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Editorial

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FROM THE EDITOR

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Our first edition for January 2009, sees some excellent articles form the region, with most focusing on nursing issues. In an article entitled, "Approaches for Improving the Nutrition and survival of orphans and vulnerable Children in Rural areas of Abia State, Nigeria" Dr Enwereji, E. E. from the Department of Community Medicine, College of Medicine, Abia State University, Nigeria writes that most Nigerians do not have one meal a day, and the plight of orphaned and vulnerable children is even worse.

In an article entitled: Prevalence and factors affecting childhood asthma in the Middle East: A literature review, Mohammad Al-Motlaq reviews the literature on this important topic. A female nursing student, Ms. Alaa Ali M. Al Shehri provides a personal perspective on Nursing in Saudi Arabia, particularly looking at the need to learn English. This is an excellent insight into the concerns of student nurses.

Dr Mehrnoosh Pazargadi, provides an excellent article on "IRANAIN EXPERTS' PERSPECTIVES ON PERFORMANCE EVALUATION OF NURSE FACULTIES: A QUALITATIVE STUDY" while Nazdar Ezzaddin Rasheed and Salar Adnan Ahmed submitted an article on "Effects of ß- Thalassemia on Some Biochemical Parameters".

Professor Ali Reza Kaldi, and Masoumeh Hardar, M.A. of University of Social Welfare and Rehabilitation Sciences discuss the controversial topic of "Attitude of University Students Toward Family of Temporary Marriage in the City of Tehran" and the societal problems it causes.

Another excellent article on regional nursing issues was submitted by Fadi El-Jardali, MPH, PhD, Assistant Professor, Department of Health Management and Policy, Faculty of Health Sciences, American University of Beirut in a paper entitled: Comparing Reasons for Nurse Migration against Intent to Leave Lebanon: A Two-Hospital Case Study and studies the reasons and intent of Nurses to work abroad.

We thank you for your support of the ME-JN during 2008 and look forward to receiving your articles and readership in 2009.

APPROACHES FOR IMPROVING THE NUTRITION AND SURVIVAL OF ORPHANS AND VULNERABLE CHILDREN IN RURAL AREAS OF ABIA STATE, NIGERIA

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ABSTRACT

Introduction With poverty and harsh economic policies in developing countries, there is need for nutritional inputs in intervention programmes for orphans. Most families hardly have a meal in a day. Some extended family members are illiterate and lack adequate knowledge of nutrition, water and food safety precautions. Leaving care of orphans to them could expose orphans to malnutrition and/or infections. This study is aimed at using locally acceptable methods to improve orphan nutrition and survival strategies.

Method Nutrition and hygienic assessments were done using questionnaire, interview guide, checklist and spot observation. Sample was 120 purposively selected orphans. To compliment nutrition intervention, 30 Caregivers were trained on hygienic, food and water safety measures including HIV/AIDS prevention.

Results Pot-logging ensured food security and augmented nutrient requirements of 17(29.3%) malnourished, and wasted orphans.

Conclusions Protein energy malnutrition contributed 29.3% hospital admissions of sample. Community members are encouraged to advance activities that increase food security, child survival and HIV prevention.

Key words: malnutrition, food security, Caregivers, assessment, Nigeria

Introduction

With poverty and harsh economic policies in Nigeria, there is need for nutritional inputs in intervention programmes for orphans. Extended family system, which provide care and support for orphans in times of difficulties, haver been eroded due to unfavourable economic policies. Most families now hardly have a meal in a day as they struggle continually to fight hunger, ill health and deepening poverty. Some of the extended family members who play the role of caregivers are illiterates and they lack adequate knowledge of the benefits of good nutrition, water safety, and also hygienic conditions. Leaving care and support of orphans to them could expose the orphans to malnutrition and/or infections. Studies have shown that orphans in sub-Saharan Africa face increased vulnerability such as food insecurity, unfavourable local and community economies, and lack of health facilities and health education[1]. There is growing recognition that focusing on children's well-being is crucial to winning the fight against HIV/AIDS[2,3].

The needs to build up the skills of family members in other to enable them understand various indigenous methods to care and support for orphans should not be over-emphasized. Caregivers should be empowered through training so as to equip them with skills to protect orphans from HIV infection as well as the worst effects of poverty. Studies have shown the importance of minimizing risk behaviours capable of exposing orphans to HIV/AIDS by paying attention to income support programmes as means of preventing devastating effects of HIV/AIDS[4].

Several recent studies have reported HIV/AIDS as increasingly associated with issues of food, nutrition and malnutrition[5-7] and that food insecurity may force households to adopt lifestyles that increase the risks of HIV infection[8,9]. The need to encourage community responses in care and support of orphans is advocated[10]. The critical question is, what cost-effective indigenous programmes would be used to improve nutrition so as to increase the survival of orphans in the rural areas.

The study aimed to use locally acceptable methods to contribute to reduction of hunger, and malnutrition among orphans in the rural areas. It also aimed to improve sanitary conditions of the orphans. This would be achieved by using ranges of relevant strategies to scale up caregivers' skills to transmit essential knowledge to enhance the physical and psycho-social well-being of orphans so as to move them from surviving to thriving.

This study was carried out to complement efforts of UNICEF and other world bodies in the crucial services they render to improve children's well-being in the fight against HIV/AIDS so as to reduce mortality. Study is therefore appropriate and responds to the clarion call by UNICEF and other world bodies on the crucial need for more organizations to focus on children's well being to minimize deteriorating health and higher mortality over time.

Materials and Methods

A sample of 120 purposively selected orphans, between the

ages of 4 months and 18 years was studied. The sampling frame was obtained through community leaders. The study was community-based. It used indigenous methods to improve food and nutrition as well as the hygienic environments of orphans in the rural areas. In the process, food recall assessment of the orphans was conducted for 5 days. Five days was used to enable orphans and/or caregivers to remember the types of food consumed. To compliment nutrition intervention, counseling and training of 30 purposively selected orphan caregivers was carried out.

Caregivers were trained on food and water safety measures. Teaching centered on moral values, maintaining adequate nutrition and hygienic environments. This strategy of training caregivers was to ensure maximum benefit and sustainability of the interventions provided to orphans. In addition, large-scale campaigns for water and food safety precautions were organized at community and village levels during the period of study. In all, three seminars were conducted for Caregivers. Also, discussions were held with Community Chiefs and the discussions centered on need to involve members of the community to augment protein and other requirements of orphans.

Two instruments for data collection, questionnaire and interview guides were used for the study. In addition, checklist was used to assess hygienic conditions the of orphans' environment.

For this study, orphans refer to children who have lost either of the parents by death while vulnerable children are those at risk of abuse.

Ethical Considerations

The University Ethical Committee vetted and approved the study before its commencement. Following this approval, permission to conduct the study was obtained from the traditional rulers of the communities studied. Their respective approvals enabled the researcher to collect information from the orphans and their Caregivers uninhibited. The instruments used for study were constructed in a way that did not request the participants to write their names or to give any thing to identify them. The researcher gave statements of confidentiality as well as briefs on objectives of study. In addition, a written permission to conduct seminar for orphan Caregivers was requested and obtained.

Data analyses

Data were analyzed manually using qualitative and quantitative methods. Simple percentages with Tables were utilized.

Results

Background information of the orphans

The orphans studied consisted of 72(60%) males and 48 (40%), females. The Caregivers of 84(70 %) of orphans were females while that of 36(30%) were males. The ages of the orphans were varied. About 12 (10%) of them were between the ages of 4months and 1year, 18(15%) were between 2-5 years, 22(18.3%) 6-9 years, 19 (15.8%) 10-13 years, and 49(40.9%) 14-18 years. For means of livelihood, 20(16.7%) of the orphans confirmed that they assisted their Caregivers to make a living by working as hired labourers to others in the communities. These orphans stressed that they worked under conditions of slavery or semi-slavery, which is viewed as capable of posing traits to their survival and physical development. Also some of the Caregivers complained of lack of meaningful means of livelihood. In terms of education, 24(20%) of the orphans were in primary school, 39(32.5%) in secondary school, while 27(22.5%) of others who were supposed to be in school were not. Reasons for not being in school were sought. The commonest reason the orphans gave for not being in school was lack of money. Table 1 contains other reasons the orphans gave.

Result of food recall assessment: Findings on food recall assessment of orphans for a period of 5 days showed that carbohydrate was the major food consumed. Garri, (cassava product), which is the staple food was the main food commonly consumed by 74(61.7%) of the orphans on daily basis.

Table 2 shows details of food items orphans consumed.

Realizing that only limited number of orphans included fish, meat and other proteins as part of their protein intake, the community members through the Chiefs were encouraged to contribute food items to augment food intake of the orphans. This practice, made some community Chiefs and others to contribute food items, clothing materials and other items for the upkeep of orphans. These donations were done with ease.

Further finding revealed that 58(48.3%) of the orphans had had one form of ailment or the other, which occasioned admission. Further finding showed that severe fever 20(34.5%) and protein energy malnutrition (PEM) 17(29.3%) constituted the main causes of admission of orphans. Table 3 contains other reasons for orphans' admission.

Sanitary conditions and/or social amenities available to orphans

Study observed that the sanitary condition of the orphans in the rural areas was very low. About 42(35%) of the orphans live in concrete houses with asbestos. The surrounding environment of 46(38.3%) of orphans was overgrown with grasses. For social amenities, finding showed that orphans had limited social amenities available to them. The commonest social service available to 85(70.8%) of the orphans was patent medicine store. Also 61(50.8%) of the orphans cook and sleep in the same house. Table 4 contains the hygienic conditions and/or social amenities available to orphans in the rural areas.

Discussion

This study had four main findings. Poor nutrition, repeated hospital admission, unhygienic conditions and limited social amenities affected the well being of orphans. The fact that 74(61.7%) of the orphans ate mainly 'gari' (cassava product) on daily basis shows the extent to which the orphans' nutrition was balanced. It also estimates the extent to which the growth processes of the orphans are at risk. Sufficient and/or correct nutrients are essential for the orphans' survival. This finding is supported by the fact

that during the study, a good number of the orphans 58(48.8%) was on admission for repeated severe and/or chromic infections. Also the finding is supported by the fact that 20 (16.7%) of orphans who worked as hired labourers said they worked under conditions of slavery and/or semi-slavery. The finding calls for adequate intervention for the orphans. The suggestion for intervention for orphans agrees with the recommendations of 1,5. Infections like malaria, measles, and others that lead to decrease food intake or failure of appetite could interfere with nutrition and growth, and could negatively affect survival of orphans.

Sanitation conditions of the orphans were very poor. Some of the orphans had no toilet facilities. They reported that they toilet in nearby bushes. About 61(50.8%) of the orphans slept and cooked in the same place. In Africa where people in the rural areas cook with firewood, cooking and sleeping in the same room could expose orphans to respiratory tract infections (RTIs) like asthma, pneumonia and others. The potential role of good drinking water in overall survival of orphans has been overlooked by most researchers 7, who stress more on income and poverty. In this study, a good number of orphans, 110(97.2%) had their drinking water from untreated water sources like streams, ponds, rainwater, and others. This condition could be responsible for the percentage of orphans who underwent hospital admissions for enteric diseases. The finding that most drinking water sources in rural areas are from untreated water sources agrees with the findings of 6 and explains the extent to which children in the rural areas are at risk of water borne infections.

In this study, several strategies were employed to improve the orphans' nutrition and survival. Foremost among the strategies used was a local technique (Pot-logging) where individuals donated food and other items through a common point. Pot-logging was of great strength to the study. It helped to care, support and augment orphan nutrition in the rural areas especially that of those who were malnourished. The technique of pot-logging motivated a good number of individuals in the community to donate food items, clothing materials, and others for the upkeep of orphans. Pooling the donated items together helped to minimize waste of resources, as there was less duplication of materials during donations. It also ensured availability of materials as individuals including some religious groups regularly donated food and other materials willingly.

This observation is in agreement with that of 5. This technique proved useful to Caregivers especially the old and frail Caregivers who had difficulty in providing two meals a day.

Another strategy used was the training of 30 orphan Caregivers on water and food safety measures including HIV/AIDS. Training Caregivers helped to enlighten them on factors that could increase orphan survival.

Conclusion

Poor sanitary conditions of most social amenities in the rural areas accounted for increased hospital admissions of the orphans and are a powerful predictor of their survival variations. Pot-logging yielded positive results and ensured food security for the orphans.

Therefore, community members should be regularly involved in activities that encourage food security and child survival so as to advance orphans from surviving to thriving thereby minimize risk behaviours orphans are exposed to.

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Table 1. reasons orphans gave for not being in school.

Reasons	Frequency of response N= 27
Lack of money	16(59.3%)
No admission	9(33.3%)
No guardian	5(18.5%)
Not interested	8(29.6%)
No school of interest close	6(22.2)
No time to attend school	6(22.2)
Caregiver did not support	7(29.8)

+++ Multiple choice

Table 2: Food recall assessment of the orphans

Food assessment	Frequency of response
Rice	16(15%)
Yam	34(28.3%)
Coco yam	29(24.2%)
Water yam	32(26.7%)
Plantain	12(10%)
Bread	8(6.7%)
Beans	9(7.5%)
Garri	74(61.7%)
Foo foo (fermented cassava)	45(37.5%)
Tapioca (boiled cassava)	31(25.8%)
Pap (corn flour)	38(31.7%)
Milk	10(8.3 %)
Fruits (oranges, paw paw, pineapple etc.)	14(11.7%)
Nuts (palm kernel, coconut etc.)	24(20%)
Vegetables	28(23.3%)
Meat	33(27.5%)
Fish	37(30.8%)

+++ multiple choice

Table 3 Reasons for orphans' hospital admission

Reasons	Frequency of response N=58
Severe fever	20(34.5%)
Stomach pain	5(8.6%)
Vomiting	4(6.9 %)
Watery stool	9(15.5%)
Protein energy malnutrition	17(29.3%)
Injury	4(6.9%)
Burns	3(5.2%)
Measles	8(13.8%)

Table 4: sanitary conditions and/or social amenities of orphans

Sanitary conditions of orphans' environment	Frequency of response
Types of houses orphans live in:	
Mud house with roof thatches	14(11.7%)
Mud house with zinc roof	23(19.2%)
Concrete house with roof thatches	12(10%)
Concrete house with zinc roof	29(24.2%)
Concrete house with asbestos roof	42(35%)
Neatness of the surroundings:	
Grasses overgrown	46(38.3%)
Grasses trimmed and/or surroundings weeded	21(17.5%)
Littered with empty cans, bottles, stick papers and disused materials	38(31.7%)
Clean and tidy	36(30%)
Social amenities available:	
Types of Water Supply:	
Well	6(5%)
Borehole	10(8.3%)
Rain water	33(27.5%)
Stream	59(49.2%)
Pond	18(15%)
Kitchen facilities:	
No kitchen	19(15.8%)
Kitchen available but in same house	61(50.8%)
Kitchen available but detached	57(47.5%)
Toilet Facilities:	
No toilet	9(7.5%)
Pit latrine	97(80.8%)
VIP latrine	9(7.5%)
Water system	5(4.2%)
Education:	
Primary school	64(53.3%)
Secondary	56(46.7%)
Tertiary	0(0%)
Health care facility:	
Hospital	0(0%)
Health center and/or maternity homes	15(12.5%)
Patent medicine stores	85(70.8%)
Herbal homes	52(43.3%)
Prayer homes	71(59.2%)
None	5(4.2%)

**** multiple choice*

EFFECT OF SS- THALASSEMIA ON SOME BIOCHEMICAL PARAMETERS

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ABSTRACT

Background and objectives: Thalassemia or hemoglobinopathy is a hereditary disease caused by defective globin synthesis resulting in abnormal as well as decreased quantity of globin chains. Ineffective erythropoiesis, hemolysis, and increased red blood cell turnover.

