Health Hazards among Children Labor in Car Repair Workshops in Rural Community

Ahmed Shaban Ali Mahmoud, Hala Mohamed Mohamed[1], Shimaa Fathy Miky [2]

Head Nurse at Beni Suef Specialist Hospital, Professor of Community Health Nursing[1], Faculty of Nursing Ain Shams University., and Lecturer of Community Health Nursing[2], Faculty of Nursing Ain Shams University.

Abstract

Background: Child labor is the engagement of children in prohibited work and activities. **Aim:** The aim of this study was to assess health hazards among children labor in car repair workshops in rural community. **Design:** A descriptive design was used to conduct this study. **Setting:** This study was conducted at 86 workshops in Beni-Suef city. **Sample:** A convenient sample of 208 child aged from 5 to 18 years was selected. **Tools:** Two tools were used for data collection, first tool divided into five parts, structured interviewing questionnaire to assess socio- demographic data of children, children labor health needs and problems in car repair workshops, knowledge of children regarding health hazards, knowledge of children regarding protective measures and its importance, and the health hazards among children labor in car repair workshops, second tool observational checklist to assess safety measures and environment observation checklist to determine environmental factors and occupational hazards in car repair workshops. **Results:** The mean age of children was 9.3 ±4.1 years, more than four fifth of children had unsatisfactory level of knowledge regarding health hazards and safety measures, most of them not perform practices during work, physical hazards represent nearly one third and nearly most of the studied workshops had inadequate environmental safety and sanitation. **Conclusion:** physical and chemical hazards were seen to be the most common health hazards of labor in car repair workshops among the studied children. Physical and psychological sides were seen to be the most common health needs and problems among the studied children. Also, there was a highly statistically significant relation between occurrence of health hazards and environment of car repair workshops. **Recommendations:** Intervention program to prevent health hazards among children labor in car repair workshops in rural community.

Keywords: Child labor, Health hazards, Occupational hazards, car repair workshops, Rural community.

Introduction

Children are the ones who are very vital for deciding how the world will be after some years. Children are the wealth of tomorrow. The childhood period is vital because of socialization process by the transmission of attitude, custom, and behavior through the influence of the family and community children are vulnerable to disease, death, and disability owing to their age, sex, place of living, social economic status and a host of other variables. They need appropriate care for survival and healthy development **(UNICEF, 2016).**

There are many social issues that affect children, such as childhood education, bullying, child poverty, dysfunctional families, child labor,

hunger, and child homelessness. Children generally have fewer rights than adults and are classed as unable to make serious decisions, and legally must always be under the care of a responsible adult or child custody, whether their parents' divorce or not.Children can be raised by parents, by fosterers, guardians or partially raised in a day care center **(Yun& Seira, 2017).**

Working children (children in employment) are those engaged in any economic activity for at least one hour during the reference period. Economic activity includes market production and certain types of non-market production (principally the production of goods and services for own use). The work children perform may be in the formal or informal economy, inside or outside family settings, for pay or profit. This includes children working in domestic service outside the child's own household for an employer (paid or unpaid) **(ILO& CAPMAS, 2017).**

According to the **United Nations International Children's Emergency Fund (UNICEF)**, **(2017)** child labor is defined as work that exceeds a minimum number of hours, depending on the age of a child and on the type of work. Such work is considered harmful to the child and should therefore be eliminated. The standards set by the UNICEF are as follows: Ages (5-11): At least one hour of economic work or 28 hours of domestic work per week. Ages (12-14): At least 14 hours of economic work or 28 hours of domestic work per week. Ages (15-17): At least 43 hours of economic or domestic work per week.

The International Labor Office (ILO, 2015) reports that children work the longest hours and are the worst paid of all laborers. They endure work conditions which include health hazards and potential abuse. Employers capitalize on the docility of the children recognizing that these laborers cannot legally form unions to change their conditions. Such manipulation stifles the development of youths. Their working conditions do not provide the stimulation for proper physical and mental development. Finally, these children are deprived of the simple joys of childhood **(ILO, 2015).**

In Egypt, there are thousands of car repair workshops, where huge numbers of children work without any safety measures. A considerable number of children work in these workshops out of financial necessity because of the low socioeconomic status of their families **(DHS, 2016).**

Car repair workshops working children are exposed to various health hazards which result in various occupational or environmental illness including chemical, physical, biological and psychological health hazards **(Nuwayhid et al., 2015).**

