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CONTENS

Verbal Abuse among Student Nurses in Port Said Faculty of Nursing

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Abstract
This study aimed to describe student nurses' experiences of verbal abuse and determine their personal and professional responses. A sample of 102 student nurses was selected from different four scholarly levels. Verbal abuse questionnaire (VAQ) was used to collect the data. The study results clarify that the main source of verbal abuse was staff nurses in the clinical areas, followed by faculty members, only 23.5% of studied students reported about verbal abuse, and abusive anger recorded the highest percentage form of verbal abuse (58.8%) among students at the last semester. On the personal level most students (95.1%) have feelings of shame, while 81.4% of them were expressing feelings of hate toward their study. The study recommended that students should be encouraged to report abusive incidents through supporting and increasing self confidence and faculty administrators must take appropriate actions to manage these problems.

Key words: Verbal Abuse- Student Nurses

Introduction
Verbal abuse is a behavior communicated through words, tone, or manner that disparages, intimidates, patronizes, threatens, accuses, humiliates, degrades, or otherwise demonstrates a lack of respect for the dignity and worth of another individual **(Hadley, 1990; Nield-Anderson & Clarke, 1996).** Whether overt or subtle, verbal abuse leaves the recipient feeling personally or professionally attacked, devalued, or humiliated **(Copper, Saxe-Braithwaite & Anthony, 1996).** The effect of threats or verbal assaults may result in severe emotional injury. Although the wounds of physical violence are well known and are readily observable, the wounds of verbal abuse are less well understood and are not easily observed because they do not clearly manifest themselves, however, they may be no less severe (**Coombes, 1998; OSHA, 1999; WHO, 1999; American Nurses Association (ANA), 1994).**

In the health sector anywhere in the world, nurses make up one of the group that are most exposed to violence. A high prevalence of workplace violence issues was reported in health care settings, and nurses in particular seem to experience more than other professions (**Braun, et al., 1991; Graydon, Kasta & Khan, 1994; Anderson, 2002; Uzun, 2003, Crilly, Chaboyer,& Creedy, 2004; Pejic, 2005;).** Internationally, the phenomenon of verbal abuse has been highlighted by **Chappell** and **Di-**

Martino (2006), who identified that 67% of Australian, 60% of South African, 48% of Thai, 41% of Lebanese, 40% of Brazilian and 32% of Bulgarian healthcare workers responding to the study had experienced verbal abuse. Nursing students are the future and nucleus of the nursing profession and a high quality educational foundation is vital to develop and equip future nurses for the challenges the modern healthcare environment offers. Internationally nursing students have been identified as a group vulnerable to experiencing verbal abuse **(Rippon 2000, Celik & Bayraktar, 2004)**.

Studies frequently cover qualified nursing staff experience of verbal abuse but do not examine nursing students' experiences. In comparison with some other professions, little empirical research has been conducted within healthcare workplaces into incidents of aggression and violence against student nurses **(Rippon, 2000)**. One of these researches pointed to verbal abuse among third year nursing students from one pre-registration nursing programme in England, clarified that experience of verbal abuse among students was reported by 45.1% and 34.5% had witnessed other students experiencing this and 65.5% reported that they were aware of other students experiencing verbal abuse. The incidents involved patients in 64.7% of cases, 15.7% involved visitors or relatives and 19.6% involved other healthcare workers. Students reported experiencing threats to kill them, racial abuse and sexually oriented verbal abuse, with the majority of incidents occurring in general **(Ferns & Meerabeau, 2008**). More than 20 years ago, ***Meissner*** in 1986 proposed that nurses "eat our young," that describes violence occurring between individuals with unequal power, such as staff nurse and student (**Thomas & Burk 2009**). Moreover, researchers discovered that many nursing students felt embarrassed, intimidated, and humiliated by their teachers in the clinical setting as well as the classroom **(Kleehammer, Hart & Keck, 1990; and Mozingo, Thomas. & Brooks 1995)**. In spite of these statistics of verbal abuse toward nurses, the incidence of verbal abuse is believed to be under-reported. This under-reporting is hypothesized to stem from oppressed behavior, because nurses blame themselves for the abuse instead of placing the blame on the abuser. This leads to nurses accepting verbal abuse from all sources as part of the job; they do not believe that they have the power to prevent such events **(ANA, 1994; Elliott, 1997; Lybecker, 1998, Oweis & Diabat, 2005**).

Internationally; little research has been reported on verbal abuse among student nurses, while nationally, no evidence describing student nurses' verbal abuse was clear. During the studying years, the students receive their clinical training in the clinical areas in the hospitals and health care centers, besides faculty skill lab, so the students deal and interact with patients, nurses, and physicians, in addition to their tutors, so they may be

insulted by the team member in the hospital or clinical area where they receive their training or in the faculty when dealing with faculty members or their assistants.

Aim of the study:

The aim of this study is to describe student nurses' experiences of verbal abuse and determine personal and professional responses as reported by the students.

Research questions:

1. Who are practice verbal abuses against student nurses?
2. What are the forms and frequencies of verbal abuse facing student nurses?
3. What are the reasons prevent student nurses from complaining?
4. What are responses of student nurses against verbal abuse?

Subjects and Methods:

Design

A descriptive design was used.

Setting

The study was conducted in the Faculty of Nursing affiliated to Suez Canal University located Port Said City in Egypt, The faculty constructed in 1991 and adopted problem based learning approach, the bylaw of the faculty included four academic years divided into eight semesters, followed by twelve months for internship. The faculty has complaining system through course coordinator and Vice Dean of Student Affairs.

Subjects

The subjects of this study consisted of a selected number of student nurses. Determination of sample size was based on **Kish and Leslie (1965)**, whereas the estimated proportion of degree of verbal abuse is 49.1% (pilot study). The width of the confidence interval for students was 5%. The percentile of standard normal distribution determined by 95% confidence level was 1.96. The calculated sample size was 102 students.

Sampling Technique

Student nurses were chosen from different scholarly levels using systematic random sample. The sample element was chosen every 3rd one, through dividing the total number of students in the four grades (320) by the estimated sample size (102), using the student's list names which ranked alphabetically.

Tools of Data Collection

The tool for data collection was a questionnaire composed of four parts. First part was developed by the researcher to collect data related to demographic characteristics of student nurses, such as age, and scholarly

level. Second part deals with sources of verbal abuse. Third part includes, complaining process, if the students follow or not and the reasons that prevent students from complaint. Fourth part is Verbal Abuse Questionnaire (VAQ) ordered in three subscales related to frequency of verbal abuse, personal emotional reactions, and professional reactions, these subscales were in part derived from **Manderino and Berkey (1997),** and some modifications were done by the researcher. The first subscale comprised 11 forms of verbal abuse, to which respondents were invited to rate how often these forms were in their experience at the duration of the last semester as from once to six times, from six to ten times, from eleven to twenty times and more than twenty times). The second subscale comprised eight personal emotion reactions used by verbally abused students in response to verbal abuse. The third subscale comprised seven professional emotion reactions used by verbally abused students to deal with the abuse. Since Arabic is the native language in Egypt, the questionnaires were translated into Arabic version by the researcher. To ensure the validity of translation, back translation technique was used by an expert in English language from the Faculty of Education, the English Department. Two lecturers from Faculty of Nursing reviewed the two versions, and modifications were made accordingly. A panel of three local experts with specialties in nursing administration, maternity and pediatric nursing established content validity.

A pilot study was carried out on 10 student nurses to estimate the number of students involved for data collection, and to ascertain the clarity and applicability of the tools. Needed modifications were done based on analysis of the pilot results. Those students who shared in the pilot study were excluded from the main study sample. The data were collected by using a structured interview questionnaire. Alpha Crombach test was used to test reliabilities of Verbal Abuse Questionnaire. The total scale yielded 0:86 and the subscales were: forms of verbal abuse 0:76; personal emotion reactions to verbal abuse 0:71; professional reactions to verbal abuse 0:75 demonstrating acceptable instrument reliability. An ethical approval was obtained from the Dean of the Faculty of Nursing and oral consent was taken from the student nurses before distributing the questionnaires and after explanation of the purpose of the study. The study was conducted at the end of academic year 2007/2008. SPSS Windows (version 16) was used for data management and statistical analysis.

Results:

The student nurses included in this study were 102; the response rate was 100%. The age brackets of the studied student nurses ranged from 17 to 22 years.

Table (1) displays sources of student nurses' verbal abuse. As shown in the table, nurses in areas of clinical training were the persons most certainly practicing verbal abuse against students, followed by faculty members, assistants of faculty members, physicians in clinical areas and the students colleagues were the least (95.1%, 75.5%, 66.7%, 48%, 36.3% respectively).

As regards forms and frequencies of verbal abuse among student nurses during last semester, **table (2)** shows that student nurses were exposed to all forms of verbal abuse with different percentages, the highest percentage of verbal abuse as expressed by students was related to abusive anger with frequencies ranged from once to five times (58.8%).

Only 23.5% of studied students as displayed in **table (3)** reported about verbal abuse through complaining process to semester's coordinator, while 76.5% of students did not complain. The highest percentage of students as shown **in table (4)**, considered useless complaining, and unaccepted complain by responsible person (78.2% & 60.3% respectively) were reasons preventing them from complain.

Table (5) displays students' personal emotional reactions against verbal abuse; most students (95.1%) have feeling of shame. Moreover, majority of them have feeling of anxiety, and weaknesses and loss of empowerment (89.2 % & 84.3% respectively), while sadness and tears, and feeling disappointment were expressed by the same students' percentage (74.5%).

Regarding to professional response, **table (6)** clarifies that the majority of students are hating the study (81.4%) and 79.4% of them have loss of concentration, while 78.4% of them reflect ineffective participation in learning activities and decreasing enthusiasm for study, slightly more than three fifths of students (60.1%) have a desire for leaving the study.

Discussion

It is feasible to assume that nursing students are in an especially delicate situation, as they often are very young and without experience in dealing with aggressive situations or aggressive occurrences **(Nau et al., 2007).** The formentioned statement is completely right especially that the student nurses in the study are young and their age ranged from 17-22 years old. Nurses in areas of clinical training were the most source of verbal abuse against students, this may be interpreted that those students after graduation will have the upper hand on those nurses in the future due to qualification differences, whereas most nurses in hospital still had a nursing secondary school diploma. In this context, **Mamchur** and **Myrick,**

(2003) agreed, those positive interpersonal relationships between students and ward staff are argued to be critical since the student's desire for support, respect and acceptance from more experienced colleagues is of major importance to them and a common source of stress and anxiety. Moreover, nursing students may be vulnerable to multiple experiences of verbal abuse while gaining clinical experience. In the same line, the study findings are matching with those of **Vallent** and **Neville (2006**), in New Zealand, who revealed that students felt disempowered, insulted, and marginalized by negative staff nurses' behavior. In spite of the open communication between students and faculty, their assistants during lectures and debriefing sessions of problem solving, the study approved that faculty, and their assistants are sources of verbal abuse in the teaching halls, in clinical teaching in the lab or in clinical settings. In the same line, the study results matched with **Celik** and **Bayraktar (2004)** survey of Turkish nursing students, which identified that verbal and academic abuse, are more devastating than sexual or physical workplace abuse. Abusers included nursing school faculty as well as staff nurses. Students in the study experienced all forms of verbal abuse during the last semester e,g., condescension, trivializing, ignoring, accusing and blaming and abuse disguised as jokes while abusive anger was the notable form of them. In the same context, **Ferns** and **Meerabeau (2008)** surprisingly addressed that students reported experiencing the most serious forms of verbal abuse, such as threats to kill, racial and sexually oriented verbal abuse. Recently, **Thomas** and **Burk (2009)** added that the most frequently reported perpetrators were hospital staff nurses. Descriptors of unjust RN behavior included condescending, overbearing, rude, sarcastic, disrespectful, patronizing, and degrading.