The present study deals with the effects of ß-thalassemia on the following serum biochemical parameters (sodium, potassium, calcium, phosphate and uric acid).

Material and method: A prospective study was carried out from September 2004 to March 2005 by collaboration between clinical biochemistry and pediatric departments in College of Medicine, Hawler Medical University on thirty patients with ß-thalassemia in comparison with thirty normal subjects.

Results: The results showed that there was a significant difference (P< 0.05) in the level of serum Potassium, Calcium, Uric acid and hemoglobin while the differences in sodium and phosphate were not significant.

Conclusion: Based on findings of the present study it can be concluded that ß-thalassemia causes multiple abnormalities in biochemical parameters.

Introduction

The thalassemia syndrome is a group of metabolic inherited disorders[1] characterized by microcytic hypochromic red blood cells. The homozygous state, thalassemia major results in a severe anemia and often death before puberty. The heterozygous state, thalassemia minor is less severe and may be asymptomatic with little or no anemia[2,3]

The word thalassemia comes from the Greek “thalassa”, sea referring to thr Mediterranean and “haima”, blood which means blood disease of the sea[3,4,5]. The first description of severe thalassemia as a unique disorder was described in 1925 by a Detroit pediatrician “Thomas Cooley” who described a severe type of anemia in children of Italian origin which was later named after him[3].

Thalassemia represents the most common single gene disorder causing a major public health problem[6]

It is widely distributed through the Mediterranean, Middle East, India, southeast Asia and Africa[5]. Iraq is one of the countries in which 6-10% of the population have hemoglobinopathy of which thalassemia is a major part[7]

The underlying abnormality in the thalassemia syndromes is thought to be absence or reduction in production of hemoglobin[2]

There are 2 types of thalassemia - alpha and beta depending on which globin chain is affected by genetic mutation or deletion[8].

The disease is called beta thalassemia when ß chain production is decreased relative to alpha chain production and alpha thalassemia when a chain production is decreased relative to ß[2,6].

Over the last 3 decades the development of regular transfusion therapy and iron chelating has dramatically improved the quality of life however in the developing world, poor availability of proper medical care, and safe and adequate red blood cell transfusion, together with poor compliance to chelation therapy remains a major obstacle. Despite the increased life expectancy thalassemia complications keep arising especially iron overload related complications as well as toxicities of iron chelator[9] which may result in metabolic and endocrine abnormalities like hypogonadism, diabetes mellitus, hypothyroidism, hypo-parathyroidism and zinc and copper deficiency[10, 11,12].

Precipitation of alpha globin chains in the thalassemia RBC may interfere with normal membrane function leading to increased calcium content which is more pronounced in splenectomy patients correlates with the degree of anemia[11].

Materials and Method

1- Subjects

This study was conducted on 60 individuals all under 17 years, thirty 30 of whom were patients with ß-thalassemia and the other thirty 30 were healthy controls.

ß-Thalassemic patients in Erbil were all registered in a pediatric hospital thalassemic unit to receive treatment. The diagnosis of thalassemia was based on hematological criteria (peripheral blood evaluation and hemoglobin electrophoresis of the patients from early years of life. The mean ± S.E of age was 11.93±1.1

years and the range 1-16 years. While the healthy individuals mean ±S.E of age was 12.2±1.1 years and the range 1-17 years - see Table 1

2-Blood sample collection:

Three to five millilitres of venous blood was drawn from ß-thalassemic patients and healthy individuals. Collected blood was left standing at room temperature until it clotted, then the sample centrifuged at 300 rpm for 10 minutes for removal of serum from suspended cells. Then the serum was tested for sodium, potassium, calcium, phosphorous and uric acid determination.

3-Instruments

- Spectrophotometer (Spectronic 21)
- Centrifuge type Labofuge 200
- Computer for data analysis
- Flame photometer (Jenway)

4-Method

Sodium and potassium in Serum was measured by an instrument called a Flame photometer according to Varly[13] method as follows:

Principle of operation (Flame photometry):-

Flame photometry relies upon the fact that the compounds of the alkaline earth metals can be thermally dissociated in a flame and that some atoms produced will be further excited to a high energy level. When the atoms return to ground state they emit radiation which lies mainly in the visible region of the spectrum (each element emits radiation at a wave length specific to that element[13] while routine biochemical tests were done in serum for phosphorous determination according to Gomorri methods[14].

Serum uric acid and calcium was determined for both groups by an enzymatic colorimetry method by using ready made kits Biomerieux Sa. (France) according to the method of (Barhand and Coms) respectively[15, 16].

5-Statistical evaluation

Statistical analyses were carried out by using some statistical measurements. Biochemical values were presented as the mean±S.EM and range. All analyses for difference between the two independent groups were performed by Student's t tests, with a level of significance assigned at 0.05. Values less than 0.05 ($P<0.05$) were considered to indicate statistical significance[17].

Results

Group I (Healthy individuals):

The mean±S.E for serum Potassium gave values of 4.8±0.1 mmol/L and a range of 3.2-6.4 mmol/L. The mean±S.E for serum Sodium was 139±1.5 mmol/L and the range was 122-150 mmol/L. The mean±S.E values for Calcium, Phosphorous and Uric acid were 11.3±0.3, 4.8±0.3 and 4.6±0.2 mg/dl respectively, with the range of 8.7-15, 1.1-8 and 2.8-8.6 mg/dl respectively as shown in Table 1.

Group II (ß-thalassemic patients):

The mean for serum Potassium gave values of 5.3±0.2 mmol/L and a range of 3.6-7.5. The mean for serum Sodium was 141±1.6 and the range was 122-159 mmol/L. The mean value for Calcium, Phosphorous and Uric acid were 46±0.2, 5.6±0.3 and 5.9±0.3 mg/dl respectively, with the range of 2.4-6.6, 3.5-9.4 and 3.8-91 mg/dl respectively as shown in Table 2.

Discussion

In comparison between healthy individuals and ß-thalassemiac individuals, it was showed significant differences in serum Potassium ,Calcium, Uric acid and Hb while serum phosphorous and sodium showed no significance - see Table 2 Figure 1 and Figure2.

The goal of the present study was to understand the effects of ß-thalassemia on certain serum biochemical parameters (Sodium, potassium, calcium, phosphate and uric acid).

The aim of transfusion is to maintain a hemoglobin level that inhibits ineffective erythropoiesis, marrow expansion and allow normal growth. The hemoglobin should be maintained between 10-14 gm/dl with pre-transfusion hemoglobin of 10-11 gm/dl. Most patients in the present study were suboptimally blood-transfused thalassemics. They had significant anemia of 7.5±0.2g/dl which resulted in growth retardation, delayed puberty, and retarded bone age. These findings were in agreement with the previous studies[1,18,19].

The results obtained in this study as noted earlier showed that the mean value [Mean±S.E.] of serum Potassium for ß-thalassemiac patients was 5.3±0.2 mmol/L. The mean value for Uric acid was 5.9±0.3 mg/dl. The values were significantly higher in ß-thalassemiac patients compared with the control group ($p<0.05$) which is in accordance with Kostas et al[20].

Increased hemolysis and/or red cell turnover might be blamed for the elevated serum potassium and uric acid levels. Highest normal value of uric acid in the beta-thalassemic patients, despite the increased red cell turnover could be due to the increased excretion of uric acid, evidenced by the high fractional excretion in uric acid, which may be the result of the supra normal proximal tubular function[21].

Aldosterone is a mineralo-corticoid which acts on P cells of the distal tubule and causes Na + reabsorption in exchange for K+ or H+ secretion. This defect in potassium secretion is not clinically apparent under normal circumstances, though hyperkalemia is likely to manifest with mild degrees of renal impairment[22]. This might explain the slight elevation of potassium to upper normal range in our study.

Furthermore, there was also a statistically significant difference in serum calcium between the control grouip and ß-thalassemiac patients. The same observation for calcium level was also reported by Saka et al[23].

On the other hand a non-significant increase in the mean levels of serum phosphorous was found in patients with ß-thalassemia compared to the control group, This finding is similar to that found by Kostas et al[20].

The ß-thalassemia major results in severe anemia, which needs regular blood transfusion. The combination of transfusion and chelating therapy has dramatically extended the life expectancy of thalassemic patients[22,23]. On the other hand,

frequent blood transfusion in turn can lead to iron overload[24,25].

Hypocalcaemia is a well known complication of iron overload[26]. Iron overload occurs either from the transfusion of red blood cells or because there is increased absorption of iron from the digestive tract. Both of these occur in thalassemia. Iron overload also causes pituitary damage with hypogonadism, endocrine complication, hypothyroidism and hypoparathyroidism is also seen[27].

Parathyroid hormone which is secreted by the parathyroid gland mobilizes calcium from bone[27,28].

A study done by Desanctis 1995 showed that hypocalcemia due to hypoparathyroidism is recognized as a later complication (age 16 year and above) although in our study hypocalcemia was observed in a very younger age. This could be attributed to poor patient compliance due to poor education about the disease. An iron chelating agent with its pump is not always available, and communications between the thalassaemic centers and the patients are not always easy.

Conclusion

Some findings of this study deserve con# Pre transfusion Hb value was suboptimal so more effort is required to educate families on better compliance and more support is required for donation of blood to thalassemic centers.

1. Hypocalcaemia is found in early age and might be due to unavailability of a dysferoxamine pump or poor compliance.
2. Serum potassium was found to be in the upper normal range and might be due to mild renal impairment, so future study should be done on the effect of thalassemia on renal function.
3. Screening for thalassemia must be included and other tests pre marriage are required since thalassemia is very common in the north of Iraq.
4. More governmental & non-governmental support is required focusing on availability of therapy, discovery of new cases, as well asl education of families about thalassemia and it's effect on growth.

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Table 1 The host information of ß-thalassemiac patients and reference group

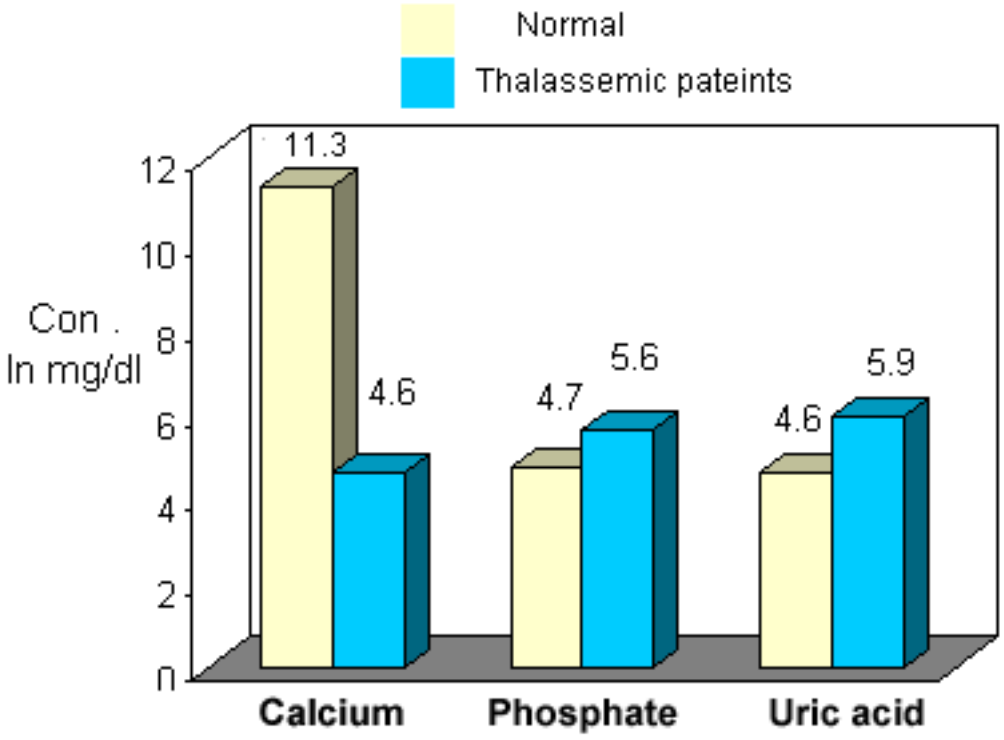
Groups	Total Number	Numbers		Age(years)	
		Male	Female	Mean ±S.E	Range
Group I	30	14	16	12.2±1.1	1-17
Group II	30	12	18	11.93±1.1	1-16

