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Pediatric Nurses' Perception and Attitudes Concerning Hemophilia in Al-Basrah Hospitals: A Cross-Sectional Study

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ABSTRACT

Background: Hemophilia is a hereditary bleeding disorder in which blood clots improperly. This can lead to spontaneous bleeding as well as bleeding following surgery or trauma. Blood contains a variety of proteins called clotting factors that can help stop bleeding. Hemophiliacs have low levels of either factor VIII or factor IX. The degree of hemophilia in the affected person is determined by the number of clotting factors in their blood. **Objectives:** To evaluate the perceptions and attitudes of pediatric nurses regarding children with hemophilia. **Methods:** From December 12, 2023, to December 15, 2024, a cross-sectional study on 100 pediatric nurses who work with children who have hemophilia was carried out in hospitals in Basrah City. **Results:** According to the findings, the majority of the study (more than two-thirds) (68%) are female, and 47% of the participants are between the ages of 25 and 30 years. A general nursing technician diploma was held by 43% of the nurses in the study, and approximately 41% of the nurses had fewer than five years of experience. Meanwhile, 35% had worked in blood disease wards for 6–10 years. Fifty-two percent of the sample was unable to attend the training sessions. The majority of nurses have negative attitudes (94%) about hemophilia. The data were collected by a self-reported questionnaire and analyzed using SPSS version 26. **Conclusion:** According to the study, nurses have a high percentage of acceptable perception regarding the definition, types, and hereditary roles in hemophilia transmission, as well as the disease's diagnosis and treatment procedures. Most of the nurses have negative attitudes regarding hemophilia.

Keywords: Attitudes; Hemophilia; Nurses; Pediatric; Perceptive

INTRODUCTION

The ability of the body to form blood clots, which is necessary to halt bleeding, is compromised in hemophilia, a genetic condition that is primarily inherited (Omura & Tsuchiya, 2012). Low levels of clotting factor VIII induce hemophilia A, whereas low levels of clotting factor IX create hemophilia B. These are the two main types of hemophilia. Usually, a nonfunctional gene on the X chromosome is passed down from one's parents (Santagostino & Fasulo, 2013).

In hemophilia A, B and C, the intrinsic pathway—a clotting process necessary when the endothelium of a blood artery is damaged—is not functioning properly (Al-Fadhil *et al*., 2001; Chaudhry *et al.*, 2018). Pregnancy, autoimmune diseases, and cancer are linked to acquired hemophilia (Franchini & Mannucci, 2014; Sreedharanunni *et al.*, 2017). The diagnosis is made by measuring the blood's clotting factor levels and clotting capacity (Tedgard *et al*., 1989; Varekamp *et al.*, 1990). The most prevalent kind of hemophilia is hemophilia A. Around the world, one in 5,000 to 10,000 men suffers from hemophilia A. Less often occurring, hemophilia B

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affects 1 in 20,000 to 34,500 men globally (Khalife *et al.*, 2024; Wynbrandt & Ludman, 2010). According to a 2022 World Federation of Hemophilia (WFH) annual global census, there were 257,146 hemophiliacs (PWH) in 125 nations. Of PWH, HA and HB make up 81.26% (208,957/257,146) to 16.41% (42,203/257,146), with hemophilia of unknown type or type not reported accounting for the remaining 2.33% (5,986/257,146). About 120,000 PWH and 40,000 cases of hemophilia are now registered in China, where the reported prevalence was 2.73–3.09 cases per 100,000 people (Zhao *et al*., 2024).

In hemophilia, there are five main locations for severe bleeding that endanger function, life, or limb. These include intra-abdominal hemorrhage, throat bleeds, ocular bleeds, limb compartment syndromes (thigh, calf, forearm, or upper arm), and intracranial or spinal cord bleeds. Compression of critical tissue, bleeding into an enclosed space, and the possibility of losing a limb, life, or function are the hallmarks of each of these regions. Communication, reassurance, education, and support are nursing treatments that will help patients and their families overcome these crises because bleeding episodes also induce anxiety and panic in them (Washeel *et al.*, 2020).

