

# Assessment Knowledge Of Pregnant Women About Tetanus Toxoid Vaccination In Mosul City"

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## ABSTRACT

**Background:** "Tetanus is a vaccine preventable, noncommunicable infectious disease. It is caused by the Clostridium tetanic bacteria spores which are ubiquitous in the environment and can be introduced into the body through no intact skin, usually via injuries from contaminated objects".

**Objectives:** "The goal of this study was to assess of knowledge of pregnant woman about tetanus toxoid vaccination in Mosul City".

**Materials and Method:** Descriptive analytic design was conducted throughout the present study from 30th January 2018 to 29th April 2019. Convenience sampling technique was used to select 100 "pregnant women who attended primary health care centers in Mosul City. The questionnaire was instrument of study was consisted of Two parts which include socio-demographic characteristics e.g (age, level of educational, residence, work, and number of children) , part two health information and knowledge about tetanus toxoid vaccination and sources of information regarding tetanus toxoid vaccine".

**Results:** "The results of the study indicated that the almost (35%) of pregnant woman were the knowledge poor about their tetanus. The present study showed that the highest percentage (26.9%) of study sample were at age group (30-34) years, while the lowest percentage (3.8%) of them were in age group between (15-19) years; with the mean age and SD (27.45±5.67)"

**Conclusion:** The study findings indicate that pregnant woman have relatively poor knowledge level and need to more information to enhance knowledge towards tetanu.

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## INTRODUCTION

" Tetanus is a preventable, non-communicable infectious disease vaccine <sup>(1)</sup> . It is caused by spores of Clostridium tetanus bacteria that are prevalent in the atmosphere and can be transmitted into the body without intact skin, usually by damage from infected objects <sup>(2)</sup>. "There are 456,000 deaths caused by tetanus globally last year. It is estimated that 7 percent of maternal deaths occur worldwide each year due to tetanus and 18 percent of all neonates die due to maternal neonatal tetanus. Even at the end of 2016, in 37 countries, maternal neonatal tetanus remains a public health issue" <sup>(3)</sup>, predominantly in the African and Asian regions, Iraq is still pre validated for maternal neonatal tetanus elimination <sup>(4)</sup>. Risks for the occurrence of Neonatal Tetanus contribute to maternal, perinatal and neonatal factors, namely absence of prenatal maternity care, including absence of Tetanus Toxoid vaccination and unsanitary childbirth and cord treatment, restricted access to health facilities, weak sanitary practices, loss of infrastructure to sterilized delivery tools and unsanitary behaviors throughout children <sup>(5)</sup>."Tetanus toxoid (TT 0) is administered to women between the ages of 15 and 49 who are of childbearing age. The tetanus toxoid vaccination program for women of childbearing age is administered at first touch (TT 1), which does not provide safety, then the 2nd dose (TT 2) is applied after four weeks, offering security for 3 years". "The 3rd dose is prescribed six months after the 2nd dosage, offers 5 years of protection, the 4th dose 1 year after the 3rd dosage provides 10 years of protection, and the 5th dose 1 year after the 4th dose gives lifetime protection"<sup>(6)</sup>. The aim of the study to assess

of knowledge of pregnant woman about tetanus toxoid vaccination in Mosul City.

## METHODOLGY

Descriptive analytic design was conducted throughout the present study from 30th January 2018 to 29th April 2019. The convenience sampling method was used to pick 100 pregnant women in Mosul City who attended PHCs. The questionnaire was instrument of study was consisted of Two parts which include socio-demographic characteristics e.g ( age, level of educational, residence, work, and number of children) , part two health information and "knowledge about tetanus toxoid vaccination and sources of information regarding tetanus toxoid vaccine. To evaluate the validity of the questionnaire form, the researcher presented it to (10) experts in various fields. A pilot study was conducted before starting actual data collection on (10) pregnant women who attended to Al- Qudes primary health care center. The pilot study was conducted to find out whether the items of questionnaire were clearly understood, applicable and to determine the reliability and to estimate the time required for the interview". Reliability of the questionnaire was determined through the use of split half approach for the determination the consistency of pregnant women's knowledge items regarding tetanus and its vaccine (R=0.84) which was statistically acceptable. To analyze the data, statistical procedures were used as descriptive statistic (frequency, mean, percentage, standard deviation) and inferential statistic .

