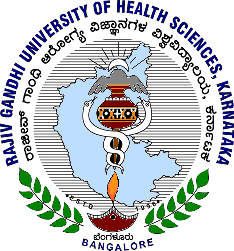
***“*A STUDY TO EVALUATE THE EFFECTIVENESS OF SELF- INSTRUCTIONAL MODULE ON KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING OBSTETRICS EMERGENCIES AND ITS MANAGEMENTS AMONG STAFF NURSES WORKING AT SELECTED HOSPITALS, KOLAR.*”***

### By

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**PROJECT**

**SUBMITTED TO THE RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES, KARNATAKA, BANGALORE.**

### In partial fulfilment

**Of the requirements for the degree of**

### BASIC BSC NURSING IN

**OBSTETRICS AND GYNAECOLOGICAL NURSING**

#### UNDER THE GUIDANCE of MRS.GAYATHRI K.V ASSOCIATE PROFFESSOR

**DEPARTMENT OF OBSTETRICS & GYNAECOLOGICAL NURSING**

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**RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES, KARNATAKA, BANGALORE**

# Declaration by the candidate

*I hereby declare that this dissertation entitled* **“A STUDY TO EVALUATE THE EFFECTIVENESS OF SELF- INSTRUCTIONAL MODULE ON KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING OBSTETRICS EMERGENCIES AND ITS MANAGEMENTS AMONG STAFF NURSES WORKING AT SELECTED HOSPITALS, KOLAR.”** *is bonafide and*

*genuine research work carried out by me under the guidance of* **Mrs. Gayathri K.V** *Associate professor, Department of Obstetrics and gynaecological Nursing, Sri Devaraj Urs College of Nursing, Tamaka, Kolar.*

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**RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES, KARNATAKA, BANGALORE.**

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*requirement for the award of the* **Degree of Basic Bsc Nursing** *under the guidance of* **MRS. GAYATHRI K.V.** *Associate professor, Department of Obstetrics and Gynaecological Nursing and the same is forwarded to the Rajiv Gandhi University of Health Sciences, Bangalore.*

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***deep perception, which makes the words flow from one’s inner heart.”***

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### ABSTRACT

*“****A STUDY TO EVALUATE THE EFFECTIVENESS OF SELF- INSTRUCTIONAL MODULE ON KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING OBSTETRICS EMERGENCIES AND ITS MANAGEMENTS AMONG STAFF NURSES WORKING AT SELECTED HOSPITALS, KOLAR****”*.

**BACKGROUND :**

Obstetric emergencies are medical issues that put the lives of pregnant women and their babies in jeopardy. An obstetric emergency may arise at any time during pregnancy, labor and birth. An emergency can be defined as a situation of serious and often dangerous nature, developing suddenly and unexpectedly and demanding immediate attention in order to save life. Reducing preventable harm to mothers and neonates is a universal goal. The utilization of emergency obstetric care services by pregnant women with perinatal bleeding was found to be influenced by advanced age, high education, lack of health insurance, getting antenatal care, nuclear family structure and knowledge of the risk symptoms throughout pregnancy.IN this study Self-instructional Module on obstetric emergencies and its management was administered to staff nurses for increasing their knowledge attitude and practice levels.

**OBJECTIVES**

1. To Assess the level of Knowledge regarding Obstetrics Emergencies and its management among Staff Nurses using Structured Knowledge Questionnaires **in Experimental and Control group.**
2. To Assess the level of Attitude regarding Obstetrics Emergencies and its management among Staff Nurses using Attitude scale **in Experimental and Control group.**
3. To Assess the level of Practice regarding Obstetrics Emergencies and its management among Staff Nurses using Practice checklist **in Experimental and Control group.**
4. To Evaluate the Effectiveness of Self-Instructional Module by comparing Pre-test and Post-test Knowledge, Attitude and Practice scores regarding Obstetrics Emergencies and its management among Staff Nurses **in Experimental and Control group.**
5. To Compare the Effectiveness of Self-Instructional Module on Knowledge Attitude and Practice **in Experimental and Control group.**
6. To Find out the association between Post-test Knowledge scores with selected demographic variables of Staff Nurses **in Experimental and Control group.**
7. To Find out the association between Post-test Attitude scores with selected demographic variables of Staff Nurses **in Experimental and Control group.**
8. To Find out the association between Post-test Practice scores with selected demographic variables of Staff Nurses **in Experimental and Control group.**

**HYPOTHESIS**

**H1:** There was significant difference in mean score of Pre-test and Post-test Knowledge score after implementing Self-Instructional Module on Obstetric Emergencies and its management among Staff Nurses **in Experimental and Control group.**

**H2:** There was significant difference in mean attitude score of Pre and Post-test Practice score on Obstetric Emergencies and its management among Staff Nurses **in Experimental and Control group.**

**H3:** There was significant difference in mean Practice score of Pre and Post-test Practice score on Obstetric Emergencies and its management among Staff Nurses **in Experimental and Control group.**

**H4:** There was increased Knowledge, Attitude and Practice level in Experimental group compared to Control group.

**H5:** There was significant association between Post test Knowledge scores with selected demographic variables **in Experimental and Control group**.

