Awareness & Compliance of IP Practices Amongst Healthcare Professionals of Private SHCOS In Kota

By

Mitasha Gupta

Dissertation submitted in partial fulfillment of the requirements of the degree

MBA Hospital and Health Management

Academic year, 2018-2020

The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: **www.iihmr.edu.in**

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Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: **www.iihmr.edu.in**

HLFPPT
Partners for Better Health

Certificate of completion of Internship/dissertation

The certificate is awarded to

Name Ms. Mitasha Gupta

In recognition of having successfully completed her Internship in the department of

Social Franchising

and has successfully completed her Project on

Awareness & Compliance of Infection Prevention Practices amongst healthcare professionals of private Small Healthcare Organization in Kota

From 08th February 2020

Hindustan Latex Family Planning Promotion Trust

She comes across as a committed, sincere & diligent person who has a strong drive and zeal for learning

We wish her all the best for future endeavors.

Sr. Programme Manager

Pankhuri Rai
Dr. Pankhuri Rai

National Manager-HR & OD

Mr. Satish Chandra Uniyal

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Mitasha Gupta

MBA Hospital and Health Management

IIHMR, University Jaipur

Introduction

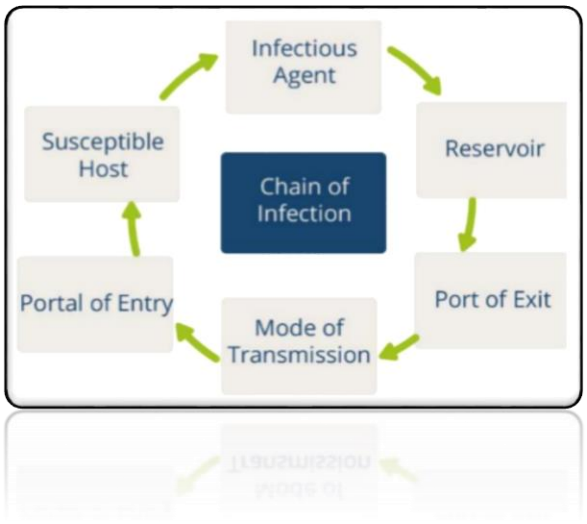
Infection prevention and control (IPC) is most important factor in health care system. It helps our health workers to remain safe from any exposure or affected by any diseases. Prevention form infection helps us to reduce from high risk infection, reduce cost, maintain quality of health system thus lead to improve in our health. Prevention from human acquires disease is most important. To become free from avoidable infection and safer out health care workers are working to improve practice and behaviour of our health system.

In health system contamination and infection play major role in morbidity and mortality. Health care workers are at higher risk from needle stick injury because to get affected directly by needle.

Standard guideline for precaution from infection are made for health care workers for being directly exposed from body fluids and from blood by following proper rules of infection prevention by washing hands , and mainly by using PPE kit.

If all the safety measure should be practised by health care providers in safely manner and can help patient to cure fast as well as making them secure than patient as well has health system can utilize more in new technique and procedures.

Many studies have resulted that poor information and lack of knowledge to health care providers about infection prevention and control.



Chain of transmission of infection -

- For spreading infection chain of network of spreading infection is must.
- Breaking of any one of the chain in cycle can stop spreading of infection.

Hand Hygiene Practice

- One of the best way to stop spreading of infection is washing hands regulary.
- Our hands plays important role in stopping the spreading of infection by breaking the chain.

Hand washing Can remove around half of infection and is best method to stop spreading of disease. Alcohol based sanitizers are used which remove around 70% of infection and help in breaking of chain.,

Elements of standard precautions

- Hand Hygiene Steps
- PPE (Personal Protective Equipments)
  - Hand Gloves
  - Gowns
  - Face Mask
- Respiratory hygiene
- Patient care equipment and instrument/devices
- Care of environment
- Linen and laundry
- Safe injection practices

Study Area- Health care providers of Small health organisations of Kota.

Literature Review

A.W. Helfgott, et.al. (1998)

In their examination consistence with standard safety measure. Information and conduct of occupant's understudy in branch of obstetrics and gynaecology saw that information with respect to standard safeguard was almost 100%, while by the large watched consistence was just 89%. Consistence with standard insurance was better among under studies than among inhabitants. consistence with standard precautionary measure was contrarily identified with long period of experience. Method for reasoning for absence of consistence with standard insurance evoked by survey included time limitations (64%), Burden (54%) and assumption that patient is not tainted (34%)

Hugo Sax.., Thomas Perneger. E.t. al (2001)

This examination is directed to survey degree of information and mentality towards standard and confinement safety measures among human services laborers in university of Geneva hospitals, Switzerland. An example of 1500 edical care taker and 500 doctors in he shping emergency clinic the greater part furnishes right response to at least 10 out of 13 information type questions/ the accompanying explanation behind rebelliousness with rules were decided as "significant" . Absence of information (47%) , Absence of time(42%), neglect(39%)/ for doctors and medical servive providers in senior level, lsck of time and lack of communication is most significantly affected.

Wilson E. Sadoh, Adeniran O. Fawole, et al(2003)

In this study "practice of universal standard precautions among healthcare workers conducted in Abeokuta metropolis, Ogun State, Nigeria said that out of 435 about a third of all respondents always recapped used needles. Compliance with non-capping of use needles was highest among trained nurses and worst with doctors. Less than one fourth of respondents (56.5%) had never worn goggles during deliveries and at surgeries. The provision of sharps containers and screening of transfused blood by the institution studied was uniformly high.

Rationale of the Study

Hospital going for pre entry level NABH, So this study was designed to investigate level of standard precautions and identify the behavioural determinants for safe and unsafe practice. The proposed study would have a significant input in identifying and improving the pattern of standard precautions at the health facility level in the study area and beyond.

Research objective

- To investigate their practice towards standard precautions.
- To identify specific areas that may need further attention in the continuing education of healthcare workers.
- To study different types of IP practices in a private small healthcare organization

- **Research Design**

  - **Study Design-** Descriptive, Cross sectional Study.
  - **Duration-** 3 months
  - **Type of data –** quantitative
  - **Data collection procedure** – Structured, Self-Administered Questionnaire
  - **Sample Area –** SHO's of Kota
  - **Data entry-** Manually.
  - **Data Analysis-** Using Bar Charts, Pie charts in MS Excel, Google forms.
  - **Sample Technique** – Convenience Sampling
  - **Sample Size** – 50

Structure of questionnaire

Questionnaire has mainly 5 sections

- Section A carries general awareness about Covid -19
- Section B carries Knowledge about PPE
- Section C carries Hospital infection program in hospital
- Section D carries awareness about Carrying blood contaminated Clothes**.**

Layout of questionnaire

Initially, questionnaire comprise some questions nominal questions of demographic data. i.e on Age, Sex . Profession and year of experience.

Section A

This section comprise of general awareness about Covid-19 . questions in this section are close ended questions.

Section B

The section contained questions which sought to ascertain the level of knowledge about the PPE . A 5 pointer Likert scale with anchors ' strongly agree , agree , not sure , disagree and strongly disagree' was used to assess the knowledge of PPE among healthcare workers in SHO's of KOTA.

Section C

The section contained questions which sought to ascertain the level of Awareness about HIC program in hospital. A 5 pointer Likert scale with anchors ' strongly agree , agree , not sure , disagree and strongly disagree' was used to assess Awareness about HIC program among healthcare workers in SHO's of KOTA.
It comprised questions on the level of adherence about Awareness about handling blood contaminated clothes. A 5 pointer Likert scale with anchors " Always , usually , sometimes , Seldom and never was used to assess Awareness about handling blood contaminated clothes among healthcare workers in SHO's of KOTA.

