



Awareness of Tetanus Toxoid vaccination among pregnant women attending Antenatal Clinic in Districts: Lahore & Sheikhupura-Pakistan.

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**Abstract:**

Tetanus can occur during pregnancy or within six weeks after delivery. For this purpose World Health Organization (WHO) introduced Tetanus Toxoid (TT) vaccine as the primary vaccines that only targeting Maternal and Neonatal Tetanus disease. The main purpose of the study was to investigate the level of awareness of Tetanus Toxoid (TT) vaccination during pregnancy among pregnant women attending Antenatal Clinic in Districts: Lahore & Sheikhupura-Pakistan. For this purpose, the author randomly selected 300 pregnant women from two Districts: Lahore & Sheikhupura-Pakistan, who have heard about Tetanus Toxoid vaccination usage. After this, the required data was collected through exploratory/explanatory research methods and here semi-structured questionnaire was used for the collection of required data, which consisted of three phases. The first phase consists on socio-economic demographic, second is awareness of tetanus toxoid vaccine and third one is respondents' response about tetanus toxoid vaccine. Results reveal that mostly pregnant women are well aware of the Signs & Symptoms of Tetanus Toxoid Vaccine and also its importance in the pregnant women life, which vaccine plays an important role to save her and her baby's life from the chronic diseases like: Joint Pain, Opisthotonus, Fever and sweating, Changes in blood pressure and a fast heart rate, Vomiting, Diarrhea and Headache etc. and all these qualities of this vaccine attracted to the pregnant women toward themselves. Finally, some suggestions are given at the end of the paper through which we enhance the knowledge of pregnant women about Tetanus Toxoid vaccination.

**Key words:** Tetanus Toxoid vaccination, Attitude and Practice, Pregnant women, Districts: Lahore & Sheikhupura-Pakistan.

**Introduction:**

Immunization is one of the most successful initiatives in public health. Pakistan has one of the highest maternal mortality rates in the world, so maternal immunization provides important health benefits to both pregnant women and to their fetus. Immunization has been instrumental in eradicating Tetanus toxoid among the pregnant women because some infections have so serious effects on human body that can even waste pregnancy; harm her baby during pregnancy or after delivery. These complications can be protected with vaccination. That is why vaccinations are so important for pregnant mothers. Vaccines not only strengthen the immune systems of body but they can also fight against serious infectious diseases. Asim and Malik et al. (2012) elaborate the point of view that **“Vaccination arouses the body's own immune system to defend the individual against the following communicable diseases such as diphtheria, pertussis, measles, tetanus, Hepatitis B, polio and tuberculosis”**(WHO, 2010).

**Tetanus is an acute, infectious, non-communicable disease with a high case fatality rate, Caused by Clostridium tetani (Alex-Hart & Okoh 2015).** Tetanus toxoid (TT) can occur during pregnancy or within six weeks after the pregnancy. **Tetanus kills one newborn every eleven minute or approximately 134 babies every day (Belihu, Tesso, & Woldetsadik, 2017).** This disease was mostly seemed in the remote and underdeveloped areas (especially in Africa and Asia countries), because there were mostly deliveries happened in unhygienic conditions, which caused tetanus disease among the mothers and the new born babies. Thwaites, Beeching & Newton (2015) said that **“vaccination coverage of pregnant women in most developing countries remains low, and unsafe birth practices persist”**. This is due to poor awareness about the Tetanus toxoid (TT) vaccine, which has contributed to increase neonatal mortality rate a lot. But our beloved country, Pakistan stands in under-developed countries line. Recently, it has been succeeded to overcome on tetanus disease due to Tetanus toxoid (TT) vaccine. Khan et al. (2015) strengthens the same point of view that **“Pakistan is one of the very few remaining countries that have yet to achieve the target which was set by the World Health Organization in (2015) for the elimination of maternal and neonatal tetanus”**.

Tetanus Toxoid Vaccine, two and more doses can prevent the pregnant women from neonatal tetanus. Facha et al. (2018, January) said that **“Two and more doses of Tetanus Toxoid (TT2+) vaccination to pregnant women can prevent neonatal tetanus; often called protection at birth”**. But WHO recommended the tetanus toxoid vaccination's 5 doses to the women of childbearing age (15 to 49 years) for its prevention. Fischer, Ottolini, & Mond, (1997) also strengthen the same point of view that **“The complete 5 doses is expected to provide lifelong protection for the would be mother and also provide adequate partial immunity for her unborn baby against neonatal tetanus”**.

The Vaccination schedule is as following: at the first interaction (TT1) is given to the women, which are no protectable, the second dose (TT2) is given to the women after four weeks, which gives 3 years protection (infant born to the mother will be protected from Neonatal Tetanus), third dose (TT3) is given at 6 months after the 2nd dose, it gives 5 years protections to the mother, fourth dose (TT4) is given after 1 year after of the third dose, which gives 10 years protection from the tetanus. Fifth dose (TT5) has been given after 1 year after the fourth dose which gives protection for lifetime. This study also highlights that the coverage of Tetanus Toxoid (TT) vaccination, which protects both maternal and neonatal from the Tetanus Toxoid because education plays a great role in this. And in the study area, mostly women are well aware of this.

