

The Effect of Guidance Booklet on Discharged Mothers of Children with Respiratory Tract Infection

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Abstract

Aim of the study to evaluate the effect of guidance booklet on discharged mothers of children with respiratory tract infection through: Identifying mothers' needs, developing guidance booklet of discharge according to mothers' needs and evaluating the effect of guidance booklet on the mothers. Design This study was a quasi experimental design. Setting This study was conducted in El- Menoufya University Hospital (Egypt) and El-Basher Hospital (Jordan) Sample Convenience sample of 80 mothers having children suffering from respiratory tract infection (40 mothers from each setting). Tools Data were collected through an interviewing questionnaire to assess socio-demographic data for mothers and their children, mothers' knowledge about respiratory disease, importance of nutrition and fluids. Mother's practices by asking questions concerning hygienic measures and medications and practices through observation check-list based on modified Getting Ready for Discharge Checklist regarding, temperature measurement and tap compresses for their children. Results revealed that the statistical significant improvements ($P < 0.01$) in mother's knowledge and practices after giving the guidance booklet in both groups. There was improvement in hand washing procedure, nutritional importance, type of fluids given and importance of medication there was a statistically significant improvement after the guidance booklet of discharge instructions in both groups.

Key Terms: guidance booklet of discharge, Respiratory infection, mothers

1. Introduction

Respiratory infection is the leading cause for childhood mortality, responsible for almost 30% of Egyptian deaths. This is mainly due to pneumonia. Pneumonia may be the most common cause of childhood mortality. Worldwide, the percentage of children under five years of age complaining of cough or difficult breathing represent about 33% of the total number of children under five years of age⁽¹⁾.

Acute respiratory tract infections have now shifted from being the second to become the first cause of infant mortality rate and under five years mortality rate need to be particularly targeted. In Egypt the actual process of discharge planning can be completed by a social worker, nurse, case manager or other person. Ideally, and especially for the most complicated medical conditions, discharge planning is done with a team approach⁽²⁾.

Discharge planning is the process of moving the patient from one level of care to another. The process should start on admission of the patient by assessing the patient's needs and identifying resources available. The process should incorporate the multidisciplinary approach and involve all the appropriate health team professionals and offer holistic patient care. It also, ensures continuity of quality of patient care by preparing the family and / or refers the child to a relevant referral setting⁽³⁾.

Medication errors mainly occur after the child leaving the hospital, and 18 percent of respiratory diseased children are readmitted after discharged from a hospital within 30 days. This is not good for the patient, hospital, and for the financing agency,. On the other hand, research has shown that excellent planning and good follow-up can improve patients' health, reduce readmissions and decrease health care costs⁽⁴⁾.

Mothers and healthcare providers play roles in maintaining a child's health after discharge. And although it's a significant part of the overall care plan, there is a surprising lack of consistency in both the process and quality of discharge planning across the healthcare system ⁽⁵⁾.

Medicare says discharge planning is "A process used to decide what a patient needs for a smooth move from one level of care to another. Studies have found that improvements in hospital discharge planning can dramatically improve the outcome for children as they move to the next level of care ⁽⁶⁾.

Mothers should provide her loved child with activities of daily living assistance, based on competent activities to ensure that their child needs are met and her child is well-groomed and comfortable. When caregivers have received specialized instruction on many facets of the home care, as bathing and grooming, personal hygiene, nutrition and other arena and activities of daily living many diseases can be prevented ⁽⁷⁾.

When patients are discharged, they often do not know what medications their physicians have prescribed, when their follow up appointments should take place, and, in some cases, why they were hospitalized in the first place ⁽⁸⁾.

Opportunities abound to improve transitions out of the hospital. Better discharge practices are necessary but not sufficient: linking to and enhancing community-based care are essential to facilitating improved coordination of care over time and across settings. On the other hand, research has shown that excellent planning and good follow-up can improve patients' health, reduce readmissions and decrease healthcare costs ⁽⁹⁾

2. Aim of the study

The aim of this study was to evaluate the effect of guidance booklet of discharge for mothers of their children with respiratory tract infection through:

- Identifying mothers' needs of knowledge and practice.
- Developing a guidance booklet of discharge according to mothers' needs.
- Evaluating the effect of guidance booklet of discharge on mothers' knowledge and practice.

