HEALTH SEEKING BEHAVIOR DETERMINANTS AMONG MEDICAL WASTE CLEANERS IN GOVERNMENTAL HOSPITAL IN AL-NAJAF CITY

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ABSTRACT

Health seeking behavior is associated with different types of determinants in the general population. In Iraq there are no studies that sho waste that is associated with manufacturing in highly susceptible to industrial accidents and infectious disease. The aim of this study is to patterns of health seeking behaviors and associated factors and to find out the relationship between socio-demographic characteristics a among medical waste cleaners in governmental hospital in Al-Najaf City. A questionnaire encompasses five part socio-demographic part, determinants of health seeking behavior (occupational safety, life style, physical activity, and health status which cause stress for workers the study assert that the overall health seeking behavior determinants regarding occupational safety, life style, and health status which ca (physical, psychological) are moderate were as the physical activity is poor. The study recommends that a continuous work shop that mot waste cleaners towards care seeking behavior to be done, administrative staff must create an environment in which medical waste cleane periodic investigation such as test for infectious disease, work place safety should be provided, training program to increase safety measu waste handling practice, provide important personal protective equipment's ,and encourage medical waste cleaners to vaccinate and see when suffer from disease or injury.

Introduction

Health-seeking behavior is known as actions that are taken via persons that believe they have a health problem or are ill in order to find a right medicine.(1) The choices include all possible health care option, such as going to public or private and modern or traditional health care facilities, using self-medication and home remedies, or not using available health care services.(2)

The process of regaining health usually occurs when someone is sick. consequently, health behavior is considered part (or accountable) of behavioral disease rather than health behavior.(6)

There is no study that is concerned with medical waste workers in Iraq, so this study was established to know the health seeking behavior followed by medical waste workers for the importance and role of this group of workers in government hospitals in the City of Najaf.

There are many diseases that can be transmitted by means of medical waste such as sharp needles with blood from patients with microorganisms and other disease. Therefore this risk must be taken into account when handling waste and reducing systemic risk.(4)
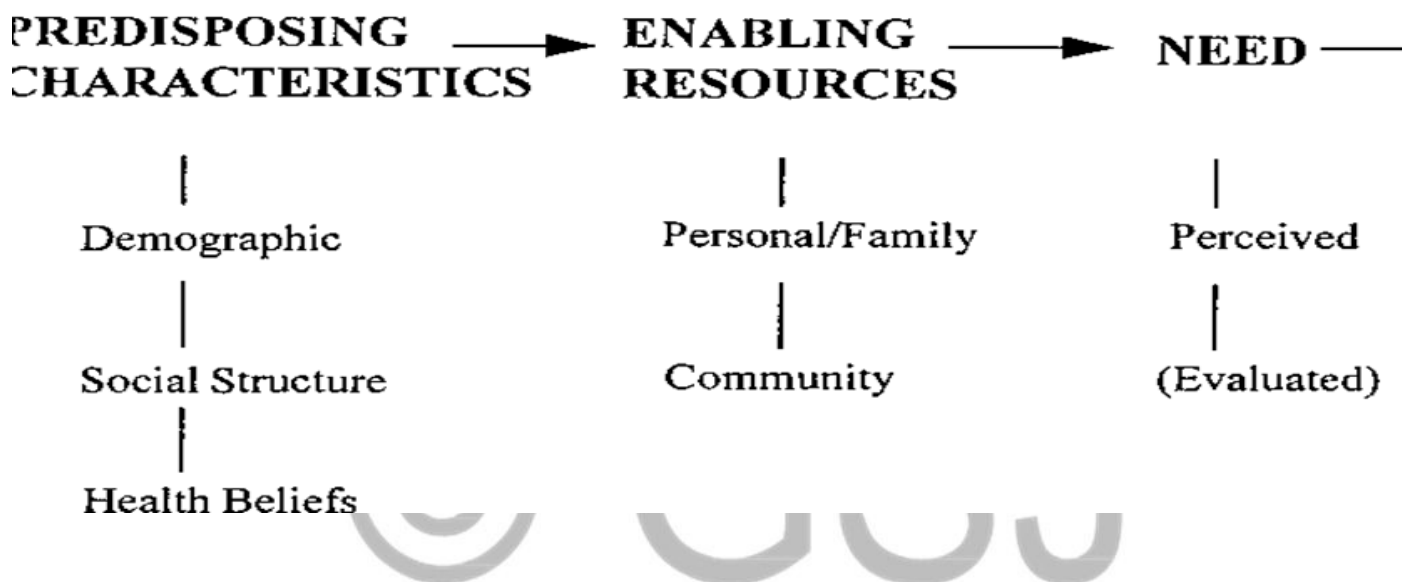
Two approach for study of health seeking behavior:

