

visits (one visit/month).

Scoring of knowledge and attitude: Knowledge and attitude questions were scored as follows: Each correct answer took (1) degree and incorrect answer took (0) degree in questions carried the answers (Yes& No) and (Satisfactory& Unsatisfactory) while in questions with (3) grades; which asses knowledge and attitude of the participants <50% took zero, from 50% to 75% took 1 degree and equal to and over 75% took (2) degree.

Adequacy of total knowledge and attitude were considered as follows: results of 60% and more considered had adequate or satisfactory score of knowledge or attitude. Less than 60% considered had inadequate or not satisfactory score of knowledge or attitude.

Statistical Analysis:

The collected data were analyzed by computer using statistical package of social sciences (SPSS) version 14.0. Qualitative data were represented as frequencies, percents and chi square test (χ^2) was carried out for testing significant differences in breastfeeding practice by some socio-demographic factors while chi-squared for trend was used for ordinal variables. McNemar chi-squared test was used for testing the significance of change in paired qualitative data comparing pre intervention with post intervention data. The results were considered statistically significant when the significance probability was less than 0.05 ($p < 0.05$). (Mostafa and El Shourbagy, 2005).

Results:

The mean age of studied mothers was 23 years old (23 ± 3.7) with age range from 18 to 36 years, 76.3% of them were mothers for first time, 61.7% of moderate social class, 37.3% with secondary school educational level and 67.7% of them were housewives (Table 1).

The study revealed no significant association between the mothers' age or working status and their total knowledge and attitude pre intervention (Table 2). A significant association between mother's level of education

and their total knowledge towards breastfeeding was found. In contrast, there was no significant association between mother's level of education and their total attitude. There is a significant association between family income and the adequacy of the total knowledge and attitude of the mothers towards breastfeeding practice and dealing with its difficulties. No association was found between family social class and the mother's total knowledge, but there was a significant association between family social class and total attitude (Table 2).

There was a highly significant association between the intervention and improving the knowledge of the mothers about breastfeeding importance and how to practice and face difficulties. In most items, the percentage of mothers with satisfactory knowledge improved from less than 15% to more than 75%. There was a great improvement in the total knowledge of the mothers from (15%) before the intervention to reach (88%) after the health education intervention. (Table 3).

Also, there was a highly significant association between health education intervention and improving the attitude of the mothers towards breastfeeding practice. Asking for a medical advice improved from $\leq 50\%$ to 98% with improving the attendance rate to the health unit after the intervention. Also there was a significant improvement in the total attitude of the mothers from (48.7%) before the intervention to reach (94.7%) after the health education intervention (Table 4).

Most of mothers (297 out of 300) breastfed their babies and their majority (293) continued six months breastfeeding (absolutely& mixed). Only four mothers completely wean their babies due to return to work and all of them of high social class, highly educated and had enough income (Table 5). On testing the effect of some socio-demographic factors and breastfeeding practice, there was no significant association between family social class, income, mother educational level, mother working status and practice of breastfeeding (Table 6).

The study revealed that the commonest breastfeeding

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complete breastfeeding (1.3%). Breastfeeding difficulties were faced by (59%) of the studied mothers and the common were late and/or low milk production (62.1%), nipple fissuring and/or dermatitis (44.6%) and mastitis/ breast abscess (20.3%). All could be successfully managed.

Conclusion:

Early detection of breastfeeding problem during pregnancy and managing them by interventions including health education intervention, counseling, diagnosis and treatment of problems improve the knowledge and attitude and help better practice of breastfeeding and dealing with any difficulty.

Introduction:

Breast feeding is a universal phenomenon common to all cultures. Since 1991 when UNICEF and WHO launched the Baby-Friendly Hospital Initiative (BFHI) in an effort to ensure that all maternity facilities become centers of breastfeeding support, there has been a universal awareness of advantages of breast milk with increasing trends of breast feeding and declining use of artificial formula (Kent, 2006). Strengthening breastfeeding support was ensured in World Breastfeeding Week in 2007 which added stressing on breast-feeding within one hour of birth to prevent 22% of neonatal deaths in developing countries (UNICEF, 2007).

Human breast milk is the best source of nutrition for infants as it is species-specific and contains the optimal balance of fats, carbohydrates, and proteins for developing babies. It provides a range of benefits for growth, immunity, and development (American Academy of Pediatrics, 2005). "The bonding that occurs during breastfeeding makes it a special choice." (American Dietetic Association, 2009).

It was reported that human milk is rich in long chain polyunsaturated fatty acids, which are important for the brain development and myelination, so, breastfed babies usually have a higher intelligence quotient (I.Q) than formula fed ones (Reynolds, 2001). Breastfeeding is associated with decreased risk of sudden infant death

syndrome (Alm,2002) and associated with better speech and teeth development Human milk-fed premature infants receive better immunity and development compared with formula-fed premature infants (Neiva, 2003).

Breastfeeding is likely to protect the baby against some immune-related diseases later in life, such as type 1 diabetes, celiac disease, inflammatory bowel diseases and perhaps cancer. Furthermore, breast feeding seems to be associated with a lower blood pressure, serum cholesterol and obesity in later life. (Owen et al., 2006, and Schack-Nielsen& Michaelsen, 2006).

Breastfeeding decreases mother's risk of endometrial, ovarian and breast cancers and baby's suckling helps to prevent post-partum hemorrhage. (Lee et al., 2003).

Breastfeeding practice in Egypt as revealed by demographic and health survey in 2005 needs improvement as 2.5% of infants were deprived of their breastfeeding before 2 months and 6-10% of infants were deprived of their breastfeeding before six months period which is the recommended period for absolute breastfeeding or at least predominant breastfeeding i.e. when infants receive only non-milk liquids in addition to breast milk (EDHS, 2006).

Barriers to breastfeeding may arise from the baby due to ineffective muscle power for suckling, painful mouth conditions, sleepy baby, weak baby due to underlying disease, respiratory tract infection or congenital anomalies as cleft lip and palate, macroglossia and micrognathia (American Academy of Pediatrics, 2005). Other barriers may be related to the mother as lack of knowledge about breastfeeding management, lack of support, going back to work, delivery by cesarean section, delayed or low milk production, lugged milk ducts, flat or inverted nipples, sore nipples and mastitis (Hogan, 2001, Rowe-Murray and Fisher, 2002).

Aim Of Study:

The aim of the present study is to improve breastfeeding knowledge, attitude and practice, and dealing with its difficulties through the following

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(e.g., is a preschooler's assault of a peer with a toy or rock or pencil similar to an adolescent's assault of a peer with a knife) (Keenan & Wakschlag, 2000).

Despite the many unresolved questions, at this point, there is good evidence that ODD and CD symptoms and diagnostic criteria identify groups of impaired preschoolers with clinically significant behavior problems (Barkley et al., 2002; Coy, Speltz, DeKlyen & Jones, 2001; Kim-Cohen et al., 2005; Speltz, DeKlyen, Greenberg & Dryden, 1995; Wakschlag & Keenan, 2001). So few studies have examined ODD and CD separately that it is not yet clear that they should be considered two separate disorders or a single continuous entity. Data from the non-specialty clinic studies show a fairly wide range of prevalence estimates for ODD (4-16.8%) and CD (0-6.6%). Preschool ODD has been found to show substantial stability or prediction to other disruptive behavior disorders (50-76% - as high as in older children and adolescents) over a 2-year period (Barkley et al., 2002). A recent paper by Kim-Cohen and colleagues (Kim-Cohen et al., 2005) reporting rates and concurrent, convergent, and predictive validity of DSM-IV CD in a representative birth cohort (N = 2,232) of 4½-5-year-old twins provides compelling support for the diagnosis of CD, at least in older preschoolers. The overall prevalence was 6.6% with 2.5% of the children having moderate to severe CD, with rates in boys 3-5 times greater than in girls. Half of the children with CD at age 5 also met criteria at age 7.

Emotional Disorders

Anxiety Disorders: Clinical research has examined the characteristics of significant anxiety symptoms and disorders in preschool children. As with ADHD and ODD symptoms, a first question is whether the DSM-IV anxiety symptoms seem to be indexing problematic behavior or common, seemingly normative behavior. Our approach to

developing the PAPA diagnostic algorithm for SAD illustrates one (albeit preliminary) approach to this question. In the PTRTS, SAD criteria symptoms ranged from being common (e.g., a quarter of preschoolers were reluctant to sleep without being near caregiver) to very uncommon (e.g., less than a half a percent worried about calamitous separation from their parent) (Egger et al., 2004). Each of the SAD symptoms, except avoids being alone and separation nightmares, was significantly associated with impairment.