### Aims & Objectives:

This study was designed with the following objectives, which make the pregnant women aware of Tetanus Toxoid vaccination importance in daily life and also suggest some points through which we improve awareness among the pregnant women.

- To study the social, economic, educational and maternal status of the pregnant women.
- To study about their partner's qualification and their salaries. **(if they are alive & job holder)**
- To study about the awareness of tetanus toxoid vaccine among the pregnant women of Districts: Lahore & Sheikhpura-Pakistan.
- To study the using of merits and demerits of tetanus toxoid vaccine among the pregnant women.

### Methodology:

The present study was conducted in District: Lahore & Sheikhpura-Pakistan to inquire the knowledge about the awareness of Tetanus Toxoid vaccination among the pregnant women,

who have attended Antenatal Clinic. After the selection of the study area, the author selected qualitative research methods because it is an exploratory/explanatory research and then design a semi-structured questionnaire, which consisted of three phases. The first phase consists of socio economic demographic, second one is awareness regarding tetanus toxoid vaccine and third one is respondents' response about tetanus toxoid vaccine. The questionnaire was pretested it on five pregnant women before launching. After pretesting, the author made some necessary amendments in the questionnaire and then data was collected through interview schedule from three hundred pregnant women, who have attended Antenatal Clinic. After the data collection, the data was analyzed and the results were tabulated and interpreted.

**Hypothesis:**

- The following hypotheses were formulated for the study;
- ✓ Only pregnant women are interviewed, who have knowledge about Tetanus Toxoid vaccine.
- ✓ Three hundred pregnant women are interviewed among two districts (namely: Lahore and Sheikhpura-Pakistan).

**Results & Discussion:**

**Socio-demographic characteristics of the Respondents**

**Table No. 1.**

Age wise demographic analysis of the pregnant women, who have knowledge about Tetanus Toxoid vaccine:

Age (in years)	F	%
15 to 20	27	09
20 to 25	147	49
26 to 30	75	25
31 to 35	38	13
More than 36	13	04
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 1) represents the age wise information of pregnant women. Almost half of the total (49%) respondents are under 20 to 25 years, and exactly one fourth (25%) are under 26 to 30 years and very small ratio among the total (13%), (09%) and (04%) are under 31 to 35 years, 15 to 20 years and More than 36 years age.

**Figure 1.** Age wise Graphical representation of the pregnant women, who have knowledge about Tetanus Toxoid vaccine.



**Table No. 2.**

Demographic analysis of the respondents' view according to their family back ground:

Family back ground	f	%
Urban	249	83
Rural	51	17
<b>Total</b>	<b>500</b>	<b>100</b>

(Table No. 2) represents the family back ground of the pregnant women. With respect of family back ground, a huge majority of the respondents (83%) belong to urban area and (17%) belong to rural area.

**Figure 2.** Graphical representation of family back ground of the pregnant women, who have knowledge about Tetanus Toxoid vaccine



**Table No. 3.**

Demographic analysis of the respondents' view according to their religion:

Religion	F	%
Muslim	282	94
Christian	18	06
Traditional	---	---
Others	---	---
<b>Total</b>	<b>500</b>	<b>100</b>

(Table No. 3) represents the religion of the pregnant women. A huge majority of the respondents (94%) are Muslims. While only (06%) respondents are Christian.

**Figure 3.** Graphical representation of religion of the pregnant women, who have knowledge about Tetanus Toxoid vaccine.



**Table No. 4.**

Demographic analysis of the respondents' view according to their qualification / educational status:

Educational status	f	%
Formal Education	234	78
In-Formal Education	30	10
Religious Education	36	12
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 4) represents the educational status of respondents. A huge majority (78%) of the respondents respond that they have earned Formal Education. While a very small ratio among the total (12%) and (10%) have earned Religious Education and Non-Formal Education.

**Figure 4.** Graphical representation of qualification of the pregnant women, who have knowleldge about Tetanus Toxoid vaccine.



**Table No. 5.**

Demographic analysis of the respondents' view according to their occupational status:

Occupational status	F	%
Govt. Employee	36	12
Private Employee	09	03
Self Employed	03	01
House wife	252	84
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 5) represents the occupational status of the respondents. A huge majority (84%) of the respondents responded that they are not working anywhere instead of a house wife. While a small ratio (12%), (03%) and (01%) says that they are Govt. Employee, Private Employee and Self Employed.

**Figure 5.** Graphical representation of occupation status of the pregnant women, who have knowleldge about Tetanus Toxoid vaccine.



**Table No. 6.**

Demographic analysis of the respondents' view according to their monthly salary: (if she is employed anywhere)

Monthly income (in rupees)	F	%
Less than 20000	17	35
20000 to 30000	12	25
30000 to 40000	12	25
More than 40000	07	15
<b>Total</b>	<b>48</b>	<b>100</b>

(Table No. 6) indicates the monthly salary of the pregnant women. A huge majority (35%) of the respondents said that their monthly income is less than 20000 rupees and exactly one fourth (25%) each responded that their monthly income is 20000 to 30000 rupees and 30000 to 40000 rupees. While a small ratio (15%) said that their monthly income is more than 40000 rupees.

