Editorial Board

VOL.4, NO. 6 2008

Editorial Advisory Board

Information for the Authors

Zagazig Nursing Journal is a research journal that publishes research papers, review articles and technical reports in all nursing and medical fields encompassing scientific technical and environment matters.

NOTES TO CONTRIBUTORS

Contributions submitted to publications will strictly refereed and assessed, and should fall into one of the following categories:

- Original research work.
- Review articles.
- Essay.
- Technical reports.
- Short communication on papers already published.
- Technical notes.

Paper should not have been published or submitted earlier for publication elsewhere in part or in whole, in Egypt or abroad. The author is requested to include a statement to this effect in his letter of submission.

- The manuscript may be in English or Arabic, however the title, author name and the abstracts should be in both languages.
- Prospective authors are encouraged to examine the journal itself for details of manuscript layout.
- The manuscript should be submitted in four copies, including the original size A4. In addition a floppy disc 3.5 or CD.

PUBLISHING RATE

A nonrefundable down payment of LE 150 is to be paid upon submission of the paper. In case of acceptance a remaining fees of LE 100 per paper for a length of 16 pages and LE 15 per page for extra pages (16:20 pages) above 20 pages LE 20 per page. Processing fees covers cost of one copy of the journal and 5 reprints.

The views and ideas expressed in the published articles are strictly those of the authors. They do not necessarily represent the views of either the Editorial Board or of the Faculty of Nursing.

CORRESPONDENCE

Contributions intended for publication and correspondence should be addressed to:

Editor in Chief:

Professor, Sanaa Aly Nour

Tel. 0123354410
Email: drsanaa@yahoo.com

Associate Editor:

Professor,Salwa Abbas Aly

Tel. 03/5563876
Email Profdrabass@yahoo.Com

Secretary General:

Dr. Youser Mohamed El- Masri

Tel. 0101532815
Email: dr_yosrelmasri@yahoo.com

Dr. Maha M Abd-Elaziz
Tel. 0104770669
Email: maha_highsky@yahoo.com

Faculty of Nursing, Zagazig University
Address: Zagazig University Postal code: 44519
Fax: 0552312009
E- Mail: nursingfaculty_zu@yahoo.com
Web Sit: www.e-tamreedzg.tk

CONTENS

Asymptomatic Urinary Tract Infection in Preschool Children and Their Parents' Knowledge about Their Care

Laila Y.Abusalem and Hoda M.Nafee .Lecturers of PediatricNursing, Lamia A. Awad – Lecturer of Community health nursing, Faculty of Nursing , Bassem S. Wadie, MSc, MD in urology and nephrology center, El-Mansoura University

Abstract:

Introduction and objectives: UTI in children is a leading cause of renal scarring and failure. Its prevalence among Egyptian children is not known. This study was designed to estimate the incidence of asymptomatic UTI among pre-school children in relation to the parents' knowledge and care provided as well as socioeconomic factors in a mixed urban-rural community in Mansoura, Egypt, and to develop and implement instructional unit based on the identified data. **Patients and methods**: 231 children were included. Median age is 4.5 years. Midstream urine was collected and microscopic analysis of sediment was carried out within 2 hours of sample collection. All children's parents were interviewed, asked to answer specially designed questionnaire, for assessment of their knowledge about urinary tract infection and care provided for its prevention. Results: 143 children (61.9%) had pyuria. Triple phosphate crystals were found in 15 children with pyuria and in only 2 with sterile urine. Nocturnal enuresis was found in 8.4% among children with pyuria versus 4.5% in children without. Questionnaire assessment revealed that 3.5% and 37.2% of parents provided correct answer about normal daily fluid intake and urine output respectively. 67.5% of parents had poor knowledge of UTI. Only 47.6% and 35.9% of parents knew what was the odor and color of their children's urine. However, 82.3% of parents said they keep good hygiene of their children genitalia. Conclusion: In the study sample, parents' knowledge of UTI and its prevention was poor. This is associated with high prevalence of asymptomatic UTI.

Abbreviations

CFU: Colony forming units
HPF: high power field
MA: microscopic analysis
RBCs: Red blood cells
UTI: urinary tract infection
ESRD: end stage renal disease

Introduction:

UTIs are among the more common illnesses of childhood and affect the entire age range. UTIs can be potentially fatal in the neonatal period because of associated septicemia and meningitis. In later childhood, urinary infections are responsible for less severe illness but in rare situations progress to reflux nephropathy (chronic pyelonephritis), hypertension and end stage renal disease (ESRD) ***(Panaretto et al, 1999).***

Urinary tract infections (UTIs) usually occur as a consequence of colonization of the periurethral area by a virulent organism that subsequently gains accesses to the bladder ***(Hellerstein, 1998)***.The organisms that cause infection usually enter the urinary tract by one of two routes. The most common route by far is through the lower end of the urinary tract—the opening of a man's urethra at the tip of the penis or the opening of a woman's urethra at the vulva. The result is an ascending infection that spreads up the urethra. The other possible route is through the bloodstream, usually directly to the kidneys ***(Hellerstein, 1998)***.

UTIs are almost always caused by bacteria, although some viruses, fungi, and parasites can infect the urinary tract as well. More than 85% of UTIs are caused by bacteria from the intestine or vagina. Ordinarily, however, bacteria that enter the urinary tract are washed out by the flushing action of the bladder as it empties ***(Alper and Curry, 2005).*** Asymptomatic urinary tract infection indicates a significant bacterial count present in the urine (usually 105 or 104 colony forming units (CFUs) per ml) in an individual without symptoms of a urinary infection. It has also been termed covert bacteriuria as many children on specific questioning have minor symptoms such as frequency, urgency, dysuria or bed-wetting.

The exact prevalence of urinary infection is unknown for several reasons. First, the infection may be sub clinical or the clinical signs vague and non-specific. Second, collection techniques are prone to errors especially in the younger patient. Third, antibiotics are often given to the febrile child for other purposes eradicating the silent infection. In general the incidence of UTI in the first year of life for all children is around 1%, decreases substantially among boys after infancy ***(Jakobsson et al, 1999)***. Estimates of UTI incidence among boy infants varied in different populations, likely due to factors such as circumcision, which has been associated with a reduction in risk of UTI ***(Bauchner et al, 1987)***

The clinical significance of UTI has been controversial. In the pre-antibiotic era, UTI had a mortality rate as high as 20 % ***(Dayan, 2004).*** Nowadays, UTI is not typically lethal, yet, renal scarring and renal impairment are not rare complications. Nurse's role regarding asymptomatic children with UTIs is concerned about patient/family teaching on prevention. Prevention of UTIs is attained by proper hygiene, girls should be taught to wipe themselves from front to back after a bowel movement to minimize the chance of bacteria entering the urethral opening. Avoiding frequent bubble baths, which may irritate the skin around the urethral opening of both boys and girls, may help lessen the risk of UTIs. Circumcision of boys lowers their risk of UTIs during infancy by about 10 times. Regular urination and regular bowel movements may lessen the risk of UTIs. ***(Alper and Curry, 2005).*** -The child should be encouraged to drink enough water every day to help flushing potential UTI ***(Hellerstein, 1998)***.

The aim of this study is estimation of asymptomatic UTI incidence in relation to parents' knowledge and urinary care provided as well as socioeconomic factors among pre-school age children, and to develop an instructional unit based on the identified data.

Materials and methods:

A convenient sample of 366 pre school children was selected from Childhood Care and Development Center, Mansoura University, together with their parents were approached but only 231 out of them were included in the study, after obtaining oral consent. Age of children ranges from three years to six years, median was 4.5 years. Total time taken for data collection was 9 months from (October 2005 to June 2006)

Specially designed questionnaire was prepared for assessment of parents' knowledge about different aspects of UTI of their children. An average of 15 minutes, for the questionnaire to be completed. The questionnaire is composed of 3 parts; Part 1 entails demographic characteristics of children, including gender, age, community (urban vs. rural), parents' education, occupation, family size, and family income. Part 2 assesses parents' knowledge about urinary tract infection in their children (definition of UTI, cause, signs and symptoms, and complications). Scoring system was used to assess parent's knowledge (less than 50% is considered poor, from 50% to less than 60% was satisfactory, while good: from 60 to less than 75%, and 75% or more was very good). Part 3 of questionnaire reflects parents' basic methods of care for the urinary system (hygienic care for child's genitalia, observation of odor and color of urine, amount of fluids that the child take/day, amount of urine output/day, and frequency of investigations of urine) and past history of UTI of their children.

Screening for urinary tract infection was performed according to a protocol of urine sampling and fast transfer to microbiology lab (within 2 hours of collection). A clean catch first morning urine labeled by the name, class of the child and date was collected by the child's mother after receiving due instructions and kept in a sterile container. Leukocytic count of ≥ 5 cells /HPF is considered diagnostic of bacterial UTI. Red cell count of 5 or more cells/HPF is indicative of microscopic hematuria. Based on the identified result; instructional unit was developed. The content of instructional unit includes simple diagram of urinary system, what is UTI?, early signs and symptoms of UTI, Complication of UTI and preventive measures for UTI. The statistical analysis of data was done using Excel program and SPSS program (statistical packing for social science version 10). The description of data was done in the form of frequency. The analysis of data was done using chi-square test. NB. P is significant if ≤ 0.05 at confidence interval 95%

Results:

Table 1 describes the demographic data of the sample. Percentage of boys and girls was 49.4 and 50.6 respectively. Majority of the sample (71.4%) came from urban while 28.6% from rural areas. Fathers' occupation was professional in 79.7% of the sample and 20.7% were non-professional. More than half (56.7%) of children mothers were employed, while 43.3% were housewife.

Table 2 shows the distribution of Microscopic urine analysis among asymptomatic pre-scholar. The result revealed that 3.5% children had significant microscopic hematuria (RBCs > 5 /HPF), 61.9% had pyuria, 12.6% had calcium oxalate and 21.2% had Candida.

Table 3 describes the mothers' knowledge about urinary tract infection. Abut two third (67.5%) of parents were described to have poor knowledge of UTI (questions pertinent to definition, causes, symptoms and possible complications of UTI). Only 3.5% of parents could provide correct answer about urinary output and 37.5% for normal fluid intake per day.

Table 4 describes parents observation and care given in order to prevent UTI. The result revealed that, 47.6% and 35.9% of parents stated that they knew what was the odor and color of their children's urine respectively. However, 82.3% of parents said they keep good care of the hygiene of their children genitalia. Majority of the sample (80.1%) testing child's urine only in case of complain. All male children (100%) in the sample are circumcised. Children with previous UTI are 15.6%, 72.2% of them had follow up.

Table 5 shows the prevalence of UTI among asymptomatic preschoolers in relation to their sex. More than two thirds (69.2%) of female and 54.4% of males had had pyuria (pus cells more than 5/HPF). Females had higher rate of urinary tract infection with candida than males (38.5%), (1.7%) respectively.

Table 6 shows distribution of urinary tract infection in a symptomatic preschooler according to family income. The highest percentage of children with bacterial and candida UTI was among low income families (70%), & (34.4%) respectively.

Table 7 shows distribution of urinary tract infection in a symptomatic preschooler age children according to parents' knowledge. The highest number of children with bacterial and candida UTI was among children of parents with poor knowledge score (121), (37) respectively.

Table 8 displays the association of UTI with Candida, crystals and nocturnal enuresis. Among children with pyuria, 15 children had triple phosphate crystals detected in their urinary sediment. In those with sterile urine, the presence of triple phosphate was seen only in 2 children. Likewise, the incidence of nocturnal enuresis (defined as bedwetting at least three times per week) was found to be 8.4% among children with UTI versus 4.5% in children without.

Discussion:

Urinary tract infections are among the more common illnesses of childhood and affect the entire age range. Urinary infections could progress to reflux nephropathy (chronic pyelonephritis), hypertension and ESRD. ***(Schlager, 2001; Zorc et al, 2005)*** as infants and young children are thought to remain at risk, until the age of 4 years, of developing renal scars after UTIs, some paediatric departments carry out periodical urine culture in this group, even in the absence of symptoms ***(Narchi, 1981).***

Microscopic urinalysis as a diagnostic tool for UTI in young children was adopted by ***Bachur and Harper, (2001)*** where they reported sensitivity to be 82%, when compared to the results of culture and sensitivity, in 11,089 patients (95% confidence interval: 79%-84%). In the study sample, the overall prevalence of asymptomatic UTI, diagnosed by MA is (61.9%). This high result could be justified as ***Narchi, (1981)*** who stated that, urine collection and culture in preschool children under 4 years of age is not always technically easy and is associated with an unsatisfactory high risk of bacterial contamination. The gender-specific prevalence shows a higher value in girls (69.2%) as compared to boys (54.4%). This is quite expected, as ***Hellstrom et al, (1991)*** and others

Reddy and Redman, (2002) have found that after 1 year, girls are much more likely to develop a UTI than boys because of their short urethra.

It is known that, circumcision is reducing the incidence of UTI among boys because the foreskin can trap bacteria, which can then enter the urinary tract and cause infection ***(American Academy of Pediatrics, 1999; Wu et al, 2004)***. All male children (100%) in the studied sample are circumcised. High levels of awareness of childhood UTI are important among both professionals and parents ***(Owen, 2003).*** Relatively high incidence of microscopic pyuria in children studied in this survey could be explained on terms of poor knowledge of the parents as regards normal daily fluid intake, the actual intake by the child, urine color and odor, as well as expected and actual urine output per day which is consistent with ***Harmsen et al, (2007).*** In a study by ***Kontiokari et al, (2004)*** and colleagues that lack of dietary elements as fresh berry and other fruit juices as well as fermented milk products could increase the susceptibility to UTI. Although no data pertinent to dietary habits were included in parents questionnaire used, lack of fresh juices on daily meals is a quite anticipated in our locality and could impose an added risk for UTI.

Eight children (3.5%) were found to have significant microscopic hematuria (RBCs > 5/HPF). Those were referred to a specialized pediatric hospital for further evaluation. Primary nocturnal enuresis (defined as bedwetting at least 3 times a week, not associated with diurnal incontinence) was diagnosed in 12 children having UTI but in only 4 who have sterile urine. A finding that coincides with what ***Hansson et al, (1990)*** have reported, that symptoms of urgency and nocturnal incontinence are more common in girls with asymptomatic bacteriuria.

Conclusion:

Parents' knowledge of their children's lower urinary tract is not satisfactory. The overall prevalence of UTI as diagnosed by MA is high (61.9%). As expected, girls were more at risk than boys. Parents awareness as well as probable dietary deficiency may explain this high prevalence.

Recommendation

1- Educational session about UTI prevention for parents as well as nursery school teachers should provided.

2- Community campaign using various educational media are essential to increase population's awareness about UTI prevention.

3- Periodic urinalysis is recommended for preschoolers for early detection of urinary tract infection, abnormalities and prevention of renal scaring.

Table 1: Demographic data of children

Items	Number (231)	%
Gender		
• Male	114	49.4
• Female	117	50.6
Residence		
• Rural	66	28.6
• Urban	165	71.4
Father education		
• Primary	11	4.8
• High school	40	17.3
• University	180	77.9
Father occupation		
• Professional	184	79.7
• Semiprofessional	44	19
• Skilled	4	1.7
Mother education		
• Primary	20	8.7
• High school	66	28.5
• University	145	62.8
Mother occupation		
• Employed	131	56.7
• Housewife	100	43.3
Family size		
• < 5	166	71.9
• ≥ 5	65	28.1
Family income/month		
• < 200	90	39
• 200-500	120	51.9
• >500	21	9.1

Table 2: Distribution of microscopic urine analysis among Symptomatic Pre-school .

Finding	No=231	%
RBCs/ HPF		
• Zero	14	6.1 %
• 1-5	209	90.5 %
• 5 <10	8	3.5 %
PUS cells/HPF		
• 0-5	88	38.1
• 5-10	107	46.3
• >10	36	15.6
Crystals		
• Calcium oxalate	29	12.6
• Triple phosphate	12	5.2
• Mixed crystals	5	2.2
Candida	**49**	**21.2**

Table 3: Parents' knowledge of urinary tract infection "definition, cause, signs and symptoms, and complications of UTI"

Items	N=231	%
Parents knowledge about UTI*		
• Good	40	17.3
• Satisfactory	35	15.2
• Poor	156	67.5
Normal daily amount of urine		
• Correct answer	8	3.5
• Incorrect answer	223	96.5
Normal fluid intake/ day		
• Correct answer	86	37.2
• Incorrect answer	145	62.8

Table 4: Parents' care of urinary system for their pre-school children

Items	N=231	%
Parents observation about the following:		
Child's urinary out-put (amount)		
• Yes	20	8.7
• No	211	91.3
Frequency of child macturations/ day		
• Yes	86	37.2
• No	145	62.8
Actual fluid intake by their children/ day		
• Yes	56	24.2
• No	175	75.8
Odor of child urine		
• Yes	110	47.6
• No	121	52.4
Color of child urine		
• Yes	83	35.9
• No	148	64.1
When do you examine child's urine?		
• By physician ordered	46	19.9
• Not needed	185	80.1
Hygienic care for child's genitalia		
• Yes	190	82.3
• No	41	17.7
Male circumcision	N=114	%
• Yes	114	100
• No	0	0
Child suffered from previous UTI		
• Yes	36	15.6
• No	195	84.4
When child had previous UTI	N= 36	%
• Followed up	26	72.2
• Not followed up	10	27.8

Table 5: prevalence of UTI among symptomatic pre-school children according to their sex.

Sex	Males N =114		Females N = 117		Total N = 231	
	N	%	N	%	N	%
Child with Bacterial UTI	62	54.4	81	69.2	143	61.9
Child without bacterial UTI	52	54.6	36	30.8	88	38.1
Child with Candid a infection in urine	4	1.7	45	38.5	49	21.2
Child without Candid a infection in urine	110	76.4	72	61.5	182	78.8

Table 6: distribution of urinary tract infection in symptomatic pre-schooler according to family income.

Family income	>200		200 to > 500		<_500		Total	
Items	No. (90)	%	No. (120)	%	No. (21	%	(231)	
Child with bacterial UTI	63	70	71	59.3	9	42.9	143	61.9
Child without pyuria	27	30	49	40.8	12	57.1	88	38.1
Child with Candid a infection in urine	31	34.4	11	9.2	7	33.3	49	21.2
Child without Candid a infection in urine	59	65.6	109	90.8	14	66.7	182	78.8

Table 7: distribution of urinary tract infection in a symptomatic pre-schooler age children according to parents' knowledge

Mothers level of knowledge	Good		Satisfactory		Poor		Total	
Items	**No (40)**	**%**	**No (35)**	**%**	**No (156)**	**%**	**(231)**	
Child with pyuria	15	37.5	7	20	121	77.6	143	61.9
Child without pyuria	25	62.5	28	80	35	22.4	88	38.1
Child with Candida infection in urine	3	7.5	9	25.7	37	23.7	49	21.2
Child without Candida infection in urine	37	92.5	26	74.3	119	76.3	182	78.8

Table 8: Incidence of associated findings in children with UTI

	Children with UTI N=143		Children without UTI N=88		Total N=231	
	N	**%**	**N**	**%**	**N**	**%**
Triple phosphate	15	10.5	2	2.3	17	7.4
Nocturnal enuresis	12	8.4	4	4.5	16	6.9

References:

1. ***Harmsen M, Wensing M, van der Wouden JC, Grol RP. (2007):*** Parents' awareness of and knowledge about young children's urinary tract infections. Patient Educ Couns. 66(2):250-5.
2. ***Alper B.S. and Curry S.H. (2005):*** "Urinary Tract infection In Childern" American Family Physician, 72:2482-88.
3. ***Zorc, J.J., Kiddoo, D. A., and Shaw, K. N. (2005):*** Diagnosis and Management of Pediatric Urinary Tract Infections. Clin. Microbiol. Rev. 18: 417–422.
4. ***Dayan, P. S., E. Hanson, J. E. Bennett, D. Langsam, and S. Z. Miller. (2004):*** Clinical course of urinary tract infections in infants younger than 60 days of age. Pediatr. Emerg. Care 20:85–88.
5. ***Kontiokari T, Nuutinen M, Uhari M. (2004):*** Dietary factors affecting susceptibility to urinary tract infection. Pediatr Nephrol. 19:378-83.
6. ***Wu CY, Chiu PC, Hsieh KS, Chiu CL, Shih CH, Chiou YH. (2004):*** Childhood urinary tract infection: a clinical analysis of 597 cases. Acta Paediatr Taiwan. 45:328-333.
7. ***Owen, D., Vidal-Alaball, J., Mansour, M., Bordeaux, K., Jones, K. V. and Edwards, A. (2003):*** Parent's opinions on the diagnosis of children under 2 years of age with urinary tract infection. Family Practice; 20: 531-537.
8. ***Reddy PP, Redman JF. (2002):*** The management of childhood urinary tract infections. Pediatr Nephrol. 17(7):506-10.
9. ***Bachur, R and Harper, M B. (2001):*** Reliability of the urinalysis for predicting urinary tract infections in young febrile children. Arch. Pediatr Adolesc Med. 155:60-5.
10. ***Schlager TA. (2001):*** Urinary tract infections in children younger than 5 years of age: epidemiology, diagnosis, treatment, outcomes and prevention. Arch Pediatr Adolesc Med. 155(1):60.
11. ***American Academy of Pediatrics. (1999):*** Circumcision policy statement. Pediatrics. 103: 686-693
12. ***Jakobsson, B., Jacobson, S. H. and Hjalmas, K(1999):*** Vesico-ureteric reflux and other risk factors for renal damage: identification of high- and low-risk children. Acta Paediatr. Supp. 88:31–39.
13. ***Panaretto K.S., Craig J.C, Knight J.F., Howman-Giles R. Sureshkumar P. and Roy L.P. (1999):*** "Risk factors for recurrent urinary tract infection in preschool children"Journal of Paediatrics and Child Health 35: 454–459.

14. ***Hellerstein S. (1998):*** " Urinary Tract Infection In Children: Why They Occur and How To Prevent Them?" American Academy of Family Physicians.57(10):2448-54.
15. ***Hellstrom, A., E. Hanson, S. Hansson, K. Hjalmas, and U. Jodal. (1991):*** Association between urinary symptoms at 7 years old and previous urinary tract infection. Arch. Dis. Child. 66:232–234.
16. ***Hanson, S., Hjalmas, K., Jodal, U and Sixt R. (1990):*** Lower urinary tract dysfunction in girls with asymptomatic or covert bacteriuria. J Urol. 143: 333-335.
17. ***Bauchner, H., Philipp, B. Dashefsky, B. and Klein, J. O. (1987):*** Prevalence of bacteriuria in febrile children. Pediatr. Infect. Dis. J. 6:239–242.
18. ***Narchi H. (1981):*** Are routine urine cultures helpful in the management of asymptomatic infants or preschool children with a previous urinary tract infection? Clin. Nephrol. 16:169-71.

