RESULTS

The results of the present study are presented in the following parts:

Part I: Socio-demographic data for the children under study (table 1,2).

Part II: Assessment of physical health status of children and health problems among children related to slums area (table ,3,4,5,6).

Part III: Assessment of psychological status of children (table, 7,8,9,10).

Part IV : Assessment the hazards of slums environment (table 11).

Part V : Assessment of safety school environment (table12).

Part VI: Health services offered by children's school (table13).

Part VII: Relation between physical health status of children and school environment (table 14).

part VIII: Relation between health status of children and socio-demographic characteristic (table 15,16).

Part I: Socio- demographic characteristics of studied sample

Table(1): Distribution of studied sample according to their socio-demographic Characteristics (n=200)

Socio- demographic characteristics	N	%
Gender		
Male	93	46.5
Female	107	53.5
Age		
10-	124	62.0
12-	76	38.0
Mean ± SD	11.76±0.973	
Scholastic grade		
Five	102	51
Six	98	49
Order of the child within the family		
first	71	35.5
second	60	30
third	35	17.5
fourth or more	34	17
Family income		
enough	35	17.5
not enough	135	67.5
enough &save	30	15
Marital status of parents		
live together	176	88
separate	24	12
Child lives with		
Family	177	88.5
the Father alone	5	2.5
the mother alone	14	7
Others	4	2
Father's job		
working	178	89
Not working	22	11
Mother's job		
Working	58	29
Housewife	142	71

Table (1): Illustrated that (53.5%)of children in the studied sample were females, and (46.5) were males , (62%) of children aged from 10-12 years, and (38%)of children age above12 years. The mean age was 11.76 ±0.973. As regard to scholastic grad (51%)were in grade five, (35.5%)of them first order child in their family. As regard to family income (67.5%) of them had not enough. As regard to marital status of parents (88%) of their parents live together, (88.5%) of them were living with family. According to parent's job (89%) of them their fathers working and (71%) of them their mothers were housewife.

Table (2): Distribution of children's practices through asking questions regarding to preventing measures from infectious diseases on slums area (n=200).

Items	N	%
*Time of washing hands		
before eating	68	34
when touch something that unclean	44	22
After using the bathroom	58	29
after meals	64	32
Others	92	46
Washing hands		
Water only	17	8.5
Water and soap .	3	1.5
Do not wash	165	82.5
Other	15	7.5
*Drying hands		
With clean towel	15	7.5
With piece of cloth	176	88
Handkerchiefs and paper	2	1
Without drying	11	5.5
Frequencies of shower / week		
Once/week	90	45
Twice /week	51	25.5
Three times/week	44	22
Other	15	7.5
*Sharing personal tools		
Tooth brush	98	49
hair brush	61	30.5
Towels	57	28.5
Cups	30	15
Eating tools	25	12.5

*These answers not mutual

Table (2): Showed that as regard hand washing (82.5%) of studied sample didn't washed their hands, according to drying hands (88%) of studied sample dried their hands with piece of cloth, and (45%) showered once per/week. As regard to sharing personal tools (49%) of them used tooth brush.

Part II: Assessment of physical health status of studied sample

Table (3): Distribution of studied sample according to their general appearance (n=200).

Items	Clean		Unclean	
	N	**%**	**N**	**%**
General appearance	82	41	118	59
Hair	78	39	122	61
Eye	75	37.5	125	62.5
Nose	86	43	114	57
Ear	67	33.5	133	66.5
Oral and dental	31	15.5	169	84.5
Hands and feet nails	86	43	114	57

Table (3): This table shows that according to general appearance (59%) of studied sample had unclean general appearance, (61%) of them had unclean hair, (62.5%) of them had unclean eyes, (57%) of them had unclean nose, (66.5%) of studied sample had unclean ear, regarding to oral and dental care ,(84.5%)of them had unclean mouth and teeth, and (57%) of studied sample had unclean hand and feet nails.

Table (4): Distribution of studied sample according to their growth measurements (n=200).

Items	Normal		Abnormal	
	No	%	No	%
Height	83	41.5	117	58.5
Weight	99	49.5	101	50.5

Table (4): show that (58.5%) and (50.5%) of studied sample had abnormal height& weight respectively, while (41.5%) and (49.5%) of them had normal height and weight.

Table (5): Distribution of studied sample in slums area according to Smoking and unhealthy habits (n=200).