**Figure 6.** Graphical representation of monthly income of the pregnant women, who have knowledge about Tetanus Toxoid vaccine. (if she was employed anywhere)



**Table No. 7.**

Demographic analysis of the respondents' view according to their husband's educational status:

Educational status	F	%
Formal Education	186	62
In-Formal Education	92	31
Religious Education	22	07
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 7) represents the working women's husband educational status. Almost two three (62%) respondents said that their husbands have earned Formal Education. And nearby one third (31%) said that their husband have earned In-Formal Education. While a small ratio among the total (07%) said that their husbands have earned religion education.

**Figure 7.** Graphical representation of husband’s educational status of the pregnant women regarding Tetanus Toxoid vaccine knowledge.



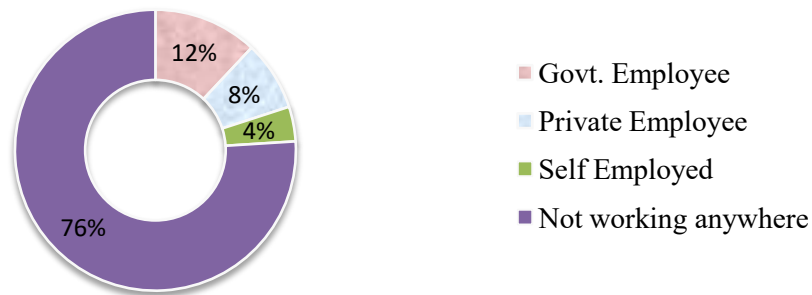
**Table No. 8.**

Demographic analysis of the respondents’ view according to their husband’s occupational status: (if he is alive)

Occupational status	F	%
Govt. Employee	37	12
Private Employee	24	08
Self Employed	12	04
Not working anywhere	227	76
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 8) represents the employment status of the pregnant women’s husband. A huge majority (76%) of the respondents said that their husband is not working anywhere. While a small ratio (12%), (08%) and (04%) said that their husband is employee in govt. sector, private sector and self-employed.

**Figure 8.** Graphical representation of husband’s occupational status of the pregnant women regarding Tetanus Toxoid vaccine knowledge.



**Table No. 9.**

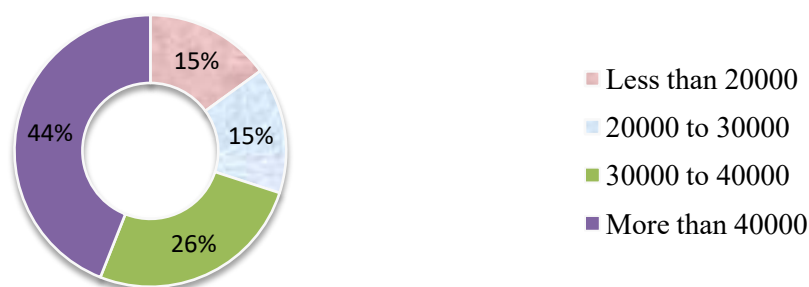
Demographic analysis of the respondents’ view according to their husband’s monthly salary: (if he is employed anywhere)

Monthly income (in rupees)	f	%
Less than 20000	11	15
20000 to 30000	11	15

30000 to 40000	19	26
More than 40000	32	44
<b>Total</b>	<b>73</b>	<b>100</b>

(Table No. 9) indicates the monthly salary of the pregnant women’s husband. A huge majority (44%) of the respondents said that their monthly income is more than 40000 rupees and almost one fourth (26%) responded that their monthly income is 20000 to 30000 rupees. While a small ratio (15%) each said that their monthly income is Less than 20000 rupees and 20000 to 30000 rupees.

**Figure 9.** Graphical representation of the pregnant women's husband's income, who have knowledge about Tetanus Toxoid vaccine. (if they were employed anywhere).



**Table No. 10.**

Demographic analysis of the respondents’ view according to their avail pregnancy:

<b>Having avail Pregnancy</b>	<b>f</b>	<b>%</b>
First pregnancy	202	67
Second pregnancy	49	16
Third pregnancy	35	12
Fourth pregnancy	14	05
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 10) represents the pregnant women status regarding having avail pregnancy. Almost one and half (67%) of the respondents said that they have availed their first pregnancy. While a small ratio (16%), (12%) and (05%) said that they have availed their second, third and fourth pregnancy.



**Figure 10.** Graphical representation regarding avail pregnancy of the pregnant women, who have knowledge about Tetanus Toxoid vaccine.