3. Hypothesis

Guidance booklet for discharge plan will improve the mothers to complete and structure their knowledge and practices toward their children with respiratory tract infection.

4. Subjects and methods

4.1. Design:

Quasi- experimental design was utilized in this study.

4.2. Setting:

The study was conducted at medical unit of pediatric in Al-basher Hospital in Jordan and El- Menoufya University Hospitals in Egypt. This study was conducted at two regions El- Menoufya and Amman because the two regions have high rate of occurrence of that infection among children and the researchers trained the faculty nursing students too.

4.3. Sampling:

Convenience sample of 80 mothers having children suffering from respiratory tract infection (40 mothers from each setting) inclusion with the following criteria (Child's age ranged from 2 months till 5 years old, not suffering from other associated diseases).

4.4. Tools of the study:

Two tools were used for data collection: (Knowledge and practices)

4.4.1. Tool I

An interviewing questionnaire was developed by the researchers in an Arabic language to assess mothers' socio-demographic, knowledge and practices by asking questions. It comprised to the following parts:

4.4.2.Part I

Socio- demographic data for mothers such as age, education and work status, also for their children as gender and age.

4.4.3.Part II

Mothers' knowledge about respiratory diseases as definition, factors affecting, causes, signs & symptoms, mode of transmission, complications and protection. Also, child's nutrition, nutritional importance, breast feeding, proper diet and type of fluids given, frequency and its importance.

4.4.4.Part III

Mothers' practices through asking questions on their preparedness for discharge as child's hygienic importance of child's cleaning, cleaning nose as well as importance of equipment's cleaning, suitable clothes for weather, change wet clothes. and medications as regards their importance, types, time, dose, side effect, duration and importance of follow up.

Mothers' knowledge and practices scored 75% and more, were considered having "Good" ; scored 50 < 75% considered "Average"; and "Poor" scored less than 50%.

4.4.5.Tool II

Practices through observational check-list based on modified Getting Ready for Discharge Checklist ⁽³⁾ about mothers' practices in the following part:

4.4.6.Part IV

Mothers' practices by observation of suitable child position, use nasal drops as prescribed, check auxiliary temperature, tap compresses and hand washing.

Each item was rated on a two point Likert Scale:
1= Done and 0 = Not Done.

5. Validity test was done by 5 of faculties' staff nursing expertise from the pediatric specialists.

6. Ethical consideration:

The researchers emphasized to the mothers that the study was voluntary and anonymous. Mothers had the full right to refuse to participate in the study at any time.

7. Pilot study

A pilot study was carried out on 5 mothers attending to the medical unit of Pediatric in Al-basher Hospital and El-Menoufya University Hospital in order to test the applicability of tools clarity and simplicity of the included questions as well as to estimate the average time needed to fill in the sheets. Those who shared in the pilot study were excluded from the main study sample.

8. Field work

- Preparation of data collection tools was carried out about period of two and half months from 1st November to the mid of January after revised from experts' opinions, and validity test.
- Official permissions were obtained from the Deans of the Faculties, also administrators of both Hospitals managers.
- Once the official permission was granted to proceed with the proposed study, plan for appointment with mothers whose children having respiratory tract infection to explain the nature & purpose of the study, as well as to discuss the plan of work to ensure their cooperation will be accomplished.
- Since the researchers trained the nursing students in these hospitals for two days (Sunday and Tuesday) from 9:00 am to 1:00 pm and the collection data and the implementation the booklet took 4 hours. Each mother was interviewed individually by the researchers for about 60 minutes to fill the tools.
- At the end of the day the implementation of guidance booklet started to all mothers in the waiting area. To cover all the content of the booklet, it was taken 20 days to cover all (80) participated mothers in both area.

9. Discharge guidance phases: it included 4 phases:

9.1.Phase I The mothers discharge planning was began on the day of admission in pediatric unit including assessment of their knowledge and practice through individualized interview questionnaire by using (Getting Ready for Discharge Check List) to assess learning needs of mothers pediatric unit.

9.2.Phase II Guidance booklet of discharge instructions was designed by the researcher based on results obtained from pre assessment tool; it was revised and modified according to the related literature.

