

Psychological and Perceptual Assessment of the Attitudes of Educational-Staff at the Technical Institute Karbala towards Environmental Pollution

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Abstract:

Background: Pollution is unwanted waste of human origin released to air, land, water, and the ocean without regard for cost or consequence—is an existential threat to human health and planetary health, and jeopardizes the sustainability of modern societies. Pollution includes contamination of air by fine particulate matter (PM_{2.5}); ozone; oxides of Sulphur and nitrogen; freshwater pollution; contamination of the ocean by mercury, nitrogen, phosphorus, plastic, and petroleum waste; and poisoning of the land by lead, mercury, pesticides, industrial chemicals, electronic waste, and radioactive waste.

Methods: A semi-experimental study (towards environmental pollution) was conducted in the Iraqi city of Karbala. The study was conducted from November 1, 2022 to April 1, 2023. Data was collected by conducting a questionnaire with the teaching staff at the Karbala Technical Institute who were selected at their convenience. The data were presented in the form of frequencies and percentages, a *p-value* of ≤ 0.05 was considered statistically significant.

Results: The largest proportion (30.8) of age was 31 - 40 years old. More than half of the sample (61.1%) were male, and 85% were residing in urban areas. Concerning the educational level, the highest percentage (35.1%) was for diploma. More than half of marital status (74.6%) was married. the most exposed groups to pollution of all kinds the children was largest proportion (73.0 %). On the other hand, the highest percentage was noticed in environmental pollutants very dangerous to the health of individuals. correlation coefficient between some demographic parameters with some knowledge test about environmental pollution, there was positive correlation between A form of widespread environmental pollution that is difficult to control and specialization ($r = .180^*$, $P = .014$), The oldest environmental problems that threaten living organisms with gender ($r = .217^{**}$, $P = .003$). on the other hands there was positive correlation notably among gender and one of the most exposed groups to pollution of all kinds ($r = .198^{**}$, $P = .007$). also there was positive correlation noticeably among The most important diseases caused by water pollution to humans and Occupation ($r = .148^*$, $P = .044$).

Conclusion: pollution and its effects have grave consequences on communities' health and safety, so, to solve environmental problems, they must be recognized and valued. This research aims to assess environmental awareness for a conscious segment of Iraqi.

Keyword: pollution, educational-staff, Occupation, water pollution.

Introduction

Pollution is undesired waste of human origin that is discharged into the air, land, water, and ocean without regard for cost or consequence. Pollution poses an existential danger to human health as well as the health of the planet as a whole, and it puts the viability of contemporary society in jeopardy. The contamination of the air by fine particulate matter (PM_{2.5}), ozone, oxides of sulfur and nitrogen, pollution of freshwater, contamination of the ocean by mercury, nitrogen, phosphorus, plastic, and waste from the petroleum industry, and poisoning of the land by lead, mercury, pesticides, industrial chemicals, electronic waste, and radioactive waste are all forms of

pollution. According to the findings of the 2017 Lancet Commission on pollution and health, which used data from the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2015, pollution was responsible for an estimated 9 million deaths (16% of all deaths globally) and for economic losses totaling US\$ 4.6 trillion (6% of global economic output) in 2015. In addition, the Lancet Commission found that in 2015, pollution caused economic losses totaling US\$ 4.6 trillion(1).

