

Dominant Environmental Kids Diseases In Western Region, Jeddah, Kingdom of Saudi Arabia

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Abstract

The current study was conducted to figure out the relationship between the social structure and the most predominant environmental kids diseases (1-12 years old) in the community of Jeddah city through year 1423.A.H. The results revealed that the dominant husband and wives age-groups were 30-40 Y, couples had Bachelor education level and governmental employees. Residences were distributed between down town and its periphery toward north, apart of red sea coast. They had 2-4 child/family of equal gender ratio. Most of couples were non relative. Wives education level was positively correlated with kids skin, respiratory and ocular diseases but negatively correlated with presence of servant and her health certificate. Private hospitals and health care centers were permanently accessed and located far of industrial collections. Majority of teachers and students were Saudis. Schools subjected their students for regular vaccination programs offered by Health Ministry. School services and facilities (regular vaccination, healthy foods and water) significantly affected incidence and kinds of kids diseases. Mixing nationalities may represent risk health for coming exotic infection unless restricted hygienic measures offered by Health Ministry. Husband job was negatively correlated with respiratory diseases. Husband job sector and their work places indoor air quality, their smoking behavior may affect directly or indirectly child diseases. The kids medicinal diseases were within husband age group 20-30 Y. Dominant kids diseases were within age-group 2-4years mainly respiratory (dyspnea were highest respiratory affection within 1-12 Y children), skin and ocular affections. The dominance of respiratory diseases within infants in winter and the skin diseases in summer. Most of kids diseases (skin, respiratory, ocular, medicinal, psychic and non recognized diseases agents were significantly correlated with their homes address. Conclusively, Jeddah community was characterized by special social structure, moderate to high financial level, changed their life style and the proper environmental planning that affected the incidence, dominance and kinds of kids diseases within age group (1-12 Y). Appreciable governmental efforts represented via Education, Health and Immigration Ministries to satisfy healthy, homeostatic and healthy social kids community at home, school, public facilities for healthy coming youths future in Jeddah.

Key words: social structure, education level, age-groups, monthly income, Job sector, husbands,wives, kids, dominant diseases, environmental planning, health care centers,school services and facilities. Indoor air pollution.

Introduction

Indoor air pollution was responsible for the death and illness of millions of young children in developing countries (Barnes *et al.* 2004). Because people generally spend the majority of their time indoor pollution played a significant role in affecting health. Indoor environments include dwellings, workplaces, schools and day care centers and vehicles. Common indoor pollutants are tobacco smoke, particulate matter, CO, volatile organic compounds and

biological allergens (Viegi *et al.* 2005). Socioeconomic status,ventilation and environmental tobacco smoke and parental asthma were interrelated when higher exposure to heating coal smoke was associated with reporting of cough with phlegm, wheez and asthma. lower socioeconomic status was associated with lower reporting of persistent cough and bronchitis suggesting that independent respiratory effects of exposure to indoor pollution may exist for the studied children (Qian *et al.* 2004). Indoor air

of non-industrial buildings was polluted by people, their activities, tobacco smoking, heating, ventilation and air conditioning systems, buildings and furnishing materials and electric equipment (Wargocki, 2004). Health care facilities including hygiene in the kingdom which were considered to be excellent, according to recent prevalence study, bronchial asthma emerged to be a common disease in children .About 10% of children nationally suffered from bronchial asthma, and even much higher (18%) suffer from allergic rhinitis. Regional differences in the prevalence pattern of both bronchial asthma and allergic rhinitis were clear in three regions indicating the possible influence of some environmental factors in the sensitization and elicitation of symptoms in the allergic population of the region (AlFaryh, 1990).The slight variation in humidity greatly influenced the mite concentration in dust collected from houses in different geographical areas in KSA (Abha, Quassim, Riyadh and Jeddah) which in turn increased the risk factor for sensitive individuals in indoor environment where Saudi society preferred to stay more indoor than outdoor, this also because of hot weather of the region (AlFaryh, 1997). Asthma was defined as recurring episodes of wheezing, breathing difficulties and breathlessness in varying degrees. In children, usually begins with eczema and hay fever, the immune system of asthma suffers ,become unable to differentiate between life-threatening microbes invasions and more irritants ,and thus their symptoms overreach to substances such as dust and pets (Hawa, 2001). It was also shown a great prevalence of asthma in the urban areas of Saudi Arabia as opposed to the rural ones (Hijazi *et al*, 2000).The worldwide increase of asthma and allergic disease in childhood which seemed to be related to increase prosperity were unknown, dietary factor during childhood was an important factor in determining the expression of wheezing illness after allowing for urban/rural residence,sex, family history and atopy (Heneriette, 2001).The extensive control for the intensity of smoking and smoking duration was likely to remove most of the residual confounding by smokers had asthma and respiratory diseases (Bultand *et al*. 1999).The Saudi Arabian Food Establishment worked to improve the health of Saudi children by supplying them with nutritious school lunches. Field trips were persistently made to examine children and concluded that there was a great need for general preventive medicine and community hygiene (Stone and Mardell, 1979). Saudi women were especially enthusiastic about medical studies. Some 200