**H6:** There was significant association between Post-test Attitude scores with selected demographic variables **in Experimental and Control group.**

**H7:** There was significant association between Post-test Practice scores with selected demographic variables **in Experimental and Control group.**

**METHODOLOGY**

The research approach used for the study was Quantitative approach. The study was conducted using an Quasi Experimental design. The Independent variables of the study were Self-Instructional Module on Knowledge, Attitude and Practice about Obstetrical Emergencies among Staff Nurses and Dependent variable was the Knowledge, Attitude and Practice scores of Staff Nurses measured by Knowledge Questionnaire, Attitude scale and Practice Checklist.

The setting of the study was conducted on R.L. Jalappa Hospital & Research centre Tamaka, Kolar and SNR district hospital, Tamaka, Kolar. Sample size consists of 200 samples (100 Experimental and 100 Control group). In this study Through purposive sampling technique, 100 Staff Nurses who are working in SNR hospital was taken as Experimental study and 100 Staff Nurses working at RLJH hospital was taken as Control group. Data was collected from Staff Nurses of RLJH Hospital and RC, from 10/2/23 to 25/2/23 and SNR district hospital from 13/02/23 to 25/02/23. The tool used for gathering relevant data about Obstetric Emergencies was structured Knowledge

questionnaire, Attitude scale and Practice checklist was used among Staff nurses. The Staff Nurses of Control group did not receive any intervention after conducting Pre-test while Experimental group was given Self Instructional Module.

**RESULTS**

The major findings of the study were as follows:

#### The data on sample characteristics:

* 1. The major findings of the study in Experimental group shown that majority32(32%) of Staff Nurses, belonged to the Age group of 26-30 years Minority27(27%) is from the age group below 25 years. Majority86(86%) of Staff Nurses are females and minority14(14%) were males. Majority57(57%) of Staff Nurses completed GNM Nursing, and minority10(10%) completed B.sc Nursing. Majority 23(23%) of Staff Nurses have the Working experience of 8-

10 years, Minority 6(6%) had Working experience of 0-2 years. Majority 28(28%) of the Staff Nurses work in ICUs, Minority12(12%) works in Obstetrical wards. Majority 84(84%) of Staff Nurses got In-service education every month and Minority6(6%) got in every 3 months. Majority77(77%) of Staff Nurses were Hindus and Minority 10(10%) were Muslims. Majority88(88%) of the Staff Nurses resides in rural areas and minority 33(33%) in urban. Majority75(75%) of them had Previous experience in the labour wards or obstetrical wards.

* 1. The major findings of the study in Control group shown that majority 37(37%) of Staff Nurses, belonged to the Age group below 25 years, and Minority 30(30%) belong to the age group above 31 years. Majority 69(69%) of Staff Nurses were females and minority 31(31%) were males. Majority40(40%) of

Staff Nurses completed B.sc Nursing, and minority9 (9%) completed M.sc N and above. Majority 36(36%) of Staff Nurses had the working experience of 0-2 years, Minority 11(11%) had working experience of 8-10 years. Majority38(38%) of the Staff Nurses work in Medical and Surgical wards, Minority 05(5%) works in obstetrical wards. Majority 88(88%) of Staff Nurses got In-service education every month and Minority1(1%) got in yearly once. Majority87(87%) of Staff Nurses were Hindus and Minority 13(13%) were Muslims. Majority67(67%) of the Staff Nurses resides in rural areas and minority33 (33%) in urban. Majority 75(75%) of them do not had Previous experience in the labour wards or obstetrical wards.

#### Data Analysis on the distribution Knowledge scores among Staff Nurses about Obstetric Emergencies in both Experimental and Control group.

1. The findings of the study revealed that in Experimental group the Pre-test majority60(60%) of the Staff Nurses had poor Knowledge, 40(40%) had average Knowledge and none of had good Knowledge. In Post-test majority 67(67%) of Staff Nurses had average Knowledge and 26(26%) had good Knowledge scores. This shows there is gain in Knowledge scores after administering Structured Instructional Module about Obstetric Emergencies.
2. The findings of the study revealed that in Control group Pre-test majority55(55%) of the Staff Nurses had average Knowledge, 45(45%) had poor Knowledge and none of had good Knowledge. In 55(55%) Post-test of Staff Nurses had average Knowledge and 55(55%) had poor Knowledge scores.

This showed there is no gain in Knowledge scores about Obstetric Emergencies without giving Structured Instructional Module.

#### Data Analysis on the distribution of Attitude scores among Staff Nurses about Obstetric Emergencies in both Experimental and Control group.

1. The findings of the study revealed that in Experimental group Pre-test majority 72(72%) of the Staff Nurses had poor Attitude scores, 28(28%) had average attitude scores and none of had good Attitude scores. In Post-test all 100(100%) of Staff Nurses had good Attitude scores. This showed there is gain in Attitude scores after administering Structured Instructional Module about Obstetric Emergencies.
2. The findings of the study revealed that in Control group the Pre-test majority55(55%) of the Staff Nurses had poor Attitude scores, 55(55%) had average Attitude scores and 1(1%) had good Attitude scores. In Post-test 53(53%) of Staff Nurses had average Knowledge and 44(44%) had poor Attitude scores. This showed there is no gain in Attitude scores about Obstetric Emergencies without giving Structured Instructional Module.

#### Data Analysis on the distribution of Practice scores among Staff Nurses about Obstetric Emergencies in both Experimental and Control group.

