

Assessment Nurses' Practices about Hemophilia for Children attending Heredity Blood Disease Center in Al-Nasiriya City

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Abstract

Background: Hemophilia is a coagulation disorder arising from a genetic defect of the X chromosome; the defect can either be inherited or result from spontaneous gene mutation. In each type of hemophilia (A, B, and C), a critical coagulation protein is missing, causing individuals to bleed for long periods of time before clotting occurs.

Objectives: 1-Assess the pediatric nurses' practice toward hemophilia in children.
2-Find out the factors that affecting the practice of the sample.

Subjects and methods A descriptive study was conducted on pediatric nurses who were dealing with the children who have hemophilia, carried out in Nasiriya city / Heredity Blood Disease Center starting from May /2016 to April/2017.

Results: Based on the results the researcher found that 41.2% of the study sample between (30-39) years of age, 64.7% females, 47.1% had diploma in nursing, 41.2% had more than 10 years of services, 52.9% their monthly income were Sufficient somewhat, 64.7% live in urban area, 82.4% of them not has cars, 41.2% of them possession houses and 70.6% were unmarried. nurses has a low level of practices when responses to practice questions (46 items has low level of assessment according to the mean of score, 17 items has moderate level of assessment and 9 items has high level of assessment from total items 72). According to the total score of nurses practice, shows (71.6%) of nurses had poor level of practices. Statistical significant association between nurses' educational level and their knowledge concerning hemophilic child. there is No statistical significant association between nurses' (other demographic data) and their knowledge .

Conclusion: The study indicated the nurses have an acceptable level of practice with regard to some items of the practice of nurses in bleeding as wounds, bruising, swelling of the neck and soft tissue. The study showed an unacceptable level of practice with regard to hemorrhage such as muscle bleeding, larynx, pharynx, Digestive system, kidney bleeding, hematuria, bleeding of the mouth and gums when extraction of teeth, as well as the use of certain medicines stopping bleeding. The result of the study found that most of the sample have uncertain information regarding the effect of hemophilia through bleeding on the life style of the carriers and the main complication to replacement therapy is the Cryo, Desmopressin respectively.

Recommendations: Special training courses should be designed and constructed for nurses in relation to hemophilia. Nurse in hematological units must take their opportunity for continuing education. Increasing the number of professional nurses assigned to work in the pediatric and blood disease wards. Motivate the nurses to improve their knowledge and practices which help improve their performance with the patients. Providing scientific booklet, publication and journal about hemophilia in nursing educational program.

Keywords: Hemophilia, Knowledge , Children

I. Introduction

Hemophilia refers to a group of bleeding disorders in which there is a deficiency in one of the factors necessary for coagulation of the blood such as factor VIII , IX or XI as pointed out by Thompson (2007) and Nelson (2009). But the most common type of hemophilia is factor VIII deficiency or hemophilia A as reported by Dietrich (2009).

Thompson (2007) stated that when a person with hemophilia is injured he does not bleed harder or faster than a normal person but will have prolonged bleeding because he cannot make a firm clot. The disorder in about one third of the newly diagnosed cases is without family history suggesting that it arises as new mutation (Kuter and Rosenbery., 2009)

World Health organization (WHO) and World Federation Hemophilia (WFH) (2007) reported that once the diagnosis is established the patient and his family should be given adequate information about the disorder. The pressure of a large number of patients often makes it very difficult for physicians to spend enough time for this.

Jones (2005) indicates that an informed patient and family can cope better with the hazards of living with severe hemophilia specially when factor replacement therapy is scarce or very rare.

The knowledge of the risks of bleeding and how to minimize them will allow the family to let the child with hemophilia grow as normally as possible without being overprotected. Besides, that understanding the genetics of the disease will encourage parents to seek counseling and antenatal diagnosis when facilities become available (Dietrich.,2006) .

The pediatric nurses can be best advocated appropriately and knowledgeably for mothers and their hemophilic children in the rapidly changing health care system, trained nurses can provide adequate answer to questions raised by parents and care providers concerning management of hemophilic child (Butter et al., 2010) . Dietrich (2006) stated that the bleeding is the most frequent cause of death in children with congenital coagulation disorder and intracranial hemorrhage (ICH) as accounts for the majority of mortality in all age groups. Immediate diagnosis and rapid medical management are mandatory.