9.3.Phase III Development and implementation of the booklet guidance of discharge instructions by using simple Arabic language about the content of "Getting Ready for Discharge" regarding respiratory infection, management, medication, applying simply procedure, preparedness for education, and equipment used in measuring temperature, using tap compresses, giving and oral medication. If the mother's assessment indicated that more practice is needed, then competency is validated in practice by the researcher.

9.4.Phase IV Evaluation of the effect booklet was done by using the same pre-instructions format.

10. Guidance Booklet of discharge instructions was applied in two sessions for two hours for total sessions,. The first session the researchers met the mothers individually alone in privacy way to gain their trust confidence after child check with physician to discuss their problems and needs, then. The second session the researchers met all mothers together to explained for them the content of the booklet as the following:

Definition of respiratory infection, nutrition during illness, suitable fluid used, medication administration (dose, route, methods of administration, side effect), activity, dangerous signs of respiratory infection that's needs follow up

appointment with the physician and ascertain that the child has follow-up care arranged at discharge. The researchers were used with guidance booklet the discussion, role play, demonstration and re-demonstration, also audio visual aids were used such as posters, and using simple Arabic language.

11. Statistical design:

The statistical analysis of data was done using the excel program and the statistical package for social science (SPSS) program version 11. The first part of data was a descriptive one. Data were revised, coded, and statistically analyzed using the proportion and percentage, the arithmetic mean \pm standard deviation (\pm SD) and T test.

12. Results

12.1. Part I: Mother's and their children in relation to their socio-demographic characteristics

Table (1) showed that (57.5% and 75%) of mothers age in El- Menoufy Hospital and El- Basher (Amman Hospital) were between 20-29 years of age, the mean age of mother's was 30.9 and 25.3 in both groups respectively, (47.5%) of mother's education were secondary in El- Menoufy group while (50%) of mother's were preparatory education in Amman group . (70%) were not working in El- Menoufy Hospital, while (62.5%) of mother's were working in El- Basher Hospital (Amman), (50%) of children in El- Menoufy group and (65%) of Amman group were male. Also, (42.5%) their ages less than one year El- Menoufy group, while, (57.5%) their age from one to less than three years in Amman group.

12.2. Part II: Mother's knowledge regarding discharge planning

Table (2) illustrated that there was statistically significant difference between the mean pre/post discharge planning knowledge of the mother's related to respiratory diseases, children nutrition and giving suitable warm fluid in both groups. It showed that the items concerning mothers knowledge regarding disease signs and symptoms and transmission the mean score post test were higher (5.564 \pm 1.18, 5.875 \pm .96, 5.974 \pm 1.2 and 5.850 \pm 1.051) respectively in both groups. Also, the items regarding proper diet and fluid frequency the mean score were improved post test (5.692 \pm 1.004, 5.750 \pm 1.14, 4.153 \pm 1.11 and 4.275 \pm .81) respectively in both groups.

12.3. Part III: Mother's practices by asking questions regarding discharge planning in both groups.

Table (3) illustrated that there was statistically significant difference between the mean mother's practices by asking questions pre/post discharge planning in both groups regarding to hygienic measures for their children. As regard to the total practice there were improvements regarding post test in hygienic measures (10.538 \pm 1.253 and 10.45 \pm 1.86) respectively in both groups.

Table (4) Showed that there was statistically significant difference between the mean of mother's practice by asking questions pre/post discharge planning in both groups related to medication administration for their children. Also there were better improvement about Importance of medication administration, types, time, dose, side effect, duration and importance of follow up. As regard to the total practice there was improvement in the total mean score post test in both groups (8.64 \pm 1.266 and 7.77 \pm 1.31) respectively.

12.4. Part IV: Mother's practice through observation regarding discharge planning in both groups.

Figure (1 & 2) explained that the mothers' practices through observation check-list were improved post guidance booklet test in all items regarding suitable child position, use nasal drops as prescribed, check auxiliary temperature, tap compresses and hand washing in both groups.