Items	N	%
Smoking		
Cigarette	43	21.5
Shisha	13	6.5
Hashish	5	2.5
Bango	0	00
Nothing	139	69.5
***Unhealthy habits**		
Bite their nails	75	37.5
Finger-sucking	33	27.5
Enuresis	33	27.5
Alert at night	141	72.5

*This answer not mutual

Table (5): Illustrated that (69.5%) of studied sample weren't smoking, as regard to unhealthy habits (37.5%) of them were bite their nails, and (72.5%) of them alerted at night.

Table (6): Health problems of school age children according to their common health problems (n=200).

Items	N	%
Health problems related to body systems		
***Digestive system**		
Food poising	13	6.5
Diarrhea	134	67
Colic	88	44
Gastritis	70	35
Constipation	31	15.5
***Respiratory system**		
Chest asthma	64	32
Pneumonia	126	63
Bronchitis	18	9
Influenza	4	2
***Dermatology**		
Eczema	9	4.5
Psoriasis	12	6
Leprosy	4	2
Head lice	60	30
Scabies	41	20.5
Itching	75	37.5
Health problems related to General appearance		
Eye		
Hyphema	45	22.5
Corneal wound	29	14.5
Face		
Wounds	88	44
Bruising	39	19.5
Lips (Cut lip)	73	36.5
Mouth (Fractures of teeth)	88	44
Neck		
Wounds	41	20.5
Bruising	19	9.5
Thighs (Fractures)	27	13.5
Head injury	21	10.5
Nose	21	10.5
Arms	51	25.5
Legs	31	15.5

*These answer not mutual

Table(6): This table Showed that the main health problems were digestive system followed by respiratory, their dermatology, according to digestive system, (67%) complained from diarrhea , followed by colic (44%), and gastritis (35%), according to respiratory systems (63%) had pneumonia& (32%) chest asthma. Also, dermatology (37.5%) of children had itching, while (22.5%) of studied sample had eye bleeding, (44%) of them had wound in face, while (36.5%) of them had lips cut, (44 %) of them had fractures of teeth, (20.5%) of studied sample had neck wound, (13.5%) of them had thighs fractures, while (10.5%) of them had head injury, (10.5%) of studied sample had nose bleeding, while (25.5%) of them had arm fractured, and (15.5%) of children had legs fractured .

Part III: Assessment of psychological health status of studied sample

Table (7) :Distribution of children according to self esteem test (n=200).

Items	Always		Sometimes		Rarely		Chi-square	
	N	%	N	%	N	%	X2	p-value
I'd like to be some one else	5	2.5	85	43	107	54	87.765	<0.001*
It's difficult to talk among classmates	6	3	104	52	90	45	84.280	<0.001*
I want to change things belong to me	24	12	91	45.5	85	42.5	41.230	<0.001*
My presence make others happy	22	11	111	55.5	67	33.5	59.410	<0.001*
Get easily angry if somebody punish me	13	6.5	60	30	127	63.5	98.470	<0.001*
I love from colleagues who are in the same age	10	5	19	9.5	171	85.5	245.530	<0.001*
I lost easily	9	4.5	21	10.5	170	85	241.330	<0.001*
I was never happy	12	6	114	57	74	37	79.240	<0.001*
Every thing in my life is confused	12	6	100	50	88	44	68.320	<0.001*
I'm not confident of myself	16	8	124	62	60	30	88.480	<0.001*
I sometimes desire to leave school	13	6.5	49	24.5	138	69	124.210	<0.001*
I sometimes feel upset at school	21	10.5	101	50.5	78	39	50.890	<0.001*
Most children are loved more than me	21	10.5	116	58	63	31.5	67.990	<0.001*
I will never succeed	109	54.5	60	30	31	15.5	46.630	<0.001*

Table (7): Show that(54.5%) of them rarely wanted to be some one else,(52 %) of them sometimes had difficult to speak in the classmates, (45.5%)of them sometimes wanted to change things belonged to their, (55.5%)of them sometimes their presence making others happy, (63.5%) rarely easily angry if somebody punish him , (85.5%)of them rarely loved from their colleagues,(85%)of them rarely lost easily, (57.00%)of them sometimes didn't happiness , while (50%) of them sometimes had confused live, (62%) of them sometimes hadn't trust to himself, (69%)of them rarely desired to leave school ,(50.5%) of studied sample sometimes feel upset at school ,(58%) of them sometimes felt that most children were loved more than him , and (54.5%) of studied sample always never succeed with highly statistically significant difference(P< 0.001*).

