

Safety Measure Technique among Workers of Slaughtering Chicken Shops in Erbil City-Iraq

تقنيات إجراءات السلامة المتبعة من قبل العاملين في محلات ذبح الدجاج في مدينة اربيل - العراق

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الخلاصة :

خلفية البحث: احتياطات وإجراءات السلامة تعتبر من الامور المهمة للعاملين الذين يقومون بذبح الدجاج. **الهدف:** تهدف الدراسة لمعرفة معلومات وممارسات العاملين في محلات ذبح الدجاج حول اجراءات السلامة المتبعة في ذبح الدجاج وايجاد العلاقة بين اجراءات السلامة وبعض المتغيرات للعاملين.

المنهجية: أجريت دراسة وصفية لهذا الغرض في محلات ذبح الدجاج في مدينة اربيل - العراق وشملت عينة الدراسة 100 فرد من العاملين في محلات ذبح الدجاج وتم استخدام أسلوب المقابلة لجمع المعلومات وبمعدل 25 عامل من المناطق الجغرافية للفترة من 2015/7/1 ولغاية 2015/12/31 واستخدم البرنامج الإحصائي spss لتحليل المعلومات .

النتائج: أظهرت نتائج الدراسة بان معارف وممارسات اغلب العاملين كانت ضعيفة من حيث السلامة المهنية ولم تكن هنالك علاقة ذات دلالة إحصائية بين المعارف الديموغرافية لأغلب العاملين وإجراءات السلامة ولكن كانت هنالك علاقة ذات دلالة إحصائية بين عدد سنوات الخبرة وإجراءات السلامة المتبعة.

الاستنتاج: استنتجت الدراسة بان اغلب العاملين كانت معارفهم وممارستهم ضعيفة حول اجراءات السلامة وكانت هنالك علاقة ذات دلالة إحصائية بين عدد سنوات الخبرة واجراءات السلامة المتبعة .

التوصيات : أوصت الدراسة بضرورة اعداد برامج تدريبية للعاملين في محلات الذبح حول اجراءات السلامة وبالتعاون بين وزارة الصحة ووزارة البلدية وكذلك مراقبة ومتابعة العاملين من قبل دوائر الصحة ومكاتب البلديات وكذلك تنظيم العمل للعاملين في هذا المجال من خلال وضع قوانين وإصدار شهادات صحية لهم.

الكلمات المفتاحية : طرق السلامة , الذبح ,العاملين ,مدينة اربيل.

ABSTRACT

Backgrounds: Precaution and safety measures are important for the workers, whom are dealing and slaughtering chicken or meat,

Objectives: the objectives of this study is to identify knowledge and practices of workers regarding safety measures with slaughtering chicken, and identify association between some variables and safety measures.

Methods: A descriptive study was carried out on 100 workers in the poultry sectors and slaughtering shops, standard questionnaire was used for data collection, an approval was taken from nursing college, and administrative arrangements was done from general health directorate and municipality office in Erbil, the study began in 1st July-2015 to December 31st -12-2015 , SPSS program was used for data analysis by using descriptive and inferential statistical.

Results: The study revealed that majority of sample study have poor knowledge and practices regarding safety measures used, and there is no significant association between most of demographic characteristics and safety measures, while there is significant association between years of experiences and safety measures used.

Conclusion: The study indicated that the majority of the workers have poor knowledge and practices about safety measures, and there was significant association between years of experiences and safety measures.

Recommendations: the study recommended to create program for training workers in poultry sectors by the cooperation with ministry of health and ministry of municipality to increase knowledge and risk perceptions and practices regarding safety measures use, monitoring and follow up the workplaces by the general directorate for health and municipality office, and regulation the working in this field by application laws and health certificate.

Keywords: Safety measures, slaughtering, poultry, workers, Erbil city.

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INTRODUCTION

Occupational safety and health was developed to ensure safe working conditions for all employees, and its act to set standards that must be followed by all employers to reduce or eliminate workplace hazards ⁽¹⁾. Every worker facing serious injury suffered in a meat or poultry plant, injuries reflected could be in their swellings, blindness, scars, or other afflictions. , there are plenty of poultry jobs that increase the risk of developing injuries or illness ⁽²⁾.

Staff or workers who working in those industries may be exposure to health problems and diseases if there is not sufficient safety measures during their work. Most studies have revealed that workers who work in poultry are more exposure to symptoms of infection, respiratory diseases and other health problems ⁽³⁾. There are many research published by institute of occupational medicine indicated that there was incidence of health problems for the poultry farm workers including respiratory disease and acute and chronic bronchitis ⁽⁴⁾. Many Studies revealed that a protection person who works in poultry from health risks of substance hazards and poultry dust need legal requirements and health regulations and using sufficient safety measures in those workplaces. The safety measures when it is used may distinguish particle size and protective for workers ⁽⁵⁾. The chicken shops for slaughtering in Erbil starts from long time ago and there are no exact date history said when it was started, but most of areas had more than one shops which depends on simple measure techniques in slaughtering chicken.