Table 2. Biochemical parameters of the studied group

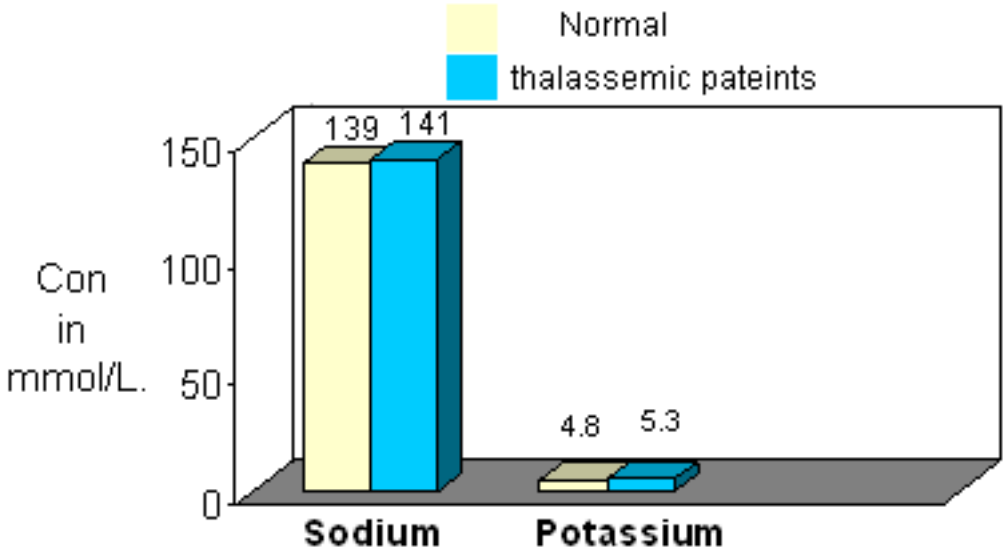
Parameters	Unit	Normal		Patient		Statistical evaluation
		Range	Mean±S.E	Range	Mean±S.E	
Potassium	mmol/L	3.2-6.4	4.8±0.1	3.6-7.5	5.3±0.2	P<0.05
Sodium	mmol/L	122-150	139±1.5	122-159	141±1.6	N.S

Calcium	mg/dl	8.7-15	11.3±0.3	2.4-6.6	4.6±0.2	P<0.01
Phosphate	mg/dl	1.1-8	4.8±0.3	3.5-9.4	5.6±0.3	N.S
Uric acid	mg/dl	2.8-8.6	4.6±0.2	3.8-91	5.9±0.3	P<0.01
Hb	g/dl	13.9-8	11±0.1	8.4-4.8	7.5±0.2	P<0.01
Age	years	1-17	12.2±1.1	1-16	11.93±1.1	N.S

Figure(1): Serum sodium and potassium in normal and ß-thalassemic patients



Figure(2): Serum total Calcium, Phosphate and Uric acid in normal and ß- thalassemic patients



PREVALENCE AND FACTORS AFFECTING CHILDHOOD ASTHMA IN THE MIDDLE EAST: A LITERATURE REVIEW

ABSTRACT

Introduction: Asthma is a common illness during childhood. It affects more than 300 million worldwide, and its prevalence differs from one region to another.

Aims: Assess the prevalence of childhood asthma in the Middle East based on studies from countries in the region with focus on the causes, and factors affecting the illness among children and adolescents.

Methods: The research involved a review of the literature on prevalence and factors affecting occurrence of childhood asthma in the region. PubMed, Cinahl, Medline, and other relevant web pages were searched.

Results: The analysis of relevant papers on the Middle East region has revealed almost similar percentages of asthma as in the western world, apart from some countries. The overall prevalence ranged from 1.9% in rural areas, to more than 22% in urban industrialized and condensed cities. Factors that affected prevalence and occurrence of the illness varied, with environmental factors being the common indicator.

Conclusion: Further studies are recommended in the area of management of childhood asthma, and more focus should be given to prevention strategies.

Key words: Asthma, Prevalence, Children, Childhood asthma, Middle East.

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Introduction

Asthma is a common chronic respiratory illness in children. The prevalence of the disorder has been increasing in most countries of the world. Consequently, the rates of morbidity and mortality from asthma are rising. Several independent studies were conducted in the Middle East region, which include Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates (UAE), and Yemen, to investigate different features of asthma, of importance and asthma prevalence. The region was chosen as one geographical area that incorporates almost similar cultural and environmental factors.

Asthma is environmental and inherited[1], but genetic factors are unlikely to explain the increase in a short period of time. Environmental factors are more anticipated reasons for the increase. Nevertheless, proving this requires more rigorous designs that follow cohorts over a period of time in various regions[2]. However, international research suggests that environmental factors such as air pollution are important triggers for asthma exacerbation and hospitalization[3]. There are scattered data regarding the prevalence of the illness in the Middle East. The latest results from studies by the International Study of Asthma and Allergies in Childhood (ISAAC) showed prevalence of asthma to vary between 6.6% and 29.7%[4]. Understanding asthma and its treatment would help decrease the burden and save resources. The objective of this paper was to review the literature for data on asthma prevalence and factors affecting its occurrence in the Middle East region.

Methods

This study included data on asthma prevalence in children under the age of 18 years and the risk factors associated with its occurrence in the Middle East region. The research design involved a thorough literature review using databases available by Monash University Library and concluded in July, 2008. The databases included PubMed, Cinahl, Medline, and general internet searching engines. Other relevant journals and web pages were included as well. The keywords used were asthma, wheeze, child, prevalence, incidence, and Middle East (including each individual country name in the region). Although title in some articles did not reflex the whole content, relevant studies in the reference lists of each study were reviewed. This review has examined the English literature, other than Arabic, Persian, Hebrew, or Turkish.

Results and Discussion

Prevalence

A reasonable number of articles were involved in the documentation process. Number of studies on asthma factors in children varied from one country to another, with Turkey, Israel, Iran, and Saudi Arabia, being respectively the highest among the other countries in the region. Simply, there are a few studies on asthma, its aggravating factors, and indicators in the Middle East.

Different methods of measurement were used to estimate the

prevalence of asthma. For example, the American Thoracic Society-National Heart and Lung Institute (ATS-NHLI) questionnaire[5], the American Thoracic Society[6], and the ISAAC questionnaire[7-18] were used. Consequently, surveyed groups on current asthma or wheezing, previously diagnosed with asthma, or asthma ever, showed different percentages. Differences between current and cumulative prevalence of asthma were noted as well.

It was noticed that some authors published their results far away from the date of study conduction, which reached 7 years in some cases (see Table 1). In most articles, the average period between data collection and publication was around two to three years. When date of conduction was not provided, publication years were considered (see Table 1).

The prevalence of asthma in the Middle East region in children under the age of 18 years ranged between 1.9% in Sanliurfa, Turkey[7] and 23% in Jeddah and Riyadh, Saudi Arabia[19].

However, the most recent publications showed the highest prevalence to be in Baghdad, Oman, Qatar, and Kuwait 22.3%, 20.7% 19.8%, and 15.6% respectively (see Table 1). Nonetheless, the prevalence of asthma of all age groups provided by GINA[20] were different than those provided by each individual study (see Table 1).

Asthma prevalence is increasing among children, particularly in urban areas[4]. It has been reported in the majority of the reviewed articles that prevalence of asthma was higher in the urban central, industrial areas, rather than desert and rural areas[7,12,21-28], and living in refugee camps rather than other urban or rural areas[12,24]. It was believed that geographical factors played an important role in this variation[25,29]. However, some studies found urbanization not a significant factor[6].

Factors affecting asthma prevalence

Many factors played an important role in causing and aggravating asthma in children in the region. Of importance, family history of asthma[7,14,17,18,26,30-37], characteristics of residence[6,7,31], higher economic status and increased standards of living[7,12,19,27] [7,12,19,27], low parental education[31,37], ethnic background[9,22] male gender[6,12,14,16,23,32,35,38-40], older age[38,40], premature and low birth weight[31], environmental factors (e.g. air pollution as of industrialization, natural humidity, active and passive smoking, moulds at home, and cold exposure)[6,19,35-37,41-47], pets at home[18,19,33,34,37,45,48,49], immigration to countries with higher allergies count[50,51], childhood employment[52] diet (low intake of milk and vegetables) and obesity[6,26,27,40], other allergic disorders[14,36], recurrent or past respiratory infection[6,32,44], and early childhood wheezing[53]. On the contrary, several studies found the prevalence of asthma or asthma symptoms decreased with older children[6,12,13,42,54], foreigners or born in other countries[24,27,48] male sex[15,54] breast fed children[6] and low socioeconomic status[49]. However, a number of studies found no significant relationship with some of these factors[26,39].

Hospital admission among children with asthma in the region

A few studies from the region described the pattern, prevalence, and the risk factors for increased asthma hospitalization among children. Emergency visits and hospitalizations of asthma have risen sharply[55]; one study found 65% of asthmatics had an admission during the 12 months period[56]. Factors that contributed to increased emergency admission were younger age[56,57], low socioeconomic status[56,57], pets at home[56,58], a smoking family member[55,56], more school absenteeism[56], previous hospital visits[56,57], recent respiratory infection[57], personal or familial allergy[57], severity of the illness[55,57,59], non-compliance to therapeutic regimen[55,60,61], and unavailability of medications and devices in health care centres or inappropriate treatment[62,63].

Discussion

The prevalence of asthma is expected to increase more in the coming decades, and regions such as the Middle East will play a major role in this increase. Some authors suggested that asthma prevalence has decreased recently[8], while others concluded that asthma prevalence has increased[19]. Generally speaking, air pollution in the region increased recently, attributed to many factors including oil fields and increased number of vehicles on streets. It was believed that the oil industry has brought rapid social and environmental changes and become a key factor in increasing asthma prevalence[26]. Both indoor and outdoor air pollution have been linked to a series of health problems including asthma. This study provided a summary of the literature related to asthma epidemiology in children in the Middle East.

Asthma prevalence in the region ranged from less than 5% to more than 20 %, a range similar to that of European countries. The difference between the countries could be attributed to the surveying methodology or the mixing of asthma diagnosis with other respiratory conditions.

Given the way of measuring the prevalence of asthma, many people still confuse the definition of the illness and provide mistaken data, which may have led to underestimation of asthma prevalence, and consequently under-diagnosis and under-treatment of the disorder[13,25,64].

Difference in methods and lack of consistent diagnostic criteria of asthma made the judgment about the studies difficult. In addition, the ISAAC researchers recommended a sample of at least 3000 children to get good estimates of prevalence in each area[65], a number that was more than the studied subjects in some of the included studies (see Table 1). Results of the review showed changing environmental factors are most likely to explain the increased prevalence of asthma in the region[39,66,67] that includes increase in factories, cars, allergens, and changes in life style; a similar belief in the west as well[4].

The "prevalence of asthma" as a term has not been characterized yet[68]. Therefore, asthma prevalence and incidence have not been exactly shaped. Epidemiological studies all over the world found that a large

percentage of children under the age of five years have wheezing which predisposes quite few of them later to develop asthma. In these reviewed studies in the Middle East, wheezing was found to be a risk factor for developing asthma[53,54]. Although, children who reported current or past wheeze were different from those who reported having asthma (i.e. prevalence of self reported asthma or wheeze was far more than physician diagnosed asthma).

A few studies looked at asthma in preschool age children[69,70] in the region; one explanation of this is the inability to confirm the diagnosis of the illness before 5 years of age, or no given criteria are internationally accepted as a standard for confirming asthma diagnosis.

Consequently, the focus was on wheezing in general[69,70]. Similarly, few studies have attempted to investigate the psychological being of children with asthma in the Middle East. In 1996, a study found that self-image, family interactions, and mode of coping were lower in children with asthma than their healthy peers[71]. Although more research is required, researchers recommended more efforts in education and psychological support for asthmatics.

According to reports from GINA, asthma will affect another 100 million in the next two decades, and account for 250 thousand deaths per year[72]. Given the dearth of data on asthma mortality rates in children, saving a few studies[73], mortality rates were not included in this review. The mortality rate is disproportionately higher than asthma prevalence, thus the increased prevalence of asthma cannot be linked to an increase in the prevalence of asthma mortality[59].

Factors influencing asthma were diverse and contributed significantly to increased asthma prevalence. However, contradicting results were found, which raised questions of clarification.

Similarly, factors contributed to emergency visits were considered simple and need better awareness among patients to help them manage their symptoms more efficiently. For children who spend most of their day at school, teachers' preparedness for any emergency is important and assists in giving peace of mind to the families. Studies on childhood asthma in the region are insufficient and more effort is required to fill the gaps in the data. None of the studies explored the state of asthma management within the school boundaries. Lack of employment of current medical knowledge in managing the illness was noted[23] and the majority of the studies recommended more investigation on this subject.

The management of asthma has been widely promoted through different public health approaches supporting different programs and campaigns, which provide awareness to the public on different asthma issues. Asthma education is valuable and is a significant part of asthma management that helps in reducing morbidity from the illness and improving symptoms control[74].

Conclusion

High prevalence of asthma in the Middle East region is a true phenomenon that is not much less than that reported in the western countries with high prevalence. Consequently, more attention and more effort should be provided in this regard, and more data should be collected from this region. The prevention and treatment must be improved and more focus should be involved in asthma education through national programs and research. Reasons for variations in sensitivity between rural and urban areas have yet to be studied and it seems necessary to pay more attention to poorly controlled air pollution. This review provided better understanding of trends and prevalence of childhood asthma in the Middle East. The question now is: have the countries met the needs of those children?