* 1. The findings of the study revealed that in Experimental group the Pre- test 51(51%) majority of the Staff Nurses had average Practice scores, 49(49%) had good Practice scores and none of had poor Practice scores.

In Post-test Majority 94(94%) had of Staff Nurses had good practice scores. This showed there is gain in Practice scores after administering Structured Instructional Module about Obstetric Emergencies.

* 1. The findings of the study revealed that in Control group the Pre-test majority53(53%) of the Staff Nurses had good Practice scores, 45(45%) had average Practice scores and none of had poor Practice scores. In Post-test Majority52(52%) had of Staff Nurses had good Practice scores. This showed there is no gain in Practice scores without administering Structured Instructional Module about Obstetric Emergencies.

#### KEYWORDS:

Self-Instructional Module, Obstetric Emergencies, Staff Nurses, Postpartum Haemorrhage, Eclampsia.

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### CHAPTER I INTRODUCTION

‘When you are a nurse, you know that every day You will touch or a life will touch yours’

WILLIAM OSLER

Obstetrics is the branch of medicine and surgery concerned with child birth and midwifery 1. Obstetrical emergencies are life threatening circumstances that arise unexpectedly in Obstetrics or Midwifery Practice which develop during Antenatal, Intra-natal & Postnatal period and are typically fatal to the mother and foetus. During the early 20th century Obstetric Emergencies often resulted in the death of the mother and child. Obstetrics has the highest number of emergency cases of any medical speciality 2.

Prolonged labour, Obstructed labour, Post-partum haemorrhage, Foetal distress, Pregnancy induced hypertension, Eclampsia, Antepartum haemorrhage, Puerperal Sepsis are frequently observed Obstetrical Emergencies.

Mother and child makeup a significant portion of the population in every country. As a result, in the health-care delivery system, a service to women throughout pregnancy and birth is quite important. Every year, almost 6,00,000 women between the ages of 15 and 49 die as a result of difficulties related to pregnancy and childbirth around the world. This means that a maternal death occurs virtually every minute of every year 3.

In 2020, the global maternal mortality ratio was 152 deaths per 100,000 live births, up from 151 deaths per 100,000 live births in 2019 4. Obstetrics Emergencies are responsible for 70.6% of the maternal mortality and 86% of the perinatal mortality within the period 5.

According to the special bulletin released by the registrar general of India on maternal mortality rate on March 14 2022, seven Indian states have very high maternal mortality of 130/ 100,000 live births in Rajasthan, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Bihar, Odisha and Assam. High in Punjab, Uttarakhand and West Bengal that is, 100-130/100,000. Low

in Haryana and Karnataka that is 71-100/100,000 live births. So still India is struggling to meet Sustainable Development Goal target which says the maternal mortality ratio should be less than 70/100,000 live births by 2030. One of the factors which was identified in the study conducted by Charles AA showed that mortality depends on the availability of skilled personal and facilities, where 90% of the deaths occurred among emergency admissions and 32% of them died within 24 hours to 1day of admission, 90% of deaths were in the Postpartum period. Very young women lost their lives as 90% were at age less than 20 years 6 . So, providing quality care is a major determinant of health outcomes, so we felt by providing awareness on Obstetrics Emergency and its management among Staff Nurses who handles this emergency cares can help in patient quality care and their outcomes.

Numerous professionals have published reassuring information about the origins, mitigation, and care of obstetric crises. Even yet, it demonstrates that inexperienced nurses still require further training and understanding in order to effectively treat obstetric crises. Inadequate handling of unfavourable conditions is mostly to blame for the high rates of maternal death and morbidity. To ensure care and improve the quality of life for women, advance practise nurses must be knowledgeable and proficient in the treatment of women. Advanced practise nurses can supervise or co-manage therapy and follow-up care in addition to assessing, diagnosing, and treating a variety of women's health issues.

So, strengthening and upgrading the Staff Nurses on Obstetrics Emergencies can reduce maternal and new born deaths. Hence; this study was considered as primary need in our hospital and selected this topic.

### NEED FOR THE STUDY

Every day, around 800 women die from preventable causes associated to pregnancy and child birth around the world. Improved maternal, foetal and neonatal care in child birth is thus, an essential development target for world health organization7.

Obstetric Emergencies are medical issues that put the lives of pregnant women and their babies in jeopardy. An Obstetric Emergency may arise at any time during pregnancy, labour and birth8. An emergency can be defined as a situation of serious and often dangerous

nature, developing suddenly and unexpectedly and demanding immediate attention in order to save life9. Reducing preventable harm to mothers and neonates is a universal goal10. The utilization of emergency obstetric care services by pregnant women with perinatal bleeding was found to be influenced by advanced age, high education, lack of health insurance, getting antenatal care, nuclear family structure and knowledge of the risk symptoms throughout pregnancy11. Early pregnancy between 15 and 19 years of age, when the adolescent girls are themselves growing, can lead to numerous complications that often result in the death of the mother. Child marriage, still followed in some parts of India even though it has been declared illegal, aggravates cases of pregnancy-related complications in young girls. Other causes that result in maternal deaths are lack of necessary medical care during childbirth or financial constraints to access medical care12.

