

Impact of Conflict on Paramedics in Diyala Governorate

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Back ground : Armed Conflict any where affect presentation of health services in general and lead to deterioration of public health.

Amis : To identify the distribution of paramedics in Hospitals and Primary Health Care (PHC) districts & to study their socio-demographic characteristics. And to identify the impact of armed conflicts on paramedics and nursing work in Diyala Governorate

Subjects & methods : A cross sectional study was conducted for the period from the 1st of October/ 2006 to the 1st of May /2007, in Baquba City, (center of Diyala Governorate), for the paramedics & nurses working in Diyala hospitals & PHC centers (total number 2457). A special questionnaire was designed to collect data from paramedics in Al-batol teaching hospital/ Diyala Directorate of Health (DoH). This questionnaire included personal data in addition to social, economic, educational and environmental data for those paramedics .

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Results :The results revealed that the leading proportions of paramedics in Diyala hospitals to be skilled nurses (40.3%), and the least was University nurse (2.0%). While the leading proportion in the health centers were nurses (34.5%) and the least was for the University nurse (0.08%). Medical assistant were found in 29.3% & 16.8% in the hospitals & PHC centers respectively. Technical nurse (9.3%, 3.8%), assistant nurses (7.2% , 27.2%), in the hospitals & PHC centers respectively. Nurse/Doctor ratio was 4/1, nurse/dentist was 18/1 , nurse /pharmacist was 20/1. Shortage of female paramedics who were found to constituted (24.7%). in the hospitals & (11.0%) in the health centers, of all paramedics. Male : Female ratio was 4.4:1. Those paramedics who were trained during last four years found in was 21% of all paramedics .Murdered paramedics due to conflicts was found in 2% and nearly same percentage who were kidnapped .

Conclusions : The study concluded that nurses & paramedics complain of armed conflict in addition to nursing occupation problems.

Recommendations: To highlight nurse & paramedics complain, suffering and manage their main problems.

Key words : Nursing ; Paramedical personnel ; Effect of conflict ; Nursing training course; Nursing College; Nursing Job description. Nurse/Doctor ratio.

Introduction

Conflicts are common in all workplaces, including nursing departments in medical facilities. The conflicts can be stressful and escalate, so it's important for nurses and their supervisors to learn how to manage them (1). A significant part of the

economic and political life of any nation relates to the health care available to its people(2) . The percentage of a country gross national product devoted to health care is a frequently quoted figure . It helps to reflect much of what is best about life but also serves to point out those areas in which a serious problem exists (3).

Armed conflict anywhere affects presentation of health services in general and leads to deterioration of public health . Inaccessibility to health facilities in case of emergency leads to death of ill patients . Increased demand , insufficient resources will complicate the work of health professionals who are already struggling for its achievement (3&4). The nursing profession is one that is based on collaborative relationships with both colleagues and patients. It requires individuals to work closely with others with varying backgrounds or cultures. Individuals can hold diverse values, potentially affecting these relationships, which may result in conflict. Good communication or conflict resolution skills can decrease the risk of conflict. Diyala is one of Iraq's Governorates , situated in the north eastern region of the country 60 Km North to the capital Baghdad. Population 1,900,000. The Governorate contains large agricultural areas, in addition to many industries & projects. It is one of the most important governorates in Iraq due to its position and many other features . The inhabitants in Diyala were of different ethnic groups and religions , lived in a peaceful environment for long past history. This governorate was one of the most safe and quiet areas in Iraq , but after the last war in Iraq, at 2003, the situation was deteriorated very much, particularly during the years 2005 & 2006, and reached a critical level that no one can go out of his home for any issue ,otherwise he will be

kidnapped or killed. This critical situation affected all issues of population's life, socially, economically, educationally and lead to paralysis of ordinary governmental activities deterioration in all types of communication, (closed roads, no phone or mobile or internet contact), and unemployment. That effect gives rise to bad outcome on the "Health System" in general and health care delivery system particularly in Diyala. Beginning with the parts of the health system with which we were probably most familiar, the setting that employ nurses, and the characteristics of these settings, their roles in health care, the roles of nurses in these settings, the medical staff with whom nurses worked, and alternative health care resources are the focus in this report (5&6).