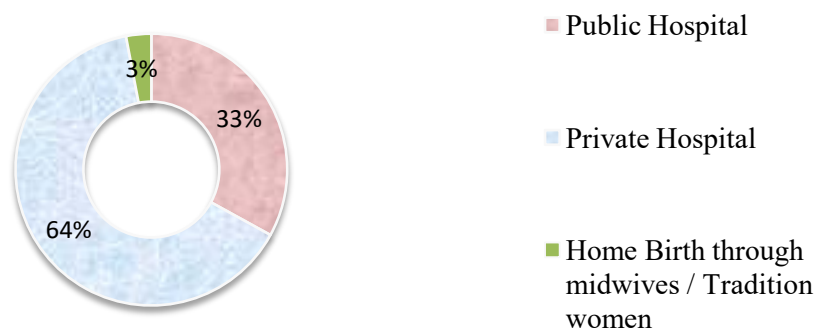
**Table No. 11.**

Demographic analysis of the respondents’ view according to their place of first delivery: (if it’s second time / third time pregnancy)

Selected Delivery Place	F	%
Public Hospital	25	33
Private Hospital	48	64
Home Birth through midwives / Tradition women	02	03
<b>Total</b>	<b>75</b>	<b>100</b>

(Table No. 11) represents the selection delivery place of pregnant women. Almost two third (64%) of the respondents said that their first delivery place was in private hospital. Exactly one third (33%) of the respondents also responded that their first delivery place was in public hospital. While a small ratio (03%) of the respondents said that first delivery place was in home birth through midwives / tradition women before that pregnancy.

**Figure 11.** Graphical representation of place of first delivery of the pregnant women regarding Tetanus Toxoid vaccine knowledge.



### Awareness of tetanus toxoid immunization by the respondents

**Table No. 12.**

Demographic analysis of the respondents’ view according to hearing tetanus toxoid vaccine during Pregnancy:

Heard of the Tetanus Toxoid vaccine during	f	%
--	---	---

Pregnancy		
Yes	300	100
No	---	---
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 12) shows respondents' knowledge about Tetanus Toxoid vaccine. All respondents (100%) have responded that they have heard about Tetanus Toxoid vaccine during pregnancy.

**Figure 12.** Graphical representation of hearing Tetanus Toxoid Vaccine by the pregnant women.



**Table No. 13.**

Demographic analysis of the respondents' view regarding the sources of knowledge about the usage of Tetanus Toxoid vaccination:

Sources of knowledge	f	%
Television	69	23
Radio	03	01
Newspaper	10	03
Members of family / Friends	71	24
Health Practitioner	144	48
Others	03	01
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 13) is showing the sources of knowledge of about the usage of Tetanus Toxoid vaccination of the pregnant women. Almost one and half (48%) respondents said that they have come to know about Tetanus Toxoid vaccination from health practitioner. Nearby one fourth (24%), (23%) respondents said that they have come to know about Tetanus Toxoid vaccination from their members of family / friends, television. While a small ratio (03%) and (01%) said that they have come to know about Tetanus Toxoid vaccination from newspaper, radio and others side.

**Figure 13.** Graphical representation of the sources of knowledge of the pregnant women about the usage of Tetanus Toxoid vaccine.



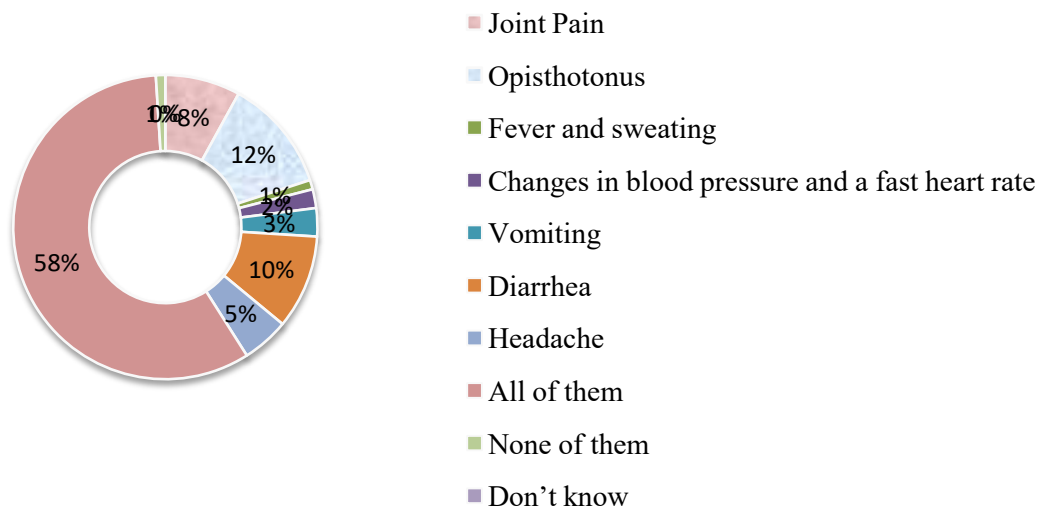
**Table No. 14.**

Demographic analysis of the respondents' view regarding the knowledge about the signs & symptoms of the tetanus vaccine:

Signs & symptoms of the Tetanus vaccine	F	%
Joint Pain	24	08
Opisthotonus	36	12
Fever and sweating	03	01
Changes in blood pressure and a fast heart rate	06	02
Vomiting	09	03
Diarrhea	30	10
Headache	14	05
All of them	175	58
None of them	03	01
Don't know	---	---
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 14) represents the knowledge of pregnant women about the signs & symptoms of the Tetanus disease. A huge majority (58%) of the respondents said that signs & symptoms of the tetanus disease are all those which are mentioned above. While a small ratio (12%), (10%), (08%), (05%), (03%), (02%) and (01%) of the respondents said that signs & symptoms of the tetanus disease are Opisthotonus, Diarrhea, Joint Pain, Headache, Vomiting, Changes in blood pressure and a fast heart rate, Fever and sweating and very rare respondents responses that they have no knowledge about that.