Study revealed that majority of student nurses did not report or complain of verbal abuse, because they persuade that complain is useless, their complaints will not be accepted by responsible persons. This finding matches with **Oztunc (2006**) study results which revealed that majority of the nurses had not previously reported an incident of verbal abuse and 39% of them stated that administration would not support that kind of report. Moreover, **Adib et al., (2002**) in the study of violence against nurses in healthcare facilities in Kuwait, mentioned that reasons for not reporting the incident by studied nurses fall in that incident remained under control, no harm was meant or done, the perpetrator apologized, the victim did not believe reporting is useful, the perpetrator was confused and the victim feared for her professional record. Feeling with shame, anxiety and weaknesses, loss of empowerment, feeling with sadness and tears, and feeling with disappointment are the most personal emotional reactions against verbal abuse, while professional responses for students fall into hating the study, loss of concentration, ineffective participation in learning

activities and decreasing enthusiasm for study, and desire for leaving the study. In this regard **Oweis and Diabat (2005)** in their study on Jordanian nurses agreed with the study results especially regarding to shame that is the most common emotional reactions was anger, followed by shame, humiliation and frustration .As well, **McKenna et al., (2003)** found that one in 3 of the new graduates had considered leaving nursing because of abusive or humiliating incidents. As several studies as those of **Watts and Morgan (1994), Flannery, Hanson & Penk (1995)** and **O'Connell et al. (2000)** agreed upon excessive exposure to verbal abuse can have negative physical and psychological consequences leading to increased attrition, career change and a deterioration in the quality of care rendered by nurses. In addition, **Manderino** and **Berkey (1997)** and **Aiken et al., (2001)** found that verbal abuse has significant impacts on the workplace by decreasing morale, increasing job dissatisfaction, and creating a hostile work climate, and increased lawsuits, increased errors.

Conclusion:

The results of this research showed that there are a significant number of incidents of verbal abuse directed at student's nurses. The abusers were primarily staff nurses in clinical areas and faculty and their assistants. A high percentage of student nurses experienced abusive anger. Verbal abuse has been shown to be personally a cause of shame, anxiety and weaknesses, loss of empowerment, feeling with sadness and tears, and feeling with disappointment are most personal emotional reactions against verbal abuse, while professionally that led student nurses to hate the study, loss of concentration, ineffective participation in learning activities and decreasing enthusiasm for study, and desire for leaving the study. In spite of the presence of a system for complaining through course coordinator and Vice Dean of Student Affairs, most students did not complain from verbal abuse which indicates a need for revision of complaining process besides increasing the students self esteem.

Recommendations

In light of the study findings, the following recommendations are suggested:

1. Students should be encouraged to report abusive incidents through supporting and increasing self confidence, and faculty administrators must take appropriate actions to manage these problems
2. Reviewing and enhancing the complaining system in the faculty.
3. Conducting workshops for students, nurses, and faculty about assertiveness to enhance communication and building communication channels among all personnel dealing directly with students.

4. Developing students' confidence and self-esteem to be able to value patients through valuing themselves.

Table (1): Sources of student nurses' verbal abuse.

Source of verbal abuse	n=102	
	No.	%
Faculty members	77	75.5%
Assistants of faculty members	68	66.7%
Colleagues	37	36.3%
Nurses during clinical training	97	95.1%
Physicians during clinical training	49	48.0%

N.B. Total is not exclusive (more than one answer)

Table (2): Forms and frequencies of verbal abuse among student nurses during last semester.

Forms of abuse	Frequencies (n=102)							
	1: 5 times		6:10 times		11:20 times		>20 times	
	No	%	No	%	No	%	No	%
1-Abusive anger	60	58.8	11	10.8	5	4.9	13	12.7
2-Condescension	47	46.1	19	18.6	3	2.9	15	14.7
3 Abuse disguised as jokes	34	33.3	11	10.8	8	7.8	3	2.9
4- Ignoring	37	36.3	14	13.7	9	8.8	7	6.9
5- Blocking and diverting	25	24.5	7	6.8	5	4.9	6	5.9
6- Trivializing	43	42.2	11	10.8	5	4.9	9	8.8
7- Accusing and blaming	36	35.3	14	13.7	5	4.9	1	0.98
8- Judging and criticizing	30	29.4	15	14.7	8	7.8	12	11.8
9- Discounting	33	32.5	10	9.8	12	11.8	11	10.8
10- Threatening	23	22.5	5	4.9	4	3.9	16	15.7
11- Harassment	28	27.5	6	5.9	7	6.9	5	4.9

N.B. Total is not exclusive (more than one answer)

Table (3): Students who complaining (reporting) and preventing to report against verbal abuse (n= 102)

Reporting		Preventing	
No	**%**	**No**	**%**
24	23.5	78	76.5

Table (4): Reasons preventing students from complaining.

Reasons	n=78	
	No	**%**
1-The evidence not important	21	26.9
2- I understand the situation	17	21.8
3- Fear from blaming and punishment	13	16.7
4- Complain is useless	61	78.2
5- Uunaccepted complain by responsible persons	47	60.3

N.B. Total is not exclusive (more than one answer)

Table (5): Personal emotional responses against verbal abuse as expressed by student nurses

Response Items	n=102	
	No	**%**
1- Sadness and tears	76	74.5
2- Disappointment	76	74.5
3- Anxiety	91	89.2
4-Psychosomatic	66	64.7
5-low self esteem	52	50.9
6- Shame	97	95.1
7-Weaknesses and loss of empowerment	86	84.3
8-Fear	52	50.9

N.B. Total is not exclusive (more than one answer)

Table (6): Professional responses against verbal abuse as expressed by student.

Response items	n=102	
	No	%
1- Desire for leaving study	62	60.8
2-Ineffective participation in learning activities	80	78.4
3- Decrease enthusiasm for study	80	78.4
4- Hating the study	83	81.4
6- Loss of concentration	81	79.4
7- Decrease the study achievement	77	75.5

N.B. Total is not exclusive (more than one answer)

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العنف اللفظى تجاه طالبات كلية التمريض ببورسعيد

سـناء عـبد الـعـظيم إبـراهـيـم
مـدرس إدارة التـمـريـض
كلـية الـتـمريض ببورسعيد- جـامـعـة قـناة السـويـس

الهدف من الدراسة:
تهدف هذه الدراسة الى وصف العنف اللفظى تجاه طالبات كلية التمريض ببورسـعيد والتعـرف على رد فعل هؤلاء الطالبات تجاه هذا العنف.

عينة البحث :
أجريت هذه الدراسة على ١٠٢ طالبة من مختلف الفرق الدراسية.

نتائج البحث :
أسفرت الدراسه عن أن أكثر مصادر العنف ممارسة ضد هؤلاء الطالبات، هن الممرضات فـى المستشفيات أثناء التدريب العملي يليه أعضاء هيئة التدريس و معـاونيهم وأكثـر أنـواع هـذا العنف كان الغضب الشديد الذى يصاحبه ثورة كما أشارت النتائج إلي أن ٢٣,٥% فقـط مـن الطالبات يبلغن عن ممارسة العنف اللفظى ضدهن و تمثل رد فعل٩٥,١% من الطالبـات فـى الشعور بالخجل وأيضا ٨١,٤% منهم عبرن عن شعورهن بكراهية الدراسة.

التوصيات:
وقد أوصت الدراسة بتشجيع الطالبات على التبليغ عن حوادث العنف اللفظى وإتخاذ الإجـراءات المناسبة من قبل إدارة الكلية لعمل قنوات إتصال بين الفريق التمريضـى بالمستشـفى و الكليـة بالإضافة إلى عمل دورات لأعضاء هيئة التدريس والهيئة المعاونة و الطالبـات عـن الإتصـال المناسب لكل المواقف.

Factors Affecting Assertiveness among Head Nurses and Staff Nurses at Suez Canal University Hospital

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Abstract

A descriptive study, aiming at determining factors affecting assertiveness among head nurses and their staff nurses, was conducted at Suez Canal University Hospital. The sample was composed of 31 head nurses and 162 staff nurses. Assertiveness Assessment Scale, Job Satisfaction Questionnaire, and Leadership Profile Scale were used to collect the data. The results of the study revealed that, majority of head and staff nurses were assertive, 41.9% of head nurses were satisfied with their job while 37.0% of staff nurses were satisfied, majority of head nurses (83.9%) were adopting the mixed style of leadership, a positive statistically significant correlation between head nurses leadership style and staff nurses' scores of assertiveness was observed. Since job satisfaction and leadership style had a positive influence on nurses' assertiveness, the study recommended that efforts should be done to increase nurses' job satisfaction, by increasing their salary, complete orientation for hospital policy and recognize their efforts and use different methods of to motivate them. Training program should be developed for head nurses to improve their leadership skills with concentration on suitable leadership style.

Key words: Assertiveness - Leadership Styles- Job Satisfaction-Nurses

Introduction

Nursing takes place within health care organizations and requires effective communication with everyone involved, in order to ensure competent and safe practice **(Sully & Nicol, 2005).** Assertiveness is an important behavior for today's professional nurse; it is a communication style, which is the key to successful relationships with patient, the family, and colleagues. As well, it is suggested that its development may aid the confidence of profession **(Riley, 2000**, **McCabe & Timmins, 2003)**. In the same line **Ellis & Hartley, (2005)** asserted that assertiveness is the right of the individual to behave in a way that meets one's needs as long as the one does not intrude on the needs and rights of others. In addition it is the art of speaking in a reasonable tone with good eye contact which reflects the ability to express one's feelings, opinions, beliefs, and needs

others **(Sullivan, 1995; Buffalo University, 2004 & Fiore, 2005)**.

Assertive communication processes are universally pivotal to every avenue of professional nursing practice as nurses' advocate for patients, families, communities and for the profession itself **(Hunt-Slamow, 2007).** By communicating assertively, people are being respectful person wins by influencing, listening, and negotiating so that others choose to cooperate willingly. This behavior leads to success without retaliation and encourages honest, open relationships **(Manning & Haddock, 2004)**.

Assertiveness is very important in nursing career; nurses are interacting with many different people and holding different roles and positions. Nurses must be assertive to communicate their own needs and others needs, especially patients, and be prepared to assert themselves to ensure balance in their own lives, without such balance, the high stress environment may diminish the nurses effectiveness **(Riley, 2000)**.