Subjects and Methods

A cross section study was conducted for the period October 2006 to the May 2007. Data concerning other paramedics in the governorate was obtained from records & registries from nursing department in Diyala Directorate of Health (DoH). Questionnaire was designed by the researchers to have more details about nursing affiliates in regard to socioeconomic and demographic data.

This questionnaire was distributed among sample of nurses working in Baquba teaching hospital & Al-batol teaching hospital, which were the only hospitals can be reached during that critical period in Diyala Province. While the situation in other districts was very dangerous due to presence of Militias which & threatened people's life, work, activities and prevent governmental acts and jobs to be continued or to be conducted there. So we prefer to collect our Data from Baquba District and the hospital of this some pit safe Districts.

The questionnaire was distributed randomly among nurse staff in an equal percent for males and females (50% males & 50% females). These questionnaires were collected within 2 days after be filled by each nurse .This questioner includes questions about the age , gender , marital status , graduation site , institution , years of employment , salary sum , allowance or other fee , number of training courses , honoring (materials or moral) , and the cause for honoring , desire to continue their higher education , causes of failure to continued their higher education , causes of failure to continued their higher study .

This important items in this questioner are the main problems facing those associates , the most critical situation or event they pass in , during the last period of hard deterioration in the security condition of Diyala Province . Lastly the proposals they states to improve or develop their work situation or revitalization of their profession . It is worth to mention that all nurse staff are very happy with this questionnaire and they fell that some problem they complain, and mentioned that this is the first time some one hear them .

Results

Table (1) : Distribution of nurse staff according to gender in Diyala Hospitals for the year 2006 .

Hospital Name	Univ-ersity. nurse		Medical assistant		Technical nurse		Skilled Nurse		Nurse		Assistan t nurse		Total	
	M*	F**	M	F	M	F	M	F	M	F	M	F	M	F
Baquba T.H.***	0	1	20	50	15	7	63	27	39	19	25	0	16	10
Al-batol T.H.	15	1	84	24	24	5	230	14	0	0	19	3	37	4
Moqdadi a Hospital	0	0	26	18	7	5	27	6	11	13	14	7	85	4
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Moq. Zahea Hospital	0	0	18	6	10	1	16	2	4	16	4	0	52	25
Alkalis Hospital	1	1	31	12	9	1	48	3	0	3	5	2	94	22
Beldroze Hospital	5	0	33	18	9	3	69	3	8	11	5	0	129	35
Jalwlaa Hospital	1	2	20	6	8	4	12	1	8	15	7	0	56	28
Kankhin Hospital.	0	0	18	6	10	15	14	0	7	7	3	0	52	18
Total No. %	22	5	250	140	90	31	479	57	77	84	84	12	1002	328
	2.0%		29.3%		9.3%		40.3%		12.1%		7.2%		T=1330	

*Male ;** Female .*** Teaching hospital.

Table (2) :Distribution of nurse staff according to gender in Diyala Primary Health Care (PHC) District for the year 2006 .

PHC District	University nurse		Medical assistant		Technical nurse		Skilled nurse		Nurse		Assistant nurse		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Baquba	1	0	96	24	10	6	33	7	198	16	93	16	431	96
Moqdadia	0	0	70	12	23	0	35	0	137	6	122	0	381	18
Al-Khalis	0	0	0	0	3	3	169	5	10	6	56	4	238	18
Beladroze	0	0	44	10	4	0	20	2	89	4	36	0	193	16
Kanakhin	0	0	20	4	1	1	43	1	11	5	12	0	87	11
Total No. %	1	0	156	40	35	8	272	13	356	33	284	30	1003	124
	0.08%		16.8%		3.8%		25.2%		34.5%		27.5%		T=1127	

Regarding table (1) & table (2),University' nurse, are nurse graduated from "College of Nursing ", completed 4 years of nursing study .The table show that there are (22) males University' nurse distributed all over Diyala hospitals mainly in Al-batol teaching hospital and Beladruze hospital. On the other hand (5) female university' nurse , distributed in frequency of one in Baquba T.H., Al-batol T.H. , Al-khalis H. & (2) in Jalwla T.H. Male to Female ratio (M:F ratio) was (4.4:1) .