**Figure 14.** Graphical representation of the knowledge about the Signs & Symptoms of the tetanus vaccine.



**Table No. 15.**

Demographic analysis of the respondents' view regarding Tetanus vaccine is one of preventable vaccines among the Expended Program for Immunization:

Tetanus is one of preventable vaccines among the Expended Program for Immunization	F	%
Yes	300	100
No	---	---
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 15) shows knowledge about the respondents regarding the prevention of Tetanus Toxoid vaccines is preventable vaccines among the Expended Program for Immunization. All respondents (100%) have responded that Tetanus Toxoid vaccines are preventable vaccines among the Expended Program for Immunization.

**Figure 15.** Graphical representation of age wise of the pregnant women regarding Tetanus Toxoid vaccine knowledge.



**Table No. 16.**

Demographic analysis of the respondents' views about the utilization of Tetanus Toxoid vaccination in pregnancy:

<b>Knowledge about the utilization of Tetanus Toxoid vaccination in pregnancy</b>	<b>f</b>	<b>%</b>
Before pregnancy	95	32
During pregnancy	134	45
After pregnancy	37	12
All of them / Any time	34	11
Don't Know	---	---
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 16) represents the knowledge of the respondents regarding the utilization of Tetanus Toxoid vaccination. A huge majority (45%) of the respondents said that it is utilized during pregnancy. Almost one third (32%) of the respondents said that Tetanus Toxoid vaccination is utilized before pregnancy. While a small ratio (12%) and (11%) of the respondents said that Tetanus Toxoid vaccination is utilized after pregnancy and All of them / any time.

**Figure 16.** Graphical representation of the pregnant women regarding having knowledge about the utilization of Tetanus Toxoid vaccine.



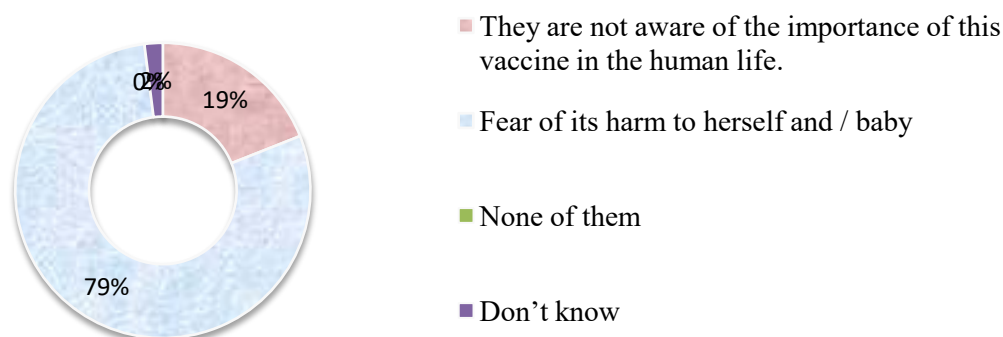
**Table No. 17.**

Demographic analysis of the respondents' view about the illiterate pregnant women's thinking, who have not received Tetanus toxoid vaccine during Pregnancy:

<b>Main reasons for not receiving TT immunization during pregnancy of illiterate woman</b>	<b>F</b>	<b>%</b>
They are not aware of the importance of this vaccine in the human life.	57	19
Fear of its harm to herself and baby	237	79
None of them	---	---
Don't know	06	02
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 17) shows main reasons for not receiving Tetanus Toxoid vaccine during pregnancy of the illiterate women. A huge majority (79%) of the respondents said that mostly pregnant illiterate women did not want to receive the Tetanus Toxoid vaccine due to fear of its harm to herself and baby. Almost one fifth (19%) respondents said that mostly illiterate pregnant women are not aware of the importance of Tetanus Toxoid vaccine in their life. While only (02%) respondents responded that they have no knowledge about it.

**Figure 17.** Graphical representation of the main reasons for not receiving Tetanus toxoid immunization during pregnancy of illiterate women



### Respondents' response about tetanus toxoid (TT) immunization

**Table No. 18.**

Demographic analysis of the respondents' view according to those who have received Tetanus toxoid vaccine during Pregnancy:

Have you received TT Vaccine	f	%
Yes	300	100
No	---	---
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 18) represents the pregnant women's response regarding they have received Tetanus toxoid vaccine during Pregnancy or not. All respondents (100%) have responded that they have received Tetanus toxoid vaccine during Pregnancy.