Community health nurse often has close contact with the working children and is aware of changes to the working environment. Because of the nurses expertise in health and in the effects of work on health they are in a good position to be involved in hazard identification. Hazards may arise due to new processes or working practices or may arise out of informal changes to existing processes and working practices that the nurse can readily identify and assess the likely risk from. This activity requires and presupposed regular and frequent work place visits by the nurse to maintain an up to date knowledge and awareness of working processes and practices **(Mondal, 2016).**

Significance of the study

The International Labor Organization (ILO) estimates that more than 250 million children are working around the world, often in occupations that are "detrimental to their physical, mental and emotional well-being." An estimated 120 million children work full time, with no opportunities for education and the accompanying promise of a better future.

According to Egyptian Demographic and Health Survey (EDHS) from the Ministry of Health and Population in Egypt, with the record of 20,560 never-married children aged 5–17 years engaging in economic activities, in and out of their home. at least 31.6% of the children in the age group from 5–10 were working, 68.5% of children aged 11–17 years were engaged in child labor for a wage, and 44.7% of the children in the age group from 5–10 were engaged in hazardous work **(EDHS, 2015).**

The most frequent injuries among children working in car repair workshops are cuts/wounds/ punctures which total close to 600,000 (or 69% of all injuries). However, there were also injuries which were serious though their occurrence were less frequent-for example, burns (57,500 equivalent to 7% of the total injuries), dislocation/fracture/sprains (45,900, or 6%), crushing injuries (29,800 or 3%) and even amputation (1,100 or 1/10 of 1%)-for a total of 134,300, equivalent to more than 15% of the total injuries and about 4% of the total working children. The type of child labor is the most important determinant of the incidence of work-related injuries **(BLS, 2015).**

Aim of this study

The aim of this study was to assess health hazards among children labor in car repair workshops in rural community through:

1- Assessing children labor health needs and problems in car repair workshops.
2- Assessing children labor knowledge about health hazards in car repair workshops.
3- Assessing health hazards among children labor in car repair workshops.
4- Assessing using of safety measures among children labor in car repair workshops.
5- Assessing environmental safety of car repair work shops.

Research Questions:

This study was based on answering the following question:

- What are the health hazards among children labor in car repair workshops in rural community?
- What are the health needs and problems of child labor in car repair workshops?
- Is there a relation between occurrence of health hazards and using of safety measure in car repair workshops?
- Is there a relation between occurrence of health hazards and environment of car repair workshops?

Subject and Methods

Research design:

A descriptive design was utilized to achieve the aim of this study.

Setting of the study:

The study was conducted at 86 car repair workshops at Beni-Suef city.

Subject:

A convenient sample of 208 children labor in the previously mentioned setting aged from 5 to 18 years was selected.

Tools for data collection:

Data collected through using the following two tools:

First tool:

A structured interviewing questionnaire designed by the investigator and written in simple Arabic language to gather data which concern the aim of the study and consists of the following four parts:

Part I: Demographic data for children, it includes (age, gender, educational level, parents work and education, crowding index) and it includes 8 closed ended questions and one open ended from Q1 to Q10.

Part II: Health needs and problems of the children labor in car repair wok shops: It included two parts: **(A)**-Assess children labor health needs in car repair workshops. It includes (physical needs as number of meals, sleeping hours and exercise, mental needs as love, support and safety, social and educational needs), includes (Q11 to Q23).

❖ **Scoring system:**

If the needs were fulfilled, it was scored one, and if not fulfilled was scored zero. It contains 13 questions equal to 100%, child who chose 30% of total needs approximately 2-3 needs, was considered having inadequate health needs when calculating the total score. Adequate needs were considered when 30% of the total needs exceed.

(B)- Assess children labor health problems in car repair workshops, health problems includes (physical, social, psychological and educational problems), it includes Q24 to Q27.

Scoring system:

If the child was complaining from any problems it was scored one, and if there was no complain the score was zero.

Part III: Children knowledge about health hazards and personal protective equipment, it included two parts:

A- Assess children's knowledge about health hazards of car repair workshops. It includes (definition of health hazard, types of hazards, causes of hazard and preventive measures). It includes 4 closed ended questions from Q28 to Q31.

B-Assessing knowledge of children about personnel protective measures and its importance, it includes (concept of protective measures, types, importance of protective measures). It includes 3 closed ended questions from Q32 to Q34.

Scoring system:

For the children's knowledge, chosen answer was scored 1 and zero for not chosen answer.