1.Andersen's Behavioral Model of Health Services Use

BM is a layered model that includes individual determinants and the contextual utilize of medical service. Predispose factor, enabling factors, and Need factor.(5)(7)

The main factors in Anderson's model are demographics, social culture, health beliefs, and the environment. Here, these elements can be personal and social. Activating factors are conditions that turn on or off health services. These can be financial constraints, economic opportunities, organizational structure and service systems. The health insurance system plays an significant roles in determining the behavior of people when using health services. The third and final component of the model, the demand factor, describes the symptoms felt and experienced with health problems.(6)

1.Andersen's Health-seeking Behavior Model(8)

2.Kroegers health seeking behavior determinants model

Kroeger's approach to health behavior research provide the greater comprehensive frame-work for studying, analyzing and construing the factor and determinant of health behavior and health care use in the research, especially in developing countries.(13) The mechanical models is based on health seeking behavior in response to social and cultural sciences and emphasizes the significant of social, cultural and psychologically determinant in explication physician use.(8) It includes:

sociodemographic factors: The collection of personal, social, economic, environmental and related factors affecting health is collectively defined as determinants of health and is subdivided into large groups such as biology and genetics, personal behavior, health services and policy development, as a social factor.(9) Medical waste cleaners in healthcare facilities generally face additional working hazard specified to the healthcare dissector. Contrarily conventional offices building, hospital are fixedly cleaning up over 24 hours. Through operation, cleaner must disposing of medicinal dumps, that may contains accidentally polluted needle or sharp knives. If do not properly disposing of, it could transmitted life-impending pathogen. Body fluids made of patient perhaps too containing this organism.(14)

Health problems in high-income countries around the world are vulnerable to diseases such as cancer and obesity-related illnesses like HD , diabetes and the musculoskeletal system. Low-income countries can face epidemics, high child mortality rates, a shortage of medicinal workers, and insufficient water and sewerage system(15)

The use of basic health facilities is designed with basic social rights in mind. Dissatisfaction with primary health care services in each of these two sectors led to many people going to health facilities or jumping to primary health care hospitals, resulting in significant inefficiencies and for fating of controls above the quality and effectiveness of service(16)

occupational health and safety: Current research shows that healthcare workers are at a higher hazard of trauma through works than another medical caring worker.

Injuries to these workers may be caused by misunderstanding of the work process, ignorance of possibility risks, or simple be assign

to further risky work(10)

The United Nations Human Rights Council believes that improper disposal and inappropriate handling of medical waste can pose a potential risk to the health of worker, but waste treatment and waste professionals believe they are more vulnerable due to ill health. Education statuses, fewness of adequate vaccination and individual protection equipment, most of medicinal waste is usually handled and transported by hand(1)

In their daily work, medical waste cleaners are exposed to various health risks. This exposure is at risk of developing occupational diseases that can cause psychosis and work dissatisfaction, and mental stress(17)

It is very important to safely handle and dispose of hazardous waste to reduce the likelihood of damage. Specific guidance is needed to address the responsibilities of household members, medical personnel, district meetinghouses, waste disposal companies and other stakeholders. To improve compliance, sanctions for violations should be established and publicly notified. Public guidance on implementation should indicate how to safely separate waste categories from sources(18)

All workers have the right to work safely. Early treatment of injuries and occupational illnesses can increase healing and prevent serious illness. And have the right to report any signs and symptoms of injury and illness without fear of discipline, punishment, dismissal, demotion, transfer or sentencing in any way(19)

The aim of the trainings is to developing proficiencies and elevate awareness's of workers . It is significant to emphasize the roles that each individual employee must play. To facilitate communication between the various participants, this training is designed for interdisciplinary teams and is recommended to be conducted at work to encourage best practices and teamwork(20)

life style factors: Every year, more than 50,000 people in the area die from unsafe food and 125 million fall ill.(21) The number and hesitancy of doses are designing to improve the ideal amounts of chemicals for treating the desired drug conditions. This often results in the circulation of chemicals in the blood while taking medication. The body sees these chemical like foreign matter and trying to remove them. If more medications is circulate in the blood stream, it can cause side effect like dizziness, confusion, loss of memory, cells damaging, high or low blood pressure, strokes or other brain damaging, CVD, and internally hemorrhage and, sometime deadly medications can cause the condition to do more harm than heal.(22)