13. Discussion

To achieve high quality services, discharge plan should begin when the child admitted to hospital, it provides mothers and children with opportunity to discuss the child's needs and eliminate fear or anxieties. Respiratory infection frequently common among children under 5 years in terms of incidence and severity in many countries ⁽⁸⁾

13.1. Regarding to mothers and their children in relation to their socio-demographic characteristics. The Results of this study revealed that more than half and three quarter of mothers were between 20-29 years for both groups El- Menoufy & El- Basher Hospitals respectively which described that the child rearing was around the same age at the two countries. On the other hand, less than half of mothers of El- Menoufy Hospital and half of mothers of El Basher Hospital finished their preparatory and secondary education which reflects the pattern of education among the two countries for girls which raised little in Egypt than in Jordan. On the other hand less than two third of Jordanian mothers were working which reflects the number of population in general compared to Egyptian population, moreover, mothers at El- Menoufy as consideration a rural area work on agriculture jobs which reduces the number of women working in official jobs.

13.2. According to mother's knowledge regarding discharge planning. Findings of this study in (table 2) reflected that, there was statistical improvement concerning mothers' knowledge in pre and posttest on respiratory tract infection causes, signs and symptoms, mode of transmission, factors affecting its aggravation and complication, these reflect the effectiveness of instructional knowledge giving to mothers from admission about the diseases process, This results agree with revised discharge planning process enhanced mothers' understanding of post discharge roles and responsibilities ⁽⁵⁾. **Lisa and Aprn** mentioned that discharge planning activities are intended to assist the mothers in acquiring, maintaining and increasing competence in fulfilling the assigned responsibilities ⁽⁹⁾ Also, this was confirmed by **Lewis and Phil** who stated that the importance of knowledge for mothers of the child baseline and changes of respiratory status such as signs, symptoms and transmission of infection that may indicate illness and the importance of reporting these to their pediatrician. So that, treatment may begin before the child get too sick ⁽¹⁰⁾ In contrast **Opara and Eke**, mentioned that, only about 1 in 5 mothers knows the danger signs of respiratory infection; only about half of children sick with respiratory infection receive appropriate medical care; according to the limited data available ⁽¹¹⁾

Mothers knowledge regarding nutrition and fluids intake it was noticed that mothers knowledge were lacking in the essential knowledge in this area in both groups at pre discharge instructions compared to post test, with statistically significant improvement in both groups. Where it was observed that there was an increase in the mean score knowledge. This was confirmed by **Paula et al.**, who stated that discharge planning given, it erased the mothers' doubts and questions as they become more knowledgeable. So, these instructions related to well-balanced diet and oral fluids intake play an important with correct information to decrease the complications ⁽¹²⁾. In accordance to **Bowden and Greenberg** stated that, assist child/parents to plan well-balanced meals that incorporate child's food preferences and dietary limitations imposed by disease process (e.g., low-to-moderate fat, high-protein, and high-calorie meals for the child), encourage small feedings of nutritious soft foods and liquids, and add nutritional supplements as ordered. These measures minimize metabolic expenditures while providing nutritious high-calorie foods that are appealing and easy to digest ⁽¹³⁾. Also, fluid intake prevents dehydration from insensible losses through mouth breathing and increased respiratory rate as well as assists to decrease viscosity of secretions and increase ciliary's action to remove secretions.

13.3. As regard to mother's practice by asking questions regarding discharge planning in both groups. In (table 3) the hygienic measures as bathing the child during illness, nose cleaning, equipment cleaning, and change wet clothes. The results revealed that there is a highly significance differences in mean score for both groups posttest than pretest, this may be related to the care seeking behavior presented during session about hygienic care measures and its importance in case progress. **Cleary et, al.**, mentioned that preparation for discharge and home care requires a great deal of education and reassurance. Educating the mother with an ill child must begin early with basic care feeding, bathing and holding ⁽¹⁴⁾. This care progresses to medical, nursing and respiratory procedures. Such finding

illustrated that provide nose cleaning to nares as needed to keep nares patent and to allow adequate flow of oxygen to child⁽¹⁵⁾

Mother's practices regarding importance of medication, types, time, dose, side effect, duration and importance of follow up for their children it is illustrated that (table 4) findings in pre and post discharge planning in both groups that their practice of care was improved with statistically significant difference. Thus discharge planning would increase knowledge, which will result in improvement of the child care.