It is clear from what has been mentioned above that nurses greatly need a health care program to help them manage their hemophilic children to reduce the complications and bleeding episodes as much as possible so that their children can live near normal life.

Persons with hemophilia either are deficient in or are missing clotting factor, which places them at high risk of internal, muscular and joint bleeding as well as prolonged bleeding following trauma or surgery. Repeated hemorrhages, especially in persons with severe hemophilia (factor activity less than 1% of the normal level), can lead to the development of chronic arthropathy. Overtime, this condition can cause joint pain, reduction in joint range of motion, crippling musculoskeletal deformity, and disability. Treatment consists of injecting intravenously the missing clotting factor. The complexity of treatment and the psychosocial aspects of hemophilia make care in a general hematology department or practice less desirable (Hoots, 2003). In hemophilia while all acute bleeding episodes are considered serious and emergent, there are five major sites of serious bleeding in hemophilia that threaten life, limb, or function. They are intracranial or spinal cord bleeds, throat bleeds, intra-abdominal bleeds, limb compartment syndromes (e.g. thigh, calf, forearm, upper arm) and ocular bleeds. All of these areas are characterized by bleeding into an enclosed space, compression of vital tissue, and potential loss of life, limb, or function. Since bleeding episodes also cause anxiety and fear in patients and families, the nursing interventions of communication, reassurance, education, and support will help them through these crises (Leticia, et al. 2012). In view of the increasing number of patients with hemophilia in the province of Dhi-Qar raise the necessity to open a specialized center of heredity blood disease after moving the unit from al-Husain teaching hospital , Mohamed al-Mosawi and obtaining the approval of the establishing the center specialized in blood disease . the center completed in years 2014 and in year 2015 the center started hemophiliacs children to check for , the number of patient 95 recorded case in 2015 raise to 126 and in 2016 the number become 187 as recorded case. the center consider the first pilot center in Iraq to fact that incorporates all section available in global center specializing in the treatment of blood disease(hemophilia). There for it's important to study and training nurse to care for those patient according to a standard and implementing strategies to increase access to these services are critical to improve the outcome and reduction of the long term disabilities and complication

II. Objectives Of The Study

- 1-Assess the pediatric nurses' practice toward hemophilia in children.
- 2-Find out the factors that affecting the knowledge of the sample.

III. Subjects And Methods

Non –probability (purposive) sample of (17) nurses who deal with children from the pediatric hospitals and wards in Kirkuk city which they are dealing with hemophilic patients. For data collection The instrument was designed and constructed by the investigators to measure the variable underlying the present study, after review of literature. Data were obtained by the investigator who interviewed the nurses and filling the structural questionnaire format for the demographic items, knowledge items. The questionnaire consists of two parts: Part I This part of the questionnaire included demographic data related to the respondents characteristics such as age ,gender, level of education, years of experience in general wards and experience in oncology wards and whether they have continuing education or not. Part II This part of the consists of (12) items includes the structural items concerning practices of the sample toward hemophilia. This includes the general information, definition, sign and symptoms and the treatment, which is constructed from review of related literatures and previous studies. Interviewing techniques are used. In order to measure the previous items accurately and statistically, likert scale are used and scores to find out the practice of the pediatric nurse were used to identify the level of practices which it's determined by mean of score as a following: level of assessment (1-1.33) = low = L, (1.34-1.67) = moderate = M, (1.68-2.00) = high = H

The data of present study were analyzed through the application of two statistical approaches, which may assist for the determination of the study results. These approaches include Frequencies, Percentage, Mean of scores and one way ANOVA the significance different between the variables (L.K) (Polit., & Hungler.,2009)