- **Satisfactory level if the score was** (>50%)
- **Unsatisfactory level if the score was less than** (<50%)

Part V:

Assess reported practices of children during work in car repair workshops, it includes (wear hat and gloves during work in heat, wash hands and feet after work, change clothes after work, eating balanced meals during work, undergo periodic medical checkup, wear

protective clothes during work, wash un heavy supplies after work, asking care when having injury or accident, wear ear muff during using very loud machines and wear non slippery, safety boots during work). It includes 16 closed ended questions from Q35 to Q50.

❖ **Scoring system:**

Children' reported practices was scored (1) for the "done" practices and (zero) for "not done" practices. Total practices score level further divided into the following:

- **Achieved practice** (> 50%)
- **Not achieved practice** (< 50%)

Part VII: Assess health hazards among children working in car repair workshops as (physical hazards as noise, high temperature and injuries – chemical hazards as skin inflammation, cancer– biological hazards as back pain and influenza and psychosocial hazards as fear, punishment and lack of trust). It includes 4 closed ended questions from Q51 to Q54.

Second Tool:

A) Observational checklist to assess using of personnel protective measures in car repair workshops, it includes (over all uniform, head cap, face glasses, eye glasses, safety boots, respiratory mask and ear muff), it consists of 9 items.

❖ **Scoring system:**

Personal protective measures was scored (two) for the "available and wear", (zero) for "not available" and (1) degree for "available and not wear", Total score =18. The total score level was divided into:

- **Sufficient PPE** (>50%).
- **Insufficient PPE** (<50%).

B) Observational checklist to determine environmental safety and occupational hazards in car repair workshops as (work area, water supply, floor, emergency and fire protection), it consists of 9 items.

❖ **Scoring system:**

Environmental safety was scored (1) for the "present", (zero) for "not present", Total score =9. The total score level was divided into:

- **Adequate environmental safety** (>50%).
- **Not adequate environmental safety** (<50%).

Pilot study

A pilot study was conducted on 10% (21) of children at the age of 5 to 18 years, it was done for evaluation of the applicability and clarity of the tools, assessment of feasibility of fieldwork, identification of a suitable place for interviewing children, and to detect any possible obstacles that might face the investigator and interfere with data collection. Necessary modifications were done based on the pilot study findings. The sample of children included in the pilot study was excluded in the main study sample.

Administrative Design

An approval was obtained from the Research and Ethics committee at Faculty of Nursing Ain-shams University. Total confidentiality of any obtained information was ensured. Also, the study maneuvers couldn't harm the participants.

Ethical considerations

Each participant informed about the purpose of the study and its significance. They were informed as well, that participation in the study is completely voluntary, as well as they have the right to withdraw from the study at any point without any penalty. Additionally, all participants

were assured that their anonymity and confidentiality secured through coding the data. Moreover, participants were informed that the data not reused for any research purposes without the permission.

Statistical Analysis

The collected data were collected and encoded in special format to be suitable for computer feeding. Following data entry, checking and verification process were carried out in order to avoid any errors. Data were analyzed using the statistical package for social science SPSS. The following statistical analysis measures were used.

- **Descriptive statistical measures**, which include number, percentages, and averages (Minim, Maximum, Arithmetic mean (X), Standard deviation (SD).
- **Statistical analysis tests,** which include Chi square, T test

Results

Table (1): Shows that mean age of the studied children was 9.3 ±4.1 year and all of them (100%) were male. Regarding educational level 41.8% of the studied children were illiterate. 97.6% of them living inside the houses.

Table (2): Clarifies that 52.9% of the studied children fathers were technical education and 60.6% of them were working. Regarding job of the studied children mothers, 95.2% of them were housewives and 51% of them were read and write. The table also revealed that the mean number of the household members was 6 ± 1.4 persons and the mean number of their house rooms was 5.11 ±1.26 rooms. The table also cleared that the crowding index mean was 2.8 ± 1.3 persons.

Figure (1): Illustrates that totally 33.6%, of the studied children had adequate needs, meanwhile 66.4%, of the studied children had inadequate needs.

Figure (2): Clarifies that totally 68.9%, of the studied children had health problems; meanwhile 31.1% of the studied children didn't have health problems.

Figure (3): Illustrates that totally 18.2% of the studied children had satisfactory total knowledge regarding health hazards; meanwhile 81.8% of them had unsatisfactory knowledge.

