

¹Reference Health Center of Bla in Mali

²Hospital NIANKORO FOMBA of Ségou in Mali

³Hospital Fousseyni Daou of Kayes in Mali

⁴Reference Health Center of Kayes in Mali

⁵Reference Health Center Niono in Mali

⁶Reference Health Center San in Mali

⁷District Hospital of Markala in Mali

DOI: 10.36348/sijog.2023.v06i06.006

Received: 18.05.2023 | Accepted: 21.06.2023 | Published: 26.06.2023

*Corresponding author: Kane, F

Reference Health Center of Bla in Mali

Abstract

Introduction: Many women and girls face financial challenges in meeting their menstrual hygiene management needs. The main objective of this study is to estimate the financial cost of menstrual hygiene management among school-going girls. **Methodology:** This is a prospective study carried out in a semi-urban school environment at the Public High School in the health district of Bla in 2020. **Results:** This study was conducted among 125 high school girls with no income. The average age was 18 years old. Parents lived in rural areas with no fixed monthly income in 52% of cases. Multipurpose pieces of cloth were the protective material used in 67% of cases. The girls explained this choice in 100% of cases by the high cost of single pads and tampons. The average monthly cost of menstrual hygiene management was 0, 56 \$ or 6, 67 \$ per year with extremes of 0, 16 and 2, 45 \$ per month. This amount was used to buy either single-use pads or soap for body care and multiple-use pads. This financial cost was covered at 92% by female support (mother, aunt, sister); male support (father, spouse) accounted for only 8%. **Conclusion:** This study made it possible to estimate the average annual financial cost of menstrual hygiene management among young school girls in Bla. These findings call for further studies to better understand the financial implications of menstrual hygiene management in low-resource settings.

Keywords: Menstrual hygiene, Cost, school girls, Mali.

Copyright © 2023 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Menstruation marks the beginning of reproductive life in young girls. Throughout the world and specifically in Mali, many young girls encounter difficulties in managing their periods. Several studies have made this observation [1-4]. These difficulties are related either to the lack of information or to the insufficiency of adequate infrastructures or material means available for the management of menstrual hygiene. They are mainly related to the financial cost [5] linked to menstrual hygiene management needs and the lack of income to cover this cost. The issue of menstrual hygiene has not yet received the desired attention in low-income countries like Mali. The lack of

response to the needs of girls and of appropriate policies in terms of individual menstrual hygiene management can have consequences not only on the reproductive life of young girls but also on hygiene and public sanitation. This management has a financial cost which concerns the purchase of the material necessary for the absorption of the menstrual flow, the inputs for the body maintenance and the elimination of the worn material. Girls in school naturally face this cost regardless of their parents' income. Literature reviews [2, 6] note above all the abundance of studies on knowledge and practices on the subject [7-9], the impact of insufficient management on the academic performance [10] availability of types of menstrual flow

absorbent materials and menstrual hygiene in humanitarian emergencies [3]. Studies on the financial cost and economic impact [5] are rare. The lack of data does not favor the development of effective policies in this area. We therefore initiated this study to evaluate the financial efforts made by girls and their families in schools in Bla, Mali for the management of menstrual hygiene.

OBJECTIVE

Estimate the direct financing of the management of menstrual hygiene among young girls in the Public High School of Bla in the region of Ségou in Mali.

METHODOLOGY

This is a survey of 125 young girls attending the Public Lyceum in Bla. This high school receives students from the urban environment of the city of Bla and the villages around this city. Data was collected from semi-structured questionnaires completed by the girls themselves. The direct financial cost in this survey concerned the cost of purchasing single-use sanitary napkins, soap and detergents for body care and multi-use equipment. This survey was carried out after the consent of the young girls and the authorization of the parents or guardians for those who were not yet of age.