Both tables (1&2) shows that "Medical Assistant who graduated from Institution of Medical technology" ,

completed 2 years of health study. Their numbers in the all Diyala hospitals were (390)males & (190) females in PHC centers . M:F ratio was (2.2:1) .

Concerning "Technical Nurse" who graduated from secondary nursing school completed (3) years of nursing study in secondary level, their numbers were 124, 43 in the hospitals & PHC centers respectively. M: F ratio was (3.2:1)."Skilled Nurse" was graduated from " Nurse School "completed (3) years of nursing study. Their numbers were (751) males & (70) females. M:F ratio was 10.5:1, distributed in all Diyala hospitals and districts (PHC centers), as both table (1) & table (2) displayed .

"Nurses" , graduated from "Nursing School" , after 3 years of nursing study, in an intermediate level. Their numbers were (77 males, 84 females) in the hospitals & (356 males , 33 females) in the PHC centers. M: F ratio was 4:1 among all above mentioned health institutions .(Table (1) & table(2). The same tables also revealed that "Assistant Nurse" who had no specific certificate but they were trained to work in nursing field. Their numbers were (84 males & 12 females) in the hospitals & (284 males & 30 females) in the PHC centers. M:F ratio 7 :1 .These above mentioned 2 tables (1 &2), exhibited that there was a great shortage of female nurse in all Diyala health institutions. Another fact that great shortage of University nurse all over Diyala hospitals, who are very important in managing nursing issues & needs in the hospitals.

Table (3) : Frequency of training courses for the nurse staff according to year in Diyala Governorate .

Year	No. of training courses	No. of nurse participant
2004	5	114 8.6%
2005	9	261 19.6%
2006	6	118 8.8%
2007	3	85 6.3%
Total	23	551 22.4%

Table (3) revealed that the training courses for the nurses & paramedical staff, restarted in the year 2004, due to the war on Iraq, and followed events. But the percentage of trainees were low ranging from 19.6% of the staff in the year 2005, to , 6.3% of the hospital staff , in the year 2007.

Table (4) Murdered paramedics in Diyala, according to sex for the years 2006- 2007 .

Title	Male	Female	Total No.	%
Medical assistant	17	2	19	39.5
Skilled nurse	2	0	2	4.1
Nurse	12	3	15	31.3
Assistant nurse	10	2	12	25%
Total	41	7	48	2.0%

Nurses & paramedics exposed to conflict and aggressive acts, table (4), showed that, murdered males & females were (41 & 7), respectively.

Table (5) : Distribution of nursing affiliates according to socio-demographic characters in Diyala Province /2006

Socio-demographic character	%
Age	
20-29	28%
30-39	34%
40 + >	38%
Marital status	
Married	60%
Single	35%
Others	5%
Employment years	
< 5	30%
>5-10	15%
>10 -15	40%
>15	15%
Salary sum	Ranging between 200 ID -350ID
Training courses	
No previous participation	20%
1-2	25%
3-4	30%
5+>	25%
Training courses abroad	
One time	1%
More than one time	0%
Acknowledgment &Honoring	
Moral honoring	60%
For work commitment & obligation	70%
Other activities	30%
Desire to continue higher education	
Yes	65%
No	35%

The above table (5), showed sociodemographic characteristics of random sample of nurses from Al-batol hospital, 20% had no contribution in any training course. Those who had participation abroad found in 1% .