Figure (4): Shows that totally 89.5% of the studied children had unsatisfactory knowledge regarding standard precautions safety measures, meanwhile 10.5% of them satisfactory knowledge.

Figure (5): Shows that totally 94% of the studied children not done practices; meanwhile 6% of them done practices during the work in car repair workshops.

Table (3): Indicates that there was a highly significant positive correlation between total level of health hazards and total score level of safety measures.

Table (4): Indicates that there was **a highly significant positive correlation** between total level of health hazards score and total level of environmental safety and sanitation score.

Table (1): Distribution of the studied children according to their socio-demographic characteristics (n=208).

Demographic characteristics	No	%
Age		
- 5 to <10 year	77	37
- 10 to <15 years	87	41.8
- 15 to ≤18 years	44	21.2
Mean + SD: 9.3 ±4.1 *years*		
Educational level of the child		
- Can't read and write	87	41.8
- Primary school	47	22.6
- Preparatory school	74	35.6
Residence:		
- Inside the house with the family	203	97.6
- Inside the workshop	5	2.4

Table (2): Distribution of the studied children according to their family socio-demographic data (n=208).

Family related data	No	%
Fathers' educational level		
- Read and write	94	45.2
- Preparatory school	4	1.9
- Technical education	110	52.9
Fathers' job		
- working	126	60.6
- Not working	52	25
- Pensioner	4	1.9
- Died	26	12.5
Mothers' educational level		
- Read and write	106	51
- Technical education	102	49
Mothers' job		
- Not working	198	95.2
- Pensioner	5	2.4
- Died	5	2.4
Number of members		
- 2 -5 members	17	8.2
- More than five	191	91.8
Number of rooms		
- Less than two	8	3.8
- 2 -3 rooms	16	7.7
- More than three	184	88.5
Crowding index:	2.8 ± 1.3 persons	

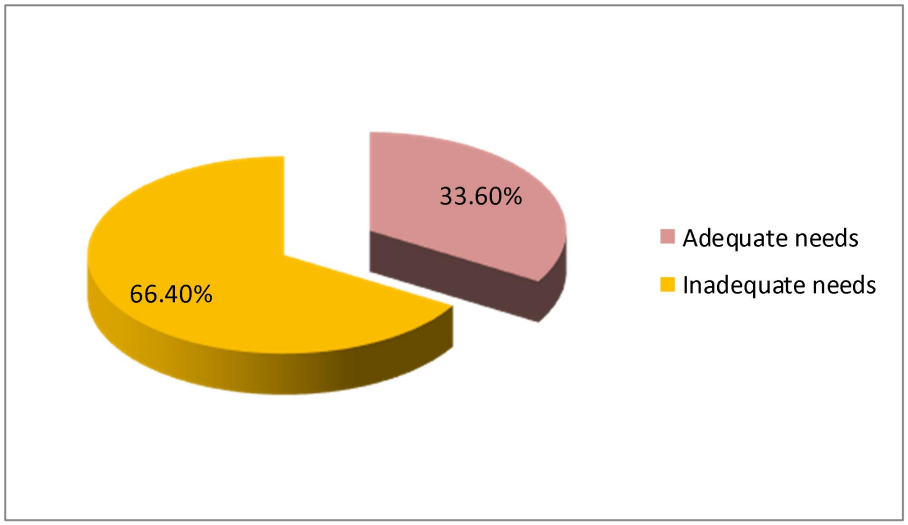

Figure (1): Distribution of the studied children according to their total physical and social, educational and psychological health needs (n=208).