Physical activity: Physical activity refers to the total energy consumed by exercise produce through skeleton muscle that lead to power expending above relaxing levels. This definition applies to all activities such as domestic and outdoor activities, work outside the home (professional activity), hiking, cycling, shopping, sports, deliberate sports and other daily activities or other recreational activities. On the other hand, exercise is an active activity that has been specially planned, structured, and designed to improve fitness and health(23)

Bio psychological factors which cause stress for medical waste cleaners: Psychological well-being Most modern theories of motivation assume that a person initiates and sustains one action that people believe will lead to a desired outcome or goal. While this approach initially assumes that two goals that meet the same expected outcomes provide the same quality of service and emotional experience, recent research on goal-directed behavior has begun to distinguish between goal types or outcomes(24)

It takes into account aspects such as anxiety, depression, behavioral / emotional control, overall positive impact, and emotional connection. Used to evaluate the use of the service. This can be seen as a good alternative to a general social security plan(22)

In the field of psychology, the focus is on positive mental conditions, which are considered to be factors that protect physical and mental health, especially the relationship between these positive mental conditions and the consequences of illnesses(25)

The goal of positive psychology is to initiate change aimed at giving people positive qualities, rather than trying to change the bad side of life, one of the concepts behind this approach is psychological well-being. This well-being must be measured on the basis of positive qualities. Mental health means not relieving stress and other psychological problems. These include positive self-confidence, positive relationships with others, environmental excellence, independence a work life, and healthy developing feelings(26)

Health indicators are key variables associated with health organizations used to measure human behavior and biological, environmental and social health. The most common health indicators affecting population health are mortality, life expectancy and morbidity. According to Healthy People 2010, bodily activities, overweight, and medicine utilize, mentally health, injuries, and health care use are health metrics that measures the health of a peoples. This indicator also describe environmental health and public health services(27)

Vaccination is an effective preventive measure that maintains the health of people and society as a whole and significantly improves the duration and quality of life.(28)

Understanding these determinants of health needs provides governments with a framework for health policy reform.(11)

People who have direct contact with the waste–disposal workers such as medical personnel , cleaners, patients, visitors , waste

collectors, and the persons handling polluted needles –are have higher hazard, however, treatment facilities and waste disposal specialists are more vulnerable due to educational condition , lack of adequate vaccination. Less suitable individual protection equipment and utmost medical waste that are handle and transferred through hands.(1)

Iraq's health care system, especially its key elements of government, have been severely mannered through war ,boarder conflict, economical sanction and politician instabilities in recent decades.(3)

The cleaners are often associated with number of ergonomics and chemically risk, that increase the hazard of work disease and incidence. Across-sectional research of severe injury between hospitalized supporting staff show that the cleaners consistent the major (66%) of incidences and that unsuitable disposals was interrelated with 55% of whole incidences. Injuries to these workers may be caused by misunderstanding of the work process, ignorance of possibility risks, of simple be allocated to most risky work.(12)

Objectives

1.Assess the pattern of health seeking behavior and other related factors among medical waste cleaner working in public hospital in Al-Najaf city.

2. Find the relationships between socio demographic characteristics and determinants of health seeking behaviors of medical waste cleaner.

Material and Method

Study design

A descriptive design cross sectional study has been conducted from 7th October to 27th August 2020. A probability sampling technique (disproportional strata sample) has been used of 166 medical waste cleaners who work in Al-Sadder Medical City, Al-Zahra Teaching Hospital, Al-Hakeem General Hospital, Al-Forat Al-Awsat Hospital in Al-Najaf City.

Method

A questionnaire encompasses five part socio-demographic part, and four determinants of health seeking behavior (occupational safety, life style, physical activity, and health status which cause stress for workers.) and used the (frequency and percentage), Statistical mean and standard deviation as descriptive analysis and (cronbach alpha) for reliability coefficient, ANOVA and T test to find the difference among variables.