## RESULTS

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**"Table 1: "Distribution according to sociodemographic features of the research population" (n = 100).**

Variable		Frequency	Percent
Age	15-19 year	4	3.8
	24-20 year	25	24.0
	25-29 year	19	18.3
	30-34year	28	26.9
	35-44year	13	12.5
	44-49year	10	9.6
	mean age and SD (27.45±5.67)		
Education level	Not read &write	8	8.0
	Read & write	3	3.0
	primary	17	17.0
	secondary	12	12.0
	High school	7	7.0
	bachelor	41	41.0
	Post graduate	12	12.0
Women knowledge about importance of TTV			
	Protect mother from tetanus disease during pregnancy	41	10.5
	Protect fetus from tetanus disease during pregnancy	89	22.8
	Don't know	21	5.4
	others	32	8.2
No. doses of TTV taken			
	1 dose	16	15.4
	2 dose	7	6.7
	3 dose	6	5.8
	4 dose	8	7.7
	5 dose	14	13.5
	Total	51	49.0

**Table 2: This table show the Suitable time to take TTV and Side effects**

Suitable time to take TTV	Frequency	Percent
Before pregnancy	12	11.5
During pregnancy	32	30.8
Don't know	4	3.8
<b>Side effect of TTV</b>		
fever	10	9.6
Pain & swelling	38	36.5

**Table 3: Association between Level of Knowledge of Study Sample and Studied Variables (n=100)**

	No. doses of TTV taken						total	Test statistic
	1 dose	2 dose	3 dose	4 dose	5 dose			
age								
	15-19 year	1	1	2	1	1	6	df=12 F=1.248 sig=0.342
	year24-20	6	2	6	4	2	20	
	25-29 year	9	6	3	3	9	30	
	30-34year	28	0	8	8	32	76	
	35-44year	5	10	0	5	10	30	
	44-49year	12	12	0	12	0	36	

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Education level								df=24 F=0.818 sig=0.858
	Not read & write	4	3	0	5	0	12	
	Read & write	10	0	0	0	14	24	
	primary	11	5	2	14	9	41	
	secondary	4	0	0	3	14	21	
	High school	10	0	0	0	3	13	
	bachelor	13	17	8	4	19	51	
	Post graduate	8	5	7	6	4	30	
No. of children								
	1	14	7	6	18	11	56	df=4 F=0.82 sig=0.987
	2	21	3	7	3	19	53	
	3	14	9	2	5	13	47	
	4	3	6	0	0	10	19	
	5	8	5	2	4	0	19	
	6	0	0	0	2	0	8	
Women knowledge about importance of TTV								
	Protect fetus from tetanus disease during pregnancy	18	11	11	26	23	89	df=12 F=4.831 sig=0.72
	Don't know	8	5	0	0	8	21	
	others	9	8	0	0	15	24	