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Table 1: Prevalence of asthma in the Middle East countries

Country	City & Study	Cases (n)	Prevalence*	Year***	Age (years)
Iran	GINA**:[20]	---	5.5%	(2004)	All ages
	Urmia:[16]	---	2.1%	(2007)	13-14
	Tehran:[38]	2900	7%	[2004-2005]	11-17
	Tehran:[40]	2900	7.3%	[2004-2005]	11-17
	Tehran Males:[40]	1200	8.8%	[2004-2005]	11-17
	Tehran females:[40]	1700	5.8%	[2004-2005]	11-17
	Tehran:[15]	3008	2.1%	[2000/2001]	6-7
	Tehran:[15,65]	3119	2.6%	[1996,2001]	13-14
	Isfahan:[37]	4069	7.3%	[1999]	12-15
	Rural Isfahan:[75]	---	6.1%	[2000]	6-50
	Rasht:[65]	3175	2.7%	[1996]	13-14
Iraq	**Baghdad:[54]**	**---**	**22.3%**	**(2005)**	**6-12**
Israel	GINA**:[20]	---	9%	(2004)	All ages
	Bedouin:[76]	---	7.8%	(2004)	12-18
	National:[11]	11225	6.4%	[2003]	13-14
	Jewish:[5,77]	585	13.7%	[1999-2000]	9-13.2
	Arabs:[5,77]	658	9.4%	[1999-2000]	9.8-15.2
	Jews:[23,78]	7436	7.8%	[1997]	13-14
	Arabs:[23,78]	2621	4.9%	[1997]	13-14
	National:[79]	11157	13.7%	[1997]	13-14
	National:[11]	9382	7%	[1997]	13-14
	Central:[28]	---	6.38%	(1992)	Children
	Holon:[80]	---	15%	[1985-1989]	14-18
	National:[81]	802	11.2%	[1989]	13-14
	National:[81]	834	5.6%	[1980]	13-14
Jordan	Amman:[82]	---	8.8%	(2008)	6-14
	Bedouins:[82]	---	9.5%	(2008)	6-14
	Irbid:[32]	---	4.1%	(1996)	6-12
Kuwait	GINA**:[20]	---	8.5%	(2004)	All ages
	National:[83]	2882	15.6%	[2001-2002]	13-14
	National:[84]	3110	16.8%	[1995-1996]	13-14
	Kuwait:[65]	1033	17.5%	[1996]	13-14
Lebanon	National:[85]	---	5.6%	(2006)	13-14
	Beirut:[65]	2985	11.6%	[1996]	13-14
Oman	National:[13,86]	3283	20.7%	[2003]	13-14
	National:[86]	-	10.5%	[2003]	6-7
	Al-Khod:[65]	3174	20.7%	[1996]	13-14
Palestine	National:[12]	7325	8.4%	[2000]	5-8
	National:[12]	7030	5.9%	[2000]	12-15
	Ramallah:[24]	3382	9.4%	[2000]	6-12
	Rural West Bank[87]	---	2.8%	(2000)	6-14
	Urban West Bank[87]	---	4.2%	(2000)	6-14
Qatar	**National:[13,30]**	**3283**	**19.8%**	**[2003-2004]**	**6-14**
Saudi Arabia	GINA**:[20]	---	5.6%	(2004)	All ages
	Al-Khubar:[45,56]	-, 1482	9.5%,8%	(2002)	6-15
	Abha:[49]	---	4%, 9%	(2000)	7-15
	Jeddah Rural:[27]	408	4.9%	(1998)	12
	Jeddah Urban:[27]	689	17.3%	(1998)	12
	Jeddah, Riyadh, Hail, Gizan:[19]	---	23%	[1995]	8-16
	National:[34]	3041	6.8%	[1988-1990]	7-12
	Jeddah:[88]	---	12.6%	[1986-1990]	7-12
	Riyadh:[88]	---	11.9%	(1992)	7-12
	Dammam:[88]	---	6.6%	(1992)	7-12
	Jeddah, Riyadh, Hail, Gizan:[19]	---	8%	[1986]	8-16
Syria, Yemen, and Bahrain: No recorded data from these countries					

Turkey	GINA**:[20]	---	7.4%	(2004)	All ages
	Manisa:[89]	725	7.9%	(2008)	>3
	Istanbul:[29]	---	10.7%	(2007)	4-12
	Izmir:[90]	---	4.8%	(2006)	8-12
	Sanliurfa:[7]	1108	1.9%	(2006)	10-18
	Zonguldak:[35]	---	4.9%	(2005)	6-16
	Adana:[18]	---	5%, 12.6%	[1997]	6-18
	Adana:[18]	---	14.7%	[1997]	6-10
	Adana:[18]	---	6%	[1997]	15-18
	Istanbul:[14]	2387	17.8%	[2004]	6-12
	National:[6]	25843	2.8-9.8%	[1994-2004]	Children
	Ankara:[91]	3041	6.9%	[2000]	8-11
	Duzce:[92]	---	6.4%	[2002]	6-16
	Ankara:[8]	621	6.4%	[2002]	6-14
	Afyon:[93]	---	7.46%	[2001]	>12
	Diyarbakir:[94]	---	14.1%	(2001)	6-15
	Istanbul:[95]	---	7.2%,13.7%	[1997]	6-15
	Ankara:[96]	738	8.3%	[1997]	6-13
	Ankara:[8]	738	9.8%	[1997]	6-14
	Istanbul:[14]	2216	9.8%	[1995]	6-12
	Ankara:[8]	1036	8.3%	[1992]	6-14
	Ankara:[96]	1036	17.4%	[1992]	6-13
	Adana:[97]	---	12.9%	[1993]	6-14
UAE	GINA**:[20]	---	6.2%	(2004)	All ages
	National:[17]	---	13%	(2000)	6-13
	Al-Ain:[39]	729	13.6%	[1992-1993]	6-14

**Diagnosed by physician and/or reported by the patient or the parents.*

*** GINA: No reports on other countries [20].*

****Between ( ) indicates publication year, and between [ ] indicates data collection year.*

IRANAIN EXPERTS' PERSPECTIVES ON PERFORMANCE EVALUATION OF NURSE FACULTIES: A QUALITATIVE STUDY

ABSTRACT

Background: The performance evaluation (PE) of nurse faculties is an important and complex component in the academic nursing education management. To design or improve it, the first step is identification of its nature and attributes.

Objectives: The major purpose of the study was to explore the main domains of the performance evaluation of nurse faculties with a focus on the experts' perspectives and evaluation practice.

Methods: In this qualitative study, data were collected by two approaches: individual semi-structured interviews by purposive sampling during Oct 2006-May 2007, and inspections of the all actual evaluation forms, procedures and policies. 22 interviews and 26 sets of evaluation documents were analyzed by qualitative content analysis.

Results: Three main themes emerged as the PE domains: "nurse faculty's competencies", "task work process" and "job outcomes".

Conclusion: The findings of this study provide in-depth understanding of the nurse faculties' PE from the experts' perspectives and the field practice which can be useful for the top managers at the nursing schools and the other academic institutions. These findings can provide a framework for the PE for all faculty members especially nurse faculties.

Key word(s): Performance Evaluation, Nurse Faculty, Qualitative Research

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Introduction

For many people Performance Evaluation (PE) is a fearful event, one hell bent on undermining their freedom and independence. Others take a more freethinking view and perceive the potential for PE as a helpful tool for professional self-development. These contrasting views are based on different perceptions of what the concept of PE may involve[1]. It is probably due to the novelty of the evaluation as a science too. It has no age more than one century in the world, and one-third century in Iran. The evaluation sciences and their aspects have not had inclusive explorations and investigations as yet, so that they can be clearly defined, particularly in each profession and job field[2]. The literature shows, in spite of the discussions and research on faculties' PE, there is yet potential for development of a clear faculty evaluation theory[3]. As a result, all of the academic managers have to develop and put into practice some evaluations according to their special culture and mission[4].

The complexities and difficulties of the faculties' PE are stated in the related studies in world and in Iran. The specialists have explained that PE is not simply an objective and cognitive process[5]. The difficulties of the faculties' PE are due to the diversity of best practice measures and goals, and the lack of a single method and approach for PE of all teachers, teachers in the same position, or even a particular teacher in different situations[6,7]. The PE of nurse faculties is more complex than others because of their clinical education[7,8].

In general, PE is an important and complex concept. It combines two somewhat different approaches, performance measurement and evaluation. Performance measurement is an ongoing monitoring and reporting of the work of pre-established goals and objectives[9] and evaluation is a systematic study of the quality and value of a phenomenon[10].

The first question in PE is "What is performance?" Performance has many meanings such as, the resukts of work results; the quantity of effort; the total output[9], execution, accomplishment[11] and so on. In fact, performance is the behaviour, which has two characteristics: they are evaluative, and performance is multi dimensional. So, it needs to consider many different types of behaviours to reorganize performance[12]. It can be said "performance is what an individual does in their job"[13].

In the nursing education programs, the evaluation of nurse faculties is an important part, hence, it must be done more systematically, purposively and be inclusive[14]. There is little study about nurse faculties' performance. For better understanding, the information about its essence must be initially gathered[15]. This is especially important for development of an appropriate nurse faculties' PE model.

The teaching administrators and expert faculties usually have an important role in the design and implementation of a successful evaluation system[4], so their perspectives, in the explanation of nurse faculties' PE are considerable. Some of the evaluation specialists advise the descriptive analysis to determine the domains covered by the PE and to make sure that the criteria reflects the school's missions[13] and some believed that the content analysis of actual PE systems and forms can be enlightened and show more differences than survey studies[7].

As a result, the authors attempted to do this qualitative study to obtain a more in-depth understanding of the nurse faculties PE essence with a focus on the experts' perspectives and evaluation practice that may be promoted by nursing academics.

Data and Analytical Methods

A descriptive design with a qualitative approach was used to understand the essence of the phenomenon under study. The data was gathered by two approaches: interviews and observation.

a- individual interviews

The key informants were[16] selected by purposive sampling[17] from the deans, top managers, and the evaluation executives in Tehran. The in-depth interviews with a semi-structured interview guide[18] were tape-recorded during October 2006 to May 2007. They transcribed verbatim instantly. The participants were informed about the study and assured of confidentiality and anonymity. The sample size was determined by data saturation[16] and was 22 Iranian experts in various positions (Table 1).

b- Observation of the actual PE documentaries for nurse faculties

All 26 formal evaluation forms, procedures and policies were also simultaneously collected (Table 2).

The inductive process with conventional approach(19,20) was applied for qualitative content analysis of all gathered materials and transcripts. Throughout the study, issues of rigor and trustworthiness in qualitative methodology were addressed.

Results

Ten categories in three main themes were derived from the data (Figure 1). The themes and their categories labeled as the domains and components respectively.

Nurse faculty's competencies domain

The nurse faculty's competencies are the important concept of the nurse faculties' PE. For example, one of the participants said "…The PE can demonstrate the nurse faculties' competencies… and how they can improve them." Said another participant:, "…the PE can confirm the nurse faculties' competencies both as a teacher and as a nurse". They believed that these competencies are able to be achieved, improved and refined. The wide-ranging related subjects were classified into the five following categories.

- Experiences

Some codes of participants' statements and documents items narrated the past performance and those were important to PE were grouped in the experiences category. For example one dean believed, "… evaluation must help us to understand how they did in their past different positions to decide on the delegation of a new responsibility." Another said, "…the whole of job experiences are important."

- Knowledge

Knowledge of nursing sciences and other sciences like education, technology information, and foreign languages is one of the effective components in the PE. These codes were, "…with consideration of how is their nursing…in her specialty…, in education, research & services knowledge ", "… it must be evaluated how much she knows the second language as well as computer sciences", and in the faculty members' tenure policy "(knowledge of) the second and third foreign language".

- Attitudes

The participants said the PE must address the beliefs and interests of the nurse faculties to the profession and profession progression. Some of them were, "… (The PE must be able) to say exactly and predictably whether that nurse faculty has the traits (interest) to continue her job or not", "…the nurse faculty must believe and credit to her teacher's decorum" and in the students rating forms, asked about their teacher's interest and enthusiasm.

- Skills

The skills category considered some proficiency such as nursing, education and other works. These skills are important in their performance and must be considered as a component of their PE. One said, "… know how to teach the students… and particularly at nursing", and another said "…to evaluate their special manners of teaching… a person may have knowledge but have no skills to share it."

- Empowerment

In this category, some topics incorporated, relate to the use of the skills and knowledge in the challengeable contexts such as clinical situations. One participant said: "…we have some evaluation about inputs as empowerments." The other stated, "… (PE includes) those empowerments … whether, the empowerments that a teacher must have … and the empowerments that a nurse has in a nursing role."

Task work process domain

According to the participants' statements and documents' phrases another significant domain of PE was "task work process domain". For example, some of the participants said, "…the evaluation must evaluate the process of doing work." The participants spotlighted this domain from two aspects: "work quantity "and "work quality". The work quantity is based on the extent of the employee's efforts and time estimation. The work quality is how to do (that work) in a definite period. These two aspects are important and must not deal with one at the expense of the other.

- Work quantity

Some codes of participants' statements and document items that

recounted the faculties' workload were grouped in work quantity. Some of these repeated codes are, "… (evaluation of) the work bulk or work times", "… (For workload) 5 main world factors or components are considered …Education, research, consultation, administration, citizenship", and in some current documents "the teaching quantity", "the number of research" and so on.

- Work quality

In this category, there were some codes that relate to the quality of performance like, "… the quality must be considered", "(Evaluation) means how she works… changes in quality of our labor ", "… it must say how she works; she did well or weakly" and the items in the current evaluation documents such as, "the teaching quality."

Job outcomes domain

All participants focused on outcome evaluation of the nurse faculties' efforts. The various words like "production", "output", "results", and so on applied to this theme. One executive said,"… we have the evaluation of outcomes too" and a dean said "… outcome evaluation and goal achievement". Some of the present evaluation documents confirm thisfocus. The ideas about the types of the outcomes were classified in the three following categories. In fact, all these categories are the result of the nurse faculties' efforts anyway. This categorization was just for focus on the components of the outcome domain.

- Students' outcomes

The codes in this category encompass student outcomes that are the consequence of the nurse faculties' work. Some of these codes are in these statements, "... evaluation as a system must review the results… what she did up till now that is useful for the student", and "... it must review the students' learning."

- Nurse faculty's outcomes

The codes in this category cover some outcomes such as self-development in job or goal achievement that is particularly useful for the nurse faculty itself. One faculty member said, "... (The evaluation) must show me my growth... this year must be better than last year", and one school executive stated "... how much diverse work she did,… if her performance in each type work has progressive improvement."

- School outcomes

In this category, some issues are included that relate to the results of the nurse faculties' contribution with their school progression. Some statements are, "... how much she helps to progress the school in ranking, for example to be the best in the research rank...", and "... what she has done ever that is useful for the school."

Discussion

This study is the first qualitative research concerning the PE of nurse faculties from the evaluation experts' perspective and evaluation documents. The data interpretations showed that there are wide-ranging subjects in the PE of nurse faculty that can be categorized into three main domains. Domains are the "broad area covered by a teacher evaluation system and for which criteria and standards are specified for assessing performances in that domain"[13].