Job satisfaction was recognized as a fundamental element, which influences the overall effectiveness of an organization **(Shieh, Mills & Walts, 2001)**. Managers of today's knowledge workers often rely on job satisfaction to keep high motivation and enthusiasm in the organization **(Daft, 2003)**. Leadership is an important issue related to how nurses integrate the various elements of nursing practice to ensure the highest quality of care for clients **(Huber, 2000)**. Effective leadership is one of the most elusive keys of organizational success **(Marquis & Huston, 2006).**

Assertive leaders place a high priority on producing results, but they also devote time and attention to the people needed to produce those results. Their goal is to communicate with respect for their own rights and the rights of others. Consequently, they earn the respect of both their supervisors and their subordinates, the link between leadership style and staff satisfaction highlights the importance of leadership in time of choice **(Huber, 2000)**. Leaders who are low in assertiveness can not stand up for their interests, and they suffer by being ineffective at achieving goals and delivering results **(Ames & Flynn, 2007).** An assertive management style promoted job satisfaction for both manager and employees **(Pugh & Smith, 1997)**.Despite that different researches investigated job satisfaction and leadership style and few of researches investigated the level of assertiveness among nurses, none of them examined the effect of job satisfaction and leadership on assertiveness, accordingly, the present study was carried out to overcome the before mentioned issue**.**

Aim of the study

The aim of this study is to find out the relationship between assertiveness, leadership and job satisfaction among head nurses and nurses in Suez Canal University Hospital

Research Questions

- Are nurses and head nurses communicate assertively?
- Are nurses and head nurses satisfied with their job?
- What are the leadership styles followed by head nurses?
- Is nurses' level of assertiveness affected by job satisfaction and leadership styles followed by their head nurse?
- Is head nurses' level of assertiveness affected by job satisfaction?

Subjects and Methods

Study Design

A descriptive design was used to conduct this study.

Setting

The study was conducted at Suez Canal University Hospital in Ismailia Governorate, in all hospital's units except out-patient units. The hospital includes average of 300 beds and divided to four buildings, with thirty five departments include medical, surgical, emergencies, Ob/g , pediatric, oncology, departments in addition to operation theaters, and provides all type of care and cover the third Canal Cities namely:- Ismaila, Port Said and Suez in addition to Saini.

Study Subjects:

The subjects of this study included two groups, head nurses and staff nurses.

Head Nurses' Group: Includes 31 head nurses. The inclusion criterion for head nurses' was a minimum of one year's experience in the current position in the study setting.

Staff Nurses' Group: Consists of 162 staff nurses who were working in Suez Canal University Hospital. The only inclusion criterion for staff nurses, who represented the subordinates, with a minimum of one-year experience in the study setting. Staff nurses group was estimated according to the ***Kish & Leslie,*** equation: Staff nurses were chosen from (31) hospital's units Staff nurses were chosen according to systematic random sampling. All staff nurses in each unit are ranked alphabetically then total number of nurses (520) in the hospital is divided by the estimated sample size. The sample element was chosen every 3rd one.

Tools of Data Collection:

Data of this study was collected using three different tools. These included Assertiveness Assessment Scale, Job Satisfaction Questionnaire, and Leadership Profile Scale.

Tool I: ***Assertiveness Assessment Scale*** *This tool consists of two parts:*

Part (A): Included questions which intended to collect data related to personal characteristics such as name, age, department, qualification, years of experience and job title.

Part (B): *Assertiveness Assessment Scale:* This scale was proposed by **Clark, & Shea, (1979)** and adopted from ***Mohamed (1999),*** it consists of 47 items classified into six categories namely verbal and non-verbal style, active orientation, work habits, control of anxiety and fear, relating to co-workers and negotiating the system. Assertiveness items were scored 2, 1 and Zero for "Yes", "Sometimes", and "No" responses respectively. For each area, the scores of the items were summed-up and the total divided by the number of the items, giving scores for the part. These scores were converted into a percent score. The subjects were considered assertive if the percent score was 65% or more and not assertive if less than 65%.

Tool II: ***Job Satisfaction Questionnaire****:* was adopted from **Swansburg & Swansburg (1995),** ***Ibrahim (1998)***, it was modified by the researcher with no change in its validity. It aims to measure the level of job satisfaction among the study subjects. This tool was designed based on the Herzberg's two factor theory; it consists of 86 items which were grouped under 2 types of factors namely: Hygiene Factors and Motivators Factors. Satisfaction items were scored 2, 1 and Zero for "Satisfied", "Uncertain" and "Dissatisfied" responses respectively. For each area, the scores of the items were summed-up and the total divided by the number of the items, giving scores for the part. These scores were converted into a percent score. The subject was considered satisfied if the percent score was 60% or more, and dissatisfied if less than 60%.

Tool III: ***Leadership Profile Scale***: The leadership profile questionnaire was adopted from ***Frew (1997)*** and ***Kurzen (2001*****)**. It consisted of twenty statements, with a 5-point Likert scale ranging from "Strongly Agree" to "Strongly Disagree". The responses were scored respectively from 5 to 1. In certain statements (1, 3, 4, 5, 6, 8, 14, 15, 16, and 20) this scoring was reversed. The scores of the statements were summed-up and the total divided by the number of the items, giving scores for leadership. This score ranges from 1 to 5. The resulting mean score reflects the leadership style of the participant as follows: Scores less than 1.9: very autocratic, a leadership style in which the boss decides and announces decisions rules, and orientation. Score 2.0 to 2.4: moderately autocratic, with a leader who announces decisions but asks for questions, and makes exceptions to rules. Score: 2.5 to 3.4: mixed leadership style, where the boss suggests ideas and consults groups, and accepts many exceptions to regulations.

Score 3.5 to 4.0: moderately participative, with a style in which group decisions are based on suggestions, rules are few, and the group proceeds as they see fit. Score 4.1 and up: very democratic, and the group is in charge of decisions, boss is a coordinator, and the group makes any rules.
The tools of the study were revised by experts in the field of nursing administration and public health to determine its validity, cronbach test used for this purpose The assertiveness alpha score was 0.79, Job satisfaction questionnaire, recorded 0.88, while Leadership scale recorded, 0.91 that's reflect the reliability of tools.

Pilot Study:

A pilot study was carried out on 10% of the staff nurses and head nurses who were selected randomly to test the tools before starting data collection, and they were excluded from the entire sample of research work to assure stability of the answers.
The purpose of the pilot study was to test the applicability of the study tools and estimate the time needed to complete the questionnaires. Based on the results obtained from the pilot study, necessary modifications were done. Completion of head nurses sheets took 20-25 minutes, and staff nurses sheet 30-40 minutes.

Field Work:

This study was carried out in Suez Canal University Hospital, in Ismailia Governorate, in the period started from November 2006 to January 2007. The researcher met the respondents through three shifts to distribute the questionnaire. During these meeting, the researcher explained the purpose of the study and how to complete the questionnaires and assured the respondents about anonymity of their answers, and that the information's will be used only for scientific research and was treated as confidential. Some of them filled in the questionnaire sheet at once and the rest read the questionnaire rapidly and fixed another time to hand it over.

Administrative Design:

Before starting any step in the study, an official letter was issued from the Dean of the Faculty of Nursing to the Director of Suez Canal University Hospital as well as to the nursing directors, requesting their cooperation and permission to conduct the study. After an explanation of the study objectives, the written permissions were taken. Additionally, an oral consent was taken from each head nurse and staff nurse, after explaining the purpose and the importance of the research study. Complete confidentiality of obtained information was ensured.

Results

The results of the study revealed that total number of head nurses participate in this study were 31 the highest percentages of them were from surgical (41.9%) and specialized units 35.5% their age was under 30 years, with a mean of 28.8±4.9 years. The majority (87.1%) graduated from the Faculty of Nursing, and almost two thirds of them (67.7%) had 5 years or more of experience. Staff nurses their age were under 30 years. More than three quarters of them (78.4%) were females. Regarding to their qualifications, 78.4% of them had nursing secondary school diploma. In relation to experience, about half (51.2%) of them had 5 years or more experience.

Table (1) shows assertiveness among head nurses and staff nurses. It is evident that the majority (87.1%) of head nurses were assertive. The highest percentages were for items related to active orientation (93.5%) and negotiating the system (90.3%). Also majority (83.3%) of staff nurses were assertive. The highest percentages were for items related to negotiating the system (88.3%) and work habits (86.4%).

Table (2) reports job satisfaction among head nurses and staff nurses. As the table shows, approximately two fifths (41.9%) of head nurses were satisfied. Almost two thirds (61.3%) of them were satisfied with hygiene factors, where the highest percentage was in relation to interpersonal relationships (96.8%). However only 35.5% were satisfied with motivator factors, with the highest percentage was in relation to responsibility (74.2%). The table indicates that, more than one third of staff nurses (37.0%) were satisfied. As table shows less than half of staff nurses (48.1%) were satisfied with hygiene factors, with the highest percentage was in relation to interpersonal relationships (89.5%). While less than one third (30.2%) were satisfied with motivator factors with the highest percentage was in relation to responsibility (45.7%).

Regarding to leadership style among head nurses **table (3)** displayed that, the majority of head nurses (83.9%) were adopting the mixed style of leadership, while only 16.1% of them were moderately autocratic.

Table (4) indicates ecologic correlation matrix of head and staff nurses' scores of assertiveness, job satisfaction, and leadership. The results indicated that, there were significant correlation between staff nurses, head nurses' job satisfaction and assertiveness and positive statistically significant correlation between head nurses leadership style and staff nurses' scores of assertiveness.

Discussion

Findings of the study showed that the majority of both the head nurses as well as staff nurses were assertive. The results of study were in the same line with ***Safey El-Din (2003)***, who asserted that the majority of

nurses working in Cairo University Hospitals were highly and moderately assertive. Moreover, a study carried out by **Mohamed (1999)**, on assertiveness among nursing personnel working at Ain Shams University Hospitals indicated that more than one third of a sample of 360 nurses was assertive and nearly half of them were partially assertive. On the contrary, **Gerry (1989)** and **Dobos (1990)** concluded that nurses, in a position that greatly affects health care, were more often lacking of assertiveness skills, empowerment and risk taking. It is difficult for nurses to act assertively due to traditions and stereotypes. Furthermore, **El-Molla (1991) and Lin et al. (2004)** reported that nurses who were trained in assertiveness had the advantage of changing their behavior from being passive or having low assertiveness to being assertive. These findings were supported by **Zerwekh** and **Claborn (2003)**, who mentioned that, many nurses do not consistently act or communicate in an assertive way, because some nurses had a hard time believing in their own rights, feelings, or needs. Additionally, nursing schools and working in the nursing profession may reinforce negative experience about self-worth.