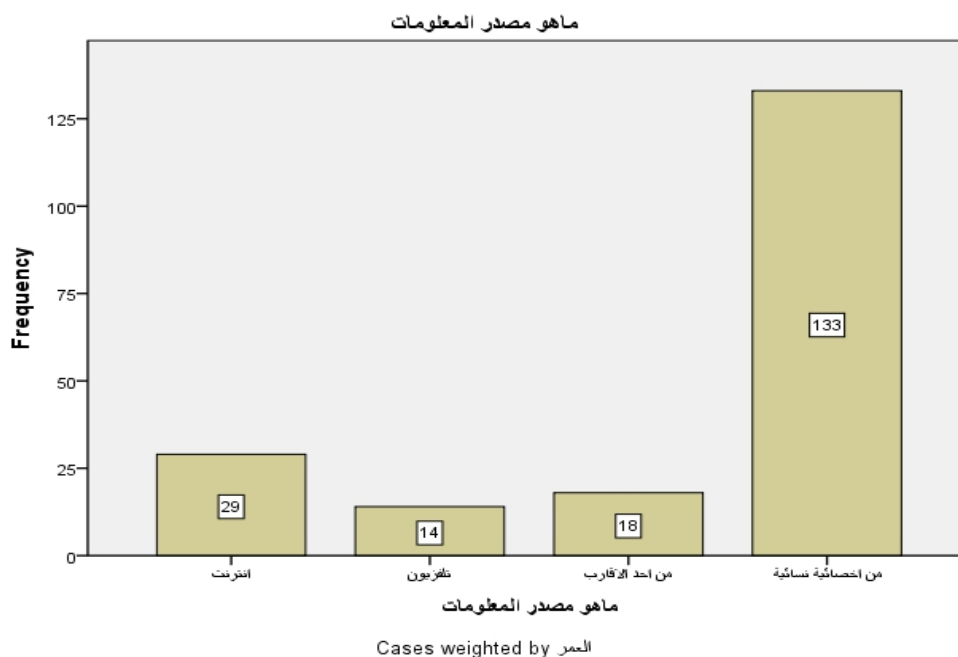
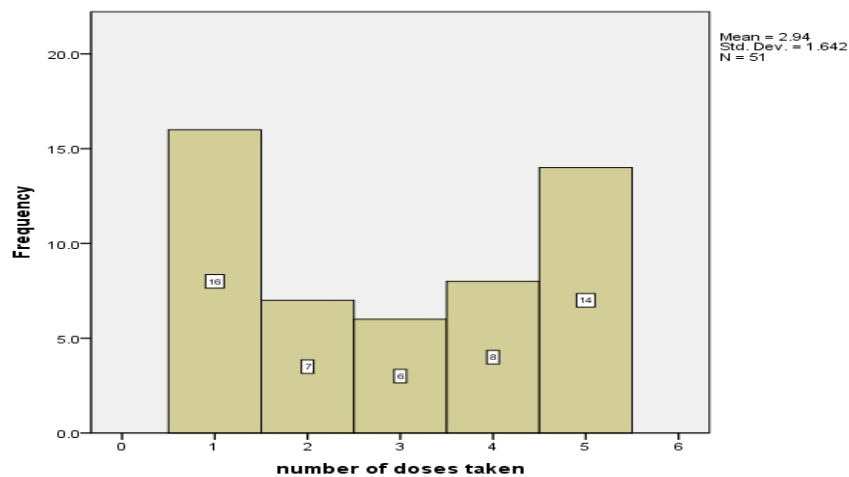


Figure (1): sources of information

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Figure(2):Number of doses taken

### DISCUSSION

"This study of Pregnant Women's Awareness of Tetanus Toxoid Vaccination in Mosul City is important to prevent any decline in the health and care costs of pregnant women. Overall, the results of this study showed that nearly (37 percent) of pregnant women had low knowledge of tetanus". The present study showed that the high percentage (26.9%) of study sample were at age group (30-34Y), while the low percentage (3.8%) of them were in age group between (15-19) years; with the mean age and SD (27.45±5.67) years as shown in table (1). The results of existing evidence validated by the research are available in the study that recorded the highest percentage (55%) of pregnant women" out of (200) were at age group between (30-34) years with mean and SD age was (27.90 ± 5.93) <sup>(7)</sup>. In Japan, it was reported that the majority of pregnant women were in age "group (17-30) years old, with an average age of 26 years. The youngest was 17 years while the oldest was 45 years <sup>(8)</sup> Table 2: show that the Suitable time to take TTV and Side effects approximately (30.8%) take the TTV during pregnancy. There was statistical significant relationship between level of knowledge and level of education for women as shown in table (3). The finding of present study supported evidence is available in the study that reported education level" plays a significant role in the vaccination coverage of mothers during pregnancy and their child <sup>(9)</sup>. Antenatal care can lead to contact between pregnant women with tetanus toxoid information. Regarding tetanus toxoid vaccination coverage: highest percentage of pregnant women were partial vaccination coverage (one to four doses of vaccine were received), while the lowest percentage of them were completed vaccination coverage (five doses were received) as shown in table (3). "There was a statistical signify relationship among level of knowledge and TT vaccination coverage as shown in table (3).<sup>(10)</sup> Figure1: demonstrated the majority of sources from primary health center approximately (31%) of study sample were received their information about tetanus toxoid vaccine from television, (11.4%) from radio, (10.9%) from other sources (relatives or friends), (6.2%) from newspaper, (12.9%) from health center and (27.6%) more than one source <sup>(11)</sup>.

### CONCLUSION

The study findings indicate that pregnant woman have relatively poor knowledge level and need to more information to enhance knowledge towards tetanus.

### Recommendation

"The study recommended to enhance women's knowledge on tetanus by using the various mass media to increase the coverage of tetanus toxoid. Encouraging the pregnant women to have regular antenatal care visits which consider the cause to contact with sources of tetanus toxoid and hence increase the chance of vaccination".

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