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Socio-Demographic Characteristics of the Hemophilia Patients

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Abstract

Introduction with objective: *In Bangladesh, hemophilia patients are not uncommon. Large numbers of haemophilia patients regularly attend in Hemophilia Treatment Center (HTC), Department of Haematology, and Dhaka Medical College Hospital for the management of disease and its complications. The aim of the present study was to assess the socio-demographic characteristics of the hemophilia patients.* ***Materials and Methods:*** *This observational study was carried out among 50 hemophilia patients at the Hemophilia Treatment Center (HTC), Department of Haematology, Dhaka Medical College Hospital (DMCH), and Dhaka from July 2019 to December 2019. Purposive sampling was done according to availability of the patients. All the data were compiled and sorted properly and the quantitative data was analyzed statistically by using Statistical Package for Social Science.* ***Result:*** *Majority of the respondents (38%) were less than or equal 5 years old beside 28% were 6 to 10 years old. 96% respondents were Muslim. 50% patients were unemployed and 46% were students beside only 4% were service holder. 52% patient's economic status were middle class beside 28% were lower class and 20% were upper class. 92% patients had hemophilia A and 8% had hemophilia B. 68% had mild hemophilia, 24% had moderate and 8% had severe hemophilia.* ***Conclusion:*** *The present study revealed that most of the haemophilia patients belong to a middle socio-economic class, which can interfere their long-term adherence to the expensive therapy.*

Keywords: *Socio-demographic, Hemophilia, Hemophilia Treatment Center.*

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Introduction:

Hemophilia is an X-linked recessive disorder that occurs because of deficiency of clotting factors and predominant in males. It transmits hereditary through females. The two common forms of this disorder, hemophilia A and B (due to the deficiency of clotting factor VIII and IX, respectively), are similar in their clinical presentation and imaging findings[1]. The average prevalence of hemophilia is approximately one per 10,000 of the population[2]. The USA and Brazil report the highest prevalence of over 4 per 100,000 population. The very high prevalence of 8.7 reported by the United Kingdom is a phenomenon[3]. However, in Bangladesh the exact number of hemophilic patient is not known; the best available estimates range from 1 in 20,000 to as high as 1 in 10,000 persons[4]. Hemophilia has been recognized as the most severe among the inherited disorders of blood coagulation, joint damage is the

hallmark of the disease commonly the ankle, the knee, the elbow, and the hip[5]. Bleeding can be spontaneous or followed by trauma[6] and the frequency of bleeding depends on the residual coagulation factor level and the genotype of the patient[7]. The long-term consequences of repeated joint bleeds with sub-optimal treatment are the development of chronic and progressive joint damage and disability. A significant association was found between the socio-economic status of the patient's family and the severity of disability, suggesting that disability was most likely to be prevalent amongst the most vulnerable community of society. The large patient burden indicates the need for a public health intervention for prevention and care[7].

Materials & Methods:

This observational study was carried out among 50 hemophilia patients at the Hemophilia Treatment Center (HTC), Department of Haematology, Dhaka Medical College Hospital (DMCH), and Dhaka from July 2019 to December 2019. Purposive sampling was done according to availability of the patients. Ethical clearance for the study was obtained from the Ethical Review Committee (ERC) of the Dhaka Medical College. Written informed consent (Bangla version) was taken from every patient. All data were collected through a pre-structured questionnaire. After collection of data, they were checked for errors and then analyzed using the statistical software SPSS 25.

Results:

Table I shows that 38% respondents were less than or equal 5 years old beside 28% were 6 to 10 years, 16% were 11 to 15 years and 8% were 16 to 20 years, 4% were 21 to 25 years, 2% were 26 to 30 years and 4% were more than 30 years. Mean age of the respondents were 10.62±8.29 years of SD.