Findings of the study showed that approximately two fifths of head nurses are satisfied, while slightly more than one-third of staff nurses are satisfied, especially regarding their salary, which did not match with their daily needs, in addition to unclear hospital policies that guide them for all corrective actions, and decrease feeling of recognition for their work, that leads to push and provide them by enthusiasm for their practice, the interpretation of these findings may be related to the work load in the hospital in addition to that nurses compare their salary with the private sector that leads them to feeling with frustration when they did not receive a positive reinforcement or recognition for their efforts. The foregoing findings were to some extent in agreement with **Gilloran et al. (1994)** study on nursing staff in psychogeriatric wards in National Health Service Hospitals in Scotland which revealed that nurses were not satisfied with what they were getting salary from their work. In contrary, **Morsy (2000)** found that about two thirds of nurses who worked in Suez Canal University in time of study had job satisfaction. Also **Parahoo** and **Barr (1994)** found that more than half of the studied nurses were satisfied with their job. According to leadership styles, the study results revealed that the majority of the studied head nurses have mixed leadership styles. The foregoing findings were supported by **El-Shimy, Akel & Saber (2000), Mostafa (2004)** and **Abd El-Kawey (2005),** who found that the majority of head nurses have mixed leadership style. Moreover, these results were supported by **Huber (2000)** and **Daniels (2004**) who reported that effective leaders should use situational leadership style based on current circumstances and events. This was in contrast with **Shetawy (2005)**, who found that the moderately

participative style was the mostly used among head nurses who were working in hospitals affiliated to the Ministry of Health and Population. Notable positive correlation between leadership style and staff nurse's level of assertiveness are addresses. It could be related to head nurses' appropriate leadership style according to situation that allows nurses to use their abilities to the maximum level and express their feelings and rights. The previous findings were compatible with **Cooper (2003)** who revealed a statistically significant effect of workplace leadership performance and positive benefits related to communication, competence, articulation of goals, networking, zone responsibility and problem solving on nurses assertiveness.

Conclusion

Based on the study findings, it can be concluded that the majority of head nurses and staff nurses were assertive, while less than half of them were satisfied; also little number of staff nurses were satisfied, the sources of dissatisfaction were notable related to salary, hospital policies in hygienic factors while in motivator factors were related to advancement, achievement and recognition. Most of the studied head nurses follow mixed leadership style. The findings of this study showed that there was a correlation between head nurses' assertiveness and their satisfaction. in addition to a positive correlation between head nurses' leadership style and staff nurses' assertiveness. Since job satisfaction and leadership style had a positive influence on nurses' assertiveness.

Recommendations

The study recommended that efforts should be done to increase nurses' job satisfaction, by increasing their salary, complete orientation for hospital policy and recognize their efforts and use different methods to motivate them. Training program should be developed for head nurses to improve their leadership skills with concentration on suitable leadership style.

Table (1): Assertiveness among head nurses and staff nurses.

Assertive in:	Head nurses N=31		Staff nurses N=162	
	No.	%	No.	%
Verbal and non-verbal style	26	83.9	119	73.5
Active orientation	29	93.5	131	80.9
Work habits	27	87.1	140	86.4
Control of anxiety and fear	20	64.5	98	60.5
Relating to co-workers	26	83.9	114	70.4
Negotiating the system	28	90.3	143	88.3
Total Assertiveness	27	87.1	135	83.3

Table (2); Job satisfaction among head nurses and staff nurses.

Satisfied with:	Head nurses N=31		Staff nurses N=162	
	No.	%	No.	%
Salary and benefits	8	25.8	41	25.3
Hospital policy and administration	16	51.6	69	42.6
Working condition	22	71.0	82	50.6
Interpersonal relationships	30	96.8	145	89.5
Supervision	24	77.4	95	58.6
Total Hygiene Factors	19	61.3	78	48.1
Achievement	11	35.5	40	24.7
Recognition	12	38.7	64	39.5
Responsibility	23	74.2	74	45.7
Advancement	5	19.4	39	24.1
Total Motivator Factors	11	35.5	49	30.2
Total Job Satisfaction	13	41.9	60	37.0

Table (3): Leadership styles among head nurses in the study sample (n=31).

Leadership Style	No.	%
Moderately autocratic	5	16.1
Mixed	26	83.9

Table (4): Ecologic correlation matrix of head and staff nurses' scores of assertiveness, job satisfaction, and leadership.

Items	Pearson Correlation Coefficient (r)				
	Assertiveness (head)	Job satisfaction (head)	Leadership (head)	Assertiveness (staff)	Job satisfaction (staff)
Assertiveness (head)	1.00				
Job satisfaction (head)	0.51*	1.00			
Leadership (head)	0.35	0.43	1.00		
Assertiveness (staff)	0.23	0.07	0.44*	1.00	
Job satisfaction (staff)	0.13	-0.02	0.26	0.66**	1.00

(*) Statistically significant at P<0.05 *(**) Statistically significant at P<0.01*

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العوامل المؤثرة علي الحسم لدي رئيسات الممرضات وهيئة التمريض بمستشفى جامعة قناة السويس

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مقدمة:

الحسم صفة مهمة جداً في مهنة التمريض لأن الممرضة تتعامل مع أشخاص شديدي التباين، فيجب علي الممرضة أن تكون حاسمة ولديها شخصية إيجابية لكي تستطيع أن تعبر عن احتياجاتها واحتياجات الآخرين وبالخاصة المرضي.

الهدف من الدراسة:

أجريت هذه الدراسة بالمستشفي الجامعي بالإسماعيلية لايجاد العلاقة بين الحسم وأساليب القياده والرضا الوظيفى لدى رئيسات التمريض والممرضات.

- **عينة الدراسة:** وقد اشتملت عينة البحث علي ٣١ رئيسة تمريض و ١٦٢ ممرضة.
- **أدوات الدراسة:** تم استخدام ثلاث أدوات لجمع البيانات المطلوبة لهذه الدراسة.

الأدة الاولى: تنقسم الى جزءين:

الجزء الاول: يشتمل على إستبيان لقياس الخصائص الشخصية لعينة البحث.

الجزء الثانى: يشتمل على مقياس تقييم الحسم لدى رئيسات التمريض و الممرضات و يحتوى على ٤٧ جملة مقسمة الى ٦ محاور.

الأداة الثانية: تشمل إستبيان لقياس الرضا الوظيفى لدى رئيسات التمريض والممرضات.

الأداة الثالثة: تشمل مقياس لتحديد أنماط القيادة لدى رئيسات التمريض و هو مكون من عشرون جملة.

نتائج الدراسة:

وأوضحت نتائج هذه الدراسة أن أغلبية رئيسات الممرضات حاسمات بينما ٤١,٩% منهن لديهن رضا وظيفي. كما أن ٨٣,٩% منهن يتبعن الأسلوب الإداري المختلط، وأوضحت النتائج أيضاً أن ٨٣,٣% من هيئة التمريض حاسمات بينما ٣٧% منهن لديهن رضا وظيفي. كما أشارت النتائج إلي أنه توجد علاقة بين الحسم لدي هيئة التمريض والرضا الوظيفي لديهن، كما توجد علاقة إيجابية بين النمط القيادي المتبع لدي رئيسات الممرضات ومستوي الحسم لدي الممرضات.

التوصيات

فى ضوء نتائج الدراسة فقد أوصت بالأتى: العمل على زيادة الرضا الوظيفى للممرضات و ذلك من خلال التوصية بزيادة دخلهن بالإضافة لتزويدهم بالتوعية التامة و المعلومات عن قوانين المستشفى وأيضا تقدير مجهودهن باستخدام طرق التحفيزالمختلفة.أما بالنسبة لرئيسات التمريض فقد أوصت الدراسة بعمل برامج تدريبية تصقل و تحسن مهاراتهن القيادية مع التركيز على استخدام الأساليب القيادية المناسبة.

Personality Traits among Infertile and Fertile Yemeni Women at El-Muklla City

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Abstract:

The experience of infertility can be extremely stressful and associated with a range of personality traits in infertile women, which have greater susceptibility to depression and anxiety. This study aimed to assess the personality traits of infertile Yemeni women in comparison with fertile ones with 50 infertile and 100 fertile women attending infertility and family planning clinics in the health center at Al-Mukalla city, in Yemen. Middlesex Hospital Questionnaire (MHQ) was used to assess the personality traits as phobia, depression, obsession, hysteria, anxiety and Psychosomatic symptoms. Results showed that the fertile women had slightly higher scores of psychosomatic symptoms and hysteria compared to infertile ones. Infertile women with no acceptance reaction had higher scores of anxiety, obsession, depression, and hysteria. There are a positive statistically significant correlation between depression and education among fertile women. It is recommended that nurses dealing with infertile women be aware of emotional factors in the problem of infertility, as they can play a vital role in providing emotional support and assisting with effective coping strategies.

Key wards: Personality traits - Infertility - Yemeni Women

Introduction

Infertility is a common and worrisome problem that encounters many couples nowadays. It has been defined as the inability to conceive in spite of regular normal sexual intercourse for more than one year. It affects an estimated 10 to 15% of couple ***(Abma et al, 1997)***. Infertility may be divided into two categories, primary and secondary. Primary infertility applies to a couple without a prior pregnancy. Secondary infertility is used when the couples have previously succeeded in achieving at least one pregnancy, including abortion and ectopic pregnancy, but have not been able to become pregnant again ***(*Jose-Miller et al*, 2007)*.**

Infertility represents a stressful life event and depressive symptoms are normal responses to the serious life crisis for the infertile couple, especially women ***(Williams & Zappert, 2006)***. This crisis evokes many feelings. Some of these feelings are due to disappointment and despair

regarding their infertility, while other feelings are based upon the pressures of the society, which puts them at risk of serious social and emotional consequences ***(Fido & Zahid 2004)***. So, infertility is not only a medical and social problem, but also a psychological one.

Descriptive reports suggest that couples with fertility problems undergo various forms of severe psycho-emotional distress which may render them susceptible to depression ***(Matsubayashi et al., 2004; Tan et al, 2008)***. Such stress may further decrease the likelihood of conception, as suggested by work of ***Sanders*** *and* ***Bruce (1997)***. Everyone is capable of adapting to stress, but the level of adaptation is influenced by one's personality structure or traits. Adaptation is a central core of all personality theories and may include healthy responding (adaptation) or unhealthy responding (mal adaptation) ***(Antai-Otong, 2008)***.

Various studies on infertility indicated that infertile women are more likely to have psychiatric pathology and typical personality traits that resulted from their inability to conceive. Personality is defined as the characteristic traits that are generally predictable in their influence on cognitive and behavioral patterns of human beings. These patterns develop and evolve over time, are conscious or unconscious, and affect adaptation and response to the environment ***(American Psychiatric Association, 2000)***.

According to ***McCrae and Costa (2003)***, traits are defined as a dimension of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions. Individuals possess all traits in various degrees. The greater tendencies toward the traits, the more likely it is that the individuals manifest behaviors associated with the trait. Meanwhile, traits are consistent patterns within an individual's thoughts, feelings, and actions. The greater the tendency toward a trait, the more likely it is that the individual will reveal behavior associated with the trait. The traits examined in this study were anxiety, depression, obsession, psychosomatic, phobia and hysteria.

There is ample evidence that lower stress levels mean better natural fertility. Reducing stress may diminish the number of treatment cycles needed before pregnancy is obtained, may prepare the couple for an initial failure of treatment or even make more invasive techniques unnecessary ***(Campagne, 2006)***. Hence, psychoanalytical approaches to emotions may contribute to more advanced nursing roles. Rather than limiting the potential for intimacy between nurses and fertility patients, such roles allow nurses to provide increased continuity of care ***(Allan and Barber, 2005)***.