Result

Statistically distributions of study sample for their demographical data:

Table (1) show statistical distributions of study sample based on their socio-demographical data, it explains the highest percentage of medical waste cleaner subgroups are : MWC have age between (2-35) years (58.4%), male (64.5%), married (86.7%), those are not able to read and write (68.7%), those who live around city (51.2%), those who are taking care of their families (92.8%) ; those who are workers (98.8 %) ; those who work in AL-Zahraa and Al-Hakeem Hospitals (25.3%) ; those who have no reasons for choosing their service (66.3%).

Items	Sub-group	Study group (Total = 166)	
		Frequency	Percentage
Age / Years	15-25	51	30.7
	26-35	97	58.4
	36-50	18	10.8
Gender	Male	107	64.5
	Female	59	35.5
Levels of Education	Illiterate	114	68.7
	Able to Read and Write	38	22.9
	Primary School	12	7.2
	Secondary School	2	1.2

Marital Status	Married	144	86.7
	Single	22	13.3
Economic Status	Enough	4	2.4
	Hardly Enough	77	46.4
	Not Enough	85	51.2
Residence	Urban	16	9.6
	Around City	125	75.3
	Rural	25	15.1
Taking care of the family	Yes	154	92.8
	No	12	7.2
Carrier Title	Worker	164	98.8
	Foreman	2	1.2
Work Place	Al-Zahra	42	25.3
	Al-Sadr	41	24.7
	Al-Hakeem	42	25.3
	Al-Forat	41	24.7
Type of financing	Private	1	.6
	Governmental	155	93.4
	I didn't do any review	10	6.0
Reason for choosing this type of service	Easy access	1	.6
	Low Cost	55	33.1
	Without reason	110	66.3

Table(2)The overall assessments (mean of scores) of all health seeking behavior determinants for the study subjects, it explain that the assessment of physical activity of study subjects is (poor) ; while it is (moderate) for other determinants .

Items	MS	Assessment
Occupational Safety Health	2.01	Moderate
Life Style Health	2.06	Moderate
Physical activity	1.96	Poor
Biopsychological	2.54	Moderate

Table(3)Differences in overall mean of scores of occupation safety health according to demographic data:

manifests the differences in the overall mean of scores of occupation safety health according to demographic data, it reveals that there is a significant increase (P<0.05) in mean of scores of occupation safeties health for subjects with optional entry to their career (M=2.01) compared with those with compulsory entry .

Items	Sub-groups	Overall Mean of Scores	SD	Df	T test	P value
Gender	Male	2.01	0.29	164	0.29	0.76
	Female	2.00	0.30			
Taking care of the family	Yes	2.00	0.30	164	1.09	0.27
	No	2.08	0.21			

Carrier Title	Optional Entry	2.01	0.29	164	2.64	0.009
	Compulsory Entry	1.46	0.15			
Marital Status	Yes	2.00	0.31	164	0.92	0.92
	No	2.01	0.21			

Table (4) ANOVA table for differences in overall mean of scores of occupation safety health according to demographic data: shows the ANOVA Table for the differences in the overall mean of scores of occupation safety health according to demographic data, it reveals that there is a significantly differences (P<0.05) in mean of scores of occupation safeties health for subjects subgroups classified according to their academic status and reason for choosing this type of service .

Items	Sub-groups	Sums of Square	d.f	Square of mean	f test	Significancy
Age	Between Group	8.71	20	0.44	1.18	0.283
	Within Group	53.73	145	0.37		
	Total	62.44	165			
Academic Status	Between Groups	25.13	20	1.26	3.57	0.000
	Within Groups	51.01	145	0.35		
	Total	76.14	165			
Monthly Income	Between Groups	5.36	20	0.27	0.88	0.610
	Within Groups	44.11	145	0.30		
	Total	49.48	165			
Residency	Between Groups	6.74	20	0.34	1.45	0.110
	Within Groups	33.77	145	0.23		
	Total	40.51	165			
Work Place	Between Groups	33.40	20	1.67	1.39	0.136
	Within Groups	174.09	145	1.20		
	Total	207.49	165			
Type of financing	Between Groups	1.64	20	0.08	1.34	0.162
	Within Groups	8.87	145	0.06		
	Total	10.51	165			
Reason for choosing this type of service	Between Groups	10.88	20	0.54	2.76	0.000
	Within Groups	28.55	145	0.20		
	Total	39.43	165			

Table(5)The differences in the overall mean of scores in health conditions that cause stress according to the demographic data of study subjects: introduces the differences in the overall mean of scores in health conditions that cause stress according to the demographic data of study subjects, it reveals that there is a significant increase (P<0.05) in mean of scores of male (M=2.58) compared female subjects ; while the same table shows that there is a significant increase (P<0.05) in mean of scores of those that

do not take care of their families (M=2.61) compared with those that take care of their families .