التهابات الجهاز البولى الغير مصحوبة بعلامات فى اطفال ما قبل المدرسة ومعلومات ابائهم عن الرعاية لهم

مقدمة :

تعد التهابات الجهاز البولى فى الأطفال من أهم مسببات تكوين قشرة بالجهاز البولى مما قد يؤدى الى الفشل الكلوى . وفى مصر لايوجد احصائية تظهر نسبة حدوثة فى اطفال ماقبل المدرسة .

الهدف من البحث :

يهدف البحث الى الأتى :

١. حساب معدل حدوث التهابات الجهاز البولى الغير مصحوبة بعلامات فى اطفال ماقبل المدرسة .
٢. مدى ارتباط معلومات الأباء عن التهابات الجهاز البولى والرعاية لأطفالهم لمنع حدوثة بنسبة حدوثة بين اطفالهم .

المرضى وطرق البحث :

عينة لأطفال :

١. تم اخذ (٢٣١) طفل متوسط اعمارهم اربعة سنوات ونصف من الريف والحضر من الجنسين وتم اخذ عينة بول منهم (اول بول صباحا) مع أتباع كافة الأحتياطات الازمة.
٢. تم مقابلة اباء الأطفال الممثلين لعينة البحث لتقييم(معلوماتهم ،العناية وكيفية المنع لألتهابات الجهاز البولى فى الأطفال عن طريق أستمارة التقييم) .

نتائج البحث :

وقد اظهر البحث النتائج الأتية :

مايخص الأطفال :

١- وجد ان (١٤٣)بنسبة ٦١,٩ ٠/٠لديهم صديد بالبول ومن هؤلاء الأطفال نسبة ٨,٤ ٠/٠ لديهم تبول لاارادى . والباقى منهم ١٨,١٠ ٠/٠ ليس لديهم صديد بالبول وكانت نسبة التبول الأرادى بينهم ٤,٥ ٠/٠ .

مايخص أباء الأطفال :

١- اوضحت أستمارة الاستبيان أن ٣,٥ ٠/٠، ٣٧,٢ ٠/٠ من الأباء كانت معلوماتهم عن احتياجات اطفالهم من السؤائل وكمية البول الخرجة يوميا كانت صحيحة على التوالى .
٢- كا اوضحت النتائج ان ٤٧,٦ ٠/٠ ، ٣٥,٩ ٠/٠ من الاباء يعرفون لون ورائحة البول الطبيعية لدى اطفالهم على التوالى .
٣- أن ٨٢,٣ ٠/٠ من الأباء ينظفون منطقة العانة لأطفالهم .

الخاتمة :

يخلص هذا البحث الى ان المعلومات (عن التهابات الجهاز البولى فى الأطفال، كذلك الرعاية والمنع) لدى اباء الأطفال المصابون بصديد البول كانت ضعيفة مما عكس زيادة نسبة الحدوث بينهم .

Application of Discharge Planning Tool (DPT): Its Effect in Different Acute Care Setting and Patient Satisfaction

Magda M Mohsen, Wafaa H Abdullah Ali***
*Community Health Nursing *, & Adult Health Nursing ***
Faculty of Nursing, Menofia University

Abstract

Background: Discharge planning is a process in which patients` needs are identified and plans are written to facilitate continuity of nursing care from one environment to another. Discharge planning tool helps and prepare patients to leave the hospital safely. Developing and maintaining a staff nurse's discharge planning knowledge and performance can be a challenging endeavor. **The Aim** of this study was to investigate the ability of nurses to develop and use the discharge planning tool (DPT) in practice for achieving quality nursing care and patient' satisfaction. **Setting**: Acute care setting "Intensive care unit, Burn unit and general units" in University hospitals in Menofia University were used for this study. **Sample:** A convenience sample of 90 adult patients from of the above mentioned units and all the nurses working in the same settings. **Tools: (1)** Knowledge Test questionnaire (Pre-Post test) for nurses to assess the nurses knowledge regarding discharge planning tool (DPT) **(2)** Observation Checklist (Pre-Post test) to assess the nurses performance to the discharge planning tool (DPT) with their patients, **(3)** The discharge plan audit "for nursing performance **(4)** Patient's Satisfaction to determine degree of patients satisfaction regarding nurse's performance towards discharge planning tool (DPT). **The results:** Significant improvements in nurse's knowledge, performance and patient's satisfaction to aspects of care given. **Conclusions:** the results indicated that the introduction of discharge plan tool (DPT) which was initiated after patient admitted to the hospital and evaluated before patient discharge from hospital effectively improves nursing staff's knowledge, performance & patient's satisfaction. **Recommendations:** (1) Teaching nurses about components of discharge plan tool to increase their knowledge and performance (2) the introduction of discharge plan tool to be used as a routine nursing care for all patients in different departments especially critically ill patient in the hospital can facilitate smooth transition from acute care setting to home, ensure that the patient will function at an optimal level and prevent re-hospitalization.

Keywords: Discharge Planning -Quality nursing care- Acute care setting.

Introduction

The high cost of hospitalizations, advancements in technology and medical sciences have abbreviated patient hospitalization periods, leading to early discharges. Patient care should continue at the household, which would help to avoid re-hospitalizations that elevate health care expenses. Tracking the number of patients who experience unplanned readmissions to a hospital after a previous hospital stay is a category of data used to judge the quality of hospital care. Readmission could be defined as a patient who admitted to a hospital within seven days after being discharged from an earlier hospital stay ***(Billings et al., 2006).*** Good discharge plans can help and reduce the rate of unplanned readmissions by giving patients the care instructions they need after a hospital stay and by helping patients recognize symptoms that may require immediate medical attention ***(Chuang et al., 2005).***

A cohort study used population-based administrative databases to follow 938,833 adults from Ontario, Canada, after they were discharged alive from a non-elective medical or surgical hospitalization between April 1, 1995, and March 1, 2000. The study found that, 7.7% died or were readmitted. The adjusted relative risk of death or readmission decreased by 5% (95% confidence interval, and 3 % (95% CI) with those of proper discharge plan ***(Walraven et al., (2004).***

Also in Chicago, Illinois, only 19% of the participants Physicians were satisfied or very satisfied with timeliness, and 32% were satisfied with the quality of discharge summaries. Overall, 41% believed that at least 1 of their patients hospitalized in the previous 6 months had experienced a preventable adverse event related to poor transfer of information at discharge. Physicians were not satisfied with the timeliness or quality of discharge summaries. Physicians indicated that suboptimal transfer of information at hospital discharge contributed to preventable adverse events ***(O'Leary et al., (2006).*** In Egypt, especially Menofia Governorate- University Hospital, there is still no recorded data base-for hospital statistics to clarify the hospital readmission rate.

Quality nursing care, as defined within The Canadian Council of Cardiovascular Nurses (CCCN) framework, includes acute and episodic interventions, depending on patient need. The expanded role of inter-professional education and health care teams, as well as the inclusion of patients and families in program improvement, are solutions that the CCCN suggests may contribute to improve access to cardiovascular care

and a sustainable health care system in Canada. Nurses occupy creative, cost-effective roles directly aimed at reducing wait times and improving care while patients wait. Acute care setting is a short-term treatment, usually in a hospital, for patients having an acute illness or injury or recovering from surgery ***(Eastwood et al., 2008).***

In clinical practice, it is observed that hospital discharge instructions are given at the moment patients leave the hospital instead of being developed throughout the hospitalization period. Discharge instructions are mostly delivered mechanically and hurriedly, without taking each patient's needs into consideration ***(Huber and McClelland, 2003).*** This means that many oral instructions are given at the same time, which makes it difficult for patients to understand. Discharge planning has been defined as the systematic organization of services and supports to assist patients to manage in the community post-discharge ***(Parker et al., 2002).***

Nurses in critical care units believe that, the discharge plan is a process in which patients' needs are identified and plans are written to facilitate continuation of nursing care from one environment to another. Appropriate and effective discharge planning help to maintain the quality of care from hospital to home and reducing the length of hospital stay. Also workload issues, unplanned discharges and inadequate communication contribute to difficulties in implementing the discharge plan ***(Watts et al., 2006).***

Discharge planning is conceptualized as having four phases: (1) patient assessment; (2) a discharge plan development; (3) implementation of care plan "provision of services", including patient/family education and service referrals; and (4) follow-up/evaluation. Appropriate interventions in each of these phases help contribute to effective discharge planning. Discharge planning process should address specific strategy for meeting the actual and potential problems that the patient will face when leaving the hospital ***(Spath, 2002; Grimmer et al., 2006).***

Discharge plans are a tool that guarantees continuous health care after hospitalization. The teaching involved in discharge planning is part of the educational process, which implies patients and their families are instructed about what they need to know and understand, taking bio-psycho-spiritual aspects into consideration. In this view, this issue remains a great challenge for nurses, since it is understood that quality of

health care should be founded on technical-scientific competencies, without risks to patients, relatives, professionals, and institutions ***(Spath, 2002).***To ensure that the hospital discharge plan is effectively implemented, a systemized guide should be used, which consists of educational activities and assessment of patients' comprehension about leading an independent life. Nurses should prepare a discharge outline, consisting of a concise and informational summary about patient conditions, focused on the previous education offered to patients and their families. A copy of this outline should be handed to patients or their caretaker to be used as a guide or reminder of daily health care ***(Pateman et al., 2003).***

The "**Discharge Checklist**" can help nurses and patients/families make sure that the six main areas essential to a good discharge plan are covered. These six areas are: (1) nutrition, (2) medication, (3) personal care, (4) daily regular exercise (5) the schedule for check up & (6) follow-up community care ***(Levine and Crossings 1998).*** When an older adult is discharged from the hospital, he or she should have an individualized, comprehensive discharge plan to prevent unnecessary complications. But the large number of older adults who are hospitalized and their typically greater needs can make creating such a plan a challenge for **nurses.** Clear communication among nurses, patients, family members, and community caregivers "such as home health care nurses and long-term care staff" is essential ***(Walker et al., 2007).***

Discharge planning is an urgently needed nursing intervention. It is suggested that the needs should be assessed for both patients' and families' preferences early and incorporate this in discharge planning. It is recommended that discharge planning instruction should start as soon as patients are admitted to the hospital ***(Huber and McClelland, 2003).*** An expanding evidence show that "When patients are poorly prepared for discharge, they become vulnerable to medication errors, improper care and other complications that can put them right back in the hospital. Hospitals must ensure that a patient's transition is "safe and adequate" ***(Coleman, 2007).***

Aim of the Study

The current study was aiming to investigate the ability of nurses to develop and use the Discharge Plan Tool (DPT) in practice for achieving quality nursing care and patient' satisfaction.

It was fulfilled through the following objectives:

1. Assess the knowledge and performance of nurses in planning and implementation of discharge plan.

2. Implement a teaching instructional strategy (intervention) about the development and utilization of discharge plan tool for the nurses who provide patient discharge care plan.
3. Evaluate the effectiveness of the teaching instructional strategy on the nurses' knowledge and performance regarding discharge plan tool.
4. Audit the care provided by the nurses to the patient about discharge planning tool (DPT).
5. Test the effectiveness of the teaching instructional strategy (pre-post intervention) in different acute care settings.
6. Determine the degree of patient satisfaction regarding nurse's performance towards discharge planning tool (DPT).

Materials and Method

Materials

Design: A quasi-experimental research design was used**.**

Setting:

Acute care settings in Menofia University hospitals (Intensive care unit, Burn unit and general units) were used for this study.

Operational definition of acute care settings: - It is a level of health care in which a patient is treated for a brief but severe episode of illness, for conditions that are the result of disease or trauma, and during recovery from surgery. Acute care setting is generally provided in a hospital by a variety of clinical personnel "medical and Paramedical" using technical equipment, pharmaceuticals, and medical supplies.

Sample:

(a) Patient Sample:-This study comprised a convenience sample of 90 patients, from the above mentioned units. The inclusion criteria were: being over 25 years of age, be oriented in time and place, and be aware of their hospital discharge instructions and who had signed a written consent for the implementation of hospital discharge tool.

(b) Nurses Sample: - **All the nurses** working in the same settings.

Tools: The instruments used in this study were;

Tool 1. Knowledge Test questionnaire (Pre-Post test) for nurses to determine staff nurses level of knowledge regarding discharge planning. It consists of two parts:

(a) Staff nurse Socio-demographic data such as: age, education, qualifications, and years of experiences since the last degree and department of employment.

(b) Questions about the items of discharge plan designed by the researcher based on review of literature relevant to the items of discharge plan necessary for the nurses to know and to be used in teaching intervention instruction with their patients. The data were collected before the teaching instructional strategy and after its implementation to investigate the effectiveness of the teaching instructional strategy (intervention) in improving nurse's knowledge.

The designed tool consisted of questions about the meaning of the discharge plan, its importance, principles and components of discharge plan that covers knowledge on the main six items of the Discharge Plan; (1) nutrition, (2) medication, (3) personal care, (4) follow up, (5) check up and (6) daily regular exercises.

The scoring system of nurses' is answer consists of giving a score of one for correct answer and zero for the wrong answer

The score of each nurse' knowledge was converted into a percentage score. The total scoring system for the questionnaire was categorized as the following:-

- 75% to 100 % = Good Score.
- 50 % -75 % = Satisfactory Score
- Less than 50% = Poor Score.

Tool 2. Observational Checklist for **nurse's performance**. It was developed to assess the application of the Discharge Planning Tool "DPT" by staff nurses as they provided to the patient. The observational checklist is a "pre-post" level of performance to the discharge planning with their patients. It includes items about components of discharge planning tool; (1) nutrition, (2) medication, (3) personal care, (4) follow up, (5) check up, and (6) daily regular exercises.

Scoring system for the observational checklist:

- 3 score would be given if the nurse provides teaching about the item.
- Zero score would be given if the nurse did not provide teaching about the item.

The total score for each component of discharge plan calculated and then the score for all the questions calculated finally to give the total score of performance.

Tool 3. The discharge plan audit "**for nursing performance**" Pre-post performance as the observational checklist. Each component of discharge plan tool; "nutrition, medication, personal care, follow up, check up, and daily regular exercises" and their underline questions should be assigned either;

- Completely done
- Incomplete done

Tool 4. An interviewing questionnaire for the patients to determine the degree of patient satisfaction regarding nurse's performance towards the implementation of discharge planning tool (DPT). These tools developed by the researcher after a review of literature, it includes:

(a) Socio-demographic part was designed to include: data related to age, sex, education, residence, occupation, and marital status.

(b) Patient's Satisfaction Questions; It include questions regarding degree of satisfaction about teaching related to nutrition, medication, personal care, follow-up, check-up, daily regular exercises, and their opinion about ability of nurses to provide satisfactory care by using simple language. Each question should be assigned either;

- Not satisfied
- Relatively satisfied
- completely satisfied

Method:

1-Before data collection, the researcher met with the responsible authorities (director of ICU, Burn Unit & General Units in the hospital) asking for an official approval to carryout the study after explaining the purposes of the study.

2- Content validity of the tools was tested by a panel of five experts in the field, & the corrections were done accordingly based on their responses.
3- Reliablity: to measure reliability of the tools a test –retest methods was used.
4- A pilot study was carried out before starting data collection on 10% of the sample (9 patients and three nurses), were excluded from the main study sample to test the applicability of tools and the necessary modification was done accordingly.
5- Informed consent was obtained from patients after explaining the purposes of the study.

Procedure:

- The data of the present study were collected during the period starting from September 2005 to the end of August 2006, i.e. 12 months for data collection.
- Each staff nurse was informed about the objectives of the study and was asked to fill the questionnaire (Pre-test).
- A Knowledge Test questionnaire (Pre-Post test) **for nurse's** tools was distributed during both morning and evening shifts when the workload was lessening for three a days week.
- The data collected using the observational check list tool was implemented before the teaching instructional strategy.
- Discharge plan tool (DPT) was developed by the researcher based on review of related literature and the results of pre-test questionnaire.
- The discharge plan tool (DPT) was explained to the nurses through sessions. Each nurse attended six sessions. The duration of each session was
  20-45 minutes according to the presented item.
- The Discharge plan tool (DPT) was implemented by nurses for their Patients. The researcher observed the studied nurses for 15 minutes for each nurse. The duration of the observation was 8 nurses per 2 hours /day twice weekly until the sample size totally covered.
- The discharge plan audit was done by the researcher during their working hours.
- The researcher initiated data collection regarding patient's satisfaction towards the discharge plan tool (DPT) by using questionnaire in which the studied patients were interviewed

individually. Each patient completed their satisfaction before leaving the hospital.

- The post-test for knowledge & performance was done to investigate their effectiveness.

Statistical Analysis:

The collected data were coded and scored. Data statistically analyzed using SPSS. Frequency and descriptive statistics are presented to find association between the research variables. Test of significance was used in which level of significance is P <0.05. Chi-Square test (χ^2) was used to test whether there is an association between the row variables and the column variables. While t-test was used to test the difference between two means. As follows:

- Non-significant difference if ….. P > 0.05
- Significant difference if…… P< 0.05 and
- Highly significant difference if ….. P < 0.01

Results

Table (1) reveals that, 37.8 % of the studied patients were illiterate, 13.3 % of the studied patients had completed their high education and the total mean age of the studied sample was 37.2 ±18.6 years old.

Figure (1) illustrates that, 48.9 % of the patients were males and 51.1 % were females.

Figure (2) illustrates that; the selected acute care departments were; general departments (32 %), ICU (36 %), and burn (32 %).

Table (2) indicates that, the majority (75 %) of the baccalaurean nurses work in the ICU department. In addition, the total mean age of the studied nurses was 23.6 ±4.4 years old with 5.1± 4.5 mean years of experience.

Table (3) reveals that, 40.0% of nurses in the pre-test said that they know the meaning of discharge Plan compared to 76.0% in the post test. There were statistically significant differences between pre and post knowledge of studied nurses regarding score for the knowing the principles, components of discharge plan and the total score category. (P >0.05).

Figure (3) illustrates that, 76 % of the nurses have good knowledge in the post-test Compared to 4 % had good knowledge in the pre-test.

Table (4) indicates that, there were statistically significant differences between pre and post score of performance of studied nurses regarding to teaching their patients about nutrition, medication, personal care, follow up, check up, daily regular exercises and total score of performance ($P < 0.01$).

Table (5) demonstrates that, the studied patients were unsatisfied related to nutritional care (71.1%), personal care (57.8 %), and care related to daily regular exercises (84.4%). In addition, they have some degree of satisfaction about care related to medication (66.7%).

Table (6) reveals that, there were statistically significant differences between pre and post knowledge of studied nurses regarding knowing the principles, components of discharge plan and the total score category ($P < 0.01$).

Table (7) Shows there were a statistical significant difference among nurse's mean score of Performance on all items of discharge plan tool between pre and post test and between hospital's department" burn unit, ICU and general units" . ($P<0.01$)

Figure (4) illustrates that, the nursing performance "teaching related to nutrition, personal care, follow up and daily regular exercise" are represented as follows; 28 %, 16 %, 36 %, 16 % respectively were poor. This poor performance accompanied with poor patient satisfaction about the same item of teaching respectively (28.9 %, 42.2 %, 55.6 %, and 15.6%).

Discussion

Discharge planning is a routine feature of health systems in many countries. It aims to reduce hospital length of stay, and unplanned readmission to hospital, and improve the coordination of services following discharge from hospital thereby bridging the gap between hospital and place of discharge. Sometimes discharge planning is offered as part of an integrated package of care, which may cover both the hospital and community ***(Shepped et al., (2004).***

Hospital professional nurses have had a long-standing commitment to meet the continuing care needs of hospitalized patients discharged into the community: both to enhance a smooth transition from hospital to home and to ensure that the patient will function at an optimal level.

Discharge planning has always been viewed as a major way to achieve this objective ***(Levine and Crossings 1998).***

The introduction of Discharge planning tool (DPT) has brought increasing concern that patients, who may be leaving the hospital sooner, may therefore have increased home care needs. This study has addressed how hospitalized patients are facing the discharge under discharge plan Tool (DPT), and the effects of the discharge planning strategies on meeting patient satisfaction. Given the emphasis placed on discharge planning to meet home care needs, the questions that naturally evolve are: Does discharge planning make a difference and for whom? Are certain types of strategies effective and, if so, for which types of patients or patient needs? **So the aim of this study** was to investigate the ability of nurses to develop and use the discharge planning tool (DPT) in practice for achieving quality nursing care and patient' satisfaction.

It is clear from the analysis presented in this study that, there were no statistical significant difference between patient age, educational level and their marital status and patient's sex **(Table 1)**. This means that the patient samples are identical and unbiased. Also **Table (2)** shows that there were no statistical significant difference between nurse's age, and their years of experience.

The analysis presented in this study show that the score of the nurse's knowledge of discharge plan about; Knowing the meaning, the importance of discharge plan, the principles of discharge plan, the discharge plan components and total score category **Table (3)** reflects a significant increase in pre to post test knowledge. Also in **Figure (3)** illustrates that, the majority of nurses had poor knowledge score in the pre test. This percentage was reversed (more than three quarters of the nurses have good knowledge in the post-test) after the teaching interventional strategy about discharge plan. This indicates that significant improvement of nurses' knowledge, as aspects of care given through the application of discharge planning tool (DPT). This result was consistent with ***Koelling et al., (2005)*** that concerned with the improvement of the nurses knowledge. They mentioned that the addition of a 1-hour, nurse educator-delivered teaching session at the time of hospital discharge resulted in improved clinical outcomes, increased self-care measure adherence, and reduced cost of care in patients with systolic heart failure.

The results from nurses auditing performance of discharge plan regarding teaching for patient revealed that, there were statistically significant differences between pre and post score of performance of studied nurses regarding teaching their patient about nutrition, medication, personal care, follow up, check up, daily regular exercises and total score of performance **(Table 4).** This result was consistent with ***Holland et al., (2006)*** who reported that a discharge planning tool consisting of a specific number of characteristics readily available early in the hospital stay was shown to be highly predictive of the use of specialized discharge planning services. The application of such a tool will hopefully assist nurses to implement services appropriately and in a timely fashion.

It is clear from the analysis presented in this study that almost most of patients demonstrated that, they were relatively satisfied related to medication teaching, whereas they were unsatisfied related to nutritional teaching, teaching about personal care, and teaching about daily regular exercises. In addition, they have some degree of satisfaction about teaching related to medication. There were no statistically significant differences between males and females regarding to degree of satisfaction related to different types of teaching **Table (5)**. This study results was in-line with ***Han et al., (2003)*** who stated that patient satisfaction has become an important indicator to measure the quality of care and nursing has long used outcome measures to evaluate health care. They assessed the patient satisfaction of patients from medical and surgical units at a teaching hospital of southern Taiwan. Of the 806 near-discharge patients from medical or surgical units approached to participate in the study, a total of 477 patients returned questionnaires for a response rate of 59%. The total mean score for all the patients' satisfaction score was 4.28 (SD = 0.53). In general it reflected that the patients were satisfied.