#### Causes of Maternal Mortality

|  |  |
| --- | --- |
| Cause of Death | Percent |
| Indirect Causes | 27.5% |
| Haemorrhage | 27.1% |
| Blood Pressure Disorder | 14.0% |
| Infection | 10.7% |
| Other Direct Causes | 9.6% |
| Abortion | 7.9% |
| Blood Clots | 3.2% |

Throughout the world, over 300,000 women die each year from problems that arise during pregnancy and childbirth. The World Health Organization (WHO) reports that approximately 830 women die each day worldwide. Most of these women (99%) live in poor, developing countries. In some places, the odds of dying because of pregnancy are as high as 1 in

15. And, the sad fact is that many of these deaths are preventable13. 94% of all maternal deaths occur in low and lower middle-income countries. The Maternal Mortality Ratio (MMR) of India has declined by 10 points as per a special bulletin released by the Registrar General of India. It has declined from 113 in 2016-18 to 103 in 2017-19 (8.8 % decline). The country had been witnessing a progressive reduction in the MMR from 130 in 2014-2016, 122 in 2015-17, 113 in

2016-18, and to 103 in 2017-19. With this persistent decline, India was on the verge of achieving the National Health Policy (NHP) target of 100/lakh live births by 2020 and certainly on track to achieve the Sustainable Development Goal (SDG) target of 70/ lakh live births by 2030, it noted. The number of States that have achieved the SDG target has now risen from five to seven -- Kerala (30), Maharashtra (38), Telangana (56), Tamil Nadu (58), Andhra Pradesh (58), Jharkhand (61), and Gujarat (70). There are now nine States that have achieved the MMR target set by the NHP, which include the above seven and Karnataka (83) and Haryana (96).

Uttarakhand (101), West Bengal (109), Punjab (114), Bihar (130), Odisha (136) and Rajasthan

(141) -- have the MMR in between 100-150, while Chhattisgarh (160), Madhya Pradesh (163), Uttar Pradesh (167) and Assam (205) have the MMR above 15014.

Obstetric Emergencies are prevented by giving education to women, increase in the use of contraception, more perinatal care, more births in hospitals or with skilled health care providers present. Greater availability of antibiotics, blood transfusions and treatments for complications. Family planning information can prevent unplanned pregnancy and unsafe abortions. Nutritional services and reproductive health services are especially important for girls and young women.

Studies had shown that, the Self-Instructional Module is important because, it increases Knowledge confidence and efficiency of Staff Nurses regarding their Obstetric Emergency and its Management. Hence, we felt to use Self-Instructional Module in this study so that it increases the Knowledge, Attitude and Practice level among Staff Nurses on Obstetric Emergencies.

#### Statement of the problem:

**‘A Study to Evaluate the Effectiveness of Self-Instructional Module on Knowledge, Attitude and Practice regarding Obstetrics Emergencies and its Management among Staff Nurses at selected Hospital, Kolar’**.

### Objectives of the study:

1. To Assess the level of Knowledge regarding Obstetrics Emergencies and its management among Staff Nurses using Structured Knowledge Questionnaires **in Experimental and Control group.**
2. To Assess the level of Attitude regarding Obstetrics Emergencies and its management among Staff Nurses using Attitude scale **in Experimental and Control group.**
3. To Assess the level of Practice regarding Obstetrics Emergencies and its management among Staff Nurses using Practice checklist **in Experimental and Control group**.
4. To Evaluate the Effectiveness of Self-Instructional Module by comparing Pre-test and Post- test Knowledge, Attitude and Practice scores regarding Obstetrics Emergencies and its management among Staff Nurses **in Experimental and Control group.**
5. To Compare the Effectiveness of Self-Instructional Module on Knowledge Attitude and Practice **in Experimental and Control group.**
6. To Find out the association between Post-test Knowledge scores with selected demographic variables of Staff Nurses **in Experimental and Control group**.
7. To Find out the association between Post-test Attitude scores with selected demographic variables of Staff Nurses **in Experimental and Control group.**
8. To Find out the association between Post-test Practice scores with selected demographic variables of Staff Nurses **in Experimental and Control group.**

### Assumptions

1. Staff Nurses has basic Knowledge on Obstetric Emergencies.
2. Practice level of Staff Nurses will be improved after administering SIM on management of Obstetric Emergencies.
3. Staff Nurses has positive attitude in caring Obstetric Emergencies,

### Hypothesis:

**H1:** There will be significant difference in mean score of Pre-test and Post-test Knowledge score after implementing Self-Instructional Module on Obstetric Emergencies and its management among Staff Nurses **in Experimental and Control group.**

**H2:** There will be significant difference in mean attitude score of Pre and Post-test Practice score on Obstetric Emergencies and its management among Staff Nurses **in Experimental and Control group.**

**H3**: There will be significant difference in mean Practice score of Pre and Post-test Practice score on Obstetric Emergencies and its management among Staff Nurses **in Experimental and Control group.**

**H4:** There will be increased Knowledge and Practice level in Experimental group compared to Control group.

**H5:** There will be significant association between Post test Knowledge scores with selected demographic variables **in Experimental and Control group.**

**H6:** There will be significant association between Post-test Attitude scores with selected demographic variables **in Experimental and Control group.**

**H7:** There will be significant association between Post-test Practice scores with selected demographic variables **in Experimental and Control group.**

### 6.5 Operational definition:

1. **EVALUATE:** Find out a measurable value to assess the level of Knowledge, Attitude and Practice level before and after administering Self Instructional Module.
2. **EFFECTIVENESS:** Effectiveness refers to producing intended result.