Generalized Anxiety Disorder defined as excessive worry, apprehension, and anxiety occurring most days for a period of 6 months or more that involves concern over a number of activities or events. The person has difficulty controlling the anxiety, which is associated with the following: restlessness, feeling "keyed up" or on edge; being easily fatigued; difficulty concentrating or having the mind go blank; irritability; muscle tension; difficulty falling asleep or staying asleep, or restless sleep. The anxiety causes significant distress and problems functioning.

Preschool temperaments as risk factors for disorders later in childhood and adulthood. For 40 years temperament research has generated findings of great relevance to preschool psychopathology. Temperament characteristics are individual differences in reactivity and regulation that are constitutional (i.e., inherited, biological, physiological), present early in life, and relatively stable, although influenced by maturation and experience (Rothbart & Bates, 1998). Broad temperament dimensions, particularly negative affectivity, and extreme temperament types, particularly behavioral inhibition and behavioral disinhibition, have been identified as risk factors for the development of disorders later in childhood, and have been shown to be concurrently associated with

difficulty facing the studied mothers is late lactogenesis and low milk production (62.1%), the 2nd difficulty is nipple fissuring and dermatitis (44.6%), the 3rd frequent is mastitis and breast abscess (20.3%) (Table 7). All mothers who faced difficulties could be managed properly either in the health unit or by referral to the proper specialty and none of them stop breastfeeding because of a medical difficulty.

Discussion:

Breastfeeding provides many benefits for the health, growth, and development of infants. Everyday between 3000 and 4000 infants die in the third world countries from diarrhea and acute respiratory infection because of inadequate breast milk given to them (Edmond et al., 2006). UNICEF and world health organization (WHO) recommend avoidance of early weaning for which the most common reasons are fear of inadequate milk supply (56.0%) followed by breast and nipple soreness (Singh, 2010). Other several variables such as lack of education and support, embarrassment, returning to work shortly after delivery and distribution of free formula samples, seem to affect breastfeeding behavior (Finch & Daniel, 2002).

The aim of this work was to improve breastfeeding practice among mothers through improving their knowledge and attitude, studying and managing breastfeeding difficulties, then, following them up for 6 months after delivery to measure their breastfeeding practice.

There was no significant association between mother's age and total knowledge or total attitude agreeing with Alqadi, (2004). In contrast, another study found that the mother's age is very important in their attitude towards breastfeeding practice as the older the mother the better the attitude as she caught more experience (Scott et al., 2006).

Most of the included mothers had secondary school education and there was a significant association between mothers' educational level and their total knowledge while there was no significant association with the total attitude.

Igbedion (1994) found that the higher the education of the mother the more good and great knowledge and attitude towards breastfeeding. The disagreement of this results with ours regarding the attitude with poor attitude among university graduate may be due to old cultural concept which linked breastfeeding to poor, low educated females. However, it doesn't reach statistical significance.

Regarding the association between mother's total knowledge and attitude with their working status, our study revealed no significance which can be contributed to the low percent of working mothers as most of the studied sample were not working (housewives) (67.7%). There was a significance association between mothers total knowledge and attitude towards breastfeeding and their income. This agrees with Hill et al. (2004) who found that the family income had a noticed influence on the initiation of breastfeeding, as the higher the income the easier to the mother to lactate artificially, and vice versa as breastfeeding saves a lot of money.

Most of the sample were of moderate social class and a highly significant association was revealed between social class of the mothers and their total attitude, but not total knowledge, in agreement with a study found that the social class of the family had a great influence in initiating and continuing breastfeeding and also had an influence on faster asking for a medical advice on facing any medical problem (Green et al., 1999). In contrast, another study reported that the social class alone was not influence the breastfeeding practice but the community culture and behaviour as a whole are the real factors and social class is just a subfactor (Hill et al., 2004).

The effect of health education intervention on the studied mothers was obvious. In general the overall satisfactory knowledge increased from 15%, to 88%. The health education sessions had good effect on improving knowledge and attitude of all targeted areas. Knowledge about advantages of breastfeeding for the baby and for the mothers and beneficial foods that help to increase breast milk increased while wrong concepts that infant or mother

particularly affected, with over half of preschool-age children having (IDA) in most countries. (Grantham- McGregor, 2001)

Research on the developmental or behavioral effects of (IDA) among kindergarten children is limited.

The few available studies generally show impaired motor, cognitive, and language development as well as poorer learning performance among 3 to 5-y-olds with IDA. However, there is little or no information on social or emotional alterations in the preschool-age group. The paucity of research on social and emotional development is striking, insofar as this domain has been affected in virtually every study of IDA in infancy, and changes in behavior and affective states might contribute to poorer cognitive and motor test performance. (Lozoff, et al, 2006)

Findings in social and emotional studies of iron-deficient infants provide the background for this study of preschool-aged children. Infants with chronic, severe iron deficiency have been observed to display increased fearfulness, unhappiness, fatigue, low activity, wariness, solemnity, and proximity to the mother during free play, developmental testing and at home. (Lozoff, et al, 2007)

Tremblay, 2004 demonstrated that individual symptoms including aggression, oppositionality, hyperactivity, fears, and social anxiety were common in young children. The careful description of behaviors and their frequencies and other qualities at each age in non-clinical populations is a necessary first step. This descriptive work makes it possible to designate empirically- determined cut points and identify non-normative clusters of symptoms. More recently, studies of preschoolers have used checklist measures to define specific types of disordered groups of young children. These measures include "empirically-derived" checklists such as the Child

Behavior Checklist (CBCL) 1½- 5 y-olds (Achenbach& Rescorla, 2000), DSM- referenced rating scales such as the Early Childhood Inventory- 4 (ECI) (Gadow& Sprafkin, 1997; Gadow, Sprafkin& Nolan, 2001), or checklist measures of specific symptom clusters such as the ADHD Rating Scale (Gimpel& Kuhn, 2000) or the Preschool Anxiety Scale (PAS) (Spence, Rapee, McDonald& Ingram, 2001). Although checklist measures like these do not include enough symptom specificity (e.g., frequency, duration, onset) to enable researchers to make the sorts of diagnoses.

Behavioral Disorders

The vast majority of work on preschool psychopathology has focused on ADHD and the disruptive behavior disorders, ADHD, ODD and CD. ADHD appears to be the most common diagnosis received by young children referred for mental health services (Gadow et al., 2001; Keenan& Wakschlag, 2000; Wilens et al., 2002b). For instance, 86% of 200 preschoolers consecutively referred to an academic child psychiatry clinic were diagnosed with ADHD (Wilens et al., 2002b). The DSM-IV-TR states that the child's inattention and/or hyperactivity-impulsivity must be severe, frequent, persistent, and "Inconsistent with developmental level" to be considered a symptom of ADHD. For preschoolers, who are developing the capacity to sustain attention (Jones, Rothbart& Posner, 2003) and inhibit behavior (Dowsett& Livesey, 2000), defining the boundaries between normal and clinically significant inattention, hyperactivity, and impulsivity behaviors is challenging (Kochanska et al., 2001; Keenan& Wakschlag, 2002; Nigg, Goldsmith& Sachek, 2004;).

Reports of the increase in the rate of stimulant prescriptions for preschoolers (DeBar et al., 2003) over the past decade have raised the concern that normal preschool behaviors and capacities are being

returning work and all of them of high social class, highly educated and had enough income.

More than one half of the mothers faced difficulties. The most common difficulty facing the mothers during lactation is late lactogenesis or low milk production, then nipple fissuring and dermatitis followed by mastitis and breast abscess 20.3%. This agrees with Neifert (1999) who said that the commonest difficulty facing a lactating mother is late or low milk production. Mothers with late lactogenesis and low milk production were managed by (reassurance, increase fluids intake and fresh fruits and vegetables and some drug intake). Tarrant et al.(2002) reported that the most common difficulty that face the mothers to initiate breastfeeding nowadays is increasing prevalence of caesarean section operations in labours as anaesthesia, exhausted mother, drowsy baby and may be the complications of the operation are common factors affect early suckling and initiation of breastfeeding but this wasn't faced by our sample. Most of cases who had nipple fissuring, mastitis or breast abscess were in need for asking for medical advice from a specialist to cure and managed by (antipyretics, anti-inflammatory and antibiotics) (Hogan, 2001). The occurrence of difficulties and the excellent effect of managing them on continuation of breastfeeding proves the importance of increasing number of breastfeeding caring centers to interfere early with such difficulties (Adams et al., 2001& Dearden et al., 2002).