These study findings are nearly an education specialists' description of PE. For example, Scriven and his colleague (2004) stated that the teachers' PE is a systematic process of determining the merit, value, and worth of a teacher's current performance and estimating his/her potential level of performance with further development. In this study the PE had to encompass the "nurse faculty's competencies", "task work process" and "job outcomes."

On the other hand, over the years, the competencies, behaviors, traits and even generic activities were used for performance dimensions[21]. In fact, the trait- , behavior- , and outcome-based systems are the most important approaches to establish the criteria and measures of the PE. The combination of these approaches is usually advised because of the benefits and failings in each one. The relative emphasis given to each to measure performance should be influenced by the organization's strategies and mission[12,22]. The findings of this study confirmed the use of the combination of these three approaches with some difference.

The difference is along the nurse faculty's competency domain of this study. This domain is different to the trait-based system. The competencies domain puts emphasis on the experiences, knowledge, attitudes, skills and empowerment that a nurse faculty must achieve to reach excellence. These competencies are derived from the formal education of the individual and expansion through years of work experience[21]. But, the trait-based system focused on individual traits that remain fairly stable through an individual life span (e.g. cognitive abilities and intelligence). They are not under the individuals' control. Even if an individual posseses a special positive trait, it does not necessarily mean that the employee engages in productive behaviors that lead to desired results[12]. The nurse faculty's competency domain of PE in this research confirms some authorities' viewpoints. Some of them recognize the experience, empowerment and attitudes of the teacher as the teacher's input factors in measuring performance[23] and some others mention them as contextual performance. Contextual performance is defined as those factors that contribute to the organization's effectiveness by providing a good environment in which task performance can occur[12].

In this study, the task work process domain considered the work quantity and quality that is like task performance. The task performance is the activities that provide the goods or services[12]. Furthermore this domain considers the quality. The quality of activities is important. In fact, performance should be defined in terms of quality as well as the quantity of the PE. Quality is the comparison work against the predetermined standards and, in the case of lack of standards, against performance goals and expectations[23]. The uses of this domain for the nurse faculties' PE converge to the performance goals. Performance goal is the specific statement of what is to be accomplished by the teacher, how

and when the goal will be met, and how achievement of the goal can be assessed or determined[13].

The outcomes domain of the nurse faculties' PE includes the student outcomes, the nurse faculty's outcomes and the school outcomes. This finding is similar to some authorities that supposed the performance as the result of the activities[6] and some experts that proposed the result-based system approach for performance measurements[12,22]. The result-based system approach attempts to adjust the individual's efforts in the organization's achievements[24]. This approach is the most useful system for performance measurement when the personnel are skilled in the needed behaviours; behaviours and results are clearly related, results show consistent improvement over time and there are many ways to perform the right job[12].

Findings of this study may provide a detailed description of the PE of nurse faculties for all evaluation designers, directors, executives and users. These study findings can be used as a foundation for development of PE models for nurse faculties. It seems that these findings may be used by the evaluation decision-makers in other disciplines including medical education as a framework for providing their faculty members' PE. For this, it is suggested further qualitative studies with the same topic be carried out in different disciplines.

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Table 1 The information of the participants

Number of participants	22
PhD Degree	12
Female	19
Mean of the age (Y)	49.6 (27-62)
Mean of the experience (Y)	22(6-35)
Range of interviews (min)	26'- 90'

Table 2 The actual evaluation documentaries at nursing & midwifery schools

	The type of the document	n. of sets/ at each school			Total
		A	B	C	
1	The tenure executive formality in Ministry of Health Education	1			1
2	The current strategic planning	1	1	1	3
3	The annual promotion form for grade	1	-	1	2
4	The student rating forms of class teaching	1	1	1	3
5	The student rating forms of clinical teaching	1	-	1	2
6	The department chair evaluation form of class/clinical teaching	2	-	1	3
7	The self–reporting form	1	-	1	2
8	The clinical supervisor form of the teacher in student traineeship (in the semester)	-	-	1	1
9	The task- force form for faculties and teachers	-	-	1	1
10	The suggested evaluation forms (in approbation phase)	-	8	-	8
Total					26

ATTITUDE OF UNIVERSITY STUDENTS TOWARD FAMILY OF TEMPORARY MARRIAGE IN THE CITY OF TEHRAN

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ABSTRACT

Objective: This research was conducted to evaluate the attitude of students toward families resulting from temporary marriage.

Method: The method of this research was survey, and the instrument of data collection was a questionnaire. 213 students were selected randomly. The data analysis was done by statistical tests including T Test, and F Test.

Results: The results revealed that there are advantages and disadvantages of temporary marriage, i.e., there are relationships between temporary marriage and reduction of sexual crimes, satisfaction of sexual needs, financial and emotional support of widows, increase of marital understanding, intimidation of social norms, increase of family instability, chance reduction of permanent marriage for girls after temporary marriage, reduction of men's responsibility and commitment, psychological, social and judicial costs of women, and increase in the number of unattached children.

Conclusion: The findings of the research indicate that there are both functions and malfunctions of temporary marriage. Women and respondents in the age group 20 to 24 believe that the malfunctions of temporary marriage are much more than positive functions. They also believe that temporary marriage helps to increase family instability.

Key Words: Attitude, Students, Family, Temporary Marriage.

Introduction

Marriage is the first step in having a family and building up society. The extent of contemplating marriage influences the extent of progress or failure of the society. Family as an institution has many functions and outcomes, including sexual satisfaction, reproduction, human evolution, peace, tranquility and honesty.

Unknown in the West, temporary marriage is a contractual transaction between a man and a woman to be married for a fixed or negotiated period of time, usually between one hour and 99 years.

Mutah is a word which means enjoyment and its secondary meaning is marriage contract for a definite period (Valojerdi, 1992: 6). Temporary marriage is a special marriage contract, which sets the relationship between husband and wife for a specific period of time (Mousavi Zanjanroudi, 1992). Temporary marriage intends to create the discipline in relations between two sexes and prevents corruption (Saroukhani, 2002). The wife in temporary marriage can avoid fulfilling her duties as long as the husband does not fulfill his commitments vis-à-vis paying the wife her marriage portion. (Hadi, 1995: 70).

If the youth are persuaded to engage in temporary marriage, they will become reluctant to engage in permanent marriage. Hence, they will not be willing to have their own family and feel responsible towards their family. This is something which does not benefit the society and future generations. On the other hand, it has been observed several times that the negative outcome and misinterpretation of men from the notion of temporary marriage has created problems for the women. Furthermore, since children of the temporary marriage are away from the family, the grounds will be paved for juvenile delinquency.

The occurrence of social problems can create unfavorable conditions which results in injustice, dissatisfaction and public disorder (Saroukhani, 1996: 372).

The theory of social order considers macro social subjects and issues of consideration. However, the social critical theory deals with micro social issues. Hence, issues such as poverty, social rift and inequality are taken into consideration as are macro social issues. This is while prostitution, addiction, divorce, juvenile delinquency, offences and crime, as well as similar issues are diversions from social norms from an individualistic perspective (Ashraf: 1976: 15).

Temporary marriage is a kind of marriage that has been devised by God for desperate people with precise and thoughtful planning for achieving specific objectives. But, lack of a specific legal framework and lack of commitment by the parties to the temporary marriage contract have created problems that can negatively influence the individuals and families.

Among the objectives of this research are knowledge of the temporary marriage at theoretical level and also knowing its conditions, functions and malfunctions by considering the viewpoints of university students.

The research on temporary marriage done so far has been mostly theoretical and very little field research has taken place on temporary marriage. In research on family development in Iran over the past 30 years, it has been mentioned that the most important change in the family has been giving more attention to children, especially in more educated families and middle class families living in the cities (Safiri, 1987). In research on the perception of female university students about marriage, it has been mentioned that friendship and pre-marriage relations depend on a traditional way of thinking (Azadheraf, 1976). Also in research it has been mentioned that the female university students not only do not expect support from man, they do not also consider man a powerful and dominant character (Aqajani, 1997: 62).

The findings of research into marriage developments in Iran during the 1956-1996 period shows that in the course of time as the level of education of women increases it considerably influences the marriage age (Beladi Mousavi, 1999: 81). The findings of research on the extent of marriage satisfaction with regard to traditional and non-traditional marriages among the university students, shows that there is no significant difference in satisfaction in traditional and non-traditional marriages (Irani, 2004: 71). In research into Mutah in Islamic law and jurisprudence, it becomes evident that in order to prevent misuse by some individuals and for its proper implementation, temporary marriage, like permanent marriage, should be specifically regular and the marriage contract should be registered in public notary offices (Farhang Khouei, 2003). In research into social harms of temporary marriage in Iran, it is mentioned that after temporary marriage due to abuses by some people, the family and its members have been considerably harmed (Azarkaman, 2007). In research titled 'Investigation of Attitudes of Experts About Temporary Marriage and Social, Demographical and Cultural Parameters Influencing Temporary Marriage', a kind of public hatred by women about this kind of marriage persists and mostly men welcome this kind of marriage. It also indicates that it is not socially acceptable (Sepehri, 2007).

Theoretical Framework

Values influence the behavior of individuals. They can be used for evaluating behavior of others. There is usually a direct relationship between values, norms and judgments or the manner in which the society reacts. For example, a society which values marriage too much has such norms that denounce adultery. Research into temporary marriage should take place in society and in relation to other social factors, which are influenced by the society's culture. Comte believes: "It is not possible to understand a specific social phenomenon anywhere other than the more general society to which that phenomenon belongs" (Tavassoli, 2005: 59).

The list of things that we should do everyday always seem to be endless. Those human behaviors which are directly or indirectly related to others are based on norms (Rafipour. 1999: 79). Hence, norms have powerful and unimaginable force that as the French sociologist Emile Durkheim puts it: "Norms are imposed on an individual and his/her will. If humans could resist any force, their resistance against norms is much less." (Guy Rocher, 1997: 25)

Merton has proposed the concepts of covert and overt functions. He has proposed that structural functionalists should not only deal with overt functions, but also with covert functions. Parsons as a structural functionalist was interested in methods of transfer of norms and values of a system to reactors within a system. In a successful socialization process, the norms and values are internalized or they become part of reactors or their ego. (Ritzer, 1995: 127-137)

Social ills or problems are created when individuals or a section of society face problems. In other words, those, particularly married men who want to engage in temporary marriage, might be facing problems and this kind of marriage helps them to go after that kind of marriage that family is not important in it, but their needs are met. Therefore, whenever the curve of temporary marriage takes an ascending order, it shows that both family structure and social structure have been harmed and both structures should be studied.

Since temporary marriage does not have a proper place in our common law and people look at those who take part in a strange way, those who have engaged in temporary marriage try to hide their marriage from public. This is because these people are branded as capricious and bon-vivant. The first hallmark will pave the way for committing offences by the person who is involved in temporary marriage. For example, a man or woman who engages in temporary marriage might easily commit adultery when he/she is branded as capricious. Or the children of such marriage will be brought up with social complexes because they are branded with the worst hallmarks and hence they do not consider themselves as part of the society anymore. These children will do their best to take revenge on society.

The majority of women who engage in temporary marriage are somehow under pressure. These pressures might be from the family, friends or the society. Since the majority of women who engage in temporary marriage are divorcees the way the public look at them and the economic problems after they are divorced forces them to engage in such marriage.

One of the most important negative consequences of temporary marriage is that it becomes commonplace in society. When someone does something in society that has not been before, other individuals will also try to do the same when they realize that doing it is not so bad. Not only is temporary marriage not banned at present, but people are persuaded to engage in this kind of marriage. Hence, temporary marriage has become more acceptable and very few men consider it as an immoral act.

It can be said that frigidity of women in most cases paves the way for betrayal of men and their temporary marriage with another woman. Furthermore, when the man goes for the second wife, it makes the first wife to do wrong and immoral things in order to exact revenge on

her husband.

The theoretical framework of this research is based on structural functionalism. The usage of temporary marriage can be termed as satisfying the sexual needs of individuals. The result of this research shows that those people, who cannot engage in permanent marriage or they are far away from their wives and they become embarrassed due to their sexual requirements, should be entitled to temporary marriage law.

One of the most important applications of temporary marriage is satisfying the sexual needs in a legitimate and regulated manner. When the temporary marriage takes place without any urgent need, its negative consequences will be more than its predicted objectives.

Materials and Methods

The present research is a survey and the technique used in collecting data is through questionnaire. A questionnaire containing 45 questions and each question with five choices according to Likert scaling from totally agree to totally disagree has been designed. The Cronbach's alpha reliability coefficient of the research is 0.71, which is quite satisfactory. The community under study in this research is all university students studying in second semester of 2008 at Open University, science and research branch, in the city of Tehran at undergraduate, graduate and doctorate levels. For determining the sample test, a classified sample was taken from the community, and 213 people were chosen as samples of the survey. The main hypothesis of this survey is that the negative outcomes of temporary marriage are more than its positive outcomes. For testing the hypotheses of the research, statistical tests such as T and F tests were used.

Results

In order to test the hypotheses of the research, one sample T test was used. Table 1 shows the comments by respondents to functions and malfunctions of temporary marriage.

1-It seems that encouraging temporary marriage would result in reduction of sexual offenses. For testing this hypothesis, the T-test has been used which shows the figure 2.06 and with a reliability of 0.95 the hypothesis has been verified.

2-It seems that encouraging temporary marriage would satisfy the sexual needs in a legitimate way. T-test has been used for testing the hypothesis, which showed -4.45 and with a reliability of 0.95 the hypothesis has been verified.

3-It seems that encouraging temporary marriage would result in emotional and financial support for divorcees and women with no guardian. T-test was used for testing this hypothesis showing the figure -3.05. The hypothesis was verified with reliability of 0.95.

4-It seems that temporary marriage would increase matrimonial understanding in bachelors before permanent marriage. The T-test for testing this hypothesis showed figure 6.57 verifying the hypothesis with a reliability of 0.95.

5-It seems that encouraging temporary marriage would result in identifying matrimonial methods and marriage style in bachelors before permanent marriage. The T-test used for testing the hypothesis showed figure 2.81 verifying the hypothesis with a reliability of 0.95.