Saudi girls were enrolled in the medical school in Dammam alone, all of whom looked forward to careers as sorely needed doctors for other women and for children (Mary-Jo. 1979). Twelve million children under the age of fifteen died in developing countries from diseases that could be prevented . Over two million children die every year due to diseases related to water scarcity and a lack of sanitation. The need for a healthy environment to promote the healthy growth of children, 52% of child mortality was caused by malnutrition and food contamination, as well as other contagious diseases (Tamadher, 2003).The association of heating, ventilation and air-conditioning systems (HVAC) and respiratory symptoms in a tropical city, self-administered questionnaires were given to 2000 individuals working in air-conditioned office buildings and to 500 control workers in naturally ventilated buildings. Reported symptoms from the two populations were analyzed using chi-square tests, univariate and multiple logistic regressions models. Symptoms were the outcome variable and the odds ratios were adjusted by gender, age, accumulated work time, smoking habits and atopic background. There was a 79.8% response rate and there was a positive association of nasal symptoms, naso-ocular symptoms, persistent cough, sinusitis symptoms and building-related worsening of the symptoms with working in air-conditioned buildings. This study suggested that artificial air-conditioning was a matter of concern for respiratory symptoms in cities with hot and humid climate (Graudenz *et al*. 2005). Exposures might occur *via* a range of pathways and exposure processes .Long latency times, the effects of cumulative exposures to pollution, and multiple exposures to different pollutants which might acted synergistically all created difficulties in unraveling associations between environmental pollution and health. About 8–9% of the total disease burden may be attributed to pollution, but considerably more in developing countries. Unsafe water, poor sanitation and poor hygiene were seen to be the major sources of exposure, along with indoor air pollution ,environmental pollution and the global burden of disease (Briggs, 2003). About two-thirds (66%) of children lived in households using biomass fuels and 16% suffered from ARI during the 2 weeks preceding the survey interview. After adjusting for child's age, sex, birth order, nutritional status, mother's age at childbirth, education, religion, household living standard, and region of residence, children in households using wood, dung, or straw for cooking were more than twice as likely to have suffered

from ARI as children from households using LPG/natural gas or electricity. Household use of high pollution biomass fuels is associated with ARI in children in Zimbabwe. The relationship needed to be further investigated using more direct measures of smoke exposure and clinical measures of ARI. Indoor air pollution from biomass combustion and acute respiratory illness in preschool age children in Zimbabwe were recorded (Mishra,2003). Environmental issues and lifestyle changes are becoming increasingly more important as significant risk factors but the evidence could be confusing, controversial, and even contradictory. There is overwhelming evidence that sensitization to indoor allergens was a major risk factor for the development of clinical atopic disease in genetically susceptible individuals (Kaiser, 2004).The main justification for ventilation had historically been to create a healthy indoor environment. Ventilation removes air pollutants originating inside the building, including bio-effluents. The outdoor air supply rate that had been found by experience to provide subjectively acceptable indoor air quality and to prevent the accumulation of moisture in the building was generally sufficient to maintain the concentration of pollutants at healthily low levels (Wyon,2004). Fetal exposure to tobacco smoke was an independent risk factor for symptoms of wheez and wheezy bronchitis in schoolchildren when compared to postnatal environmental exposure (Renata and Jan. 2005).

Materials and Methods

The data were collected after offering questionnaires (total 200) to different groups of Jeddah community in Girls college of education (Scientific sectors), private and governmental schools and hospitals employees, only 107 were had completed data suite for statistical analysis. The questions classified into:- 1-Husband information included age-groups, monthly income, education levels, job sector, houses sites in Jeddah (middle, periphery, direction, near or far from Red Sea coast), number of kids/family, 2- wife information included age-groups, education level, job sector and degree of couple's relativity. 3-Kids information included their number, age-group, number and kind of meals presented/kid, kind of used water at school (healthy water bottles, tap water, buildings stores and cold-air water), foods (fresh, frozen and fast) and kinds of juices used (fresh, canned and gaseous water either colored on not) dominant diseases or syndromes as reported by physician and their sponsors

and age group of affected kids. Kinds of schools either private or governmental, kind of hospitals, dispensaries and other health care centers and their location regard to houses and schools. 4-Servants information recorded by family included, number, having health certificate ,sharing preparation of food and feed kids, location of their living rooms in relation with kids living rooms. 5-Schools and teachers information included, nationality of employee, the students (Saudi or mixed with non Saudi) ,percent of mixing Saudi students with non , nationality of non Saudi students in these schools, presence of school doctors, nurses, social supervisor, periodic vaccinations, nearest industrial communities, nearest residential collections, schools and health care centers, presence of food shop (cafeteria) and its food sources, kinds of water, juices and foods presented to kids.The incomplete scripts were discarded.The complete data were collected from 107 cases only and subjected to statistical analysis on personal computer with SPSS using descriptive analysis, nonparametric Spearman's rho ($P=0.05$ & 0.01), Pearson Chi-square (2-tailed) for correlation between most of recorded data and were presented in tables and histograms (Spss, 2004). Most of the criteria recorded in the questionnaire were suggested after (Stone and Mardell,1979; Mary-Jo,1979; Briggs, 2003;Tamadher, 2003 and Graudenz.*et al.* 2005).

Results and Discussion

Husbands data revealed approximate percentages of age-group were 30-<40 and 40-<50Y. Education level was Bachelor (57%). Most of them were governmental employees (57%) as shown in (Fig. 1) and all kids respiratory lesions were low and of near values (Fig. 2) and increased eye allergy (Fig. 7). Their kids had equal frequencies of ophthalmitis ,low vision and eye allergy (Fig. 3). Also they had more colon convulsions and esophageal tumors (Fig. 4). In addition near frequencies of psychic disorders and nervous diseases and were generally of low incidence (Fig. 5). Moderate to high economic living standard (SR5000-10000 monthly), this level may satisfy kids needs of healthy foods at home and schools, visiting private health care hospitals or centers, admitting schools with good hygienic standard. Lower socioeconomic status was associated with lower reporting of persistent cough and *bronchitis* (Qian *et al.* 2004).The residences were distributed toward town edges apart of red sea (57.9 %),where kids showed skin redness and edema (Fig. 6),

1. Husbands data. Percentage of husbands age-group (1), education level (b) job (c) and homes address to sea (d) in collected samples.