It was added by **WHO** the effective discharge planning for mothers can decrease the chances that their children is readmitted to the hospital, help in recovery, ensure medications are prescribed and given correctly and adequately prepare for discharge⁽¹⁶⁾.

In accordance to **UNICEF and WHO**, Studies have shown that as many as 40 percent of patients had medication errors after leaving the hospital, and 18 percent of them discharged from a hospital are readmitted within 30 days. This is not good for the patient, not good for the hospital, and not good for the financing agency, whether the medication information is important for their mothers⁽¹⁷⁾. On the other hand, research has shown that excellent planning and good follow-up can improve children health, reduce readmissions and decrease healthcare costs. Also, **Robert**, mentioned that 66 % of the mothers understood their children causes of disease when they left the hospital and understood how to give their children medications after hospital discharge⁽¹⁸⁾.

Also this finding agree with **Agency for Healthcare Research and Quality** who found that Before discharge, health care professionals should provide caregivers with applicable training, including; A written medication list with specific instructions on medication dosages and how long they should be taken, and information about possible side effects⁽¹⁹⁾

13.4. Regarding to mother's practice through observation check-list for their discharge planning in both groups.

Finding of the present study indicated that (table5) lacks of mothers' practices through observation checklist in pretest about practices on suitable child position, use nasal drops as prescribed, check auxiliary temperature, tap compresses and hand washing.

Meanwhile, in posttest was improvement statistically significant difference in both groups. Child position should be in an upright or semi setting to optimize ventilation. Concerning the same table finding was supported by **Omer**, who said that the mothers must be able to measure vital signs correctly, to understand and interpret the value, to communicate findings appropriately to determine the severity of respiratory distress that the child is experiencing and to begin intervention as needed. Also, supported that before discharge care giver should be teaching and practice of techniques such as measuring temperature, care procedures, use and monitoring of equipment, recognition of symptoms and other elements of child care are very important⁽²⁰⁾ In accordance to **Pillitteri** supported these results and mentioned that assessment of the mothers to identify their medical knowledge is essential. Also the present study showed that mothers could manage the medical conditions such as respiratory diseases and has significant experience to deal with her child's illness skills⁽²¹⁾. Evaluate child's and family's understanding of techniques to prevent infection, such as careful hand hygiene, adequate rest and nutrition, avoiding contact with sick individuals. Education and training is best practice in discharge planning should be provided for mothers to be involved in the discharge process⁽²²⁾.

In general the findings from this study, development and implementation of the guidance booklet of discharge instructions improved mothers' knowledge and practices according the hypothesis predicted study.

14. Conclusion:

Based on the results of the present study and research hypothesis, it can be concluded that development and implementation of the booklet guidance of discharge instructions improved mothers' knowledge regarding disease information, suitable nutrition and fluids intake. Mothers' practice by asking questions regarding hygienic measures and oral medication intake. Also, practice through observation check-list used in measuring temperature, tap

compresses. There was a statistically significant improvement before and after the booklet guidance of discharge instructions in both groups (El- Menoufya and El-basher hospitals).

15. Recommendations:

Based on the results of the present study it was recommended that:

-Simple booklet and pamphlets should be available in the outpatient clinics and all pediatric departments using a simple Arabic language to provide correct information about discharge planning for acute and chronic disease mainly hygienic measure.

-Establishment of health information system in different hospital to orient the families and caregivers about discharge planning to prevent recurrent respiratory tract infection.

-More researches should be done to upgrade the advanced discharge planning regarding respiratory tract infection.

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Part I: Mother’s and their children in relation to their socio-demographic characteristics.

Table (1) Percentage distribution of mothers and their children in relation to their socio-demographic characteristics in both Hospitals.

Item	El- Menoufya Hospital (N= 40)		El- Basher Hospital (N= 40)	
	No.	%	No.	%
Mother's Age (years)				
20-	23	57.5	30	75
30-	15	37.5	8	20
40-	2	5	2	5
Education				
Primary School	4	10	12	30
Preparatory School	17	42.5	20	50
Secondary School	19	47.5	8	20
Work status				
Work	12	30	25	62.5
Not Work	28	70	15	37.5
Children				
Gender				
male	20	50	26	65
female	20	50	14	35
Age				
<1	17	42.5	13	32.5
1<3	11	27.5	23	57.5
3:5	12	30	4	10

Part II: Mother's knowledge regarding discharge planning

Table (2) Mean mother's knowledge regarding respiratory diseases, hygienic measures, nutrition and fluid given to their children pre/post discharge planning in both groups.