Demographical data

Age	
<20	1
21-30	42
30<	7

Profession	
Doctor	14
Nurses	9
Supportive Staff	27

Area of practice	**.> 1 year**	**1-3 years**	**3 < years**	**Total**
Doctor	5	4	5	14
Nurse	1	4	4	9
Supporting Staff	11	10	6	27

Gender	**Doctors**	**Nurse**	**Supporting Staff**	**Total**
Female	11	5	13	29
Male	3	4	14	21

SECTION A – GENERAL AWARENESS

Ques 1 - Who is at risk of infection due to corona:

	Doctors	Nurse	Others	Total
Politician	**0**	**0**	**0**	**0**
Teachers	**0**	**0**	**0**	**0**
Doctors	**2**	**1**	**2**	**5**
Everyone	**12**	**8**	**25**	**45**

Interpretation-

Results shows that almost all HCW's were aware of risk of infection due to corona.i.e. 90% of them are aware of it and 10% OF HCW's still required awareness on it.

Ques 2 - Who is responsible to fight against Covid-19

	Doctor	Nurse	Others
Ministry of India	**0**	**0**	**0**
Administration of India	**0**	**0**	**0**
Health workers of India	**0**	**1**	**0**
Everyone	**14**	**8**	**27**

Interpretation-

Results shows the almost 99% of HCW'S are well aware that we all are responsible to fight against Covid-19.

Ques -3 How do we protect us from Infection prevention and Control?

	Doctors	Nurse	Other
By Protecting Everyone	14	8	27
By Protecting Surrounding and Family	0	1	0

Interpretation –

By analysis it is found that HCW's are well aware that everyone of us must protect ourself, environment, family, friends and community by equal contribution to prevent from infection prevention and control.

Ques 4 -**Which is best way to prevent from Covid-19**

	Doctors	Nurse	Other
Stay home	2	2	3
Social Distancing	4	2	7
All the above	8	5	17

Interpretation-

By the analysis it is found that social distancing and staying at home is the best way to prevent from covid-19. Most of the HCW's are aware and guiding their patient to stay at home and to maintain social distancing during this pandemic.

Ques 5- Which is the best place to visit during Covid-19 pandemic

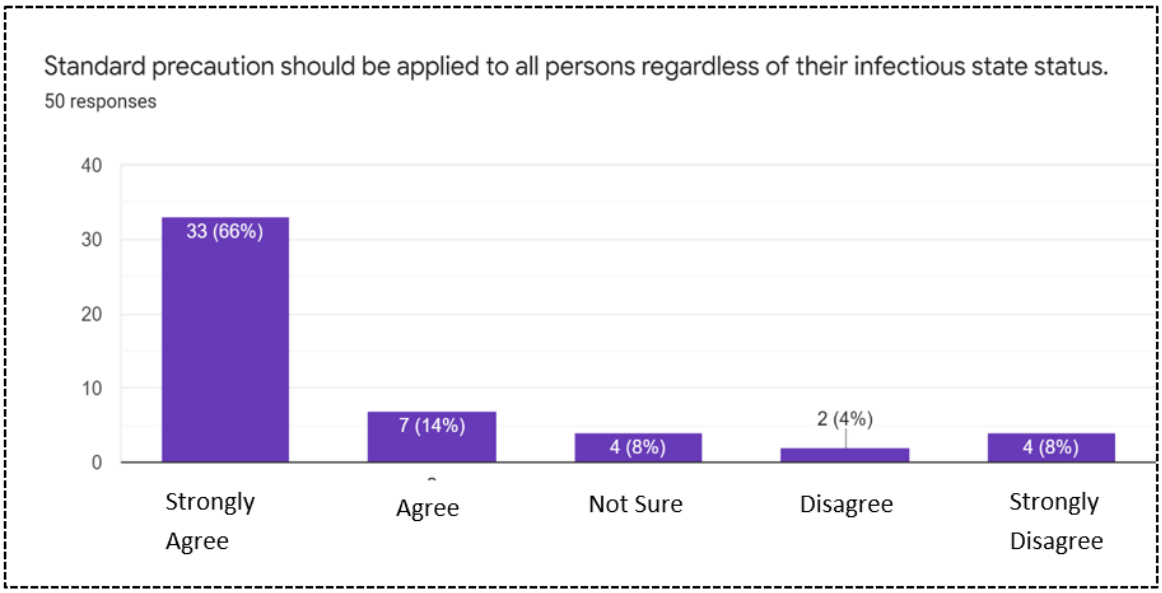
Place	Doctors	Nurse	Other
Home, Market , Public Place	2	2	0
Home	12	7	27

Interpretation-

Results shows that all health workers are aware that staying at home and maintaining social distancing is best way to live during this pandemic.

Section – B (Knowledge On PPE)

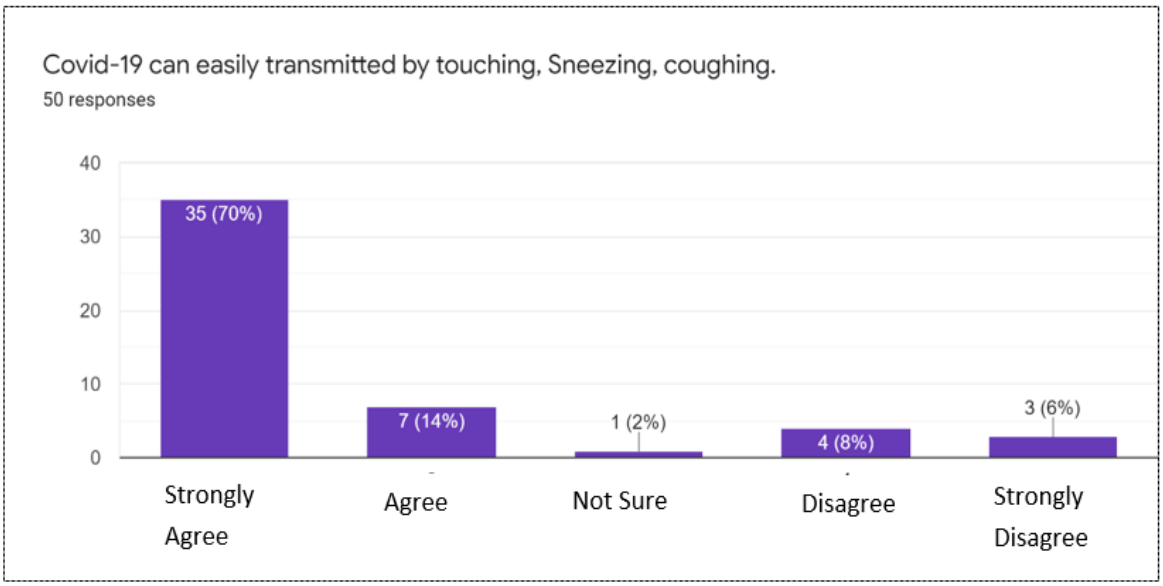
Graph -1



Interpretation-

As per result today also most of the HCW's are not aware about precaution from infection and not followed standards of infection prevention properly .i.e. they are not aware of steps of hand washing.