The problem of pollution has emerged as one of the most significant existential obstacles of the Anthropocene period. In the same vein as climate change, the loss of biodiversity, ocean acidification, desertification, and the depletion of the world's fresh water supply, pollution endangers the stability of the Earth's support systems and threatens the continued existence of human societies (2). In the past five hundred years, there has been a rapid rise in pollution, particularly pollution generated by industrial emissions, automotive exhausts, and hazardous chemicals. The highest increases in pollution that are being witnessed now are in nations with low incomes and those with intermediate incomes. Industrial, vehicular, and chemical pollution in developing countries has been largely overlooked in international development and global health agendas, and programmers for pollution control have received little attention or resources from either international agencies or philanthropic donors. This is despite the fact that the magnitude of this pollution is both large and growing. Pollution is currently a significant issue that threatens the health of billions of people, damages the ecosystems of the Earth, weakens the economic security of nations, and is responsible for a tremendous worldwide burden of sickness, disability, and death at an early age. Changes in the global climate are intricately connected to pollution in many ways (3,4). The characteristics of pollution are shifting, and in many parts of the world, the problem is getting more worse. These shifts are a result of a rise in energy consumption, an increase in the use of new materials and technologies, the fast industrialization of low-income and middle-income nations, and the migration of inhabitants from rural regions into urban centers around the globe. There has been a gradual improvement in the quality of air and water in residential areas, two types of pollution that have historically been linked to extreme poverty and more conventional ways of living. Air pollution, chemical pollution, and soil pollution are all on the rise, but ambient air pollution is growing the most. The unchecked expansion of urban areas, rising demands for energy, rising rates of mining, smelting, and deforestation, the global spread of toxic chemicals, increasingly heavier applications of insecticides and herbicides, and an increasing use of automobiles, trucks, and buses powered by petroleum are key contributors to these forms of pollution. Increases in the contamination of the surrounding air, soil, and chemicals(5,6).

Pollutants can come in a variety of forms and exhibit a wide range of qualities, including: The absorptive capacity of stock pollutants is either nonexistent or extremely low. Stock pollutants include non-biodegradable plastics, synthetic chemicals, and heavy metals. The presence of these toxins grows steadily worse across the ecosystem as time passes. The amount of harm is proportional to the number of them that are present at the moment. Their destructive potential grows in proportion to the number of those that are present (7). Agricultural pollutants Because there are fewer people living in rural regions, the soil there typically includes fertilizers, pesticides, and eroded soil. These contaminants make their way into water bodies through runoff that occurs when it rains or floods. The eutrophication of freshwater bodies is caused by agricultural and urban activities. Eutrophication affects 50 percent of the country's lakes. The primary element responsible for eutrophication is phosphate, which, when present in high concentrations, encourages the growth of cyanobacteria and algae, which, in turn, results in a decrease in the amount of oxygen that is dissolved in water. Cyanobacterial blooms are responsible for the production of dangerous toxins, which then build up in the food chain (8). Chemical pollution It is a substance that is left over as a by-product during the production process, and it also plays a significant part in the pollution of water bodies. It is produced from the waste of firms that produce toxic chemicals. Forms of hazardous chemical waste include solid, liquid, and gaseous substances respectively. Corrosivity, ignitability, toxicity, and reactivity are the qualities of a substance that determine whether or not it is harmful (9). This is because there are microscopic particles floating around in the air, and those particles eventually find their way into bodies of water when it rains. Carbon dioxide, which is created when fossil fuels are burned, is a component of this. The amount of carbon dioxide in the atmosphere is growing, and when it reacts with water molecules, it produces sulfuric acid. When combined with water molecules, the sulfur dioxide that is generated by volcanoes and factories also results in the

formation of sulphuric acid. In addition, the burning of coal and petroleum products results in the production of sulphur dioxide. In a manner analogous, nitrogen dioxide may be converted into nitric acid by combining it with water. Rain transports the particles that contribute to water pollution to bodies of water (10). particles also play a very important role in the effects of water pollution.

Methods:

A semi-experimental study (towards environmental pollution) was conducted in the Iraqi city of Karbala. The study was conducted from November 1, 2022 to April 1, 2023. Data was collected by conducting a questionnaire with the teaching staff at the Karbala Technical Institute who were selected at their convenience. The study instrument (questionnaire) was developed by the researcher through proper utilization of available relevant literature review. The questionnaire consisted of three parts. The first one is the sociodemographic characteristics variables and that consisted of 15 questions such as (age, gender, Marital status, residency, occupation, Education). Second part consisted of testing knowledge about environmental pollution and the third part environmental pollution risk awareness trend scale.