6-It seems that encouraging temporary marriage would result in increasing mental health of bachelors before permanent marriage. The T-test used for testing the hypothesis showed 4.75, which verified the hypothesis with a reliability of 0.95.

7-It seems that encouraging temporary marriage would threaten the social norms. The T-test used for testing the hypothesis showed -3.32 which verified the hypothesis with a reliability of 0.95.

8-It seems that encouraging temporary marriage would result in a shaky family. The T-test used for testing the hypothesis showed -14.74, which verified the hypothesis with a reliability of 0.95.

9-Encouraging temporary marriage would result in reduction of chance of permanent marriage for girls. The T-test used for testing the hypothesis showed figure -17.24 which verified the hypothesis with a reliability of 0.95.

10-It seems that encouraging temporary marriage would result in less commitment and liability of men. The T-test used for testing the hypothesis showed -11.64, which verified the hypothesis with a reliability of 0.95.

11-It seems that encouraging temporary marriage would encourage the desire for change in men. The T-test used for testing the hypothesis showed figure -13.15 which verified the hypothesis with a reliability of 0.95.

12-It seems that encouraging temporary marriage would result in rise in psychological, social and legal damages to women. The T-test used for testing the hypothesis showed -16.27 which verified the hypothesis with a reliability of 0.95.

13-It seems that encouraging temporary marriage would result in an increase in the number of children with no guardian in the society. The T-test used for testing the hypothesis showed -12.66, which verified the hypothesis with a reliability of 0.95.

By taking the above table into account and by emphasizing on the amount of T, it can be said that there is a significant difference (at a=0.01) between experimental average and theoretical average in comparison to disadvantages of temporary marriage. Hence, by referring to average figures and by emphasizing that experimental average is higher than theoretical average, from the perspective of the research samples the temporary marriage malfunctions and disadvantages are lower than the average.

By taking the amount of T as it can be seen in Table Three, it can be said that there is a significant difference at a=0.01 between average viewpoints of female and male respondents about the advantages and disadvantages of temporary marriage. Therefore, since the average number of women is higher than men in advantages, it is said that women believe more than men in unfavorable advantages of temporary marriage. Furthermore, in

comparison of viewpoints of women and men towards disadvantages of temporary marriage and since the average number of men is higher than women when it comes to disadvantages, it is said that men believe more than women that disadvantages of temporary marriage are high.

Given the amounts of F, it can be said that there is a significant difference between averages of viewpoints of the research samples with emphasis on different age groups in proportion to advantages (at a=0.05) and disadvantages (at a=0.01) of temporary marriage. Therefore, since the average of sample was in the 30-34 age group, in terms of advantages is higher than other age groups, this age group believes that the advantages of temporary marriage are unfavorable. Moreover, in comparison of viewpoints of research samples towards the disadvantages of temporary marriage and since the average of the 20-24 age groups is higher than other sample groups, it can be deducted that the 20-24 age group believe that the disadvantages of temporary marriage are high.

Discussion

The study of attitude of university students who are regarded as the most talented social group in terms of understanding the social changes indicates that change in social attitudes is not as easy as it is always believed to be. Values such as persistent affection and supporting the children are among superior values that have always accompanied permanent marriage. Since family values are considered as superior within society, they have to undergo the biggest social pressures and hence have the highest resistance against the currents and innovations related to family values.

Conclusion

Hence, in drawing a general conclusion it should be said that temporary marriage does not have the necessary acceptability nowadays. Unfortunately no single official institution is in charge of temporary marriage in Iran and this kind of marriage does not resolve the problems of the youth. When it comes to preparing the ground for permanent marriage of young people through temporary marriage it can be said that the university students believe that normal relationshis between girls and boys, as well as their limited acquaintance prior to their marriage and under supervision of their families, no need is felt for temporary marriage any longer. Married men can engage in temporary marriage only if his wife is ill or has sexual problems or man is on long journeys and does not have access to his wife. In other cases it would have many negative outcomes in society. Therefore, the university students are of the opinion that encouraging temporary marriage will have more disadvantages than advantages.

Recommendations

- Strengthening family and religious values among people for consolidating family foundations
- Facilitating the conditions of permanent marriage for young people
- Informing women of the temporary marriage, their rights and the possible outcome of such marriage in case of emergency
- There are no records of the number of temporary marriages in the results of census by Iran's Statistical Center. Furthermore, no concerned governmental institution or any information on temporary marriage can be found. Hence, it is necessary that in the future census such records to be collected because it would prove to be very useful in knowing about temporary marriage, and providing useful solutions.
- It is recommended that in future planning, the following parameters be closely and precisely studied before temporary marriage is considered a general solution to the problems of young people: the degree of satisfaction of women who have previously had the experience of temporary marriage, the kind of relationships and inter-family relations in temporary marriage, future of children of temporary marriage, psychological and social status of women in temporary marriage and the frequency of temporary marriages that are converted into permanent marriages. Of course the research of experts, health providers, lawyers, psychologists, sociologists and jurisprudents should be used for assessing the above parameters.
- It is better that by providing obstacles and restrictions in the way of temporary marriage such as registry in public notary office, considering inheritance for this kind of marriage, a fixed amount of money for woman, bringing the name of children in the ID of both man and woman, the right to revoke the temporary marriage for women, holding a wedding party, inviting the people to the wedding party, allowing only the divorced men and women to engage in this kind of marriage or women or men who are bachelors and who are too old for permanent marriage, preventing married men from engaging in this kind of marriage. In this case the married can be prevented from abusing temporary marriage. Moreover, if the above is materialized, only those who really need temporary marriage will benefit.

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Table 1: Comments by Respondents to Functions and Malfunctions of Temporary Marriage

A-Function B- Malfunction	Mean	T	p
A-1 Reduction in sex offences	3.14	2.06	0.041
A-2 Satisfaction of sexual needs in a legitimate way	2.77	-4.45	0.001
A-3 Financial and emotional support for women with no guardian	2.83	-3.05	0.003
A-4 Increase in matrimonial understanding	3.55	6.57	0.001
A-5 Identifying matrimonial methods	3.23	2.81	0.005
A-6 Increase in mental health	3.36	4.75	0.001
B-1 Threat to social norms	2.82	-3.32	0.001
B-2 Instability of family foundations	2.09	-14.74	0.001
B-3 Reduction in chance for permanent marriage of girls	1.97	-17.24	0.001
B-4 Reduction in commitment and liability of men	2.30	-11.64	0.001
B-5 Increase in desire for change in men	2.03	-13.15	0.001
B-6 Increase in psycho-social damages to women	2.04	-16.27	0.001
B-7 Increase in number of children with no guardian	2.07	-12.66	0.001

Table 2: Ideas of Respondents to Malfunctions and Disadvantages of Temporary Marriage

Theoretical Average	Experimental Average	T	DF	p
3	2.17	-17.81	195	0.001

Table 3: Comparison of Advantages and Disadvantages of Temporary Marriage in Proportion to Respondents' Gender

Scale	Gender	Mean	SD	T	DF	p
Advantages	Female	57.14	9.23	11.44	192	0.001
Advantages	Male	41.46	9.84	11.44	192	0.001
Disadvantages	Female	42.99	10.71	-7.83	194	0.001
Disadvantages	Male	57.78	15.10	-7.83	194	0.001

Table 4: One-Way Analysis of Variance in Comparison of Advantages and Disadvantages of Temporary Marriage With Emphasis on Age of Respondents

Variable	Age	Mean	SD	F	p
Advantages	20-24	48.03	5111	3.05	0.030
Advantages	25-29	52.30	13.34	3.05	0.030
Advantages	30-34	53.73	11.22	3.05	0.030
Advantages	35 +	46.03	12.33	3.05	0.030
Disadvantages	20-24	53.69	13.81	6.02	0.001
Disadvantages	25-29	49.17	15.83	6.02	0.001
Disadvantages	30-34	39.52	8.14	6.02	0.001
Disadvantages	35 +	49.82	16.76	6.02	0.001

COMPARING REASONS FOR NURSE MIGRATION AGAINST INTENT TO LEAVE LEBANON: A TWO-HOSPITAL CASE STUDY

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ABSTRACT

Background: Nursing shortages in many countries are resulting from increases in international nurse migration and demand for skilled nurses. Migration streams from Low and Middle Income Countries are in the direction of High Income Countries. Lebanon is perceived to have a nursing shortage and is facing excessive nurse migration. Yet little is known about nurses' intent to leave and reasons for leaving.

Objectives: The objective of this study is to compare perceived reasons for leaving, for nurses who left two teaching hospitals, against perception of intent to leave the country among currently employed nurses at these same two hospitals.

Design and Methods: This is a cross sectional survey with two arms. The first arm comprised a survey of migrant nurses' reasons for leaving. The second included a survey of currently employed nurses' intent to leave. Secondary data analysis was conducted on a sub-sample of 72 out of 106 migrant Lebanese nurses to assess reasons for leaving. In the intent to leave survey, 132 nurses were surveyed. The survey included questions on intent to leave, demographics, and McCloskey Mueller Satisfaction Scale.

Results: Reasons for leaving reported by migrant nurses included lack of career development and poor salaries. In the intent to leave survey, the majority of employed nurses (75%) reported intention to leave, mostly to leave the country (51.5%). Sources of dissatisfaction for currently employed nurses included poor salaries and benefits package, and lack of career advancement opportunities. Multinomial regression analysis showed that perceived dissatisfaction with salary was found to increase odds of intent to leave country by 2.273. Perceived dissatisfaction with career advancement was found to increase odds of intent to leave country by 2.404 and intent to leave hospital by 2.558.

Conclusions: The results of this study suggest that nurses who intend to leave have a high probability of leaving at the earliest opportunity available. Study findings imply that non-financial incentives might be as important as financial incentives for designing nurse retention strategies. Hospitals and policy makers in Lebanon should take such issues into consideration to curb migration.

Keywords: intent to leave, Lebanon, nurse migration, pull factors, push factors.

Introduction

Nurse migration

In most countries, the rise of international nurse migration leads to nursing shortages[1]. The proportion of nurses migrating from Low and Middle Income Countries (LMICs) is higher than those migrating from High Income Countries (HICs)[2]. The escalating need for nurses in HICs is depleting the supply of nurses in LMICs and is threatening to cripple their health systems[3]. The demand for qualified nurses is on an escalating scale[4,5], which is further increasing the magnitude of nurse migration[6]. Moreover, there is much evidence regarding the strong and positive correlation between quantity and quality of Human Resources for Health (HRH) and health outcomes[7,8]. Nurse migration also has a major impact on patient safety and quality of care[9]. This suggests that the scarcity of HRH can negatively impact on population health[7]. Due to the major implications of health professionals' migration, HRH issues have become a prominent topic on policy agendas[10].

According to the literature, numerous push factors encourage nurse migration. Initially these push factors were related to financial issues (such as salaries and benefits), yet current research sheds light on the significance of non-economic factors as predictors of migration[3]. Push factors include poor wages, work environment (poor working conditions, poor job satisfaction, workload, stress, limited professional development opportunities, poor social image and value given to nursing) and socio-political factors (i.e. political and social instability, personal safety)[1,4,11-14]. Furthermore, pull factors such as higher wages, better living and working conditions, and opportunities for educational and professional advancement, encourage nurses to migrate to developed countries[3].

Nurses' intention to leave

Many nurses leave the nursing workforce prematurely, due to poor retention strategies[15]. A review of related literature states that shortages are a consequence of the lack of efficient and effective recruitment and retention policies for the health workforce[7].

According to literature, several factors affect nurse's intent to leave. A primary predictor of intent to leave is job dissatisfaction[16,17] specifically

with salary and benefits[17,18]. Other factors that affect intent to leave include poor career advancement and training opportunities[19]; leadership and supervisory relationship[12,20]; poor nurse-physician relationship[21]; education level[22], work environment, and nurses' socioeconomic status[23].

A study conducted in Uganda revealed that 70% of nursing students would like to work outside their country; either in the United States (59%) or in the United Kingdom (49%). Intent to migrate in Uganda was related to financial reasons or the pursuit of political stability (Nguyen et al., 2008). Developed countries also face similar problems with nurse retention. For instance, more than 30 % of nurses in England and Scotland, and more than 20% of nurses in Pennsylvania, reported an intent to leave their jobs within one year[24]. In Finland 5.3% of nurses intended to leave their current career to enroll in a non-health-care profession within five years[23].

Evidence in the literature demonstrates the effect of job satisfaction on nurse migration and intent to leave, but no conceptual framework exists to relate intent to leave to nurse migration. Some researchers presented frameworks on other issues related to migration. For instance, Lee (1966) proposed several determinants and predisposing factors that facilitate migration, but not specifically for nurses[25]. Decisions to migrate are mostly triggered by economic incentives but can also be determined by distance, the destination country (inhabitants, language, quality of life), and migration streams[25]. Akl and colleagues (2007), on the other hand, propose a framework of a medical student's decision to train abroad which is based on the push and pull theory of Lee (1966). Repel and retain factors for Lebanese medical students include personal, social, professional and political factors[26].

A relevant study by Tourangeau and Cranley (2006) introduces a framework for understanding the determinants of nurses' intention to remain employed. This model incorporated predictors of intention to remain employed and consequently nurse retention. The predictors included organizational commitment, job satisfaction, burnout, work group cohesion and collaboration, manager ability and support, personal characteristics and other unknown factors[27].

While this paper does not propose a conceptual framework that clearly links intent to leave to migration, it provides an attempt towards a better understanding of how both concepts are related.

Context of the Eastern Mediterranean Region and Lebanon

For Low and Middle Income countries (LMICs), losing scarce resources such as the nursing workforce is a critical issue[5]. These countries have poor health indicators, poor HRH data and limited capacity for generating enough nurses to address their growing demand[8,28,29]. This being said, it is vital for LMICs to better understand the nature and scope of the push and pull factors that drive nurse migration.

The Eastern Mediterranean Region (EMR) has an estimated shortage of 306,031 nurses, midwives and physicians[7]. In this region, there is a growing demand for health professionals including better-prepared nurses at all levels and specifically at the advanced specialist level[7]. Nurse shortages in this region vary from one country to another. Lebanon presents a unique case since it has the highest physician emigration factor[26] and also has the 8th lowest nursing density in the EMR. It is perceived to be a major source of qualified and well-trained nurses for countries in the Gulf and North America[30]. In effect, much of the country's national nursing production is being used by external markets. Despite this perceived challenge, little is known about nurses' reasons for leaving and intent to leave Lebanon.