Shepped et al., (2004) determined the effectiveness of the discharge planning for patients moving from hospital. All patients in hospital are grouped according to elderly medical patients, surgical patients, and those with a mix of conditions. They failed to detect a difference between groups of patients recovering from surgery and those patients with a mix of medical and surgical conditions with patients of a medical condition. Their results was consistent with the current study results which indicates that, the mean score between pre and post of knowledge of studied nurses regarding to score for principles**,** Score for component, total score category was higher in critical care units eg; burn unit and ICU and the

least in general units (**Table 6**). Also ***Huang and Liang, (2005)*** examined the effectiveness of a discharge plan in hospitalized elderly patients with hip fracture due to falling. They found that a discharge planning intervention by a nurse can improve physical outcomes and quality of life in hip fracture patients. The discrepancy between all of those can be clarified that acute care units like ICU and burn unit in the current study make a difference in discharge planning tool as the later results of ***Huang and Liang, (2005)*** and of the first results of ***Shepped et al., (2004)*** of medical and surgical conditions patients. ***Watts et al., (2007)*** emphasized that discharge planning practices are to be changed with the introduction of new discharge planning models in the critical care environment then it is important not only to know current practice but also the perceptions of critical care nurses in terms of who they believe should co-ordinate the discharge planning process.

Nutrition is an important item of the discharge plan. The nurse's mean score on nutrition increased from pre-test to post test in general units, & in Burn unit. It means that the nurses in **burn Units** had mean score higher than **ICU** and the least was general units in all **the Discharge Plan performed items.** This was proved by the presence of significant differences in the nurse's ability to use the discharge plan. This indicates that nurses from all units improved in their ability to provide discharge plan after intervention instruction and the discharge needs may not be seen easily or limited in units **Table (7)**. This result was consistent with ***Watts et al., (2005)*** who stated that discharge planning for patients, as part of continuity of care, is seen as a key concept in the delivery of nursing care. However, there is no question that discharges planning has emerged as a complex area of practice, and is, most complex in the critical care. Their findings suggest that discharge planning process is not well understood and some degree of mutual exclusively still remains. There is a need for further education of critical care nurses as regard to the underlying principles of the discharge planning process.

Han et al., (2003) revealed in their study of discharge patients from medical and surgical unit's satisfaction that, evidence of primary nurse's unit performance experience can influence patient satisfaction. Also ***Shepped et al., (2004)*** reported that patients with medical conditions allocated to discharge planning reported increased satisfaction compared with those who received routine discharge. Those results was consistent with the analysis of the present study which illustrates that, the nursing performance related to teaching about medication was as high as two

third of the nurses compared to two third of the patient satisfaction of the same item of **medication**, and teaching about the follow up nurse's performance was more than one third compared to more than half of patient satisfaction of the same item of **follow up (Figure 4)**. These results proved that the good nurse's performance accompanied with good patient satisfaction about the same care and vise versa. Also it clarified to what extent these patients can be confident with discharge plan procedures application of the "teaching instructional strategy".

Discharge planning provides a critical link between the treatment received by a hospitalized patient and the care provided to the patient after discharge. It is generally accepted that discharge planning should start prior to admission "for planned admissions" or at the time of admission "for unplanned admissions ***(Spath, 2002).***

Conclusions:

- The introduction of discharge plan tool (DPT) that was initiated after patient admitted to the hospital and assessed before patient discharge from hospital effectively improves nursing staff's knowledge, performance, nurses audit performance & patient's satisfaction.
- Nurses mean score for knowledge about discharge plan items of teaching about; nutrition, medication, personal care, follow up, check up and daily regular exercises were higher in burn Unit than that of ICU and both were higher than that of the general Units between pre to post performance which proved that patient in critical care Units are in need more than the general Units for application of discharge planning tool (DPT).

Recommendations:

- Teaching nurses in different departments in the hospital especially who are caring for acute care setting about discharge plan to be able to implement it.
- The introduction of discharge plan tool (DPT) to be used as a routine nursing care for all patients in different departments in the hospital can facilitate smooth transition from acute care setting to home, ensure that the patient will function at an optimal level and prevent re-hospitalization.

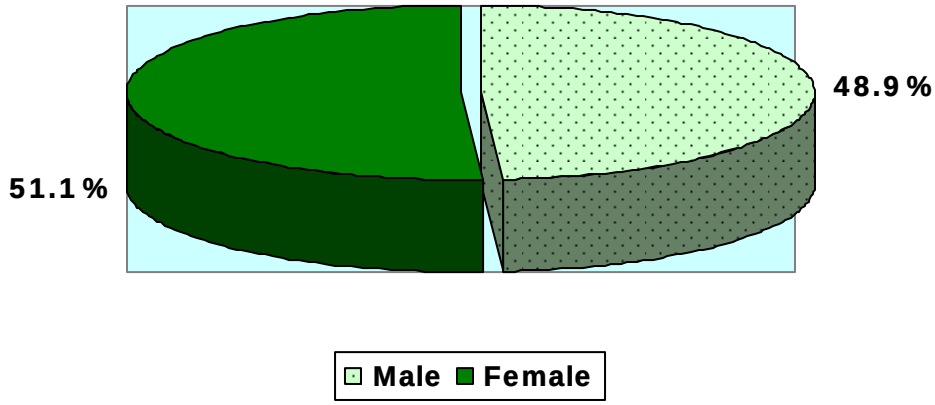
Tables

Part 1
"Patients Samples"

Table (1) Percentage Distribution of Studied patients According to their Socio-demographic Data

Variables	Total sample n=90	
	Male n=44	Female n=46
	%	%
Marital status		
Married	59.1	82.6
Single	40.9	17.4
Total	100.0	100.0
	$\times^2$ = 3.1	**P > 0.05**
Education :-		
Illiterate	31.8	43.5
Read and write	27.3	4.3
Diploma	22.7	43.5
University	18.2	8.7
Total	100.0	100.0
	$\times^2$ = 6.4	**P > 0.05**
Occupation :-		
Student	13.6	8.7
Employee	40.9	26.1
House wife	0.0	60.9
Worker	45.5	4.3
Total	100.0	100.0
	$\times^2$ = 22.1	**P < 0.001**
Age:-		
Mean ± SD	38 ± 16.9	36.4 ± 20.5
	t=0.3	**P > 0.05**

Figure (1) Distribution of Studied patients According to their sex



Part 2

Nurse's Sample & discharge plan

Figure (2) Distribution of Studied nurses According to their Departments

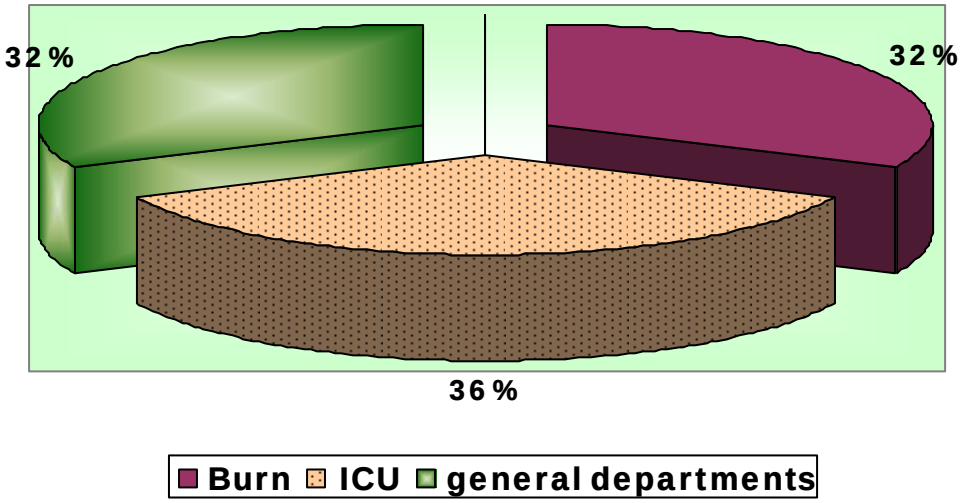


Table (2): Distribution of Studied nurse's Work Situation According to their Qualification

Work Situation	**Nurses qualification**				**Total n =25**	
	Diploma		**Baccalaurean**			
	No.	**%**	**No.**	**%**	**No.**	**%**
Work Department						
Burn	6	35.3	2	25.0	8	32.0
ICU	3	17.6	6	75.0	9	36.0
General	8	47.1	0	0.0	8	32.0
Total	**17**	**100.0**	**8**	**100.0**	**25**	**100.0**
	$\times^2 = 8.9$ $P < 0.05$					
	General depart.		**Burn**		**ICU**	
Age:-	23 ± 4.6		25 ± 3.7		23.6 ± 4.4	
Mean ± SD	t=1.1 P > 0.05					
Years of experience:-	5.2 ± 4.6		4.9 ± 4.4		5.1 ± 4.5	
Mean ± SD	t=0.2 P > 0.05					

Table (3):Percentage Distribution of Discharge Plan Pre and Post Nurse's knowledge Score according to Knowledge Categories.

Discharge Plan Nurse's knowledge Score	Studied sample n=25		P Value
	Pre	Post	
	%	%	
Know the meaning of Discharge plan			
Yes	40.0	76.0	x^2 =0.3
No	60.0	24.0	P >0.05
Total	100.0	100.0	
Know the importance of Discharge plan			
Yes	80.0	92.0	x^2=0.5
No	20.0	8.0	p>0.05
Total	100.0	100.0	
Score for knowledge about principles of Discharge plan Mean ± SD	17.3 ± 10.03	28.3 ± 4.6	t=4.8 P <0.001
Score for the knowledge about components of Discharge plan Mean ± SD	22.2± 9.6	50.2 ± 9.7	t=9.9 P <0.001
Total score category			
Poor	72.0	0.0	
Satisfactory	24.0	24.0	t=10.9
Good	4.0	76.0	P <0.001
Total	100.0	100.0	
Mean ± SD	41.8 ± 13.2	81.8 ± 11.3	

Figure (3): Discharge Plan Pre and Post Nurse's knowledge Score according to Knowledge Categories.

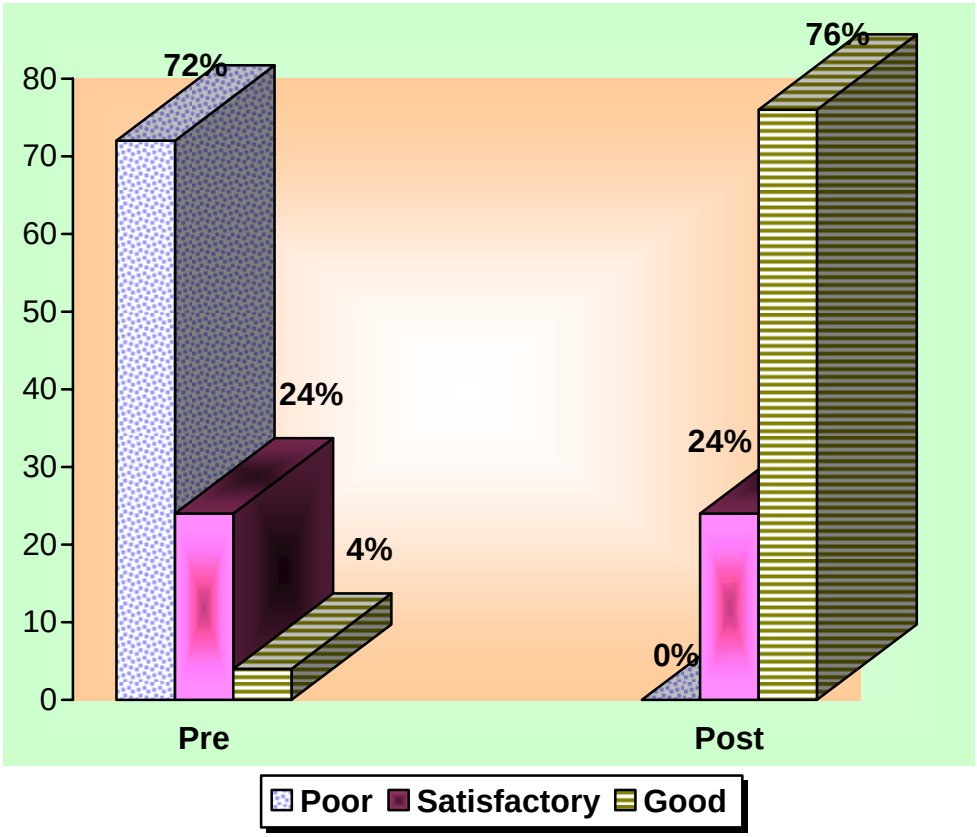


Table (4): Percentage Distribution of Discharge Plan Items According to the Pre and Post Nurse's Performance of Score Audit.

Discharge Plan Performance Items	Total sample n=25		P value
	Pre	Post	
	%	%	
Teaching related to nutrition			
Incomplete done	72.0	16.0	x^2=8.1
Completely done	28.0	84.0	P<0.05
	6.12±5.01	11.2±5.4	
Teaching related to medication			
Incomplete done	24.0	0.0	x^2=14
Completely done	76.0	100.0	P<0.05
	10.7±6.01	15.9±4.5	
Teaching related to personal care :-			
Incomplete done	84.0	0.0	x^2=23
Completely done	16.0	90.0	P<0.001
	4.1±3.9	11.2±4.6	
Teaching about follow up plan:			
Incomplete done	64.0	4.0	
Completely done	36.0	96.0	x^2=18
	6±4.9	11.9±3.2	P<0.001
Teaching about plan for regular check up:-			
Incomplete done	17 68.0	4 16.0	x^2=11.8
Completely done	8 32.0	21 48.0	P<0.05
	3.8±4.7	9.6±3.9	
Teaching about plan for daily regular exercises :-			
Incomplete done	84.0	8.0	x^2=13.7
Completely done	16.0	92.0	P<0.05
	2.7±4.3	9.2±4.3	
Total score for performance	33.4±17.4	69±19.9	t=6.7 P<0.001

Table (5): Percentage Distribution of Studied patients According to their satisfaction related to care.

Discharge Plan Item's Satisfaction	Total sample n=90		Total
	Male n=44	Female n=46	
	%	%	%
Satisfaction related to medication			
Not satisfied	18.2	30.4	24.4
Relatively satisfied	72.7	60.9	66.7
Completely satisfied	9.1	8.7	8.9
	$\times^2$ = 0.9 P > 0.05		
Satisfaction related to nutrition			
Not satisfied	68.2	73.9	71.1
Relatively satisfied	22.7	21.7	22.2
Completely satisfied	9.1	4.4	6.7
	$\times^2$ = 0.4 P > 0.05		
Satisfaction related to personal care			
Not satisfied	45.5	69.5	57.8
Relatively satisfied	50.0	26.1	37.8
Completely satisfied	4.5	4.4	4.4
	$\times^2$ = 2.8 P > 0.05		
Satisfaction related to follow up			
Not satisfied	40.9	47.8	44.4
Relatively satisfied	50.0	39.1	44.4
Completely satisfied	9.1	13.1	11.2
	$\times^2$ = 0.6 P > 0.05		
Satisfaction related to daily regular exercises:			
Not satisfied	90.9	78.3	84.4
Relatively satisfied	9.1	21.7	15.6
Completely satisfied	0.0	0.0	0.0
	$\times^2$ = 1.4 P > 0.05		
Satisfaction with Explanation of administrative process:			
Not satisfied	45.5	56.5	51.1
Relatively satisfied	50.0	30.4	40.0
Completely satisfied	4.5	13.1	8.9
	$\times^2$ = 2.3 P > 0.05		
Satisfaction with Giving a chance to patients to express fears :			
Not satisfied	50.0	39.1	44.4
Relatively satisfied	50.0	47.8	48.9
Completely satisfied	0.0	13.1	6.7
	$\times^2$ = 3.2 P > 0.05		
The nurses use simple language during health teaching:-			
Not satisfied	13.6	13.0	13.3
Relatively satisfied	63.7	60.9	62.3
Completely satisfied	22.7	26.1	24.4
	$\times^2$ = 0.1 P > 0.05		

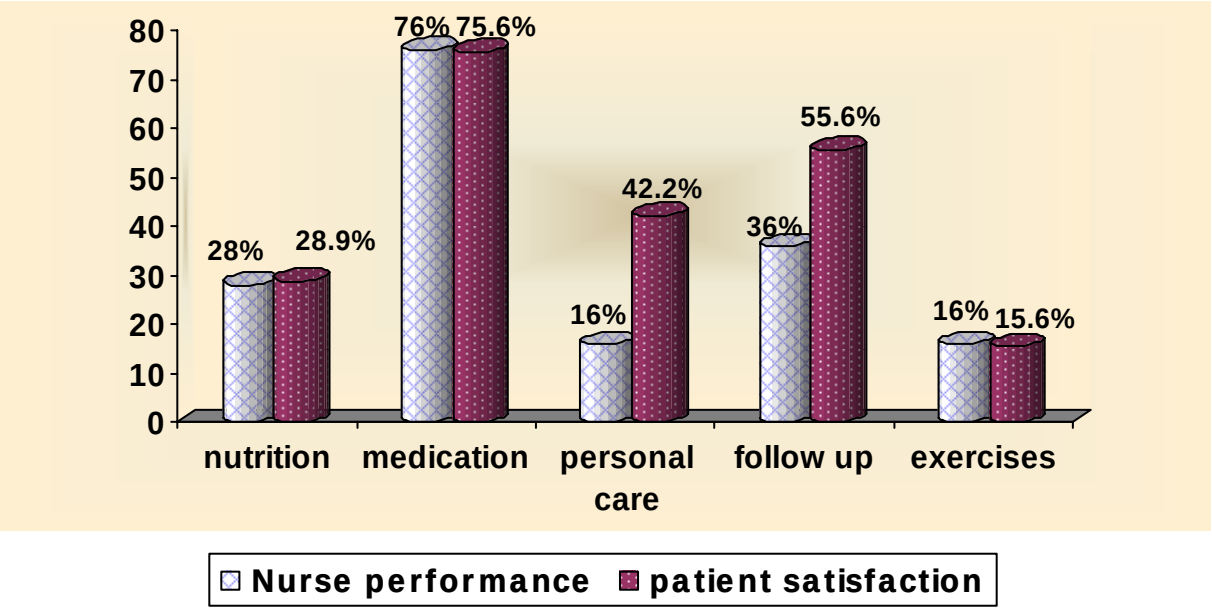
Table (6): Percentage Distribution of discharge Plan Pre and post knowledge of Nurses according to their department of work

Discharge Plan knowledge	**General departments**	**Burn**	**ICU**	**P -value**
	%	%	%	
Know the meaning of Discharge plan **Pre**	62.5	25.0	33.3	x^2 =0.3 P >0.05
Post	62.5	87.5	77.8	
Know the importance of the Discharge plan **Pre**	75.0	75.0	88.9	x^2=0.5 p>0.05
Post	87.5	100.0	88.9	
Score for principles of the Discharge plan **Pre**	23.5±10.2	14 ± 7.6	14.7 ± 10.1	t=4.8 P<0.001
Post	28.2 ± 2.9	30.3 ± 1.3	26.4 ± 6.9	
Score for components of the Discharge plan **Pre**	19±11.7	22±6.4	25.1±10.1	t=9.9 P<0.001
Post	49.7±7.2	47.2±12.2	53.2±9.2	
Pre total score category Poor	62.5	75.0	77.8	
Satisfactory	37.5	25.0	11.1	
Good	0.0	0.0	11.1	t=10.9 P<0.001
Mean ± SD	45.3±7.3	38±9.6	42.2±19.2	
Post total score category				
Satisfactory	12.5	25.0	33.3	
Good	87.5	75.0	66.7	
Mean ± SD	81±5.6	81.2±12.6	83±14.5	

Table (7): Mean & SD of Nurses Discharge Plan "Pre and Post test" Performance according to their departments

Discharge Plan Items Performance	Departments			P value
	General department	Burn	ICU	
	Mean ± SD	Mean± SD	Mean ± SD	
Teaching related to nutrition				
Pre	4.12±4.8	7.9±4.5	6.3±5.5	t= 4.1
Post	6.7±6.4	14.6±1.1	12±4.2	P<0.001
Teaching related to medication:-				t= 3.8
Pre	10.5±6.9	8.6±5.4	12.7±5.6	P<0.001
Post	12.7±4.7	18.7±2.6	16.3±4	
Teaching about personal care				t= 7.3
Pre	3.4±4.6	6±4.5	3±2.1	P<0.001
Post	9.4±5.4	13.1±3.6	11±4.5	
Teaching about follow up				
Pre	3.4±4.9	4.9±3.9	9.3±4.3	t= 5.1
Post	9.7±2.6	14.2±1.4	11.7±3.5	P<0.001
Teaching about regular check up				t= 4.3
Pre	3.7±5.2	0.7±1.4	6.7±4.7	P<0.001
Post	7.5±3.9	11.6±1.1	9.7±4.7	
Teaching about daily regular exercises				t= 5.9
Pre	1.9±3.6	5.2±5.9	1.3±2.2	P<0.001
Post	9±3.9	11.2±1.4	7.7±5.8	

Figure (4) Relationship between Discharge Plans of Care Performance Provided by Nurses to the Patients and Patient Satisfaction



References:

1. ***Eastwood, C., Doucet, J., Estrella-Holder, E, MaDonald, J., Nichols, N, Sherrard, H, Smigorowsky, M., Yates, G., Woodend, K. A. (2008):*** commentary on access to cardiovascular services: nursing roles and initiatives. Can J.Cardiol. 24(2):107-12.
2. ***Coleman, E., (2007):*** Bridging the gaps between hospital and home. The discharge planner. New York Times.
3. ***Walker, C, Hogstel and Curry,Lc (2007):*** Hospital discharge of older adults. How nurses can ease the transition.Am J Nurs. June;107(6):60-70.
4. ***Watts, R., Pierson, J., and Gardner, H. (2007):*** Co-ordination of the discharge planning process in critical care. J. Clinical nurse. Ja: 16 (1): 194-202.
5. ***Billings, J., Dixon, J., Mijanovich, T., Wennberg, D. (2006):*** Case finding for patients at risk of readmission to hospital: development of algorithm to identify high risk patients. BMJ 333: 327.
6. ***Grimmer, K., Moss, J., Falco, J., (2006):*** Kindness, H. Incorporating Patient and carer Concerns in Discharge Plans: The Development of a Practical Patient-Centred Checklist. The Internet Journal of Allied Health Sciences and Practice. Volume 4, No. 1. http://ijahsp.nova.edu
7. ***Holland DE, Harris MR, Leibson CL, Pankratz, VS, and Krichbaum, KE (2006):*** Development and validation of a screen for specialized discharge planning services. Nurs Res. Jan – Feb:55(1):62-71.
8. ***O'Leary, K. J., Liebovitz, D.M., Feinglass, J, Liss, D. T. and Baker, D. B. (2006):*** Outpatient physicians' satisfaction with discharge summaries and perceived need for an electronic discharge summary, Journal of Hospital Medicine, volume 1, issue 5, page 317-320
9. ***Watts R., Pierson J., and Gardner, H. (2006):*** Critical care nurses' beliefs about the discharge planning process: a questionnaire survey. Int J nurs stud. March; 43(3):269-79.
10. ***Chuang KY, Wu SC, Ma AH, Chen YH, Wu CL. (2005):*** Identifying factors associated with hospital readmissions among stroke patients in Taipei. J Nurs Res. 13(2):117-28.
11. ***Huang TT, liang Sh, (2005):*** A randomized clinical trial of the effectiveness of a discharge planning intervention in hospitalized elders with hip fracture due to falling. J. Clin Nurs. 14(10):1193-201.