The statistical package for social sciences (SPSS version 25) was used for data entry and analysis. Categorical variables were presented in the form of frequencies and percentages.

Results:

The largest proportion (30.8) of age was 31 - 40 years old. More than half of the sample (61.1%) were male, and 85% were residing in urban areas. Concerning the educational level, the highest percentage (35.1%) was for diploma. More than half of marital status (74.6%) was married. Regarding to the specialization the largest proportion (74.6%) was administrative. According to the occupation the highest proportion (46.5%) was technical.

Table 1. Distribution of the studied sample according to socio-demographic characteristics.

Variables. n=185	Categories	Frequency	Percent
Age (in years)	20-30	32	17.3%
	31-40	57	30.8%
	41-50	46	24.9%
	51-60	43	23.2%
	61-70	7	3.8%
Gander	Male	113	61.1%
	Female	72	38.9%
Residency	Urban	159	85%
	Rural	29	15%
Marital status	single	40	21.6%
	married	138	74.6%
	Widower	5	2.7%
	Absolute	2	1.1%
Education	Secondary	37	20.0%
	diploma	65	35.1%
	Bachelor	57	30.8%
	Higher Diploma	3	1.6%
	Master	16	8.6%
	Doctorate	7	3.8%
Occupation	Managerial	49	26.5%
	Technical	86	46.5%

	Teaching	50	27.0%
Specialization	Medical	9	4.9%
	Technology	38	20.5%
	Administrative	138	74.6%

The table (2) was showed highest proportion (64.9%) for the Corruption affects all components of the environment and leads to its destruction. Among the widespread environmental pollution that is difficult to control (75.7 %) was air pollution, and (44.9 %) Water pollution was oldest environmental problems that threaten living organisms. Regarding to the most exposed groups to pollution of all kinds the children was largest proportion (73.0 %). On the other hand, the highest percentage was noticed in environmental pollutants very dangerous to the health of individuals is burnt lime at (41.1 %).

Regarding to the most prevalent pollutants that infect the air was Coal dust at proportion (53.5 %), according to the diseases caused by air pollution except the Impotence at (37.8 %). At (81.1 %) Nicotine is the largest present of toxic gas causes pollution. Regarding to the rapid symptoms appear in smokers the blood pressure Occupied (55.1 %). The Radioactive materials is the most dangerous on human life at percentage (56.8 %). The most important diseases caused by water pollution to humans was hepatitis at (58.9 %).

Table (2) Represents the knowledge test about environmental pollution of the sample taken.

Variables. n=185	Categories	Frequency	Percent
Environmental pollution can be defined as	Corruption affects all components of the environment and leads to its destruction	120	64.9 %
	Damage to agricultural soil that reduces its viability	17	9.2 %
	It is a defect that affects all components of the air making it polluted	46	24.9 %
	It is the conversion of land from agricultural land to desert	2	1.1 %
A form of widespread environmental pollution that is difficult to control	Soil pollution	30	16.2 %
	Sound pollution	8	4.3 %
	Air pollution	140	75.7 %
	Food contamination	7	3.8 %
The oldest environmental problems that threaten living organisms	Desertification	74	40.0 %
	Food contamination	14	7.6 %
	Water pollution	83	44.9 %
	Ozone	14	7.6 %
One of the most exposed groups to pollution of all kinds	Sheiks	26	14.1 %
	The elderly and the blind	21	11.4 %
	Children	135	73.0 %
	Adults	3	1.6 %
One of environmental pollutants very dangerous to the health of individuals	Dust	59	31.9 %
	Burnt lime	76	41.1 %
	Asbestos	37	20.0 %
	Water vapour	13	7.0 %