In this study, effectiveness refers to the extent to which the Self-Instructional Module has achieved the desired effect.

1. **SELF-INSTRUCTIONAL MODULE:** A Self-Instructional Module is a guide which is used to learn at individual own pace about a new topic.

In this study, Self- Instructional Module refers to a printed guide prepared and validated by subject’s expert in the simplest manner, on miscarriage, Placenta previa, Abruption placenta, Cord prolapse, Post-partum haemorrhage, Foetal distress, Eclampsia, Puerperal Sepsis and its management, so that it can be easily understood by the Staff Nurses.

The Self-Instructional Module mainly consists of definition, causes, signs and symptoms and management protocols used for above mentioned conditions.

1. **KNOWLEDGE:** Awareness or familiarity gained by experience of a fact or situation. In this study it refers to awareness/answers given by the Staff Nurses on Obstetric Emergencies and its management questions asked in the tool.
2. **ATTITUDE:** A mental position with regards to a fact or a state. In this study it refers to the way in which the Staff Nurses deal with Obstetric Emergencies and its management
3. **PRACTICE:** The actual application or use of an idea, belief, or method, as opposed to theories relating to it. In this study it refers to the application of each method used by the Staff Nurses in the management of Obstetric Emergencies which is listed in the checklist.
4. **STAFF NURSES:** the individual, who has been graduated in nursing and certified as a registered nurse by the Nursing council.

In this study, it refers to nurses who are working in the R.L.J Hospital & Research centre with minimum 3 months of Experience.

1. **OBSTETRIC EMERGENCIES:** Obstetrical Emergencies are life threatening medical conditions that occur in pregnancy, during and after labour.

In this study selected Obstetric Emergencies conditions which are more common like Miscarriage, Placenta previa, Abruption placenta, Cord prolapse, Post-partum haemorrhage, Foetal distress, Eclampsia, Puerperal Sepsis in our Parent Hospital are selected.

*Review of Literature*



### CHAPTER II REVIEW OF LITERATURE

This chapter deals with review of literature which helps to gain an insight into various aspects of the problem under study such as design, methods, instrument measures and techniques of data collection that may prove useful in the proposed study.

A literature review helps to lay the foundation for the study and can also inspire new research ideas. A literature review early in the report provides the readers with a background for understanding current knowledge on topic and illuminates the significance of the new study.

A Descriptive study conducted by Sinmayee K D, on the knowledge of Staff Nurses regarding Obstetric emergencies in a selected hospital Salem. The purpose of the study was to quantify the level of knowledge regarding obstetric emergency among the staff nurses. The Research design was Non experimental, descriptive research design with cross sectional survey approach. The study was conducted in Vinayaka Mission’s Kirupanada Variyar Medical College Hospital, Salem, Tamilnadu. The 48 staff nurses who were working in the Vinayaka Mission’s Kirupanada Variyar Medical College Hospital were selected by Convenient sampling technique. The instrument used to assess the level of knowledge was measured by using structured questionnaire developed by the researcher. The major findings revealed that highest percentage (71%) of the staff nurses were in the age group of <25 years, almost all (98%) were diploma holders, most (86%) of them had below 5 years of experience, around 50% had 1-2 years of experience in labour ward. Overall mean knowledge score of the staff nurses was (40.1±7.3), which is 42.66% of the total score revealing average level of knowledge. No significant association was found between the knowledge score and demographic variables of the staff nurses15.

A study conducted by Simon O, et.al, on community involvement in obstetric management in rural areas, a case of Rukungiri district, western Uganda. The objectives were to identify types of community involvement and examine factors influencing the level of community involvement in the management of obstetric emergencies. A descriptive study during 2nd to 28th February 2009 in rural Rukungiri district, western Uganda. A total of 448 heads of households, randomly selected from 6/11 (54.5%) of sub-counties, 21/42 (50.0%) parishes and 32/212 (15.1%) villages (clusters), were interviewed. Data were analysed using STATA version 10.0. Community pre-emergency support interventions available included community

awareness creation (sensitization) while interventions undertaken when emergency had occurred included transportation and referring women to health facility. The study findings showed that community support programmes towards health care (obstetric emergencies) included establishment of community savings and credit schemes, and insurance schemes. The factors associated with community involvement in obstetric emergency management were community members being employed and rating the quality of maternal health care as good16.

A study conducted by Friday O, et.al, on Assessing the knowledge and skills on emergency obstetric care among health providers, implications for health systems strengthening in Nigeria. A cross-sectional study of skilled health providers (doctors, nurses and midwives) working in the hospitals during the period. The setting of this study was six general hospitals (4 in the south and 2 in the north), and two teaching hospitals (both in the Northern part) of the country. A pre-tested self-administered questionnaire was used to obtain information relating to socio-demographic characteristics, the respondents’ knowledge and skills in offering specific emergency obstetric care services (as compared to standard World Health Organization recommendations), and their confidence in transferring the skills to mid-level providers. The study finding showed that the total of 341 health providers (148 doctors and 193 nurses/midwives) participated in the study. Averagely, the providers scored less than 46% in a composite emergency obstetric care knowledge score, with doctors scoring considerable higher than the nurses/midwives. Similarly, doctors scored higher than nurses/midwives in the self-reporting of confidence in carrying out specific EMOC functions. Health providers that scored higher in knowledge were significantly more likely to report confidence in performing specific EMOC functions as compared to those with lower scores. The self-reporting of confidence in transferring clinical skills was also higher in those with higher EMOC knowledge scores17.