Discussion

According to Iraqi Ministry of Health (MoH) information, there is an improvement in the nursing status, in regard to regular hospitals attendance, social & economic level following the changes occurs in Iraqi community. Considerable increase in salaries main factor . A national health survey covering 214 health care centers (HCs) showed the following percentage of paramedics from the total health care staff : 18% medical Assisant, 16% nurses and 10% laboratory Assistant,(5) .

Results of the present study revealed that the leading proportions of paramedics in PHC centers to be medical assistants, nurses. The present study also showed clear shortage in medical assistants and nurses for each doctor. In contrary, Al-Taha , estimated good availability of assistant staff in Basra HCs , which is explained that her study on staffing was in ANC units only (4).

Surprisingly enough ,the nurse/Doctor ratio in Iraq Primary Health centers is higher than UAE primary health care system of 1.3 nurse /Dr , with 85% of them being females (Kronfol 1999),reflecting probably the high efficiency of paramedics in UAE , and lack of paramedics job description in Iraq (7) .

In Bahrain HCs ,the ratio is even less (0.6 nurse for each Dr), although the overall ratio in the whole kingdom is reserved (2.4 nurse for each Dr) , reflecting shifting of nurses to work in higher levels of health care (8).

According to MoH figures , the overall nurse scarcity especially female, is also seen in the Iraqi health system as a whole , where two thirds of total nurses are males. Nurse to population ratio is (11 / 10,000), nurse to physician ratio is 1/1 against an East Mediterranean regional average of (30/1) (5).

Training has been severely disrupted, in the present study , as table (3) shows , during the last 4 years numbers of trainee ranging from 85 -261 per year . The role of training and efficiency of the auxiliary sub- staff will be important here .That is why several studies recommended prompt training and upgrading of ancillary staff (1 &4).

The inappropriate skill- mix will overload Drs, especially when the paramedics are less efficient(which is the case in Iraq), as they will have no enough paramedics to delegate medical tasks , which ultimately affect the Drs, performance .In addition ,when clients' perceive Drs of doing all medical services by themselves , their expectations will be fixed that only Drs are capable , and should be the sole providers of medical care(9) . Negative consequences of this faulty concept is emergence of clients ' dissatisfaction for any services provided by paramedics , or the paramedics will " play" the role of the Dr in front of clients .

An MoH report on health in Iraq states that there is no reliable post description for health personnel (5) . Job description is very ambiguous for paramedics. In some HCs , medical assistants were working as ticket clerks. Health educators were working in curative dental services, or in the HC pharmacy . Lack of job description leads to low morale , and less job satisfaction among health providers. In addition when training courses are designed , the vague job description makes training efforts fruitless , and as Tarimo says ,lack of job description leads to dilution of responsibility , and inbuilt bias of health workers in favor of institution-based services .Health personnel are often ill prepared for the changes required by current health training programs . this problem is viewed by Tarimo (1991) to be the most in district services capacity building (8).

Large numbers of medical staff , nurses , paramedical staff have been murdered , wounded , kidnappings or were forced to leave their work after receiving threats from insurgents and militia fighters since invasion of Iraq table (4) . This is the situation in Iraq generally , the situation in Diyala is part of that or may be more .

Forty five percentage of nurse have no or 1-2 training course for 2-3 days in the Province during their employments which is very important to have more experience for their work .While training abroad is very rare 1% to one time , but they need such courses to give them more encouragement and support .

Most honoring is for work commitment and obligation in addition to some effort in the immunization campaign or an extraordinary effort or night call for female nurse in such insecure and risky situation . 65% have desire to go on their higher education to medical institution or to nursing College or to pharmacy College or to College of Medical and Health technology , but they fail to achieve that due to hard situation particularly for security and economic causes .

Conclusions :

-Many challenges facing nurses, of them insecurity and exposure to aggressive events , assault & attack from militias & army elements, or from the patient family due to presence of family member with an injured or killed person during the civil attacks . some nurse exposed to an arrest or even to assassinate or killing trials from army people or unknown army elements and some give ransoms for their freedom . Insufficient salary , delay in spend of risk allowance .