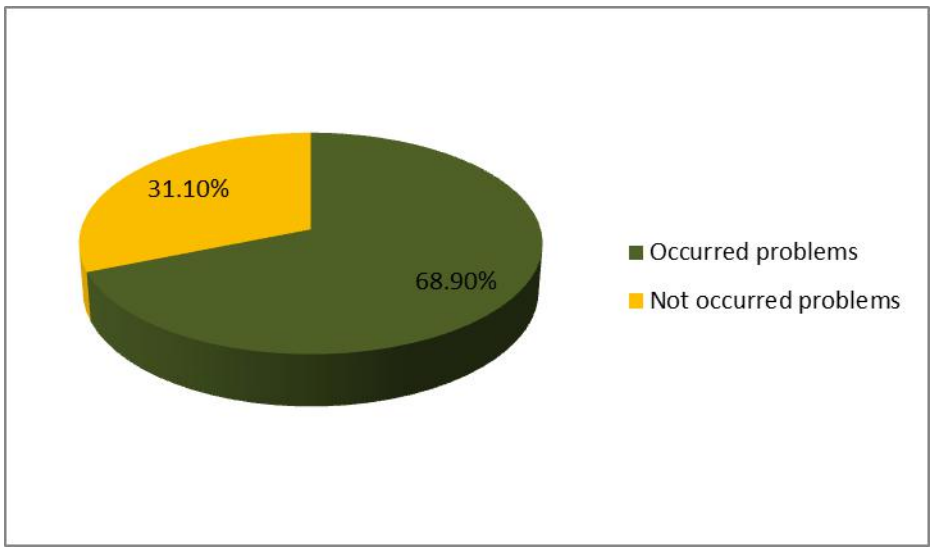

Figure (2): Distribution of the studied children according to their total stated health problems (n=208).

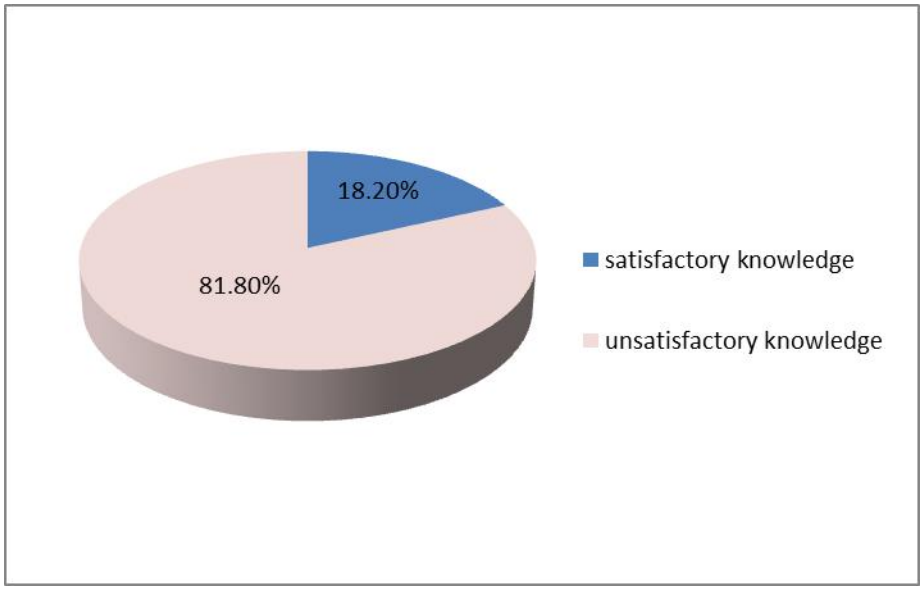

Figure (3): Distribution of the studied children according to their total knowledge regarding health hazards (n=208).

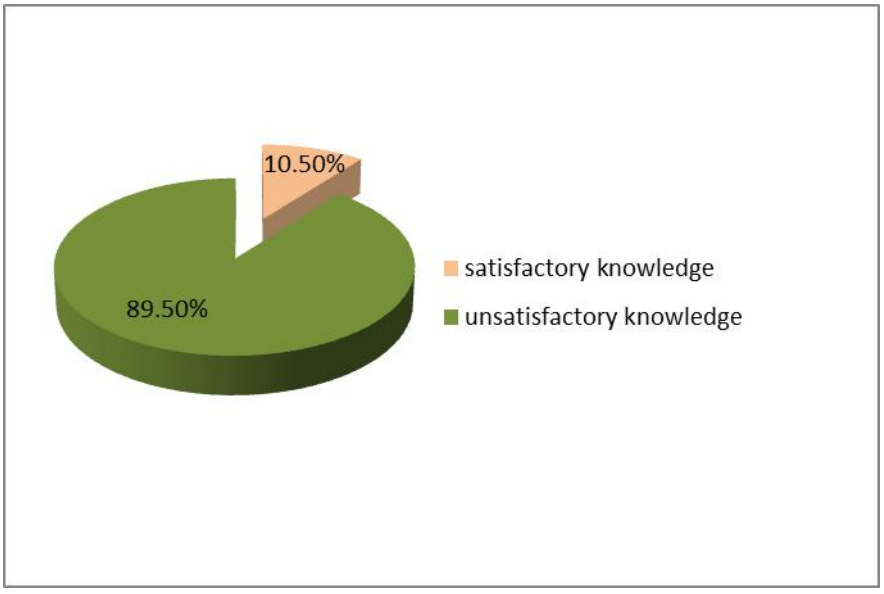

Figure (4): Distribution of the studied children according to their total knowledge regarding standard precautions and safety measures related to car repair workshops (n=208).