Conclusion:

There were some socio-demographic characteristics like family income and social class affect total knowledge and/or attitude of the mothers. Health education and counseling sessions in addition to diagnosis and management of the difficulties greatly improve knowledge and attitude and positively affect breastfeeding practice.

Recommendations:

1. Enhancing the prenatal phase with health education programs regarding pregnancy, antenatal care, and infant care.
2. A comprehensive health education programs for all

pregnant women.

3. Increasing the number of breastfeeding caring centers all over the country

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Tables:

Table (1): Distribution of the studied sample according to socio demographic characteristics.

Socio-Demographic Characteristics	Number	Percentage (%)	
Age	< 23y.	123	41.0
	≥23y.	177	59.0
Parity	Primigravida	229	76.3
	Multiparous	71	23.7
Income	Not Enough	20	6.7
	Enough	280	93.3
Educational Level	Illiterate	43	14.3
	Read & Write	59	19.7
	Secondary School	112	37.3
	High Education	86	28.7
Working Status Of The Mother	Not Working	203	67.7
	working	97	32.3
Socio Economic Status	Low	28	9.3
	Moderate	185	61.7
	High	87	29.0
Total	300	100.00	

Table (2): The effect of Socio-demographic variables on total knowledge and attitude towards breast feeding before intervention.

Socio-Demographic Variables	Total Knowledge		P Value	Total Attitude		P Value	
	Poor	Satisfactory		Poor	Satisfactory		
Mother's Age	<23 Y.	87.0	13.0	0.14	42.3	57.7	0.17
	≥23 Y.	83.6	16.4	57.6	42.4		
Level Of Education	Illiterate	90.7	9.3	0.04*	53.5	46.5	0.1
	Read + Write	93.2	6.8		44.1	55.9	
	Secondary School	81.3	18.7		43.8	56.2	
Working Status	High Education	81.4	18.6	0.7	65.1	34.9	0.18
	Not Working	86.2	13.8		47.3	52.7	
Family Income	Working	82.5	17.5	0.05*	59.8	40.2	0.03*
	Not Enough	70.0	30.0		25.0	75.0	
Family Social Class	Enough	86.1	13.9	0.25	53.2	46.8	0.007*
	low	89.3	10.7		39.3	60.7	
	moderate	85.9	14.1		47.6	52.4	
	high	81.6	18.4	63.2	36.8		

* Significant Difference

المخلص

دراسة ومعالجة مشاكل الرضاعة الطبيعية بين السيدات الحوامل المتعددات على مركز رعاية الأم والطفل بمركز بليبس بمحافظة الشرقية في مصر

هدف البحث إلى قياس معرفة السيدات الحوامل محل البحث بأهمية الرضاعة الطبيعية وتوجهاتهم، واكتشاف معوقات الرضاعة الطبيعية والتعامل معها بكل الطرق المتاحة مثل جلسات التنقيف الصحي، وعلاج الأمراض العضوية البسيطة التي يمكن علاجها مبدئياً وتحويل الحالات المعقدة لأخصائي، مع قياس تأثير التدخل التنقيفي في زيادة الوعي لدى السيدات الحوامل، وقياس التأثير التطبيقي للتدخل عن طريق متابعة إرضاع الأمهات محل البحث لمواليدهن للتأكد من نجاح عملية الرضاعة الطبيعية.

منهجية البحث:

تم إجراء دراسة مقطعية على عينة عشوائية اشتملت على ٣٠٠ من السيدات الحوامل في الشهر الثامن من حملهم والمتعددات على مركز بليبس لرعاية الأمومة والطفولة في محافظة الشرقية لقياس نسبة المعرفة والوعي عن أهمية الرضاعة الطبيعية ومعوقاتهما لديهن ثم تم عمل دراسة تدخلية امتدت من مرحلة ما قبل الولادة وحتى ٦ شهور بعدها، وقد تم استخدام استمارة استبيان اشتملت على بعض البيانات الاجتماعية (السن، درجة التعليم، العمل، الدخل...)، وبيانات عن التاريخ المرضي العام والنسائي، وأسئلة لاختبار المعلومات والتوجهات نحو الرضاعة الطبيعية ومعوقاتهما والتعامل معها قبل وبعد التدخل والذي اشتمل على جلسات تنقيفية وكشف إكلينيكي عام وموضعي على الثدي وعلاج بعض المشاكل الغير معقدة وتحويل الحالات المعقدة لأخصائي وقد تمت متابعة كل سيدة لمتابعة نجاح عملية الرضاعة الطبيعية حتى ٦ شهور.

النتائج:

أظهرت النتائج أن متوسط عمر السيدات موضع الدراسة ٢٣ عاماً، ومعظمهم أمهات للمرة الأولى، من مستوى إجتماعي متوسط، ومتوسطى التعليم، وريبات بيوت. وقد أظهرت الدراسة عدم وجود علاقة ذات دلالة إحصائية بين سن الأم أو عملها ومعرفتها بأهمية الرضاعة الطبيعية، وكيفية التعامل مع مشاكلها، بينما أظهرت الدراسة وجود علاقة بين المستوى التعليمي المرتفع للأم والمعرفة الجيدة بأهمية الرضاعة الطبيعية وهناك علاقة قوية بين المستوى الاجتماعي للأم والاتجاه نحو ممارسة الرضاعة الطبيعية

والاستمرار فيها. وبعد التدخل التنقيفي حدث تحسن عالي جدا في المستوى المعرفي للأم بأهمية الرضاعة الطبيعية ومدى الحرص عليها، وزاد وعي الأمهات أيضا بعد التدخل التنقيفي لأهمية معرفة معوقات الرضاعة الطبيعية وكيفية التعامل معها لاستمرار الرضاعة الطبيعية. ووضحت المتابعة أن (٩٧,٧%) من الأمهات أكملوا الرضاعة الطبيعية فترة الدراسة (٦ أشهر) سواء لبن الأم فقط أو بإدخال بعض المشروبات بجانب لبن الأم، بدون أي علاقة ذات دلالة إحصائية مع المستوى الاجتماعي لاسره أو الدخل أو المستوى التعليمي للأم أو عملها. ولكن كان سبب عدم الرضاعة في من لم يرضعن هو الرجوع للعمل. وقد قبلت (٥٩%) من الأمهات معوقات للرضاعة الطبيعية وكان أكثرها حدوثا هي تأخر إررار لبن الأم أو قلة كميته (٦١,٢%)، يليه تشنجات والتهابات الحلمة بنسبة (٤٤,٦%)، وأخيرا التهابات وخراج الثدي بنسبة (٢٠,٣%). وقد أمكن علاج كل المعوقات بنجاح ولم تتوقف أي أم عن الرضاعة الطبيعية بسبب تلك المعوقات.

الخلاصة:

إن الاكتشاف المبكر لمشكلات الرضاعة الطبيعية منذ الحمل والتعامل معها بالتدخلات المختلفة مشتملة على التدخل التنقيفي وتقديم المشورة بالإضافة إلى تشخيص وعلاج المعوقات يحسن المعارف والتوجهات نحو الرضاعة الطبيعية فيؤثر إيجابيا على ممارسته، ومواجهة أي صعوبات تقابلها، لذا توصى الدراسة بزيادة الاهتمام بتعميم ذلك.

المخلص**بعض الاضطرابات الانفعالية والسلوكية لدى أطفال الروضة****المصابون بالانيميا**

تهدف هذه الدراسة إلى المقارنة بين أطفال الروضة المصابين بالانيميا وبين أطفال الروضة غير المصابين بها في بعض الاضطرابات الانفعالية والسلوكية. وإعتمد الباحثان في تشخيص الانيميا على حساب نسبة الهيموجلوبين، ومتوسط حجم كرات الدم للتأكد من الإصابة بالانيميا أو عدمها. كما استخدم الباحثان استبيان الاضطرابات الانفعالية والسلوكية لدى أطفال الروضة، (إعداد: الباحثان).

وتكونت عينة البحث من مجموعتين:

١- مجموعة من الأطفال المصابين بالانيميا وعددهم (٥٩) طفلاً وطفلة.

٢- المجموعة الأخرى من الأطفال العاديين وعددهم (٦٢) طفلاً وطفلة.

متوسط العمر الزمني لأفراد العينة (٥,٤) سنوات، وجميع أفراد العينة ملتحقين بروضة مدرسة عبدالرزاق عبدالمجيد التجريبية بمحافظة الاسكندرية.