RESULTS

Table I: Socio-demographic characteristics of participants

| | Number | % |
|--------------------------------------------------------|--------|-----|
| Age groups of participants | | |
| ≤ 14 | 1 | 1 |
| 15 – 19 | 111 | 89 |
| 20 - 24 | 13 | 10 |
| Total | 125 | 100 |
| Class attended by the participants at the Lycée | | |
| 10th A | 26 | 21 |
| 11th A | 68 | 54 |
| 12th A (Terminal) | 31 | 25 |
| Total | 125 | 100 |

Average age: 18; Minimum: 14 years old; Maximum: 21 years old

Table II: Socio-economic status of parents

| | Number | % |
|-----------------------------------------------------------------------|------------|------------|
| Residence of parents | | |
| rural | 65 | 52 |
| Urban | 60 | 48 |
| Total | 125 | 100 |
| Level of education of the parent who covers the financial cost | | |
| None | 50 | 40 |
| Primary | 30 | 24 |
| secondary | 33 | 26 |
| superior | 12 | 10 |
| Total | 125 | 100 |
| Parent's economic status | | |
| Farmer | 68 | 54 |
| Trader/other private | 35 | 28 |
| employee | 22 | 18 |
| Total | 125 | 100 |
| Character of parent's monthly income | | |
| Fixed and regular income | 22 | 18 |
| Non-fixed and non-regular income | 103 | 82 |
| Total | 125 | 100 |

Table III: Menstrual hygiene management

| | Number | % |
|------------------------------------------|------------|------------|
| Types of protection used by girls | | |
| Reusable piece of fabric | 60 | 48 |
| Single-use material | 41 | 33 |
| Mixed | 24 | 19 |
| Total | 125 | 100 |

| Daily diaper change frequency | | |
|-------------------------------|------------|------------|
| 1 time | 2 | 2 |
| 2 times | 45 | 36 |
| 3 times | 69 | 55 |
| 4 times | 9 | 7 |
| Total | 125 | 100 |

Table IV: The financial cost

| | Number | % |
|-------------------------------------------------------|------------|------------|
| Amount of monthly expenses in \$ (dollar) | | |
| 0,16 – 0,82 | 84 | 67 |
| 0,83 – 1,63 | 26 | 21 |
| 1,64 – 2,45 | 15 | 12 |
| Total | 125 | 100 |
| Author of girls' menstrual management expenses | | |
| Mother | 107 | 86 |
| Sister | 8 | 6 |
| Father | 7 | 6 |
| Joint | 3 | 2 |
| Total | 125 | 100 |

Minimum monthly cost: 0, 16 \$ or 1, 97 \$ annually

Maximum monthly cost: 2, 45 \$ or 29, 45 \$ annually

Average monthly cost: 0, 56 \$

Average annual cost: 6, 67 \$

DISCUSSION

This survey concerned 125 young school-going girls among whom the average age was 18 years. It is comparable to the average ages of girls in the urban and rural groups of the Shibeshi comparative study [7] in Ethiopia which were 17.2 and 17.5 years respectively. In our study, the age of the participants was between 14 and 21 years old. The majority of studies have involved young girls of similar age groups. Thus, Babagoli [5] conducted its cost-effectiveness and cost-benefit study in Kenya with girls aged 14 to 16, Nnennaya and his collaborators [4] in Nigeria reported an age group of 10-19 years, and Ha and Alam [11] carried out a comparative study in Bangladesh among young girls aged 14 to 19 in urban and rural areas. This can be explained by the fact that all these studies were carried out in school settings. Bushathoki [3], who carried out his study with a general population of women in post-earthquake Nepal, reported an age range of 15-49 years. The choice of this age group was to target a population without financial autonomy, capable of providing sufficient information and making the minimum expenses necessary for the management of menstrual hygiene. 52% of the parents of the girls in our study lived in rural areas, 54% were farmers and 64% had at most a primary education level. Regarding financial resources, 82% of parents who finance the cost of menstrual hygiene management had no fixed monthly income. This probably partly explains the high rate of users of reusable pieces of fabric at 67% (48% only piece of reusable fabric and 19% mixed) in a situation of financial inability to buy towels or cotton for multiple use. . But the girls themselves mentioned in 100% of cases the high cost of single-use protection as