Items	El- Menoufya Hospital (N= 40)				El- Basher Hospital (N= 40)			
	Mean ± SD		T	P Value	Mean ± SD		T	P Value
	Pretest	Posttest			Pretest	Posttest		
<u>Disease knowledge</u>								
Definition	2.33±1.1	2.230±.583	.432	.668	550± .638	1.550± .503	9.309	0.051***
Factors affecting causes	.820± .50	2.512± .60	13.214	0.000***	525± .50	1.000± .000	5.940	0.000***
Signs & symptoms	.743± .49	2.512± .64	11.870	0.000***	700± .68	1.625± .540	7.656	0.000***
Transmission	.923± .53	5.564± 1.18	20.915	0.000**	2.850±1.5	5.875± .96	12.666	0.000***
Complications	1.820±1.0	5.974± 1.2	16.575	0.000***	2.775± 1.6	5.850± 1.0	9.762	0.000***
Protection	.897± .30	1.717± 1.0	4.157	0.000***	.475± .55	.850± .36	5.421	0.000***
Total	.820± .45	1.487± .50	5.940	0.000**	.450± .50	17.700±2.25	16.18	0.016**
	7.769±2.2	21.179±2.75	22.49	0.000***	8.325±3.9			0.000***
<u>Nutrition knowledge</u>								
Nutritional Importance	1.692±.95	4.238±1.16	13.183	0.000***	2.05± 1.3	4.125± .96	9.88	0.000***
Breast feeding	.692±.46	1.512 ±.50	8.520	0.000***	.500± .50	4.251± .96	21.74	0.000***
Proper diet	1.743±1.2	5.692±1.00	18.7	0.000***	2.37± 1.9	5.750± 1.14	13.50	0.005***
Total	4.897±2.0	12.974±1.93	21.624	0.000***	5.575±2.8	11.700±1.89	17.352	0.000***
<u>Knowledge of fluids</u>								
Type of fluids given	1.26±.49	3.461±.60	16.535	0.000**	1.125± .82	3.450± .67	17.119	0.024**
Importance of fluids	1.17± 55.1	1.84± .43	6.701	0.000***	975± .357	1.62± .490	7.706	0.000***
Fluids frequency	1.41± .93	4.15± 1.11	12.862	0.000**	1.12± .89	4.27± .81	18.182	0.000***
Total	3.846±1.3	9.461±1.429	19.633	0.000***	3.325±1.4	9.350±1.424	24.679	0.006***

Part III: Mother's practice by asking questions regarding discharge planning in both groups.

Table (3) Mother's practice by asking questions regarding hygienic measures of their children pre/post discharge planning in both groups.

Item	El- Menoufya Hospital (N= 40)				El- Basher Hospital (N= 40)			
	Mean Score \pm SD		T	P Value	Mean Score \pm SD		T	P Value
	Pretest	Posttest			Pretest	Posttest		
Bathing during illness	1.307 \pm .569	3.666 \pm .955	13.250	0.000***	1.800 \pm 1.205	3.950 \pm 1.218	9.932	0.000***
Nose cleaning	1.026 \pm .636	1.763 \pm .430	5.977	0.000***	.400 \pm .545	1.275 \pm .554	7.656	0.000***
Specific equipment	.692 \pm .467	.923 \pm .354	2.688	0.011***	.475 \pm .505	.825 \pm .384	4.583	0.005***
Suitable clothes for weather	1.025 \pm .668	1.743 \pm .442	5.906	0.000***	.850 \pm .662	1.500 \pm .506	6.607	0.003***
Change wet clothes	1.076 \pm .579	1.666 \pm .477	4.690	0.000***	1.075 \pm .615	1.625 \pm .490	5.448	0.027***
Total practice	6.333 \pm 1.456	10.538 \pm 1.253	13.474	0.000***	6.025 \pm 2.214	10.450 \pm 1.866	14.281	0.000***

T : Pre & Post T-Test *** : Significant P< 0.005

Table (4) Mother's practice by asking questions regarding medication of their children pre/post discharge planning in both groups.