As people age, their bleeding sites change. Joint illness and head trauma happen in older children and adolescents, although delivery-associated ICH, circumcision, and venipuncture hemorrhage are common in the neonatal period. Establishing proper management and putting preventive measures into action requires knowledge of clinical symptoms and medication side effects. Inhibitors and ICH are now the most difficult issues to deal with (Kulkarni & Soucie, 2011).

Hemophilia can be divided into: Hemophilia A which is recessive X-linked genetic disorder, which involves a deficiency of functional clotting factor VIII, accounts for about 80–85% of instances of hemophilia. Hemophilia B, a recessive X-linked genetic disorder marked by a deficiency of functional clotting factor IX, accounts for about 20–15% of cases of hemophilia. One characteristic of hemophilia C, a hereditary disorder, is the absence of functional clotting factor XI. Since heterozygous people also exhibit greater bleeding, this trait is not entirely recessive. Purchased autoantibodies against the clotting factors cause hemophilia, an acquired disorder. This typically takes place when a cancer is present (Napolitano *et al*., 2018).

The most common congenital coagulation deficiency is hemophilia A (factor VIII deficiency), whereas the second one is hemophilia B (factor IX deficiency). The number of cases reported by patient registries worldwide is always an underestimation of the actual prevalence since a large proportion of patients, particularly in the low- and middle-income groups, have not been diagnosed or registered. The World Federation of Hemophilia (WFH) Global Survey records a big disparity on a worldwide basis in the number of cases diagnosed and receiving therapy (Srivastava *et al*., 2020). Classical incidence estimates are Hemophilia A 1 in 4000-5000 male births and Hemophilia B 1 in 25000 male births. National counts are given by country registries and surveillance programs (e.g., ATHN in the U.S.). In the U.S., the estimated number of males with hemophilia nationally is estimated to be about 33,000 (diagnosed counts/registry counts). Hemophilia A: pathogenic defects in the F8 gene (X-chromosomal) (Schieve, 2020). Hemophilia B: pathogenic mutations of F9. They are both classically X-linked recessive, and therefore, the affected males will normally manifest clinically, and heterozygous females are carriers. The characteristic ones are hemarthroses: repeated bleeding in joints (knees, ankles, elbows) leads to synovial inflammation and subsequent cartilage destruction and hemophilic arthropathy (pain, deformity, disability). Common (e.g., iliopsoas, thigh), can be large, lead to compartment syndrome, and may require emergency treatment. Long-term morbidity is attributed to chronic joint disease to a large extent (Pandey *et al.*, 2013). Recurrent bleeding of the joints leads to synovitis, destruction of cartilage, chronic pain, loss of mobility, and long-term disability; treatment is by prophylaxis, physiotherapy, synovectomy (radioisotope or surgery), and orthopedic surgeries (joint replacement). The combination of iron-mediated synovial inflammation and mechanical cartilage damage is known as pathophysiology. The long-term activated partial thromboplastin time (aPTT) and normal prothrombin time (PT) indicate an intrinsic defect of the pathway, and specific factor tests (FVIII, FIX) will be used to measure the activity (Gong *et al*., 2022). Other causes are ruled out by platelet count and functionality, von Willebrand testing, and mixing studies that identify the presence of inhibitors. Severity is determined by quantitative assays, and diagnosis is confirmed by genetic testing (F8/F9 sequencing, inversion testing of Inv22/Inv1). Carrier testing and prenatal counseling may be done and may be used in the risk stratification of inhibitors (Blair, 2019).

Substitute the factor that is missing to achieve levels that are right in the bleed site and the level of severity, as per the WFH guidelines. Early home-based treatment (where available) minimizes damage to the joints. Hemophilia treatment centers that are multidisciplinary enhance the outcomes. Factor IV concentrates (recombinant or plasma-derived) are used to increase factor activity to a hemostatic target to raise the bleed (Types of bleeds (WFH): joint, muscle, ICH, surgery. Specific dosing tables based on the type of bleed are required (Dang *et al.*, 2025). Adjunctive therapy: paralysis, analgesia, and tranexamic acid in case of bleeds of the mucosa. The routine of prophylactic replacement to keep the trough factor above a protective range (which is usually individualized) is the standard of care in severe hemophilia to prevent spontaneous bleeding and retain joints. Prophylaxis may be either continuous (primary: to prevent joint disease) or secondary (to slow the rate of bleeding once the first damage is done to the joints). Factors of extended-half-life (EHL) decrease the frequency of infusion and enhance adherence (Knobe & Berntorp, 2011).