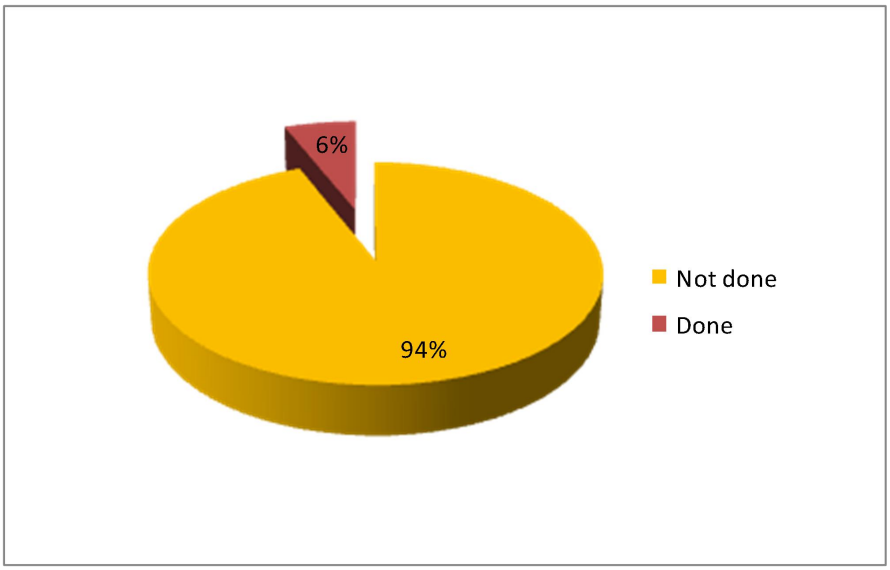

Figure (5): Distribution of the studied children according to their total practices during the work (n=208).

Table (3): Correlation between total level of health hazards among the studied children and their total level of personal protective equipment using (n=208).

According to research question no.3:

Is there a relation between occurrence of health hazards and using of safety measures in car repair workshops?

Correlations	Total score of health hazards	
	R	P-value
Total score of using safety measures	0.692	**0.001

****Highly statistically significant difference p≤ 0.001**

Table (4): Correlation between total level of health hazards and total level of environmental safety and sanitation of car repair workshops (n=86).

According to research question no.4:

Is there a relation between occurrence of health hazards and environment of car repair workshops?

Correlations	Total score of health hazards	
	R	P-value
Total score of environmental safety and sanitation	0.813	**0.001

****Highly statistically significant difference p≤ 0.001**

Discussion

The result of the current study showed that, the mean age of the studied children working in car repair workshops was 9.3 ± 4.1 years **(Table 1).** This result was in agreement with the study carried out by **Abbas et al. (2015)** who assessed Non- Fatal Occupational Injuries and Safety Climate: A Cross-Sectional Study of Construction Building Workers in Mit-Ghamr City, Dakahlia Governorate, Egypt, reported that the age distribution of children under the study ranged from 6 to 13 year.

Regarding gender the current study indicated that all the studied children were male **(Table 1).** The present study findings were in accordance with the study carried out by **Habil & Abdelhakim (2015)** who carried a study named: Socio-demographic characteristics and occupational health exposures among a group of child laborers in Egypt demonstrated that the entire study sample were male children.

In relation to educational level of the children the current study illustrated that more than two fifth of the studied children were illiterate **(Table 1).** The present study findings were consistent with **Jindalet et al. (2017)** who conducted a study about Occupational hazards, illness and injuries faced by child laborers, and found that 40% of study sample were illiterate.

Regarding residence the current study explained that nearly all of the studied children were living inside the houses **(Table 1).** These findings were also revealed by **Vyas et al. (2015)** who assessed Occupational injuries in automobile repair workers and demonstrated that the entire studied sample lived in their home.

Regarding number of household members the current study explained the number of family members was from 5 to 7 persons **(Table 2)**. The present study findings were in accordance with the study conducted by **Awan et al. (2017)** in India who assessed Why Do Parents Make Their Children Work? Evidence from Multiple Indicator Cluster Survey, found that number of family members under the study was ranged from 5 to 7 members.

