

Nurses' Knowledge Regarding Discharge Plan for Children with Congenital Heart Diseases

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Abstract

Discharge planning involves assessing a patient's condition and developing an actionable strategy to help them transition from one setting to another. The purpose of a discharge plan is to document the final objectives of the care plan, which are to increase the individual's abilities for personal care and independence. Most often, nurses' lack of knowledge prevents them from completing discharge planning for their patients.

Objective: The goal of the study is to assess the level of nurses' knowledge regarding discharge plan for children with congenital heart diseases.

Methodology: A quantitative descriptive design, Cross sectional analytical study was conducted among (50) nurses' who work at the open heart department at specialized Ibn Al-Nafees Hospital for Cardiovascular Medicine and Surgery in AL- Rusafa and from Ibn Al-Bitar Specialized Hospital for Cardiac Surgery in AL- Karkh in Baghdad city, Iraq starting from 7th September of 2022 to 14th May of 2023. The study instrument was consisted of (15) items and the data were collected through self-administration questioners. Data were analyzed by using (SPSS Version 26).

Results: The study showed that the majority of the participants in the study were females aged between 20- less than 25 years of Diploma degree in nursing. Most of them were unmarried and had years of experience in hospital and in open heart department less than five years. The study displayed that nurses' knowledge regarding discharge plan for sick children were knowledge deficit.

Conclusion: The researchers concluded that there were deficits in numerous domains of the nurses' knowledge regarding discharge plan for children with congenital heart Diseases.

Recommendation: The researchers recommend that there is a need to encourage nursing staff to participate in the training courses and conferences special of the discharge plan as well as lectures to update the information and develop the skills of nurses. Inclusion of a scientific guideline for the discharge plan by the Ministry of Health in health institutions and application by professional nursing staff in hospitals.

Keywords: Knowledge, Nurses, Discharge Plan, Children with Congenital Heart Diseases.

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Introduction

Congenital heart disease (CHD) is an anatomical anomaly of the heart or significant vessels that is present at birth. Numerous cardiac diseases exist, and most of them either prevent blood from flowing normally through the heart or the veins close to it or make a specific pattern of blood flow via the heart that is otherwise irregular (1). The severity of these anomalies can range from minor issues to extremely severe defects, such as a total absence of one or more chambers or valves (2). A majority frequent giving birth problems are congenital heart conditions. However, CHDs are the most prevalent defect of birth - related disease among infants (3). The main reasons of pediatric illnesses and deaths, particularly in developing countries, as well as second highest cause of death among infants and toddlers (4). Twenty-five percent of infants born with a congenital heart defect CHD have a serious CHD. When a baby is born with a severe congenital heart defect, they usually require operation or another operations during the little an infant's first year (5). Surgery for malformations of the heart repairs damage to the heart that is present at birth. When the defect presents a risk to the future wellbeing or good health, surgery may be recommended (4). Heart surgeons can repair congenital heart defects surgically or using catheters. If the patient has a significant heart problem that cannot be fixed with a catheter, open heart operation is performed. Depending on how serious the congenital heart disease, one or more cardiac operations are typically necessary. The heart surgeons in open-heart surgery may be use stitches of a patch to close holes in the heart, repair or replace heart valves, widen arteries or openings to heart valves and repair complex defects, such as issues with the location of blood vessels near the heart or how they are formed (6).

Planning for discharge, as a supplement to the nursing service, can assist in bringing home health care that is centered on the patient. Much research on pediatric nursing discharge planning have demonstrated that it can increase a mother's competence in caring for her children, increase her confidence and knowledge about caring before discharge, and decrease the children's readmission rate (7). The goal of the discharge plan is to shorten hospital stays or re-admissions after discharge and enhance service coordination in the post-discharge period (8). Nursing is responsible for educating the patient and family, which is one of the most crucial parts of getting a patient ready for discharge. This should be done throughout the hospital stay, not just right before discharge. Patients must be informed about medications, including painkillers, activity level forecasts, dietary recommendations, Sternal precautions, care for incisions, and infection signs and symptoms on daily basis. As much as they are able, patients should participate in their care. Families should be included whenever feasible, especially those who will be caring for patients at home (9).