12. ***Koelling, TM, Johnson, ML, Cody, RJ, Aaronson KD (2005):*** Discharge education improves clinical outcomes in patients with chronic heart failure, Circulation. Jan 18;111(2):179-85.
13. ***Watts R., Pierson J., and Gardner, H. (2005*)*:*** How do critical care nurses define the discharge planning process? Intensive Crit Care Nurs. Feb; 21(1):39-46.
14. ***Shepped S, Parkes J, McClaren j, Phillips C. (2004):*** Discharge planning from hospital to home. Cohort Data System review. (1):CD000313.
15. ***Walraven, C. V., Mamdani, M., Pharmd,MA, Fang,J. & Austin P.C. (2004):*** Continuity of Care and Patient Outcomes after Hospital Discharge. J Gen Intern Med. 19(6): 624–645.
16. ***Han,C., Connolly,P.m. and Canham,D.(2003):*** Measuring Patient Satisfaction as an Outcome of Nursing Care at a Teaching Hospital of Southern Taiwan. Journal of Nursing Care Quality. April/May/June, 18(2):143-150
17. ***Huber DL, McClelland E. (2003):*** Patient preferences and discharge planning transitions. J Prof Nurs.;19(4):204-10.
18. ***Pateman B, Wilson K, McHugh G, Luker KA. (2003):*** Continuing care after cancer treatment. J Adv Nurs. 44(2):192-9.
19. ***Parker,S.C., Peet, S.M. McPherson, A., Cannaby, A.M., Abrams, K., Baker,R., Lindesay, J. Parker, C. Jones, DR. (2002):*** A Systematic review of discharge arrangements for older people. Health Technology Assessment; 6:1-183. http://www.ncchta.org
20. ***Spath, P. (2002*)*:*** Improve your discharge planning effectiveness. Hospital Peer Review, 27(6), 84-87.
21. ***Levine,C. and Crossings, R., (1998):*** Family Caregivers' Odysseys through Health System. United Hospital Fund of New York City, P.35

تطبيق أداة خطة الخروج :تأثيرها فى مختلف الأماكن للعناية الحادة وكذلك رضاء المريض

مقدمة:
إن خطة الخروج هى العملية التى من خلالها نتعرف على احتياجات المرضى ثم نكتب الخطة التى تسهل استمرارية العناية التمريضية من بيئة الى أخرى. خطة الخروج تساعد و تجهز المرضى الى ترك المستشفى بأمان. ان التطوير و المحافظة على معلومات الممرضات تجاة خطة الخروج وتطبيقهم لها يعتبر من التحديات.

الهدف من البحث
تم عمل هذا البحث لكى نفحص قدرة الممرضات على تطوير و استخدام أداة خطة الخروج عمليا من أجل تحقيق جودة العناية التمريضية و اشباع المرضى.
أماكن البحث: أماكن العناية الحادة " العناية المركزة، وحدة الحروق، و الوحدات العامة فى المستشفي الجامعى فى جامعة المنوفية.
عينة البحث: مكونة من ٩٠ مريض من الأماكن السابق ذكرها و أيضا جميع الممرضات فى نفس الأماكن.

أدوات البحث:
١. استبيان معلومات للممرضات (قبلى- بعدى) لتقييم معلوماتهن تجاة أداة خطة الخروج
٢. قائمة ملاحظات (قبلى-بعدى) لتقييم مهارات الممرضات تجاة أداة خطة الخروج مع مرضاهن.
٣. قائمة تدقيق لمهارات الممرضات عن خطة الخروج
٤. إشباع المرضى لتحديد درجة اشباع المرضى لمهارات الممرضات تجاة أداة خطة الخروج.

نتائج البحث:
تحسن ملحوظ فى معلومات و مهارات الممرضات و أيضا اشباع المرضى تجاة العناية المقدمة لهم. **استنتاجات البحث:** ان نتائج البحث تؤشر الى أن تقديم أداة خطة الخروج التى تم تصميمها بعد دخول المريض المستشفى و تم تقييمها بدقة قبل خروج المريض من المستشفى تحسن معلومات و مهارات الممرضات و أيضا اشباع المرضى.

توصيات البحث:
١. تعليم الممرضات لمكونات أداة خطة الخروج لزيادة معلوماتهن و مهاراتهن.
٢. استخدام أداة خطة الخروج كروتين للعناية التمريضية لجميع المرضى فى مختلف الأقسام و خاصا مرضى الحالات الحرجة فى المستشفى يمكن أن يسهل عملية الانتقال من أماكن العناية الحادة الى البيت، و تؤكد أن المريض يصبح فى أحسن حال و يمنع اعادة دخوله للمستشفى مرة أخرى.

Disease Consciousness and Coping Strategies among Chronic Mentally Ill Patients

Hanem A. Abd El Khalek (B.Sc.N. Zagazig University), Dr. Zeinab A. Osman, Professor of Psychiatric Nursing Faculty of Nursing, Cairo University, Dr. Yosr M. Elmasri and Dr. Hanaa H. Aly, Lecturers of Psychiatric Nursing Faculty of Nursing, Zagazig University

Abstract

Individuals with a diagnosis of schizophrenia have to cope on a daily basis with the stress generated by their symptoms, but there are few studies accounting of these techniques in professional literature. Therefore, this study aimed at assessing and categorizing the types of coping strategies among the long term mentally ill patients, and assessing the association between clinical symptoms and overall coping ability, particularly the differential role of insight and positive and negative symptoms. A descriptive exploratory design was utilized in this study. The study was conducted in the Out-patient Clinic of El-Abassia Mental Hospital. A sample of convenience of 150 chronic schizophrenic patients. Five tools were used for data collection, socio-demographic/ medical data sheet, and the scale for the assessment of positive symptoms, the scale for the assessment of negative symptoms, coping strategies scale, and unawareness of mental disorder in psychosis scale. Findings of this study indicated that, disease consciousness is negatively correlated with number of hospital admission and positive symptoms except hallucination and delusion. Coping strategies reported by patients are positively correlated with negative symptoms. Schizophrenic patients are not passive victims of their illness; they try to cope with psychotic experiences in individually different ways. Schizophrenic patients could be encouraged to learn new coping methods and refine old ones. The psychiatric nurse must have a role in the community to help schizophrenic patients to cope well with own stresses.

Key words: schizophrenia- disease consciousness- coping strategies- positive symptoms- negative symptoms- stress- insight.

Introduction

Schizophrenia is one of the chronic mental illnesses that affect approximately one percent of the population. Schizophrenia seriously interferes with people's ability to interpret reality and the world around them. It interferes with their ability to communicate with others and form relationships, to work or go to school, enjoy relationship with others, to

perform simple tasks or follow simple instructions, and to care for their basic needs ***(Varcarolis, 1998).***

Effective interventions aimed at relapse prevention and increased functioning have the potential to significantly reduce the economic and emotional burden of this highly debilitating disorder ***(Kennedy, Schepp, and O'conner, 2000).*** There is mounting evidence that individuals with schizophrenia have the ability to recognize personal symptoms or changes associated with relapse **(Baker, 1995).** This is significant because early intervention and treatment are dependent on the ability of individuals with schizophrenia to recognize indicators of relapse. However, the ability to recognize symptoms associated with relapse may be dependent on the presence of insight, a term commonly used in psychiatry to describe awareness of one's disorder. Poor insight has long been identified as a prevalent feature of schizophrenia and often associated with greater frequency and severity of relapse **(*Baier, Murray, & McSweeney, 1998).***

Coping is an action directed at resolution or mitigation of a problematic situation. ***Lazarus and Folkman (1984)*** defined coping as the person's cognitive and behavioral efforts to manage internal and external demands on the person, which appraised as taxing or exceeding the person's resources. Persons with schizophrenia often report chronic difficulty coping effectively with both major and minor stresses **(*Mueser, Valentiner, & Agresta, 1997).*** They may possess a relatively limited repertoire of coping strategies and tend to avoid rather than actively attempt to solve problems ***(Rollins, Bond, & Lysaker, 1999).*** As a matter of coping style they thus may spend relatively little time thinking or talking about how to resolve a dilemma, and/or be less likely to actively and constructively respond to the stressor. Beyond being intuitively a matter of concern, maladaptive coping patterns in schizophrenia are of large importance because they have been linked to symptom exacerbation and failure to sustain community tenure ***(Meyer, 2001).***

Patients with schizophrenia often have difficulty identifying their symptoms of illness and recognizing the presence of a mental disorder ***(Amador, Flaum, Andreasen, et al., 1994).*** This lack of insight into their illness interferes with the relationship between patients and their treating clinicians and reduces patients' willingness to follow through with recommended treatments ***(McEvoy et al., 1989).***

Cuesta and Peralta (1994) indicated that various aspects of poor insight are more common in schizophrenia than in other psychotic disorders, and are associated with poorer medication compliance, poorer

treatment outcome, more admissions, greater impairments in psychosocial functioning, reduced success rates in outpatient treatment of relapses, and possibly heightened sucidility. Only limited data are available on insight into illness among patients with schizophrenia. Furthermore, almost all previously published data are derived from studies of patients assessed during inpatient hospitalization. ***(Dickerson, Boronow, Ringel, & Parente, 1997).***The study of coping strategies in the mentally ill has become increasingly important. The community care models for the treatment of the long term mentally ill have exposed psychiatric patients to public life to an extent that has not been seen before. This development necessarily requires that the long term mentally ill adapt to and cope with not only primary psychiatric symptoms, but also environmental stressors ***(Middelboe & Mortensen, 1997).*** For a long period of time, the coping and compensatory strategies of patients with schizophrenic psychosis have largely been neglected by psychiatric research **(Schuttler & Dittmann, 1990; Marley, 1998).**

Aim of the Study:

This study aims to:

1. Assess and categorize the types of coping strategies among the long term mentally ill patients.
2. Assess the association between clinical symptoms and overall coping ability, particularly the differential role of insight and positive and negative symptoms.

Subjects and Methods

Research Design

A descriptive exploratory design was utilized in this study.

Setting

This study was conducted at El-Abassia Governmental Hospital for Mental Health.

Sample

A sample of convenience, 150 chronic schizophrenic patients were recruited from the outpatient clinic at El-Abassia Governmental Hospital for Mental Health. The subjects met the following criteria: a) both genders; b) age ranged between 25 to 50 years old; c) chronic schizophrenic patients, met the Diagnostic Statistical Manual, fourth edition revised (DSM IV R) criteria for diagnosis; d) duration of illness at least 3 years to ensure having sufficient experience of their illness, and not acutely disorganized but in remission or chronic residual stage and

considered capable of tolerating 30-45 minutes interview. Patients with cognitive impairment, organic brain syndrome, or mental handicap were excluded from the study.

Tools for data collection

A- Socio-Demographic/Medical Data Sheet

This sheet was designed for collection of personal data such as patient's name, age, and gender, level of education, marital status, occupation, and residence. It also included clinical data about diagnosis, duration of illness, age at onset of the disease, and number of hospital admission.

B- The Scale for the Assessment of Positive Symptoms (SAPS)

This scale was constructed by ***Andreasen (1984)*** to evaluate the positive symptoms of schizophrenic patients and consisted of (34) items that evaluate positive symptoms through (5) subscales, namely: hallucinations (6 items); delusions (12 items); bizarre behavior (4 items); positive formal thought disorder (8 items); and inappropriate affect (1 item). The scale was modified for the current study by omitting 4 items (global rating of hallucinations, global rating of delusions, global rating of bizarre behavior, and global rating of positive formal thought disorder).

The reliability correlation for SAPS items had been reported as r= 0.88. The items of this scale were rated on 6-point Likert scale ranging from none (1) to severe (6). A higher score means greater severity of symptoms.

N.B.: infrequent was used to replace questionable, mild, and moderate. While frequent was utilized for marked and severe

C- The Scale for the Assessment of Negative Symptoms (SANS)

This scale was also constructed by ***Andreasen, (1983)*** to evaluate the negative symptoms of schizophrenic patients. The scale included (24) items grouped into 5 subscales namely: affective flattening (6 items); Alogia (4 items); avolition- apathy (3 items); anhedonia-asociality (4 items); and social inattentiveness (1 item). The scale was modified for current study by omitting 6 items (global rating of affective flattening, global rating of Alogia, global rating of avolition-apathy, global rating of Anhedonia-asociality, inattentiveness during mental status testing, and global rating of attention)

These five separated global ratings were summated for a total score for negative symptoms. The scale is a six-point Likert scale with response options of none (1), questionable (2), mild (3), moderate (4), marked (5), and severe (6). A higher scorer means greater severity of

symptoms. The reliability and validity of this scale were tested by ***Raslan (2000)*** to assess the negative symptoms in a sample of Egyptian schizophrenic patients.

N.B.: infrequent was used to replace questionable, mild, and moderate. While frequent was utilized for marked and severe

D- The Coping Strategies Scale

This scale was constructed by ***Bak et al., (2001).*** It is used to assess patients' coping strategies with psychotic symptoms. The scale consisted of five subscales namely: active problem solving (14 items); passive illness behavior (9 items); active problem avoiding (6 items); passive problem avoiding (3 items); symptomatic behavior (3 items).

The scale items were rated in five-point Likert scale with response options of never (1), sometimes (2), usually (3), most times (4), and always (5). A high score means greater use of that particular coping strategy.

N.B.: infrequent was used to replace sometimes and usually. While frequent was utilized for most times and always.

E- Unawareness of Mental Disorder in Psychosis Scale

It was developed by ***Amador and colleagues (1993)*** and used to evaluate various aspects of insight into illness. Illness awareness (the recognition of being mentally ill) was measured by means of a two items subscale (being ill, and being mentally ill) of the schedule for assessment of insight. Also, compliance with treatment was measured by means of 2 items subscale (accepting medication, and taking medication unprompted). Each item was scored on a 3- point Likert scale, never (1), sometimes (2), and often (3). The scale was modified for current study, by adding 4 items (awareness of achieved effects of medication, awareness of social consequences of mental disorder, awareness of disorganized communication, and explanation of patient's experience) to enhance the previously mentioned scale. Each item was scored on a 4-point Likert scale, can not be assessed (1), unaware (2), unsure (3), and aware (4). Another modification was done to the same scale to add a supplementary question item (how do you feel when people don't believe you when you talk about delusions or hallucinations). This item was scored on a 5-point Likert scale, from "they are lying" (1) to "that's when I know I'm sick" (5). These items which were added to ***Amador's*** insight scale were developed by ***David, (1990).***

N.B.: infrequent was used to replace sometimes. While frequent was utilized for often.

Procedure

1- Based on review of literature, the researcher prepared an interview questionnaire sheet which covers all items related to demographic and clinical data, positive symptoms, negative symptoms, coping strategies, and unawareness of mental disorder in schizophrenic patients.

2- A pilot study was carried out before performing the actual study. The sample of the pilot study included (10) patients from El-Abasia Mental Hospital and were excluded from the actual study. The pilot study was done to test the study tools in terms of clarity, and time required to be applied. Simple necessary modifications were done as revealed from a pilot study by omission and remodification of certain items.

3- Once permission was granted to proceed with the study, the researcher contacted each patient individually. At that time, the purpose and nature of the study were explained. Voluntary participation and confidentiality were ensured. The questionnaires were read, explained, and the choices were recorded by researcher for all patients who were willing to participate in the study. The time consumed to answer the questionnaire sheet ranged from 30 to 45 minutes. For more validation of information, patients' files were revised to help in verification of the obtained information. Data collection lasted for four months starting from February to May 2004.

Result of study:

Majority of the sample 82% (123) were between ages 25 to less than 45 years old. As regards marital status, more than half of the sample 56.7% (85) was single, 30% (45) were married, and 13.3% (20) were either widowed or divorced.

Regarding patients' diagnoses (86%, 129) were residual schizophrenia. Duration of illness, for more than half of the sample (50.7%, 76) it was 3-10 years, while for 40% (60) it was 11-20 years, and for 9.3% (14) it was more than 20 years. As regards age at onset of the disease, more than half of the sample (57.3%, 86) were from 20 to less than 30 years, 21.4% (32) were from 30 to less than 40 years, and 21.3 % (32) were either from 40 to less than 50 years or less than 20 years (2.7% & 18.7% respectively).

More than third of the sample (36.0%) were frequently accepting help from mental health professionals. Regarding passive problem avoiding and symptomatic behavior coping strategies, more than third of

the patients were frequently avoiding social contact (34.7%) and more than two fifths of them frequently preferred isolation (44.0%).

Concerning passive illness behavior; one third of the studied sample (33.3%) were frequently taking prescribed medication. Regarding active problem avoidance more than half of the sample (58.7%) had frequent eating or smoking.

The total positive symptoms, negative symptoms, coping strategies, and disease consciousness were not correlated significantly with duration of illness. However, total negative symptoms are highly positively correlated with age at onset of the disease and statistically significantly correlated with age. On the other hand, total disease consciousness is negatively correlated with number of hospital admission. However, total positive symptoms and total coping strategies didn't correlate with age at onset of the disease, age of patients, and number of hospital admission.

The total coping strategies were statistically highly correlated with sum of hallucinations only at (P=0.004). However, total coping strategies didn't correlate significantly with the other positive symptoms (P>0.05).

The total coping strategies were highly correlated significantly with sum of alogia (P=.000), and correlated with sum of avolition-apathy (P=0.01), and total negative symptoms (P=.01). However, total coping strategies didn't correlate significantly with affective flattening, anhedonia-asociality, and social inattentiveness (P>0.05).

There are highly statistically inverse correlation between total disease consciousness and positive symptoms (P<0.01) except for sum of hallucinations and delusions which were not statistically significantly correlated (P>0.05).

There is an inverse correlation between total disease consciousness and sum of affective flattening (P=0.03). However, total disease consciousness didn't correlate significantly with sum of alogia, avolition-apathy, anhedonia-asociality, social inattentiveness, and total negative symptoms (P>0.05).

There is a statistically significant correlation between total disease consciousness and sum of passive illness behaviors (P=0.01). Results also revealed that, there is no a statistically significant correlation among total mean score of disease consciousness and sum of active problem solving, active problem avoiding, passive problem avoiding, symptomatic behavior, and total coping strategies were (r=0.15, -0.07, -0.13, 0.03, and 0.13 at P=0.06, 0.36, 0.1, 0.69, & 0.11) respectively.

Discussion:

The current study demonstrated that, the highest percentage was found in the age between 25 to less than 45 years old. This indicates that schizophrenia typically begins in late adolescence or early adulthood. Thus, the age of schizophrenic patients was mostly young. This was supported by ***Boyd (1994),*** who claimed that schizophrenia develops early in life because of various stressors, such as poor mother-child relationships, and deeply disturbed family interpersonal relationships.

The results revealed that majority of the schizophrenic patients were male. This indicated that gender has a strong influence on the age distribution at onset. Among female there was a delayed increase in incidence of schizophrenia in adolescence and a lower peak of onset beyond the age of 45 years. This finding is in agreement with the majority of epidemiologic studies of schizophrenia that revealed that the incidence to be somewhat higher in men than in women ***(Susser&Wanderling, 1994; Leung&Chue, 2000).***

More than two fifths of the sample of patients achieved moderate education while only more than one tenth achieved higher education. This may be due to early age at onset of the disease in which patients were unable to complete their education. This result agreed with ***Varcarolis (1994),*** who pointed out that persons with schizophrenia may complain of difficulty with concentration and with the ability to complete school work. ***Adel Latif (1993)*** reported that education affects all areas of person's life, and the level of education might enhance the degree of adjustment and coping in every day life. Education did not influence the level of insight.

Concerning active problem solving coping methods, the most common type used by schizophrenic patients in this study was accepting help from mental health professionals. These results can be interpreted as the sample was selected from those attending to the outpatient clinic and majority of them were had residual schizophrenics and were used to accept help from health professionals.

These results are consistent with ***Singh, Sharan, and Kulhara (2002)*** who found that the majority of schizophrenic patients reported using the coping strategy of seeking medical help to manage auditory hallucinations. Also, ***Kumar, Thara, and Rist (1994),*** found that this was the commonst strategy employed by patients to manage schizophrenic symptoms in general.

In contrary ***Osman (2003)*** found that, the least coping strategy reported by patients was help seeking. This reflected not so much that such

strategy was not useful, but that those patients actually had few opportunities receiving this kind of professionals help. Drug treatment is still the preferred mode of intervention for schizophrenic patients. A time constraints as well as the pessimistic outlook of many professionals regarding the treatment of schizophrenics have contributed to paucity of such help.

Regarding passive problem avoiding, the most common coping strategy used by schizophrenic patients in the current study was avoiding social contact. This might be due to social stigma and feeling of patients with rejection from other people. The finding with regard to social diversion suggests that social withdrawal associated with symptoms has negative effect on the use of increased socialization as a coping strategy.

In the same line, ***Boschi et al. (2000)*** stated that, persons with schizophrenia often have poor social skills. Schizophrenic patients are often excluded from others. Thus, they see themselves as ineffective and helpless.

Concerning disease consciousness, the results of the current study indicated that, the highest mean scores were for awareness of achieved effect of medication followed by awareness of social consequences of mental disorder and the lowest mean score was for acceptance of medication. These results can be referred to the side effects of medication and cost the patients can't offered so they didn't accept it, Inspite of their awareness of achieved effect of medication and social consequences of mental disorder.

These results are consistent with ***Torrey (1995),*** who concluded that a major obstacle to the person's participation in rehabilitation is a refusal to take medication, possibly related to lack of insight, denial of illness, presence of delusions, participation in risk-taking behavior, side effects of the medications, or a poor relationship with mental health professionals. ***Shaheen (1997)*** identified that although many schizophrenic patients state that they are not ill and don't need to take medication for treatment, yet, they take medication offered to them.

In contrary, ***Amador, et al. (1994)*** found that medication compliance was not related to whether a patient acknowledges having a mental illness or diagnosis of schizophrenia, but rather to the patient's ability to recognize clinical symptoms. Patients who have difficulty recognizing their own symptoms may be less aware of their ongoing need and maintenance treatment and therefore were less appreciative of the benefits of antipsychotic medications.

The findings of the current study have also revealed that there were highly statistically significant inverse correlation between total disease consciousness and positive symptoms of schizophrenia except for hallucinations and delusions.

These results are consistent with ***Amador et al. (1994),*** who reported that negative correlation was found between disease consciousness and symptoms of positive formal thought disorder but not with delusions. A positive formal thought disorder includes loose association, tangentially, incoherence, illogicality, circumstantialities, pressure of speech, and clang association. Because insight seems to be closely related to the inability to communicate clearly, when people with schizophrenia appear to have poor insight, it may be difficult to determine whether this is because they are unable to truly express their level of insight due to thought disorder or because the lack of insight is related to the acute psychosis severity.