-Hard circumstances in the work site and generally all health institutions.-Absence of facility for rest of nurses like restaurant, or nursery for small children. -Most of health

institutions complain of lack and shortage of main medical and nursing supplies which will lead to deterioration of health services quality in general . Difficulties in transportation due to security measures. Most affiliate insisted to go to their work site walking, which may affect their physical & mental health , particularly the past months in our country is very hot and temperature degree reach 49-50 degree centigrade .

In ability to continued higher education in medical institution, nursing College or secondary nursing school or even courses for Birth attendants (for the nurse who didn't have any certificate) , due to current hard and serious security situation, and complexity of instruction in this regard . Nurses need moral support from the managers to encourage them for work in such state.

Recommendations :

-More support and encouragement needed for nurses in regard to moral and materials support particularly with the most active and the qualified nurses.

-To spend of risk allowance which is necessary during current situation .

-Establishment of College of nursing in Diyala to allow those who had desire and ability to continue their higher education.

-Increase frequency of training courses for nurses ,particularly courses abroad (outside the country) , which will give then support & evident role in health services as a substitute to the doctors in some health program which is particularly can be managed by a qualified and well trained nurses e.g." Primary Health Care System " , and other preventive services.

-Improve the work environment by some social or welfare activities in addition to establishment sites for nurse rest .

-Improve of health & medical services ,by improving health

institutions and facilities in regard to infra structure buildings , materials, supplies and staff. All the above mentioned points can improve and promote health services quality and quantity to Diyala community who suffer a lot and a lot .

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تأثير العنف على مهنة التمريض في محافظة ديالى

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الخلاصة:

في أي منطقة من العالم، تؤثر النزاعات المسلحة على تقديم الخدمات الصحية بشكل عام ، مما يؤدي إلى تدهور في الصحة العامة. أجريت هذه الدراسة المقطعية بهدف التعرف الخصائص الديموغرافية وعلى توزيع الكوادر التمريضية في المؤسسات الصحية في محافظة ديالى ، وكذلك لغرض التعرف على تأثير العنف الذي حدث في المحافظة على مهنة التمريض . أنجزت هذه الدراسة للفترة من الأول من تشرين الأول\2006 لغاية الأول من أيار \2007 ، في محافظة ديالى . اعتمد في الدراسة على استبيان تم تصميمه من قبل الباحثين يحتوي على معلومات شخصية واجتماعية واقتصادية وتعليمية وبيئية تخص الكوادر التمريضية التي شملت بالدراسة، وتم مليء الاستبيان بطريقة المقابلة المباشرة مع هذه الكوادر مع واسترجاع السجلات التمريضية للمستشفيات والمراكز الصحية في المحافظة. أظهرت النتائج إن أعلى نسبة من الكوادر التمريضية في المستشفيات (40,3%) هي للمرض الماهر، و أقل نسبة (2,0%) هي للممرض الجامعي. اما في المراكز الصحية فقد كانت اقل نسبة أيضا للممرض الجامعي (0,02%)، بينما كانت اعلي نسبة (34.5%) للممرض. وقد كانت نسبة الممرض \ طبيب : 4 \ 1. والممرض \ طبيب الأسنان : 1 \ 18 ، والممرض \ الصيدلي 1 \ 20 . وقد لوحظ انخفاض نسبة الكوادر التمريضية من النساء حيث كانت النسبة 24,7% في المستشفيات و 11,0% في مراكز الرعاية الصحية. أي نسبة الذكور \ الإناث 4,4 \ 1. وقد كانت نسبة من تدرّب أثناء العمل للسنوات الأربعة الماضية داخل القطر (22,4%) فقط . وكانت نسبة (2%) للقتل وأيضا نسبة (2%) لمن تعرض للخطف من هذه الكوادر. نستنتج من هذه الدراسة إن الكوادر التمريضية تعاني في عملها من العديد من الصعوبات والمعوقات ، وتوصي الدراسة بتسليط الضوء على هذه الفئة المهمة في مجال الخدمات الصحية وتدبير المعوقات والصعوبات التي تعاني منها.