One of the most prevalent pollutants that infect the air	Coal dust	99	53.5 %
	Plankton	42	22.7 %
	Minerals	26	14.1 %
	Mercury	18	9.7 %
All of the following are different diseases caused by air pollution except	Ricketts of cattle	41	22.2 %
	Impotence	70	37.8 %
	Leaf fall	26	14.1 %
	Lung cancer	48	25.9 %
A toxic gas emitted by cigarette smoke and is highly susceptible to cancer events	Neraz oxide	14	7.6 %
	Nicotine	150	81.1 %
	Albeniz and Perrin	14	7.6 %
	Largon	7	3.8 %
The most rapid symptoms appear in smokers	Rash	14	7.5 %
	Blood pressure	102	55.1 %
	Falling teeth	64	34.6 %
	Scratching the eyes	5	2.7 %
One of the most dangerous water pollutants to human life	Wastewater	52	28.1 %
	Radioactive materials	105	56.8 %
	Salts	16	8.6 %
	Organic matter	12	6.5 %
The most important diseases caused by water pollution to humans	Hepatitis	109	58.9 %
	Laryngitis	30	16.2 %
	Smallpox	33	17.8 %
	Hysteria	13	7 %
All of the following are damages caused by water pollution to the environment except	Bird migration	51	27.6 %
	Death of fish	31	16.8 %
	Turbidity of water	25	13.5 %
	Tidal phenomenon	78	42.2 %
From pathogenic viruses present in water	Rota virus	75	40.5 %
	Rabies	38	20.5 %
	Influenza	13	7.0 %
	All of the above	59	31.9 %
Pollution with fertilizers and pesticides is one of the sources of pollution	Physical	11	5.9 %
	Chemical	143	77.3 %
	Vitality	11	5.9 %
	Radioactivity	20	10.8 %

One of the health risks to humans due to soil pollution	Night blindness	8	4.3 %
	Kidney failure	66	35.7 %
	Thalassemia	51	27.6 %
	Parkinson 's	60	32.4 %
Radioactive radium causes cancer	Colon cancer	21	11.4 %
	Bones cancer	54	29.2 %
	Prostate cancer	68	36.8 %
	Breast cancer	42	22.7 %
Contamination of the soil with lead leads to disease	Incontinence	13	7.0 %
	Medullary encephalitis	113	61.1 %
	Gallstone	50	27.0 %
	Appendicitis	9	4.9 %
From natural sources of noise pollution, including	Aircraft Air Discharge	25	13.5 %
	Work noise	57	30.8 %
	Car Zamor	70	37.8 %
	Electromagnetic noise	29	15.7 %

The table (3) was showed the acceptance or rejection of some concepts about environmental pollution. Where the results of the questionnaire showed approval of some concepts and rejection of others. According to the "I think that the problem of environmental pollution in Iraq is not urgent" (43.2 %) was Strongly opposed. While more than half (54.1 %) was I think that the efforts of the Ministry of Health and Environment are insufficient to reduce the problem of environmental pollution the answer was strongly agree. In Table No. 3, there is a discrepancy in the answers in terms of approval and non-approval.

Table No. 3 shows the scale of awareness of the dangers of environmental pollution.

Variables. n=185	Categories	Frequency	Percent
I think that the problem of environmental pollution in Iraq is not urgent	Strongly Agree	29	15.7 %
	Agree	23	12.4 %
	Neutral	12	6.5 %
	Opposed	41	22.2 %
	Strongly opposed	80	43.2 %
I think that the efforts of the Ministry of Health and Environment are insufficient to reduce the problem of environmental pollution	Strongly Agree	100	54.1 %
	Agree	61	33.0 %
	Neutral	2	1.1 %
	Opposed	8	4.3 %
	Strongly opposed	14	7.6 %
I see that excessive industrial activities do not have negative effects on the environment because the air is renewable	Strongly Agree	18	9.7 %
	Agree	30	16.2 %
	Neutral	24	13.0 %
	Opposed	62	33.5 %