النتائج:

أشارت النتائج إلى وجود فروق دالة إحصائية في الاضطرابات الانفعالية والسلوكية بين درجات أفراد المجموعة المصابة بالانيميا وبين درجات المجموعة غير المصابة بالانيميا عند مستوى (٠,٠١)، ولم توجد فروق دالة إحصائية بين أفراد العينة في الاضطرابات الانفعالية والسلوكية ترجع إلى النوع.

الكلمات المفتاحية:

الاضطرابات الانفعالية- الاضطرابات السلوكية- الانيميا- أطفال الروضة

problematic behaviors in preschoolers. Like the broad internalizing scale of the CBCL, negative affectivity is a global measure of a range of negative emotions including sadness, fear, anger, frustration, poor adaptability, and high emotional intensity (Rothbart, Ahadi, Hersey, & Fisher, 2001). Preschool negative affectivity has been found to predict later childhood externalizing and internalizing symptoms (Caspi & Silva, 1995; Gjone & Stevenson, 1997; Goldsmith & Lemery, 2000; Rende, 1993; Schmitz et al., 1999), as well as antisocial behavior in adulthood (Henry, Caspi, Moffitt & Silva, 1996). A few studies of preschoolers have linked negative affectivity to concurrent measures of overall problem behaviors, internalizing and externalizing syndromes (Guerin, Gottfried & Thomas, 1997; Shaw, Owens, Vondra, Keenan & Winslow, 1996), and symptoms of anxiety and depression (Keenan et al., 1998).

Patterns of temperament traits in preschoolers have also been linked to increased risk for later disorders. The two extreme temperament types of behavioral inhibition (BI) and behavioral

Disinhibition/ exuberance (BD) has been well characterized in young children (Hirshfeld- Becker et al., 2003). Distinct patterns of biological arousal and reactivity underscore the differences in emotion regulation underlying these two patterns of temperamental emotionality (Fox, Henderson, Rubin, Calkins & Schmidt, 2001). BI, identified in about 15% of preschoolers, is associated with shyness, fear, withdrawal in novel situations, and anxious distress. BI is heritable, associated with parental anxiety disorders, has physiological accompaniments (sympathetic, cardiovascular, and cortisol hyperreactivity), and is a risk factor for anxiety disorders and depression later in childhood (Hirshfeld-Becker et al., 2003). BI's inverse, BD, is characterized by high approach, high novelty

seeking, low harm avoidance, and irritable distress. BD is a putative risk factor for ADHD, disruptive behavioral disorders (DBDs), comorbid DBDs and mood disorders, and aggressive behaviors (Rubin, Burgess, Dwyer & Hastings, 2003).

Although temperamental characteristics have been conceptualized as risk factors for a variety of disorders across the lifespan, it is also possible that early-measured temperamental characteristics could represent the early presence of the disorders themselves. The lack of conceptual clarity about the distinction between temperament and psychopathology is reflected in the number of overlapping items in temperament and psychopathology measures. Such overlap presents a serious methodological and conceptual problem for understanding the relationship between temperament and early onset psychopathology (Frick, 2004). For example, 24 items of the 94-item Child Behavior Questionnaire (CBQ) (Rothbart et al., 2001), a commonly used early childhood temperament scale, are identical to or direct opposites of items on the CBCL. As Lahey has pointed out, naming certain behaviors "Temperament Traits" and other behaviors "Psychiatric Symptoms" is not an act inherently reflective of nature, but rather reflects distinctions stemming from particular theoretical perspectives (Lahey, 2004). Both perspectives reflect the fact that there is a continuum between developmentally normative behaviors and emotions, individual (temperamental) variations and clinically significant symptoms, with gradations based on patterns of distribution, intensity, frequency, duration, persistence, and impairment.

At this point, it seems plausible that some "Extremes of Temperament" could qualify as psychiatric disorders, but extremity on a temperament dimension is neither a necessary nor a

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temperament checklists identified five factors very similar to ones identified by Spence and colleagues: general distress, separation anxiety, fear, obsessive compulsive behaviors, and shyness/ inhibition. The correlations between the general distress, separation anxiety, and fear factors and the shyness/inhibition factor were quite low (0.17 to 0.28), suggesting that anxiety symptoms were distinct from behaviorally inhibited temperament. As previously noted, the rates of anxiety disorders varied considerably in the community studies of preschoolers, with measurement limitation, sample selection bias, and/or lack of agreement about the boundaries between normative and clinically significant anxiety symptoms all potential reasons for this of association of individual anxiety disorders with nonanxiety diagnoses showed some specificity. All of the anxiety disorders were bivariate associated with CD, ODD, Children with anxiety disorders were significantly more likely to be impaired than children without an anxiety disorder (OR ¼ 9.3 (4.2, 21); p < .0001). On an impairment scale (range0-30), the mean scores for individual anxiety diagnoses were 13.7 for SAD, 7.7 for GAD, (Angold et al., 2004).

These data suggest that (1) anxiety disorders are common in preschool children, (2) they exhibit substantial homotypic and heterotypic comorbidity, (3) there are differences in the rates of homotypic and heterotypic comorbidity among the specific anxiety disorders, and (4) preschoolers who meet the DSM diagnostic criteria for specific anxiety disorders are significantly more impaired than children without an anxiety disorder.

Hypothesis:- There are statistically significant differences between members of the group suffering from (IDA) and between members of the normal group, in behavioral and emotional disorders, for members of the group suffering from (IDA)

Aims Of The Study:

1. This study surveyed some emotional and behavioral disorders of kindergarten children with Iron Deficiency Anemia IDA and those without IDA (normal).
2. This study compared those disorders of kindergarten children with Iron Deficiency Anemia IDA and those without IDA (normal).

Method And Procedures Participants:

The design of the study was based on the descriptive method with children (5-6)-y-olds, M=(5.4), SD=(±0.51) in Abdalrazaak Abdalmajeed- a pilot kindergarten- in Almontaza district (Alexandria). Sample is divided in 2 groups: Non-Anemic kindergarten children (n=62): Boys (36), girls (26). And anemic kindergarten children (n=59): boys (32), girls (27).

Tools:

1. Iron status Assessment: Iron status was based on a complete blood count from a venous sample obtained within a 3-mo window around the behavioral assessment. The measures of iron status included hemoglobin (Hb), mean corpuscular volume (MCV), and red cell distribution width (RDW).

∞ Normal Levels:

- a. Hemoglobin Levels in Children 11- 13 Hemoglobin Count (gm/dl)
- b. MCV: 75-87 fl (femtoliters) for ages two to six years, 70-86 fl for ages six months to two years, 85-123 fl for age one month
- c. MCH: 25-33 (picograms) pg for ages six to 12 years, 24-30 pg for ages two to six years, 23-31 pg for ages six months to two years, 28-40 pg for age one month
- d. MCHC: 30-36 g/dL for ages six months to two years, 29-37 pg for age

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It is clear from the above table that the reliability coefficients of the dimensions of the questionnaire in the case of deletion of dimension less than or equal to the total reliability coefficient (0.807) of the questionnaire, indicating that the deletion of any after affects negatively on the questionnaire.

✕ Correction of the questionnaire: The questionnaire is designed so that the kindergarten teachers respond by yes or no, (Yes) is given two degrees and (No) is given one degree, where the low grade illustrates no symptoms that represent dimensions of the questionnaire on the child, and the high degree reflects the emergence of these

symptoms on the child, At the discretion of the teacher for the child's case

Methods Of Statistical Analysis:

- ✕ Means And Standard Deviations.
- ✕ Correlation Coefficients.
- ✕ Tow ways Analysis of variance.
- ✕ ETA Square.