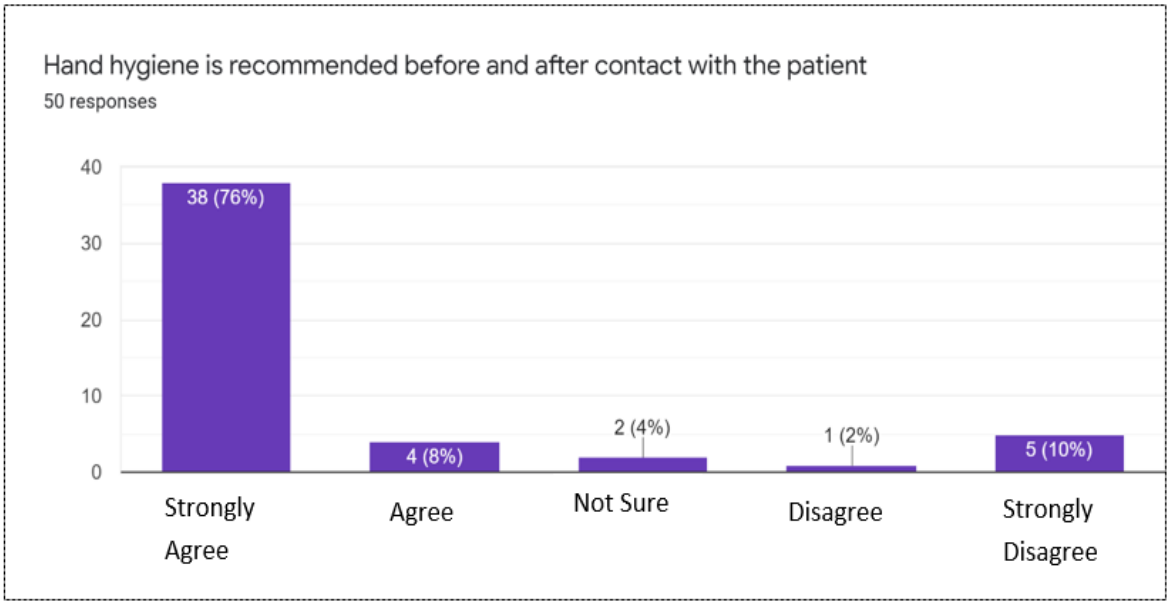
Graph - 2



Interpretation-

HCW have knowledge of the fact that Corona is transmitted through touching , sneezing and coughing mainly but also by doing excessive advertisement and awareness about COVID-19 some 15% of health workers are not aware and also not ready to believe that corona may spread through touching and sneezing.

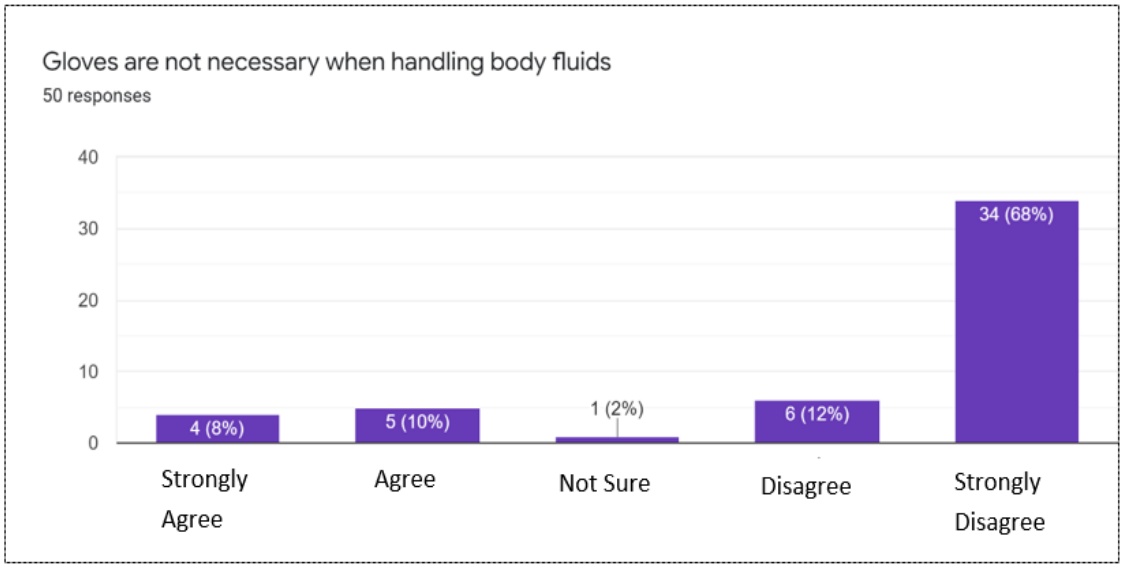
Graph -3



Interpretation-

Graph -4

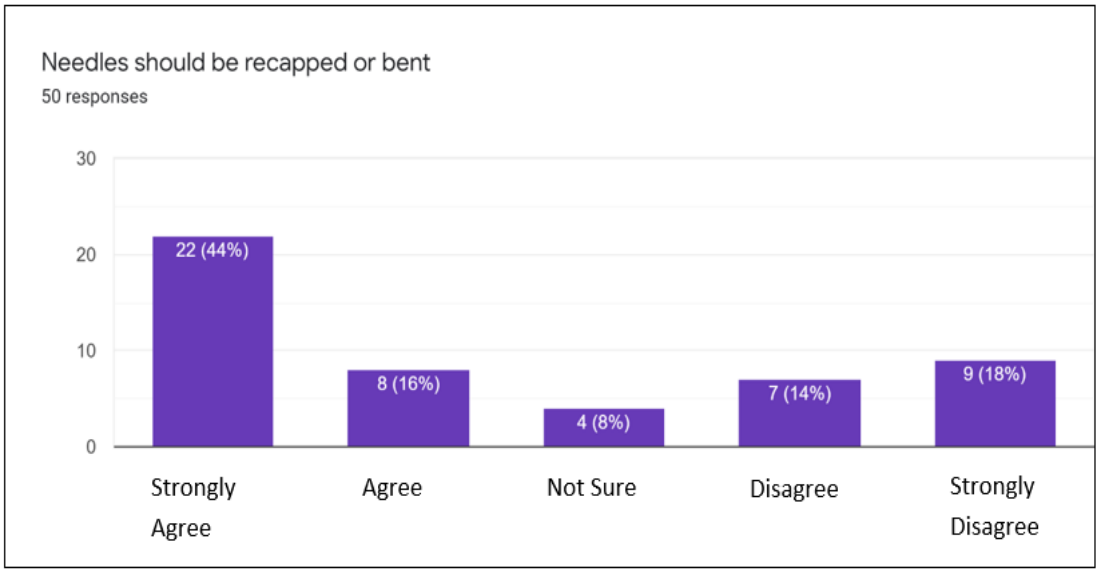
Today also almost 12% HCW's are not agree with the fact that it is important to wash hands always before and after touching patients and 4% of them are not sure because they donot know basic standards of infection prevention and control.



Interpretation-

Graph - 5

Most of HCW's agree that gloves are necessary to handle body fluids but also 18% of them told that body fluids are not necessary to handle by wearing gloves, by using chemicals also body fluids can be handle.

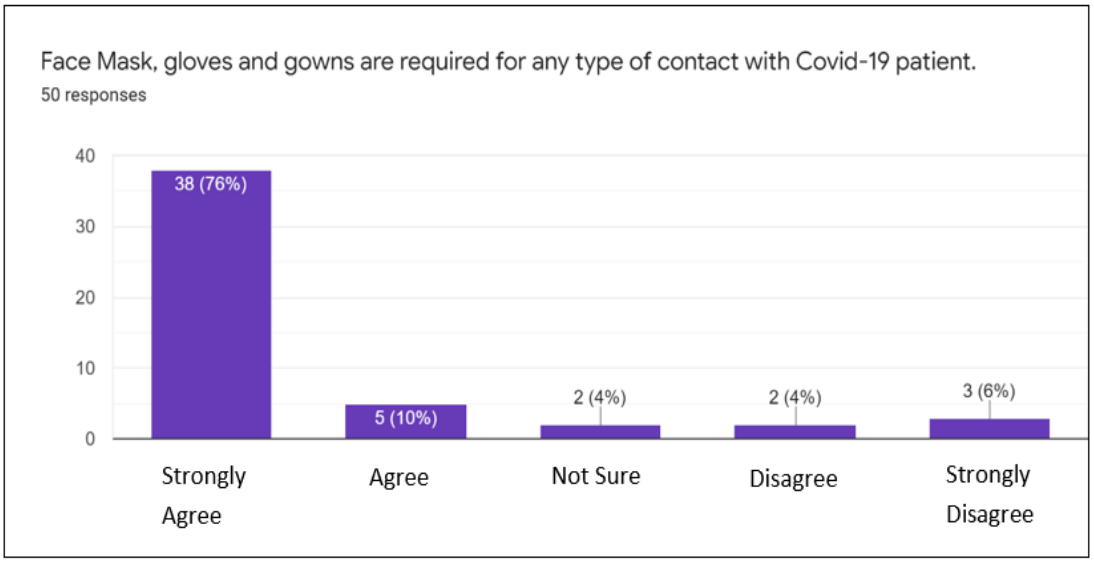


Interpretation-

Around 32% of HCW's are not in favour to recap or bent needles because of having fear of needle stick injury, they avoid to recap or bent after its use. And around 8% of them are those