Table (1) Distribution of the Study Sample by their General Information

| Variables | | No. | % |
|--------------------|--------------------------|-----|-------|
| Ages (years) | 20-29 Year | 6 | 35.3 |
| | 30-39 Year | 7 | 41.2 |
| | 40-49 Year | 4 | 23.5 |
| | 50-59 Year | - | - |
| | Total | 17 | 100.0 |
| Gender | Male | 6 | 35.3 |
| | Female | 11 | 64.7 |
| | Total | 17 | 100.0 |
| level of education | Nursing Course | - | - |
| | Secondary Nursing School | 6 | 35.3 |
| | Nursing Institute | 8 | 47.1 |
| | Bachelor of Nursing | 3 | 17.6 |
| | Total | 17 | 100.0 |
| Years of service | Lees than 2Years | 4 | 23.5 |
| | 2-5 Years | 4 | 23.5 |
| | 5-10 Years | 2 | 11.8 |
| | More than 10 years | 7 | 41.2 |
| | Total | 17 | 100.0 |
| Monthly income | Sufficient | 2 | 11.8 |
| | Sufficient somewhat | 9 | 52.9 |
| | Insufficient | 6 | 35.3 |
| | Total | 17 | 100.0 |
| Residential area | Rural | 6 | 35.3 |
| | Urban | 11 | 64.7 |
| | Total | 17 | 100.0 |
| Transport | Owens | 3 | 17.6 |
| | Non owns | 14 | 82.4 |
| | Total | 17 | 100.0 |
| housing | possession | 7 | 41.2 |
| | common property | 6 | 35.3 |
| | leasehold | 3 | 17.6 |
| | other | 1 | 5.9 |
| | Total | 17 | 100.0 |
| Marital status | Married | 2 | 11.8 |
| | unmarried | 12 | 70.6 |
| | Single | 3 | 17.6 |
| | Total | 17 | 100.0 |

No.= number, %= percentage

This table shows that 41.2% of the study sample between (30-39) years of age, 64.7% females, 47.1% had diploma in nursing, 41.2% had more than 10 years of services, 52.9% their monthly income were Sufficient somewhat, 64.7% live in urban area, 82.4% of them not has cars, 41.2% of them possession houses and 70.6% were unmarried.

Table (2) Distribution of nurses responses to the items of practices toward hemophilic

| No. | Questions | True answer | | False answer | | M. S | Ass. |
|---|--|-------------|------|--------------|------|-----------|----------|
| | | f | % | f | % | | |
| 1. When hemophilic child suffer from Epistaxis | | | | | | | |
| 1-1 | Tilt the head forward until blood comes out of the nostrils and not to the bottom of the back of the throat. | 13 | 76.5 | 4 | 23.5 | 1.76 | H |
| 1-2 | Pressure on the child nose with the finger thumb and forefinger for 10 minutes | 6 | 35.3 | 11 | 64.7 | 1.35 | M |
| 1-3 | Demand from the child opened his mouth to breathe | 3 | 17.6 | 14 | 82.4 | 1.17 6 | L |
| 1-4 | Asks the patient blowing gently from the nose to bring out small clots | 3 | 17.6 | 14 | 82.4 | 1.17 6 | L |
| 1-5 | Consistent compression using a piece of gauze moistened with water iced soft nose of 10-20 minutes | 2 | 11.8 | 15 | 88.2 | 1.12 | L |
| 1-6 | Give antihistamines or drugs congestion, especially in cases of allergy-related bleeding or upper respiratory infections or climatic changes | 2 | 11.8 | 15 | 88.2 | 1.12 | L |
| 1-7 | Assess the status of anemia and treated appropriately | 3 | 17.6 | 14 | 82.4 | 1.17 | L |