	Strongly opposed	51	27.6 %
I see the need to give priority to reducing environmental pollution that negatively affects human health	Strongly Agree	110	59.5 %
	Agree	50	27.0 %
	Neutral	10	5.4 %
	Opposed	6	3.2 %
	Strongly opposed	9	4.9 %
I am interested in finding appropriate solutions to reduce the problem of environmental pollution in my country	Strongly Agree	115	62.2 %
	Agree	47	25.4 %
	Neutral	14	7.6 %
	Opposed	8	4.3 %
	Strongly opposed	1	.5 %
Pay attention to continuous knowledge of the dangers of environmental pollution in all its forms	Strongly Agree	76	41.1 %
	Agree	86	46.5 %
	Neutral	8	4.3 %
	Opposed	12	6.5 %
	Strongly opposed	3	1.6 %
I think it's not my specialty to know the risks caused by pollution.	Strongly Agree	48	25.9 %
	Agree	59	31.9 %
	Neutral	14	7.6 %
	Opposed	49	26.5 %
	Strongly opposed	15	8.1 %
I am interested in knowing the diseases and risks caused by environmental pollution	Strongly Agree	96	51.9 %
	Agree	68	36.8 %
	Neutral	10	5.4 %
	Opposed	8	4.3 %
	Strongly opposed	3	1.6 %
I see the importance of conducting research to reduce the risks of environmental pollution, whatever its material cost.	Strongly Agree	91	49.2 %
	Agree	69	37.3 %
	Neutral	19	10.3 %
	Opposed	5	2.7 %
	Strongly opposed	1	.5 %
I would like to participate in campaigns to educate people about the dangers of environmental pollution and how to prevent them	Strongly Agree	78	42.2 %
	Agree	79	42.7 %
	Neutral	23	12.4 %
	Opposed	5	2.7 %
I see the need to reduce all types of environmental pollution regardless of its seriousness	Strongly Agree	75	40.5 %
	Agree	93	50.3 %
	Neutral	11	5.9 %
	Opposed	6	3.2 %

Feel the importance of studying topics related to the risks of environmental pollution	Strongly Agree	54	29.2 %
	Agree	105	56.8 %
	Neutral	16	8.6 %
	Opposed	8	4.3 %
	Strongly opposed	2	1.1 %
I feel responsible for the damage to the environment from pollution even though I do not work in the environmental field	Strongly Agree	64	34.6 %
	Agree	88	47.6 %
	Neutral	23	12.4 %
	Opposed	8	4.3 %
	Strongly opposed	2	1.1 %
I believe that developing awareness among citizens of the dangers of environmental pollution is an urgent necessity in Iraq	Strongly Agree	103	55.7 %
	Agree	53	28.6 %
	Neutral	18	9.7 %
	Opposed	9	4.9 %
	Strongly opposed	2	1.1 % %
I appreciate the efforts being made to preserve and protect the environment	Strongly Agree	87	47.0 %
	Agree	68	36.8 %
	Neutral	19	10.3 %
	Opposed	9	4.9 %
	Strongly opposed	2	1.1 % %
Pay attention to calls that aim to protect the environment from disturbing the ecological balance	Strongly Agree	73	39.5 %
	Agree	83	44.9 %
	Neutral	14	7.6 %
	Opposed	7	3.8 %
	Strongly opposed	8	4.3 %
I believe that the Authority's efforts in developing environmental and natural resources are insufficient	Strongly Agree	71	38.4 %
	Agree	73	39.5 %
	Neutral	12	6.5 %
	Opposed	16	8.6 %
	Strongly opposed	13	7.0 %
	Strongly Agree	32	17.3 %
	Agree	25	13.5 %