In relation to number of rooms in the house, the present study showed that ranged from 3 to 5 rooms **(Table 2)**. These findings were also revealed by **Larsen (2015)** who assessed child labour and education challenges in pakistan. International Program on the Elimination of Child Labour (IPEC) and illustrated that the number of rooms were ranged from 3 to 5 rooms.

In relation to crowding index the current study indicated that the mean rate of crowding index was 2.8 ±1.3 persons **(Table 2).** This finding was in agreement with **Ahmed & Jureidini (2016)**, who assessed An Explanatory Study on Child Domestic Workers in Egypt, reported that the crowding index ranged from 2 to 4 persons.

Regarding to the total level of children physical and social, educational and psychological health needs the result of the present study revealed that physical health needs represented more than two thirds **(Figure 1)**. However, these results were similar to those of **Batty et al. (2016)** Association of life course socioeconomic disadvantage with future problem drinking and heavy drinking:

gender differentials in the west of Scotland, reported that children physical needs represented 34.3%.

The current study also illustrated that more than four fifths of the studied children had unsatisfactory total level of knowledge regarding health hazards and Personal protective equipment **(Figure 5).** These findings were also in agreement with **Itani, (2018)** who assessed child Labor in Egypt. University of Southern Denmark, Faculty of Humanities, found that totally 88.3% of the study sample had unsatisfactory level of knowledge regarding health hazards and Personal protective equipment.

Regarding the total level of practices of children the result of the present study revealed that nearly all the children not done practices during work **(Figure 6).** This result is in agreement with **Nath & Hadi (2018)** who assessed role of education in reducing child labour: evidence from rural Bangladesh and found that 95.6% of the children not done practices during their work.

According to research question no.1, concerning exposure to physical hazards nearly three fifths of the children exposed to wounds and injuries **(Table 11).** In the same line **Noweir et al. (2015)** who assessed child labour in Egypt. II Impact of work environment on health and stated that 58.4% of the children suffered from wounds and injuries.

In relation to total use of personal protective equipment during working in car repair workshops, the current study showed that more than four fifths of the children not wear personal protective equipment as it was not available **(Figure 8).** This finding was congurent with the study conducted by **Big (2014)** who assessed in workshops, fields, Egyptian children at work and found that 86.5% of the study sample didn't use PPE as it wasn't available. **From the investigator's point of view** this finding could be due to unavailability of enough money and resources to buy this equipment.

Concerning statistical relation between study variables and research questions, **(Table 16**) replying on research question no **3** who stated that is there a relation between occurrences of health hazards and using of safety measures in car repair workshops? This question was supported when the present study showed that there was a highly significant positive correlation between total level of health hazards and total score level of safety measures. The previous findings were congruent with many studies as **Al-Kayyali (2016)** who assessed The Health Effects on Child Laborers Working in Auto Repair Aged 10-16 years, in Ein- Elbasha Region/ Balqa Governorate/ Jordan and cleared that there was a highly significant positive correlation between total level of health hazards and total score level of safety measures and also **Khan et al. (2017)** who conducted a Study on child labour in automobile workshops of Peshawar, Pakistan and illustrated that there was a statistically significant relation between total level of health hazards and total score level of safety measures($p<0.05$).

According to research question no **4** who stated that is there a relation between occurrence of health hazards and environment of car repair workshops? (Table 17), this question was supported when the present study showed that, there was a highly significant positive correlation between total level of health hazards score and total level of environmental safety and sanitation score.

This finding was in agreement with **Javed et al. (2016)** who conducted a study on Occupational hazards, illness and injuries faced by child laborers and reported that there was a highly significant positive correlation between total level of health hazards score and total level of environmental safety and sanitation score.

Conclusion

The current study clarified that there was a highly statistically significant relation between health hazards and using of safety measure in car repair workshops. Finally the present study concluded that there was a highly statistically significant relation between occurrence of health hazards and environmental safety and sanitation at car repair workshops..

Recommendations

- Health education program to raise awareness of children toward health hazards in car repair workshops in rural community.
- Conduct training programs to children at car repair workshops about using of personal protective equipment.
- Raise children awareness about consequences of health hazards that they exposed to during work in car repair workshops.
- Providing health needs for children working in car repair workshops.

Reference

Abbas R, Zalat M &Ghareeb N (2015). Non- Fatal Occupational Injuries and Safety Climate: A Cross-Sectional Study of Construction Building Workers in Mit-Ghamr City, Dakahlia Governorate, Egypt. Journal of Safety Science and Technology; 3: 69-79.