Table I: Distribution of the respondents by Age group (n=50)

Age group	Frequency (n)	Percentage (%)	Mean±SD
≤5 years	19	38	3.89±0.87
6 to 10 years	14	28	8.21±1.57
11 to 15 years	8	16	14.25±0.88
16 to 20 years	4	8	21±3.46
21 to 25 years	2	4	23.50±0.70
26 to 30 years	1	2	26±0
>30 years	2	4	35.50±0.70
Total	**50**	**100**	**10.62±8.29**

Pie chart shows that 96% respondents were Muslim and 4% respondents were Hindu.
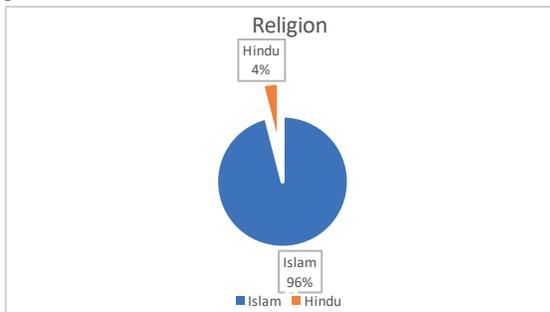
Figure 1: Distribution of the respondents by Religion (n=50)

Table II shows that among all the patients, 50% were unemployed and 46% were students beside only 4% were service holder.

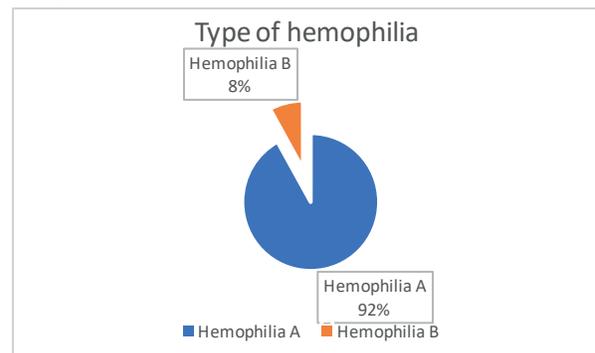**Table II: Distribution of the respondents by Occupation (n=50)**

Occupation	Frequency (n)	Percentage (%)
Unemployed	25	50
Students	23	46
Service holder	2	4
Total	**50**	**100**

Table III shows that among all 52% patient's economic status were middle class beside 28% were lower class and 20% were upper class.

Table III: Distribution of the respondents by Economic status (n=50)

Economic status	Frequency (n)	Percentage (%)
Upper class	10	20
Middle class	26	52
Lower class	14	28
Total	**50**	**100**

Pie chart shows that 92% had hemophilia A and 8% had hemophilia B.

Figure 2: Distribution of the respondents by Type of hemophilia (n=50)

Table IV shows that 68% had mild hemophilia, 24% had moderate and 8% had severe hemophilia.

Table IV: Distribution of the respondents by severity of Hemophilia (n=50)

Type	Frequency (n)	Percentage (%)
Mild	34	68
Moderate	12	24
Severe	4	8
Total	**50**	**100**

Discussion:

In this study, 38% respondents were less than or equal 5 years old beside 28% were 6 to 10 years old. Mean age of the respondents were 10.62±8.29 years of SD and all the respondents were male. Varghese et al. also observed Among 50 cases of hemophilia, all patients were male with mean age

of the patients was 6.62 ± 3.87 years with an age range of 6 months to 14 years where 76% of the patients were in age group <11 years and 24 % patients were above age of 11 years[8]. In this study, 50% patients were unemployed and 46% were students beside only 4% were service holder. In the study of Ferreira et al. among 39 patients, 24 were unemployed, 13 were student, 11 were employed and 1 was without declared occupation[9]. Shaheen revealed that majority [67.9% (53 of the 78)] of patients were students, 12.8% (10 out of 78) were below school age, 19.3% (15 out of 78) were labors, employees and unidentified jobs[10]. Among all the hemophilic patients 92% had hemophilia A and 8% had hemophilia B. Payal et al. also found Out of a total of 56 cases, 51 (91%) cases were diagnosed as hemophilia A while 5 (9%) were diagnosed as hemophilia B[11]. Among the hemophilia patients 68% had mild hemophilia, 24% had moderate and 8% had severe hemophilia. Payal et al. observed 25 (44%) cases had severe disease, 20 (36%) had moderate disease, and 11 (20%) had mild disease[11].

Conclusion:

The present studies revealed that most of the haemophilia patients had mild haemophilia and belong to a middle socio-economic class. The social costs of haemophilia occur as a consequence of lack of access to treatment and impact patients in terms of morbidity and mortality, schooling and employment.

Acknowledgements:

Conflict of Interest: None.

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