(a)		(b)	
Age-group/Y	Percentage	Education level	Percentage
20-30	13.1	Preparatory	8.4
30-40	41.1	Secondary	26.2
40-50	40.2	Bachelor	57
50 Y+	3.6	Master. D	75
		Ph.D.	0.9

(c)		(d)	
Job sector	Percentages	Address	Percentages
Student	3.7	Down town	42.1
Government	57	Town edges	57.9
Private	25.2	Near red sea	53.3
Free business	14.0	Far red sea	46.7

2. Wifes data: Age-group (a), education level (b), job (c), degree of relativity (d), all recorded as frequency percentages.

(a)		(b)	
Age-group	Percentage	Education level	Percentages
Less 20	1.9	Secondary	8.4
20-less 30	15	Bachelor	74.8
30-less 40	59.8	Master	8.4
40-less 50	22.4	Ph.D.	8.4
50 + Y	0.9		

(c)		(d)	
Job sectors	Percentages	Relativity degree	Percentages
Governmental	80.4	Non relative	59.8
Private	15	1st degree	28.0
House sector	3.7	2nd degree	12.1
Free business	0.9		

3. Kids data; number of males in age-group (a), number of females in age-group (b), recorded as frequency percentages.

(a)		(b)	
Age-group	Percentage	Age-group	Percentage
Less 1 Y	32.7	Less 1 Y	33.6
1-less 3	28.0	1-less 3	27.1
3-less 5	13.1	3-less 5	9.3
5-less 7	11.2	5-less 7	3.7
7 + Y	2.8	7 + Y	1.9

bronchitis and sneezing (Fig 7), ocular allergy (Fig. 8), digestive disturbance (Fig. 9), psychic disorders (Fig. 10). The sea area induce humid environment with expected

4. Servant data. Percentages of their presence (a), number (b), preparing kids food (c) feeding kids, (d) had health certificate (e) medically followed up, (f) her living room and that of kids, recorded correlation (Chi-square).

Variables	Percentage
Presence	
Yes	82.2
No	17.8
a) Number/family	17.8
One	55.1
More	27.1
b) Percentage food	
Yes	68.2
No	14.0
c) Feeding Kind's	
Yes	46.7
No	35.5
d) Had health certificate	
Yes	74.8
No	7.5
e) Medical investigation	
Yes	44.9
No	37.4
f) Near to kids rooms	
Yes	30.8
No	51.4

5. Health care centers for kids admission.

Health care	Percentages
Public	39.3
Public	39.3
Private	41.1
Health centers	8.4
Public hospitals	30.0
Private hospitals	70.1

microbial existence and other sources of pollution on sea shores that may induce respiratory, dermal, ocular and medicinal affections to family members including kids . Pearson correlation (2-tailed) indicated significant negative correlation between husband job and their kids respiratory diseases (P=0.001) with reference to sneezing, congestion of mucus membranes, bronchitis (P=0.040) while with dyspnea, chest pain and asthma (P=0.05). Husband education level was positively correlated with kids

6. Schools inhabitants and services.

Variables	Percentage
Saudi Teachers	46.7
Non Saudi Teachers	34.6
Saudi Students	20.6
% of mixed students	
50	15
70	25.2
90	19.6
Non Saudi Nationality	
East Asia	8.4
South Asia	13.1
Syria & Lebanon	45.8
Egypt & North America	13.1
School Doctor	
Yes	16.8
No	63.6
School nurse	
Yes	18.7
No	61.7
Social Supervisor	72.9
Yes	7.5
No	
Periodic vaccination	
Yes	62.6
No	17.8
Industrial collections & schools	
Near	7.5
Far	72.9
Population dwellings & Schools	
Near	75.7
Far	4.7
Near health centers	
Yes	68.2
No	12.1
Cafeteria suppliers	
Governmental	27.1
Private	53.3

medicinal, psychic disorders and the multiple non-specific diseases agents (P= 0.038 & 0.023 & 0.048 respectively). Kids of father age group 20-30Y had medicinal and skin diseases ((70.1 & 56.2%), kids psychic disorder, respiratory and ocular diseases were (94.4 & 39.3% & 60.3%

7. Cumulative frequency percentages of kids diseases.

Respiratory (Dyspnea)	73.6 83.3
Medicinal	66.7
Skin	66.7
Nervous and psychic disorder	56.1
Private hospitals	70.1