who sometime recap it and sometime not because they are unaware about needle stick injury and protocols of how to treat NSI.

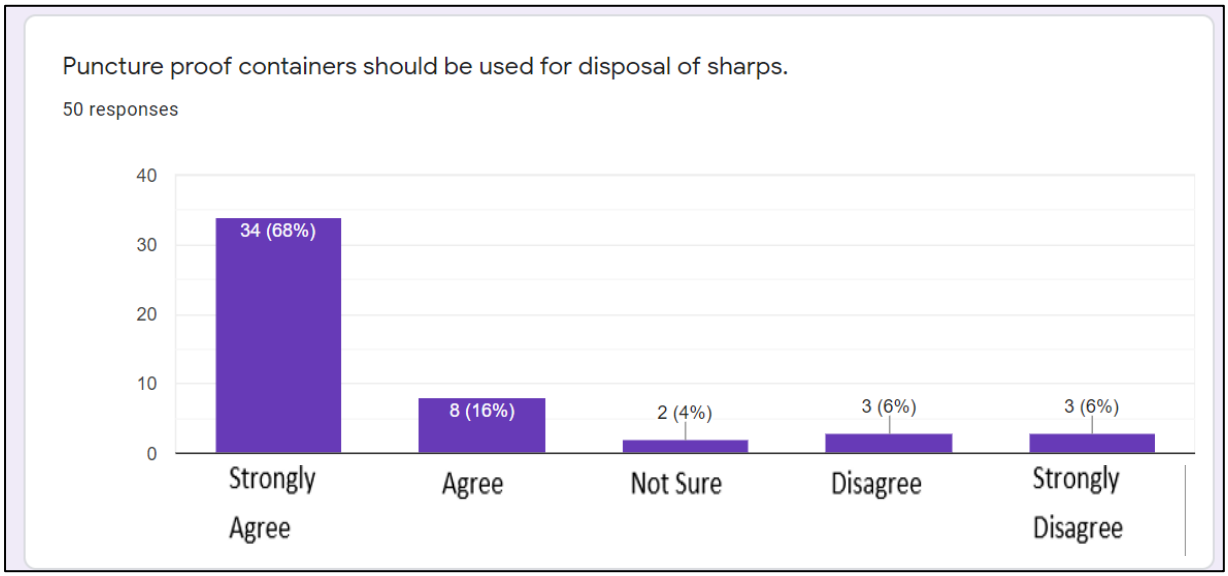
Graph - 6



Interpretation –

As per results 10% of HCW's health workers are not aware of PPE Kit . Because use of PPE

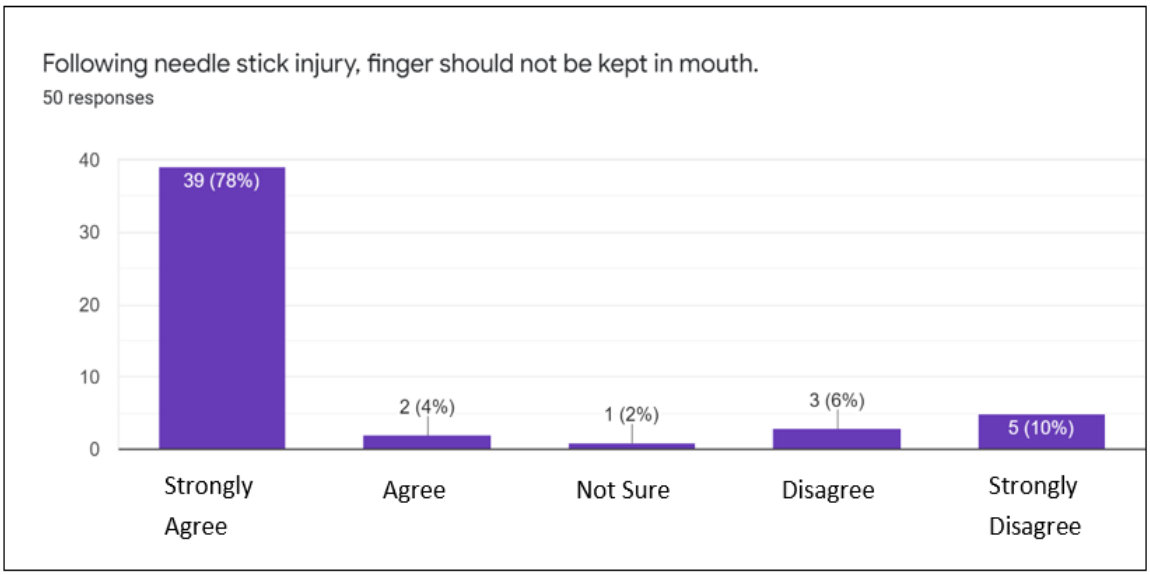
Graph - 7



kit was not done before at this level. And also after having conversation with staff of hospital it if found that they even don't know how to wear and remove PPE equipment safely.

Interpretation- Most of the healthcare workers are aware about disposal of sharps in puncture proof container but again after asking those 12% health workers about disposal of sharps so they said they don't know because doctors are not changing their traditional practice as well as it is not cost effective.

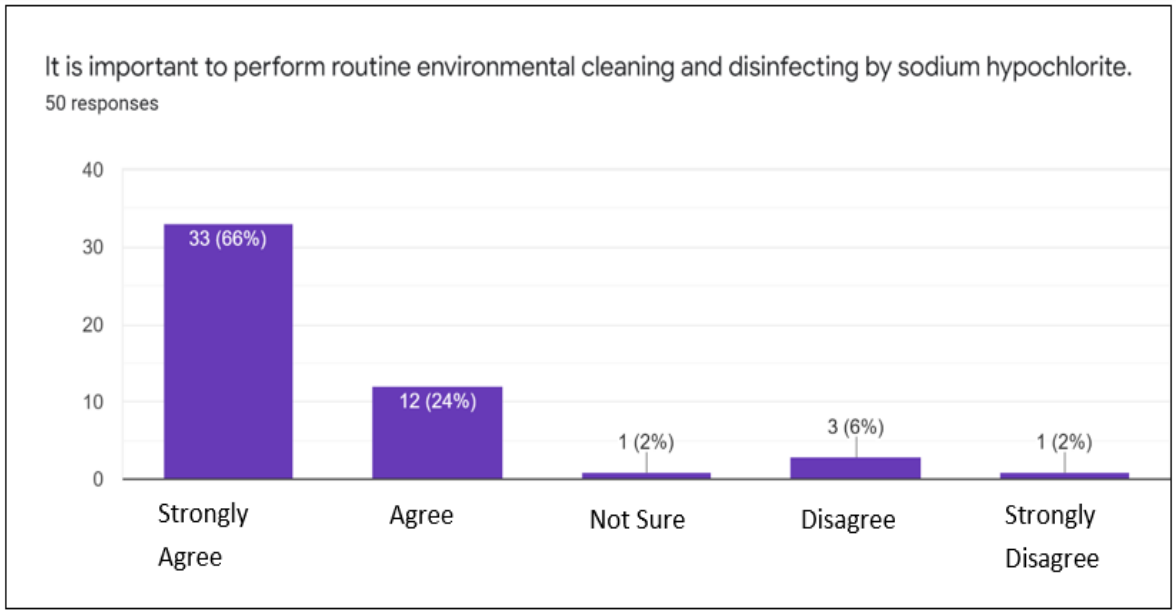
Graph - 8



Interpretation-

By having conversation with HCW's it is found that If they got NSI they mainly use spirit and try to pull out blood by pressing wounded spot or keeping finger in mouth. It is found that around 16% of HCW's are unaware about NSI protocols and how to treat if cause NSI.