Significance of the study

Yemen is marked by a rapidly growing population and very young age structure**,** with fertility rate 7.7 ***(Almasmari, 2007)***. In this country, historically, old people sometimes criticize women without children, because they think women should have heirs bearing their family name, and because they still believe that infertility is caused by the female. Hence, childlessness results in social stigmatization for infertile women and put them at risk of serious social and emotional consequences. Moreover, only a small number of Yemeni women speak about the suffering they experience as infertile woman, which implies inability to adapt. Therefore, this study was conducted to identify the personality traits of infertile Yemeni women in comparison with fertile ones. This would help nurses to understand the characteristics of these women to be able to provide support, counseling and guidance for them as well as their spouses on a scientific basis.

Subjects and methods

Aim of the study:

1. Assess the personality traits associated with infertile women
2. Compare the personality traits between fertile and infertile women

Research questions

1. What is the personality traits associated with infertile women?

2. Are there differences between the personality traits of fertile and infertile women?

Research design:

A cross sectional analytic comparative study design was used in carrying out the study.

Setting:

The study was conducted in the outpatient infertility and family planning clinics in the health center at Al-Mukalla city, in Yemen.

Subjects:

The study sample consisted of two groups of women attending the study settings. The first group included 50 infertile women attending to the

outpatient department for diagnosis and care of fertility problems, and free from any other causes of psychiatric disorders. The second group consisted of 100 fertile women, having at least two children, attending to the same setting for family planning. They were also free from any causes of psychiatric disorders. The two groups were from the same socio-demographic background.

Tools of data collection

Two tools were used for data collection, namely a questionnaire sheet, and Middlesex personality test.

- **Questionnaire sheet:** was utilized to collect the necessary data of infertile and fertile women. Interviewing was preferred to develop a relationship with infertile women, and give them an opportunity to talk about their fears and their reactions to infertility. Also, the main reason for the interviewing was to overcome the problem of illiteracy among women and to facilitate understanding the questions to them. The schedule sheet was designed to obtain the necessary data in relation to the general characteristics of the women, to evaluate their feelings toward the event, and to evaluate their needs. The sheet included questions about personal characteristics as age, education, occupation, income, and address, as well as the obstetric history regarding abortions and duration of marriage, and number of marriage of couples. It also included a section for infertile women that had questions about the duration of infertility, duration of treatment, marital relation, and finally the reaction of family members to infertility and women's own reactions to infertility.

- ***Middlesex Hospital Questionnaire (MHQ)***: The MHQ is a brief self-rating inventory purporting to measure aspects of six distinct categories of psychoneurosis and affective status. .This test is used to assess the personality characteristics of the individual in terms of anxiety (A), phobia (P), obsession (O), psychosomatic symptoms (S), depression (D), and hysteria (H). The test includes 48 items equally divided among the six types of personality (A, P, O, S, D, H), i.e., each personality characteristic had eight items. The answer to each item is in the form of "No"`, "Sometimes", or "Yes." These are scored zero, one, or two, respectively. The maximum attainable score for each of neurotic trait is thus 16. A higher score means a tendency toward developing the trait.

  The validity and reliability of this scale was measured by **Crisp et al., (1978)**; in a further attempt to examine the validity of individual

scales in relation to pertinent single clinical diagnostic entities in a study involving 800 patients. Which found that it is a reliable instrument and also valid as a profile measure. The phobic and obsession scales are found to be particularly accurate and differentiating in this respect. Patients variously diagnosed as suffering from anxiety states, depressive states and personality disorder tend to score very highly on several scales. The instrument serves overall to distinguish satisfactorily between such populations and others suffering from schizophrenia and anorexia nervosa. It also markedly differentiates them from 'normal' populations

Pilot Study:

The pilot study is carried out after the development of the tool and before starting the data collection. It is carried out on 10% of the sample. It was conducted at the time from 15 December to 25 December, 2007. The purpose of the pilot study was:

- To test the applicability and clarity of the study tool.
- To estimate the time needed to complete the questionnaire, and to add or omit questions.

Appropriate modifications were done, where some questions were omitted and some others added. The required modifications were done and the final form was completed.

Fieldwork

Data were collected in 4 months period from January to May2008. This was done three days per week. The questionnaires were validated using expert opinion (three nursing educators) for appropriateness of content, and scaling. It then was pretested on 5 infertile women and 10 of fertile women the researchers interviewed each of the participating women individually using the designed interview questionnaire form. The approximate time spent with each woman to fill the sheet was 20 to 35 minutes. The number of women interviewed ranged between 0 to 4 women per day.

Limitations

Although this study has the potential to uncover valuable information about the personality traits of the infertile Yemeni women, there are potential limitations to infer from its results to create social change. This is due to the small size of the study sample. Another limitation could be related to the bias related to social desirability outcome in self-reporting, whereby participants may have attempted to

place themselves in a good acceptable shape, with the ultimate goal of being self-respected.

Ethical considerations

All official permissions to carry out the study were secured from pertinent authorities. An informed oral consent was obtained from all the participants before collecting data. Explanation of the study aim in a simple manner was done. No harmful maneuvers were performed or used. All data were considered confidential. Participants were informed about their right to withdraw from the study at any time without giving any reason. Professional advice was provided whenever needed.

Statistical analysis

Data entry and statistical analysis were done using SPSS 14.0 statistical software package. Quantitative continuous data were compared using the non-parametric Mann-Whitney test as normal distribution of the data could not be assumed. Pearson correlation analysis was used for assessment of the inter-relationships among quantitative variables, and Spearman rank correlation for ranked ones. Statistical significance was considered at p-value <0.05.

Results

The comparison of the demographic characteristics of women in the infertile and fertile groups revealed similarity regarding education, and job status. However, as **table (1)** shows that infertile females had statistically significantly younger age (p=0.01), with about half of them being below the age of 25 (48.0%), compared to only 23.0% of fertile group. Another statistically significant difference was revealed regarding family income (p=0.003), where about half of the infertile had sufficient income (48.0%), compared to 24.0% of the other group.

As **table 2** shows, no statistically significant differences could be detected between fertile and infertile women regarding their marital life characteristics. The duration of marriage was mostly less than four years in both groups. They did not differ regarding previous husband or wife marriage, and their marital relations were mostly excellent (50%&52% respectively). Although infertile couples had a higher percentage of previous abortions (70%), the difference was not statistically significant between the two groups.

Table (3) demonstrates that about two-thirds (64%) of infertile women had the problem for less than five years, and the majority had also

treatment for less than five years. In 36% of them, the reaction of the woman as well as the family was that of acceptance and coping.

A comparison of the scores of various traits is presented in **table (4)** Fertile women had slightly higher scores of psychosomatic symptoms and hysteria compared to infertile ones. However, none of the traits showed statistically significant differences between the two groups.

The relations between the scores of personality traits of infertile women and their personal and family acceptance of infertility are displayed in **table (5)** it is evident that infertile women with no acceptance reaction had higher scores of anxiety, obsession, depression, and hysteria. However, the difference reached statistical significance only for anxiety score with family reaction (p=0.048). Additionally, the difference for depression in family reaction was of borderline significance (p=0.06).

Investigating the correlations between personality traits scores and women's characteristics **(table 6)** revealed differences between fertile and infertile ones. Among fertile women, here was a positive statistically significant correlation between depression and education. As for infertile ones, negative statistically significant correlations were revealed between the scores of psychosomatic symptoms and woman's education and income (p= -0.338& -0.340 respectively).

Discussion

Infertility is a major problem in the context of important domains of social life such as kinship, inheritance, marriage and divorce patterns. The experience of infertility/childlessness is usually marked by anxiety and fear, societal pressures to conceive and social stigmatization, and various trials of various treatments ***(Pachauri, 1995)***. Coping with this stress will differ among individuals according to their characteristic traits, which differ according to the type of personality ***(McCrae and Costa, 2003)***.

The present study aim was to identify the personality traits of infertile Yemeni women and compare them with those of fertile ones. Although infertile women had some slightly higher scores in Middlesex items of psychosomatic symptoms and hysteria, the differences were not statistically significant. This unexpected finding is however in congruence with ***Tan et al (2008)*** who claimed that infertility does not appear to constitute a primary determinant of psychological problems. On the same line, ***Greil (1997)***, ***Matsubayashi et al (2001)*** and ***Wischmann***

et al., (2001) found no significant differences between infertile and fertile women with regard to personality.

On the contrary, ***Fido (2004)*** reported significantly higher tension, hostility, anxiety, depression, self-blame and suicidal ideation among infertile women, compared to fertile ones. This was attributed to social stigmatization and the risk of serious social and emotional consequences.

These findings of lack of differences between fertile and infertile women could have a number of explanations. Firstly, it is obvious that not only infertility is a stressful life event in, but women may also experience depressive symptoms during different phases of the reproductive cycle, e.g. premenstrual dysphoric disorder, depression during pregnancy, postpartum depressive conditions, and menopausal depression ***(Noble, 2005)***. Secondly, because of the high fertility rate in Yemen, every woman could have five or more children, which is a major burden on the mother. Thirdly, women might experience infertility as a transformational process in which they mourn their loss of reproductive function and parenting roles and struggle to make restitution for the perceived stigma and powerlessness ***(Gonzalez, 2000)***.

Another important factor is the role of social support, mainly from husband and family. In the present study, most of the marital relations were excellent, with no difference between the two groups. It might be expected that the marital relationship would be disturbed by the problem of infertility. However, the contrary was demonstrated by ***Schmidt et al., (2005)*** who reported that fertility patients frequently experience marital benefit. Moreover, anxiety in childless Japanese women was significantly associated with lack of husband's support ***(Matsubayashi et al., 2004)***. Thus, the role of husband support in the present study could have played a role in minimizing their scores in Middlesex items to approach those of fertile women. This also explains their lack of phobia and fears associated with body dysfunction, concern over sexual desirability, interpersonal and sexual relations, and fear about dangers to their marriage.

Concerning family support, the present study findings demonstrated that infertile women with no family support, where family reaction was not accepting, had statistically significantly higher anxiety and depression scores. These findings point to the importance of social support in mitigating the psychosocial problems among infertile women. In congruence with this, ***Slade et al (2007)*** reported that social support was negatively related to anxiety, depression and overall infertility distress and showed greater predictive capacity than satisfaction with partner relationship. Similarly, ***Mindes et al., (2003)*** highlighted that

unsupportive social interactions were associated positively with depressive symptoms and overall psychological distress.

According to our study findings, the psychosomatic symptoms were not significantly different between infertile and fertile women. These results are in agreement with ***Anvar,*** **Meshkibaf** and **Kokabi** ***(2006)*** who similarly found no significant difference between fertile and infertile women, and added that infertile women might also report feeling ill because of the great deal of time they spend in the fertility clinic for tests and treatments.

The psychosomatic symptoms expressed by infertile women might be confounded by many factors. For instance, in the present study, the scores of these symptoms were negatively correlated to their education and income, which implies that these symptoms were more prevalent among illiterate and those with low income. This might be attributed to the fact that illiterate women have limited access to sources of information and explanations about infertility and its consequences. The findings are in congruence with the results of an Iranian study on infertile women, where the level of education and low socio-economic level had close relationship to anxiety level ***(Yassin et al., 2005)***.