Results And Discussion:

Two ways Analysis of variance was used for the detection of bilateral differences exist between the estimates of the parameters to a questionnaire behavioral disorders and emotional disorders for the children of the kindergarten for the members of the IDA group and members of the non-anemic group, as reflected in the table below

Table (3) Tow ways Analysis of variance depending on the degree of bilateral dimensions of behavioral disorders and emotional disorders due to the difference of the group and gender

Dimension	Source Of The Difference	Sum Of Squares	Degrees Of Freedom	Average Squares "F" Value	"F" Value	Significance	ETA Square
ADHD	Group	14.952	1	14.952	37.384	0.01	0.242
	Gender	0.050	1	0.050	0.124	Non-Significant	
	Group× Gender	0.034	1	0.034	0.086	Non-Significant	
	Error	46.796	117	0.400			
ODD	Group	19.067	1	19.067	26.461	0.01	0.184
	Gender	0.001	1	0.001	0.001	Non-Significant	
	Group× Gender	0.055	1	0.055	0.076	Non-Significant	
	Error	84.310	117	0.721			
CD	Group	11.156	1	11.156	16.817	0.01	0.126
	Gender	1.367	1	1.367	2.060	Non-Significant	
	Group× Gender	3.276	1	3.276	4.938	Non-Significant	
	Error	77.615	117	0.663			
SAD	Group	10.723	1	10.723	22.767	0.01	0.163
	Gender	0.067	1	0.067	0.143	Non-Significant	
	Group× Gender	0.863	1	0.863	1.831	Non-Significant	
	Error	55.103	117	0.471			
GAD	Group	20.170	1	20.170	29.573	0.01	0.202
	Gender	0.022	1	0.022	0.033	Non-Significant	0.000
	Group× Gender	0.940	1	0.940	1.378	Non-Significant	0.012
	Error	79.800	117	0.682			

"F" value at (1, 117), and at Significance (0.01)= 6.851

"F" value at (1, 117), and at Significance (0.05)= 3.92

done by Emel-Gu et al in Istanbul 2005.⁽²²⁾ As against this the study carried by EL. Hioi et al in Morocco 2008 reported that the distribution of anaemic children by age group showed that 16.3% were lower than 12 years whereas 7% had age between 12 and 16 years and the difference was statistically significant.⁽²³⁾

The prevalence of iron deficiency anaemia was higher in girls than boys in the present study with ratio M: F (1: 1.3) with no statistical significance and this female preponderance found to be in closer proximity reported by other studies with statistical significance.⁽²⁴⁻²⁵⁾

The probable explanation for female preponderance of IDA could be due to cultural reason that more preference given to male child close diet supervision than female child. In addition to that female adolescent may have a combination of menstrual iron loss and rapid growth also the habit of tea consumption could be more in females which is known strong risk factors association to iron deficiency anaemia.

Regarding the severity of anaemia in the current study 89% of cases was mild anaemia as closer proximity reported by Mohamed Eioui et al in Morocco 2008.⁽²⁶⁾ In the present study the size of household of the family apparently increases the difference between the children with iron deficiency anaemia and them with normal blood levels, this observation in agreement with other studies.^(22,23)

Reasonable explanation that the lower iron intake in the crowded families along with a greater exposure to infections and parasitic infestation. The chance of IDA increase as the number of children in the family or birth order for the participating child among its sibling increase, There is no significant relationship between the prevalent of anaemia and parent's employment in the current study were apparently found in accordance with other

studies.⁽²²⁻²⁶⁾ There is no significant relation between the prevalence of anaemia and education achievement in our study as known in the literature that IDA affect achievement scores.

ID with or without concomitant anaemia can impair growth and intellectual development in children. There is no correlation between and education achievement and anthropometric measurement for under weigh and height and iron deficiency anaemia as known in our study as observed in study done in Singapore 2006.⁽²⁷⁾ The most probable explanation to this the probable explanation of our result that could be due to anaemia was mild in majority of studied sample. There was statistical significant difference between student's habit of drinking tea and iron deficiency anaemia as reported in different studies.⁽²⁸⁾

With regard to the factors associated with anaemia, it was found in the present study that some of them are already well known in the Literatures as risk or protective factors did not present any statistically significant association, possibly because of the sample size.

Conclusion:

The prevalence of anemia among preschool children in Helwan was 8.2% as higher than the developed countries as much lower than many other developing countries. The correlation between some risk factors (sex, growth, parameters, educational achievement) and prevalence of IDA was unexpected and contrary to the Literature with could be partly explained by sample size. Large family size and tea consumption were found strongly associated with iron deficiency anaemia. Further improvement of IDA status might be achieved through continuous information dissemination about iron rich food and iron absorption by human body. Combating iron deficiency anaemia should be a priority, making endeavor towards implementing adequate public

A Pilot Study Of Some Risk Factors For Respiratory Tract Infections Among Preschool Children At Helwan

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Abstract:

Acute respiratory tract infections (ARI) are an important public health problem. Improved identification of risk factors might enable targeted intervention.

Objective:

To study some of the risk factors related to acute respiratory tract infections among preschool children at Helwan.

Methodology:

This descriptive retrospective study was conducted in three kindergartens in Helwan between October 2009 and March 2010, the total number of children was 800. All children were subjected to: short questionnaire for detection of detailed history regarding risk factors of acute respiratory infection, history of the illness within the last six months, lines of management and medicines used and clinical examination. Ethical consecrations were taken.

Results:

- ✧ The prevalence of ARI among preschool children was 40%. Males represented 54.4% of all studied preschool children.
- ✧ The mean number of attacks was 1.14 attacks/year. Male gender was considered a risk factor ARI (P < 0.05).
- ✧ Passive smoking had direct effect on the increased incidence and frequency of ARI, the ratio of diseased to normal preschool children exposed to passive smoking was 6.2:1, while it was 0.8:1 in non-passive smokers (P < 0.05).
- ✧ There was no significant relationship between the number of children in the family, the number of rooms in the house, the crowding index and the prevalence of acute respiratory infections (P > 0.05).
- ✧ The use of antibiotics in this study was found in 70% of diseased cases, although most of them had no real indication for the use of antibiotics.

Conclusion:

There is a significant relationship between passive

years are an opportune time to intervene, and interventions must be based on sound epidemiologic understanding of the problem in this age group.⁽¹⁾

Iron deficiency anemia (IDA) is the most common nutritional deficiency in children and is worldwide in distribution. There is higher prevalence of iron deficiency anemia in African- American children than in Caucasian children.⁽²⁾

The incidence of iron deficiency anemia is high in infancy, but it also exist to a lesser extent in school children and preadolescent.

Through its impact on school participation and learning, anemia could also be central to understanding the intergenerational transmission of poverty. Yet there is little work by economists on the effects of anemia on economic development, and many existing non-experimental studies exploring the impact of anemia. Although no socioeconomic group is spared the incidence of iron deficiency anemia is inversely proportional to economic status.⁽²⁾ Other factors associated with this also act as determining factors, including low birth weight, precarious access to health services, greater incidence of infectious processes, and inadequate education and sanitation.^(3,4) Among the causes of IDA, the high consumption of strong tea and the practice of serving tea to children at a younger age could reduce the bioavailability of iron and thus expose large numbers of children and adults to iron deficiency.⁽⁵⁾

The most commonly used definitions of anemia come from the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) by Hemoglobin Value for Children 5.0 to 11.9 years < 11.5 g per dL.⁽⁶⁾ Iron deficiency anemia is classically described as a microcytic anemia.⁽⁷⁾ Serum ferritin is the preferred initial diagnostic test.⁽³⁾ Hemoglobin and ferritin tests are the best for diagnosing iron deficiency

anemia.^(8,9,10)

However combination of the serum ferritin concentration and new test the serum transferrin receptor concentration now make possible diagnosis of iron deficiency anemia in most clinical circumstances.

Objectives:

This study aims to determine the prevalence of anemia and iron deficiency among preschool children and to determine some risk factors associated with iron deficiency anemia.

Subjects and methods:

A Cross Sectional study was carried out to achieve the objectives; the study was conducted in Helwan among preschools selected randomly during the period 5/10/2009 to 27/1/2010. The study included (450 preschool children) from Helwan.

Data Collection:

The Data were collected via questionnaire filled out by the parent Include information on socioeconomic and demographic characteristics, parent work, personal, family data educational data, dietary data including consumption of tea and anthropometric measurement (Wt& Ht) was measured by the researcher. The nutritional evaluation, anthropometric indices were calculated as weight for age (W/A), Height for age (H/A) the reference taken was the curves from national center health statistics (NCHS).⁽¹¹⁾

A venous blood sample from preschool children was taken after a written consent by the parent and (1ml) of blood was collected into Ethylenediaminetetraacetic (EDTA) coated tube for full blood count, Sysmex corporation Automatic Hematology analyzer KX-21 N Jan. 2006 was used for Hemoglobin (Hb) concentration, Mean Corpuscular Volume (MCV) was derived from the values. and normal values according to this machine (9.5-14g/dl) (70-84 fl) respectively. Thirty seven of the

analyzed using the Statistical Package for the Social Sciences (SPSS) version 12.0⁽¹⁰⁾

Results:

The total number of preschool children in the study was 800. The number of normal preschool children was 480, while the number of preschool children suffering from ARI was 320 (40%). Males represented 54.4% of all studied preschool children. The mean number of attacks within six months was 1.14. Table (1) shows age and sex distribution in normal and ARI groups of preschool children.