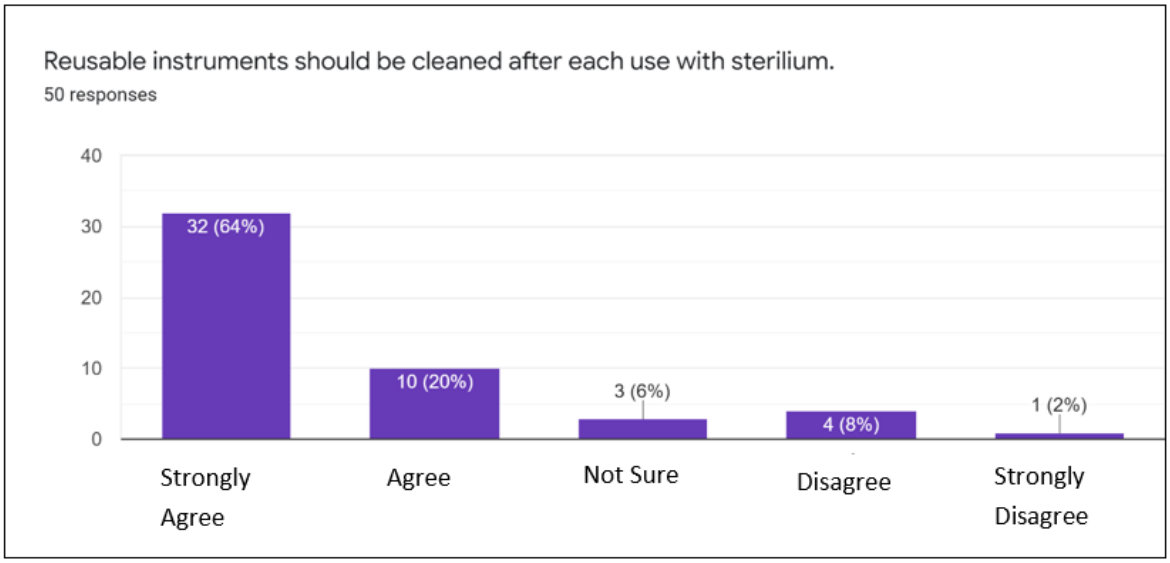
Graph - 9



Interpretation –

HCW's seems to have knowledge about it . Majority of them respond in favour of the statement.

Graph - 10



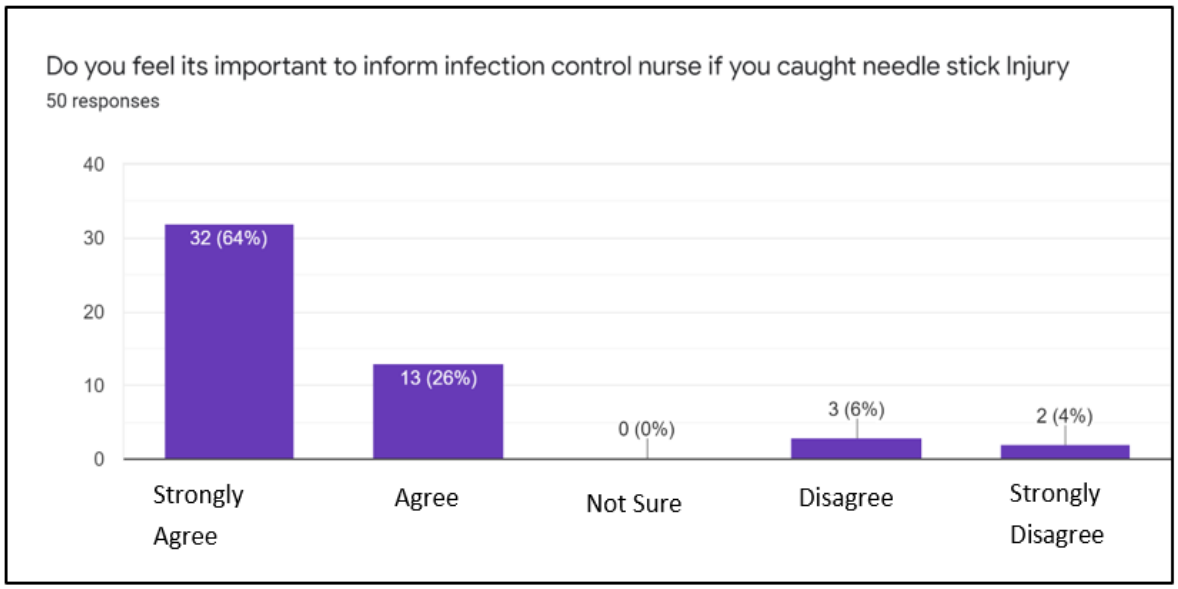
Interpretation –

Majority of HCW's are aware and having knowledge about instruments, that it should be cleaned after using them by doing their proper sterilization .

Health care workers of SHO's of KOTA having great knowledge about autoclaving or sterilization of equipments after every process.

Section C (Awareness about HIC program in hospital)

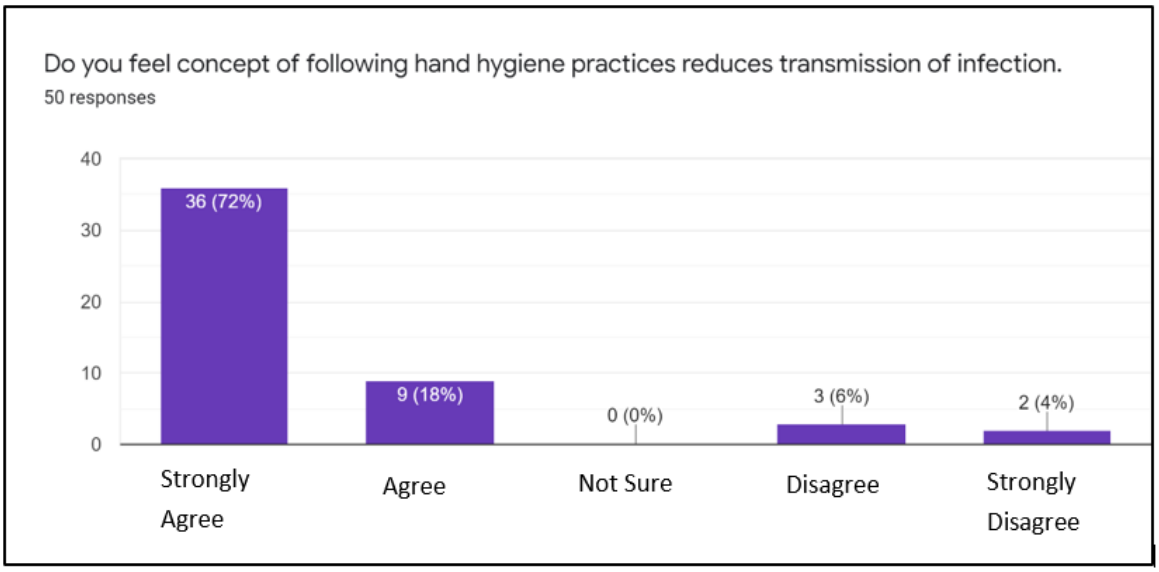
Graph – 01



Interpretation –

Positive knowledge and attitude is reflected by majority of them. But also 10% of them are unaware of NSI as stated above.