Items	Sub-groups	Overall Mean of Scores	SD	Df	T test	P value
Gender	Male	2.58	0.21	164	3.55	0.000
	Female	2.46	0.23			
Taking care of the family	Yes	2.53	0.23	164	1.95	0.05
	No	2.61	0.17			
Carrier Title	Optional Entry	2.54	0.23	164	1.01	0.31
	Compulsory Entry	2.70	0.42			
Marital Status	Yes	2.52	0.23	164	1.02	0.3
	No	2.66	0.18			

Table(6) shows the ANOVA Table for the differences in the overall mean of scores of health conditions that cause stress according to demographic data, it reveals that there is a significantly differences (P<0.05) for mean of scores of occupation safeties health for subjects subgroups classified according to their age and reason for choosing this type of service .

Items	Sub-groups	Sums of Square	d.f	Square of mean	f test	Significancy
Age	Between Group	7.57	10	0.76	2.14	.024
	Within Group	54.87	155	0.35		
	Total	62.44	165			
Academic Status	Between Group	3.80	10	0.38	0.81	.616
	Within Group	72.35	155	0.47		
	Total	76.14	165			
Monthly Income	Between Groups	1.78	10	0.18	0.58	.831
	Within Groups	47.70	155	0.31		
	Total	49.48	165			
Residency	Between Groups	1.43	10	0.14	0.57	.839
	Within Groups	39.08	155	0.25		
	Total	40.51	165			
Work Place	Between Groups	21.85	10	2.18	1.82	.061
	Within Groups	185.65	155	1.20		
	Total	207.49	165			
Type of financing	Between Groups	0.37	10	0.04	0.57	.838
	Within Groups	10.14	155	0.07		
	Total	10.51	165			

Reason for choosing this type of service	Between Groups	4.59	10	0.46	2.04	.032
	Within Groups	34.83	155	0.22		
	Total	39.43	165			

Table (7) reveals the differences in the overall mean of scores in physical activity according to the demographic data of study subjects, it reveals that there is no significantly differences (P>0.05) for mean of scores subjects subgroups

Items	Sub-groups	Overall Mean of Scores	SD	Df	t test	p value
Gender	Male	2.03	0.33	164	0.91	0.36
	Female	1.84	0.20			
Taking care of family	Yes	1.95	0.30	164	0.61	0.54
	No	2.13	0.35			
Carrier Title	Optional Entry	1.96	0.30	164	0.76	0.44
	Compulsory Entry	2.13	0.18			
Marital Status	Yes	1.95	0.30	164	0.73	0.46
	No	2.02	0.33			

Table (8) elucidates the ANOVA Table for the differences in the overall mean of scores of physical activity according to demographic data, it reveals that there are significant differences (P<0.05) in the mean of scores of physical activity for subjects subgroups classified according to their type of financing for their services .

Items	Sub-groups	Sums of Square	d.f	Square of mean	f test	Significancy
Age	Between Group	1.32	5	0.26	0.69	0.632
	Within Group	61.12	160	0.38		
	Total	62.44	165			
Academic Status	Between Group	4.82	5	0.96	2.16	0.061
	Within Group	71.33	160	0.45		
	Total	76.14	165			
Monthly Income	Between Groups	1.27	5	0.25	0.84	0.520
	Within Groups	48.20	160	0.30		
	Total	49.48	165			
Residency	Between Groups	1.78	5	0.36	1.47	0.202
	Within Groups	38.73	160	0.24		
	Total	40.51	165			
Work Place	Between Groups	10.54	5	2.11	1.71	0.135

	Within Groups	196.95	160	1.23		
	Total	207.49	165			
Type of financing	Between Groups	0.84	5	0.17	2.79	0.019
	Within Groups	9.67	160	0.06		
	Total	10.51	165			
Reason for choosing this type of service	Between Groups	2.21	5	0.44		
	Within Groups	37.22	160	0.23	1.90	0.097
	Total	39.43	165			

Table (9) states the differences in the overall mean of scores in lifestyle health according to the demographic data of study subjects, it reveals that there are no significant differences (P>0.05) for mean of scores subjects subgroups .