Regarding negative symptoms, there was only an inverse significant correlation between insight and flattening affect in negative symptoms. This means that patients, who have flattening affect symptoms, have poor insight with their illness.

These results are consistent with ***Elmaadawy (1997),*** who found that negative symptoms were not significantly correlated with any of Scale to Assess Unawareness of Mental Disorder (SUMD) scores. They added that, this clinical impression needs further research as this would be investigated better on more longitudinal studies during remissions, putting in consideration other variables as type of treatment, duration of illness as well as diagnosis in first place. However,

The results of the current study revealed that total disease consciousness had a statistically significant correlation with passive illness behavior coping strategy. Results also, revealed that there is no statistically significant correlation between total mean score of disease consciousness and active problem solving, active problem avoiding, passive problem avoiding, symptomatic behavior, and total coping strategies. This means that patients with good insight used coping strategy like taking prescribed medication as a subitem under passive illness behavior.

Contrary to the current study**, *Lysaker et al. (2003)*** found that unawareness in schizophrenia is associated with coping style.Participants unaware of their symptoms showed a greater preference for positive reappraisal than partially unaware or aware participants. They added that participants unaware of the consequences of their disorder also endorsed

a greater preference for escape-avoidance as a coping style than partially unaware participants. Differences in methodology and sample characteristics could have been responsible for the discrepancy in the results.

Conclusion

- Assessing baseline coping skills and disease consciousness are pivotal for schizophrenic patients to understand and deal with psycho educational and psychosocial demands.
- Positive and negative symptoms of schizophrenia have adverse effect on insight which inturn hinder the patient's coping ability.
- Lack of insight among schizophrenic patients lead to recurrent hospitalization which in-turn hinder the coping ability with their illness.
- Patients who have lack of insight usually used passive illness behavior coping strategy to face stressors resulting from their symptoms.

Recommendations

- In addition to pharmacotherapy, the patient should then be encouraged to use and develop his/her own strategies for coping and compensatory with the psychotic experiences that appear.
- Patients could be encouraged to learn new coping methods and refine their old one.
- Future studies must address the association between psychosocial functioning and coping strategies in various mental illnesses.
- Additional study on the lack of insight among outpatients with schizophrenia and its relationship with treatment compliance would likely provide valuable contributions to the management of these patients in community care.

Table (1): Distribution of the sample according to Demographic characteristics of studied subjects (n=150)

Items	No	%
Age of the patients		
25-	61	40.7
35-	62	41.3
45-50 years	27	18.0
X ± SD	37.1 ± 7.96	
Range	25-50	
Gender		
Male	133	88.7
Female	17	11.3
Residence		
Urban	115	76.7
Rural	35	23.3
Marital status		
Single	85	56.7
Married	45	30.0
Divorced	17	11.3
Widowed	3	2.0
Education		
Illiterate	23	15.3
Read and write	41	27.3
Moderate education	64	42.7
High education	22	14.7
Occupation		
Not working	53	35.3
Housewife	13	8.7
Worker	63	42.0
Employee	21	14.0

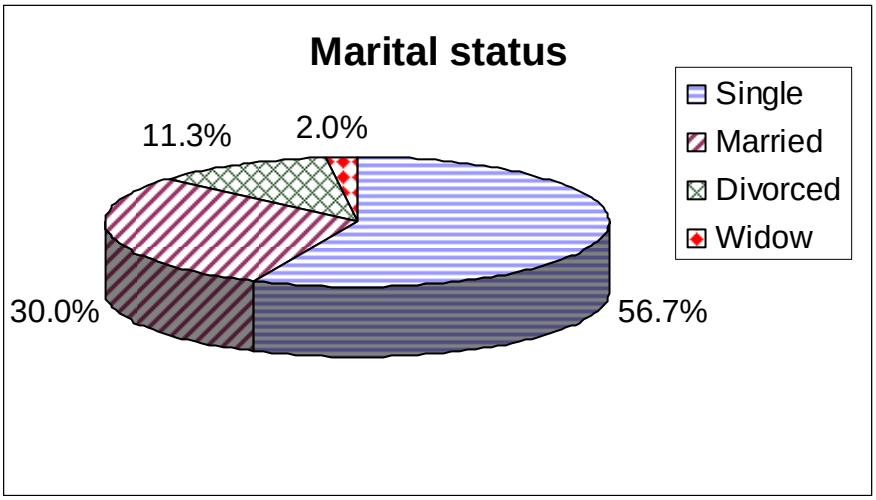


Figure (1): Marital status of the study group.

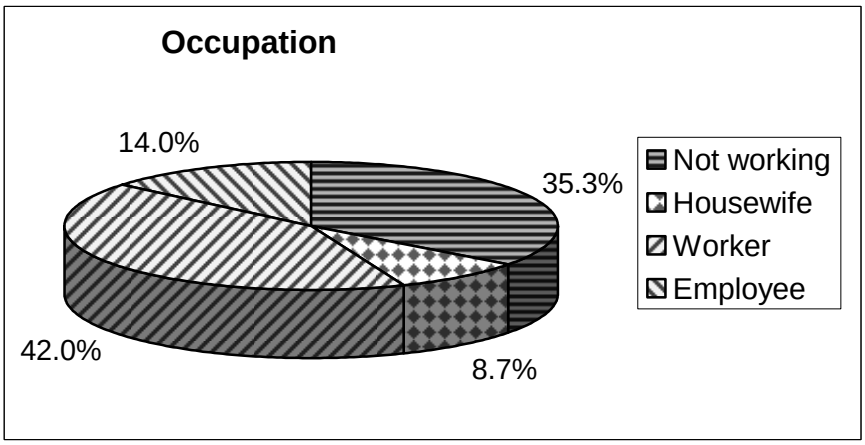


Figure (2): Occupation of the study group.

Table (2): Distribution of the sample according to clinical characteristics of studied subjects (n= 150).

Items	No	%
Diagnosis		
Paranoid schizophrenia	8	5.3
Disorganized schizophrenia	6	4.0
Catatonic schizophrenia	0	0.0
Undifferentiated schizophrenia	7	4.7
Residual schizophrenia	129	86.0
Age at onset of the disease(years):		
>20 years	28	18.7
20 - < 30	86	57.3
30 - < 40	32	21.3
40 - < 50	4	2.7
Number of hospital admission		
0-5	123	82.0
6-10	19	12.7
< 10	8	5.3
X ± SD	3.23 ±3.64	
Range	0-18	
Duration of illness by years		
3-10	76	50.7
11-20	60	40.0
<20	14	9.3
X ± SD	12.1 ± 6.7	
Range	3-34	

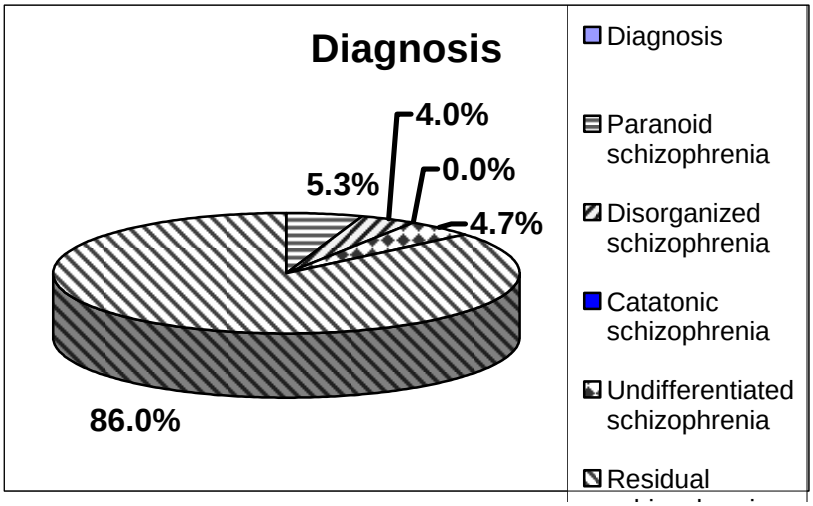


Figure (3): Diagnosis of the study group.

Table (3a): Distribution of the sample according to active problem solving, passive problem avoiding, and symptomatic behavior coping strategies.

Items		Absent		Infrequent		Frequent	
		No	%	No	%	No	%
Active problem solving							
1.	Listening to music or radio	65	43.3	61	40.7	24	16.0
2.	Watching TV	61	40.7	71	47.3	18	12.0
3.	Playing games	141	94.0	7	4.7	2	1.3
4.	Reading a book	137	91.3	9	6.0	4	2.7
5.	Dancing	147	98.0	2	1.3	1	0.7
6.	Walking	54	36.0	61	40.7	35	23.3
7.	Taking part in sports or other physical activities	139	92.6	10	6.7	1	0.7
8.	Dismissing distressing thoughts	69	46.0	36	24.0	45	30.0
9.	Decreasing the problem originating from distressing feelings	96	64.0	26	17.3	28	18.7
10.	Writing or artistic activities	148	98.6	1	0.7	1	0.7
11.	Reality testing experiments	79	52.7	61	40.6	10	6.7
12.	Accepting help from mental health professionals	61	40.7	35	23.3	54	36.0
13.	Looking for advice & informal help	40	26.6	70	46.7	40	26.7
14.	Calling doctor	102	68.0	21	14.0	27	18.0

Table (3b): Distribution of the sample according to active problem solving, passive problem avoiding, and symptomatic behavior coping strategies (cont.).

Items	Absent		Infrequent		Frequent	
	No	%	No	%	No	%
Passive problem avoiding						
1-Avoiding social contact	36	24.0	62	41.3	52	34.7
2-Non specific activities	109	72.6	37	24.7	4	2.7
3-Suppression	76	50.7	46	30.6	28	18.7
Symptomatic behavior						
1-Following the symptoms	89	59.3	43	28.7	18	12.0
2-Isolation	35	23.3	49	32.7	66	44.0
3-Aggressive behavior	92	61.3	51	34.0	7	4.7

Table (4): Distribution of the sample according to passive illness behavior and active problem avoiding coping strategies.

Items	Absent		Infrequent		Frequent	
	No	%	No	%	No	%
Passive illness behavior						
1- Prescribed medication	71	47.3	29	19.3	50	33.4
2- Non prescribed substances	123	82.0	19	12.7	8	5.3
3-Lying in bed& doing nothing else	85	56.7	48	32.0	17	11.3
4- Moving in shifting positions in chair or bed	125	83.3	24	16.0	1	0.7
5- Being in bed or chair without any movement	136	90.6	13	8.7	1	0.7
6- Believing in fate	47	31.3	66	44.0	37	24.7
7- Giving/saying in prayer & relies in God	54	36.0	72	48.0	24	16.0
8- Surrenders to the situation as it is doomed by God	53	35.3	60	40.0	37	24.7
9- Surrenders to the situation as it is hopeless	105	70.0	19	12.7	26	17.3
Active problem avoiding						
1- Shiffted attention	90	60.0	44	29.3	16	10.7
2- Socialization	87	58.0	53	35.3	10	6.7
3- Task performance	132	88.0	15	10.0	3	2.0
4- Eating or smoking	36	24.0	26	17.3	88	58.7
5- Getting a new hairdo	141	94.0	9	6.0	0	0.0
6- Buying oneself a present	142	94.7	8	5.3	0	0.0

Table (5a): Distribution of the sample according to disease consciousness.

Items	Absent		Infrequent		Frequent	
	No	%	No	%	No	%
1- Acceptance of medication	12	8.0	48	32.0	90	60.0
2-Taking medication unprompted	24	16.0	26	17.3	88	58.7
3-Thinking in the presence of Illness	23	15.4	50	33.3	77	51.3
4-Thinking in the presence of Mental illness	38	25.3	18	12.0	71	47.3
5-Believing about the reality of hallucination or delusions	101	67.3	22	14.7	27	18.0

Table (5b): Distribution of the sample according to disease consciousness.

Items	No	%
6-Explaining hallucinations or delusions by patient:		
- Part of his/her illness	37	24.7
- Reaction to outside events as stress	6	4.0
- Attribution to outside forces	6	4.0
7- How the patient feels when people don't believe him/her		
when talking about delusions or hallucination:	21	14.0
- They are lying	74	49.3
- Patient still sure what others say	23	15.3
- Patient confused and don't know what to think	5	3.3
- Patient wonder whether something wrong with him	27	18.0
- That's when patient know he is sick		
8- Awareness of achieved effect of medication:		
- Can't be assessed	0	0.0
- Aware	86	57.3
- Unsure	25	16.7
- Unaware	39	26.0
9- Awareness of social consequences of mental disorder:	4	2.7
- Can't be assessed	69	46.0
- Aware	38	25.3
- Unsure	39	26.0
- Unaware		
10-Subject's awareness about his disorganized communications :		
- Can't be assessed	7	4.7
- Aware	36	24
- Unsure	38	25.3
- Unaware	69	46.0
11- How the subjects explain disease experiences:		
- Can't be assessed	3	2.0
- Correct	62	41.3
- Partial	18	12.0
- Incorrect	67	44.7

Table (6): Correlation between duration of illness, age at onset of the disease, age, and number of hospital admission and total positive symptoms, negative symptoms, coping strategies, and disease consciousness.

Items	Duration of illness		Age at onset of the disease		Age of the patients		No of hospital admission	
	r	p	r	P	R	p	r	P
Total positive symptoms	0.04	0.6	-0.06	0.4	0.07	0.4	0.07	0.4
Total negative symptoms	0.02	0.8	0.22	0.006**	0.2	0.01*	-0.07	0.4
Total coping strategies	0.05	0.6	-0.002	0.98	0.07	0.42	-0.04	0.63
Total disease consciousness	-0.06	0.43	-0.08	0.28	-0.13	0.11	-0.17	0.04*

(*) Correlation is significant at 0.05 levels

(**) Correlation is highly significant when p<0.01

Table (7): Correlation of coping strategies with different types of positive symptoms.

Positive symptoms	R	P
Sum of hallucinations	0.23	0.004**
Sum of delusions	0.03	0.70
Sum of bizarre behaviors	0.03	0.69
Sum of positive formal thought disorder	- 0.06	0.43
Inappropriate affect	- 0.01	0.85
Total positive symptoms	0.07	0.34

(**)Correlation is highly significant when p<0.01

Table (8): Correlation of coping strategies with different types of negative symptoms.

Negative symptoms	r	P
Sum of affective flattening	0.09	0.23
Sum of alogia	0.29	0.000**
Sum of avolition-apathy	0.20	0.01*
Sum of anhedonia-asociality	0.08	0.30
Social inattentivness	0.09	0.23
Total negative symptoms	0.19	0.01*

(*) Correlation is significant at 0.05 levels

(**) Correlation is highly significant when p<0.01

Table (9): Correlation between total disease consciousness and different types of positive symptoms.

Positive symptoms	R	P
Sum of hallucinations	0.06	0.450
Sum of delusions	- 0.14	0.070
Sum of bizarre behaviors	- 0.21	0.007**
Sum of positive formal thought disorder	- 0.24	0.002**
Inappropriate affect	- 0.21	0.008**
Total positive symptoms	- 0.25	0.002**

(**) Correlation is highly significant when p<0.01

Table (10): Correlation between total disease consciousness and different types of negative symptoms.

Negative symptoms	R	P
Sum of affective flattening	-0.17	0.03*
Sum of alogia	-0.11	0.18
Sum of avolition-apathy	-0.04	0.58
Sum of anhedonia-asociality	-0.03	0.64
Social inattentivness	-0.12	0.12
Total negative symptoms	-0.13	0.08

(*) Correlation is significant at 0.05 levels

Table (11): Correlation between coping strategies and total disease Consciousness.

Coping strategies	R	P
Sum of active problem solving	0.15	0.06
Sum of passive illness behavior	0.19	0.01*
Sum of active problem avoiding	-0.07	0.36
Sum of passive problem avoiding	-0.13	0.10
Sum of symptomatic behavior	0.03	0.69
Total coping strategies	0.13	0.11

(*) Correlation is significant at 0.05 levels

References:

1. ***Lysaker, P. H., Bryson, G. J., Lancaster, R., Evans, J. D & Bell, M. D. (2003):*** Insight in schizophrenia: Association with executive function and coping style. Schizophr Res, 59(1): 41-47.
2. ***Osman, Z.A. (2003):*** Coping styles among schizophrenic outpatients. The Medical Journal of Cairo University, 71(4): 891-900.
3. ***Singh, G., Sharan, P., & Kulhara, P. (2002):*** Coping with hallucinations in schizophrenia: A correlational study. Hong Kong: J Psychiatry, 12(3): 5-11.
4. ***Bak, M., Vanderspil, F., Gunther, N., Radstake, S., Delespaul, P., & VanOs, J. (2001):*** Maastricht assessment of coping strategies (MACS-1): A brief instrument to assess coping with psychotic symptoms. Acta Psychiatr Scand, 103: 453-459.
5. ***Meyer, B. (2001):*** Coping with severe mental illness: relations of the brief cope with symptoms, functioning, and well-being. Journal of Psycho-Pathology and Behavioral Assessment, 23: 265-277.
6. ***Boschi, S., Adams, R.E., Bromet, E.J., Lavelle, J.E., Everett, E., & Galambos, N. (2000):*** Coping with psychotic symptoms in the early phase of schizophrenia. Am. J. Orthopsychiat, 70: 242-252.
7. ***Kennedy, M.G., Schepp, K.G., & O'Conner, F.W. (2000):*** Symptom self-management and relapse in schizophrenia. Archives of Psychiatric Nursing. 14(6): 266-275.
8. ***Leung, A. & Chue, P. (2000):*** Sex differences in schizophrenia, a review of the literature. Acta Psychiatric Scand, 101(401): 4-6.
9. ***Raslan, M.R.A. (2000):*** Assessment of the negative symptoms in a sample of Egyptian schizophrenic patients; association with poor pre morbid social functioning and cognitive impairment. Egyptian Journal of Psychiatry, 23: 9-17.
10. ***Rollins, A.L., Bond, G. R., & Lysaker, P. H. (1999):*** characteristics of coping with the symptoms of schizophrenia. Schizophr Res, 36: 30.
11. ***Baier, M., Murray, R.L.E., & McSweeney, M. (1998):*** Conceptualization and measurement of insight. Archives of Psychiatric Nursing, 12:32-40.
12. ***Marley, J.A. (1998):*** People Matter: Client reported interpersonal interaction and its impact on symptoms of schizophrenia. Soc Work, 43: 437-444.

13. ***Varcarolis, E.M. (1998):*** Foundation of psychiatric mental health nursing. (3rd ed). Philadelphia: W.B. Saunders Company. pp: 227-240.
14. ***Dickerson, F. B., Boronow, J. J., Ringel, N., & Parente, F. (1997):*** Lack of insight among outpatients with schizophrenia. Psychiatric Services, 48(2): 195-199.
15. ***Elmaadawy, T.M.S. (1997):*** Assessment of insight in a sample of Egyptian psychotic patients. Thesis, Ain Shams University Library (unpublished).
16. ***Middelboe, T. & Mortensen, E.L. (1997):*** Coping strategies among the long-term mentally ill: Categorization and clinical determinants. Acta Psychiatrica Scandinavica, 96, 188-194.
17. ***Mueser, K.T., Valentiner, D.P., & Agresta, J. (1997):*** Coping with negative symptoms of schizophrenia: Patient and family perspectives. Schizophr Bull, 23(2): 329-339.
18. ***Shaheen, M.O. (1997):*** Insight dimensions in first episode schizophrenia. Egyptian Journal of Mental Health, 38: 13-29.
19. ***Baker, C. (1995):*** The development of the self care ability to detect early signs of relapse among individuals who have schizophrenia. Archives of Psychiatric Nursing, 9:261-268.
20. ***Torrey, E.F. (1995):*** Surviving schizophrenia. (3rd ed.). New York: Harper and Row.
21. ***Amador, X. F., Flaum, M., Andreasen, N.C. et al. (1994):*** Awareness of illness in schizophrenia, schizoaffective and mood disorders. Arch Gen Psychiatry, 51:826-836.
22. ***Boyd, M. (1994):*** Integration of psychosocial rehabilitation into psychiatric nursing practice. Issues in Mental Health Nursing, 151(1): 20-26.
23. ***Cuesta, M.J. & Peralta, V. (1994):*** Lack of insight: its status within schizophrenic psychopathology. Biol Psychiatry, 36: 559-561.
24. ***Kumar, S., Thara, R., & Rist, F. (1994):*** Coping with symptoms of schizophrenia: A cross-cultural comparison. Indian J Soc Psych, 10: 4-10.
25. ***Susser, E., & Wanderling, J. (1994):*** Epidemiology of non affective acute non remitting psychosis vs schizophrenia. Archive of General Psychiatry, 51: 294-301.

26.*Varcarolis, E.M. (1994):* Foundation of psychiatric mental health nursing. (2nd ed). United States of America: W.B. Saunders Comp. pp. 147-151.

27.*Adel Latif, S. (1993):* Factors influencing length of hospital stay of the psychiatric patients in variety of settings. Unpublished Master Thesis. High Institute of Nursing. Cairo University. p. 124.

28.*Amador, X.F., & Strauss, D.H. (1993):* Poor insight in schizophrenia. Psychiatr Quart, 64:305-318.

29.*Amador, X.F., Strauss, D.H., Yale, S.A., Flaum, M.M., Endicott, J., & Gorman, J.M. (1993):* Assessment of insight in psychosis. American Journal of Psychiatry. 150(6): 873-879.

30.David, A.S. (1990): Insight and psychosis. British Journal of Psychiatry, 161: 599-602.

31.*Schutler, R. & Dittman, J. (1990):* Disease consciousness and coping strategies of patients with schizophrenic psychosis. Acta Psychiatr Scand, 82: 318-322.

32.*McEvoy, J.P., Freter, S., Everett, G., Geller, J.L., Appelbaum, P., Apperson, L.J., Roth, L. (1989):* Insight and the clinical outcome of schizophrenic patients. J of Nerv and Ment Disease, 177: 48-51.

33.*Andreasen, N.C. (1984):* the scale for the assessment of positive symptoms (SAPS). Lowa City. The University of Lowa

34.*Lazarus, R.S., and Folkman, S. (1984):* Stress, appraisal, and coping. New York: Springer-overlag.