respectively) within father age group 30-40Y. Wives dominant age group was 30-40 (59.8%), their kids showed skin redness and edema within all age-group (Fig.11) and increased ocular lesions with age mainly allergy (Fig 16). The education level was bachelor (74.8%), their kids skin lesions were all low but increased redness and swollen for mothers had bachelor and master degree (Fig. 12), respiratory and medicinal diseases increased with increased wives education level mainly redness, hyperemia, small blisters and allergy (Fig. 14) and hepatic dis-function respectively (Fig. 17). kids of housekeepers, private sectors and free business mothers had higher skin redness and swollen (Fig.13), sneezing and naso-ocular secretions (Fig.15), digestive disturbances (Fig. 18). Wives job mainly governmental (80.4%). The non relatives parents were the highest (59.8%), their kids skin, respiratory (sneezing and bronchitis), ocular (allergy) and medicinal (digestive disturbances) diseases (Fig 22,23, 24 and 25) respectively. Within age group 20-30 Y. medicinal ,(psychic and nervous disorders) and the skin diseases were (38.4 & 56.1 & 30.1%, respectively). Wives education level was correlated with kids skin, respiratory and ocular diseases (34.6 & 37.77 & 60%) with bachelor level, the medicinal diseases (66.7%) with master degree level . Mother education level was negatively correlated with presence of servant and her health certificate (P=0.0.023 & 0.13 respectively) which reflected the wife dependent-servant with increased education level and not enough time to spend for caring her family. Rate of kids affections within studied age groups were highest for respiratory (73.6%), medicinal (digestive disturbances, liver function disorders, gastric ache, colon convulsions, esophageal tumors) and skin (severe redness and edema, skin rashes, blisters, skin abrasions, small blisters, eczema, skin racking and embedded tumors) were (66.7%) while nervous and psychic disorders were 56.1%. The skin, ocular (irritation, inflammation, low vision and eye secretions) and

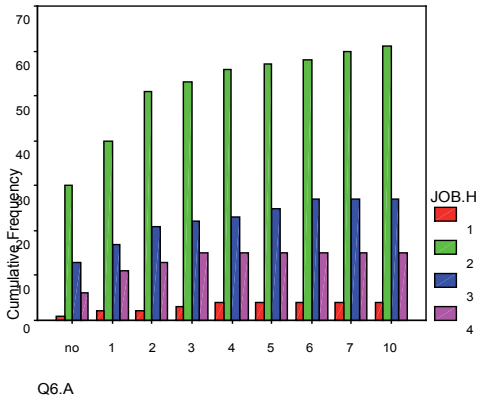


Fig 1. Husband Job and kids Skin diseases, presence, severe redness and edema, skin rashes, blisters, skin abrasions, small blisters, eczema, skin reckling, embedded tumors respectively. (1) student (2) governmental employee (3) private sector (4) free business.

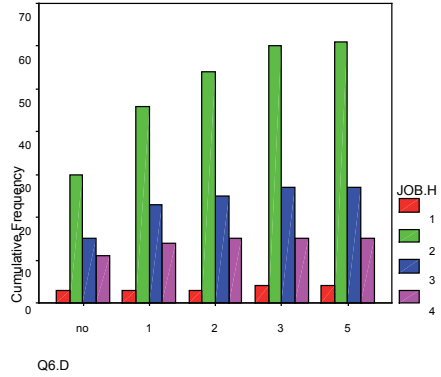


Fig 4. Husband Job and kids Medicinal diseases, digestive disturbances, liver function disorders, gastric ache, colon convulsion, esophageal tumors respectively (1) student (2) governmental employee (3) private sector (4) free business.

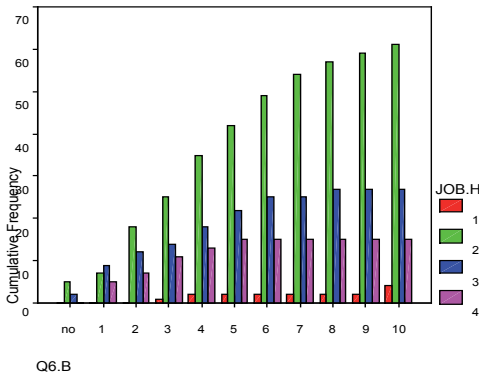


Fig 2. Husband Job and kids respiratory diseases, presence, sneezing congestion mucus membrane, bronchitis, dyspnea, chest pain, chest pain, pneumonia, headache ,emphysema respectively. (1) student, (2) governmental employee (3) private sector. (4) free business.

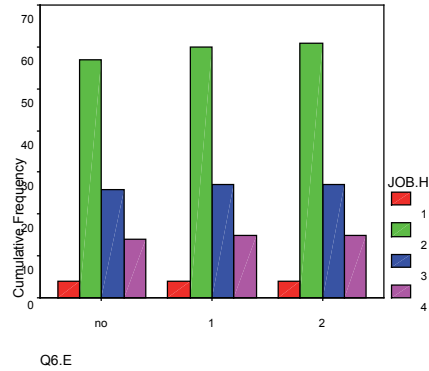


Fig 5. Husband Job and kids psychic disorders, presence, psychic diseases, nervous disorders respectively (1) student (2) governmental employee (3) private sector (4) free business.

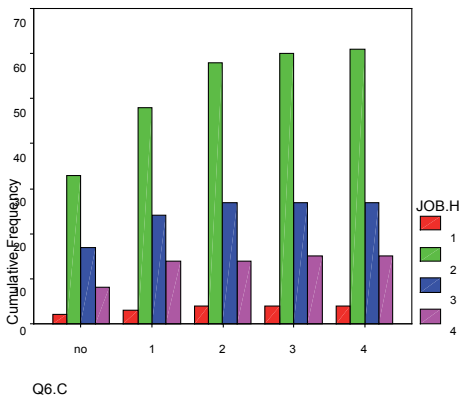


Fig 3. Husband Job and kids ocular diseases (1) student (2) governmental employee (3) private sector (4) free business. Q6.c (1) eye sensitization, (2) ophthalmitis, (3) low vision (4) ocular secretions.

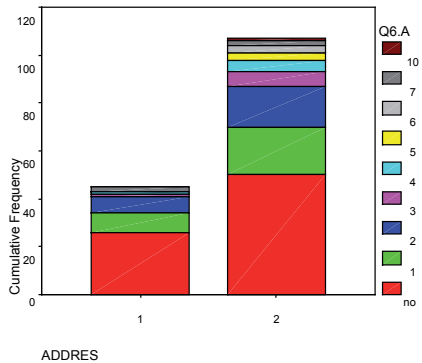


Fig 6. Kids skin diseases and their residences address 1-down town 2-town edge.