Significance of the Study

The majority of nurses are not well-versed in caring for children with hemophilia and have limited experience with them. Knowing about their condition, children with hemophilia and their families quickly recognize caregivers' ignorance, which causes them discomfort. (Chaigneau *et al*., 2022; Ghonemy *et al.*, 2018). Learning about bleeding disorders can greatly enhance the care given and boost children's confidence in the care. For this reason, the current study will be conducted to improve the health status of children by assisting nurses in expanding their knowledge and modifying their practices related to hemophilic children through the development of an instructional module (Khair, 2013; Okide *et al.*, 2020). Although hemophilia is a serious hereditary bleeding disorder that may cause serious complications and may be fatal, no local information can be found on the knowledge of nurses and their attitudes and perceptions on hemophilia management in Basrah. The available research on the subject in Iraq and the region is mostly regarding clinical features, complications, or treatment difficulties in patients, but very few studies test the readiness of nurses, the primary care providers, to safely and effectively address hemophilia. According to our knowledge, this study is the first study that was conducted on pediatric nurses about hemophilia. Therefore, this study aims to identify nurses' perceptions and attitudes about hemophilia.

METHODOLOGY

Study Design and Study Sample

From December 12, 2023, to December 15, 2024, a descriptive cross-sectional study was conducted using a non-probability purposive sampling method among 100 pediatric nurses working with children diagnosed with hemophilia in hospitals in Basrah City. Male and female nurses, the morning and night shifts, and nurses who consent to engage in the study are among the inclusion criteria (Shalash *et al*., 2024; Mahmoud, 2023). Absent nurses and nurses who declined to take part in the study are examples of exclusion criteria. Following a thorough analysis of the body of existing literature and relevant research the questionnaire was adopted (Sipos *et al*., 2025; AL-Hadrawy *et al*., 2025).

Research Instrument

The reliability of this questionnaire is analyzed by using Alpha Cronbach's (0.84). The validity of this study was established by eleven experts. The study tool is divided into three sections: The first section discusses demography. The first part includes their age, gender, educational background, years of experience working in the pediatric ward, and completion of hemophilia training programs. The perception of nurses regarding the hemophilia scale is the subject of the second section. The third section is about nurses' attitudes. The scale was constructed by examining the hematological types of literature covered in the study and by evaluating other research on the related topics.

Statistical Analysis

The data were analyzed by using the Statistical Package of Social Sciences (SPSS) version 26. The descriptive analysis includes mean score, frequency, percentage, and standard deviation. The following dimensions were derived: the first was the definition of the condition; the second was symptoms and signs; the third was diagnosis; the fourth was complications; and the fifth was treatment and special items. Based on these

dimensions and the total number of objects (27). The scale's items, "I know 3," "I don't know 1," and "not sure 2," were all estimated. Each respondent was given 20 to 25 minutes to complete the questionnaire. The attitudes section contains eight items. The scoring system for knowledge according to the mean score is (1-1.66) poor, (1.67-2.33) moderate, and (2.34-3) good. The scoring system for attitudes is according to the mean score: (1-2) negative and (2.1-3) positive.

Ethical Consideration

This study obtained ethical clearance from the Research Ethical approval Committee at the College of Nursing, University of Basrah, Iraq with reference number 7/35/54 on 5th November, 2023.

RESULTS

The results of the current investigation were analyzed using frequency, percentage, standard deviation, and mean score. The sample replies to the research tool served as the basis for those findings.