Objectives of The Study:

1. To determine some socio-demographic characteristics of the study sample.
2. To assess Nurses' knowledge regarding discharge plan for children with congenital heart diseases.

Materials And Methods

A quantitative descriptive cross-sectional study used assessment approach with questionnaire items was conducted to explore nurses' knowledge in regard to open heart department. It was done in order to accomplish the initially stated goals. The study started from 7th September of 2022 to 14th May of 2023.

Setting of The Study:

The study was conducted at specialized Ibn Al-Nafees Hospital for Cardiovascular Medicine and Surgery in Al-Rusafa and from Ibn Al-Bitar Specialized Hospital for

Cardiac Surgery in Al-Karkh in Baghdad city, in Iraq. These centers were the designated site for data collection, which facilitated the data collection process.

The Sample of The Study:

A non-probability, convenience sample size of (50) nurses who work in the department of open hearts Children's. The sample was chosen according to certain inclusions and exclusions criteria: Included those nurses who Nurses working in the open-heart department and nurses from different educational levels. Excluding nurses who refuse to participate in this research.

Instrument of The Study:

To assess the level of nurses' knowledge regarding discharge plan for children with congenital heart diseases, A questionnaire that could be administered independently was created for assessment the knowledge. It was created after reviewing relevant literature and earlier research. The questionnaire was applied and utilized mean as a method for information collection , it was composed of two parts:

Part I: Sociodemographic characteristics sheet which includes age, gender, level of education, marital status, number of years of service in pediatric cardiac wards.

Part II: Nurses' knowledge regarding discharge plan which includes (15) questions about general information about discharge plan.

Validity of The Instrument:

The early designed instrument's content validity was identified through a experts' panel to investigate the content of the instrument and to determine the questionnaire's appropriateness, relevance, and clarity in order to meet the study's goal. A questionnaire was designed and presented to (13) experts in medical fields. They are (6) faculty members from College of Nursing / University of Baghdad, (1) faculty members from College of Nursing /University of Babylon, (2) faculty member from College of Nursing /University of Kerbala, (1) specialized physician from Ibn Al-Bitar, specialist in cardiovascular diseases and (3) specialized physician from Ibn Al-Nafees Hospital for Cardiovascular Medicine and Surgery.

These experts were given a copy of the study instrument to review, and they were asked to assess it for its content's appropriateness and clarity.

Reliability of the instrument:

The pilot study's nurses met the same standards as the original study's sample. It was carried out at specialized Ibn Al-Nafees Hospital for Cardiovascular Medicine and Surgery in AL- Rusafa and from Ibn Al-Bitar Specialized Hospital for Cardiac Surgery in AL- Karkh in Baghdad City, in Iraq. The study started from September 7th, 2022 to May 14th, 2023. The reliability findings present alpha correlation coefficient was ($r = 0.789$), which is regarded as statistically acceptable.

Statistical Methods:

Descriptive statistics (frequencies, percentages, the mean of scores and standard deviation), as well as inferential statistics were employed to analyze the data.

Results of The Study:

Table (1): Distribution of the Nurses according to their Socio-demographic Characteristics (N=50)

Variables	Groups	Study group	
		Freq.	%
Age Groups	20-Less than 25	29	58.0
	25-Less than 30	10	20.0
	30-Less than 35	5	10.0
	35-40	6	12.0
	Total	50	100.0
Gender	Male	11	22.0
	Female	39	78.0
	Total	50	100.0
Marital Status	Single	26	52.0
	Married	19	38.0
	Divorces	3	6.0
	Separated	2	4.0
	Total	50	100.0
Educational Level	Nursing high school	13	26.0
	Diploma in nursing	32	64.0
	Bachelor's in nursing	5	10.0
	Total	50	100.0
Years of experience	< 5 years	31	62.0
	5-Less than 10 years	14	28.0
	10- Less than 15years	5	10.0
	Total	50	100.0

Freq. = frequency, % = percentages

Table (1) displays the frequency counts for selected variables. out of (50) subjects participated in the study. display the highest proportion of sample (78%) were females, (58%) of them were between (20- less than 25) years-old, (52%) of them were single. (64%) of them were diploma in nursing. Furthermore, the majority (62%) have less than five years of experience in open heart department.

Table (2): Assessment Nurses' knowledge scores for the study sample related nurses' knowledge regarding Discharge plan (N=50).