Items	Sub-groups	Overall Mean of Scores	SD	Df	T test	P value
Gender	Male	2.05	0.25	164	0.29	0.76
	Female	2.09	0.29			
Taking care of the family	Yes	2.06	0.27	164	0.89	0.37
	No	2.11	0.15			
Carrier Title	Optional Entry	2.06	0.24	164	0.74	0.59
	Compulsory Entry	2.64	1.09			
Marital Status	Yes	2.06	0.28	164	0.9	0.92
	No	2.10	0.12			

Table (10) shows the ANOVA Table of the differences in the overall mean of scores of lifestyle health according to demographic data, it reveals that there are significant differences (P<0.05) for mean of scores of life style for subjects subgroups classified according to their age, academic status, monthly income, residency and type of financing for their services .

Items	Sub-groups	Sums of Square	d.f	Square of mean	f test	Sig.
Age	Between Group	13.24	21	0.63	1.845	.019
	Within Group	49.20	144	0.34		
	Total	62.44	165			
Academic Status	Between Group	15.95	21	0.76	1.817	0.022
	Within Group	60.19	144	0.42		
	Total	76.14	165			
Monthly Income	Between Groups	10.76	21	0.51	1.906	0.014
	Within Groups	38.72	144	0.27		

	Total	49.48	165			
Residency	Between Groups	8.45	21	0.40	1.806	0.023
	Within Groups	32.07	144	0.22		
	Total	40.51	165			
Work Place	Between Groups	38.84	21	1.85	1.579	0.062
	Within Groups	168.65	144	1.17		
	Total	207.49	165			
Type of financing	Between Groups	4.01	21	0.19	4.235	0.000
	Within Groups	6.50	144	0.05		
	Total	10.51	165			
Reason for choosing this type of service	Between Groups	5.75	21	0.27	1.170	0.286
	Within Groups	33.68	144	0.23		
	Total	13.24	21	0.63		

Conclusions

The determinants of health seeking behavior of the respondents has been measured in term of five important domains: socio-demographic characteristics, occupational health safety related to its work, life style, physical activity, and health condition that cause stress in medical waste cleaners in governmental hospital in Al-Najaf City have moderate level of health seeking behavior determinants, there are some significant relationships between health seeking behavior determinants as occupational health safety and academic status, carrier title, reason for choosing type of services, gender, and taking care of family, there are some significant relationships between health seeking behavior determinants as life style and age of respondent, educational level, monthly income, residency, and type of services used, there are some significant relationships between health seeking behavior determinants as physical activity and type of services used, and there are some significant relationships between health seeking behavior determinants as health condition that cause stress and age, gender, taking care of family, and reason for choosing this type of services.

Recommendations

Continuous work shop that motivate medical waste cleaners toward care seeking behavior should be held, administrative staff must create an environment in which medical waste cleaners can involve in periodic investigation such as test for infectious disease, work place safety , training program to increase safety measures regarding waste handling practice must be provided, important personal protective equipment should be equipped ,and medical waste cleaners should be encouraged to vaccinate and seek treatment when suffer from disease or injury.

Acknowledgment

References

[1] Gebremeskel, b. (2019). health seeking behaviors and its determinants among medical waste cleaners in west arsi zone, oromia regional state, ethiopia. Imed Pub, 5(1:2), 1:7.

[2] World Health Organization. (2019). WHO global report on traditional and complementary medicine. https://apps.who.int/iris/bitstream/handle/10665/312342/9789241515436-eng.pdf?ua=1

[3] Shabila, N. P., Al-Tawil, N. G., Al-Hadithi, T. S., & Sondorp, E. (2014). Using Q-methodology to explore people's health seeking behavior and perception of the quality of primary care services. BMC Public Health, 14(1), 1–9. https://doi.org/10.1186/1471-2458-14-2

[4] Mohamed, S. A., Hassan, N. E., & Ali, N. M. (2018). International Journal of Advanced and Applied Sciences Assessments case of medical waste management in hospitals in Iraq. 5(1), 130–135.

[5] Mohiuddin, A. K. (2019). Patient Behavior ꞉ an extensive review. 6(3)https://doi.org/10.15406/ncoaj.2019.06.00188.