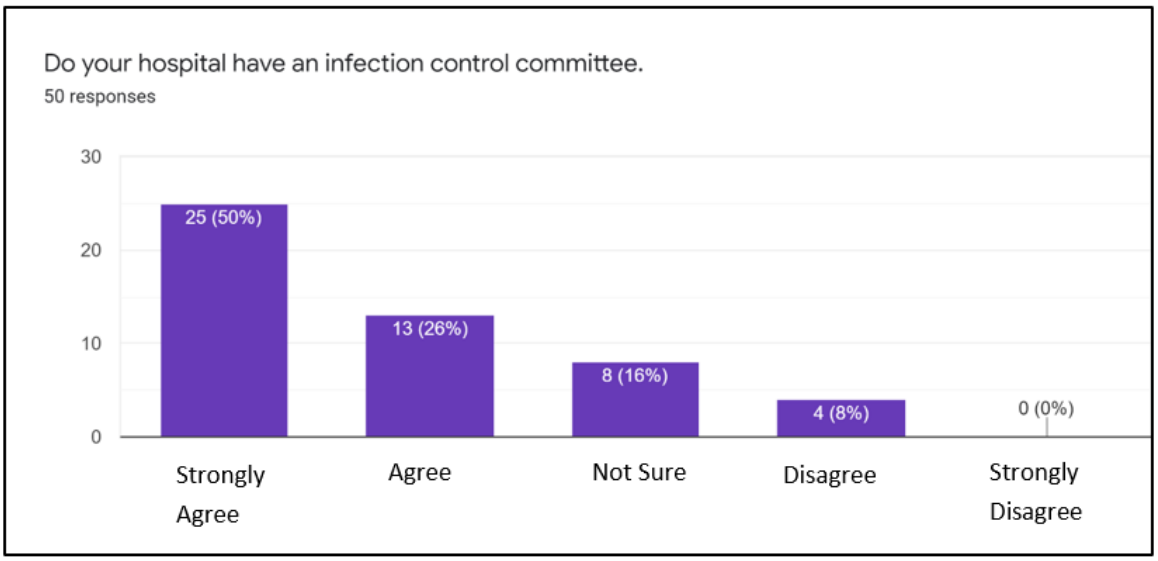
Graph - 02



Interpretation-

Analysis show HCW's believe and practice hand hygiene to reduce transmission of infection they follow in relation to the fact bigger number has shown positive response. But 10% of HCW's are not believing that hand hygiene can reduce infection rate because of myth that if they wore gloves so no need to wash h

Graph - 03

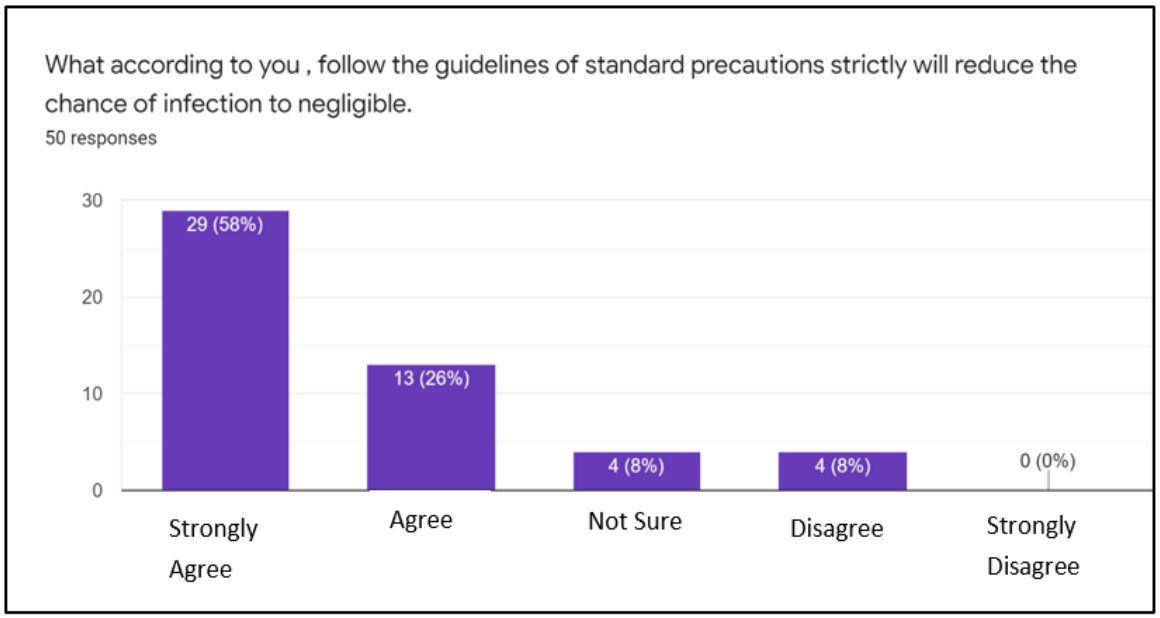


Interpretation – Majority of them show that hospital should have infection control committee but some 24% of them are not agree because they thought that SHO's don't need any type of

committee and they thought that while performing their traditional ways of infection prevention will help them to improve patient

of hospital.

Graph - 04

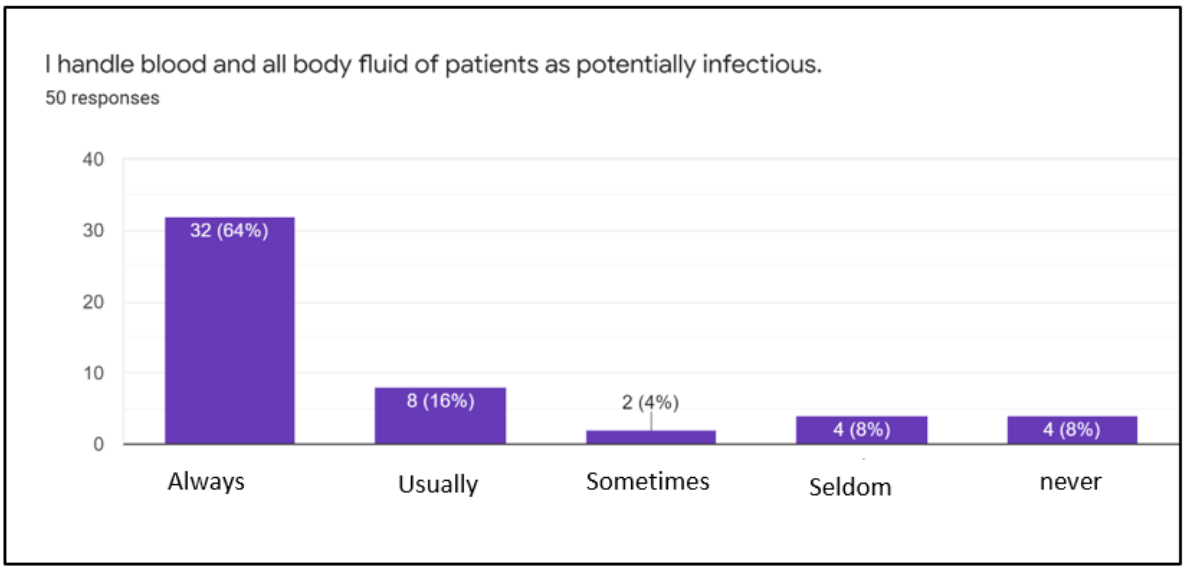


Interpretation –

Awareness and knowledge about guidelines are well seen from the analysis. But also 8% of are not aware of standard precaution to reduce infection and also believe that if something regarding infection happened, they will directly consult doctor without treating it primarily.