Medication	El- Menoufy Hospital (N= 40)				El- Basher Hospital (N= 40)			
	Mean Score \pm SD		T	P Value	Mean Score \pm SD		T	P Value
	Pretest	Posttest			Pretest	Posttest		
Importance	1.487 \pm .913	5.205 \pm .832	20.681	0.000***	2.100 \pm 1.215	5.225 \pm 1.208	13.599	0.000***
types	1.538 \pm .883	5.205 \pm .832	22.700	0.000***	1.575 \pm 1.129	3.500 \pm .751	9.168	0.000***
time	1.307 \pm .569	1.743 \pm .442	4.001	0.000***	.825 \pm .594	1.550 \pm .503	5.414	0.000***
dose	1.025 \pm .584	1.717 \pm .455	6.600	0.000***	.950 \pm .749	1.675 \pm .474	5.848	0.000***
side effect	1.179 \pm .601	1.692 \pm .569	3.620	0.001***	.950 \pm .677	1.400 \pm .632	3.798	0.000***
duration as prescribed	.947 \pm .566	1.763 \pm .430	7.717	0.000***	.650 \pm .622	1.500 \pm .599	6.982	0.000***
Importance of follow up	.974 \pm .537	1.153 \pm .365	1.741	0.090***	.375 \pm .490	.825 \pm .384	5.649	0.000***
Total practice	5.333 \pm 1.527	8.641 \pm 1.266	10.456	0.000***	4.575 \pm 1.615	7.775 \pm 1.310	10.446	0.000***

T : Pre & Post T-Test *** : Significant P < 0.005

Part IV: Mother's practices through observation check-list regarding discharge planning in both groups.