A study conducted by Kavitha P, et.al, on to assess level of knowledge on staff nurses on emergency obstetric management at orotta. The aim of this study was to assess the level of knowledge of staff nurses on emergency obstetric management, to assess demographic variable and also to find out the association between knowledge and selected demographic variable. The present study was conducted at Orotta National Referral Maternity Hospital, Asmara, Eritrea. The research design was descriptive. Non probability convenient sampling was used to select 60 samples. The selected samples were assessed by structured self- administered questionnaire and the data was analysed by using SPSS Version 18. Descriptive statistics were used to analyse the data. The result of the study shows that majority 39 (65%) of the staff had adequate knowledge, 21 (35%) of the staff had moderately adequate knowledge and none of them had inadequate knowledge regarding emergency obstetric management. The overall experience of conducting this study was satisfying and enriching. The study was a new learning experience for the investigators. The result highlights the need of improvement of knowledge on emergency obstetric management18.

A study conducted by Bhavna Verma on pre-experimental study to Assess the Effectiveness of Planned Teaching Program on Knowledge and Expressed Practices Regarding Selected Obstetrical Emergencies Among Staff Nurses in Selected Hospitals of Shimla District, Himachal Pradesh. Background and Goals among the 17 sustainable development goals outlined by the UN, good health and wellbeing come in third. Competent and skilled birth attendance is essential to lowering morbidity and mortality among mothers and new-borns. The purpose of this study was to evaluate and compare staff nurses' knowledge and practises regarding specific obstetrical emergencies before and after the test, to develop and evaluate the success of planned teaching programmes on specific obstetrical emergencies among staff nurses, and to ascertain the relationship between knowledge and expressed practises. Resources and techniques A validated tool/questionnaire that was piloted on 60 staff nurses in a few hospitals was used to perform a pre-experimental study among them for a month in 2019. Which was tested on six staff nurses before the trial began. A systematic knowledge questionnaire and a checklist of expressed practises were used to collect the data. Results It is noteworthy that 70% of participants have a professional certificate in general nursing and midwifery (GNM). The majority (51.7%) of staff nurses had one to five years of work experience, and 46.7% of them scored highly on the pre-test knowledge evaluation and 95% on the post-test knowledge evaluation. Significantly, 80% of participants in the pre-test and 96.7% of participants in the post-test had good expressed practises with reference to specific obstetrical situations. Age and work experience, two socio demographic factors, were significantly associated with expressed practises in the pre-test, however this was not the case in the post-test. Pre- and post-test knowledge did not significantly correlate with any of the demographic factors. The mean pre- and post-test knowledge score was 18.82 vs. 25.43, p0.001; the mean pre- and post-test expressed practises score was 14.43 vs. 16.30, p0.001. There was a significant difference between the pre- and post-test knowledge and expressed practises scores. Conclusion According to our research, the planned teaching programme is successful in enhancing staff nurses' understanding of and expressed practises addressing a few specific obstetrical crises19.

A study conducted by Ulfat Rashid on Obstetric emergencies are major medical conditions that can be life-threatening and are frequently dangerous in nature. They can occur during pregnancy, labour, or after delivery and call for rapid medical attention in order to save both the mother and the unborn child's lives. A study on BSc nursing third-year students at Bibi Halima College of Nursing and Medical Technology Srinagar, Kashmir, was conducted to evaluate the usefulness of knowledge regarding Management of Selected Obstetric Emergencies using a pre-experimental one group pre-test post-test design. Non-probability purposive sampling was used in the current investigation. The study's findings showed that, in the pre-test, the majority of study participants (70%) had average knowledge, 30% had poor information, and none had good knowledge about the management of particular obstetric emergencies. With regard to the management of specific obstetric situations, the majority of study subjects (88%) had high knowledge, the least (12%) had mediocre knowledge, and none had poor knowledge at the time of the post-test. Indicating the effectiveness of a structured teaching programme in raising the level of knowledge of BSc nursing third year students regarding management of specific obstetric emergencies, the mean

post-test knowledge level (53.20.83) was higher than the mean pre-test knowledge level (25.70.956). at the 0.05 level of significance, was greater than the mean pre-test knowledge level (25.70.956), indicating the success of the organized teaching programme in raising the level of knowledge of BSc nursing third-year students regarding management of certain obstetric situations. Pre-test knowledge level and demographic factors including gender, residence, and any prior exposure did not have a statistically significant connection at p 0.05. According to the study's findings, the study subjects' pre-test knowledge of the management of a few specific obstetric situations was insufficient, and it was urgently necessary for them to improve it20.