Table (1): Age and sex distribution in normal and ARI groups of preschool children.

	Normal Children		ARI Cases		Total	
	No.	%	No.	%	No.	%
Age : 2 – 3 years	58	12	32	10	90	11.2
3 – 4 Years	120	25	90	28	210	26.3
4 – 5 Years	302	63	198	62	500	62.5
Sex: Males	230	48	205	64	435	54.4
Females	250	52	115	36	365	45.6
Total	480	100	320	100	800	100

$\chi^2 = 21.83$, P value < 0.001
OR=1.36, CI(0.93-1.37)

Table (2) and figure (1) show types of acute respiratory infections among age groups preschool children.

Figure (1): Types of acute respiratory infections among age groups preschool children

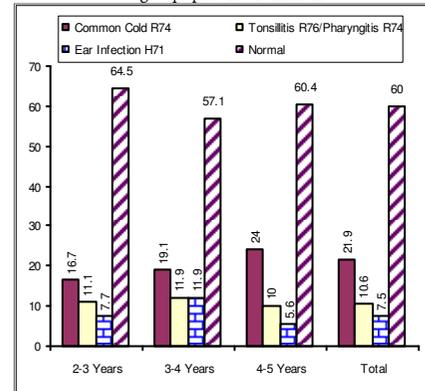


Table (2): Types of acute respiratory infections among age groups preschool children

Acute respiratory infections	2-3 Years		3-4 Years		4-5 Years		Total	
	No.	%	No.	%	No.	%	No.	%
Common Cold R74	15	16.7	40	19.1	120	24	175	21.9
Tonsillitis R76/ Pharyngitis R74	10	11.1	25	11.9	50	10	85	10.6
Ear Infection H71	7	7.7	25	11.9	28	5.6	60	7.5
Normal	58	64.5	120	57.1	302	60.4	480	60
Total	90	100	210	100	500	100	800	100

$\chi^2 = 9.67$, P value < 0.05
OR=0.94, CI(0.33- 2.67)

Tables (3 and 4) show relationship between passive smoking in normal and ARI preschool children and frequency of attacks of different types of ARI.

Table (3): The relationship between passive smoking in normal and ARI preschool children.

	ARI Children		Normal Cases		Total	
	No.	%	No.	%	No.	%
Non-Smokers	176	55	432	90	608	76
Passive Smokers	144	45	48	10	192	24
Total	320	100	480	100	800	100

$\chi^2 = 11.3$, P value < 0.05
OR=07.2, CI(4.9- 10.6)

Table (4): The relationship between passive smoking and frequency of attacks of different types of ARI in preschool children

	Non-Smokers		Pass Smokers		Total	
	No.	%	No.	%	No.	%
Single	103	19.2	74	34.4	177	23.6
Two	113	21.1	81	37.6	194	25.8
3 Or More	17	3.2	30	14	47	6.3
Normal	302	56.5	30	14	332	44.3
Total	535	100	215	100	750	100

$\chi^2 = 12.18$, P value < 0.01
OR=1, CI(0.65- 1.54)

Discussion:

The prevalence of ARI was variable due to the difference in risk factors and climate.⁽¹¹⁾ It increased mainly in winter and cold, chilly weather.

In the present study, the prevalence of ARI was 40% among preschool children. Other studies from

respiratory tract infection (LRTI) and passive smoking in children aged 0- 24 months determined that the frequency of LRTI in children more than with exposure to passive smoking. In same study the children whose mothers were active smoker had more LRTI compared to those whose mothers were non smokers. (OR= 2.5, P= 0.026).⁽²²⁾

Asthma is the most common chronic disease affecting youth worldwide. The prevalence of asthma has increased at least 3-fold during the past several decades.⁽²³⁾

Exposure to passive cigarette smoking is associated with increased asthma incidence, increased rates of health care use and respiratory morbidity.⁽²⁴⁾ Wheezing and doctor-diagnosed asthma are more closely related to passive/ environmental tobacco smoke in the preschool age range than in school-children 5– 16 years of age, but such findings should not detract from the statement that the single most important measure to improve the health of children would be the exclusion of tobacco smoke from their indoor and outdoor environments.⁽²⁵⁾

Although antibiotics are effective against bacteria, many ARI are caused by a multitude of other micro-organisms, mainly viruses. According to the recommendations of the WHO and National ARI program, the treatment outline of ARI includes the instructions given to the parents including fluid intake, feeding practices, clearing the airways and dangerous signs to watch for.⁽²⁶⁾

In the present study, the majority of sick children were suffering from common cold and had no pneumonia, it was found that in 70% of the cases used antibiotics mostly to avoid complications.

Conclusion:

In Conclusion, it was found that passive smoking in preschool children increases the incidence and frequency of acute respiratory

infection.

Recommendations:

It is recommended to increase health education about early detection of ARI and when to ask for medical advice and widespread use of the WHO standardization program for early detection and management of ARI by primary health care personnel. Demonstration of the harmful effect of unnecessary use of antibiotics, in addition to the harmful effects of passive smoking on the health of children in mass media.

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المخلص

العلاقة بين تعدد أشكال جين الجلوتاثيون-س-ترانسفيراز ميوي و شاي ١ و الاصابة بحساسية الصدر في الاطفال

يعتبر الربو الشعبي من الأمراض المزمنة الأكثر شيوعاً عند الأطفال وتتراوح نسبة الإصابة به من صفر إلى ٣٠% في مختلف الشعوب. ويورث الربو الشعبي عن طريق "اضطرابات جينية مركبة".

ان جلوتاثيون-س- ترانسفيراز هي مجموعة من الانزيمات اللايضة التي تتعلق بمنع الاكسدة الناتجة عن الملوثات البيئية والهيدروكربونيات.

ان الاختلافات الوراثية في كفاءة هذه الانزيمات قد تكون عامل وراثي مهم في امكانية الإصابة بحساسية الصدر.

كما ان جلوتاثيون-س- ترانسفيراز هي عائلة كبيرة تتضمن الانزيمات الخاصة بالمرحلة الثانية التي تساعد على ازواج المواد المتفاعلة مع الجلوتاثيون.

و قد تم التعرف على عدة انواع من جلوتاثيون-س- ترانسفيراز في الانسان: الفا- ميو واوميغا.

ان جلوتاثيون-س-ترانسفيراز ميويثا هما من الجينات التي من وظائفها يتم التعامل مع السموم الداخلية والخارجية وتحويلها الى مواد اقل ضرراً ويسهل اخراجها من الجسم، وقد تم التعرف عليها في عدد كبير من الناس مع الأخذ في الاعتبار بالاختلافات السكانية. هذه الدراسة موجهة للكشف عن التكوين الجيني لجلوتاثيون-س- ترانسفيراز وعلاقته مع حدوث حساسية الصدر وقد تم التعامل مع ٤٤ حالة من حالات حساسية الصدر ٢٦ من الذكور و ١٨ من الإناث وتتراوح أعمارهم من ٥ الى ١٤ سنة.

وتم عمل الآتي لجميع الحالات:

أخذ تاريخ مرضي وإجراء فحص إكلينيكي شامل وقياس وظيفة التنفس PEF وفحوص معملية روتينية وأبحاث جينية عن طريق تفاعل البلمرة المتسلسل.

وقد كشفت هذه الدراسة عن زيادة نسبة حدوث حساسية الصدر في انعدام التكوين الجيني لجلوتاثيون-س- ترانسفيراز ثيتا.

ومن هنا نستطيع أن نستنتج من خلال هذه الدراسة زيادة نسبة الإصابة بالربو الشعبي مع وجود انعدام التكوين الجيني لجلوتاثيون-س- ترانسفيراز ثيتا.

policies, strengthening community actions. Promoting peoples involvement and reformulating the healthcare services, with the aim of eradicating this disease.

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disease outcome association (Sprenger et al, 2000) and (McLellan et al, 1997).

Heterogeneity in geographic location and ethnicity in different locations is an important reason for the contradictory results (Caroll et al, 2005).

The present study was conducted on Egyptian children while other study populations were Caucasian and German individuals, so it is possible that there is significant degree of genetic difference between the two populations (ethnicity, age and asthma severity). Our study population were geographically different lending difference in the range of environmental triggers to which the two populations are exposed different groups of genetically predisposed individuals predisposed to asthma.

In conclusion the current study demonstrated a significant statistical association between GSTT1 polymorphism and bronchial asthma and no significant association was detected between GSTM1 polymorphism and bronchial asthma in children.