35.*Andreasen, N.C. (1983):* The scale for the assessment of negative symptoms (SANS). Lowa City. The University of Lowa

الوعي المرضى وإستراتيجيات التكيف لدى المرضى النفسيين المزمنين

مقدمة:

على الرغم من استعمال العلاج الكيميائى فى علاج المرضى النفسيين لكن ما زالت هناك نسبة كبيرة من المرضى تعانى من الأعراض الذهانية و عدم القدرة على التكيف مع البيئة الخارجية و لكى يستطيع هؤلاء المرضى التكيف مع تلك الأعراض يجب أن يكون المريض مدركا لوجود المرض. وقد أكدت العديد من الدراسات أن طرق التكيف التى يستعملها هؤلاء المرضى يكون لها دورا أساسيا فى تقليل تأثير الضغوط المختلفة الناتجة عن تقدم المرض. وقد أكد فالون و تالبوت (١٩٨١) أن الفهم الجيد للطرق التى يستخدمها المرضى النفسيين للتكيف مع الأعراض الذهانية يمكن أن تساعد فى استخدام طرق علاجية محددة كدعامة للعلاج الكيميائي. وتعتبر دراسة نماذج و استراتيجيات التكيف لهؤلاء المرضى مهمة حيث أن رعاية المجتمع للمرضى النفسيين أصبحت تعرض المرضى للحياة العامة إلى حد كبير أكثر مما سبق و هذا يتطلب قدرة المرضى النفسيين على التكيف ليس فقط مع الأعراض النفسية و لكن أيضا مع الضغوط البيئية التى تواجههم.

الهدف من الدراسـة:

تهدف هذه الدراسة إلى تقييم إستراتيجيات التكيف لدى المرضى النفسيين المزمنين، وتقييم العلاقة بين الأعراض الإكلينيكية و القدرة على التكيف و بخاصة الدور المتميز للوعي المرضى و الأعراض الإيجابية و السلبية.

طريقة البحـث:

تصميم البحث: تصميم البحث وصفى استكشافى

العيـنة البحثية:

أجريت هذه الدراسة على عدد (١٥٠) مريضا يعانون من الفصام و يتابعون العلاج بالعيادة الخارجية، يتراوح أعمار المرضى ما بين ٢٥ و ٥٠ عام، المرضى الذين يعانون من أمراض عضوية بالمخ أو إعاقة عقلية تم استبعادهم من الدراسة.

مكان الدراسة:

أجريت هذه الدراسة لمدة أربعة شهور فى العيادة الخارجية النفسية بمستشفى العباسية للأمراض النفسية بالقاهرة.

أدوات البحـث:

استخدمت الأدوات الآتية لجمع البيانات:

١- استمارة بحث تتضمن المعلومات الديموجرافية و الطبية

٢- مقياس لتقييم الأعراض الإيجابية **(أندريسين، ١٩٨٤)**

٣- مقياس لتقييم الأعراض السلبية **(أندريسين، ١٩٨٣)**

٤- مقياس تقييم استراتيجيات التكيف **(باك و آخرون، ٢٠٠١)**

٥- مقياس عدم إدراك المرض في المرضى النفسيين **(أمادور و آخرون، ١٩٩٣)**

النتائج:

و قد أسفرت نتائج الدراسة عن الأتي:-

- أوضحت نتائج البحث أن مجموع استراتيجيات التكيف يرتبط ارتباطا ايجابيا ذو دلالة إحصائية بالهلاوس فقط ولكنه لا يرتبط بباقي الأعراض الايجابية.

- أكدت نتائج البحث على وجود علاقة طردية ذات دلالة إحصائية بين مجموع استراتيجيات التكيف و قلة الكلام و اضطراب الإرادة و مجموع الأعراض السلبية.
- أظهرت النتائج عن وجود علاقة سلبية قوية ذات دلالة إحصائية بين مجموع الوعي المرضى و كل الأعراض الايجابية فيما عدا الهلاوس و الضلالات.
- بالإشارة إلى العلاقة بين الوعي المرضى و استراتيجيات التكيف، أوضحت نتائج هذا البحث على أنه توجد علاقة طردية ذات دلالة إحصائية بين مجموع الوعي المرضى ومجموع السلوك المرضى السلبي من استراتيجيات التكيف.

الخلاصة:

- الفهم الجيد للطرق التي يستخدمها المريض للتكيف مع أعراض المرض النفسي يمكن أن يساعد على التوجه السليم لطرق علاج مختلفة و الذي بدوره يدعم العلاج.
- إن تقييم استراتيجيات التكيف و الوعي المرضى يكون ضروري لمرضى الفصام لكي يتسنى لهم فهم و كيفية التعامل مع تطلبات التعليم النفسي و النواحي الاجتماعية والنفسية.
- إن ضعف البصيرة لدى المرضى النفسيين يؤدى إلى تكرار دخول المستشفى والذي بدوره يعوق تكيف المريض مع مرضه النفسي.

التوصيات:

- لابد من الانتباه إلى أهمية تعليم المرضى طرق التكيف المختلفة خاصة استخدام استراتيجيات حل المشكلة و مواجهتها مع الضغوط المحيطة بهم و المرض النفسي.
- نوصى بعمل دراسات مستقبلية لتوضيح العلاقة بين الوظائف النفس اجتماعية واستراتيجيات التكيف في الأمراض النفسية المختلفة.
- عمل دراسة إضافية حول ضعف البصيرة في مرضى الفصام المترددين على العيادة الخارجية وعلاقتها بالتزام المرضى على أخذ العلاج الكيميائي قد يعطي إسهامات ذات قيمة عالية لعلاج هؤلاء المرضى في المجتمع.

Psychosocial Problems and Adjustment among Parents of Children with Attention Deficit Hyperactivity Disorders

Shadia F Mohammed B.Sc. Nursing, Dr. Zeinab A Osman Professor of Psychiatric Nursing Faculty of Nursing Cairo University Dr. Youser M Elmasri Lecturer of Psychiatric Nursing

Abstract

Attention Deficit Hyperactivity Disorders (ADHD) is associated with impairment in a number of important domains, including the parent-child relationship. Parents of children with ADHD experience considerable stress, lower parenting self-esteem, and a higher prevalence of depression, marital problems, and divorce. Therefore, this study was conducted to assess psychosocial problems of parents of children with ADHD, and to assess the strategies these parents apply to adjust with these problems .A descriptive exploratory design was utilized in this study. The study conducted at the health insurance outpatient psychiatric clinic, in psychiatric center for children in El-Khalafawi at Cairo. A sample of convenience of 50 parents and their children coming to the above mentioned sitting were recruited for this study. Four tools were used for data collection; child Medical and Developmental Data Sheet, Psychosocial problems of parents Scale, Parental coping strategy Inventory (PCSI) and Attention deficit hyperactivity disorder scale (ADHD). Finding of this study indicated that, parents have high level of uncertainty about the cause of the syndrome. To conclude, parents of children with ADHD are frequently confronted with various kinds of psychosocial problems. These problems include fear, depression, anxiety and social isolation. The study recommended that, counseling clinics for parents of ADHD children are needed to ensure an effective and sensitive response to the needs of ADHD children and their families.

Key words: Attention deficit, Hyperactivity, Impulsivity, Parent psychosocial problems, Adjustment.

Introduction

Attention-deficit hyperactivity disorder (ADHD) is one of the most prevalent chronic health disorders affecting school-age children that is characterized by developmentally inappropriate levels of inattention, impulsivity, and hyperactivity ({DSM-IV}, ***American Psychiatric Association, 1994).*** ADHD is more common among boys than among girls; preadolescents than adolescents; and urban than rural children ***(Lange et al., 2005).***

Attention deficit/hyperactivity disorder (ADHD) may affect all aspects of a child's life. Indeed, it impacts not only on the child, but also on parents and siblings, causing disturbances to family and marital functioning. The adverse effects of ADHD upon children and their families changes from the preschool years to primary school and adolescence, with varying aspects of the disorder being more prominent at different stages. ADHD may persist into adulthood causing disruptions to both professional and personal life. In addition, ADHD has been associated with increased healthcare costs for children and their family members ***(Harpin, 2005).***

Attention-deficit hyperactivity disorder is associated with impairment in a number of important domains, including the parent-child relationship ***(Chronis et al., 2003).*** Parents of children with ADHD are frequently confronted with various kinds of psychosocial and practical problems that sometimes cause high levels of parental distress, these include emotional problems such as fear, depression and worry, reduced satisfaction in their marriage, practical and financial problems related to educational tasks, as well as reduced level of self-esteem and self confidence ***(Vanden Borne et al., 1999).*** Because most children with chronic illness live at home, the burden and responsibility for their care falls upon the family. Some families experience minimal disruption and increased closeness while others experience severe disruption and crisis ***(Tiedje & Darling-Fisher, 1996; Steinglass, 1998; and Cohen, 1999).***
To the extent that research findings suggest that behaviors exhibited by children with ADHD represent significant family stressors and that these stressors are associated with negative outcomes, it seems essential that the nature and extent of ADHD related family stress be considered in the assessment of children with ADHD and in developing comprehensive treatment programs for children with this disorder and their families ***(Johnson and Reader, 2002).***

Nurses are in a key position to detect behavioral disturbance among children in primary health care setting, schools and hospitals. Early detection for cases may enable nurses to provide appropriate care

and intervention to children and their families. The psychiatric nurse going through this task with the family members often helps the family come up with new strategies for coping with an existing problem. This process also provides information to the nurse about how the family handles problems ***(Johnson, 1994).***

Aim of the Study

The aim of this study was to assess psychosocial problems of parents of children with ADHD, and to assess the strategies these parents apply to adjust with these problems.

Subjects and Methods

Research Design

A descriptive exploratory design was utilized in this study.

Setting

The study was conducted at the health insurance outpatient psychiatric clinic; in psychiatric center for children in El-Khalafawi at Cairo .The clinic provides services for school aged children. The teachers send students who have complain of any health problem for outpatients clinics related to schools, and then the child with psychiatric disorder is referred to this outpatient clinic. Services rendered by the outpatient clinic includes, psychiatric examination, psychometric studies, phonetics, social services, psychotherapies, physical, and pharmacological treatments.

Sample

A sample of convenience, 50 parents and their child who has been diagnosed with attention deficit hyperactivity disorders coming to the above mentioned setting were recruited for the study. The subjects met the following criteria: (a) both sex , (b) age ranged from 8-16 years old , (c) attention deficit hyperactivity disorders children , met the Diagnostic Statistical Manual , Fourth edition revised (DSM - IV) criteria for diagnosis. Children with chronic medical illness were excluded from the study. Eligibility criteria for the parents, who participated in the study, were a parent and other relatives of ADHD child, with major responsibilities for that person. Their age at least 20 years old and engaging in frequent support and monitoring for their ill child.

Tools for data collection

Data were collected over a period from October 2004 to March 2005 by using child's Medical and Developmental Data Sheet , Psychosocial problems scale for parent ,Parental Coping Strategy Inventory and Attention Deficit Hyperactivity Disorder Scale (ADHD) .

1. Child's Medical and Developmental Data Sheet :

It was developed by ***Hussein (2003)*** to assess developmental, medical, psychological and family history of child with ADHD. It includes 36 items divided into two parts:

The first part: Used to assess Sociodemographic characteristic for both children and their families:

A- For child: it includes personal data e.g. age, gender, school grade, residence and birth order.

B- For family member: it includes, education, job, family size, number of siblings and sisters, family income and family history of psychosis and ADHD.

The second part: Child's medical and developmental history. It was used to assess child's past medical history e.g. , past history of gastroenteritis, tonsillitis , measles , typhoid , etc…, developmental history e.g., sitting , standing , walking etc…, psychological history, e.g., preschool personality & role of parents in child rearing and characteristics of child's pregnancy and labor , e.g., wanted child , feeding & weaning and normal or cesarean labor.

The family member accompanying each child was asked to respond either by "Yes" or "No" to some questions and to select from answers that describe the problem for other questions.

2. Psychosocial Problems Scale for Parent :

This scale was constructed by ***Pruyn, (1983)*** to evaluate psychosocial problems of parents with ADHD children. It consisted of 5 subscales, namely: a) Uncertainty to illness (19 items) divided into two dimensions (1) uncertainty about prospect of disease and treatment (11items), (2) uncertainty about access to help and about how to solve problems (8 items). b) Negative feelings (15items) divided into two dimension (1) fear for negative consequences for the child (4 items), (2) fear for negative consequences for themselves (the parent), and (10 items) c) Loss of control (12 items). d) Threat to self-esteem (11 items), and e) Depression (10 items). The scale was modified for the current study by omitting unnecessary items.

The uncertainty subscale was rated on 4-point likert scale with response options of seldom (1), little (2), much (3), and much more (4). A high score means a greater of uncertainty.

The negative feelings subscale was rated on 4-point likert scale with response options of not concerned (1), little concerned (2) , enough concerned (3) , and much more concerned (4) . A high score means a greater fear from disease negative effects.

The loss of control subscale was rate on 4-point likert scale with response options of does not apply to me at all (1), hardly applies to me

(2) partially apply to me (3) , entirely apply to me (4) . A high score means a greater loss of parent control.

The self-esteem subscale was rated on 4-point likert scale with response options of agree (1) , partially agree (2) , partially disagree (3) , and disagree (4) . A lower score means a greater threat to self-esteem.

The depression subscale items was rated on 3- point likert scale with response options of sometimes (1), usually (2), and always (3) . A higher score means a greater severity of depression symptoms.

3. **The Parental Coping Strategy Inventory (PCSI) (Appendix III):**

This scale constructed by ***Yeh (2001)*** to evaluate the used coping strategies for parent with ADHD children. The scale included (68 items) grouped into 12 subscales , namely : learning (9 items), struggling (4 items), interaction with patient (6 items), interaction with spouse (6 items), interaction with healthy sibling (5 items), Emotion support (4 items), (information support (5 items), Actual support (4 items), maintaining stability(8 items), maintaining an optimistic state of mind (6 items), searching for spiritual meaning (4 items), increasing religious activities (4 items). The scale was modified for current study by omitting 3 items.

The scale items were rated on 5- point likert scale with response options of strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). A higher score means greater use of that particular coping strategy.

4. **Attention deficit hyperactivity disorder scale (ADHD) (Appendix IV):**

This scale was constructed by **Wender Utah (1993)**. To evaluate the symptoms of ADHD in childhood and adulthood and consisted of 42 items. The items of this scale were rated on 5- point likert scale with response options of seldom (0), mild (1), moderate (2), marked (3), and sever (4) . A higher score means greater severity of symptoms.

The scale was modified for the current study by classifying them to four subscales. 1) Hyperactivity subscale. 2) Inattention subscale. 3) Impulsivity subscale 3) Co morbidity feature subscale.

Procedure

1- A review of the past and current Arabic and English related literature covering various aspects of the problem was done , using available books, articles , periodicals , and journals to get acquainted with the research problem and develop the study tools .

2- The investigator used and followed the back translation procedure for verifying the translation of the psychosocial problems scale for parent, parental coping strategy inventory (PCSI) and ADHD scale. In this procedure (1) the investigator translated the instruments (English formats) into Arabic language, (2) rendered the same English formats to bilingual experts for more verification of the translation of the Arabic formats, (3) the resulting versions were translated back into the original language by other bilingual experts, and (4) minor discrepancies in the content were found and necessary modifications were done.

3- An approval was obtained to conduct the study from the Health Affairs Directorate, Department of Education and Health Insurance Organization in Cairo. An official Permission was granted, after the researcher presented the documented papers, and introduced herself to the director of El-Khalafawi health insurance psychiatric outpatient clinic in psychiatric center for children in Cairo. Data collection took place in the period from October 2004 to March 2005.

4- Potential subjects were approached by the investigator, at that time the nature and purpose of the study were explained.

5- Each child and his/her family member were interviewed individually for about 30-45 minutes, after informal verbal consent. The questionnaires were read, explained, and the choices were recorded by the investigator. For more validation of information, patients' files were revised to help in completion of needed information.

Pilot study

A pilot study was conducted in order to test the content validity of the questionnaire and clarity of questions, also to estimate the needed time to fill it, and to make sure that items are understood. The pilot study was carried out on 10 parents and their children. Simple modifications were done as revealed from the pilot study by omission and remodifications of certain items. All children involved in the pilot study were excluded from the study sample later on.

Results of the study

It is clear from **table (1)** that the studied sample consists of 50 children and their accompany families members. The mean age of studied children was 9.94 ± 2.26 and their age ranged from 8-15 years. Two third of then aged less than 11 years, 78 % (39) of the sample were males and 84% (42) of them were primary school grade. As regard birth orders 38 % (19) and 26% (13) of the studied sample were first and second child respectively.

Table (2) revealed that, around one third of the studied sample had family history of psychosis. Among them, 18% (9) and 6 % (3) were siblings' parents and uncles respectively. 18% (9) of them were neurotic. 30% (15) of the studied sample had history of ADHD, among them 22% (11) were brothers. As regard to time discovered of ADHD in their children 80% (40) were under one year.

This table revealed that, the majority of the studied sample 84% (42) were easily distracted, 60%(30) act as driven by a motor ,40%(20)fidgets with hands or feet, squirms in seat, 26% (13) nervousness.88 % (44) of the studied sample accompanied by mother and 84% (42) discovered by family.

Table (3) reveals that the total mean score of learning subscale was 23.98± 3.86. among them, the highest mean score were learning how to use medication, followed by searching for related information, and learning about what would happen to their children, where X- =3.12 ±0.47, 3.06±0.84 and 2.96±0.66 respectively. Mean while the lowest mean score was for learning from others experiences X- = 1.74 ± 1.06

Concerning interaction with spouse the total mean score was 18.16±2.21. among them, the highest mean scores were facing the difficulty together, followed by taking decision about illness and treatment together, and the lowest mean score was for helping with chores, where X =3.18±0.71, 3.14±0.75 and 2.46±0.88 respectively.

As regards emotional support subscale **table (4)** revealed that, the total mean score was 12.28± 1.47. Among them, the highest mean score were for parent found someone who can comfort them when they have difficulty and inspire them to continue their life (3.14±0.49) and the lowest mean score was for someone who can listen to their concern and feelings (2.94±0.58).

As regards informational support subscale the highest mean scores were someone advises them to take their child to hospital, followed by advises them about daily living and provide solution to their problem,

where the mean score were 3.00±1.04,2.92±1.00 and 2.76±0.74 respectively. Mean while discussing the future plan with them and provide them with illness information were the lowest score, where mean score were 2.32±1.01 and 2.74±0.69 respectively. However, the total mean score of informational support was 13.74±3.01.

The total mean score of maintaining stability subscale was 17.78±2.79. Among them, the highest mean scores were for forgetting unpleasant things, followed by talking about the feeling to someone and feeling guilty for not caring good of the child, where the mean score were 2.90±0.99, 2.82±0.62 and 2.62±0.98 respectively. Mean while drinking and smoking were the lowest scores, where mean score were 1.28±0.57 and 1.52±0.83 respectively

The total mean score of searching for spiritual meaning subscale was 8.92±1.41. among them, the highest mean scores were for a tribulation from god, followed by searching for the cause of the child illness and the lowest score was for illness is because of the child's past sin were X^{-}=3.12±0.71, 3.08±0.69 and 1.32±0.51respectively

Table (5) revealed that, the total means score of uncertainty about prospect of disease and treatment subscale was 28.54±5.34. among them, the highest mean scores were for the cause of the syndrome, followed by courses of the syndrome, condition of the child at this moment, development of the child, were X^{-} = 3.04±0.75, 2.96±0.63 and 2.88±0.63 respectively. However the lowest mean score was for purpose of physical therapy, X- = 1.40±0.72

The same table also revealed that, the total mean score of uncertainty about access to help and how to solve problems as reported by studied sample was 19.00±3.61. among them, the highest mean scores were for dealing with the doctor, followed by caregiver who supply them with information, dealing with the child were X- = 2.92±0.48, 2.82±0.59 and 2.82±0.56 respectively. Mean while the lowest mean scores were for talking to people who are close to them about problems and way other

parents dealing with their child's disability were X- = 1.54±0.86 and 2.42±0.92 respectively.

Regarding the loss of control subscale as expressed by parents. It is obvious that, their thought wandering about the child, represents the highest mean score, followed by spending more time in educating the child, having less control of their emotions and feeling their hands and feet are more tied were X^{-} =3.56±0.57, 3.36±0.63, 3.24±0.93 and 3.14±0.98 respectively. Mean while the lowest mean scores were for paying less attention to their job or social position, followed by having less time to run the household and depending more on other people as before were X=1.24±0.77, 1.26±0.63 and 1.68±0.99 respectively. The total mean score of loss of control subscale for the studied sample was 31.76±6.05.

As observed in **table (6),** family size and birth order were negatively correlated with uncertainty about prospect of disease and treatment subscales. Child age and education level were statistically significantly correlated with fear for negative consequence for the child subscale. Age was highly statistically significantly correlated with fear for negative consequence for the parents. Child education level and time discovered of ADHD in their children were statistically significantly correlated with fear for negative consequence for the parents.

Child age and education level were highly statistically significantly correlated with loss of control. Family size and time discovered of ADHD statistically significantly correlated with loss of control. Age and child education level were statistically significantly correlated with total psychosocial problems of parents scale.

Table (7) shows that, family size and birth order were highly statistically significantly correlated with interaction with healthy sibling and actual support subscales. Child education level was negatively correlated with informational support subscale.

Table (8): Correlation coefficients were used to examine relationship between the major study variables. Total ADHD symptoms of children scale was highly significantly correlated with total parental psychosocial

problems scale ($p<0.01$). While not correlated with total parental coping strategies scale ($p>0.05$).

Discussion

Concerning age , the finding of the present study showed that , two third of the studied sample aged from 8 to less than 11 years , which is the most susceptible age for detection of children with ADHD. ADHD child may be remain undiscovered until the child enter the school and exhibited various problems of inattention hyperactivity and impulsivity which observed by the teacher in the school or by the parent in the house.

This result agrees with ***Polin and Ditmar, (2001), child Developmental Institute, (2002) and Gillberg, (2003)*** they reported that ADHD is the most common behavioral disorders occurring in the early childhood. Also this finding supported by ***American Academy of Pediatrics, (2000), and El-Sheikh, (2003)*** they declared that the ADHD is the most prevalent health conditions affecting school age children with a prevalence of 3-5% in the general population.

As regard gender, the finding of the present study revealed that, ADHD is more prevalent in boys than girls. This result may be due to the fact that boys with ADHD are more likely to exhibit disruptive behaviors and thus be referred for diagnostic evaluation. This result goes on line with ***Warner-Rogers, Taylor, & Sandberg, (2000)*** who reported that the number of boys diagnosed with ADHD out number girls by at least 4 to 1. The higher ratio of males in clinic samples may be due to selective referral, rather than actual incidence. Furthermore, females are more likely to exhibit internalizing symptoms that involve mood, affect and emotion, whereas males usually display more externalizing symptoms such as aggressive and antisocial behaviors. Thus referrals initiated from the school environment are more likely to be due to overt or disruptive behavior, symptoms found more often in males with this disorder.

In the same context, ***Abu El-Maaty, (1996)*** reported higher rate of ADHD in boys than girls 2.4:1. She explained this by the fact that girls are highly represented with inattention which is not a major problem to teacher so under estimation of girls with ADHD may occur , on the other hand , boys are highly represented with hyperactivity /impulsivity and teachers are suffering from this problem .

Regarding birth order, the finding of the present study showed that, more than one third of the studied subjects were first born. This finding may be due to a small sample size and indicated that there is little compelling evidence that ADHD can arise purely from social factors or child -rearing methods. Most substantiated causes appear to fall in realm

of neurobiology and genetics. This is not to say that environmental factors may not influence the severity of the disorder , and especially the degree of impairment and suffering the child may experience , but that such factors do not seem to give rise to the condition by themselves .