	Item	Minimum	Maximum	Mean	Severity	Std. Deviation
1.	The discharge plan helps prevent the child from re-entering the hospital in the future and makes moving home as safe as possible.	1.00	3.00	1.4000	L	.57143
2.	It is necessary for the child's families to know the efficacy of the drug, its timing and side effect.	1.00	3.00	1.8400	M	.79179
3.	Avoid school children and adolescents lifting weights or pushing or pull anything heavier than 2-4 kg using the upper part of the limbs for at least 4-6 weeks after the operation.	1.00	3.00	2.0000	M	.88063
4.	The child's parents should seek medical advice in the event of local warming with swelling and redness in the wound location.	1.00	3.00	1.7800	M	.91003
5.	Avoid restriction or tight clothes.	1.00	2.00	1.4200	L	.49857
6.	The child prefers to use a toothbrush with soft bristles.	1.00	3.00	1.3200	L	.51270
7.	It is necessary to encourage the child's parents to adhere to balanced food while drinking sufficient fluids depending on the child's age.	1.00	3.00	1.5600	L	.67491
8.	A child's good diet (getting enough calories) helps with healing and growth.	1.00	3.00	1.5600	L	.73290
9.	One of the signs of wound inflammation is the discharge of pus from the place of operation.	1.00	3.00	1.8400	M	.79179
10.	Educate the child's parents if they forget the dose do not try to double the next dose of the drug.	1.00	3.00	1.4800	L	.64650
11.	Educate the child's parents that they should be given medication before the child eats.	1.00	3.00	1.7600	M	.84660
12.	Awareness of child parents if the child receives blood products affects the timing and type of vaccinations.	1.00	3.00	1.7600	M	.87037
13.	The need for the child's family to communicate with the doctor in case the child feels a breathing problem, fainting, not waking up from sleep.	1.00	3.00	1.7200	M	.75701
14.	The need to protect the child's chest muscles and bones during each activity for 6 weeks after surgery.	1.00	3.00	1.4800	L	.67733
15.	The need for the child's family to communicate with the doctor in the event of a change in the child's behaviors such as irritation, or severe sleepiness.	1.00	2.00	1.1600	L	.37033
	Total Mean of nurses' knowledge regarding Discharge plan.			1.6053	L	

N= Number of sample, Severity: H. = High; (2.34 – 3) M. = Moderate (1.67 – 2.33); L. = Low (1.0 – 1.66); M.S= Mean of score, Std = stander deviation.

Table (2) reveals the statistical distribution of nurses' knowledge regarding discharge plan for children with congenital heart diseases, the nurses in which items number (2,3,4,9,11,12,13) reveal moderate knowledge regarding discharge plan. Except the items number (1,5,6,7,8,10,14,15) nurses' knowledge in this item were low While, statistical of nurses' knowledge regarding discharge plan for children were knowledge low at total mean score (1.6053).

Discussion:

This descriptive cross-sectional study was conducted to explore nurses' knowledge in regard to open heart department.

Regarding to nurses age, the study results showed that the most of nurses within age group twenty to less than twenty-five more than other age group table (1). In point of my view ,the logical reason for this result, that the open heart departments need young ages, as they are places that require efficiency and intuitiveness, in addition to the speed of completing the work in the least time. For this, the age group from twenty to less than twenty-five occupies these places more than the eldest of the age groups.

In a pre-experimental study carried by Ali (2022), researcher found that fifty-six point seven percent of nurses at age twenty to twenty-four years (10). At the same time, Hadeer (2022), In a pre-experimental study design found that fifty percent of nurses at age twenty to twenty-five years (11).at the same line, in pre-experimental study design carried by Muntadher (2021), researcher found that forty percent at age twenty to twenty-five years (12). This finding in same line with the present study finding. While, in a descriptive study by Adraa et al., (2014), the finding indicated that third of participants within thirty - thirty-nine years-old age (13). However, Saad (2015), found that most of nurses at age twenty to twenty-nine years old. This results disagree with this study (14).

Regarding to nurses gender, the female category was the largest in the total study sample table (1). In point of my view , the logical for this result, that females where more turnout to work in nursing than males at the beginning of nursing, making the percentage of females more than males working in hospitals.