Other factors affecting psychosomatic symptoms could be related to treatment of infertility and the side effects of hormonal medications used to enhance fertility. Thus, although not really sick, they may begin to identify with the sick role and begin to feel that their physical health is compromised ***(Fava & Sonino, 2000; Fassino et al., 2001)***.

A major characteristic trait is depression, which may be a defense against sadness and grief present in the infertile women. The present study showed that there is no statistically significant difference in depression score between fertile and infertile women. This contradicts the results of ***Domar et al (1992)*** who revealed that the infertile women had significantly higher depression scores and twice the prevalence of depression than the controls. The discrepancy between our results and this study might be attributed to the presence of other factors affecting the psychological status of fertile woman rather than infertility, such as the low marital relations, and lack of social support. It is also affected by the start and duration of treatment, which could influence the appearance of depression. In this respect, ***Dhaliwal et al (2004)*** found that depression and anxiety in the female partner were evident soon after the investigation started.

Finally, the results of this study imply that it is not enough for nurses to understand the general personality characteristics of the infertile females, but they should consider the special characteristics that predispose to each of the traits. This will enable them to provide individualized care for the clients and helping women to adjust factors that contribute to the treatment of infertility.

Conclusion:

In summary, infertile women showed no significant increases in tendencies to Middlesex Hospital Questionnaire, compared to fertile ones. This could be related to husband and family support. However, depression and anxiety among them was related to education and income.

Recommendations

It is recommended that nurses dealing with infertile women be aware of emotional factors in the problem of infertility, as they can play a vital role in providing emotional support and assisting with effective coping strategies. This should particularly target those women with low education and income, and with no or low support from husband and family. To do this, nurses need to be trained in these issues, as well as in communication and counseling skills. Further research is proposed to examine the effect of infertility on woman's quality of life.

Table (1): Comparison of the socio-demographic characteristics of fertile and infertile women

Items	Group				X^2 test	p-value
	Fertile (n=100)		Infertile (n=50)			
	No.	%	No.	%		
Age (years):						
<25	23	23.0	24	48.0		
25-	27	27.0	13	26.0	11.23	0.01*
30-	23	23.0	6	12.0		
35+	27	27.0	7	14.0		
Education:						
Illiterate	9	9.0	2	4.0		
Read/write	14	14.0	4	8.0	4.75	0.19
Basic	56	56.0	37	74.0		
Secondary	21	21.0	7	14.0		
Job status:						
Working	14	14.0	9	18.0		
Housewife	86	86.0	41	82.0	0.41	0.52
Family income:						
Sufficient	24	24.0	24	48.0		
Insufficient	76	76.0	26	52.0	8.82	0.003*
Residence:						
Rural	24	24.0	8	16.0		
Urban	76	76.0	42	84.0	1.27	0.26

(*) Statistically significant at p<0.05

Table (2): Comparison of marriage characteristics of fertile and infertile women

Items	Group				X^2 test	p-value
	Fertile (n=100)		Infertile (n=50)			
	No.	%	No.	%		
Duration of current marriage (years):						
<2	16	16.0	10	20.0		
2-3	57	57.0	30	60.0	1.02	0.60
4+	27	27.0	10	20.0		
No. of husband marriages:						
1	85	85.0	41	82.0		
2+	15	15.0	9	18.0	0.22	0.64
No. of wife marriages:						
1	90	90.0	46	92.0		
2+	10	10.0	4	8.0	Fisher	0.77
Marital relations:						
Good	24	24.0	11	22.0		
Very good	26	26.0	13	26.0	0.08	0.96
Excellent	50	50.0	26	52.0		
Previous abortion:						
No	60	60.0	35	70.0		
Yes	40	40.0	15	30.0	1.44	0.23

Table (3): Characteristics of and reactions to infertility among infertile women

Items	Frequency	Percent
Duration of infertility (years):		
<5	32	64.0
5+	18	36.0
Duration of infertility treatment (years):		
<5	43	86.0
5+	7	14.0
Personal reaction to infertility:		
Acceptance/coping	18	36.0
Non-acceptance	32	64.0
Family reaction to infertility:		
Acceptance/coping	16	32.0
Non-acceptance	4	8.0

Table (4): Comparison of the scores of personality traits of fertile and infertile women

Items	Mean±SD (max=16)		Mann Whitney test	p-value
	Fertile (n=100)	Infertile (n=50)		
Anxiety	4.8±3.7	4.8±3.3	0.02	0.89
Phobia	7.1±2.9	6.9±2.5	0.04	0.85
Obsession	9.1±3.1	8.4±3.4	1.92	0.17
Psychosomatic symptoms	5.4±3.4	5.5±2.8	0.21	0.65
Depression	7.6±2.7	7.4±3.1	0.11	0.75
Hysteria	5.7±2.8	6.3±3.4	1.00	0.32

Table (5): Relation between the scores of personality traits of infertile women and their personal acceptance of infertility

Items	Accepting reaction (Mean±SD)							
	Personal				Family			
	No (n=32)	Yes (n=18)	Mann Whitney test	p-value	No (n=34)	Yes (n=16)	Mann Whitney test	p-value
Anxiety	5.4±3.5	3.7±2.9	2.46	0.12	5.4±3.4	3.4±2.7	3.93	0.048*
Phobia	6.8±2.8	7.0±2.1	0.00	0.98	6.6±2.7	7.4±2.2	0.71	0.40
Obsession	8.7±3.6	7.8±3.0	1.20	0.27	8.8±3.6	7.4±2.7	2.49	0.11
Psychosomatic symptoms	5.4±3.0	5.6±2.4	0.19	0.66	5.4±3.0	5.6±2.5	0.17	0.68
Depression	7.8±3.3	6.7±2.5	1.42	0.23	7.9±3.2	6.3±2.5	3.43	0.06
Hysteria	6.6±3.1	5.8±3.9	0.76	0.38	6.8±3.1	5.3±3.8	1.65	0.20

(*) Statistically significant at p<0.05

Table (6): Correlation between the scores of personality traits of fertile and infertile women and their personal characteristics

Items	Spearman rank correlation coefficient			
	Age[@]	Education (reference: low)	Income (reference: Low)	Marital relations (reference: low)
Fertile:				
Anxiety	-0.083	0.056	0.018	0.021
Phobia	-0.036	-0.082	0.094	0.170
Obsession	0.010	0.086	-0.118	0.032
Psychosomatic symptoms	0.019	-0.101	0.032	0.094
Depression	0.059	0.234*	0.057	-0.044
Hysteria	-0.093	0.091	0.021	-0.071
Infertile:				
Anxiety	-0.178	-0.081	-0.133	-0.274
Phobia	-0.118	-0.146	-0.024	-0.076
Obsession	-0.126	0.158	-0.176	-0.158
Psychosomatic symptoms	-0.114	-0.338*	-0.340*	-0.239
Depression	0.094	0.172	0.012	-0.167
Hysteria	-0.186	0.045	-0.169	0.202

(*) Statistically significant at p<0.05 (@) Pearson correlation

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خصائص الشخصية بين النساء اليمنيات العقيمات والخصبات في مدينة المكلا

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مقدمة :

تجربة العقم يمكن أن تكون مرهقة جدا وارتبطت بمدي خصـائص الشخصـية فـي النسـاء العقيمات التي عندهن سهولة تأثر تصل الى الكآبة والقلق.

الهدف و عينة البحث :

هدفت هذه الدراسة إلى تمييز خصائص شخصية النساء اليمنيات العقيمات بالمقارنة بالسيدات الخصبات (الغير عقيمات) ب ٥٠ من العقيمات و١٠٠ امرأة خصبات، اللواتي يحضرن إلى عيادات تنظيم النسل والعقم في المركز الصحي في مدينة المكلا في اليمن.

أدوات البحث :

جمعت البيانات من خلال مقابلة شخصية للسيدات للإجابة عن اختبار الشخصية ميدلسـكس كان يستعمل لتقييم خصائص الشخصية كخوف، كآبة، هـوس، قلـق والأعـراض النفسـية الجسمية.

النتائج:

وأشارت النتائج بأن النساء الخصبات كانت عندهن أعراض نفسية جسمية أعلي قليلا مقارنة بالعقيمات. النساء العقيمات بدون رد فعل قبول كان عندهن خصائص أعلي من القلق، هوس، كآبة وهستريا وهناك ارتباط هام بشكل إحصائى إيجابي بين الكآبـة والتعلـيم بـين النسـاء الخصبات.

التوصيات :

توصى الدراسة بتدريب الممرضات اللواتى يتعاملن مع النساء العقيمات عن العوامل العاطفية في مشكلة العقم، كما يمكن أن يلعبوا دور حيوي في تزويدهم بالدعم العاطفي ويساعدنهن *بإستراتيجيات التكيف الفعالة.*

Effect of Maternal Semi Sitting Versus Dorsal Recumbent Position during the Second Stage of Labor on Maternal, Fetal and Neonatal Outcome

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Abstract

Position affects the woman's anatomic and physiological adaptation to labor. For the second stage of labor an ideal position would open the pelvic outlet as widely as possible, provide a smooth path for the baby to descend through the birth canal, use the advantages of gravity to help the baby move down and give the mother a sense of the process. A Quasi experimental design was used in carrying out this study that aimed to assess the effect of maternal semi-sitting versus dorsal recumbent position on labor outcomes. It was carried out at the delivery unit of Ismailia University Hospital. A representative sample of 200 women was recruited for this study according to certain criteria. The study subjects were equally divided into two equal groups, group I who assumed the semi-sitting position and group II who assumed the dorsal recumbent position. Data were collected through a structured interviewing schedule, and an observation checklist that were developed, validated and used to collect the necessary data. . The results revealed that group II had lower B.P (35.0%) compared to group I (3.0%). uterine contractions with an interval of 2 min., longer duration (>70-90 sec.) and severe intensity were significantly higher (89.0%, 93.0% and 95.0%) of group I respectively. Moreover, women they were more likely to push effectively (92.0%) of group I than group II (73.0%). Fetal heart rate below normal (15.0%) of group II compared to(3.0%)of group I .Spontaneous rupture of membrane was also higher (83.0%) among group I compared to (81.0%) of group II . Women in the group I had higher percentage of normal delivery (53.0%), and low percentage of episiotomy (25.0%) and perineal tear (22.0%) compared to group II (25.0%, 30.0% and 45.0% respectively). The mean duration of 2nd stage of labor was statistically higher (48.2±10.0) among group II than group I (42.3±8.5). Also mean neonatal Apgar score a statistically significant at first and fifth minutes among group I than group II. It is concluded that semi-sitting position had a significant effect on the improvement of labor outcomes. Thus it is recommended that birth attendant should be advised to deliver woman while she is in semi-sitting position instead of routine use of dorsal recumbent position during the second stage of labor.