This result was consistent with ***Abuo El-Maaty, (1996) and Sami, (2006)*** who found that, high percentage of ADHD is the first born child in the patients group Also, ***El Sheikh et al., (2003)*** found that 62% of their studied Egyptian sample of ADHD children were the first born child.

These result were incongruent with ***El Shinnawy, (2001)*** who found that, the middle child group was found to be the highest affected compared to other groups. This draws the attention to another problem, the middle child may present by reflecting his own psychological suffering of neglect or ignorance due to the increase in the financial demands of the family and spending more time in managing the physiological needs of the younger.

Regarding family history of ADHD, the current study revealed that, about one third of cases showed family history of ADHD, among them 22% were brothers. This indicated that ADHD often run in families, so there are likely to be genetic influences. ADHD occurs more commonly in first degree biological relatives of people with disorder than in general population, providing some evidence for a genetic predisposition for the disorder. ***Townsend, (1996)*** mentioned that, there were a number of studies that have revealed supportive evidence of genetic influences in the etiology of ADHD. Results have indicated that a large number of parents of hyperactive children showed signs of hyperactivity during their own childhood, that hyperactive children are more likely than normal children to have siblings who are also hyperactive, and that full sibling of hyperactive children are more likely than half siblings to show hyperactive behavior patterns.

In this respect ***Parsons, (2003)*** found that the studies of identical twins demonstrated a strong element of heredity. Findings showed that identical twins are more likely to demonstrate hyperactive behaviors than do fraternal twins. Subsequent studies have produced similar findings. Heredity appears to represent the most common identifiable factor in children who develop ADHD. This result goes online with ***Faraone, Biederman and Milberger, (1994)*** who found that , both first degree and second degree relations of people with ADHD have a higher than usual prevalence rate of the disorder .

The result of the current study revealed that the highest percentage of parents accompanying children to psychiatric outpatient clinic were mothers, they represent (88%). This could be because mothers

traditionally take more responsibility of care, spend more time with their children, show more interest in their academic achievement & social interaction and worry more about their future compared to fathers. Also, it reflects the strong emotional ties between mothers and their children, who make children, respond to mothers more easily than fathers. Besides, mothers react more patiently to children's behavior than fathers.

This result was consistent with ***El-Shinnawy, (2001) , Zaid, (2002) and Mourad, (2005)*** who found that all parents care-givers of ADHD children were mothers and burden of caring for an ill child falls disproportionately on the women in the family especially mother . ***Rabiner, (2000)*** found that , in his clinical experiences , "in many couples it seemed that fathers were not willing or prepared to accept a diagnosis of ADHD in their child , and were unwilling to get involved in their child's treatment in a supportive way".

This result agreed with those obtained in ***Abdou, (1994)*** , that mothers were generally more concerned and caring for their children as all mothers were always attending with their children to the outpatient clinic. On the other hand, fathers rarely attended even when they were asked to come. Regarding the need of Struggling as a coping method used by parent , the finding of the current study indicated that , the highest mean score were for struggling about how to tell the truth to their child and the lowest mean score was for struggling about choose the right treatment .On the same line , **Reali, (2001)** reported that , Until recently, ADHD has been viewed as a problem of an individual, most commonly a child. As a result, treatment has had a narrow focus and has been fragmented. This has left individuals with ADHD and their families struggling not only with the daily management of ADHD and related issues, but also with educating themselves, educating others, and advocating for the person with ADHD and their entire family. It often leads to battle fatigued individuals and families who are ill equipped to manage their lives and frequently leads to exacerbation of the problems. This downward spiral the of the individual and family in turn negatively affects the other systems around them.

Concerning the need of emotional support as a coping method used by parent, the result of the current study revealed that , the highest mean score were for "parent found someone who can comfort them when they have difficulty" and "inspire them to continue their life" and the lowest score was "parents found someone who can listen to their concern and feelings" .This indicated that , emotional support received from non-family members , such as close friends . Church members and coworkers

are significant source for both child and their parent because they selected those friends to share their concern without fear of exposure or not keeping privacy. **Rose, (1997) & Abd El-Aziz, (2002)** mentioned that, emotional support from friends was most valued when caregivers believed that the concern was genuine and that it was safe to ventilate feelings. Stigma remained a factor for many caregivers constrained in support-seeking because they anticipated a negative reaction.

On contrary, **Anderson, (1990)** indicated that, families reported that they have no one with whom they can discuss their concerns and have little guidance from health professionals in dealing with their own or their children feelings.

Regarding the need for informational support as a coping method used by parent, the current study revealed that the highest mean scores were "someone advises them to take their child to hospital'', followed by "advises them about daily living" and "provide solution to their problem". Mean while "discussing the future plan with them" and "provide them with illness information" were the lowest score. This result indicated that when parent have a child with ADHD, parent search for information to help them in dealing and coping with problem. As the parent may have lack of knowledge about the disease, this information helps them in problem solving and give advice about what they can do with the child. In this context, **Norbeck, et al., (1991)** reported that obtaining specific information about the mental illness and strategies for managing client behavior were important ways of coping. **Reinhard & Howitz, (1996)** added that practical advice from professionals significantly reduced caregiver burden by increasing the caregivers' sense of personal control.

As regards to the need of maintaining stability as a coping method used by parent , the finding of the current study revealed that , the highest mean scores were for "forgetting unpleasant things" , followed by "talking about the feeling to someone and "feeling guilty for not caring good of the child" . Mean while "drinking and smoking" were the lowest score. This might be due to religious of the individual prevent them from drinking , beside the fear of addiction .

As regards to the need of maintaining an optimistic state of mind as a coping method used by parent, the results of the current study revealed that, the highest mean scores were for "trying although there is not much chance", followed by "feeling happy when seeing any progress of the illness", "having hope in the progress of the illness" and the lowest score was for "having faith in health care professionals". This result indicated

that when parent have a child with ADHD they try all the method for the treatment of the child.

On the same line, ***Furlong and Gallucci, (1994)*** mentioned that, with the passage of time, parents develop a new kind of stability in their lives. They become more hopeful that the remissions will last and may again begin to make plans for the future and manage their problems effectively through using different kinds of coping and problems solving techniques.

Regarding uncertainty about access to help and how to solve problems. The finding of the current study revealed that , the highest mean scores were for "dealing with the doctor", followed by "caregiver who supply them with information", "dealing with the child" .This result might be due to parents tend to seek help from doctors than from others as friends to keep child's symptoms within the family because the family may belief the professionals give advice more accurate than any other one or because the family may stigmatized of this behavior , so they prefer to avoid child's interaction with other.

This finding was consistent with **Havens, (2005)** who found that ,many family members may be overwhelmed by the diagnosis and need to hear it directly from the family doctor. Many physicians are open to meeting with families and addressing any questions members might have about the child's disability or illness. If the parents are not comfortable in taking their entire family along to the next doctor's appointment, they might request family members to write down all the questions they have, and once the parents have the answers they can call a family meeting and share the new information with all interested.

Concerning fear for negative consequence for the child. The current study showed that, the highest mean scores were disappointments about how their Childs will cope in the future followed by worsening of their child's disability and the lowest score was tension in the family because of the child illness. These results might be due to presence of love and affection between family members and when the child has chronic illness all the family members become concerned about the child and this increase connections to give more care for the child and to enable them to face disturbance in routine activity. These results are consistent with ***Vanden Born et al., (1999)*** who found that parents of children with chronic illness had a higher concern about possible negative consequences for the child.

These results are contradicted with ***Johnson and Reader, (2002)*** who found that, behavior of children with ADHD, and perhaps other disruptive disorders of childhood, can result in increased family stress. It

is also suggested that this increased level of stress is often associated with negative outcomes including negative parenting styles that may lead to a worsening of child behavior problems, increased psychological problems experienced by parents, and strained marital and family relationships.

As regards to fear for negative consequence for parents. The current study revealed that, the highest mean scores were "getting sufficient care for the child in the future" followed by "ending their patience in assisting the child" and "important people abandoning the child" and the lowest score was "losing their job or social position" .These results indicated that the parent fear about their ill child that he might not get sufficient care in the future. Also parents usually worry about what the future will hold for their child i.e. is the child will recover in the future or the condition become worse so the parents need future plan about child treatment.

This result supported by ***Mahmoud, (2004)*** who reported that , parents need a clear future plan for their child , financial support and vocational training to help disabled child in his life .

On contrary, ***Vanden Born et al., (1999)*** reported that , parents with chronically ill child had a lower level of fear for negative consequences for the parents themselves as compared to "fear for negative consequences for their child . Some parents expressed a fear of losing their patience with their child, fear of not being taken seriously when talking to others about their child, fear of needing to depend on other people because of their child's disability, and fear of visiting other people with their child.

Concerning depression, the current study revealed that, the highest mean scores were don’t enjoy life, followed by subject to crying fits, feeling tired for nothing, don’t view the future with concern and feeling dejected and the lowest score was feeling lonely .These results may be due to children with ADHD place excessive stress or care taker burden on parents or others in their environment. This result solely from dealing with the symptoms of inattention , impulsivity , and activity level parents of children with ADHD must often deal with repeated phone calls from teachers regarding their child's misbehavior , they often have to "explain" their child's behavior to other parents , they are often restricted socially due to their inability to get" a baby sitter" , they often must miss work to attend clinic appointments , and they often worry incessantly about the possibility of accidental injury to their child as a result of his/her behavior.

On the same line , ***Johnson and Reader, (2002)*** found that , mothers of children with ADHD show higher rates of depressive and aggressive symptoms , less support and higher levels of rejecting parenting in comparison to mothers of normal children .

Regarding parent loss of control to their behavior, the current study revealed that, "their thought wandering about the child", represents the highest mean score, followed by "spending more time in educating the child", "having less control of their emotions" and "feeling their hands and feet are more tied". Mean while the lowest mean scores was for "paying less attention to their job or social position".

This results are consistent with ***Vanden Born et al., (1999)*** they reported that , many parents of children with chronic condition feel a high level of loss of control indicated by "their hands and feet are more tied" , "not able to handle their affairs as before" , "thoughts that wander to concerns about their child" , and "more financial burdens" .

On contrary, ***Johnson and Reader, (2002)*** found that , mothers of hyperactive children displayed a more controlling and intrusive interaction style as compared to mothers of normal children .

Regarding impact of ADHD child on parent self-esteem, the current study revealed that, the highest mean scores were "a self doubting person", followed by "feeling uselessness", "a pessimist" and "feeling good for nothing". While the lowest mean scores were "hating myself, "get in depth easily" and "satisfied with myself". This result may be due to guilt feeling of parents that they cause the disease by default gene or drugs taking during pregnancy or the parent bring the child too late for treatment , this leads to parents feeling not satisfied and hating themselves .

The finding of the current study revealed that there were no statistical significant correlation between age of child and interaction with healthy sibling. This result incongruent with ***National Information Center for Children and Youth with Disabilities (NICHCY), (2006)*** they reported that, each child's reaction to having a sibling with Disabilities depending on his or her age and developmental level. The responses and feelings of the non disabled sibling toward the sibling with a disability are not likely to be static, but rather tend to change over time as the sibling adapts to having a brother or sister with a disability and copes with day-to-day realities. Preschool-aged siblings, for example, may feel confused, afraid, anxious, and angry about a brother or sister disability or illness. All children are different; the intensity of a child's concerns needs, and experiences will vary from sibling to sibling, as will a child's reaction to

and interpretation of events. The younger the child the more difficult it may be for him or her to understand the situation and to interpret events realistically.

The finding of the current study indicated that there were high statistical significant correlation between birth order and interaction with health sibling .This result are consistent with ***Jackson & Vessey, (1996)*** who found that , relative birth order and gender are significant . In one study among sibling younger than their affected brother or sister, boys were more impaired than girls, among siblings older than their affected brother or sister, girls were psychologically more distressed. Because girls were more likely to have care-giving demands placed on them. Older sisters might be called on more often than younger sisters to perform care-giving tasks. Sibling are usually very aware of their negative feelings , which may include anger , feelings of being neglected , fears of causality , contagion or responsibility , as a result of their negative feelings , they may experience guilt , children need to be told that their emotions are acceptable , but at the same time misconceptions need to be clarified ***(Gallo , et al., 1993).***

On the same line, ***(Kay, 1999)*** reported that , Sibling responses vary according to the severity of the disorder, the personality of the child with ADHD, the birth order of the children, and how the parents react to the child with ADHD. They may range from confrontation to withdrawal. Older siblings tend to be empathic, especially if educated on the disorder. However, they may still feel resentful and neglected. Some siblings admit feeling sorry for their sibling with ADHD, and their parents, or guilt for not being more understanding. Siblings also report anger over the differences in expectations and treatment, or anger toward the sibling with ADHD because of public embarrassment and limits placed on the family activities due to the disability. While reflecting back on growing up with his ADHD brother, one man spoke of how angry he would get with his brother, “Sometimes they hated themselves,” and tearfully expressed regret that he was not more understanding.

Similarly, ***Silver, (1992), Alexander-Roberts, (1994) and Everett & Everett, (1999),*** indicated that , Younger children may act up, or mimic the behaviors of the child with ADHD in order to get their own needs met increasing the demands on parents and the level of stress and conflict in the family.

In this context, ***Williams, Lorenzo & Borja, (1993)*** found that, sibling of children with ADHD had significantly more responsibilities at home, involving both house work and child care. In addition, siblings'

perceptions of the home environment are likely to differ from the impressions of their parents.

The finding of the current study indicated that there were high statistical significant correlation between family size and interaction with health sibling. This result indicated that the increase of number of children in the family have an impact on interaction among family members and this leads to more trouble in the family due to increase responsibilities as family size increase. These results were supported by the ***National Information Center for Children and Youth with Disabilities (NICHCY), (2006)*** they reported that, the positive or negative nature of the relationships between siblings and among family members may be influenced by factors such as these: the number of children in the family; the age differences between children in the family; the family's resources; the family's lifestyle; the family's child-rearing practices; the kind and severity of the disability; the other stress-producing conditions that exist in the family; the kinds of coping mechanisms and interaction patterns that exist within the family; and the kind and quality of the support services available in the community.

The finding of the current study showed no significant relation between age and emotional support subscale. This result indicated that increase age of child have no impact on parent seeking for psychological support. This result are inconsistent with ***Attention Deficit Disorder Treatment and Research Center (ADDTRC), (2005)*** they reported that , mothers of ADHD children are more likely to seek help for themselves. As the child grows older the maternal help-seeking increases, and by the time the ADHD child is 7 years of age, mothers are 3 to 4 times more likely than normal to seek psychological help for themselves.

The finding of the current study indicated that there were high statistical significant correlation between family size and actual support subscale. This result indicated that when the number of children increase, the family can find someone who can help them when their child is ill. This result goes on line with ***Gomez & Gomez, (1996)*** who stated that Socio-demographic characteristics of the caregivers as age , sex , family size , educational level , income and types of relationship influence their coping methods .

The finding of the current study revealed that there were no statistical significant correlation between family size and total parental coping. This result indicated that large family size has no impact on parents using of coping strategies. This results contradicted with ***Nadler, (1995) ,*** who reported that parents who are more educated , belonging to higher social class and have fewer children , accept their child's disability

better and tend to cope with emerging difficulties by approaching external helping sources.

The finding of the current study revealed that there were no statistical significant correlation between time discovered of ADHD and total parental coping strategy scale .This result indicated that prolonged duration of child illness has no effect on parents using of coping strategies. These results are in agreement with ***Abd El-Aziz, (2002)*** who found no significant difference between duration of caring and parental coping. Also in this respect, Moss, (1999) reported that the longer the length of the illness, the higher the stressors, interference in family relationships was noticed. The more the caregiver perceived interference in family relationships, the more they utilize emotion-focused strategies to be effective, through avoiding the problems in caregiving situation instead of communication and confronting the problems which result in difficulty among the family relationships and hinder problem solving technique.

Conclusion and Recommendations

Based on the findings of the present study, it can be concluded that: .

- Parents of children with ADHD are frequently confronted with various kinds of psychosocial and practical problems that sometimes cause high levels of parental distress, these include emotional problems such as fear, depression and worry, reduced satisfaction in their marriage, practical and financial problems related to educational tasks, as well as reduced level of self-esteem and self confidence.

Based on the results of the study, the following recommendations can be

- Parent and teachers need factual knowledge about the child's deficits, the positive and negative effects of medication, and behavioral management strategies that are likely to increase the chores of success and decrease frustration, all involved.
- Family intervention is more effective in decreasing behavioral problems of these children and increasing a parent's sense of psychological well being. On the other hand, medication can help, but not without a combination of psychosocial intervention..
- Children with ADHD and their families could be encouraged to learn new coping methods and refine their old ones.
- The parent should be educated more about the ADHD and how to cope with it by a proper way as motivation and positive reinforcement.

- Counseling clinics for parents of ADHD children are needed to ensure an effective and sensitive response to the needs of ADHD children and their families.
- Further research should be done to assess family functioning of ADHD child including relationships within the family, communication patterns, parental management styles and the presence of maternal conflict.

Table (1): Personal Characteristics of children in the studied sample.

Items	**Frequency**	**%**
Age (years):		
8-	33	66
11-	12	24
14-17	5	10
X ± SD	9.94 ± 2.26	
Range	8-15	
***Gender*:**		
Male	39	78
Female	11	22
***School grade*:**		
Primary	42	84
Preparatory	7	14
Secondary	1	2
X ± SD	4.02 ± 2.18	
Range	2-9 Years	
Birth order:		
1st. child	19	38
2nd child	13	26
3rd child	8	16
4th child	5	10
5th child	5	10

Table (2): Family history of children in the studied sample.

Items	Frequency	%
Family history of psychosis:		
Yes	17	34
No	33	66
Person affected:		
Parents	3	6
Siblings	9	18
Grand parents	2	4
Uncles	3	6
Types:		
Neurosis	9	18
Psychosis	3	6
Epilepsy	5	10
Family history of ADHD:		
Yes	15	30
No	35	70
Person affected		
Brothers	11	22
Sisters	4	8
Time discovered of ADHD in their children (months):		
6-	21	42
22-	19	38
38-	5	10
54-	4	8
70 – 85	1	2
X ± SD	25.8 ± 18.2	
Range	6-72	
Symptoms observed:*		
Acts as if driven by a motor	30	60
Fidgets with hands or feet, squirms in seat	20	40
Easily distracted	42	84
Forgetful	8	16
Jealous	2	4
Poor School Performance	4	8
Enuresis	12	24
Nervousness	13	26
Social withdrawal	1	2
Trouble with neighbors	4	8
Brakes of pencil	1	2

**More than one measure*

Table (3): Mean scores of parental coping strategies (learning , struggling, Interaction with child , Interaction with spouse and Interaction with healthy sibling subscale) among the studied sample.

Items	X ± SD	Range
Learning subscale.		
The parents are able to search and learn about:		
Disease information	3.06±0.84	1-4
Experience of others	1.74 ± 1.06	1-4
Alternative therapies	2.02±0.86	1-3
Treatment information	2.86±0.45	2-4
How to use medication	3.12±0.47	1-4
The progress of illness	2.54±0.64	1-4
The side effect of treatment and illness	2.66±0.87	1-4
What would happen to their child	2.96±0.66	1-4
Total	**23.98±3.86**	**14-35**
Struggling subscale.		
The parents are able to:		
Choose the right treatment	1.58±0.73	1-3
Solve the medical conflict between family member	1.66±0.63	1-3
Make a medical decision for side effect	1.62±0.63	1-3
Tell the truth to their children	2.04±0.78	1-3
Total	**6.90±1.79**	**4-11**
Interaction with child subscale.		
Discussing the illness	2.62±0.72	1-4
Discussing what has to be done	3.00± 0.78	1-4
Sharing concerns and feelings	3.20± 0.40	3-4
Confronting the difficulty together	3.36 ± 0.48	3-4
Letting the child help with chores	2.88 ± 0.91	1-4
Satisfying the child's needs as possible	3.10 ± 0.46	1-4
Total	**17.20± 2.71**	**10-22**
Interaction with spouse subscale.		
Taking decision about illness and treatment together	3.14 ± 0.75	1-4
Understanding and talking with others	3.10 ± 0.70	1-4
Facing the difficulty together	3.18± 0.71	1-4
Helping with chores	2.46 ± 0.88	1-4
Having enough time to be with spouse	2.80 ± 0.69	1-4
Quarrelling over child's illness	2.52± 1.16	1-4
Total	**18.16±2.21**	**10-22**
Interaction with healthy sibling subscale.		
Disclosure of the illness	3.38±0.94	1-4
Discussing the illness	2.46±0.95	1-4
Expressing their feelings	2.46±0.83	1-3
Helping with chores as before	2.58±0.97	1-4
If there is argument, be generous to the sick child first	2.54±1.11	1-4
Total	**12.42±3.78**	**5-18**

Table (4): Mean scores of parental coping strategies (emotional, informational & actual support subscales) among the studied sample.

Items	X ± SD	Range
Emotional support subscale.		
Parents found someone who can:		
Listen to their concern and feelings	2.94±0.58	1-4
Concerned about their health	3.06±0.46	2-4
Comfort them when they have difficulty	3.14±0.49	2-4
Inspire them to continue their life	3.14±0.49	2-4
Total	**2.28±1.47**	**8-16**
Informational support subscale.		
Parents found someone who:		
Provides them with illness information	2.74±0.69	1-4
Advises them about daily living	2.92±1.00	1-4
Advises them to take their child to hospital	3.00±1.04	1-4
Discusses the future plan with them	2.32±1.01	1-4
Provides solutions to their problem	2.76±0.74	1-4
Total	**13.74±3.01**	**5-20**
Actual support subscale.		
Parents found someone who:		
Let them get away from difficulty	2.82±0.59	1-4
Help them to do chores when their child is sick	2.10±0.99	1-4
Help them to do some exercise	1.46±0.67	1-3
Provide them with financial or material support	1.80±1.01	1-4
Total	**8.18±1.62**	**4-12**

***Cont.* table (4): Mean scores of parental coping strategies (maintaining stability and maintaining an optimistic state of mind subscales, searching for spiritual meaning and increasing religious activities subscales) among the studied sample.**

Items	X- ± SD	Range
***Maintaining stability subscale*.**		
Forgetting unpleasant things	2.90±0.99	1-4
Feeling guilty for not caring good of the child	2.62±0.98	1-4
Talking about the feelings to someone	2.82±0.62	1-4
Escaping from reality	2.04±1.00	1-4
Smoking	1.52±0.83	1-4.
Drinking	1.28±0.57	1-3
Taking medication	2.10±0.93	1-3
Being alone	2.50±0.88	1-4
Total	**17.78 ± 2.79**	**12-25**
***Maintaining an optimistic state of mind subscale*.**		
Having faith in the recovery of the child	3.30±0.50	2-4
Having hope in the progress of the illness	3.38±0.49	3-4
Feeling happy when seeing any progress of the illness	3.70±0.50	2-4
Trying although there is not much chance	3.74±0.44	3-4
Believing that there is away out of every thing	3.34±0.51	2-4
Having faith in health care professionals	3.64±0.82	1-4
Total	**20.10±1.41**	**17-23**
Searching for spiritual meaning		
The only way if this is the child's destiny		
Illness is because of the child's past sin	1.40±0.67	1-3
Atribulation from god	1.32±0.51	1-3
Searching for the cause of the child illness	3.12±0.71	1-4
	3.08±0.69	1-4
Total	**8.92±1.41**	**6-12**
***Increasing religious activities*.**		
Praying	3.34±0.62	1-4
Performing religious ritual	2.78±0.84	1-4
Changing the destiny of the child	2.70±0.78	1-4
Wearing the FU or halidom to bless	1.48±0.86	1-4
Total	**10.30±2.32**	**6-16**

Table (5): Mean scores of parental psychosocial problem (uncertainty and loss of control subscale) among the studied sample.