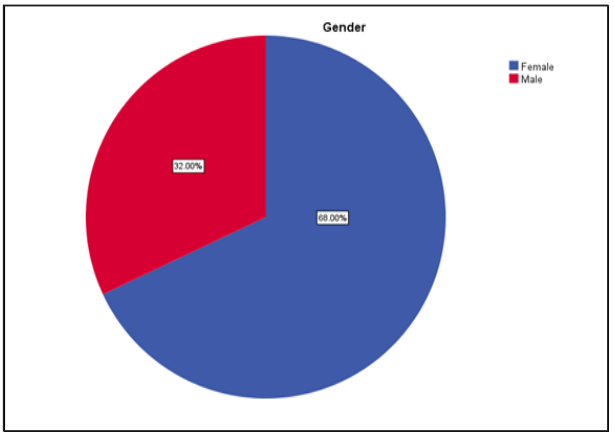

Figure 1: The Study Sample's Distribution by Sex (n=100)

According to this figure 1, the findings indicate that women make up 68% of the study group, whereas males make up the remaining 32%.

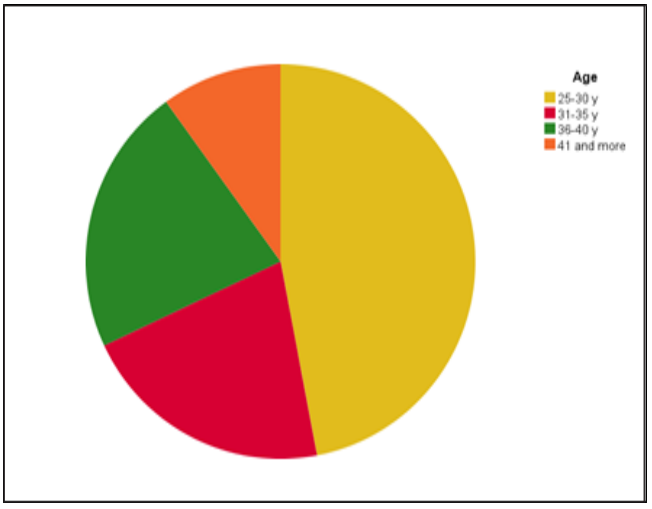

Figure 2: The Study Sample's Distribution by Age (n=100)

According to the data, the majority of the sample (47%) is between the ages of 25 and 30; 22% is between the ages of 36 and 40; 21% is between the ages of 31 and 35; and only 10% is older than 41(figure 2).

Table 1: The Sample Distribution Based on Academic Credentials, Years of Experience, and Number of Training Courses

Variables	Classification	Frequency	Percentage %
Academic Qualification	High school	37	37%
	Diploma	43	43%
	Bachelors in nursing	18	18%
	Master and above	2	2%
	Total	100	100%
Years of Experience	Less than 5 years	41	41%
	6-10 years	35	35%
	11-15 years	18	18%
	16 and above	6	6%
	Total	100	100%
Previous Training in Hemophilia	There is no training	52	52%
	Less than 5 courses	46	46%
	More than 5 courses	2	2.0%
	Total	100	100%

In terms of educational background, the majority of nurses (43%) hold a diploma, 37% have completed high school, 18% have earned a bachelor's degree in nursing, and only 2% have earned a master's. Just 6% of nurses have sixteen years or more of experience, compared to 41% who have less than five years, 35% who have six to ten years, and 18% who have eleven to fifteen years. 52% of nurses have no prior training, 46% have completed fewer than five courses, and 2% have completed more than five (Table 1).

Table 2: Nurses' Responses Regarding Hemophilia Definition

No.	Items of the nurse's knowledge	I know	Not sure	Don't know	Mean Score	%
		Freq.	Freq.	Freq.		
1	Hemophilia results from a congenital deficiency of blood-clotting proteins called factors.	91	3	6	2.85	95%
2	A genetic condition called hemophilia affects the body's capacity to form blood clots.	81	9	10	2.71	90%
3	Hemophilia A and B are the two most prevalent forms of hemophilia.	67	15	18	2.49	83%
4	Hemophilia is caused by (a) Bacteria (b) Virus.	31	24	45	1.86	62%
5	Hemophilia C: Bleeding is usually less severe than Hemophilia A or B.	36	26	38	1.98	66%
6	The number of clotting factors in humans is 13, in addition to platelets.	42	33	25	2.17	72.3%
7	This disease falls under the same category as color blindness in men.	25	35	40	1.85	61.6%

Freq. - Frequency

Table 2 demonstrates that the nurses possess a high percentage of appropriate perception regarding the definition, the type of hemophilia, the genetic role in hemophilia transmission, and the illness course (95%, 90%, and 83%, respectively).