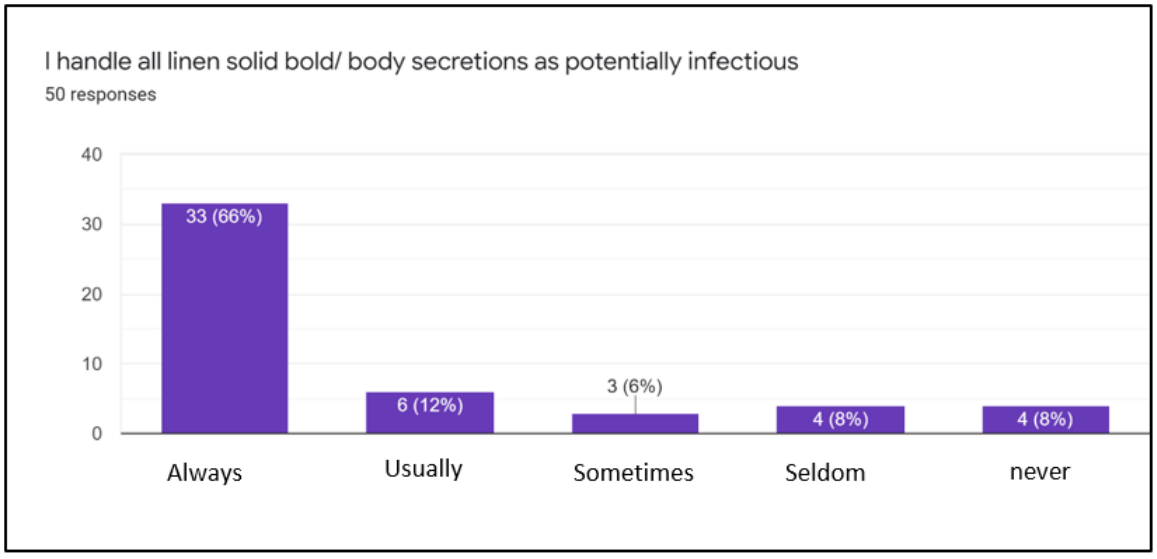
Section D (Awareness about handling blood contaminated clothes)

Graph - 01



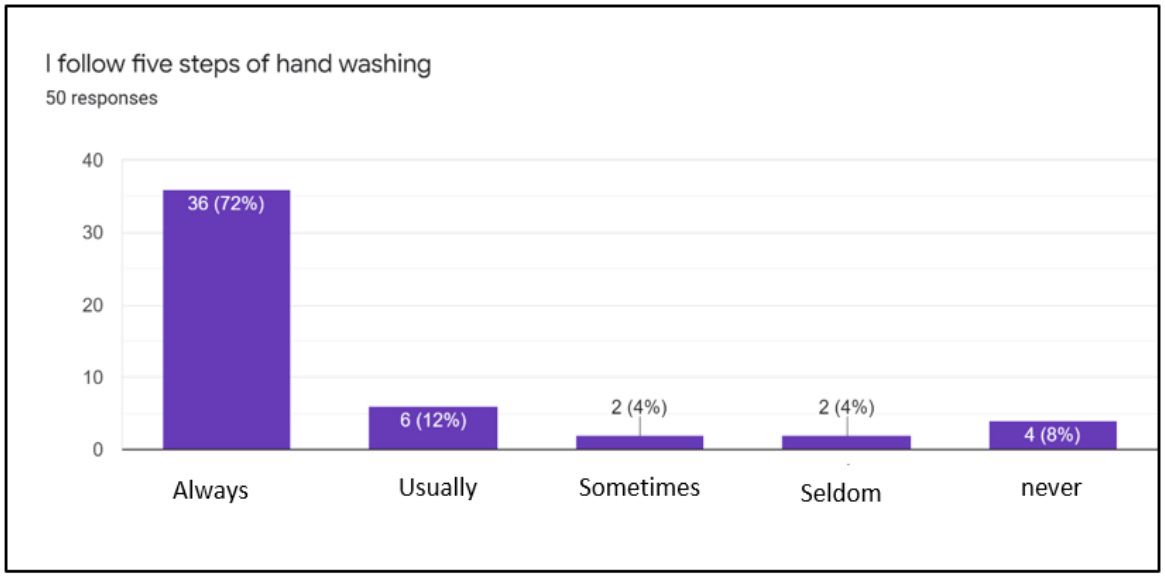
Interpretation – By the analysis it is found that majority of health workers are aware of handling blood and body fluids precautiously. But also 20% of them are not having knowledge about handling blood and body fluid by wearing gloves. Also, some of them don't have knowledge about how to manage blood spill.

Graph - 02



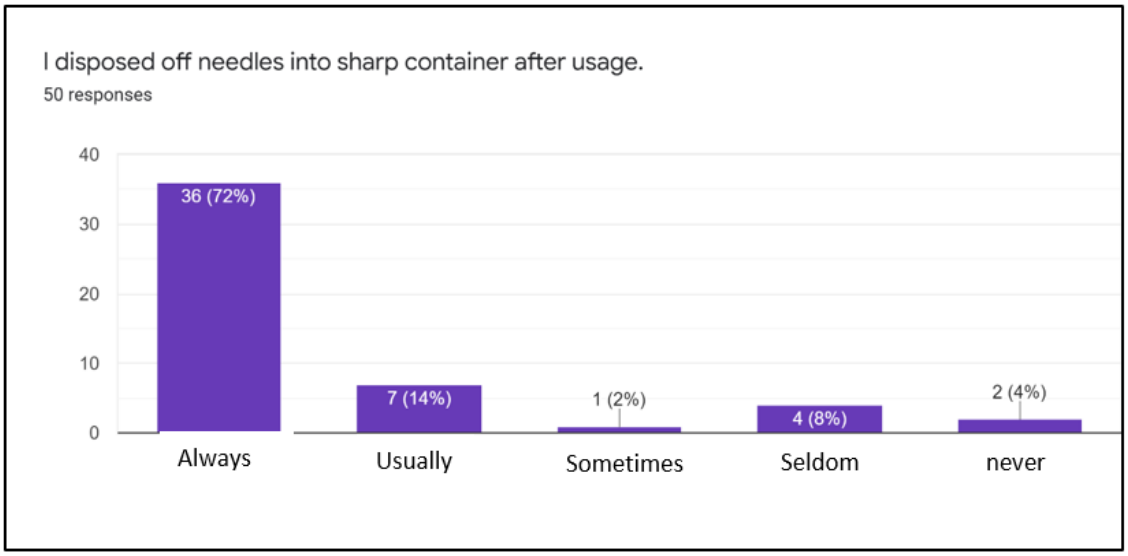
Interpretations – Majority of them agree with the statement but again due to not practicing regularly and carrying precautiously some 22% HCW's are unaware of handling solid body secretion and following standard steps.