A Study conducted by Dr shabir moosa on short competency-based training in emergency obstetric care results in significant improvements in healthcare provider competence and change in clinical practice. The risk of morbidity and mortality in mothers and their unborn infants is reduced by providing high-quality emergency obstetric care (EmOC). There is proof that more than 50% of maternal health programmes with an EmOC training component increase EmOC access and decrease maternal mortality. It was intended to review the evidence in favour of EmOC training's worth. Eleven databases and websites were examined for articles that discussed EmOC training assessments between 1997 and 2017. Effectiveness was assessed using the following four criteria: (1) participant reaction; (2) knowledge and skills; (3) behavioural change and clinical practise; and (4). EmOC accessibility and medical results. Weighted means for the development of knowledge and skills, and narrative synthesis of the findings for results at other levels. 101 studies, including randomised controlled trials (RCTs; n = 15) and before-and-after studies (n = 44). 68 studies evaluated Level 1 and/or 2; 51 studies evaluated Level 3; and 21 research evaluated Level 4. Effectiveness was evaluated at all four levels in just three research. For knowledge (7750 participants), the weighted mean scores before training and after training were 67.0% and 10.6%, respectively. Skills were rated at 53.1% and 29.8% (6054 participants; 13 studies). Strong evidence exists that better clinical practise (adherence to protocols, resuscitation technique, communication, and teamwork) leads to better new born outcomes (lower trauma following shoulder dystocia, fewer infants with hypothermia and hypoxia). Less convincing evidence points to a decline in A prospective follow-up study was conducted. Obstetric nurses and obstetricians (n=54) from a tertiary care university hospital participated in a simulation-based training course for the management of four obstetric emergencies. One year after the last session of the course, participants were asked to complete a questionnaire evaluating the self-perceived impact it had on their knowledge, technical skills, and teamwork skills during experienced real-life situations. A five-point Likert grading scale was used. The χ(2) test with one degree of freedom or the Fisher's exact test were used to compare groups of participants. The t-test for independent samples was used to compare mean scores between groups.A prospective follow-up study was conducted. Obstetric nurses and obstetricians (n=54) from a tertiary care university hospital participated in a simulation-based training course for the management of four obstetric emergencies. One year after the last session of the course, participants were asked to complete a questionnaire evaluating the self-perceived impact it had on their

knowledge, technical skills, and teamwork skills during experienced real-life situations. A five-point Likert grading scale was used. The χ(2) test with one degree of freedom or the Fisher's exact test were used to compare groups of participants. The t-test for independent samples was used to compare mean scores between groups.mortality. Clinical practise changes and healthcare provider knowledge/skills significantly improve after brief competency-based training in EmOC. There is growing proof that doing this leads to better health outcomes21.

A study conducted by Ana Reynolds on self-perceived impact of attending a simulation- based training course on the management of real-life obstetrical emergencies. A probable follow-up investigation was carried out. A simulation-based training session for the management of four obstetric emergencies was attended by obstetric nurses and obstetricians (n=54) from a tertiary care university hospital. Participants were required to respond to a questionnaire one year following the course's final session analysing how it affected their perceptions of their knowledge, technical skills, and collaborative abilities in actual real- world scenarios. A five-point Likert scale was employed for grading. To compare participant groups, the Fisher's exact test or the (2) test with one degree of freedom was utilised. The mean scores between groups were compared using the t-test for independent samples. Results: A total of 46 healthcare professionals, including 27 obstetricians and 19 obstetric nurses, responded to the survey. 87% of them (scoring 4 or 5) said their knowledge and abilities had improved for use in actual circumstances. Obstetric nurses reported considerably greater progress than obstetricians in their technical skills (p=0.024), ability to handle teamwork-related challenges (p=0.005), and ability to diagnose or be aware of obstetrical emergencies (p=0.002). The impact of training was judged considerably higher by participants who had really encountered all four simulated circumstances (p=0.049), and they also reported having improved in their understanding of management principles (p=0.006). Conclusions: Healthcare personnel who took a simulation-based training course in obstetrical emergencies felt that their knowledge and abilities had significantly improved by the time they encountered actual situations. For obstetric nurses and those who see all trained obstetrical situations, improvements seem to be especially important22.

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A study conducted by Lu Xing Exploring the knowledge attitude, behaviours and training needs of obstetric and gynecological nurse regarding covid 19 during the peak period of the pandemic in middle risk areas of China. Since COVID-19 has spread globally, healthcare professionals must be able to safeguard both themselves and their patients. In medium-risk areas during the pandemic, this paper sought to describe the knowledge, attitudes, behaviours, and training requirements for COVID-19 among obstetric and gynaecological nurses. During the height of the epidemic in China, a cross-sectional survey of obstetric and gynaecological nurses in medium-risk areas was conducted. The self-created COVID-19 Knowledge, Attitude, Behaviour and Training Needs Questionnaire served as the primary survey instrument. To examine the links between knowledge, attitudes, behaviours, and training needs, Pearson correlation analysis was carried out. A total of 599 nurses were hired, and 27.7% of them failed the knowledge portion of the interview. Regarding workplace protection against COVID-19, there were significant positive associations between knowledge and attitudes (r = 0.100, P = 0.015) and attitudes and behaviours (r = 0.352, P = 0.000). More than 70% of nurses felt that departmental demonstrations and training in operations were efficient ways to learn how to defend themselves against COVID-19, and a total of 88.5% of nurses preferred online training to traditional training The more favourable the attitude towards occupational protection, and as a result, the more actively protective behaviours were implemented, the more awareness there was about the disease. Training improved nurses' understanding of COVID-19 occupational protection and encouraged a positive outlook, which helped to further assist the disease's successful prevention and control. It is advised that nurses receive COVID-19 training online with demonstrations23.