**Figure 18.** Graphical representation of those who have received Tetanus toxoid vaccine during Pregnancy



**Table No. 19.**

Demographic analysis of the respondents' view according to receive how many Tetanus toxoid vaccines are required during pregnancy: (if they have received)

How many TT doses required during pregnancy	f	%
Only TT1 (First dose)	---	---
TT2 (Second doses)	---	---

TT3(Third dose)	---	---
TT4(Fourth dose)	06	02
TT5(Fifth dose)	294	98
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 19) shows that how many Tetanus Toxoid vaccines are required during pregnancy. A huge majority (98%) of the respondents said that five doses are required during pregnancy. while a small ratio (02%) of the respondents said that four doses are required during pregnancy for whole life.

**Figure 19.** Graphical representation of receiving Tetanus Toxoid vaccine by the pregnant women.



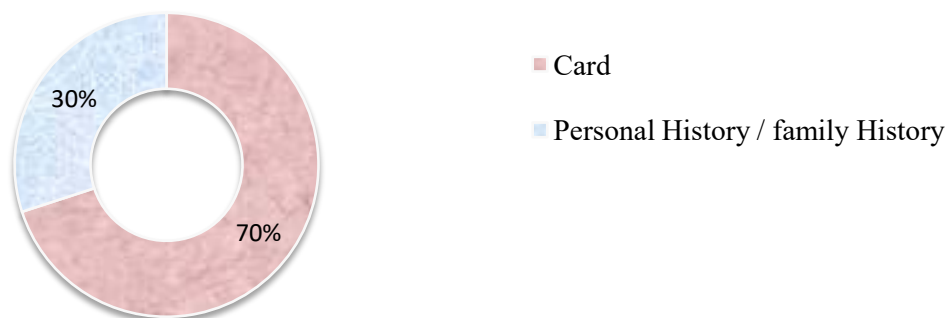
**Table No. 20.**

Demographic analysis of the respondents' view according to their source of Tetanus toxoid vaccine during Pregnancy: (after checking her record)

Source information on vaccination	F	%
Card	210	70
Personal History / family History	90	30
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 20) represents the source of knowledge of the respondents regarding Tetanus toxoid vaccine. A huge majority (70%) of the respondents said that someone can get accurate information about Tetanus Toxoid vaccines from herself through card. Almost one third (30%) of the respondents said that someone can get accurate information about Tetanus Toxoid vaccines from herself through herpersonal history / family history.

**Figure 20.** Graphical representation of source of Tetanus toxoid vaccine during pregnancy.



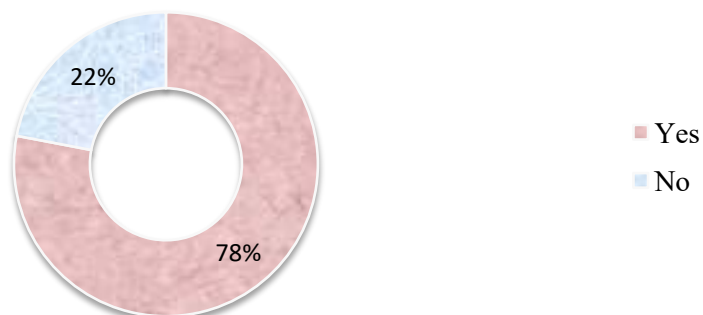
**Table No. 21.**

Demographic analysis of the respondents' view according to their knowledge regarding the benefits of tetanus vaccine:

Are you well aware of the benefits of tetanus vaccine	f	%
Yes	234	78
No	66	22
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 21) shows awareness about the benefits of Tetanus Toxoid vaccine among the pregnant women. A huge majority (78%) of the respondents said that they have known about the benefits of Tetanus Toxoid vaccine while only (22%) of the respondents said that they have no knowledge about the benefits of Tetanus Toxoid vaccine.

**Figure 21.** Graphical representation of knowledge regarding the benefits of tetanus vaccine.



**Table No. 22.**

Demographic analysis of the respondents' view according to their knowledge regarding the benefits of tetanus vaccine:

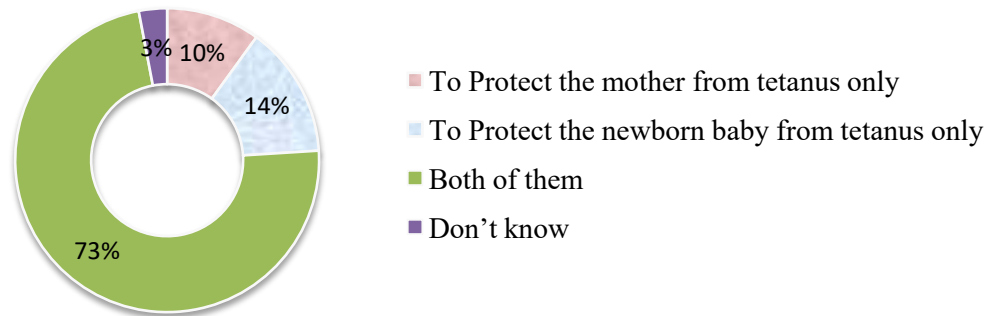
Benefits of tetanus vaccine	F	%
To Protect the mother from tetanus only	24	10
To Protect the newborn baby from tetanus only	33	14
Both of them	171	73



Don't know	06	03
<b>Total</b>	<b>234</b>	<b>100</b>

(Table No. 22) represents the knowledge of pregnant women regarding Tetanus Toxoid vaccine. A huge majority (73%) of the respondents said that Tetanus Toxoid vaccine protect the mother and the baby (Both of them) from Tetanus disease. While a small ratio (14%) and (10%) of the total respondentssaid that Tetanus Toxoid vaccine protects the newborn baby from tetanus only and also protects the mother from tetanus only. While only (03%) respondents of the total have no knowledge about it.