Key words: Semi-setting position – Dorsal recumbent position- Second stage of labor – Maternal outcome- Fetal and neonatal outcome

Introduction

Birthing position is an aspect of obstetrics that has come under increased scrutiny. For centuries, there has been controversy around whether being upright or lying down has advantages for women

delivering their babies. For the second stage of labor, an ideal position would open the pelvic outlet as widely as possible, provide a smooth path for the baby to descend through the birth canal, use the advantages of gravity to help the baby move down, and give the mother a sense of being safe and in control of the process **(Durahm, 2008)**

The only position for labor on which there is a widespread agreement is the dorsal recumbent position **(Ricci, 2007).** Despite the scientific evidence to the contrary, most deliveries are still accomplished in the dorsal position in which women lie flat on there backs with knees flexed and soles of feet flat on the bed **(Declerccs et al, 2002).** The advantages of this position are; easy access to the perineum and good control of delivery by the birth attendant **(WHO, 2008).** However, using dorsal recumbent position during a normal labor has been claimed by **Klossner and Hatfield (2006)** as a harmful modern practice. Lying flat on the back limits the woman ability to push effectively and does not use gravity to aid delivery, thus causes laceration and the need for episiotomy **(village, 2007).** Moreover, the gravid uterus presses on the maternal great vessels producing maternal hypotension and less uterine perfusion with resultant fetal hypoxia **(Harnetty, 2004). Millis (2004)** emphasized the importance of using a wedge under the woman's buttocks and lower-back to tilt the uterus away from the inferior venacava.

On the other hand, semi-sitting position enhances woman's ability to bear down effectively thereby minimizing maternal exhaustion. It allows gravity to play its part in the descent of the fetus, thus shortens the duration of the second stage of labor. It also increases the diameter of the pelvic outlet, increases the efficiency of uterine contractions, reduces the incidence of fetal distress, instrumental births and perineal trauma **(Gupter& Hofmeyer, 2007)**

Significance of the study:

Many cultures around the world see women adopting semi-sitting position for birth, but there is no extensive credible research on the issue **(Kulier, 2007).** Birth attendants play a major role in influencing a woman's choice of the position for birth **(Lowdmilk & Perry, 2004).**They do not question or discuss the dorsal recumbent position for childbirth and they are not interested in testing its possible effects. Accordingly, nearly all childbirths are performed in a dorsal recumbent position **(Mahamoud, 1995).**

Also from clinical experience, the researcher observed that parturient women at Ismailia University Hospital used the dorsal recumbent position for delivery. Meanwhile, the nurse midwife plays a major role in influencing a woman's choice of a safe and comfortable

birthing position. So this study was undertaken in order to test possible effect of the two selected birthing positions on labor outcome.

Research questions:

1- If maternal semi-sitting position is more effective than dorsal Recumbent Position during the Second Stage of Labor on Maternal, Fetal and Neonatal Outcome?
2- What are the effect of maternal semi-sitting and dorsal Recumbent Position during the Second Stage of Labor position on maternal and neonatal out come?

Hypothesis:

Assuming semi-sitting position during the second stage of labor has better effect on maternal, fetal and neonatal outcome than dorsal recumbent Position

Aim of the study

The aim of the study was to compare the effect of maternal semi-sitting versus dorsal recumbent position during the second stage of labor on maternal, fetal and neonatal outcome.

Subjects and methods

Research design:

A comparative quasi- experimental design was used in carrying out this study

Setting:

The study was conducted at the delivery unit of Ismailia University Hospital

Subjects:

This study was conducted on a convenient sample of (200) women during second stage of labor and having the set inclusion criteria were eligible for being recruited in the study. Both groups were selected representatively according to the following criteria;

- Women diagnosed as having low risk pregnancy
- Multipara
- Had no augmentation
- Expecting normal vaginal delivery
- Had no fetal or maternal distress during their first stage of labor
- Did not receive any drugs to stimulate, accelerate or slowdown uterine contraction.

These criteria were applied for both group I (Semi Sitting position) & group II (dorsal recumbent position). Total of (200) women who were in second stage of labor were accordingly recruited in the study. They were equally divided into two equal groups, the group I (100) who assumed the semi- sitting position and the group II (100) who assumed the conventional dorsal recumbent position.

Tools of data collection:

The tools used for data collection consisted of:

Tool I: structured interviewing schedule which include data about the general characteristics of women such as age, education and occupation and data related to the admission to labor room

Tool II: Observation checklist was used, which include data about;

- Maternal blood pressure
- Characteristics of uterine contractions
- Conditions of membranes
- Fetal heart rate
- Details of the second and third of stage of labor
- Newborn condition
- Women satisfaction with the assumed position was also assessed

Pilot study:

A pilot study was conducted to test the reliability and validity of the data collection tools. It was carried out on 10 women during second stage of labor (5 for group I, and 5group II).

Administrative / Ethical considerations:

- Before conduction of the study, an official letter was sent from the dean of the faculty of nursing, Suez Canal University, to the directors of Suez Canal University Hospital to obtain their approval. After explanation of the purpose of the study, the researcher clarified its procedure, and sought permission to conduct this study in the previous setting.
- Tools for data collection were developed by the researcher, based on extensive review of relevant and recent literature. Then a pilot study was conducted to test the applicability, reliability and validity of the data collection tools. It was carried out on 10 women during second stage of labor (5 for group I, and 5group II). The tools revised by 5 experts in obstetric nursing to ensure validity of the tools.

Fieldwork:

- Recruitment and interviewing: fieldwork was done four times per week from 8 PM to 8 AM, and then 2 PM to 8 AM until the study sample was fulfilled.

- Collection of data covered a period of six months (from the beginning of January 2008 till the end of June 2008)

- The aim of the study was explained to the parturient woman in a simple way. The possible advantages of each method were clarified. Then, after obtaining verbal consent to participate, the researcher started the interview.

- Interviewing was carried out for each subject in the two groups individually and in total privacy to assure that information to be confidentional and will be used only for the purpose of the research. The interview schedule was conducted in 5-10 minutes up on admission to the labor unit, while the observation checklist was used to record the progress of labor, maternal and fetal condition during the second stage of labor and Agar scare to assess the neonatal condition for each parturient woman.

- A group I the head of the bed was elevated and woman was supported by pillows in a 40-60 angle to keep her in the semi-sitting position. Group II was left to deliver while lying flat on their back with their knees flexed, then the data pertaining during the second stage of labor for both groups were recorded. Then Comparison between group I and group II was made during the second stage of labor to detect the difference between them. Data pertaining to the third stage of labor and neonatal assessment were also recorded.

Limitations of the study:

- Some mothers withdrew themselves from the study due to severe labor pains.
- Some cases were complicated during the progress of labor process and perform cesarean section.

Statistical analysis:

Data entry was done using Epi-Info 6.04 computer soft ware package, while statistical analysis was done using spss 11.0 statistical soft ware package. Sample size was calculated by using statistically software (EPI-Info-v6). Data were analyzed using frequencies, percentages,

standerd deviation. Tests of significance were set at p-value <0.05 using a chi-square, student t-test were used.

Results:

Table (1) demonstrates no statistically significant differences between the two study groups as regards age, education, and job status. The mean age of women in groups, I & II were 26.5±3 and 26.5±2.7 years respectively. Concerning the level of education, the majority of group I and group II (40.0% and 49.0% respectively) had secondary level of education. As for the job status, the majority of the studied groups were housewives (85%, 90%respectively).

Table (2) demonstrates statistical significant associations between women delivery position and their blood measurement (p <0.001*). It is evident that low B.P had an increasing trend with women in the dorsal recumbent position (35.0%) compared to those using the semi sitting position (3.0%).

Concerning the characteristics of uterine contractions during the second stage of labor, **table (3)** points to a number of statistical significance between parturient women in the two studied groups. Thus uterine contractions with an interval of 2 min., longer duration (>70-90 sec.) and severe intensity were significantly higher (89.0%, 93.0% and 95.0%) in the semi sitting position. Moreover, women were more likely to push effectively (92.0%) than women in the dorsal recumbent position (73.0%).

Table (4) shows a statistically significant difference between the two groups in relation to fetal heart rate (χ^2= 4.03 & p-value = 0.04). Thus more women (15.0%) in the dorsal recumbent position had fetal heart rate below normal compared to women in the semi sitting position (3.0%). Meanwhile spontaneous rupture of membrane was higher (83.0%) among women in the semi sitting position compared to those in the dorsal recumbent position (81.0%).

As regard labor problems, **table (5)** indicates statistically significant differences between the delivery position and types of perineal trauma. Thus, women in the semi sitting position had higher percentage of normal delivery (53.0%), and low percentage of episiotomy (25.0%) and perineal tear (22.0%) compared to women in the dorsal recumbent position (25.0%, 30.0% and 45.0% respectively).

Table (6) compares the mean duration of second stage of labor among parturient women in the two studied groups. It indicates that the mean duration was statistically higher (48.2±10.0) among women in the

dorsal recumbent position than those in the semi sitting position (42.3±8.5). Moreover, a statistically significant associations was revealed between the delivery position and mean neonatal Apgar score (P<0.01*). Thus, the same table shows that the mean score at first and fifth minutes were higher among women in the semi sitting position than women in the dorsal recumbent position.

Discussion

Although the only position for childbirth on which there is widespread agreement is the dorsal recumbent position, scientific evidence through some studies aimed to establish whether the continuation of this intervention is justified.

The present study was designed to compare the effect of maternal semi-sitting position versus dorsal recumbent position during the second stage of labor on; maternal, fetal and neonatal outcome.

The present study results revealed that the socio-demographic characteristics of the subjects were correlated. This was beneficial to the present study as it ensured generalization of the study results as well as avoiding the effect of the confounding variables.

An important factor related to the childbirth position is the blood pressure measurement. The results of the current study showed that women used dorsal recumbent position were significantly more likely to have low BP than those using the semi-sitting position. In agreement with this finding **United Brachial plexus Network (2006)** reported that adherence to the dorsal recumbent position increased vena cava compression and leads to supine hypotension. Furthermore, the uterine contractions with shorter interval, longer duration, and severe intensity were significantly higher in women using the semi-sitting position. Moreover, they were more likely o push effectively than women using the dorsal recumbent position. In this respect **Murray, McKinney** and **Gorier (2002)** reported that women using the upright position had more regular and stronger uterine contractions. This might be explained by the fact that gravity helps align the fetus with the pelvic angle as the uterus tilts forward with each contraction. In the same line **Taiema, El-Deen Shoaeib** and **El- Habashy (2008)** who mentioned that the semi- sitting position will have short interval, stronger intensity, and longer duration than dorsal recumbent position.

Concerning the fetal condition and its relation to the childbirth position, the current study findings demonstrated that women using the dorsal recumbent position were significantly less likely to have normal fetal heart rate and spontaneous rupture of membranes compared to those using the semi-sitting position. This is incongruence with **Marttila, Kajanoja, Ylikorkala (2007)** who reported that deceleration in fetal

cardiotocograph were seen more in supine position, and it improved when the parturient woman assumed the semi-sitting position. This could be attributed to the insufficient supply of blood to the placenta due to the increase in the vena cava compression as a result of dorsal recumbent position.