Table 3: Nurses' Responses Regarding Signs and Symptoms of Hemophilia

No.	Items of the nurse's perception	I know	Not sure	I don't know	Mean Score	%
		Freq.	Freq.	Freq.		
1	Easy bruising and a higher chance of bleeding into the brain or joints are symptoms of hemophilia	86	9	5	2.81	93%
2	Pain, swelling, or tightness in joints.	82	9	9	2.73	91%
3	Hemophilia causes blood in the urine or stool.	68	17	15	2.53	84%
4	Nosebleeds without a known cause.	86	8	6	2.80	93%

Table 3 demonstrates that nurses possess a high percentage of appropriate perception regarding

hemophilia symptoms and indicators, as well as bleeding risk.

Table 4: Nurses' Responses Regarding Hemophilia's Diagnosis

No	Items of the Nurse's Perception	I know	Not sure	I don't know	Mean Score	%
		Freq.	Freq.	Freq.		
1	Laboratory tests are required to determine if a person has hemophilia.	97	1	2	2.95	98
2	Can a hemophilia carrier be diagnosed through a karyotype	40	28	32	2.08	69.3
3	Screening tests required for a hemophilia patient	53	27	20	2.33	77.6

Table 4 demonstrates high perception of the nurses regarding hemophilia diagnosis (98%), nurses' knowledge about laboratory tests (69.3%) regarding hemophilia carrier diagnosis, and (77.6%) knowledge of screening tests.

Table 5: Nurses' Responses toward Perception Regarding Complications of Hemophilia

No	Items of the nurse's perception	I know	Not sure	I don't know	Mean Score	%
		Freq.	Freq.	Freq.		
1	Hemophilia causes bleeding in the gastrointestinal tract.	71	16	13	2.58	86
2	Blood in urine.	72	15	13	2.59	86.3
3	Joint diseases and head trauma.	65	17	18	2.47	82
4	The development of factor VIII or IX inhibitory antibodies is the primary side effect of hemophilia treatment.	55	22	23	2.32	77.3
5	Hemophilia causes people to bleed longer after giving birth.	77	14	9	2.68	89
6	Bleeding in a joint can lead to permanent damage.	47	28	25	2.22	74
7	Prolonged headaches, convulsions, or a loss of consciousness can result from brain bleeding.	47	33	20	2.27	75.6

According to table 5, the nurses' perception of hemophilia complications is adequate, including the place of internal bleeding (86%) (75.6%), effective complications through bleeding complications (74%), (89%) main complication (82%), and (86.6%).

Table 6: Nurses' Responses toward Perception Regarding the Treatment of Hemophilia

No.	Items of the nurse's perception	I know	Not sure	I don't know	Mean Score	%
		Freq.	Freq.	Freq.		
1	People with hemophilia get blood work done.	64	24	12	2.52	84
2	Antibiotics are ineffective against hemophilia.	58	17	25	2.33	77.6
3	Gene therapy offers the potential for a cure for patients with hemophilia.	25	31	44	1.81	60
4	Effective treatment is based on the Prophylactic replacement of the missing factor.	49	26	25	2.24	74.6
5	Prophylactic administration of concentrated factor VIII or IX is the standard treatment for children with severe hemophilia.	49	26	25	2.24	74.6
6	Substituting doses of factor VIII or IX may stop the bleeding.	61	18	21	2.40	80

Table 6 demonstrates that nurses' perceptions of hemophilia therapy varied significantly. 74.6% of nurses have an acceptable perception regarding the effective treatment of hemophilia, and 84% regarding blood work with hemophilia patients. The nurses have a low rate of perception regarding gene therapy (60%) and (80%) regarding the substitution of doses of factor VIII or IX.

Table 7: Nurses' Attitudes toward Hemophilia

Pediatric Nurses' Attitudes						
Classes	**Freq.**	**%**	**Scale**	**Total**		
				Mean Score	**Sd**	**Assessment**
Negative	94	94.0	1 – 2	1.56	0.644	Negative
Positive	6	6.0	2.1 – 3			
Total	100.0	100.0				

F = Frequency, % = Percent, Sd = Standard Deviation

According to table 7, the majority of pediatric nurses (94%) have negative attitudes about hemophilia, while 6% have positive attitudes, with a mean score and standard deviation of 1.56 ± 0.644.