**Figure 22.** Graphical representation of knowledge regarding the benefits of tetanus vaccine.



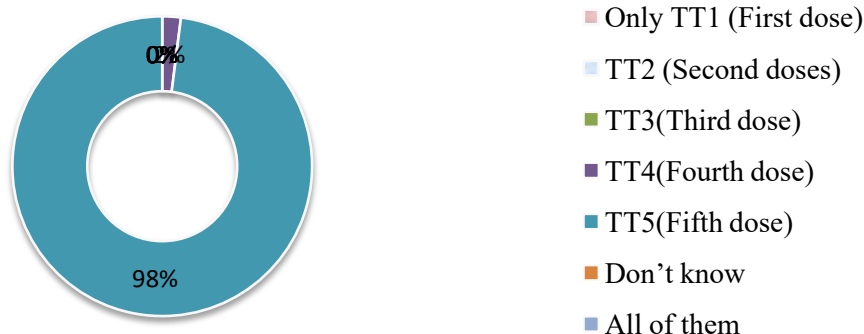
**Table No. 23.**

Demographic analysis of the respondents' view according to the receiving number of Tetanus toxoid vaccine doses that protect pregnant ladies from tetanus disease the whole life.

Number of dose(s) of TT immunization that offer(s) protection from tetanus for life	F	%
Only TT1 (First dose)	---	---
TT2 (Second doses)	---	---
TT3(Third dose)	---	---
TT4(Fourth dose)	06	02
TT5(Fifth dose)	294	98
Don't know	---	---
All of them	---	---
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 23) represents the number of pregnant women, which have viewed that how many Tetanus toxoid vaccines doses protect the pregnant ladies from tetanus disease. A huge majority (98%) of the respondents said that Tetanus Toxoid vaccine (fifth dose)protects the pregnant ladies from tetanus disease, while only (02%) respondents said that Tetanus Toxoid vaccine (fourth dose)protects the pregnant ladies from tetanus disease.

**Figure 23.** Graphical representation of the receiving number of Tetanus toxoid vaccine doses that protect pregnant ladies from tetanus disease the whole.



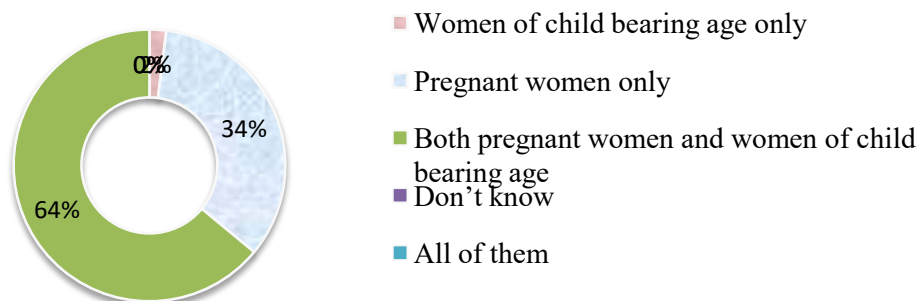
**Table No. 24.**

Demographic analysis of the respondents' view regarding receive the number of Tetanus toxoid vaccine doses that protect pregnant ladies from tetanus disease from whole life.

Group of women for which TT immunization is recommended	f	%
Women of child bearing age only	06	02
Pregnant women only	101	34
Both pregnant women and women of child bearing age	193	64
Don't know	---	---
All of them	---	---
<b>Total</b>	<b>300</b>	<b>100</b>

(Table No. 24) represents the knowledge of respondents regarding the receiving number of Tetanus toxoid vaccine doses that protect pregnant ladies from tetanus disease from whole life. A huge majority (64%) of the respondents said that Tetanus Toxoid vaccine protects both the pregnant women and women of child bearing age. Secondly near about one third (34%) of the respondents said that tetanus vaccine protects only pregnant women. While only (02%) respondents of the total said that tetanus vaccine protects women of child bearing age only.

**Figure 24.** Graphical representation of the receiving number of Tetanus toxoid vaccine doses that protect pregnant ladies from tetanus disease the whole