This finding supported by the results of in a non –probability purposive study was carried out by Afifa (2018), in stated that the highest proportion of sample eighty-eight and thirty-one percent were females (15). At the same time, in a cross-sectional study carried out by Kholod (2022), the finding revealed that most of nurses were females (16). Also, a descriptive design (a cross-sectional study) was carried by Douaa (2019), the finding indicating that most nurses were females (17).

Contradicting to the study, that done by Haitham (2022), in a quasi-experimental study who reported the males were more than females in study sample (18). Also, in a quasi-experimental study by Mubdir (2021), researcher found that majority of nurses were males (19).

Regarding to nurses marital status, the study shows that more than half of nurses had single table (1). In descriptive study carried out by Kawther (2017), in Saudi found that more than half of nurses had single sixty-three percent (20). Also, in descriptive a quasi-experimental study carried out by Nael (2019), found seventy percent of nurses had single (21). This finding in same line with the present study.

While, the finding of Yousif (2023), in descriptive study found that more than half of nurses had married eighty-one point three percent (22). In descriptive and observational

study carried out by Zhuwan (2023), found that more than half of nurses married fifty-seven point four percent (23). This finding in consisted with our finding.

Regarding to nurses level of educational, the study shows that more than half of nurses had diploma degree in nursing table (1). In point of my view , the logical reason for this result, the fact that the number of graduates annually from health institutes with a diploma is more than the total number of universities and postgraduate studies in previous years. Therefore, the highest percentage of nursing workers in a hospital has a diploma.

This finding supported by the finding of Mariwan (2023), found that more than half of nurses had diploma degree in nursing (24). Also, Hassan (2017), found that half of nurses had diploma in nursing (25).

While, Ahmed (2023), found that more than half of nurses were collage graduate (26). Also, Qusay (2021), found that forty-five percent of nurses had secondary nursing school graduate (27). This finding inconsisted with our finding.

Relating to years of experience, more than half of nurses had fewer than five years of service in open heart department table (1). A descriptive study carried out by Ali (2014), found that thirty-six percentage of nurses had one to five years of experience for nurses who work in cardiac care unit setting (28). At the same time, in descriptive a cross-sectional study carried out by Noor (2022), found that most them had one to five years of experience in the ICU (29). Also, Amany (2020), in Egypt, found that thirty-seven point one percent of nurses had work experience between one to five years (30). This finding agree with our finding. While, the finding of Ammar (2020), disagree with our finding, researcher found that half of nurses had one to ten years of experience in hospitals (31).

Discussion of the studied sample according to the Nurses' knowledge about discharge plan items

The study results displayed that the nurses in which items number (2,3,4,9,11,12,13) reveal moderate knowledge about discharge plan. Except the items number (1,5,6,7,8,10,14,15) nurses' knowledge in this item were low table (2). In point of my view , the rationale for this result, Nurses rely mainly only on information gained from the workplace When discharge children without indicating the development or inclusion of the discharge plan in the work of the nursing staff. Therefore, the percentage of knowledge of the discharge plan is low when evaluating the general knowledge of the discharge plan .

These results have come along with the findings of the study of Al-Fatlawi and Ahmed (2016) who concluded the degree of nurses' knowledge regarding discharge preparation for patients who have undergone open heart surgery was deficient in various domains, with the main deficiency occurring in domain three, which deals with nurses' knowledge regarding patient follow-up (32).

Also, these results have come along with the findings of the study of Abdul-Kareem and Kadhum, 2022, who stated that he most nurses (108) had poor knowledge overall, as measured by their mean score (23-53), whereas nine of them had moderate level knowledge, as measured by their mean score (54-75) (33) .

Conclusion:

These researchers conclude that level of nurses ' knowledge regarding Discharge Plan for Children with Congenital Heart Diseases were deficiency in various domains. In Ibn Al-Nafees Hospital for Cardiovascular Medicine and Surgery and from Ibn Al-Bitar Specialized Hospital for Cardiac Surgery.

Recommendation:

There is a need to encourage nursing staff to participate in the training courses and conferences special of the discharge plan as well as lectures to update the information and develop the skills of nurses. Inclusion of a scientific guideline for the discharge plan by the Ministry of Health in health institutions and application by professional nursing staff in hospitals.

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