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Table (2): Distribution of anaemic children according to severity of anemia and Hb level

SEVERITY OF ANEMIA	NO.	%	MEAN	±SD
Hb= (7 – 10 g/dl) (Moderate)	4	10.8	9.47	0.52
Hb= (10.1 – 11.4 g/dl) (Mild)	33	89.2	10.76	0.38
Total	37	100	10.62	0.55

Table (3): Distribution of Body Max Index of the Sample according to Anemic Status

BODY MAX INDEX	CASES		ANEMIC		NON ANEMIC	
	No	%	No	%	No	%
Normal	154	34.2	15	41	139	34.0
Under Weight	295	65.5	22	59	274	65.98
Obese	1	0.22	0	0	1	0.02
Total	450	100	37	8	413	92

P= 0.087

Table (4): Distribution of risk factors in relation to iron deficiency anemia

Risk Factors	Total No. Of Cases (N=450)	Iron Sufficient ≥ 20 µg/Dl (N = 413)		Iron Deficientsf ≤20 µg/Dl (N= 37)		P- Value
		N	%	N	%	
		Family Size More Than 10	118	108	91	
Poor School Performance	34	28	82	06	18	0.55
Un Employed Father	21	19	90	02	10	p=(0.217)
Working Mother	173	158	91	15	09	p=(0.360)
House Wife Mother	277	255	92	22	08	p=(0.360)
Consumption Of Tea	187	167	89	20	11	P=(0.006)*
Under Weight Children	296	274	92	22	08	(p=0.263)
Weight Less Than 3rd Percentile	105	98	93	07	07	0.46
Height Less Than 3rd Percentile	27	16	59	11	41	0.12

Results of GSTM1 and GSTT1 genotyping: GSTM1 gene was present in 32 (72.7%) subjects in the study group versus 19 (63.3%) subjects in the control group, and it was absent in 12 (27.3%) subjects of the study group versus 11 (36.7%) subjects in the control group. Results were it was not statistically significant (P value=0.391). GSTT1 genotype was highly significantly associated with asthma when compared to the control group as GSTT1 null genotype was more frequent in the asthmatic group. OR= 9.389 (2.794-31.553). It projects a 9.389 folds increased risk for bronchial asthma in individuals with GSTT1 null genotypes comparing to those processing both allele of the gene. Data are shown in table (2) and figure (1)

Table (2): Comparison between cases and control groups as regard allelic polymorphism

	Cases	Control	P-Value	Or (95% Ci)
GSTM1 Present	32/44 (72.7%)	19/30 (63.3%)	0.391	1.54 (0.57-4.179)
GSTM1 Null	12/44 (27.3%)	11/30 (36.7%)		
GSTT1 Present	18/44 (40.9%)	26/30 (86.7%)	0.00*	9.389 (2.794-31.553)
GSTT1 Null	26/44 (59.1%)	4/30 (13.3%)		

Data are represented as frequency (percentage).

*Significant P value: ≤ 0.05

Fig(1): Agarose gel electrophoresis showing genotypes analysis of GSTT1 (480bp) and GSTM1 (215bp) using multiplex PCR. β globin (268bp) was co-amplified in all samples as internal control.

Fig(1): Agarose gel electrophoresis



Lanes 2, 5, 7, and 10 show deletions of GSTM1.

Lanes 5,6,7,9 and 10 show deletions of GSTT1.

Lanes 1, 3, 4, 8, and 11 show presence of both genes.

Discussion:

The glutathione S-transferase (GST) super family of enzymes has a vital role in phase II of biotransformation of xenobiotics and in protection of cells from reactive oxygen species (ROS) by its ability to utilize substrates of a wide range of products of oxidative stress. Oxidative stress was reported to be the key component of inflammation. Inflammation was considered a characteristic of asthma disease when it attacked airways. So defect in detoxifying ROS may influence the development and severity of asthma (Hayes and Pulford, 1995).

GSTT1 is located on chromosome 22 (Pemble et al, 1994), GSTM1 is located on chromosome 1p13 and GSTM1 null genotype results in no protein expression (Caroll et al, 2005).

The results of the current study suggest the presence of association of GSTT1 with childhood asthma in comparing asthmatic children to healthy controls. Results have demonstrated a significant association between subjects lacking GSTT1 activity and asthma (P=0.000).

These findings are substantiated by Islam et al, 2009, they suggested that GSTT1 null Genotype was associated with an increased risk of asthma associated with exercise, especially in high ozone communities.

Moreover, Babusikova et al, 2009 found that GSTT1 null genotype was more frequent among the asthma patients. These results suggest that the GSTT1 null genotype and increased oxidative stress may play a role in the asthma pathogenesis in children.

The same results were also found by Chelbbi Hanini et al (2007), who detected significant association of GSTT1 null genotype with childhood asthma in Tunisian children.

Also, Brash Anderson et al, 2004 suggested that GSTT1 null genotype may play an important role in

Association of Glutathione-S-Transferase M1 and T1 Genes Polymorphism with Bronchial Asthma in Children

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Abstract:

Oxidative stress is thought to be involved in the pathogenesis of asthma. Glutathione-S-Transferase (GST) enzymes, which play an important role in antioxidant defenses, may therefore influence asthma risk. Polymorphism of GSTT1 and GSTM1 genes have been associated with asthma in children and adults, but results are inconsistent across studies

Objective:

The aim of the present study was to assess the association of these genes with childhood bronchial asthma.

Methods:

Forty four stable atopic asthmatic children and 30 healthy control subjects with no history of asthma or other atopic manifestation were studied. Genotyping the polymorphisms in the GSTT1 and GSTM1 genes were performed using the multiplex PCR technique.

Results:

GSTT1 null genotype was significantly associated with the increased risk of bronchial asthma (P= 0.000). Also, we have found that GSTM1 null genotype was not significantly associated with increased risk of bronchial asthma.

Conclusion:

Polymorphisms of the GSTT1 gene was associated with risk of asthma in children, and GSTM1 polymorphism do not play a major risk in the development of bronchial asthma in children.

Keywords:

Asthma, GSTT1, GSTM1, Polymorphism.

Introduction:

Asthma is a chronic inflammatory disorder of the airways in which oxidative stress in the lungs has been implicated in its pathogenesis (Ercan et al, 2006). This chronic inflammation is associated with bronchial hyper-responsiveness (BHR) that leads to recurrent episodes of wheezing, breathlessness, chest tightness, and cough, particularly at night and/or in



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**Effect of drinking fluoridated water
on the prevalence of dental caries
in preschool children**

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Abstract:

Objectives was to correlate the prevalence of dental caries in children less than 6 years old with the presence of fluoride in drinking water.

Methods:

this study included (153) children with age less than 6 years old, who came to the clinic for preschool checkup. they were divided into 3 groups: first group (n= 69), used desalinated water (containing no fluoride) since birth. Second group(n= 51), used bottled water (fluoridated)since birth. Third group (n= 33), used mixed water. The index of dental caries was used to compare the prevalence of dental caries between the 3 groups.

Results and conclusion:

There was a non-significant statistical difference between the three groups as regards the index of dental caries. This may refer to the importance of the other anti caries measures and prove that fluoridation of drinking water should not be considered the only decisive factor in tooth decay prevention.

Introduction:

Fluoridation of drinking water began in 1945, following studies of children in a region where higher levels of fluoride occur naturally in the water (NIDCR, 2008).

Since the addition of fluoride to public water supplies was initiated in 1945, exposure to fluoridation continues as a persistent public health issue. It is estimated that 62% of the United States population in 1989 resided in areas served by fluoridated drinking water supplies (PHS, 2000).

Like vaccination and food fortification, fluoridation presents a conflict between benefiting the common good and infringing on individual rights (McNally and Downie, 2006).

Fluoridation can be viewed as a violation of ethical or legal rules that prohibit medical treatment without medical supervision or informed consent, and that prohibit administration of unlicensed

Neonatal Sepsis and Its correlation to Serum Amyloid A and Temperament

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Introduction:

Neonatal sepsis is a life threatening emergency with a high morbidity and mortality. Initial signs of neonatal sepsis are often slight and non-specific making early diagnosis is so difficult. Diagnosis can be confirmed by blood culture, but may be delayed up to 72 hours or more. So, several studies have searched for parameters that could be useful in the early and accurate diagnosis of neonatal sepsis.