## Results and Discussion:

Tetanus toxoid vaccine is one of the major members of EPI family, which plays a vital role in the life of mother and baby's life to save their life from threatening disease. In the study area, it has been observed that a huge majority of the respondents are literate young Muslims and they are living a normal life with their families. Almost two third of the respondents said that it is their first pregnancy, while the remaining one third respondents, who give views about their first babies (where were they born/deliver). Almost two third (64%) of the respondents said that their first delivery place was in private hospital as they considered as a safe delivery place comparatively public hospitals. The second phase of the study is respondents' knowledge about Tetanus Toxoid Vaccine. All respondents (100%) said that they have responded that they have heard about Tetanus Toxoid vaccine and its signs & symptoms through different sources during their Pregnancy. While they show multiple signs & symptoms of Tetanus disease like: (Joint pain, Opisthotonus, Fever and Sweating, Changes in blood pressure and a fast heart rate, Vomiting, Diarrhea and Headache etc.) and also said that Tetanus Toxoid is one of preventable vaccines among the Expanded Program for Immunization (EPI) and a huge majority responded that it is utilized during pregnancy. While almost three fourth illiterate pregnant women have not received Tetanus toxoid vaccine during pregnancy due to fear of its harm to theirs and babies. The third phase of the study depends on respondents' response about tetanus toxoid vaccine received. All respondents (100%) have responded that they have received Tetanus toxoid vaccine during pregnancy and this information has been collected by two sources:

- 1) Card
- 2) Personal history / family history

A huge majority (70%) of the respondents said that they have come to know about the pregnant ladies Tetanus Toxoid vaccines record through their card. While a huge majority (78%) of the respondents have responded that they are well aware of the benefits of Tetanus Toxoid Vaccine. In the respondents' view regarding it benefits. A huge majority (73%) of the respondents responded that Tetanus Toxoid Vaccine protects both (the mother and the newborn baby) from Tetanus disease. While almost all (98%) respondents give comments that five doses of Tetanus Toxoid Vaccine protect pregnant ladies from tetanus disease the whole life, which includes both pregnant and mothers.

## Conclusion:

Tetanus toxoid vaccine is not only benefited for the infant but also for mother because it reduces many diseases from their lives (like Tetanus, Joint Pain, Opisthotonus, Fever and sweating, Changes in blood pressure and a fast heart rate, Vomiting, Diarrhea and Headache etc.). Pakistan is an Islamic country and according to the Islamic laws every human has equal rights but mostly women have no equal rights as the men have in our society as Islam teaches us. So due to this thing, it still stands in the list of under-developed countries. Its worst example has been seen in our society that Immunization rate for maternal Tetanus toxoid vaccine is lower than other developed countries. Its main reason is behind that there are lack of awareness, high illiteracy rate and low accessibility & misconception regarding immunizations. **“These issues should be pointed out at provisional level so that any significant progress related to maternal neonatal tetanus elimination could be made in blue and black shape”.**

## Recommendation:

In the light of findings, some recommendations are mentioned below through which we enhance the knowledge of pregnant women about Tetanus Toxoid vaccination so that we can reduce this social problem from the society because a mother is the first educational institution of every human being. So for this, we should care the mothers along their babies.

1. Govt. should provide economic incentives for pregnant mothers, so that they can come to health centers for the vaccination of Tetanus Toxoid vaccination without any advertisement.
2. Health education should be given to pregnant women through lady health visitor (LHV) regarding Tetanus Toxoid vaccination, when they come for check up to Basic Health Unit / Rural Health Center.
3. The quality of knowledge of the pregnant mothers would be improved through media other stakeholders about Tetanus Toxoid vaccination, so that they can get maximum benefits from Tetanus Toxoid vaccination during pregnancy.
4. There should be practical training on the importance of the Tetanus Toxoid vaccination workshops conducted by lady health workers (LHWs) on community level.
5. Sensitization on healthy living should be presented in health facilities during antenatal care visits to help out the pregnant mothers so that they can understand the importance of Tetanus Toxoid vaccination in her life.

## Reference:

1. Asim, M., Malik, N., Yousaf, H., Gillani, I., & Habib, N. (2012). An assessment of parental knowledge, belief and attitude toward childhood immunization among minorities in rural areas of district Faisalabad, Pakistan. *Mediterranean Journal of Social Sciences*, 3(11), pp. 153-159.
2. Alex-Hart, B. A., & Okoh, B. A. N. (2015). Awareness and status of tetanus toxoid vaccination among female undergraduate students in a Nigerian University. *Int J Trop Dis Health*, 7(1), pp. 6-15.
3. Belihu, K. D., Tesso, F. Y., & Woldetsadik, T. D. (2017). Dropout Rate of Tetanus Toxoid Immunization and Associated Factors among Reproductive Age Group of Women in Debrebirhan Town, Amhara Region, Northern Ethiopia. *J Women's Health Care*, 6(390), 2167-0420.
4. Thwaites, C. L., Beeching, N. J., & Newton, C. R. (2015). Maternal and neonatal tetanus. *The lancet*, 385(9965), pp. 362-370.
5. Khan, R., Vandelaer, J., Yakubu, A., Raza, A. A., & Zulu, F. (2015). Maternal and neonatal tetanus elimination: from protecting women and newborns to protecting all. *International journal of women's health*, 7, 171.
6. Facha, W., Yohannes, B., & Duressa, G. (2018, January). Tetanus Toxoid Vaccination Coverage and Associated Factors among Pregnant Women in Duguna Fango District, Southern Ethiopia. *International Journal of Health Sciences & Research*, 8(1), pp. 148-154.
7. Fischer, G. W., Ottolini, L. C. M. G., & Mond, C. J. J. (1997). Prospects for vaccines during pregnancy and in the newborn period. *Clinics in perinatology*, 24(1), pp. 231-249.