| | | | | | | | |
|---|--|----|------|----|------|----------------|---|
| 1-8 | Put Tranexamic acid topically with gauze immersed | 3 | 17.6 | 14 | 82.4 | 6 1.17 6 | L |
| 1-9 | ENT consult a doctor if the bleeding continues | 10 | 58.8 | 7 | 41.2 | 1.59 | M |
| 1-10 | put of gels such as Vaseline or drops of saline solution on the mucous membrane of the nose to maintain the humidity or spray saline solution | 2 | 11.8 | 15 | 88.2 | 1.12 | L |
| 2. Bleeding joints (hemoarthroses) | | | | | | | |
| 2-1 | Reduce bleeding joint movement | 4 | 23.5 | 13 | 76.5 | 1.23 | L |
| 2-2 | Put cold compresses on the joints bleeding | 1 | 5.9 | 16 | 94.1 | 1.06 | L |
| 2-3 | Raising bleeding joints to the top | 3 | 17.6 | 14 | 82.4 | 1.17 | L |
| 2-4 | joint put flexion condition being the most comfortable situation | 2 | 11.8 | 15 | 88.2 | 1.12 | L |
| 2-5 | Give an appropriate dose of the concentration of clotting factor | - | - | 17 | 100 | 1 | L |
| 2-6 | Cold bags (snow) around the joint 15-20 minutes every 4-6 hours | 4 | 23.5 | 13 | 76.5 | 1.23 5 | L |
| 2-7 | stop the movement of the joint with a splint until the pain disappears | - | - | 17 | 100 | 1 | L |
| 2-8 | Patient injected again in the case of non-stop bleeding | 3 | 17.6 | 14 | 82.4 | 1.17 6 | L |
| 2-9 | Encourage the patient to change the joint rest position and put it to the status of function | 3 | 17.6 | 14 | 82.4 | 1.17 6 | L |
| 2-10 | Encouraged constantly active exercises and training motivational after the bleeding stopped and his recovery | 2 | 11.8 | 15 | 88.2 | 1.12 | L |
| 3. In cases of muscle hemorrhage | | | | | | | |
| 3-1 | Raise the level of coagulation factor in the patient when see the signs and symptoms, or if the injury directly | 5 | 29.4 | 12 | 70.6 | 1.29 | L |
| 3-2 | Comfort and raise the injured part | 6 | 35.3 | 11 | 64.7 | 1.35 | M |
| 3-3 | Put splints muscle at rest position, and adjust to a functional position, which does not cause pain | 5 | 29.4 | 12 | 70.6 | 1.29 | L |
| 3-4 | Snow / cold bag placed around the muscle 15-20 minutes every 4-6 hours | 4 | 23.5 | 13 | 76.5 | 1.23 5 | L |
| 3-5 | Not to put ice directly on the skin | 4 | 23.5 | 13 | 76.5 | 1.23 | L |
| 3-6 | Repeat dose of clotting factor for a period of two to three days | 2 | 11.8 | 15 | 88.2 | 1.12 | L |
| 3-7 | Continuous monitoring of the patient damage blood vessels and nerves | 3 | 17.6 | 14 | 82.4 | 1.17 | L |
| 3-8 | Physical Therapy after the pain gradually ceased to restore full-length and muscle strength and function | 2 | 11.8 | 15 | 88.2 | 1.12 | L |
| 3-9 | Continuous Rating by the physiotherapist for fear of re-bleeding | 6 | 35.3 | 11 | 64.7 | 1.35 | M |
| 4. Throat and pharynx Hemorrhage | | | | | | | |
| 4-1 | Considered a medical emergency that could lead to a blockage of the respiratory tract | 4 | 23.5 | 13 | 76.5 | 1.23 | L |
| 4-2 | Give clotting factor immediately after the injury or the onset of symptoms | 6 | 35.3 | 11 | 64.7 | 1.35 | M |
| 4-3 | Considered essential Preview clinically by a specialist | 13 | 76.5 | 4 | 23.5 | 1.76 | H |
| 5. Gastrointestinal Hemorrhage | | | | | | | |
| 5-1 | Give clotting factor immediately and maintain the level of factor | 7 | 41.2 | 10 | 58.8 | 1.4 | M |
| 5-2 | Gastrointestinal bleeding may appear bloody vomiting or Black defecation clotting factor considerate and compensation in case of severe bleeding and monitor hemoglobin levels regularly | 8 | 47.1 | 9 | 52.9 | 1.47 | M |
| 5-3 | Treat Anemia and shock as needed | 10 | 58.8 | 7 | 41.2 | 1.59 | M |
| 5-4 | use of Tranexamic acid as adjunctive therapy | 4 | 23.5 | 13 | 76.5 | 1.23 | L |
| 6. Renal bleeding and hematuria | | | | | | | |
| 6-1 | Complete bed rest for 24 hours | 6 | 35.3 | 11 | 64.7 | 1.35 | M |
| 6-2 | Increased fluid and intense moisturizing body (3 liters / m2) for 48 hours | 3 | 17.6 | 14 | 82.4 | 1.17 | L |
| 6-3 | Raising clotting factor level for the patient | 4 | 23.5 | 13 | 76.5 | 1.23 | L |
| 6-4 | Consult with the near heredity blood disease center for treatment | 6 | 35.3 | 11 | 64.7 | 1.35 | M |
| 6-5 | Monitor the signs and symptoms of stroke and blockage of the urinary tract if there is pain, bloody urination | 4 | 23.5 | 13 | 76.5 | 1.23 | L |
| 6-6 | Non-use factors antifibrinolytics | 2 | 11.8 | 15 | 88.2 | 1.12 | L |
| 6-7 | View the patient by a urologist if he continues to urinate blood | 14 | 82.3 | 3 | 17.7 | 1.82 | H |
| 7. Bleeding in the mouth of patients with hemophilia when extractions and gum bleeding | | | | | | | |
| 7-1 | Direct pressure on the affected area using a piece of | 13 | 76.5 | 4 | 23.5 | 1.76 | H |