Dominant Environmental Kids Diseases In Western Region

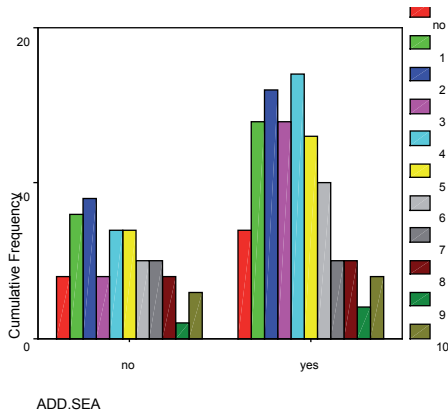


Fig 7. Kids respiratory diseases and their address to sea, near sea (yes) or far (No).

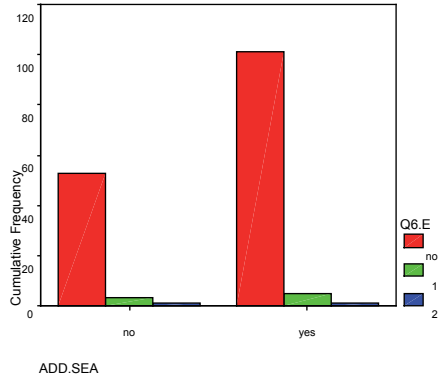


Fig 10. Kids psychic disorders and their address to sea, near or far.

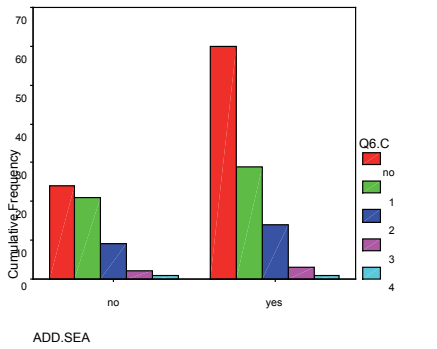


Fig 8. Kids ocular diseases and their address to sea, near (yes) or far (no).

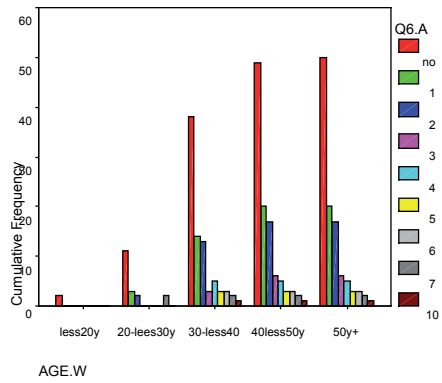


Fig 11. Kids skin diseases and wife age.

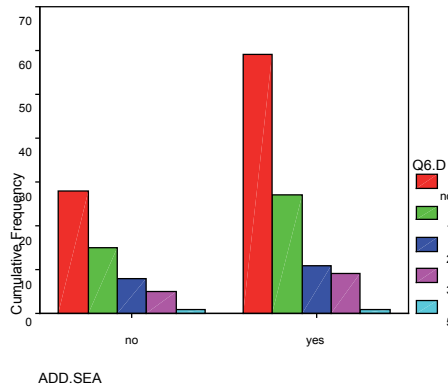


Fig 9. Kids medicinal diseases and their address to sea, near or far.

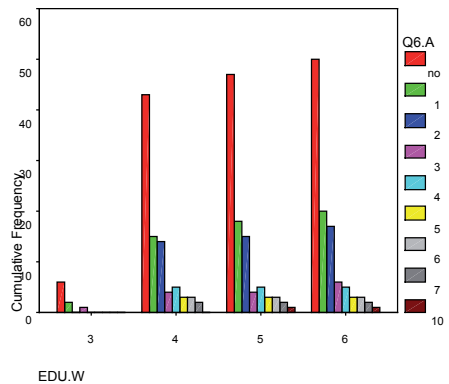


Fig 12. Kids skin diseases and wife education level.

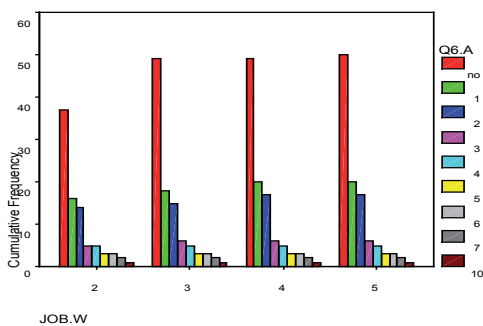


Fig 13. Kids skin diseases and wife job : governmental employee, private, house keeper, free business respectively.

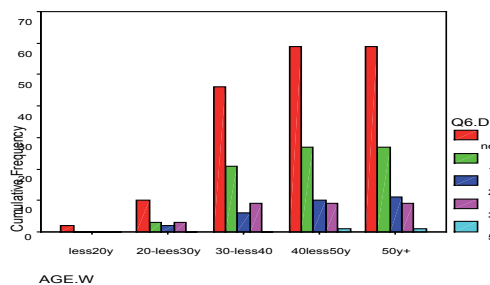


Fig 16. Kids ocular diseases and wife age.