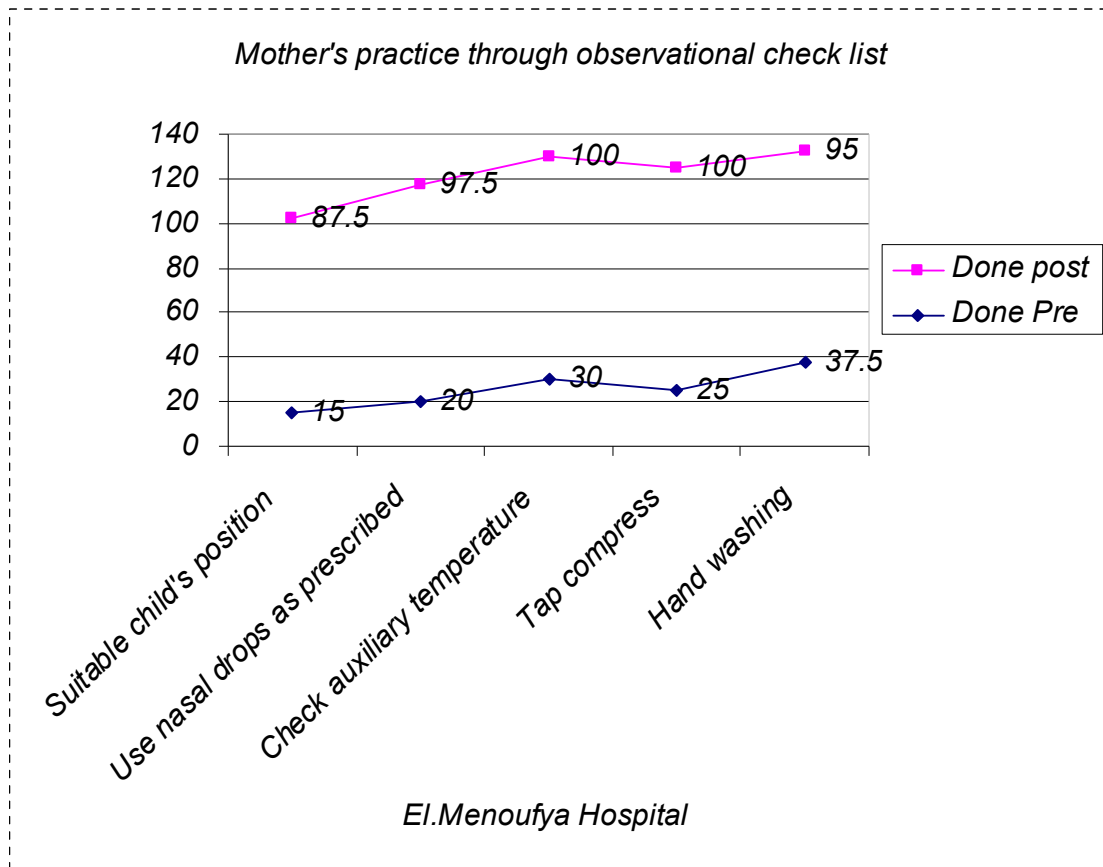


Figure (1) Mother's practices of care regarding improving respiratory tract infection through observational check-list in El.Menoufya Hospital.

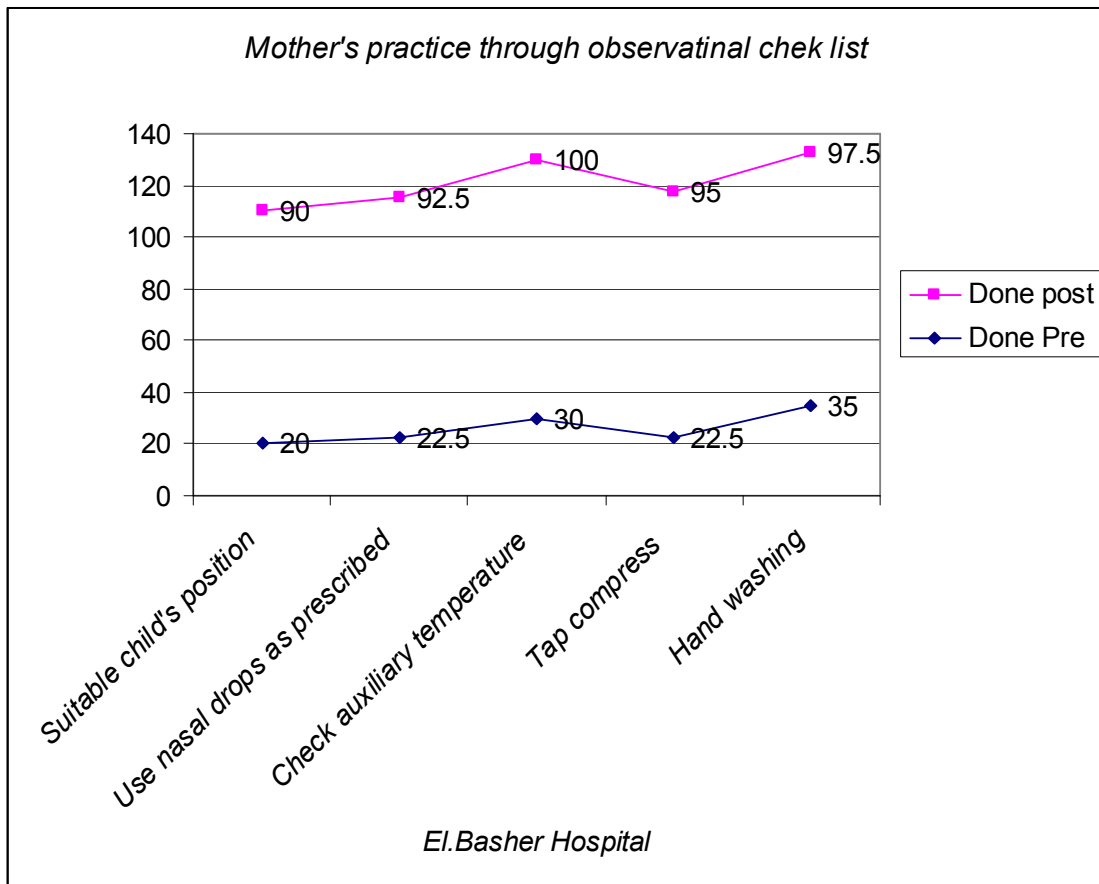


Figure (2) Mother's practices of care regarding improving respiratory tract infection through observational check-list in El- Basher Hospital.

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