I see the importance of conducting research to reduce the risks of environmental pollution, whatever its material cost.	Neutral	21	11.4 %
	Opposed	44	23.8 %
	Strongly opposed	63	34.1 %
I think that polluting activities in my country are not worrying.	Strongly Agree	35	18.9 %
	Agree	48	25.9 %
	Neutral	19	10.3 %
	Opposed	55	29.7 %
	Strongly opposed	28	15.1 %
I think that combating environmental pollution is the task of experts in environmental affairs only	Strongly Agree	90	48.6 %
	Agree	57	30.8 %
	Neutral	15	8.1 %
	Opposed	10	5.4 %
	Strongly opposed	13	7.0 %
I see an urgent need to spread awareness of the dangers of pollution to all citizens without exception	Strongly Agree	66	35.7 %
	Agree	87	47.0 %
	Neutral	13	7.0 %
	Opposed	15	8.1 %
	Strongly opposed	4	2.2 %
I think that environmental pollution issues are not related to my working life	Strongly Agree	37	20.0 %
	Agree	33	17.8 %
	Neutral	28	15.1 %
	Opposed	53	28.6 %
	Strongly opposed	34	18.4 %
I see the need to allocate a large part of the media of all kinds to spread awareness to preserve the environment and protect it from pollution	Strongly Agree	85	45.9 %
	Agree	57	30.8 %
	Neutral	8	4.3 %
	Opposed	18	9.7 %
	Strongly opposed	17	9.2 %
I believe that activating the legal texts (verses _hadiths) increases citizens' awareness of the dangers of pollution	Strongly Agree	81	43.8 %
	Agree	61	33.0 %
	Neutral	21	11.4 %
	Opposed	13	7.0 %
	Strongly opposed	9	4.9 %
Participate in a fundraising campaign to preserve environmental and natural resources	Strongly Agree	50	27.0 %
	Agree	81	43.8 %
	Neutral	27	14.6 %
	Opposed	23	12.4 %
	Strongly opposed	4	2.2 %
I doubt the feasibility of holding seminars and workshops in schools and universities to reduce the risk of environmental pollution	Strongly Agree	39	21.1 %
	Agree	51	27.6 %
	Neutral	29	15.7 %
	Opposed	53	28.6 %
	Strongly opposed	13	7.0 %

I think that there is an important role for the Ministry of Health and Environment in educating citizens about the dangers of environmental pollution	Strongly Agree	64	34.6 %
	Agree	66	35.7 %
	Neutral	25	13.5 %
	Opposed	20	10.8 %
	Strongly opposed	10	5.4 %

Table (4) show the correlation coefficient between some demographic parameters with some knowledge test about environmental pollution, there was positive correlation between A form of widespread environmental pollution that is difficult to control and specialization ($r = .180^*$, $P=.014$), The oldest environmental problems that threaten living organisms with gender ($r = .217^{**}$, $P =.003$).

On the other hands there was positive correlation notably among gender and one of the most exposed groups to pollution of all kinds ($r = .198^{**}$, $P =.007$). also there was positive correlation noticeably among The most important diseases caused by water pollution to humans and Occupation ($r = .148^*$, $P = .044$).

Table (4) Correlation coefficient between some demographic parameters with some knowledge test about environmental pollution.

Variable	Gander		Education		Occupation		Specialization	
	R	P	R	P	R	P	R	P
A form of widespread environmental pollution that is difficult to control	R	.053	R	.073	R	.114	R	.180*
	P	.077	P	.325	P	.123	P	.014
The oldest environmental problems that threaten living organisms	R	.217**	R	.026	R	-.054	R	.011
	P	.003	P	.722	P	.466	P	.881
One of the most exposed groups to pollution of all kinds	R	.198**	R	.054	R	-.015	R	.024
	P	.007	P	.462	P	.843	P	.748
One of environmental pollutants very dangerous to the health of individuals	R	-.044	R	.121	R	.081	R	-.009
	P	.551	P	.100	P	.275	P	.908
One of the most prevalent pollutants that infect the air	R	.037	R	-.102	R	-.037	R	-.079
	P	.615	P	.166	P	.613	P	.286
A toxic gas emitted by cigarette smoke and is highly susceptible to cancer events	R	-.131	R	-.052	R	-.058	R	.058
	P	.075	P	.483	P	.437	P	.434
The most important diseases caused by water pollution to humans	R	-.006	R	-.006	R	.148*	R	-.070
	P	.935	P	.934	P	.044	P	.342
From pathogenic viruses present in water	R	-.050	R	.258**	R	.078	R	-.015
	P	.500	P	.000	P	.292	P	.834
Radioactive radium causes cancer	R	.026	R	-.059	R	-.013	R	.126
	P	.721	P	.428	P	.861	P	.088