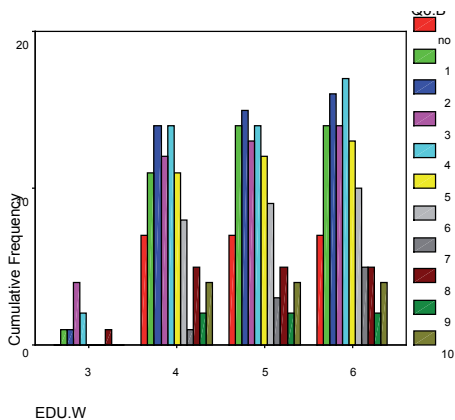


Fig 14. Kids respiratory diseases and wife education level, secondary, bachelor, master degree, Ph.D respectively.

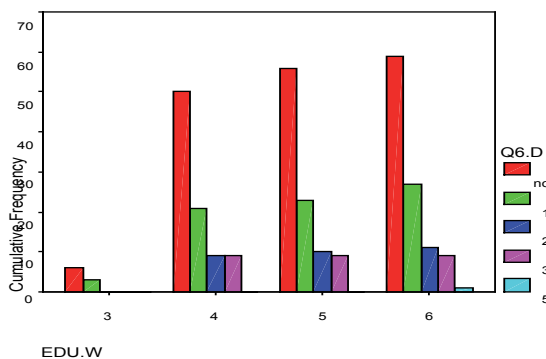


Fig 17. Kids medicinal diseases and wife education level, preparatory, secondary bachelor, house keeper, free business respectively.

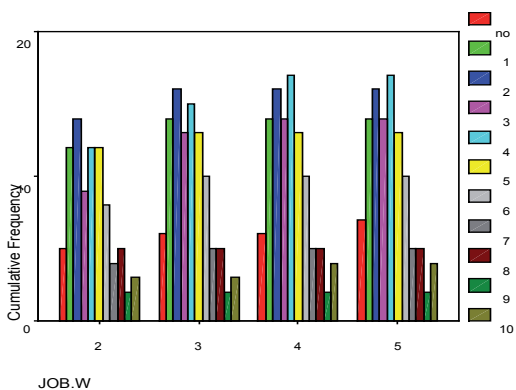


Fig 15. Kids respiratory diseases and wife job, governmental employee, private, housekeeper, free business respectively.

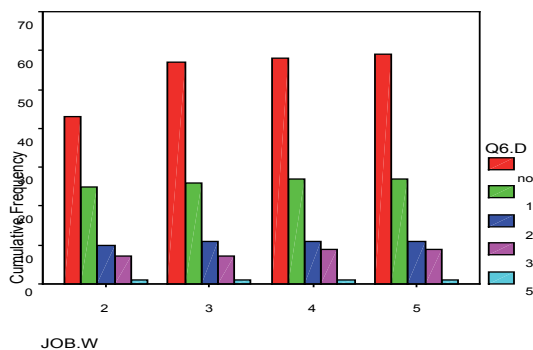


Fig 18. Kids medicinal diseases and wife job, governmental, private, housekeeper, free business respectively.

Dominant Environmental Kids Diseases In Western Region

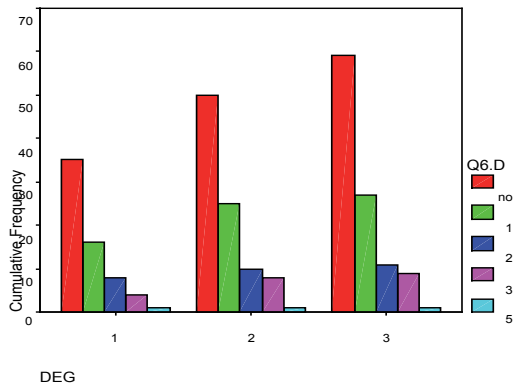


Fig 19. Kids medicinal diseases and degree of relative non relative, 1st degree relative, 2nd degree relative respectively..

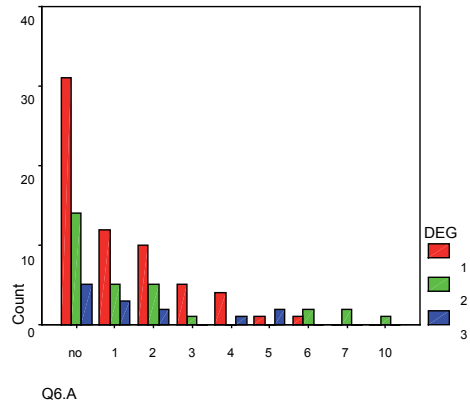


Fig 22. Kids skin diseases and degree of parents' relative.

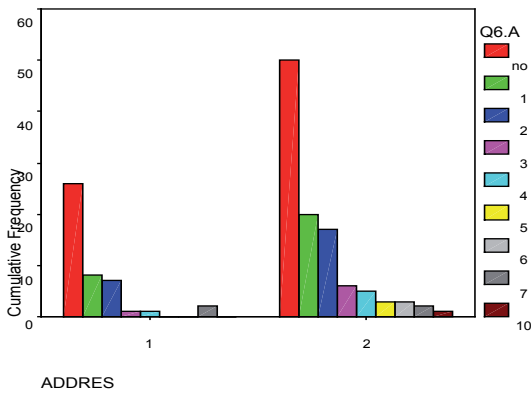


Fig 20. Kids skin diseases and address.