[6] Khoso, P. A., Yew, V. W. C., Hanida, M., & Mutalib, A. (2016). COMPARING AND CONTRASTING HEALTH BEHAVIOUR WITH ILLNESS BEHAVIOUR. 11(2), 578–589.

[7] Babitsch, B. (2012). re-revisiting andersons behavioral model of health services use: a systematic review of studies fromm 1998-2011. School of Human Scince.

[8] Tomison, T. (2013). Health-seeking behaviour and strategic healthcare planning in Sierra Leone. In International Development. https://doi.org/www.lse.ac.uk/depts/ID.

[9] Nuhu, kaamel. (2019). determinants of health seeking behavior in ghana. Southern Illinois University Carbondale.

[10] Derbit, S , keen, D. (2010). Occupational and environmental risk factors for falls among workers in the healthcare sector. 53(4). https://doi.org/doi.org/10.1080/00140130903528178.

[11] Siddqui, M. S., Sohag, A. A., & Siddiqui, M. K. (2011). Health Seeking Behavior of the People. The Professional Medical Journal, 18(May), 626–631. https://www.researchgate.net/publication/216455397%0A.

[12] WHO. (2015). Water, sanitation and hygiene in health care facilities Status in low- and middle-income countries and way forward. https://doi.org/ISBN 978 92 4 150847 6.

[13] Manzoor, I., Hashmi, N. R., & Mukhtar, F. (2009). DETERMINANTS AND PATTERN OF HEALTH CARE SERVICES UTILISATION IN POST GRADUATE STUDENTS. 21(3), 100–105.

[14] Hamid, M. (2018). Evaluation of Quality Assurance in Disposal of Medical Waste. Sudan University of science and Technology.

[15] Little, W. (2014). introduction to sociology- 1st canadian edition (first). a Creative Commons Attribution 4.0 International License. https://doi.org/http://open.bccampus.ca

[16] Oberoi, S. (2017). Understanding health seeking behavior. March. https://doi.org/10.4103/2249

[17] Al-deheadhawi, S. (2018). administrative staff perception towards safety measures in al-najaf hospitals. university of kufa.

[18] Udofia, E. A., Gulis, G., & Fobil, J. (2017). Solid medical waste ꞉ a cross sectional study of household disposal practices and reported harm in Southern Ghana. 1–12. https://doi.org/10.1186/s12889-017-4366-9.

[19] USDA. (2015). Protect Your Health Report Your Injuries and Illnesses. https://doi.org/www.osha.gov.

[20] ICRC. (2011). Medical waste management. https://doi.org/www.icrc.org

[21] World Health Organization (WHO). (2020). health security including antibiomicrobial.

[22] Khalifa, M. F. (2013). Health Promotion Behaviors among Elderly in Nursing Home at Baghdad City. KUFA JOURNAL FOR NURSING SCIENCES, 3(1), 15–22.

[23] Kruk, J. (2014). MINI-REVIEW Physical Activity and Health. Asian Pacific Journal of Cancer Prevention, 10(January), 721–728.

[24] Mensah, e tawiah, K. (2015). Employee Motivation and Work Performance: A Comparative Study of Mining Companies in Ghana. Journal of Industrial Engineering and Management, 9(2), 255–309. https://doi.org/http://dx.doi.org/10.3926/jiem.1530

[25] Vázquez, C., Hervás, G., Rahona, J. J., & Gómez, D. (2009). Psychological well-being and health . Contributions of positive psychology Psychological well-being and health . Contributions of positive psychology. December.

[26] Mayhew, M. (2016). using data to promote health equity, manie center for disease control and prevention [university of manie]. https://doi.org/www.mainepublichealth.gov/

[27] Duru, C. B., Iwu, A. C., Uwakwe, K. A., Diwe, K. C., Merenu, I. A., Okafor, C. U., Abejegah, C., & Madubueze, U. C. (2017). Health Care Seeking Behaviour and Predictors of Combined Orthodox and Traditional Health Care Utilization among Households in Communities in Owerri , Imo State , Nigeria. 115–137. https://doi.org/10.4236/ojpm.2017.77010

[28] Cattarin, M., Bellè, M., Bergamini, M., & Gallo, L. (2013). Suspension of mandatory vaccination and public health preserving ꞉ Rovigo Local Health Unit experience after appliance of Veneto regional law 7 / 2007. 181–186.