OBJECTIVES

1. To identify knowledge and practices of workers regarding safety measures with slaughtering chicken.
- 2.To identify association between socio-demographic data of the worker and safety measures.
- 3.To provide an overview on current practices of poultry slaughtering and how to reinforce safety measures.

METHODOLOGY

Descriptive study was carried out between 1-7- 2015 to 31-12-2015 area in Erbil city a random selection based according to geographical which divided Erbil city in to 4 area (Badawa in west area, Nawroz in south area, Ari in north area, Maiden in middle and east area). The sample of the study was included 100 workers who are working in slaughtering chicken shops as 25 workers from each geographical area. A constructed questionnaire was used for data collection, composing of two parts (part one concerning about knowledge, and practices of the workers about safety measures and second part which concerned about socio demographic characteristics of the workers). An interview technique was used as method of data collection and observation for checking the practice, most of the interview questions consisted of YES/NO, the responds of the knowledge items were measured as (0 for No and 1 for Yes). The calculation of overall levels of knowledge (10 items) was categorized to two groups of bad knowledge (0-4) and Good knowledge (5-9). The responds of the practice items were include two answers (0 =No and 1=Yes). The calculation of overall levels of practice (7 items) was categorized to two groups of bad practice (0-

3) and Good practice (4-7). The validity and reliability of questioner was viewed to experts in nursing and occupational field and pilot study was conducted for this purpose .Ethical consideration /Approval from college of nursing and administrative arrangements was done from general directorate of health and municipality in Erbil city and also approval was taken from all participant and all workers in poultry shops who have desire to participate. The data were analyzed through using SPSS software for statistical analysis Version 20 , data analysis by using descriptive and inferential statistical.

RESULTS:

Table (1): Socio Demographic Characteristics of the subjects N=100

Socio-demographic data		F	%
Age Group (years)	< 20	40	40
	20-33	46	46
	34-47	9	9
	48-61	5	5
Address	Badawa	40	40
	Maidan	20	20
	Ari	19	19
	Nawroz	21	21
Gender	Female	8	8
	Male	92	92
Marital status	single	56	56
	marriage	44	44
School of graduation all level	Unable to read and write	12	12
	Primary graduate	42	42
	Secondary graduate	42	42
	Institute graduate	4	4
	College graduate	0	0
Year of works	<1years	23	23
	1-5years	45	45
	6-10years	17	17
	>10 years	15	15

Table 1 shows that the majority of study sample were within age group (20 - 33) years old which represent (46%), while the lowest age group of the study were within (48-61) which represent (5%), most of sample were from Badawa place which represented as(40%), the majority of them were males which represented as (92%), most of the slaughters were single which represented as (56%). Concerning educational level of the slaughters, the highest percentages of

education were graduated from primary and secondary schools which represented (42%) for each, and majority 45% of the study sample had experience from (1-5) years.

Table (2): Knowledge of chicken slaughters regarding safety measure and prevention

Knowledge items	Yes		No	
	F	%	F	%
1.Do you think that your work is considering hazard	97	97	3	3
2.Do you hear the diseases that could be transmitted by chicken	7	7	93	93
3.Do you know the standard way for process of slaughtering	16	16	84	84
4.Do you have desire to learn the knowledge about health hazard of slaughtering	49	49	51	51
5.Do you know methods of prevention from health hazard of chicken	17	17	83	83
6.Do you know the sources of your chicken	26	26	74	74
7.Do you sure that these sources are healthy	44	44	56	56
8.Are you sure that the chicken field supervised by skill veterinary physician	48	48	52	52
9.Do you satisfy with the place and environment of slaughtering	48	48	52	52
10. Do you done any training courses	0	0	100	100

Table 2 shows that the majority of slaughters beliefs that their work are considering danger which represent (97%) ,their information about disease which could be transmitted from slaughtering chicken was very low which represent 7% ,and no one of them had attended any training courses .

Table (3): Practices of safety measurements among the chicken slaughters:

Practices	Yes		No	
	F	%	F	%
1.Wearing safety measures uniform(PPE)	2	2	98	98
2. Using clean material	5	5	95	95
3.Washing hand before the process	0	0	100	100
4. There is enough hot water for washing the chicken.	2	2	98	98
5. Using clean and proper devices for slaughtering.	12	12	88	88
6.Having waste disposal	88	88	12	12
7. Drain the blood and fluids in proper sewage disposal	0	0	100	100

Table 3 shows that the high percent of the workers have waste disposal which represent 88% while the lowest practice was related to all other factors which included hand washing 100% , ,drain of blood and fluid ,wearing PPE 98%, not using hot water 98%, not using cleaning material 95%, and using proper devices 88%.

Table (4): Allover knowledge and practices among chicken slaughters

Overall Knowledge and Practices	Good	poor	Total
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	F	%	F	%	
Knowledge	16	16	84	84	100
Practice	0	0	100	100	100

Table 4 shows that the majority of study sample have deficit knowledge which represent (84%) and they also have very weak practices which represents 100%.