Values expressed as percentage significant differences at the ($P \leq 0.05$) level

Discussion:

The table (1) was show the largest proportion (30.8) of age was 31 - 40 years old. More than half of the sample (61.1%) were male, and 85% were residing in urban areas. Concerning the educational level, the highest percentage (35.1%) was for diploma. More than half of marital status (74.6%) was married. Regarding to the specialization the largest proportion (74.6%) was administrative. According to the occupation the highest proportion (46.5%) was technical this results agreement with (Al-Nasrawii) (11) that found the majority of the

study sample is males 113 (56.5%) and the remaining are females. Rather than marital status of parents are focuses with singles, and they are accounted 179 (89.5%), but married number formed highly numbers 21(10.5%). Finally, the vast majority of the study sample is in the low and moderate categories and accounted for 172 (86%) and the remaining sample is in the high score and is accounted for 28 (14%). The current study finding are agreement with (Masih., 2014) (12) were 60.7% males and 72.4% was married, age range between (23-62) years. Arshad, 2020(13) results conform with several studies that have measured the environmental awareness and environmental behavior of different groups of society, measured the environmental awareness of Academics' knowledge in Turkey and declared that those academics have a high level of environmental awareness. As regards the correlation across academic disciplines, awareness of university academic was found higher than the other level awareness.

Olivier & Peters, 2017(14) found the some greenhouse gases, such as carbon dioxide, pose a significant threat to the ozone layer, causing cosmic warmth. Sadatshojaie & Rahimpour, 2020(15) the emission of these gases from fuel combustion, industrial activity, and the efficiency of the combustion process, in general, destroy this layer, resulting in harmful UV radiation leaking into the ground and these rays. Martinez 2018 (16) air pollution has had a severe negative impact on global health, as deteriorating air quality contributes to respiratory diseases and disorders such as chronic bronchitis and cancer, which lead to premature death The World Bank study suggested that the cost of urban air was (2%) the cost of deaths is estimated at 20,000 people who die each year from air pollution, causes, morbidity, and lost revenue from potential tourism. In rural areas, the population uses biomass fuel for cooking and heating purposes, leading to indoor air pollution, threatening the health of the people of these areas.

In light of the developed for air, water, and soil pollution, there must be a tendency to educate the public to work to reduce this pollution. We note that the Iraqi arena is free of this awareness, considering that public awareness is integral to sustainable human development, which concerns future generations. Therefore, there should be an interest in the cleanliness and safety of the Iraqi environment by working to change the patterns of consumer damage to the environment and attention to the issue of recycling and reuse. It also works to introduce the consumer to the sources of pollution and how to deal with them in light of its consumption of manufactured goods and food. It is done only through concerted efforts between various institutions and governmental and non-governmental organizations such as environmental and consumer protection institutions.

Conclusions:

The largest proportion (30.8) of age was 31 - 40 years old. More than half of the sample (61.1%) were male, and 85% were residing in urban areas. Concerning the educational level, the highest percentage (35.1%) was for diploma. highest proportion (64.9%) for the Corruption affects all components of the environment and leads to its destruction. Among the widespread environmental pollution that is difficult to control (75.7 %) was air pollution, and (44.9 %) Water pollution was oldest environmental problems that threaten living organisms. acceptance or rejection of some concepts about environmental pollution. Where the results of the questionnaire showed approval of some concepts and rejection of others. According to the "I think that the problem of environmental pollution in Iraq is not urgent" (43.2 %) was Strongly opposed. While more than half (54.1 %) was I think that the efforts of the Ministry of Health and Environment are insufficient to reduce the problem of environmental pollution the answer was strongly agree.

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