| | | | | | | | |
|---|---|---------------------|----------|----------------------|----------|----------------------------|----------|
| | gauze and keeping them wet for 15 minutes | | | | | | |
| 7-2 | Stitching the wound to close and give (Cryo) | 9 | 52.9 | 8 | 47.1 | 1.53 | M |
| 7-3 | Give topical antibiotics, particularly the case of bleeding gums due to poor oral hygiene | 3 | 17.6 | 14 | 82.4 | 1.17 | L |
| 7-4 | The use of EACA or Tranexamic acid as a mouthwash | 17 | 100 | - | - | 2 | H |
| 7-5 | Use a dose of paracetamol / acetaminophen usual for pain control | 2 | 11.8 | 15 | 88.2 | 1.12 | L |
| 7-6 | Advised not swallow blood | - | - | 17 | 100 | 1 | L |
| 7-7 | Advised don't use mouthwash until bleeding stopping | 3 | 17.6 | 14 | 82.4 | 1.17 6 | L |
| 7-8 | Eating soft diet | 2 | 11.8 | 15 | 88.2 | 1.12 | L |
| 7-9 | Assess and treat anemia | 4 | 23.5 | 13 | 76.5 | 1.23 | L |
| 7-10 | Consult a dentist or maxillofacial surgery early to determine the fate of bleeding | 6 | 35.3 | 11 | 64.7 | 1.35 | M |
| 8. Swelling of the neck, soft tissue bleeding, bruising bleeding lumbar muscle treated by following these instructions | | | | | | | |
| 8-1 | Comfort & Rest | 17 | 100 | - | - | 2 | H |
| 8-2 | Ice (snow) | 3 | 17.6 | 14 | 82.4 | 1.17 | L |
| 8-3 | Follow up with hemophilia treatment center | 17 | 100 | - | - | 2 | H |
| 9. Care of Bleeding Wounds | | | | | | | |
| 9-1 | Tighten the bleeding area clean and dry dressing | 4 | 23.5 | 13 | 76.5 | 1.23 | L |
| 9-2 | Advised not to raise dressing when put a second bandage | 8 | 47.1 | 9 | 52.9 | 1.47 | M |
| 9-3 | Child transported to the hospital in case of bleeding continue | 17 | 100 | - | - | 2 | H |
| 10. Care of Bleeding Joints | | | | | | | |
| 10-1 | Reduce movement of bleeding joint | 6 | 35.3 | 11 | 64.7 | 1.35 | M |
| 10-2 | Put cold compresses on the joint | 7 | 41.2 | 10 | 58.8 | 1.4 | M |
| 10-3 | Raise the bleeding joint above | 7 | 41.2 | 10 | 58.8 | 1.4 | M |
| 11. Bruises Care | | | | | | | |
| 11-1 | Put cold compresses on the bleeding place | 9 | 52.9 | 8 | 47.1 | 1.53 | M |
| 11-2 | Raise bleeding area above, if possible | 4 | 23.5 | 13 | 76.5 | 1.23 | L |
| 11-3 | Pressure on the bleeding area | 17 | 100 | - | - | 2 | H |
| 12. Not to use drugs to stop bleeding (Tranexamic acid) in the following cases | | | | | | | |
| 12-1 | Color blindness | 2 | 11.8 | 15 | 88.2 | 1.12 | L |
| 12-2 | Problems in the blood vessels in the eye | 1 | 5.9 | 16 | 94.1 | 1.06 | L |
| 12-3 | Suffering from shock and stroke | - | - | 17 | 100 | 1 | L |
| 12-4 | Suffering from brain hemorrhage | 1 | 5.9 | 16 | 94.1 | 1.06 | L |
| 12-5 | Recent blood clot | - | - | 17 | 100 | 1 | L |
| 12-6 | Kidney disease and bloody urination | 1 | 5.9 | 16 | 94.1 | 1.06 | L |
| 12-7 | Suffer from endometrorrhagia | 1 | 5.9 | 16 | 94.1 | 1.06 | L |
| Total score of nurses practice level | | Poor (72-96) | | Good (97-120) | | Very good (121-144) | |
| | | f | % | f | % | f | % |
| | | 12 | 71.6 | 5 | 29.4 | - | - |