Table (8): Distribution of children according to anxiety test (n=200).

Items	Always		Sometimes		Rarely		Chi-square	
	N	%	N	%	N	%	X^2	P-value
Headache	84	42.00	51	25.50	65	32.50	8.230	0.016*
Sweat fast	53	26.50	62	31.00	85	42.50	8.170	0.017*
Get Nervous	47	23.50	39	19.50	114	57.00	50.890	<0.001*
Prefer Loneliness	45	22.50	62	31.00	93	46.50	17.770	<0.001*
Play with friends	39	19.50	37	18.50	124	62.00	73.990	<0.001*
Tire of the least effort	37	18.50	36	18.00	127	63.50	81.910	<0.001*
Prefer no eating	35	17.50	17	8.50	148	74.00	151.270	<0.001*
Prefer no seeing others	47	23.50	28	14.00	125	62.50	79.270	<0.001*
Sleep problems	37	18.50	50	25.00	113	56.50	49.570	<0.001*

Table (8): showed that (42%) of studied sample always had a headache ,(42.5%) of them rarely sweet fast, (57%) of them rarely getting nervous, (46.5%) of them rarely preferring loneliness, (62%) of them rarely play with friends, 63.5% of them rarely tired of small effort , (74.%) of studied sample rarely preferring no eat ,62.5% of them rarely preferring no see others , and (56.5%) of them rarely suffering from sleep problems with highly statistically significant difference in all items of anxiety test (P < 0.001*).

Table (9) :Distribution of children according to aggressive behavior test (n=200).

Items	Always		Sometimes		Rarely		Chi-square	
	N	%	N	%	N	%	X^2	P-value
I fight my classmates or schoolmates	45	22.50	56	28.00	99	49.50	24.430	<0.001*
I harm others by hands, legs or any thing else	103	51.50	61	30.50	36	18.00	34.390	<0.001*
I try to destroy the other's things in class	75	37.50	79	39.50	46	23.00	9.730	0.008*
I play with the class contents	35	17.50	33	16.50	132	66.00	96.070	<0.001*
I destroy things if it is important	50	25.00	33	16.50	117	58.50	59.170	<0.001*
I try to penetrate colleges without harming me	42	21.00	53	26.50	105	52.50	33.970	<0.001*
I prefer boxing college at spare time	5	2.50	168	84.00	27	13.50	234.670	<0.001*
I destroy the classroom contents even being punished	5	2.50	109	54.50	86	43.00	89.530	<0.001*
I Get my rights by force	5	2.50	109	54.50	86	43.00	89.530	<0.001*
I reply the physical harm with stronger than it	3	1.50	12	6.00	185	92.50	315.670	<0.001*
I prefer watching boxing and wrestling to other sports	2	1.00	2	1.00	196	98.00	376.360	<0.001*
I reply the verbal worth with physical worth	3	1.50	3	1.50	194	97.00	364.810	<0.001*
I Shout for trivial reasons	5	2.50	86	43.00	109	54.50	89.530	<0.001*
I prefer playing tricks on others	6	3.00	104	52.00	90	45.00	84.280	<0.001*
I use un preferred words in dealing with colleges	24	12.00	91	45.50	85	42.50	41.230	<0.001*
I laugh loudly without reasons	22	11.00	111	55.50	67	33.50	59.410	<0.001*
I get my colleagues to annoying teachers verbally	13	6.50	60	30.00	127	63.50	98.470	<0.001*
I cheer strongly to get attention of others without reasons	10	5.00	19	9.50	171	85.50	245.530	<0.001*
I try to harm others without feeling by me	9	4.50	21	10.50	170	85.00	241.330	<0.001*
I feel happy when watching conflict between others	12	6.00	114	57.00	74	37.00	79.240	<0.001*
I prefer the war and action movies	12	6.00	100	50.00	88	44.00	68.320	<0.001*
I get easily angry if excited by others	16	8.00	124	62.00	60	30.00	88.480	<0.001*
I feel happy when the others mistakes and criticized by teacher	13	6.50	49	24.50	138	69.00	124.210	<0.001*
I prefer making the opposite of wanted from me	18	9.00	103	51.50	79	39.50	57.610	<0.001*
I prefer making counlleagues afraid of me	21	10.50	116	58.00	63	31.50	67.990	<0.001*