DISCUSSION

This study was conducted to identify the nurses' perceptions and attitudes about hemophilia in Al-Basrah Hospitals.

Nurses' Demographic Characteristics

Figure 1's findings demonstrate that women make up 68% of the study population, which is in line with several studies that mention that most of the study sample were females (Tiryag et al., 2022; Zainel et al., 2022). On the other hand, the result of the current study contradicts Salih (2014), who reported that about 78% were males, consistent with a study done by Berntorp et al. (2021). A study was conducted on pediatric nurses, and according to his findings, over half of the sample is male. The findings indicate that most of the sample (47%) were aged between 25–30 years, which is consistent with previous studies (Mohammad et al., 2024; Atiyah et al., 2023) that reported the majority of participants were within the same age range.

This result was inconsistent with a study done by Al-Said et al. (2008) that showed about 42% of the sample aged between 31 years and more. Regarding the level of education of the studied nurses, the current study revealed that 43% of the studied nurses had a diploma of general nursing technician, 37% had high school, 18% had bachelor's degrees, and only 2% had a master's.

This result was consistent with studies (Dawood et al., 2023; Jassim et al., 2023), which mentions that most of the participants have diplomas. In terms of years of experience, 41% of nurses have fewer than five years of experience, while 35% have six to ten years, 18% of their experience between 11-15 years, and only 6% of their experience is 16 and above.

This result was inconsistent with studies which mention that most of the participants have more than 10 years of experience (Jabbar *et al*., 2023; Mohammad *et al.*, 2023). Studies found that 75.5% of nurses did not obtain training courses or continuing education, which is consistent with the fact that 52% of nurses have no opportunity to participate in training courses or continuing education (Mohammad *et al*., 2024; Mohammad *et al*., 2023; Temtamy *et al*., 2010).

An analysis of 27 items was done to gauge the pediatric nurses' understanding of hemophilia in terms of definition, general information, signs and symptoms, diagnosis, complications, and treatment. Nurses' practice and knowledge in patient care are thought to be crucial tools in improving the quality of patient care provided by nurses.

Nurses' Perception Regarding Hemophilia Definition

According to the study, nurses have a high percentage of acceptable perception regarding the definition. Table 2 lists the type of hemophilia, its hereditary role in transmission, and its disease process (95%, 90%, and 83%, respectively). This indicates that nurses who work in pediatric wards and blood disease wards have a satisfactory perception that it is crucial for providing care to patients with hemophilia. This result aligns with a previous study that found that most nurses possess a high level of knowledge about hemophilia (El Sayed *et al.*, 2018).

Nurses' Perception Regarding the Signs and Symptoms of Hemophilia

The nurses' perception of hemophilia symptoms and indicators, as well as the risk of bleeding, is high and

acceptable. Table 3 shows that around 93% of the nurses in the study group were very perceptive about the possibility of bleeding into the brain or joints. This result aligns with another study by Ribeiro *et al*. (2023): most nurses have a very good perception about the signs and symptoms of hemophilia due to many causes, such as variations in nursing education, healthcare settings, or cultural factors.

Nurses' Perception Regarding the Hemophilia Diagnosis

The results in Table 4 demonstrate that the nurses have a high level of perception regarding hemophilia diagnosis (98%), nurses' perception about laboratory tests (69.3%) regarding hemophilia carrier diagnosis, and knowledge of screening tests (77.6%). This study agreed with another study stating that most of the nurses have a high perception about the diagnosis of hemophilia (Washeel & Ma'ala, 2017).

Nurses' Perception Regarding the Complications of Hemophilia

The nurses have an acceptable level of perception regarding complications of hemophilia, place of internal bleeding (86%) (75.6%), effective hemophilia through bleeding (74%), (89%) blood in urine, main complication (82%) (86.6%), joint diseases, and head trauma (82%). Bleeding in a joint can lead to permanent damage (74%). This study agreed with another study stating that most of the nurses have a high perception about the complications of hemophilia (Kalil *et al*., 2012).