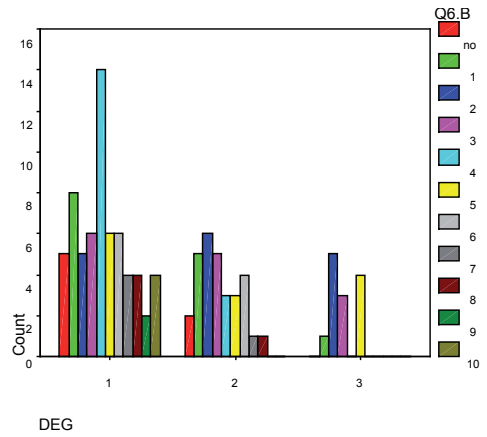


Fig 23. Kids respiratory diseases and degree of their parents' relative.

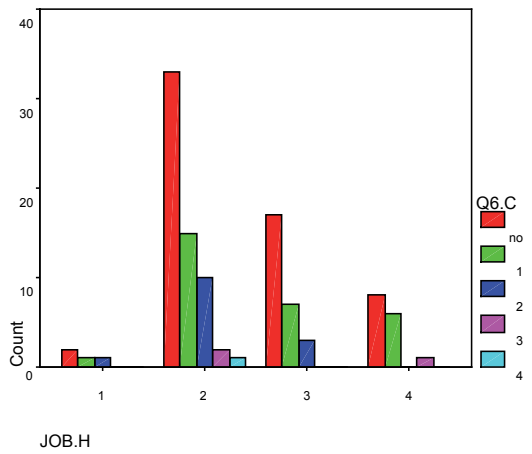


Fig 21. Husband job and kids ocular diseases.

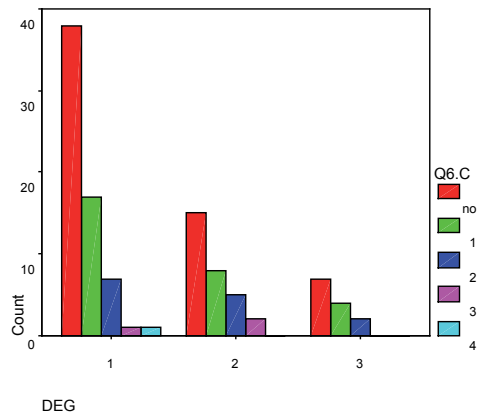


Fig 24. Kids ocular diseases and degree of their parent's relative.

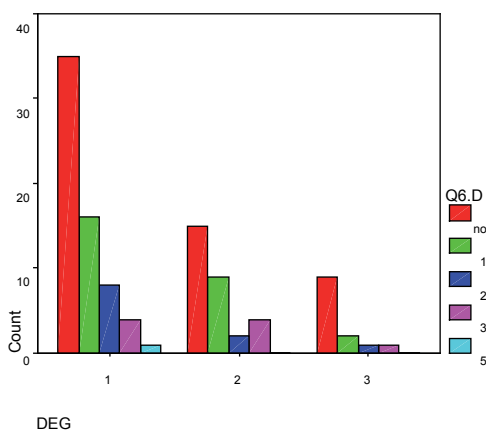


Fig 25. Kids medicinal diseases and degree of their parents relativity.

respiratory diseases (sneezing, congestion of mucus membranes, bronchitis, dyspnea, asthma, bronchopneumonia) within their age group (less 1y-12) were 56.2%, 56.1% 93.5% respectively. The skin symptoms were evident within all groups with low range (10-30 %) as skin rashes, edema, itching, blisters, allergy, abrasion and eczema that were dominated within kids age group less 1-2 Y mainly in summer season, and so for some respiratory symptoms included dyspnea (83.3%), chest pain and asthma. The association between respiratory diseases and some dermal lesion (eczema) was reported by (Hawa 2001). The increased incidence of respiratory symptoms and their correlation with husband job and education level reflected the possibility of negative smoke effect on their kids or worthy smoking mother. Most of kids diseases (skin, respiratory, ocular, medicinal, psychic and non recognized diseases agents were significantly correlated with their homes address ($P=0.036$). Kids skin diseases (redness and swollen) were the highest for residents at town edges (Fig 20) and were positively correlated with ocular and medicinal ones ($P=0.001$). Medicinal diseases were positively correlated with respiratory, ocular and psychic ($P=0.001$) while negatively with presence of servants or absence ($P=0.022$). The multiple non recognized diseases agents were negatively correlated with health investigation of kids servant ($P=0.029$) while skin diseases were positively correlated to servant preparing their foods ($P=0.026$). Skin diseases were positively correlated with their school regular vaccination ($P=0.013$) which

attributable to body immune response to specific antigen either bacterial or viral vaccination or their contamination, but negatively with private food suppliers to schools ($P=0.002$) which reflected degree of hygienic food standard where foods brought fresh daily and used fridges as reported in questionnaires. The non determined diseases agents were positively correlated with teachers nationality ($P=0.003$) where these mixed nationalities with their own variants of carrying or disseminating microbes but negatively with presence of school nurse ($P=0.015$). The majority of families (82.2 %) had servant, and mostly one /family (55.1%). Shared preparing foods (68.2%) and feeding kids (46.7%). Servants had health certificate (74.8%) and periodic medical follow up (44.9%). Her room apart of kid's room (51.4%). The kids were admitted private and governmental schools with 39.3 and 41.1% respectively. Their families were dealing with private hospital and health care centers (70.1%) and these units were at medium distance to residence of families (53.3%). Majority of teachers were Saudis (46.7%), mixed Saudis students (7% mixing). The non Saudis students were mostly from Syrian and Lebanon's (49%). These schools had no nurses (61.7%) but had social supervisors (72.9%), permanent regular vaccinations (62.6%) and no industrial communities were closet to schools (72.9%) while human dwellings were near schools (75.7%). Hospitals and health centers were near to schools (68.2%). These schools had cafeterias (74.8%), offered food from private suppliers (53.3%), fried potatoes, sandwiches, pies, grapes leaves, sweets and chocolates were preferred by kids (92.5%), kids used healthy bottled water (58.9%), kids used cold gaseous water (14%) mostly of coca and also canned juices (51.4%). The kids mostly not bringing their own water (61.7%). The schools had individual air conditions not central (81.3%), The schools individual air conditions might not working efficiently at same time and level especially in tropical countries that in turn affected kids respiratory efficiency, where artificial air-conditioning was a matter of concern for respiratory symptoms in cities with hot and humid climate according to (Graudenz et al. 2005). School services and facilities showed significantly affected an incidence, kinds and frequency % of kids diseases. The dominance of respiratory diseases within infants in winter and the skin diseases in summer might be attributed to the nature of hot humid environment in Jeddah (ALFaryh, 1990; Hawa, 2001 and Graudenz et al. 2005)