Migration of professionals is not uncommon in Lebanon where a culture of migration pervades(26). Although nurse migration is perceived to have a high magnitude, little is known about push and pull factors in addition to nurses' intent to leave. A recent study[30] investigated the incidence of nurse migration out of Lebanon, its magnitudes and reasons. The study reported that one in five nurses that receive a Bachelor of Science in Nursing (BSN) migrate out of Lebanon within one or two years of graduation[30]. A total of 106 nurses were located and found to be working in countries of the Gulf, North America and Europe. The most important reason for leaving was the lack of career development opportunities, followed by poor salaries, no equality with other health professionals, and not being treated as a valued health professional[30]. The authors of the study found that the majority of the migrant nurses (N=72) were from two teaching hospitals in the Greater Beirut Area. These two teaching hospitals are considered to be among the oldest and most established teaching hospitals in the Greater Beirut Area. According to the Lebanese Ministry of Public Health (MOPH) classification, the two hospitals are large-sized and have over 200 beds. The nursing staff at the two hospitals is mainly composed of registered BSN nurses.

Even though nurse migration is a major burden in Lebanese healthcare system; there is no documented literature that investigates whether the reasons for nurse migration are sources of dissatisfaction for currently employed nurses and if these sources are predictors of their intent to leave the country. To our knowledge, this is the first study in Lebanon and the EMR that sheds light on the outcome of cross matching the reasons for leaving with the intent to leave the country.

OBJECTIVE

The objective of this study is to compare perceived reasons for leaving for nurses who left two teaching hospitals and emigrated from Lebanon against perception of intent to leave the country among currently employed nurses at these same two hospitals. This study will identify the reasons why nurses left Lebanon as perceived by migrant nurses and to see if these reasons still hold for currently practicing nurses. The sample includes previously and currently employed nurses in two major teaching hospitals. While this paper does not propose a conceptual framework, it is a first attempt at understanding the link between intent to leave and nurse migration.

Design and Methods

The design of the study was a cross sectional survey with two arms. The first was a survey conducted in 2006, which targeted migrant nurses who left Lebanon between the years 2000 and 2006. The second arm was an intent to leave survey, conducted in 2007 for currently practicing nurses in Lebanon. Both study arms are discussed in detail below, but first, we will define the terms used in this study to facilitate interpretation of results.

- Nurse migration: refers to the voluntary migration of nurses outside their country
- Intent to leave: refers to nurses' intent to leave their job. In this study, we compare nurses who want to leave the country with those who want to leave the hospital. Leaving the country is similar to nurse migration whereby nurses choosing to leave their job in order to move to a healthcare organization abroad. Leaving the hospital refers to nurses who intend to leave, but will stay in Lebanon to pursue other activities such as finding a job at another hospital, getting married or caring for dependants, continuing their education, leaving the profession or other similar activities.
- Push and pull factors: as defined in the literature, push factors can be defined as aspects of a certain job that make people want to stop working in their current position [(31)]. Pull factors are incentives from outside the current job that may result in leaving a certain position[(31)].

Reasons for leaving survey

This survey targeted Lebanese nurses who migrated out of Lebanon. The majority of the original 106 identified migrant nurses were found to be previous employees of two major teaching hospitals in the Greater Beirut Area. Secondary data analysis was conducted on this sub-sample of 72 nurses, which was therefore used for this study.

It is worth noting that registered nurses in Lebanon include nurses holding a university degree, such as a BSN, or a technical degree such as Technique Superior (TS), Baccalaureate Technique (BT), License Technique (LT) and Diploma. In Lebanon, university nursing graduates are perceived to have better training[(32)] and this allows them to provide superior quality of care compared to technical nurses.

The survey instrument for the Reasons for Leaving study was adapted and customized from Duffield et al. (2001)[(33)]. It comprised 45 items rated on a four-point Likert scale ranging from Unimportant (score = 1) to Very Important (score = 4). The questionnaire also included a section on demographic characteristics (gender, age, and educational background). The questionnaire was in English and was filled in online. More detailed information about the methods and findings of this study are documented in the article by El-Jardali et al. 2008.

Intent to leave survey

In the Intent to Leave survey, the questionnaire for currently practicing nurses included questions regarding demographic characteristics and intent to leave. We targeted only nurses who are currently practicing at these same two hospitals mentioned above. Another inclusion criterion was educational background where only Registered Nurses were included. These are nurses with either a BSN, or BT, or TS, or LT.

In the question on intent to leave, nurses were asked to disclose their intent to leave their job in the next 1 to 3 years. The questionnaire also included a section on demographic information and the McCloskey-Mueller Satisfaction Scale (MMSS): a 31-item Likert scale. The scale originally had 5 points ranging from 1 for Very Dissatisfied, 2 for Moderately Dissatisfied, 3 for Neutral, 4 for Moderately Satisfied and 5 for Very Satisfied. A panel composed of nursing professionals and the research team reviewed and slightly modified the scale and the wording of some questions to fit the context of Lebanese hospitals. One of the changes made to the MMSS was creating 4 points instead of 5 to encourage nurses to disclose either being dissatisfied or satisfied as many would have chosen Neutral if they had been given the opportunity. The scores on the MMSS became 1 for Very Dissatisfied, 2 for Dissatisfied, 3 for Satisfied and 4 for Very Satisfied. In regard to changing the wording of some of the items in the MMSS, the meaning of items was not changed in this process. The questionnaire was translated into Arabic. The Arabic version was back-translated; no major differences were found. Both language versions were piloted with 10 nurses prior to data collection. No major changes emerged from the pilot, and only minor changes were made. The language of the questionnaire was English for one hospital, and Arabic for the other.

Subsequently, three items in the MMSS scale pertaining to nursing research were not included in data analysis as they were not relevant to the clinical setting in these hospitals. These questions pertained to "interaction with faculty at nursing schools," "opportunities to write and publish" and "participating in nursing research."

The questionnaire was delivered to nursing directors who were asked to distribute the questionnaires to eligible nurses. The first page of the questionnaire included a consent form to assure participants that the confidentiality of the information collected would be maintained.

Nurses were asked to return the questionnaire in a sealed envelope to their nursing director who, in turn, returned all collected questionnaires to the research team within three weeks. A total of 180 questionnaires were sent to the two hospitals, 132 were returned (73.3% response rate), 68 questionnaires were returned from one hospital and 64 were returned from the other.

Approval of the Institutional Review Board (IRB) of the American University of Beirut was obtained prior to data collection.

Data analysis

Descriptive statistics (frequency and percentage) was conducted for all information pertaining to demographics characteristics of the sampled nurses (i.e. gender, age, family/social status, degree

classification) in both surveys.

Reasons for leaving survey

For the purpose of data analysis, the Likert scale scores were grouped into two categories. Scores in Likert scales were grouped due to the limited sample (N=72) and to simplify the interpretation of the results. In the reasons for leaving survey, the first group represented the scores for Important (including "Very Important" and "Moderately Important"), and the second for Unimportant (including "Slightly Important" and "Unimportant"). Frequency and percent of items in the reasons for leaving scale, were tabulated. Only items perceived to be important by 50% of nurses or more were reported in this paper.

Intent to leave survey

Descriptive statistics were conducted to explore the characteristics of the sampled nurses. Pearson Chi Square test was used to compare nurses in the reasons for leaving survey to nurses in the intent to leave survey. As for the items in the MMSS scale, Likert Scale scores were grouped into two groups, the first represented Dissatisfied (included scores for "Very Dissatisfied" and "Dissatisfied" on the Likert scale) while the other represented Satisfied (included scores for "Very Satisfied" and "Satisfied" on the Likert scale). The MMSS scale was chosen since it is a well-documented instrument and has solid reliability with Alpha Cronbach exceeding 0.7[34]. The association between selected MMSS items with intent to leave country was analyzed while controlling for demographic characteristics of nurses (gender, age, marital status and education) using multinomial logistic regression. Odds Ratios (OR), 95% Confidence Intervals (CI) and p-values are reported. All statistical analyses were done using SPSS 16.0 at significance of 0.05.

Results

Demographic characteristics of the two groups

A comparison of migrant to currently employed nurses is shown in Table 1. Significant differences were observed in terms of common demographic variables in the two surveys. Specifically, more migrant nurses were found to be males, older, more likely to be married and holding higher nursing credentials (See Table 1).

Reasons for leaving results

In the reasons for leaving scale, the two most important perceived reasons for leaving as reported by migrant nurses were for the items measuring Career development/promotion (95.8%) and Salary levels (95.8%). Other important reasons for leaving were equality with other professional careers (84.5%); being treated as a valued health professional (81.4%); and working in a supportive environment (80.3%) (See Table 2). In subsequent analyses, we try to determine whether the two most important perceived reasons for leaving (salary and career development) are sources for dissatisfaction among currently practicing nurses and whether they are significant predictors of intent to leave the country.

Intent to leave results

Upon exploring the results for nurses still employed at the two hospitals, an overwhelming majority of currently employed nurses (75%) reported an intent to leave their current job in the coming three years. Nurses were asked to report up to three potential plans after leaving. More than half the nurses (51.5%) reported that they plan to leave the country (to move to a health care organization outside Lebanon). Of the remaining 48.5% of nurses who expressed an intent to leave the hospital, 8.3% wanted to move to another hospital, 37.5% wanted to leave the nursing profession and 54.2% had other plans (See Table 3).

Table 4 details the items in the MMSS which nurses were least satisfied with. The top reasons for leaving that were perceived to be important for migrant nurses (namely salary and career development) were also perceived to be major sources of dissatisfaction for currently practicing nurses but with varying degrees. Benefits package and salary were the two main sources of dissatisfaction (67.2% and 65.4% respectively) for currently practicing nurses. As specified earlier, career advancement, which ranked most important for 95.8% of migrant nurses, was also reported as a source of dissatisfaction for 56.6% of currently employed nurses (See Table 4). As such, these three top sources of dissatisfaction, which are common between the migrant nurses and currently practicing nurses, were further explored to assess their association with nurses' intent to leave the country.

To determine intent to leave the country, nurses with intent to leave the job were split into two groups: those who want to leave the hospital, and those who want to leave the country. Three regression models are presented in Table 5 to compare nurses who want to leave the country to those who want to leave hospitals using the three MMSS items (salary, benefits package and career advancement) adjusting for the demographic characteristics of nurses (gender, age, marital status and education). Perceived dissatisfaction with salary was found to increase the odds of intent to leave the country by 2.273 (95% CI=1.093-4.739). The item measuring benefits package was not significantly associated with intent to leave the country or hospital. Perceived dissatisfaction with career advancement was found to increase the odds of intent to leave the country by 2.404 (95% CI=1.112-5.208) and intent to leave the hospital by 2.558 (95% CI=1.195-5.464) (See Table 5).

Discussion

Findings of this study indicate that male Lebanese nurses are more likely to intend to emigrate than females; a finding which contradicts what is known in the literature. In the nursing field, females are more likely to migrate than their male counterparts[11]. However, international skilled migration streams (meaning all professionals, not only nurses) are predominantly composed of males[35]. Our finding might be linked to the cultural aspects of Lebanon. Linking this observation to marital status, we found that although most currently practicing nurses are single, the majority of migrant nurses were married. This comes to say that cultural factors in Lebanon may actually have an impact on nurse

migration as it is usually not socially acceptable for females, particularly at a younger age, to travel and live alone abroad if they are unmarried[26].

As observed in the intent to leave survey, most of the nurses were aged below 30. This is of particular importance since evidence shows that American nurses in this younger age group are more likely to leave[36]. In the reasons for leaving survey, nurses left Lebanon when they were below 30 years of age, but we surveyed many of them several years after emigration, which explains why the majority of the sampled migrant nurses are aged between 30 and 45.

As stated earlier, the majority of nurses currently practicing at the two hospitals hold a BSN in nursing. When compared to the original paper[30], there was minimal difference between the reasons for leaving for these 72 nurses and those of the entire sample (106 nurses). As observed in our sub-sample from the Reasons for Leaving survey, BSN nurses constitute the majority of nurses practicing abroad. There is high demand for this group of nurses who have better chances of attaining job offers in the oil-rich Gulf countries or other regions than nurses with technical degrees[30]. This indicates that Lebanon is in a critical position of possibly losing their university graduates; these nurses are believed to have a superior education compared to technical trained nurses[30]. This might pose serious implications on the quality of patient care.

A key finding in this study is that 75% of currently employed nurses reported an intent to leave their job mostly to emigrate out of Lebanon (51.5%) or leave the profession entirely (37.4% of the remaining nurses). This is critical since intent to leave is considered to be a strong predictor of subsequent turnover and actual quitting[17]. In fact, a longitudinal study dating back to 1979 found that 79% of nurses who intended to leave their job actually quit within one year[37].

The results of the study indicate that the major reasons nurses chose to migrate are still sources of dissatisfaction for nurses currently practicing in the two hospitals. While the degree of dissatisfaction in these issues differs slightly among currently practicing nurses, they are still significantly associated with intent to leave both the hospital and the country. The difference in degree of importance may be attributed to the fact that the way people value incentives depends on the environment they work in. As evidenced in this study, currently practicing nurses in Lebanon place high value on salary and benefits when they are still in Lebanon but when they migrate abroad, career advancement opportunities becomes more important. It might be possible that people will not perceive some work-related issues as important until they experience them.

Upon adjusting for demographic characteristics of nurses, salary was found to be significantly associated with intent to leave the country. Salary has been documented as an important predictor of intent to leave in the literature[38]. However, some research suggests that other factors, such as work environment or career advancement and promotion, often outweigh salary as a predictor of satisfaction and intent to leave(39). This is in fact validated in our findings, specifically relating to career development. Upon further exploring the data we found that when the three MMSS items were included in one model, only career advancement was found to be consistently significant associated with intent to leave (both country and hospital).