Items	X- ± SD	Range
Uncertainty about prospect of disease and treatment.		
Quite a lot/very much need for information about:		
Development of the child	2.86±0.94	1-4
Consequences of the syndrome	2.76±0.74	1-4
Purpose of education	2.62±0.75	1-4
Course of the syndrome	2.96±0.63	1-4
Prevalence of the syndrome	2.86±0.70	1-4
Purpose of medication	2.72±0.64	1-4
Purpose of dieting/speech training	2.04±0.75	1-4
Purpose of physical therapy	1.40±0.72	1-4
The cause of the syndrome	3.04±0.75	1-4
Condition of the child at this moment	2.88±0.63	2-4
Get information material about the syndrome	2.40±0.90	1-4
Total	**28.54±5.34**	**16-39**
Uncertainty about access to help and how to solve problems.		
Quite a lot/very much need for information about :		
Taking care for the child's physical fitness	2.40±0.90	1-4
Dealing with the child	2.82±0.56	2-4
Caregiver whom supply them with information	2.82±0.59	1-4
Way other parents dealing with their child's disability	2.42±0.92	1-4
Talking to people who are close to them about problems	1.54±0.86	1-4
What caregivers can do	2.22±0.95	1-4
Dealing with the doctor	2.92±0.48	2-4
Contacting other parents of a child with the syndrome	2.74±0.63	2-4
Total	**19.00±3.61**	**12-32**
loss of control	3.36±0.63	1-4
Spending more time in educating the child	3.56±0.57	2-4
Wandering about the child	3.14±0.98	1-4
Feeling their hands and feet are more tied	2.68±1.21	1-4
Handling their affairs as before	3.12±0.96	1-4
Having more financial burdens	2.88±1.23	1-4
Being the person I used to be	3.00±1.19	1-4
Having the same leisure activities as before	3.24±0.93	1-4
Having less control of their emotions	1.68±0.99	1-4
Depending more on other people as before	1.24±0.77	1-4
Paying less attention to their job or social position	2.60±1.26	1-4
Making appointments with other people less easily	1.26±0.63	1-3
Having less time to run the house hold		
Total	31.76±6.05	18-43

Table (6): Correlation between socio-demographic data and psychosocial Problems subscales.

Socio-demographic data	Uncertainty about prospect of disease and treatment subscale	Uncertainty about access to help and how to solve problems subscale	Fear for negative consequence for the child subscale	Fear for negative consequence for parents subscale
	R	R	R	R
Age	-0.05	-0.06	0.35*	0.37**
Family size	-0.32*	-0.15	0.01	0.27
Birth order	-0.34*	-0.11	-0.04	0.27
Child education level	0.034	-0.03	0.28*	o.28*
Time discovered of ADHD in their children (months)	0.033	0.01	0.12	0.28*

** p<0.05 ** p<o.o1*

Cont. **Table (6): Correlation between socio-demographic data and psychosocial problems subscales.**

Socio-demographic data	Loss of control subscale	Self-esteem subscale	Depression subscale	Total psychosocial problems scale
	R	**R**	**R**	**R**
Age	0.41**	0.19	- 0.06	0.33*
Family size	0.33*	-0.09	0.11	0.07
Birth order	0.20	-0.17	0.05	- 0.02
Child education level	O.44**	o.20	- 0.006	0.35*
Time discovered of ADHD in their children (months)	o.32*	o.o7	- 0.04	0.24

** p<0.05 ** p<o.o1*

Table (7): Correlation between socio-demographic data and parental coping Strategies subscale.

Socio-demographic data	Learning subscale	Struggling subscale	Interaction with child subscale	Interaction with spouse subscale	Interaction with healthy sibling subscale	Emotional support subscale
	R	R	R	R	R	R
Age	-0.14	0.20	0.10	-0.11	0.18	- 0.007
Family size	-0.10	0.04	0.02	0.03	o.4o**	0.09
Birth order	-0.09	-0.06	0.12	0.o7	0.45**	-0.03
Child education level	-0.05	0.19	0.09	-0.05	0.20	0.01
Time discovered of ADHD in their children (months)	0.08	0.19	0.12	-0.04	0.26	-0.14

** P< 0.05.* *** P < o.o1.*

Cont. **Table (7): Correlation between socio-demographic data and parental coping strategies subscale.**

Socio-demographic data	Informational support subscale	Actual support subscale	Maintaining stability subscale	Maintaining an optimistic state of mind	Searching for spiritual meaning subscale	Increasing religious activities subscale	Total parental coping strategies scale
	R	R	R	R	R	R	R
Age	-0.25	-0.14	0.25	-0.01	0.07	-0.02	0.04
Family size	0.o5	o.36**	0.005	0.06	-0.01	-0.08	0.14
Birth order	0.14	0.50**	0.12	0.27	0.02	-0.006	0.25
Child education level	-0.31*	-0.10	0.19	-0.09	0.16	-0.02	0.06
Time discovered of ADHD in their children (months)	-0.08	0.14	0.22	-0.04	0.25	0.15	0.24

**P< 0.05.* ***P<o.o1.*

Table (8): Correlation matrix of total parental coping strategies, ADHD Symptoms of children and total parental psychosocial problems for the studied sample.

Items	Total parental psychosocial problems		Total ADHD symptoms of children scale		Total parental coping strategies scale	
	R	P	R	P	R	P
Total parental coping strategies scale	0.18	0.20	o.12	o.37		
Total ADHD symptoms of children scale	0.53**	0.00				
Total parental psychosocial problems scale						

***P< 0.01.*

References:

1. ***National Information Center for Children and Youth with Disabilities (NICHCY). (2006):*** LD online Children with Disabilities: Understanding sibling Issues. Washington, D.C.
2. ***Sami, N. M. (2006):*** Effect of psychosocial factors on childhood attention deficit disorder. Unpublished M. D. Thesis, Faculty of Medicine. AinShams University.
3. ***Attention Deficit Disorder Treatment and Research Center (ADDTRC) (2005):*** Parenting a child with Attention Deficit Hyperactivity Disorder. Located at addtrc@addtesting.com 972-980-7488
4. ***Harpin, V. A. (2005):*** The effect of ADHD on the life of an individual, their family, and community from preschool to adult life. Archives of Disease in Childhood. 90: 12-17. located at: http://adc.bmj.com/cgi/content/full/90/suppi_1/i2.
5. ***Havens, A. C. (2005):*** Becoming a resilient family: child disability and the family system. National center on accessibility. Located at: www.ncaonline.org/monographs/17family.shtmI
6. ***Lange, G. Sheerin, D. Carr,A. Dooley , B. Barton ,V. Marshall, D. Mulligan, A. Lawlor , M. Belton , M. and Doyle , M. (2005):*** The Association for Family Therapy. Journal of Family Therapy 27: 76–96.USA.
7. ***Mourad, G.H. (2005):*** Social and Technical Coping Skills for school Age children with Attention Deficit Hyperactivity Disorder. M. D. Thesis Psychiatric nursing, faculty of nursing, Ain Shams University
8. ***Mahmoud, N. F. (2004):*** Assessment of parental perception of support need to care for their mentally retarded children. Unpublished M. Sc. Thesis, Faculty of Nursing, Cairo University.
9. ***Chronis, A. M., Lahey, B. B., Pelham, W. E., Kipp, H. L., Baumann, B. L., & Lee, S. S. (2003):*** Psychopathology and substance abuse in parents of young children with attentiondeficit/ hyperactivity disorder. Journal of the American Academy of Child and Adolescent Psychiatry, 42, 1424–1432.
10. ***Elsheikh, M. M. (2003):*** Psychiatric morbidity in first degree relatives of a sample of ADHD children. M. D. Thesis, Faculty of Medicine, Ain Shams University.
11. ***Gillberg, C. (2003):*** Deficits in attention, motor control, and perception: A brief review. Archives of Disease in Childhood, 88: 904-910.

12. ***Hussein, A.R. (2003):*** Hyperactivity syndrome in school boys in Sharkia Governorate: The diagnosis and prevalence. Unpublished Doctorate Thesis, Faculty of Medicine, Zagazig University.
13. ***Parsons, C. (2003):*** The client with attention deficit disorder. In: Antia-Otong, D. (2003): Psychiatric nursing; biological & behavioral concepts. Canada: Thomson, Delmar, Learning. Pp: 447 – 479.
14. ***Abd El-Aziz, E. M. (2002):*** Problems and coping methods among family caregivers of mentally ill patient. Unpublished M. Sc. Thesis, Faculty of Nursing, Cairo University.
15. ***Child Developmental Institute (CDI), (2002):*** About Attention Deficit Hyperactivity Disorder ADD/ADHD., retrieved from http//www.child development information.com/disorder/adhd.html
16. ***Johnson, JH. & Reader, SK. (2002):*** Assessing Stress in Families of Children with ADHD: Preliminary Development of the Disruptive Behavior Stress Inventory (DBSI). *Journal of Clinical Psychology in Medical Settings, 9(1), p.*51-62.
17. ***Zaid, K. (2002):*** Psychological profile for parental caregivers of children with renal failure under Dialysis therapy. Master thesis, psychiatric nursing, faculty of nursing, Ain shams university
18. ***El-Shinnawy, H. A. (2001):*** A study of the impact of stress in chronic illness on children and their parents, M. D. Thesis, Faculty of Medicine, Cairo University.
19. ***Polin, R. and Ditmar, M. (2001):*** Pediatric secrets, 3rd ed., Hanley & Belfus. Inc., Philadelphia, pp. 31-35.
20. ***Reali ,A.T. (2001):*** Attention-Deficit/Hyperactivity Disorder: A systems Perspective A comprehensive Qualitative Analysis OF The Literature .Unpublished Master Thesis .The Graduate School University of Wisconsin-Stout Menomonie, WI 54751.
21. ***Yeh, C. H. (2001):*** Development and testing of the parental coping strategy inventory (PCSI) with children with cancer in Taiwan. Journal of Advanced Nursing. 36(1): 78 – 88.
22. ***American Academy of Pediatrics. (2000):*** Diagnosis and evaluation of the child with attention-deficit/hyperactivity disorder. Pediatrics, 105(5), 1158–1170.
23. ***Rabiner , D. (2000):*** The Impact that having a child with ADHD has on parent's satisfaction with family life. http://www. Helpforadd.com/
24. ***Warner-Rogers, J., Taylor, A., & sandberg. (2000):*** Inattention behavior in childhood: Epidemiology and implications for development. Journal of Learning Disabilities, 33(4): 520 – 536.
25. ***Cohen, M.S. (1999):*** Families coping with childhood chronic illness: a research review. Families, Systems and Health, 17: 149 – 164.

26. ***Everett, C.A., & Everett, S.V. (1999):*** Family therapy for ADHD: Treating children, adolescents, and adults. New York: Guilford Press.
27. ***Kay, T. (1999):*** Outside in: A look at adults with attention deficit disorder [video]. Glencoe, IL; Family Today.
28. ***Moss, L. (1999):*** Caregivers support. British Journal of psychiatry, 4(12), 50-59.
29. ***Vanden Born, H. W., VanHooren, R. H., VanGestel, M., Rienmeijer, P., Fryns, J. P.,. Curfs, L. M. G. (1999):*** Psychosocial problems, coping strategies, and the need for information of parents of children with chronic illness. Patient Education and Counseling. 38: 205 – 216.
30. ***Steinglass, P. (1998):*** Multiple family discussion groups for patients with chronic medical illness. Families, systems, and Health, 16, 55-70.
31. ***Rose, L.E. (1997):*** Caring for caregivers: Perceptions of social support. Journal of psychosocial Nursing, 35(2), 17-24.
32. ***Abuo El-Maaty, N. I. (1996):*** Epidemiology study of attention deficit hyperactivity disorder in an Egypt sample. Unpublished M. Sc. Thesis, Institute of Postgraduate Childhood Studies. Ain Shams University.
33. ***Gomez, G. & Gomez, E. (1996):*** Chronic mental illness the major mental health problems of the country. Perspective Care, 27(11): 7-9.
34. ***Jackson, P.L. and Vessey, J.A. (1996):*** Primary care of the child with a chronic condition. (2nd.ed). United states of America, Mosby-Year Book, Inc. pp. 41-57.
35. ***Reinhard, S. & Howitz, A. (1996):*** Caregivers burden: Differentiating. The content and the consequence of family care-giving. Journal of Marriage and Family, 57: 741-749.
36. ***Tiedje , L.B. & Darling-Fisher ,C.S. (1996):*** Fatherhood reconsidered: A critical review . Research in Nursing and Health, 19, 471-484.
37. ***Townsend, M.C. (1996):*** Psychiatric Mental Health Nursing, concept of care, 2nd. ed., united state of America, F.A. Davis Company, p. 317.
38. ***Nadler, A. (1995):*** Acceptance of mental retardation and help seeking by mothers and fathers of children with mental retardation. American Association on mental Retardation. 29(1): 17 – 23.

39. ***Abdou, A. (1994):*** Family reactions and interaction towards mentally retarded children. Unpublished Master Thesis. Faculty of medicine, Cairo University.
40. ***Alexander-Roberts, C. (1994):*** The ADHD parenting handbook. Dallas, TX: Taylor Publishing.
41. ***American Psychiatric Association. (1994):*** Diagnostic and statistical manual of mental disorders (4th ed.).Washington, DC: Author.
42. ***Faraone, S. V., Biederman, J. & Milberger, S. (1994):*** An exploratory study of ADHD among second-degree relatives of ADHD children. Biological Psychiatry, 35: 398-402.
43. ***Furlong, T. and Gallucci, B. (1994):*** Pattern of occurrence and clinical presentation of neurological complications in bone marrow transplant patient. Cancer Nursing, 17(1) 27-36.
44. ***Johnson, B.S. (1994):*** Child, Adolescent and Family Psychiatric Nursing. New York: J.B. Lippincott Company
45. ***Gallo, A., Breitmayer, B. J., Knafi , K. A., & Zoeller , L.H. (1993):*** Mother's perceptions of sibling adjustment and family life in childhood chronic illness. J. Pediatr Nurs, 8, 318-324.
46. ***Williams, P., Lorenzo, F. & Borja, M. (1993):*** Pediatric chronic illness: Effects on siblings and mothers .Maternal-child Nursing Journal , 21, 111-121.
47. ***Silver, L. (1992):*** Attention Deficit Hyperactivity Disorder: A Clinical Guide to Diagnosis and Treatment. American Psychiatric Press, Inc. Washington, D.C.
48. ***Norbeck, J.S., Chafetz, L., Skodol-Wilson, H., & Weiss, S.J. (1991):*** Social support needs of family caregivers of psychiatric patients from three age groups. Nursing Research, 40, 208-213.
49. ***Anderson, J.M. (1990):*** Home care management in chronic illness and the self-care movement, an analysis of ideologies and economic processes influencing policy decisions. Advances in Nursing Science, 12(2), 71-83

المشاكل النفسية والاجتماعية والتكيف لدي الآباء الذين لديهم أطفال مصابون باضطراب فرط النشاط الزائد وقصور الانتباه

مقدمة:

يعتبر اضطراب فرط النشاط الزائد وقصور الانتباه من أهم الاضطرابات السلوكية التي يـتم تشخصيها في مرحلة الطفولة و قد يؤثر هذا الاضطراب علي الأطفال في سن الدراسة بنسبة تتراوح ما بين اثنان إلي خمسة لكل مائه طفل. هؤلاء الأطفال يوجد لديهم ضعف وظيفي في أكثر من مكان مثل البيت ، المدرسة ، العمل وعلاقتهم مع الزملاء . أيضا تكون له تـأثيرات عكسية طويلة المدى على الأداء الأكاديمي ، النجاح المهني والتطور الاجتمـاعي العـاطفي.

إن الطفل المصاب بهذا المرض يكون مصاحب له تدهور في أهم المحاور وهي علاقة الطفل بالأبوين. إن أباء الأطفال المصابين باضطراب فرط النشاط الزائد وقصور الانتباه يواجهـون أنواع مختلفة من المشاكل النفسية والاجتماعية والمشاكل في الحياة العملية والتي تسبب درجة كبيرة من الضغط النفسي للآباء تتمثل في مشاكل عاطفية مثل الخوف و الاكتئاب والقلق وقلة الشعور بالرضا في الحياة الزوجية ومشاكل في الحياة العملية مثل المشاكل المادية والتعليمية ، كما يقلل من احترام ألذات والثقة بالنفس.

تلعب ممرضة الصحة النفسية دورا كبيرا في تحديد وتقييم الاضـطرابات الـسلوكية عنـد الأطفال وذلك في أماكن الرعاية الصحية الأولية ، والمدارس والمستـشفيات وكلمـا كـان اكتشاف الحالات مبكرا يكون للممرضة دور كبير في إعطائهم سبل الوقاية والرعاية المناسبة للأطفال وأسرهم . وتعمل الممرضة النفسية كحلقة وصل بين فريق العـلاج والعائلـة وهـذا الدور يشمل علي توثيق تاريخ العلاج وإمداد العائلة بمعلومات عن هذا الاضـطراب وكـذلك تقييم الضغوط الناتجة من رعاية هؤلاء الأطفال وتأثيرها النفسي والاجتماعي عليهم . وتحديد الضغوط المؤثرة علي الأسرة يساعد الممرضة علي إتباع وإعداد خطة تمريـضية لمـساعدة هؤلاء وكذلك مساعدة الآباء في وضع استراتيجيات التكيف للتأقلم مع المشاكل الناتجـة عـن مرض أطفالهم .

الهدف من الدراسة :

تهدف هذه الدراسة إلي تقييم المشاكل النفسية والاجتماعية لدي الآباء الـذين لـديهم أطفـال مصابون بمرض فرط النشاط الزائد وقصور الانتباه وكذلك تقييم الإستراتيجيات التي يتبعهـا هؤلاء الآباء للتكيف مع مشاكلهم .

مكان الدراسة :

العيادة الخارجية للصحة النفسية بالمركز النفسي بالخلفاوي بمحافظة القاهرة

طرق وأدوات البحث

تصميم البحث : تصميم البحث وصفي استكشافي

عينة البحث : تكونت عينة البحث من ٥٠طفل وآبائهم المصاحبين لهم

أدوات البحث :

أ- استمارة بحث تتضمن المعلومات الطبية والتطورية

ب- مقياس برين ١٩٨٣يستخدم لقياس المشاكل النفسية والاجتماعية لدى الآباء.

ج - اس يه ٢٠٠١ويتكون من ٦٨ سؤال لقياس طرق تكيف الآباء.

د- اس وندر ١٩٩٣يتكون من ٤٢سؤال لقياس أعراض الاضطراب المرتبط بالنـشاط الزائد المؤدي إلي قصور في التركيز الموجود لدي الأطفال والمراهقين.

النتائج :

- أظهرت نتائج البحث أن حجم الأسرة و ترتيب الطفل بين أخواته يرتبط ارتباطا سـلبيا ذو دلالة إحصائية بعدم التأكد من المرض والعلاج.
- أوضحت نتائج البحث أن عمر الطفل ومستوى تعليم الطفل يرتبط ارتباطـا ايجابيـا ذو دلالة إحصائية بالخوف من التأثيرات السلبية علي الطفل.
- أظهرت نتائج البحث أن عمر الطفل يرتبط ارتباطا ايجابيا ذو دلالـة إحـصائية قويـة بالخوف من التأثيرات السلبية علي الآباء.
- يرتبط مستوى تعليم الطفل ومدة المرض عند الطفل ارتباطا ايجابيا ذو دلالـة إحـصائية بالخوف من التأثيرات السلبية علي الآباء.
- يرتبط عمر الطفل ومستوى تعليم الطفل ارتباطا ايجابيا ذو دلالة إحـصائية قويـة بفقـد السيطرة عند الآباء، كما أن حجم الأسرة ومدة المرض عند الطفل يرتبط ارتباطا ايجابيا ذو دلالة إحصائية بفقد السيطرة عند الآباء.
- أوضحت نتائج البحث أن عمر ومستوى تعليم الطفل يرتبط ارتباطـا ايجابيـا ذو دلالـة إحصائية بمجموع المشاكل النفسية والاجتماعية للآباء .

الخلاصة والتوصيات :

خلصت هذه الدراسة إلي ما يلي :

- يعد اضطراب فرط النشاط الزائد وقصور الانتباه واحد من الاضطرابات النفسية التي يتم تشخيصها في الأطفال في عمر المدرسة.
- إن أباء الأطفال المصابين باضطراب فرط النشاط الزائد وقصور الانتبـاه يواجهـون أنواع مختلفة من المشاكل النفسية والاجتماعية والمشاكل في الحيـاة العمليـة والتـي تسبب درجة كبيرة من الضغط النفسي للآباء تتمثل في مشاكل عاطفية مثل الخـوف و الاكتئاب والقلق وقلة الشعور بالرضا في الحياة الزوجية ومشاكل في الحياة العملية مثل المشاكل المادية والتعليمية ، كما يقلل من احترام الذات والثقة بالنفس.

التوصيات:

- العلاج الأسري يكون فعال لتقليل الاضطربات السلوكية لهؤلاء الأطفال وزيادة إحـساس الأبوين بالثقة بالنفس ومن ناحية أخري الدواء يعمل علي ذلك ولكن مع العـلاج النفـسي والاجتماعي.
- يحتاج كلا من الأطفال الذين لديهم اضطراب فرط النشاط الزائد وقصور الانتباه وآبـائهم ومعلميهم إلي خدمات متعددة لمساعدتهم في كيفية تحمل هذا الاضطراب الزمن
- يجب تعليم الآباء كثيرا عن طرق التكيف مع هذا الاضطراب وذلك عن طريق التحفيـز والتعزيز الايجابي.
- من الواجب علي الممرضة النفسية أن تعلم الآباء وأطفالهم الطرق التي يؤثر بهـا فـرط النشاط الزائد وقصور الانتباه علي التعليم والسلوك والثقة بالنفس والمهارات الاجتماعيـة ووظائف الأسرة.


رقم الإيداع
١٢٦٢٦