a reason for not using it. The average monthly cost during this study was 0, 56 \$, i.e. an average annual expenditure of 6, 67 \$. The highest cost was recorded among girls who used single-use protection, 2, 45 \$ per month or 29, 45\$ per year. The lowest monthly expenditure of 0, 16 \$ was recorded among girls using multiple-use equipment. This amount was the purchase of soap for washing pieces of fabric for reuses and body maintenance. Contrary to the study carried out by Babadoli and his collaborators [5], our study did not aim to analyze the cost-effectiveness and cost-benefit of the different types of protection, but rather to have an idea of the financial efforts made for parents to ensure a minimum level of menstrual hygiene for girls. In this study, mothers, aunts and sisters provided this effort in 92% of cases; fathers intervened only in 6% of cases.

CONCLUSION

This study made it possible to estimate an average annual cost of 6, 67 \$ granted by the families of school girls for the management of menstrual hygiene. Funding this cost is a mandatory effort to ensure the dignity of women and girls regardless of the family's level of poverty. The results of this study call for further studies to better understand the equity and human rights implications of financing menstrual hygiene management in low-resource settings.

REFERENCES

1. Kaur, R., Kaur, K., & Kaur, R. (2018). Menstrual hygiene, management, and waste disposal: practices and challenges faced by girls/women of developing countries. *Journal of environmental and public health*, 2018, 1730964.

2. Elledge, M. F., Muralidharan, A., Parker, A., Ravndal, K. T., Siddiqui, M., Toolaram, A. P., & Woodward, K. P. (2018). Menstrual hygiene management and waste disposal in low and middle income countries—a review of the literature. *International journal of environmental research and public health*, *15*(11), 2562.
3. Budhathoki, S. S., Bhattachan, M., Castro-Sánchez, E., Sagtani, R. A., Rayamajhi, R. B., Rai, P., & Sharma, G. (2018). Menstrual hygiene management among women and adolescent girls in the aftermath of the earthquake in Nepal. *BMC women's health*, *18*(1), 1-8.
4. Nnennaya, E. U., Atinge, S., Dogara, S. P., & Ubandoma, R. J. (2021). Menstrual hygiene management among adolescent school girls in Taraba State, Nigeria. *African Health Sciences*, *21*(2), 842-851.
5. Babagoli, M. A., Benschaul-Tolonen, A., Zulaika, G., Nyothach, E., Oduor, C., Obor, D., ... & Phillips-Howard, P. A. (2022). Cost-Effectiveness and Cost-Benefit Analyses of Providing Menstrual Cups and Sanitary Pads to Schoolgirls in Rural Kenya. *Women's Health Reports*, *3*(1), 773-784.
6. Majeed, J., Sharma, P., Ajmera, P., & Dalal, K. (2022). Menstrual hygiene practices and associated factors among Indian adolescent girls: a meta-analysis. *Reproductive Health*, *19*(1), 1-13.
7. Shibeshi, B. Y., Emiru, A. A., & Asresie, M. B. (2021). Disparities in menstrual hygiene management between urban and rural schoolgirls in Northeast, Ethiopia. *Plos one*, *16*(9), e0257853.
8. Uwadia, R. C., Olorunfoba, E. O., Wada, O. Z., & Aluko, O. O. (2022). Menstrual hygiene management inequalities among school girls in Badagry, Nigeria. *Tropical Medicine & International Health*, *27*(11), 970-980.
9. Abor, P. A. (2022). Menstrual hygiene management in public high schools in Ghana. *African Health Sciences*, *22*(1), 88-91.
10. Krenz, A., & Strulik, H. (2021). The impact of menstruation hygiene management on work absenteeism of women in Burkina Faso. *Economics & Human Biology*, *43*, 101067.
11. Ha, M. A. T., & Alam, M. Z. (2022). Menstrual hygiene management practice among adolescent girls: an urban-rural comparative study in Rajshahi division, Bangladesh. *BMC Women's Health*, *22*(1), 86.