and the indoor air pollutants as dust, particulates either in homes or schools and vehicles with increased irritation ,allergic sensitization, acute and chronic respiratory disorders (Viegi *et al*, 2004), possibility of father smoking intensity and duration and the negative effect on their kids were reported by (Bultand *et al*. 1979, and Renata and Jan. 2005).The low incidence of digestive disorders Vs others indicated the necessity of supplying schools children with healthy foods which improved their health were confirmed by (Stone and Mardell, 1979). In addition to used healthy water that reduced burden of diseases (Briggs, 2003).The effect of mother education level and mother's age at childbirth, education, religion, household living standard, and region of residence on children health were coincided with (Mishra, 2003). The kids dominant recorded diseases within age-group (1-12 Y) were mainly respiratory then skin and ocular.

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أمراض الأطفال البيئية السائدة بالمنطقة الغربية بجدة ، المملكة العربية السعودية

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الملخص

أقيمت الدراسة الحالية لإيجاد العلاقة بين الهيكل الاجتماعي -الاقتصادي و التعليمي بمجتمع جدة الحيوي وأمراض الأطفال السائدة بالفئة العمرية من أقل من سنة إلى ١٢ سنة خلال عام ٢٠٢٣ هـ. وأوضحت النتائج أن غالبية الآباء والأمهات كانت بالفئة العمرية أقل من ٣٠ إلى ٤٠ سنة وذو مستوى تعليم جامعي وموظفون بالقطاع الحكومي. توزيع السكان بنسب متقاربة ما بين وسط المدنية و طرفها الشمالي بعيدا عن ساحل البحر الأحمر. متوسط عدد الأطفال لكل أسرة ٢-٤ بنسب متساوية من الجنسين. معظم الأسر لديهم خادمة واحدة. معظم الأزواج غير أقارب. ارتبط مستوى تعليم الزوجة ايجابيا بتكرار أمراض أطفالهم الجلدية، التنفسية وأمراض العيون ولكن سلبيا بوجود الخادمة بالمنزل ووصولها على الشهادة الصحية. غالبية الأسر كانت تتعامل مع المستشفيات ودور الرعاية الصحية الخاصة والتي تتواجد بالقرب من المساكن والمدارس الخاصة وبعيدة عن التجمعات الصناعية. غالبية المدرسين بتلك المدارس سعوديين والمدارس المختلطة كانت غالبية المدرسين من سوريا ولبنان ثم مصر وشمال أفريقيا. تقوم المدارس دائما بتحسين الأطفال وفقا للبرامج الدورية المقدمة من قبل وزارة الصحة بجانب الخدمات الأخرى من تقديم الأغذية والمشروبات الصحية والإشراف الاجتماعي مما اثر معنويا على حدوث وسيادة أنواع أمراض الأطفال. قد يمثل الخلط بين الجنسيات المتواجدة بالمدارس خطورة دخول عدوى خارجية غير محلية المنشأ ما لم تتم الإجراءات الصحية المنضبطة والتي تقدمها بالفعل وزارة الصحة والجهات المختصة بالهجرة والاستقدام. أثرت وظيفة الزوج سلبا على أمراض الأطفال التنفسية. قد يؤثر قطاع العمل وجودة الهواء الداخلي بأماكن العمل وسلوك التدخين بطريقة مباشرة أو غير مباشرة على أمراض الأطفال. انتشرت أمراض الأطفال الباطنية لدى الآباء ذو الفئة العمرية ٢٠-٤٠. أقل من ٤٠ سنة. سادت الأمراض التنفسية بأطفال الفئة العمرية ٢-٤ سنوات وخاصة ضيق التنفس والأمراض الجلدية ثم أمراض العيون. كما سادت الأمراض التنفسية عامة بالشتاء والجلدية بالصيف. ارتبطت جميع أمراض الأطفال فيما عدا العيون ارتباطا ايجابيا بعنوان منازلهم وسط أم طرف المدينة. خلص البحث إلى أن مجتمع جدة تميز بهيكل اجتماعي خاص وبمستوى اقتصادي بين المتوسط والعالي (دخل الزوج) وتغير نمطية وأسلوب الحياة مع التخطيط البيئي المنضبط والذين اثروا جميعا على حدوث وسيادة أنواع أمراض الأطفال البيئية بالفئة أقل من سنة-١٢ سنة. جهود مشكورة تقدم من قبل وزارات التربية والتعليم والصحة والهجرة لتأمين مجتمع وأطفال أصحاء اجتماعيا بالمنزل والمدرسة وقطاع الخدمات العامة لمستقبل شباب قادم ملئ بالصحة في جدة.