Table (9): This table showed that(49.5%)of studied sample rarely fighting his classmates, (51.5%) of them always harming others by hands, legs or any thing else, (39.5%) of studied sample sometimes trying to destroy other's things , (66%) of them rarely plying with classmates contents, (58.5%) of studied sample rarely destroying things if it is important, (52.5%) of studied sample rarely trying to penetrate colleges without harm him, (84%) of them sometimes prefer boxing colleges at spare time,(54.5%) sometimes destroying classmates content even being punished, (54.5%)   of them sometimes getting him rights by force, (92.5%) of them rarely replying   physical harm with stronger than it, (98%) of studied sample rarely preferring watch boxing to other sports, (97.%) of them rarely replying verbal worth with physical worth, (54.5%) of studied sample rarely shouting for trivial reasons, (52%) sometimes prefer playing tricks on others, (45.5%) of them sometimes using un prefer words in dealing with colleges, (55.5%) of studied sample sometimes laughing loudly without reasons, (63.5%) of them rarely getting his colleges to annoyed teachers verbally, (85.5%) of studied sample rarely cheering strongly to get attention of others without reasons,(85%) of them rarely trying to harm others without feeling of him,(57%) of them sometimes feeling happy when watch conflict between others, (50%) sometimes preferring watch war and action movies, (62%) of studied sample sometimes getting easily anger if excited by others, (69%) of them rarely feeling happy when others mistakes and criticized by teacher, (51.5%) of them sometimes preferring make the opposite of wanted from him, and (58%) of studied sample sometimes preferring make colleges afraid of him with highly statistically significant difference in all items of aggressive behavior test(P < 0.001*).

Table (10): distribution of studied sample according to anxiety test, Self esteem, and Aggressive behavior (n=200).

Items	Low		Moderate		Severe	
	N	%	N	%	N	%
Anxiety	179	89.5	12	6	9	54.5
Self esteem	161	80.5	39	19.5	0	0.00
Aggressive behavior	141	70.5	35	17.5	24	12

Table (10): this table showed that, (89.5%) of studied sample had low anxiety, while (80.5%) of them had low self esteem, and (70.5%) of them had low s aggressive behavior.

Part IV: Assessing the slums environmental condition

Table (11): Distribution of studied sample according to their housing environment (n=200).

Items	Good		Average		Poor		Chi-square	
	N	%	N	%	N	%	X^2	P-value
1 - Ventilation	41	20.5	48	24	111	55.5	44.590	<0.001*
2 - lighting	47	23.5	81	40.5	72	36	9.310	0.010*
3 - Sources of drinking water	70	35	48	24	82	41	8.920	0.012*
4 - Sewage sanitation	39	19.5	23	11.5	138	69	116.410	<0.001*
5 - Collecting garbage	40	20	40	20	120	60	64.000	<0.001*
6 - kitchen facilities	42	21	34	17	124	62	74.440	<0.001*
7 - Drugs cupborad	50	25	31	15.5	119	59.5	64.330	<0.001*
8 - Securing source of electricity	60	30	42	21	98	49	24.520	<0.001*
9- Securing source of fire	40	20	31	15.5	129	64.5	88.030	<0.001*
10 - Securing windows	81	40.5	48	24	71	35.5	8.590	0.014*
11 - Child's room	71	35.5	56	28	73	36.5	2.590	0.274

Table(11): According to home environment it showed that (55.5%) of studied sample had poor ventilation, as regard to lighting (40.5%) of them had average lighting, (41%) of them had poor source of drinking water, also (69%) of studied sample had poor sewage sanitation, as regard to collecting garbage (60%) of them had poor colleting garbage. While (62%) of studied sample had poor kitchen facilities. According to drugs cupboard (59.5%) of them had poor in drugs cupboard, and (49%) of them had poor in securing source of electricity. (64.5%) of studied sample had poor securing source of fire.Also (71%) of them had poor securing windows, and (73%) of studied sample had poor child's room.