Ahmed YM & Jureidini R (2016). An Explanatory Study on ChildDomestic Workers in Egypt. Centre Of Migration And Refugees Studies, at http://www.aucegypt. edu/GAPP/cmrs/Documents/Child%20Domestic%20Workers%2Report.pdf. Accessed 4 Feb2016

Al-Kayyali G (2016). The Health Effects on Child Laborers Working in Auto Repair Aged 10-16 years, in Ein- Elbasha Region/ Balqa Governorate / Jordan. Unpublished thesis.

Awan MS, Waqas M & Aslam MA (2017). Why Do Parents Make Their Children Work? Evidence from Multiple Indicator.

Batty GD, Bhaskar A, Emslie C, Benzeval M, Der G, Lewars H & Hunt K (2017). Association of life course socioeconomic disadvantage with future problem drinking and heavy drinking: genderdifferentials in the west of Scotland. Int J Public Health58(1): 130–136.

Big S (2014). "In workshops, fields, Egyptian children at work." Associated Press[online] October 30, 2014.

Bureau of Labor Statistics (2015). National census of fatal occupational injuries, 2015. Retrieved from www.bls.gov/news.release/ cfoi.nr0.htm.

Demographic Healh Survey(DHS) (2016):- "Child Labour and Cultural Relativism: From 19th Century America to 21st Century Nepal". Pace International Law Review. 16 (1).

Egypt Demographic and Health Survey (EDHS) (2015). (www.dhsprogram.com/pubs/pdf/ FR176/FR176.pdf)

Habil I & Abdelhakim S (2015). Socio-demographic characteristics and occupational health exposures among a

group of child laborers in Egypt. The Egyptian Journal of Community Medicine; 29: 4 –11.

ILO (2015). "Every child counts: new global estimates on child labour", Geneva: International Labour Office. For examples see Bourdillon et al pp 1-6, 180-194. 195-200 offer an alternative and more effective approach to protecting working children.

ILO and Egyptian Central Agency for Public Mobilization and Statistics (CAPMAS) (2017). Working Children in Egypt: Results of the 2017 National Child LabourSurvey. Cairo; 2017.

Itani N (2018). Child Labor in Egypt. University of SouthernDenmark, Faculty of Humanities, at http://www.ddrn.dk/filer/forum/File/Child_Labor_in_Egypt.pdf. Accessed 18 feb 2018**.**

Javed S, Shah N & Memon M (2016). Occupational hazards, illness and injuries faced by child laborers. J Pak Med Assoc; 63(1).139- 42.

Jindalet G, Terese H & Kate W (2017). Physical Punishment or Children, Tasmania Law Reform Institution, Tasmania. I ISA. October 2012; paper no. 03.

Khan H, Hameed A & Afridi AK (2017). Study on child labour in automobile workshops of Peshawar, Pakistan. East Mediterr Health J. 2017; 13:1497–502.

Larsen PB (2015). Indigenous and tribal children: assessing child labour and education challenges in Pakistan. International Programme on the Elimination of Child Labour (IPEC), International Labour Office.

Mondal, (2016). A Model for Integrated Human Resources Development for the Working Children, Bangladesh. Underprivileged Children's Educational Programs (UCEP), UNICEF.

Nath SR & Hadi A (2018). Role of education in reducing child labour: evidence from rural Bangladesh. J Biosoc Sci 32(3).301–313.

Noweir MH, Oman HA, Abbas FI & Abou-Taleb AM (2015). Child labor in Egypt. I. Occupational and socio-economic aspects. J Egypt Public Health Assoc; 68(3-4).405-42.

Nuwayhid I, Usta J, Makarem M & Khudr A (2015). Health of children working in small urban industrial shops. Occup. Environ. Med; 62: 86-94.

UNICEF (2016). The state of the world's children. Oxford University Press, Oxford, 2016.

UNICEF (2017). The state of the world's children. Oxford University Press, Oxford, p 1997World Bank, World Development Indicators [CD-ROM].

Vyas H, Das S & Mehta S (2014). Occupational injuries in automobile repair workers. Ind Health; 49(5).642-51.

Yun & Seira (2017). "Theorizing the Chinese: The MUI TSAI controversy and construction of transnational chineseness in Hong Kong and British Malaya" (PDF). New Zealand Journal of Asian Studies. 6 (2). 95–110.