f= frequency, %= percentage, M, S= mean of score, Ass.= assessment, level of assessment: (1-1.33) = low = L, (1.34-1.67) = moderate = M, (1.68-2.00) = high = H

This table shows the nurses respondent to the items of practices toward hemophilic child, nurses has a low level of practices when responses to practice questions (46 items has low level of assessment according to the mean of score, 17 items has moderate level of assessment and 9 items has high level of assessment from total items 72). According to the total score of nurses practice, this table shows (71.6%) of nurses had poor level of practices.

Table (3): Distribution and Association of Nurses' Knowledge with Their Level of Education

| Variables | Nurses' Knowledge | | | |
|---------------------|-------------------|---------------------------------|-----------------------------------|---------------------------------|
| | No. | Pre-test Mean ± S.D. | Post 1 Mean ± S.D. | Post 2 Mean ± S.D. |
| Secondary S Nsg | 6 | 1.142±.032 | 1.67±0.083 | 1.88±0.047 |
| nursing Institute | 8 | 1.287±.0717 | 1.76±0.104 | 1.89±0.038 |
| Bachelor of Nursing | 3 | 1.63±.0416 | 1.89±0.017 | 1.92±0.035 |
| Total | 17 | 1.297±.182 | 1.75±0.114 | 1.89±0.041 |
| | | F =76.79 d.f. = 2 P =0.00 | F = 6.045 d.f.= 2 P = 0.013 | F = 1.088 d.f.=2 P =0.364 |

$\bar{x} \pm S.D.$ = Arithmetic Mean (\bar{x}) and Std. Dev. (S.D.), No. = Number of frequencies, F = Fisher test, d.f. = degree of freedom, P = probability value.

This table shows that there is statistical significant association between nurses' educational level and their knowledge concerning hemophilic child at (pre test and post test 2)of educational program follow up(p value < 0.05) when analyzed by ANOVA. there is No statistical significant association between nurses' (other demographic data) and their knowledge concerning hemophilic child at pre test

IV. Discussion Of The Results

Practice is to constant change adequate knowledge and practice has been recognized as a necessary ingredient in the nurses' ability to lead normal and productive life to their patients (Al- Botany,2006). She found out that nurse's knowledge and practice in the patients care is considered one of the essential tools in raising the standard of patient care giving by nurse. The nurses must have sound understanding of scientific principles underlying each step of any procedure in order to prevent possible risk factor, so they become able to apply their knowledge into effective care (Al-Barody,2000).