As for the membranes, rupture is one indicator of the beginning of the second stage of labor. The present study illustrates that the majority of women in semi-sitting position had spontaneous rupture of membranes compared to the dorsal recumbent position. On other hand, artificial rupture of membranes was major in the dorsal recumbent position than semi-sitting position. This finding agreement with **(Taiema El-Deen Shoaeib** and **El- Habashy**,**2008)** who stated that membranes are mostly rupture spontaneously among the semi-sitting position while they are more frequently rupture artificial among the dorsal recumbent position**.** On the same line, this finding agrees with **Taiema**, (**2007)** and **pillitteri (2007)** who stated that semi-sitting position increases uterine activity and pressure of fetal presenting part against the perineum, which in turn causes spontaneous rupture of membranes.

According to the present study findings, women in the semi-sitting position were more likely to have an intact perineum, with less proportion of episiotomy or perineal tear compared to those using the dorsal recumbent position. In this respect, **Soong and Barrens (2005)** have found that women who gave birth in the semi-sitting position were more likely to sustain perineal trauma.

Lastly, the finding of the present study revealed that the mean duration of the second stage of labor was significantly shorter in women using the semi-sitting position and they had a more mean Apgar score of their newborn than women using the dorsal recumbent position. Similar observations were reported by **Robert et al., (2007).** This is quite expected since the longer duration of the second stage of labor will lessen the blood supply to the placenta with the result of low Apgar score of the newborn.

Conclusion

In the light of the study results, it can be concluded that using semi-sitting position for childbirth had better effect on maternal blood pressure and uterine contractions. It also decreases the incidence of perineal trauma, reduce the duration of the second stage of labor and result in better Apgar score.

Recommendation

Based on the findings of the present study, the following recommendations are suggested:

- Training programs should be conducted to all physicians and nurses working in the antenatal clinic and delivery room about the semi- sitting position.
- Pregnant women should be educated and prepared during the antenatal care period about the semi- sitting position.
- Supply the labor units with bilingual booklet about Semi-sitting position.
- Future studies should be carried out to assess the nurses' knowledge, and practice regarding the semi-setting position during second stage of labor.

Table (1): Distribution of the Study Subjects According to their General Characteristics

General characteristics	Study Groups				χ^2	p-Value
	Group I Semi-sitting (n=100)		Group II Dorsal Recumbent. (n=100)			
	No	%	No.	%		
Age (years):						
20-	28	28.0	24	24.0		
25-	59	59.0	64	64.0		
30-35	13	13.0	12	12.0		
mean±SD	*26.5±3.0*		*26.5±2.7*		*t=0.12*	*0.90*
Level of education:						
Illiterate	10	10.0	11	11.0		
Basic	34	34.0	29	29.0	2.28	0.52
Secondary	40	40.0	49	49.0		
University	16	16.0	11	11.0		
Job status						
Housewife	85	85.0	90	90.0		
Working	15	15.0	10	10.0	1.14	0.29

Table (2): Distribution of the Studied Subjects According to their Blood Pressure

Blood pressure	Study groups				χ^2	p-value
	Group I Semi-sitting (n=100)		Group II Dorsal Recumbent (n=100)			
	No	%	No	%		
BP:						
< 100/ 60 mmHg	3	3.0	35	35.0	53.22	<0.001*
100/ 60 - 140/90 mmHg	97	97.0	65	65.0		

(*) Statistically significant at p<0.05

Table (3): Distribution of the Studied Subjects according to the Characteristics of their uterine contraction and ability to pushing.

Items	Study groups				χ^2	p-value
	GI Semi-sitting Position (n=100)		G2 Dorsal Recumbent Position (n=100)			
	No.	%	No.	%		
Characteristics of uterine contraction Interval (minutes):						
2	89	89.0	78	78.0	47.15	<0.001*
3	11	11.0	22	22.0		
Duration (second):						
60-70	7	7.0	20	20.0	31.81	<0.001*
>70-90	93	93.0	80	80.0		
Intensity of uterine contraction						
Moderate	5	5.0	14	14.0	4.71	<0.001*
Severe	95	95.0	86	83.0		
Ability to push:						
Yes	92	92.0	73	73.0	12.50	<0.001*
No	8	8.0	27	27.0		

(*) Statistically significant at p<0.05

Table (4): Distribution of the Studied Subjects According to Fetal Heart Rate and Rupture of Membranes.

Items	Study groups				χ^2	p-value
	G1 semi-sitting Position (n=100)		G II Dorsal Recumbent Position (n=100)			
	No	%	No	%		
FHR:						
< 120 b/m	3	3.0	15	15.0		
120 –160 b/m	97	97.0	85	85.0	4.03	0.04*
Rupture of membrane						
Spontaneous	83	83.0	81	81.0	0.14	0.71
Artificial	17	17.0	19	19.0		

Table (5): Distribution of the Studied Subjects According to Incidence of Perineal Trauma

Items	Study groups				χ^2	p-value
	G1 Semi-sitting Position (n=100)		G II Dorsal Recumbent Position (n=100)			
	No.	%	No.	%		
Mode of delivery:						
Normal	53	53.0	25	25.0	30.2	<0.001*
Normal with tear	19	19.0	38	38.0		
Episiotomy	25	25.0	30	30.0		
Episiotomy with tear	3	3.0	7	7.0		
Perineal tear:	22	22.0	45	45.0		
First degree	13	52.0	31	68.8	31.710	<0.001*
Second degree	9	40.9	14	31.1		

Table (6): Distribution of the Studied Women According to the Duration of Second Stage of Labor and Neonatal Apgar Score.

Items	Study groups		χ^2	p-value
	GI Semi-sitting Psition (n=100)	GII Dorsal recumbent Position (n=100)		
Duration (mean±SD): 2nd stage (min)	42.3±8.5	48.2±10.0	4.43	<0.001*
Apgar Score(mean±SD): 1st minute	8.7±0.7	8.4±0.8	2.83	<0.01*
5th minute	9.7±0.6	9.4±0.7	2.82	

(*) Statistically significant at p<0.05

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تأثير وضع شبه الجلوس مقابل الوضع الأفقى أثناء المرحلة الثانية للولادة على صحة الأم والجنين وحديثي الولادة

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[٢] أستاذ طب الأطفال – كلية الطب - جامعة قناة السويس

مقدمة :

إن أكثر الأوضاع فاعلية هو وضعية شبه الجلوس أو وضع شبه القرفصاء، لأن هذا الوضع يعطي فرصة للجاذبية الأرضية لتلعب دورا في عملية الولادة وتجعل الدفعات أكثر قوة. وتكريس طاقة الجسم في عملية الولادة يجعل الدفع فعالا وكلما تم بذل قدر أكبر من الطاقة، كلما أسرع الوليد في الخروج ، لذا فإن أي شيء موجود في المستقيم قد يخرج كما أن محاولة خروجه قد تعيق تقدم الولادة، وهذا من الأمور الطبيعية في الولادة. لذا يجب عدم القلق. كما أنه لا يؤثر في ضغط الدم وكذلك يزيد من شدة انقباضات الرحم أثناء الولادة ويقلل نسبة حدوث إصابة العجان و كذلك مدة المرحلة الثانية للولادة و يحسن معدل أبجار عند الأطفال حديثي الولادة عن الوضع الأفقى .

هدف البحث:

تقييم تأثير وضع الجلوس مقابل الوضع الافقى أثناء المرحلة الثانية من الولادة على الأم و الجنين و الطفل حديثي الولادة.

مكان البحث:

تم إجراء البحث في حجرات الولادة في المستشفى الجامعي بالإسماعيلية.

طرق البحث :

تم اختيار ٢٠٠ حالة من حجرة الولادة وتم تقسيم العينة إلى مجموعتين تحتوى كل منها على ١٠٠ سيدة في حالة ولادة نشطة، وعمرها يتراوح ما بين ٢٠ إلى ٣٥ سنة.

المجموعة الأولى: اشتملت على ١٠٠ سيدة في حالة ولادة نشطة تم وضعها في وضع شبه الجلوس.

المجموعة الثانية: اشتملت على ١٠٠ سيدة في حالة ولادة نشطة تم وضعها في الوضع الأفقى.

أدوات جمع البيانات :

تم استخدام استمارة المقابلة الشخصية للام و استمارة لمتابعة سير تقدم الولادة (البارتوجرام) و استمارة ملاحظة مدة المرحلة الثانية و شدة انقباضات الرحم وحالة العجان بعد الولادة و استمارة تقيم الطفل حديث الولادة باستخدام مقياس ابجار.

نتائج البحث: وقد أسفرت عن الآتي:

- لا توجد أي فروق ذات دلالة إحصائية بين المجموعتين بالنسبة للخصائص العامة للعينة.

- وجود فروق ذات دلالة إحصائية بين المجموعتين بالنسبة لضغط الدم حيث أنه كان قليلا عن معدلة الطبيعي (٠,٣٥ %) إثناء المجموعة الثانية مقارنة بالمجموعة الأولى (٠,٣ %) و كذلك شدة انقباضات الرحم اقوي و أطول في المدة أثناء المجموعة الأولى مقارنة بالمجموعة الثانية.
- وجود فروق ذات دلالة إحصائية بين المجموعتين بالنسبة لقوة الدفع أثناء المرحلة الثانية للولادة حيث كانت المجموعة الأولى أعلى فى الدفع أثناء الولادة.
- فروق ذات دلالة إحصائية بين المجموعتين بالنسبة نبض الجنين حيث أنة بقليل عن معدلة الطبيعي(٠,١٥ %) في المجموعة الثانية مقارنة (٠,٣ %) بالمجموعة الأولى.
- تبين أن وضع شبه الجلوس أثناء المرحلة الثانية يقليل من احتمالية إصابة العجان وعمل شق العجان وكذلك النزيف بعد الولادة مقابل الوضع الافقى.
- وجد أن السيدات في المجموعة الأولى قد ولدن أسرع من المجموعة الثانية حيث كانت مدة الولادة أثناء الثانية أقل، وكان الفارق ذا دلالة إحصائية.
- بالنسبة لتقييم الطفل حديثي الولادة بمعدل ابجار كان هناك فروق ذات دلالة إحصائية عالية بين وصع شبه الجلوس مقابل الوضع الافقى أثناء المرحلة الثانية.

الخلاصة والتوصيات:

أسفرت نتائج هذا البحث عن إن استخدام وضع شبه الجلوس أفضل من الوضع الافقى أثناء المرحلة الثانية للولادة حيث أنه لا يؤثر في ضغط دم وكذلك يزيد من شدة انقباضات الرحم أثناء الولادة و يقلل من نسبة حدوث إصابة العجان ويقلل مدة المرحلة الثانية للولادة و يحسن معدل ابجار عند الأطفال حديثي الولادة.

على ضوء هذه النتائج تم استخلاص التوصيات الآتية:

- تنظيم برامج تدريبية لجميع الأطباء و التمريض العاملين فى متابعة الحمل و غرف الولادة عن وضع شبه الجلوس.
- توعية و تدريب السيدات الحوامل أثناء متابعة الحمل عن وضع شبه الجلوس .
- توفير كتيبات إرشادية عن وضع شبه الجلوس في غرف الولادة.
- اعداد دراسات مستقبلية عن تقييم معلومات وأداء التمريض عن وضعية شبه الجلوس.

رقم الإيداع

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