Graph - 03



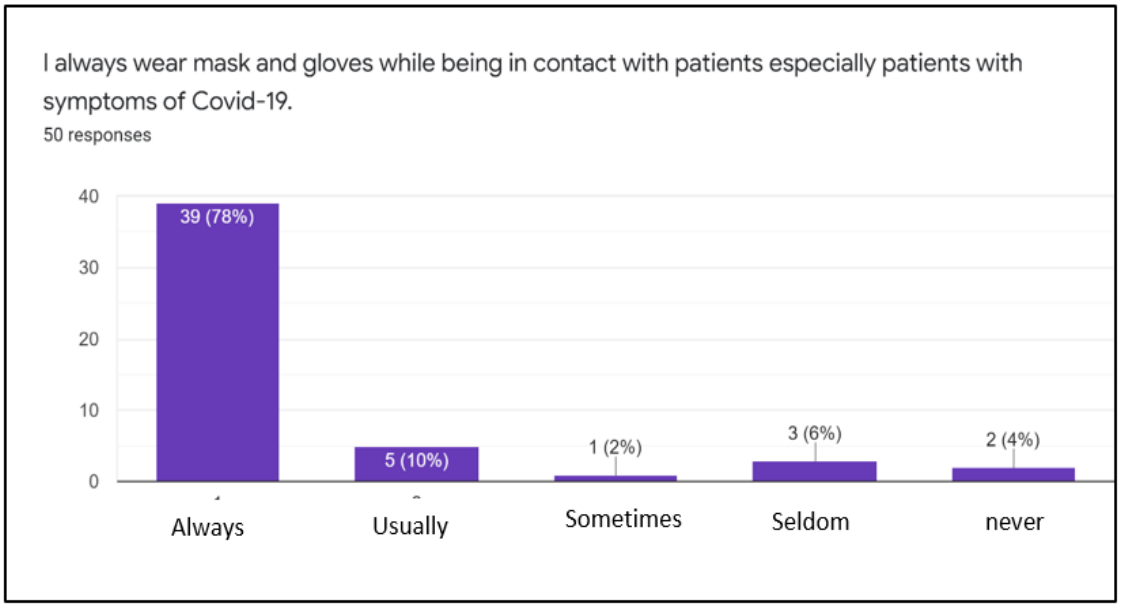
Interpretation – High concern area that majority of them are following the steps but during this pandemic most important thing is hand hygiene and no health worker can deny this practice. This small amount of negative response is because of belief and awareness of knowledge of hand washing steps..

Graph - 04



Interpretation – It is good that majority of them are aware of the disposal of needles after use but some are them are again out of box and not having knowledge about disposal of needles ,about NSI as well as about bio medical waste disposal.

Graph - 05



Interpretations – Majority of them show positive response. And the minor one are not believing and not following practice because of their attitude and daily practice.

Discussions

Concept of infection control is very old but is paramount as it is important as it is core of medical practice ensuring the safety of patients and healthcare professionals. Awareness in this regard is very important however awareness alone is not enough for achieving safety goals without proper practice of standards infection control protocols.

General awareness among health workers about infectious disease indicated that around 70% of them knew about infection. The study results with consistence with other literature, a study conducted in university of of Geneva Hospitals , Switzerland, indicated that medical students health care worker has score 75% of knowledge regarding infection control.in this it was also noted that there is no difference between age, professional, year of experience .

Hand washing and use of PPE was considered as a core tool of study.in both the study it is found that there is lack of knowledge and practice on basic infection control protocols and recommended that protocols should be improved by giving educational intervention in the form of formal training of health care workers.it is shown that though increasing knowledge should enhance knowledge, strategies to improve adherence , to recommend use of PPE shouls focus on ready availability of equipment , training and fit testing and good communication practices.

In current study it was observed that use of PPE is also considered as a standard protocol for infection control. Though knowledge among healthcare workers are good but lack of adherence and compliance to safe practices.

Conclusion

By serving health care facilities Healthcare workers are at higher risk of been affected by Needle Stick Injury. They may have chance of being exposed with corona patient and due to lack of awareness they may get affected and transmit diseases. The current opportunities to organize healthcare programmes for HCW's for infection control and prevention, which include our patient safety and quality of system, and to work in cost effective manner. By this study it is found that there is lack of awareness and knowledge about Infection safety measures. As well as hospital are not upgrading them in new technology and procedure which will help them to improve their health as well as patient help.

Challenges

- Due to lack of awareness , knowledge o n infection prevention and control compliance of health workers remains slow and which is most important for health care facility.
- Lack of awareness about communicable and non-communicable disease among health workers
- Communication gap between policy makers and followers.

Implementations

- Installation of dustbins according to guidelines of biomedical waste management.
- Training on infection control and prevention has given.
- Develop surveillance system in hospital for reporting any accident relatedto blood and body fluids.
- Formation of infection control committee and trained them timely against any disease.
- Mock drills given on infection control practices.
- Protection of health care workers by vaccination.
- Monthly KPI Indicators should be maintained which can include Needle stick injury, Hand hygiene and Blood spill management.

Recommendations

- Quarterly audits to be done by infection prevention and control committee.
- Ensure of continuous improvement of hospital on basis of latest guidelines.
- Monthly training should be given to nursing staff on basis of standards of infection control.
- Pre and post test should be conducted at the time of training.
- Induction training should be given to newly joined nursing staff by head nurse.

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Questionnaire.

SURVEY ON AWARENESS & COMPLIANCE OF IP PRACTICES AMONGST sHEALTHCARE PROFESSIONALS OF PRIVATE SHCOS IN KOTA

AGE **<20** **20-30**
>30

GENDER **Male** **Female**
Other

YEAR OF EXPERIENCE **< 1 year** **2-3 year**
>3 year

PROFESSION **Doctor** **Nurse**
Other

Section A

Due to corona who is at risk of infection:-

1. **Politician**
2. **Teacher**
3. **Doctor**
4. **Everyone**

Who is responsible to fight against Covid-19

1. **Ministry of India**
2. **Administration of India**
3. **Health workers of India**
4. **Everyone**

How do we get benefits from Infection prevention and Control?

1. **By Protecting Our self**
2. **By Protecting our patients.**
3. **By Protecting our family, community and environment.**
4. **All of the above.**

Which is best way to prevent from Covid-19:-

1. **Stay Home**
2. **Social Distancing**
3. **All of these above**
4. **None of the above**

Which is the best place to visit during Covid-19 pendemic

1. **Public Place**
2. **Market**
3. **Home**
4. **All of the above**

Section -B (Knowledge About PPE)

S.No	Questions	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
1.	Safety precaution would be follow by everybody by according to their infection rate.					

2.	**Is Corona can easily transmit by touching, Sneezing, coughing.**					
3.	**Should hand hygiene always followed before and after coming in contact with patient.**					
4.	**Is Gloves are not necessary while handling body fluids or blood**					
5.	**Are Needles should be recapped or bent after usekm**					
6.	**Face mask, Gloves and Gowns are required for any type of contact with Covid-19 Patient.**					
7.	**Non punctured containers should be used for disposal of sharps contain hypo chloride solution.**					
8.	**Following needle stick injury,sss finger should not be kept in mouth.**					
9.	**It is important to perform regular cleaning and disinfecting of environment by sodium hypo-chloride or bleaching solution.**					
10	**Reusable instruments should be cleaned after each use with sterllium**					

Section – C (Awareness about HIC programme in hospital)

S.no	Statements	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
1.	Did you feel it is important senior doctor when you got NSI					
2.	Did you think that hand hygiene practice should reduces transmission of infection.					
3	Did your hospital has infection control committee.					
4.	What according to you, Did the guidelines to follow standard precautions should strictly reduce chance of infection to negligible.					

Section D (Awareness about handling blood contaminated fluids)

S.No	Questions	Always	Usually	Sometimes	Seldom	Never
1.	I handled patient body fluids and blood by following standard infection prevention guidelines.					
2.	I handle solid clothes and linen by following standard infection prevention guidelines.					
3.	I follow all steps of hand washing.					
4.	I always disposed needle in sharp container.					
5.	I always wear PPE while coming in contact with patients especially patients with symptoms of Covid-19.					