The nurses shows that (42%) of them are in age (30 and more) years old, more than the half of the study sample (64.7%) are females and this are supported by study done by (Al-sa'idi, 2006) which have a study on pediatric nurses and in his result he mentioned that more than the half of the sample are females, around (47.1%) of them are graduated from nursing institute while just (17.6%) are graduated from nursing college, Around (41.2%) of them have more than 10 years experiences of job as a nurse, while (23.5%) of them have less than(2) years experience in blood diseases wards and this is have agreement with the result of (Alsa'idi, 2006) study in which he indicated that (43.3%) of the nurses have (1-5) years of experiences in pediatric units this come with the result of study carried by (Najeeb & Al- Daragy,2004)in the heredity blood disease center. The analysis was conducted on (12) items to assess the nurses practice toward hemophilia regarding to nurses have an acceptable level of practice with regard to some items of the practice of nurses in bleeding as wounds, bruising, swelling of the neck and soft tissue. The study showed an unacceptable level of practice with regard to hemorrhage such as muscle bleeding, larynx, pharynx, Digestive system, kidney bleeding, hematuria, bleeding of the mouth and gums when extraction of teeth, as well as the use of certain medicines stopping bleeding. The result of the study found that most of the sample have uncertain information regarding the effect of hemophilia through bleeding on the life style of the carriers and the main complication to replacement therapy is the Cryo, Desmopressin respectively. nurses has a low level of practices when responses to practice questions (46 items has low level of assessment according to the mean of score, 17 items has moderate level of assessment and 9 items has high level of assessment from total items 72). According to the total score of nurses practice, this table shows (71.6%) of nurses had poor level of practices. statistical significant association between nurses' educational level and their knowledge and practice concerning hemophilic child . As a general nursing school ,secondary nursing school, nursing institute and college of nursing have a course for their students concerning hemophilia, but when the investigator saw the score of the samples knowledge after checking their information by the structural instrument, it was found that there were inadequate score in nursing knowledge and this agreed with the recommendations of the first nursing conference which was held in Baghdad 1985 the participant confirmed that the nurses have less knowledge and practice in giving care to their patients. Therefore, there must be more emphasis regarding information in giving care to patients with hemophilia in the study courses of the nursing students, to perform nursing effectively and satisfactory for themselves and for their patients then there must be more emphasis from the hospital policy for the nurses working in blood diseases wards having an educational program.

V. Conclusion:

The study indicated that the nurses have high rates of acceptable level in knowledge related to definition, type of hemophilia and the hereditary role in the transmission of hemophilia and treatment process of the disease. The finding showed that the nurses have a high rate of unacceptable level in the knowledge regarding the type of bleeding in hemophilia is internal and external, place of internal bleeding, the incidence of hemophilia in the families don't have history of the disease, other names of hemophilia, the samples information about genetic roles for male and females to be incidence hemophilia and the clotting process with the role of factors .The results found that most of the sample has uncertain information regarding, the effect of hemophilia through bleeding on the life style and the main complication to replacement therapy is the antibodies. there is statistical significant association between nurses' educational level and their knowledge concerning hemophilic child

Conclusion:

The study indicated the nurses have an acceptable level of practice with regard to some items of the practice of nurses in bleeding as wounds, bruising, swelling of the neck and soft tissue. The study showed an unacceptable level of practice with regard to hemorrhage such as muscle bleeding, larynx, pharynx, Digestive system, kidney bleeding, hematuria, bleeding of the mouth and gums when extraction of teeth, as well as the use of certain medicines stopping bleeding. The result of the study found that most of the sample have uncertain information regarding the effect of hemophilia through bleeding on the life style of the carriers and the main complication to replacement therapy is the Cryo, Desmopressin respectively. There is statistical significant association between nurses' educational level and their knowledge concerning hemophilic child .

VI. Recommendations

Based on the result of the findings of the study, the investigator recommends the following:

1. Special training courses should be designed and constructed for nurses in relation to hemophilia and its complications may be helpful to reinforce their knowledge and practices and promote their experience.
2. Nurse in hematological units must take their opportunity for continuing education to maintain knowledge and practices as well as updating in blood disease nursing.
3. Increasing the number of professional nurses assigned to work in the pediatric and blood disease wards.
4. Providing scientific booklet, publication and journal about hemophilia, is highly recommended.
5. Elevate the scientific level of the nurses regarding the inherited and non inherited blood disorders in the educational program.

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