The present study was performed to evaluate the use of serum Amyloid A (SAA) as an early diagnostic tool for neonatal sepsis and to compare the results obtained to those of C-reactive protein (CRP) and other hematological parameters. Also, neonatal behavioral assessment was done for all cause to assess behavioral changes during neonatal sepsis.

The study included 100 term neonates, 50 with clinically suspected sepsis (suspected group), and the other 50 were healthy matched neonates serving as control group.

According to the blood culture results, the suspected group (n=50), was subdivided into septic subgroup (n=41) with positive blood culture and clinical and biochemical evidence of sepsis and non-septic subgroup (n=9) with negative blood culture and only false initial clinical signs suggestive of

sepsis, that disappeared within few days.

All neonates were subjected to full history taking, clinical examination and laboratory investigations including, complete blood count with differential count (CBC), C-reactive protein (CRP), blood culture and sensitivity test, and SAA level measurement by ELISA. Also, neonatal behavioral assessment was done for all neonates using the strategy developed by Ricciuti and Brietmyer (1985).

All investigations were done for the suspected group in two situations, when sepsis was first suspected (reading A) and after 48 hours (reading B).

The most clinical presentations among the septic group were poor suckling, poor Moro, respiratory distress, and lethargy. Also, we found that the clinical manifestations of sepsis were increased gradually with progress of illness.

As regard the blood culture results, Gram negative organisms were predominant in 68.3% of cases, mainly klebsiella, which represented 39% of all the isolated organisms.

Regarding hematological parameters, our study revealed a significant difference of all points of Hematological scoring system of sepsis (HSS) between septic and control groups except for the total leucocytic count, also revealed a significant

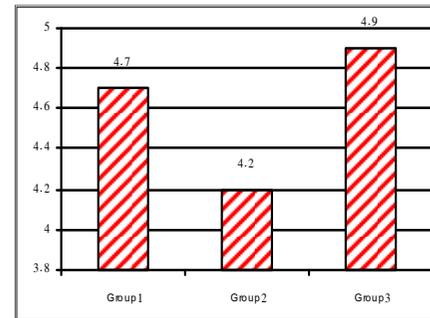
followed by children who drink bottled water (33%), then children who drink mixed water

Table (2) : Distribution of index of dental caries according to type of water

	Fluoridated Water	Non Fluoridated Water	Mixed Water
No.	69	51	33
Mean	4.7	4.2	4.9
S.D	3.9	3.5	3.3
Minimum	0	0	0
Maximum	15	15	12
F - Test	0.46 p=0.6		

There was a non-significant statistical difference between the three groups as regards the index of dental caries.

Figure (1): Comparison between the three studied groups as regards the mean of index of dental caries.



Discussion:

Our study didn't show a significant statistical difference regarding dental cavitations between the three groups, this disagree with the numerous studies documenting that exposure to fluoridated water supplies results in reduced dental caries prevalence.

For example; Parnell et al., 2009 concluded that water fluoridation is effective at reducing cavities in both children and adults. Also the systematic review by Truman et al., 2002 found strong evidence that water fluoridation is effective at reducing overall tooth decay in communities. International health agencies and dental associations throughout the world have endorsed water fluoridation's safety and effectiveness (ADA, 2008).

Other organizations endorsing fluoridation include:

- ✦ The World Health Organization (Petersen, 2008).
- ✦ The U.S. Surgeon General (Carmona, 2004).
- ✦ The American Public Health Association (APHA, 2008).
- ✦ the European Academy of Paediatric Dentistry (EAPD, 2008).
- ✦ Canadian Dental Association (CDA, 2008).

This could be interpreted by the presence of other factors affecting the prevalence of dental cavitations, including; consumption of foods containing high fluoride level like barley, corn, rice, tea leaves and fish protein concentrate, the use of fluoride-containing dental care products, the consumption of refined sugar, access to and utilization of dental health services, oral hygiene and awareness of dental health.

This interpretation could be supported by the conclusion of Pizzo et al., (2007) that most European countries have experienced substantial declines in tooth decay without its use, primarily due to the introduction of fluoride toothpaste in the 1970s. It is suggested that the use of topical fluorides (such as in toothpaste) to prevent caries among people living in both industrialized and developing countries may supersede the need for fluoridated water. A 2007 Italian review suggested that water fluoridation may not be needed, particularly in the industrialized countries where cavities have become rare, and concluded that toothpaste and other topical fluoride offers a best way to prevent cavities worldwide.

Also, Burt and Tomar (2007) concluded that: In Finland and Germany, tooth decay rates remained stable or continued to decline after water fluoridation stopped.

Jones and Varady (2008) stated that; Fluoride is

**Serum Leptin Effect on Cognitive Function
of Attention Deficit Hyperactive Disorder Children And Adolescents**

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Introduction:

Attention Deficit Hyperactivity Disorder (ADHD) is a neurobehavioral developmental disorder, which characterized by ineffective control of behavior in cognitive, emotional, and social domains. Recently, researchers had identified a link between ADHD and overweight and obesity. Obese humans have high plasma leptin concentrations related to the size of adipose tissue, but those obese humans are resistant to the effects of endogenous leptin. The findings suggest Leptin may play a role in modulating personal behavior, that leptin changes brain structure, neuron excitability and synaptic plasticity. It also regulates the development and function of feeding circuits.

Pervious studies found leptin resistant overweight children are at risk of poor brain development and leptin resistant adults are at risk of accelerated brain aging based in part on atrophy of the cerebral cortex.

The researchers also found that the cerebellum was activated by leptin. The cerebellum is involved with the coordination of physical motion. A weak cerebellum contributes to problems such as anxiety and learning disabilities such as dyslexia.

Moreover it well known that leptin acts as a primary antioxidant in the brain, a main way in

which the brain buffers the stress of excitotoxins. Excitotoxins are a primary cause of brain stress, developmental brain issues, and age-related decline. A combination of leptin deficiency in the brain and excitotoxin excess is linked to ADHD, Down syndrome, and Autism spectrum disorders, as well as age-related cognitive decline, Alzheimer's and Parkinson's disease.

This study was conducted to explore the correlation between serum leptin level and cognitive function in Attention Deficit Hyperactive Disorders (ADHD) obese and non obese children and adolescence. In order to achieve the goal of this work, 30 ADHD obese and non obese children and adolescents, and patients were fulfilling the criteria for the diagnosis of ADHD according to DSM-IV TR diagnostic criteria for research (American Psychiatric Association., 2000). There ages ranged between 6 years and 18 years with a mean value of 10.17 years \pm 3.31years. 26 patients were males (87%), and 4 were females (13%). (46.7%) of our (ADHD) patients were obese and (53.3%) were non obese. Only (50%) of our (ADHD) patients were perceived treatment (psycho stimulants, anticonvulsant, antidepressant and tonics) prior to conduction of our study.

Fifteen healthy age and sex-matched children

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المخلص

أثر وجود مادة الفلورايد في مياه الشرب على نسبة تسوس الأسنان لدى الأطفال قبل عمر ٦ سنوات

هدفت الدراسة إلى معرفة تأثير تواجد مادة الفلورايد في مياه الشرب على صحة الأسنان لدى الأطفال البالغين من العمر ست سنوات الذين حضروا لإجراء الكشف الطبي الخاص بالالتحاق بالمدرسة الابتدائية.

المنهج:

عدد الأطفال الذين حضروا لإجراء الكشف الطبي كانوا ١٥٣ طفلاً وطفلة، وقد انقسم هؤلاء الأطفال إلى ثلاثة مجموعات:

١ المجموعة الأولى: تشمل الأطفال الذين شربوا منذ الولادة المياه المحلاة الخالية من الفلورايد ولم يستعملوا أي مياه أخرى.

٢ المجموعة الثانية: تشمل الأطفال الذين استعملوا منذ ولادتهم المياه المعبأة في زجاجات والمحتوية على الفلورايد بنسبة تتراوح بين ٠,٨ الى ١ مج/ لتر.

٣ المجموعة الثالثة: تشمل أطفال استخدموا النوعين السابقين في فترات مختلفة من حياتهم. ولقد تم استخدام معامل تسوس الأسنان كوسيلة لتحديد نسبة الإصابة في كل طفل.

النتائج والخصائص:

لم يثبت وجود اختلاف احصائي معتبر بين أطفال المجموعات الثلاثة من حيث نسبة الإصابة بتسوس الأسنان، مما يشير إلى أهمية العوامل الأخرى المؤثرة في سلامة الأسنان بحيث لا يمكن اعتبار فلورة مياه الشرب وحدها عاملاً حاسماً في منع تسوس الأسنان.