No significant association between benefits package and intent to leave job was found when controlling for demographic characteristics of the sampled nurses. Although it was one of the most important reasons for dissatisfaction among currently employed nurses, demographic characteristics of nurses seem to impact on their degree of importance in terms of intent to leave. This may indicate that for currently employed nurses, salary might outweigh benefits as a predictor of intent to leave. Limited research explores the association between benefits package and intent to leave. One study found that satisfaction with benefits affects nurses' choice to change employment status[40]. While there is no conclusive evidence that links benefits package to intent to leave, it has been found to be associated with overall nurse satisfaction[41,42], and poor job satisfaction is associated with greater intent to leave[16,17].

Career development opportunities have been linked to improved nurse satisfaction and better retention[39,43]. Previous studies conducted by Duffield and O'Brien Pallas (2002) and Duffield et al. (2004) consistently found that one of the most important reasons nurses leave their job and even the profession is lack of career development and promotion opportunities[44,45]. In fact, many nurses chose the profession since they thought it would serve as a "stepping stone" for future careers[46]. Nurses also place high importance on professional practice issues as a determinant of tenure[46]. Furthermore, evidence in the literature suggests that many nurses migrate out in search of professional development opportunities, especially if such opportunities are unattainable in their own country[10]. This may indicate that if nurses perceived that they have few opportunities for career advancement they may take advantage of the earliest opportunity to leave, most probably to migrate out or to switch to another profession.

Study findings might indicate that the context of nursing in Lebanon, and even the EMR region, is different and may have unique circumstances affecting nurses which are widely different than developed countries, particularly the US, UK, Canada and Europe. Some of these differences pertain to demographic characteristics of nurses such as nursing degrees, or job satisfaction whereby currently employed Lebanese nurses may value financial incentives more than other aspects of their job such as participation in decision-making, managerial support or career advancement. While much research explores nurse satisfaction, migration and intent to leave in developed countries, there is limited evidence in Lebanon and the region. Future nursing workforce research should address regional push and pull factors, determinants of job satisfaction, and the link between intent to leave

and nurse migration compared to developed countries.

In terms of study limitations, our sample was limited to two teaching hospitals in the Greater Beirut Area. This may limit the generalisability of the findings, particularly to small and medium-sized hospitals in non-urban areas. However, it should be acknowledged that these two hospitals are of the oldest and most established hospitals in Lebanon. These hospitals are also observed to provide higher salaries and better benefits than many other hospitals in Lebanon.

Therefore, if such hospitals are facing this critical problem with intent to leave, this should also alarm other Lebanese hospitals, particularly those that employ nurses with similar demographic characteristics.

Another limitation is that the two groups of nurses were assessed using two different tools; the first for reasons for leaving and the other for intent to leave. One can consider this to be a limitation, yet the concepts being measured are similar and could provide some insight into a topi, which has not been widely addressed. Future nursing research should address the lack of a standard tool to link intent to leave to reasons for leaving.

Conclusion

Our findings may imply that non-financial incentives are equally important as financial incentives when designing nurse retention strategies, specifically career development and promotion strategies. Therefore, hospitals in Lebanon should develop evidence-based retention strategies, which include career development as a major component. Our findings suggest that nurses choose to leave because of severe push factors at home and attractive pull factors abroad. Therefore, organizational leaders and policy makers should seriously address nurse migration and retention particularly in LMICs, which have a prevalent culture of migration.

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Table 1: Demographics of sampled nurses

		Migrant Nurses	Currently Employed Nurses	P-Value
		N (%)	N (%)	
Gender				
	Female	45 (62.5)	101 (76.5)	0.016
	Male	27 (37.5)	28 (21.2)	
	Missing	-- (--)	3 (2.3)	
Age				
	Below 30 years	30 (41.7)	85 (64.4)	0.000
	Between 30 and 45 years	40 (55.6)	35 (26.5)	
	Between 46 and 55 years	2 (2.8)	7 (5.3)	
	Over 55 years	-- (--)	1 (0.8)	
	Missing	-- (--)	4 (3.0)	
Marital Status				
	Single	26 (36.1)	76 (57.6)	0.001
	Married	46 (63.9)	51 (38.6)	
	Other	-- (--)	3 (2.3)	
	Missing	-- (--)	2 (1.5)	
Degree Classification				
	Diploma	2 (2.8)	9 (6.8)	0.000
	BT	2 (2.8)	20 (15.2)	
	TS	-- (--)	5 (3.8)	
	LT	-- (--)	2 (1.5)	
	BSN	53 (73.6)	89 (67.4)	
	Masters	14 (19.4)	5 (3.8)	
	Others	1 (1.4)	2 (1.5)	
	Missing	-- (--)	-- (--)	

Table 2: Percent agreement on items in Reasons for Leaving scale (N=72)

	Important	
	N	%
Career development/promotion	68	95.8
Salary levels	68	95.8
Equality with other professional careers	60	84.5
Being treated as a valued health professional	57	81.4
Working in a supportive environment	57	80.3
Autonomy in decision-making	54	76.1
Being valued by other health professionals	53	74.6
A permanent position	53	74.6
Safe working environment	53	74.6
Good working relationships with nurse managers	52	73.2
Commitment to excellent nursing care	52	73.2
High patient/nurse ratios	51	71.8
Employer educational support	51	71.8
Recognition of excellent program	51	71.8
Workplace bullying	50	70.4
Being able to select own workload	49	69.0
Good working relationships with doctors/physicians	48	67.6
Regular study leave	48	67.6
Influence on policy development	47	66.2
Full skill utilization	47	66.2
Rotating Shifts	46	64.8
Influence on provision of quality care	46	64.8
Good working relationships with other nurses	46	64.8
Other professional team members' opinions of nursing as a career	46	64.8
Paid study leave	46	64.8
Parking at/close to work	44	62.0
Shift-work generally	43	60.6
Society's media depiction of nurses	39	54.9
Finding ways to reduce cost	36	52.2
Private lounge or library	37	52.1
Community opinion of nursing/ nurses	37	52.1
Performing Physical Labor	36	50.7

Table 3: Nurses' intent to leave and plans after leaving

		N	%
Nurses reporting intent to leave hospital (Total sample=132)		99	75.0%
Reasons for the intent to leave			
	Leave country*	51	51.5%
	Leave hospital to	48	48.5%
	Move to a different hospital	4	8.3%
	Leave profession	18	37.5%
	Other plans	26	54.2%

** Nurses reporting intent to move to a health care organization outside Lebanon*

Table 4: Satisfaction of currently employed nurses at the two hospitals using MMSS scale (sorted in descending order of dissatisfaction)

	Dissatisfied
	N (%)
Benefits package (N=128)	86 (67.19)
Salary (N=127)	83 (65.35)
Child care facilities (N=74)	46 (62.16)
Your participation in organizational decision making (N=123)	73 (59.35)
Opportunity to work part-time work (N=88)	52 (59.09)
Recognition of your work from superiors (N=129)	74 (57.36)
Opportunities for career advancement (N=129)	73 (56.59)
Amount of encouragement and positive feedback (N=129)	71 (55.04)

Table 5: Association between satisfaction with selected items in MMSS and intent to leave*

		Leave Country	Leave Hospital
		OR (95% CI)	OR (95% CI)
Salary			
	Dissatisfied	2.273 (1.093-4.739)	1.371 (0.695-2.710)
	Satisfied	1	1
P-value		0.028	0.362
Benefits package			
	Dissatisfied	1.838 (0.797-8.929)	1.748 (0.898-3.053)
	Satisfied	1	1
P-value		0.087	0.101

Opportunities for career advancement			
	Dissatisfied	2.404 (1.112-5.208)	2.558 (1.195-5.464)
	Satisfied	1	1
P-value		0.026	0.016

**The reference category is stay in job. Odds Ratios (OR) and P-values are comparing stay in job against leave country, and leave hospital respectively. Odds Ratios (OR), 95% Confidence Intervals (95% CI) and P-values are controlled for gender, age, marital status and degree.*

NURSING IN SAUDI ARABIA: A PERSONAL PERSPECTIVE OF A FEMALE NURSING STUDENT

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Introduction

Shortage of nurses is a world-wide problem. In the USA it has been estimated that the nursing deficit will be 1.5 Million RNs by year 2020[1]. In Saudi Arabia (SA) a shortage of national nurses is a major problem due to many factors: social, educational, system and individual. These factors are often food for discussion among the Saudi nursing community albeit established nurses or students. Indeed some nurses consider these factors as barriers to the development of nursing in Saudi Arabia.

In this paper, I will use my personal perspective and feelings as a nurse student to talk about each factor (or barrier as we used to call it when talking to nursing colleagues). I acknowledge that it is a personal perspective that may not be generalized. However, my aim is to share this perspective and feelings with bodies and organizations interested in nursing in S.A. in particular and Middle East in general. At the same time to encourage student colleagues and established nurses to share their experiences for better understanding of nursing as a profession in this part of the world.

Social Barriers

People in Saudi Arabia are generally generous, friendly and kind but very conservative and affected greatly by certain ideas about women and their work. These ideas are manipulated by a small fraction of the community to their benefits and distort the image of nursing as if it is purely Western tradition which does not fit Muslim women. This is despite the fact that Muslim women work side by side with the Prophet Mohammed (peace be upon him) and his companions and are used to nursing injured and sick men during war and peace time. Society looks at nurses with some suspicion and disrespect so that girls are afraid of joining nursing even if they like it. I know a friend who had to terminate her study in order to get married because her husband and his family do not accept her as a nurse! This is just an example of social barriers.

Although, lack of respect has been reported in USA nursing literature[1], it has been recently changed to more respect where public perceptions of nurses are associated with "care", "compassion", "professional" and "help"[2]. I just wonder what sort of perception our public is holding about female Saudi nurses? High public regard of nursing should help in increasing the supply of nurses. Media has to play a role in educating society about the importance of national nurses while professionals should do more research on this important aspect to have more objective data on the public's perception of nurses.

Educational Barrier

Education in primary, intermediate and secondary school fails to produce open-minded and creative students. It concentrates on ability of memorizing a lot of subjects with little understanding and analysis. Moreover, there is a dichotomy between education at these levels and education in colleges and universities. This is not to suggest that undergraduate education is better but rather to highlight the dichotomy between undergraduate and previous levels of education (primary, intermediate and secondary). To give an example to clarify this issue:

English is not included in primary school and not emphasized in intermediate and secondary school. But when it comes to nursing in colleges and universities they ask me to have good command of English! Indeed I was denied joining a well-known nursing college because my English at that time was not good. I had to do more in learning English before I was accepted as a nursing student. In this way English becomes an obstacle for me and many other girls who want to join nursing.

I believe English is a must in nursing education but I believe also that it must not be an obstacle to interested girls who love nursing as a career. There should be a way to help interested students to compensate for the failure of education. I wish that nursing colleges using English as the language of teaching give more chance for students who join with little English but who have much interest in nursing. English takes time to master, similar to any other language. It appears unfair to jeopardize interested nursing students because they did not have the chance to learn English. Nursing in S.A needs motivated nurses not linguistics. Giving intensive English courses as well as teaching in English would be sufficient for nursing students to command English by the time of graduation. Most of our patients, if not all, speak Arabic and we will not have problems with communication with them. Most of the nurses in our hospitals and clinics are from the East and Far East countries and their English is not perfect because it is not their mother language but they are doing great jobs as nurses even if they do not speak Arabic. Why then do Saudi nurses have to command English to be accepted into our nursing colleges? What evidence do we have to prove that high quality nursing is associated with fluency in English? Nurses from India, Korea, Philippines, and Malaysia prove themselves in our community and they are not English or Arabic.

Having said that again, I strongly believe that Saudi nurses must learn English and if possible command it, but there must be an educational system to enable them to do so. English in

primary, intermediate and secondary schools will help preparing the ground for undergraduates to study nursing in English without much difficulty. In the meantime nursing colleges should give more intensive English courses to students all through their study. The current situation of asking new students to command English while their background education does not support them, means we penalize motivated students for the failure of the educational system.

System Barriers

Health care systems and educational systems fail drastically to prepare the ground for interested girls to join nursing in many aspects: lack of opportunities and motivation, lack of a coherent strategy to compensate for the social barriers and lack of clear vision of what and how and when to utilize Saudi nurses. Consequently, individual's visions of nursing as a career is blurred. Adding to this problem is the fact that colleges of nursing in S.A cannot differentiate between a high quality nursing student and fluent English speaking girls who acquired their language in the USA or England because they had the chance to stay there for a reason or another! The majority of Saudi girls do not have the chance to travel abroad to learn English and it is not fair to judge their professional quality on the basis of their English language: if they cannot master English in two semesters, students lose their chance in completing the college course. I think this needs a complete rethink. English is important but it should not be the only factor determining the suitability of nursing students.

There must be a system by which we judge quality on sound professional objectives. Moreover, the healthcare system and educational system must work together and formulate a common vision on how to ensure enough supply of Saudi nurses.

Individual Barriers:

Individual here means me as an individual student and similar colleagues who are interested in nursing but afraid and hesitant. Afraid of our society and its perception, afraid of failure and regrets, afraid of the unseen!;; hesitant to take risks; hesitant to experience difficulties and setbacks; hesitant to talk loudly about our feelings, worries and expectations. While I am thinking and writing this paper I realized that expressing my view and admitting that I am afraid and worried about nursing as career is not bad thing. It helps me to think deeply about sources of these worries and look for strategies to cope with barriers mentioned above.

More importantly it enables me to realize my shortcomings: I tend to blame others for my failure; not critical enough of myself; not utilizing available resources efficiently (for example internet and English courses). Above all I must see the above-mentioned barriers as challenges to strengthen me more!

I must admit I passed through a painful and frustrated experience in joining nursing with very little English and it is easy for me to blame other but this will not solve my problem. I feel proud and happy that in two years I made good progress in English. It takes time but it is worth the trouble! What is more important is that I do not lose interest in nursing because of my English. I strongly believe that being a Saudi female I can make a difference for my patients who are mostly Saudi and speak the same language and share the same culture. Once we lose sight of our purpose we go astray: my main purpose of joining nursing is to care for my patients professionally and compassionately. I believe I can do it, believing in oneself helps in coping with challenges facing female Saudi nurses.

Conclusion

Factors contributing to the shortage of Saudi nurses must be explored, studied and eliminated. In this article I share my personal perspective and feelings about the social, and educational system, and individual factors as I see them, with the aim of encouraging colleagues to share theirs for better understanding of a nursing career in Saudi Arabia.

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