Nurses' Perception Regarding the Treatment of Hemophilia

Regarding the incidence of hemophilia A and B, the nurses who work in the pediatric wards and blood disease wards have adequate perception, which is crucial for providing care to patients with hemophilia. The results of hemophilia treatment (74.6%) showed that the nurses have an acceptable level of perception to provide patients with high-quality care; nurses should have a high level of perception as well as practice. However, 60% of the nurses have an unacceptable degree of perception of gene therapy, and 80% of them know about factor VIII or factor IX substitution doses. This study agreed with another study stating that most of the nurses have a high perception about the treatment of hemophilia (Souza *et al*., 2016).

Nurses' Attitudes Regarding Hemophilia

According to the results of this study, most pediatric nurses have negative attitudes about hemophilia, compared to a small percentage who have positive attitudes about hemophilia. This study aligns with another study, which indicates that most nurses hold moderate attitudes towards hemophilia (Lobato *et al*., 1996).

Limitations

Bias in the selection of the study sample is a concern associated with the design and sampling of this investigation. This study's tiny sample size is still another drawback. Lastly, one restriction is the potential impact of confounding variables on the current study's findings. Possible bias in selecting the participants due to the absence of randomization, which therefore restricts generalization.

CONCLUSION

Throughout the study it is seen that the nurses have a high rate of acceptable levels of perception about the definition, type, and hereditary role in hemophilia transmission, diagnosis, and the treatment process of the disease. They also had a high rate of acceptable levels of perception about the type of bleeding in hemophilia, including internal and external bleeding, the location of internal bleeding, and the clotting process, with the role of factors VIII, IX, and the hemophilia effect through bleeding. The majority of the sample had unclear information about gene therapy, and the primary side effect of replacement therapy is antibodies. Future studies with large sample sizes and randomized clinical trial designs may be suggested. Also, the results of this study show that most nurses have negative attitudes toward hemophilia. Design competencies onhemophilia are mandatory on an annual basis. Includes care performance indicators of hemophilia in nursing assessment. Promote policies to follow up on professional development regarding rare diseases. Institute internal audits to track compliance with the hemophilia management guidelines. Mentoring staff with trained nurses who are hemophilia experts, models positive attitudes, and supports junior nurses in bleeding and factor administration. This eliminates fear and acclimates them to hemophilia treatment.

Although nurses possess the necessary knowledge, negative attitudes may undermine their efforts to deliver optimal patient care. Consequently, the continuing education program ought to extend beyond cognitive learning to incorporate attitude change techniques, including value-based courses, reflection practice, and simulation-based empathy training. Those practices can be used to assist nurses in becoming more positive and patient-centered in relation to children. The focus of nursing education must be on psychological and social aspects of the chronic conditions, such as hemophilia. The incorporation of chronic illness adaptation, stigma reduction, and family-centered care modules can contribute to the development of more humane and supportive nursing attitudes during the initial professional training period. The negative attitudes can be a result of less exposure or a lack of confidence to handle hemophilia. Organized clinical practice in the hematology units of children and interdisciplinary cooperation with hematologists can enhance the effectiveness and confidence of nurses in providing care.

Recommendation

Nursing administrators and educators ought to introduce training workshops and seminars aimed at enhancing the attitude of the nurses toward children with hemophilia. These initiatives are supposed to focus on empathy, compassion, and holistic care, as well as support clinical knowledge. Modules on bleeding disorders should be incorporated into the pediatric nursing programs in nursing schools. This ought to be done in conjunction with theoretical learning, as well as discussions in clinical cases, to enable the students to be informed on the medical and psychosocial aspects of hemophilia care. Hands-on training and supervised clinical rotations based in hematology and pediatric units may help boost confidence and decrease anxiety or misconceptions of nurses regarding the management of hemophilia patients. It is necessary to encourage collaboration among nurses, hematologists, psychologists, and social workers to guarantee that nurses are provided with continuous professional support and become more positive about complex chronic conditions.

Conflict of Interest

The authors of this study disclose that they have no competing interests.

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