Table (5): Relationship between sociodemographic characteristic and safety measurement of chicken slaughters.

Knowledge		Good	Bad	P-value
Socio-demographic data		F	F	Chi-square
Age Group (years)	13-28	14	57	0.217 NS
	29-44	2	17	
	45-60	0	10	
Address	Badawa	6	34	0.979 NS
	Maidan	3	17	
	Ari	3	16	
	Nawroz	4	17	
Sex	female	1	7	0.778 NS
	male	15	77	
Family status	single	11	45	0.262 NS
	marriage	5	39	
Education level	illiterate	3	9	0.294 NS
	primary	9	33	
	secondary	4	38	
	institute	0	4	
	college	0	0	
Years of works	>1years	1	22	0.011* S
	5years	13	32	
	10years	0	17	
	20years	2	13	

* Fisher's exact Test

Table 5 shows that there were significant association between years of works and safety measurement of slaughter at P level (0,011), while there were no significant associations between safety measurements outcomes and all other socio-demographic characteristic.

DISCUSSION

It shows that the majority of study sample were male ,single, and within age group (20 - 33) years old, as they were at adult age and it's hard to do this type of hard job by children or elderly ,this result is in accordance with study done in Europe which shows that the average age of the population that participated in the study was 36 years old, with most men occupying the material handling intensive jobs⁽⁵⁾ (e.g., stack-off, live hang).The results also showed that the majority of them working in this job between 12-60 months this is because the poultry sector need experience and this result is agree with study which shows that the average worker of experience was 43

months⁽⁶⁾. Also study shows that most 60.1% respondents were men between age group 35–54 years, and had sixteen years of experiences in poultry industry ⁽⁷⁾.

The majority of slaughters knowledge beliefs that their work are considering danger ,while the lowest information was about disease which could be transmitted from slaughtering chicken which represent 7%, and no one of them had attend any training course. In regard to their knowledge, it shows that they have poor knowledge which represents 84% and these poor knowledge was related to methods of prevention from disease, knowing about the disease that could be transmitted through the processes of slaughtering chicken, sources of the chicken if it's healthy or not, and if there places or their environment are healthy or not, the only good information they knew was about understanding that their work was considering as hazard as they hearing from some of their colleagues and community, and all of them didn't attend any training courses to prepare them to this type of work and this is the main reason for their deficit in their knowledge as the researchers believe and also because there are poor monitoring system and no clear rules and regulation for opening these shops in Erbil. This results are agree with study done in Hong Kong, China as a survey of poultry workers, showed that workers had inadequate levels of avian influenza risk knowledge, preventive behavior ⁽⁸⁾. These findings are disagree with occupational and safety guidelines and biological exposure indices published by American Governmental Industrial Hygienists who recommended that safety measures and occupational health is beneficial for workers in poultry and industrial sectors so occupational Health and Safety measures monitoring is necessary for occupational hazards in workplaces⁽⁹⁾.

Also this result is disagree with study which it shows that seventy-four percent of the interviewees indicated they have received training in safety ,and much of the training received at locations of their work ⁽¹⁰⁾.

In regard to their practice, the results shows that their practice was completely very bad as it shows in table (3) and (4) in all items related to practice starting from not wearing personal protective equipments(PPE) ,not using proper devices or materials ,about 98% they use hot water for remove the hair of chicken but for washing they were used cold water and ending with no proper drain of blood and fluids , these results disagree with results of study shows that majority of the workers were routinely washed their hands and disinfected surfaces that had been in contact with raw meat ⁽¹¹⁾.

Further, the results shows that all of the workers 100% were not washing their hands before starting their jobs ,this result disagree with a study which shows that workers in poultry field had low levels of compliance with hand hygiene and other preventive measures using hand washing with soap after slaughtering poultry ⁽¹²⁾.

In our view the only good indicators was related to dispose of waste by municipality almost daily and also it was mixed with normal rubbish taken and this definitely need to do another study to discuss this issue of waste disposal.

Regarding association between different variables of demographic data and safety measures for workers in poultry sectors, the study revealed that there was no significant association for all variables except years of works which shows there was significant association between using safety measures and years of experiences , this is due to the reason that working in the poultry sectors may gain practices and knowledge for workers because they have 5 years or more in work, they were have better knowledge and practices about wearing safety measures, knowledge about poultry sector and work place than others who are novice in working, this finding was agree with European economic community's about community measures to control avian influenza in poultry sectors in order not to transmit to workers so personnel working in workplace should take

necessary protective measures as detailed in the occupational health and safety ⁽¹¹⁾.

CONCLUSION

The study concluded that the majority of the workers in Erbil had inadequate knowledge and poor practice about safety measures used in slaughtering the chicken because their training was unmet for occupation-specific health information.

RECOMMENDATION

1. Create program for training workers in poultry sectors by the cooperation with ministry of health and ministry of municipality to increase knowledge and risk perceptions and practices regarding safety measures use.
2. Monitoring and follow up the workplaces by the general directorate for health and municipality office.
3. Regulation the working in this field by application laws and health certificate.

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