Part V: Assessment of safety school environment

Table (12): Distribution of studied sample according to their school environment (n=10)

Items	Safe.		Unsafe.	
	N	**%**	**N**	**%**
1 – Site of School	2	20	8	80
2 - Ventilation	3	30	7	70
3 - lighting	4	40	6	60
4 - Sources of drinking water	2	20	8	80
5 - Sewage Sanitation	3	30	7	70
6 – Collecting garbage	3	30	7	70
7 - Securing source of electricity	6	60	4	40
8 - Securing windows	6	60	4	40

Table (12): Showed that (80%) of studied sample unsafe site, (70%) of them unsafe ventilation, Also (60 %) unsafe lighting, and (80%) studied sample unsafe sources of drinking water. While equal percent (70%) of them unsafe sewage sanitation and collecting garbage, and equal percent (40%) of studied sample unsafe securing source of electricity and windows.

Part V1: Assessment of health services offered to students

Table (13): Distribution of studied sample according to health services offered by their schools (n=10)

Items	N	%
During feeling sick child go to		
School nurse	200	100
Class teacher	0	0.00
External physician	0	0.00
Health unit	0	0.00
Person responsible for follow up		
Nurse	4	2
Physician	16	8
Health unit	180	90
Nurse responsibility about refer children to health unit		
Yes	150	75
No	50	25
is there a school first aid		
Yes	40	20
No	160	80
Person provide first aid		
Nurse	0	0.00
Health unit	200	100
External physician	0	0.00
Place of vaccinations		
School	200	100
Health unit	0	0.00

Table (13): This table revealed that, (100%) of studied sample would go to the school nurse if they felt ill. According to follow up (90%) of them gone to the health unit for follow up, (75%) of studied sample were referred to the health unit. As regard to first aid (80%) of them weren't offered first aid in the school, (100%) of studied sample were given first aid in the health unit, and (100%) of them took vaccination in the school.

Part (V11):Correlation between school environment and Physical health status of children

According to research question No(1)

Is there relationship between Physical health status of children and school environment?

Table (14): Correlation between school environment and Physical health status of children

Correlation between School environment and Physical health status of children	
r	**P-value**
0.180	0.01*

Table (14): Revealed that there was statistically significant relation between school environment and physical health status of children (p<0.01*).

According to research question (No 2): Is their relationship between socio-demographic characteristic and physical health status of children?

Table (15) : Distribution of studied sample in relation between socio-demographic characteristic and physical health status of children.

Socio-demographic characteristic	Physical health status			ANOVA and T-test	
	Mean	±	SD	f or t	P-value
Family income					
enough	21	±	4		
not enough	20	±	4.5	1.813	0.166
enough &save	22	±	3		
Child lives with					
Family	21.5	±	3.9		
Father alone	15.8	±	6.3		
mother alone	20.2	±	4	3.619	0.014*
Others	21	±	3.3		
Age					
<10	21.5	±	4.4		
>10	20.8	±	3.4	1.136	0.257
Gender					
Male	21.4	±	3.6		
Female	21	±	4.4	0.495	0.621
Grade					
Five	21.5	±	4		
Six	20.9	±	4	1.104	0.271
Marital status of parents					
live together	21.4	±	3.9		
separate	19.6	±	4.9	2.107	0.036*
Father's job					
Working	21.4	±	3.8		
Does not work	20	±	5.5	1.483	0.14
Mother's job					
Working	21.4	±	3.6		
Housewife	21	±	4.2	0.365	0.715

Table (15): Table revealed that there was statistically significant relation between children and physical health status of studied sample in child lives with and marital status of parents (p<0.05).

Table (16): Relation between socio-demographic characteristic and psychological   health status of children.

Socio-demographic characteristic	Psychological			ANOVA and T-test	
	Mean	±	SD	f or t	P-value
Family income					
enough	11.1	±	2.2	0.788	0.456
not enough	11.2	±	1.9		
enough & save	10.6	±	2		
Child lives with					
Family	11	±	2	0.152	0.928
the Father alone	11.6	±	1.9		
the mother alone	11.2	±	2.2		
others	10.7	±	2.9		
Age					
<10	10.9	±	2	-1.304	0.194
>10	11.3	±	2.2		
Gender					
Male	11.4	±	2.4	1.924	0.056
Female	10.8	±	1.9		
Grade					
Five	11	±	2	0.472	0.637
Six	11	±	2		
Marital status of parents					
live together	11	±	2	-0.624	0.534
separate	11.3	±	2.2		
Father's job					
Working	11	±	2	0.782	0.435
Does not work	10.7	±	2		
Mother's job					
Working	11	±	2	-0.334	0.739
Housewife	11	±	2.2		

Table (16): Shows that there was no statistically significant relation between socio-demographic characteristic and psychological health status of studied sample (p>0.05).