A study conducted by Aurore Nishamwe Context specific realities and experiences of nurses and midwifes in basic emergencies obstetric and newborn care service in district hospitals in rwalda. The primary providers of obstetric care in low- and middle-income nations are nurses and midwives. For the purpose of raising the standard of care, understanding how these medical professionals handled obstetric emergencies is essential. The nurses and midwives in Rwandan rural hospitals who worked with the two most frequent birth-related complications—postpartum haemorrhage (PPH) and newborn asphyxia—reflected on their experiences in this article. In terms of obstetric treatment, Rwanda has come a long way. However, difficulties persist in the delivery of excellent primary emergency obstetric and neonatal care. This study is a qualitative component of a larger research project on the use of a decision support tool for mLearning and mHealth in BEmONC services in Rwanda. Four focus group discussions (FGDs) with 26 nurses and midwives from two district hospitals in Rwanda were held as part of this exploratory qualitative section of the study. The study's

findings comprised a six-month record review of PPH care and NR outcomes at the district hospitals under examination, as well as survey responses demonstrating their knowledge and proficiency in PPH management and neonatal resuscitation (NR). Hybrid thematic analysis was used to examine the data. Three key topics emerged from the analysis: (1) comments on the findings of the initial research, (2) self-reflection on current practises, and (3) contextual factors influencing the provision of BEmONC services. The results were explained in a variety of ways by nurses and midwives, who felt that the findings were a true portrayal of reality. The participants' first-person accounts of their actual experiences offering BEmONC services are also displayed. Nursing and midwifery professionals' perspectives into the treatment of difficulties related to childbirth have revealed a variety of elements that affect the calibre of their obstetric care. The recommendations made to enhance care quality, despite the study's focus on PPH management and NR, may help the whole field of mother and child health, especially in low- and middle-income nations24.

A study conducted by M Santhosh Kumari Efficacy of capacity building education interventions in the managements of obstetric complication. Delay in the diagnosis and management of obstetric complications lead to raised mortality rate. This can be curtailed by appropriate implementation of the educational intervention among the health-care providers. Hence, this review aimed to identify the literature evidence of the efficacy of various educational interventions training in the management of obstetric complications. According to the findings of this literature, achieving enhanced nursing management of obstetric complications has been developed. Especially, it suggests through better nursing training and education and also by providing sufficient resources, time, and coordination with obstetric specialists, nurses and midwives will be able to implement their care roles, which include proper diagnosis, appropriate intervention, advanced care, client education, and psychological support. The efficacy of each educational intervention varies and depends on the participants’ understanding, interest, and the advancement of the teaching-learning method used. This systematic review reveals abroad and logical move towards the evaluation of various educational interventions in the field of obstetric complications. Among all the educational interventions implemented, mobile application, and simulation-based training play a major role in improving the knowledge and skills of health-care providers in the management of obstetric complications25.

A study conducted by Abi Merriel the effects of interactive training for medical staff on how life-threatening incidents are handled in hospitals. Effectively preparing healthcare professionals to handle relatively uncommon life-threatening emergencies is difficult. Training programmes, which provide personnel a chance to practise for these events, are advised by numerous reports and standards. We have concentrated on interactive training in this evaluation, which encompasses any component that allows for debate, rehearsal, or contact with faculty or technology in addition to being purely didactic. Understanding the most efficient techniques and crucial components of successful emergency training is crucial so that resources can be directed appropriately to enhance results. comprised 11 research with information on 2,000 medical professionals and more than 300,000 patients; one study did not offer participant numbers. Four single centre studies and seven cluster randomised trials.

Studies on obstetric training, obstetric and newborn care, neonatal training, trauma, and general resuscitations totaled six. The experiments were conducted in high-, middle-, and low-income environments. For patients needing resuscitation, interactive training may have little or no impact on their survival to hospital release (one study; 30 participants; 98 incidents; low-certainty evidence). As the certainty of the evidence is quite low (3 trials; 1778 participants; 57,193 patients, when provided), we are unsure if emergency training affects morbidity rates The degree of certainty in the evidence is quite low (3 studies; 156 participants; 558 patients), hence we cannot say with certainty if training affects healthcare providers' adherence to clinical protocols or standards. We rated the evidence for its very low certainty (5 trials, 951 participants; 314,055 patients), hence we are unsure if interactive training for emergency scenarios improved patient outcomes. Due to the very low certainty of the data (4 studies; 1417 participants; 28,676 patients, when reported), we are unsure if training for emergency situations improves clinical practise outcomes26.

A study conducted by Dr. Priyanka Chowdari to evaluate the labour room staff nurses' knowledge of handling obstetric emergencies using a pre-planned teaching programme. consist of a thorough literature study of the staff nurse's knowledge of the standard of obstetric emergency treatment and how that information contributes to lowering mother mortality. Methods: Pre- and post-tests are used to evaluate the staff nurse's expertise. Use of teaching and learning techniques was made. The questions were based on predetermined subjects including "Abruptio placenta," "Placenta Accreta/Percreta," "Placenta Previa," "Eclampsia," "Cord Prolapsed," "Rupture of Uterus," and "Post Partum Haemorrhage." The study was done based on the following key words: "reduction of maternal mortality OR prevention of pregnancy complications OR management with emergency obstetric care." Three key conclusions may be drawn from this review: (1) Poor obstetric emergence skill and knowledge. (2) A low patient to worker ratio. (3) Unable to appease the mother throughout the intranatal stage. The frequency of antenatal visits can lower maternal mortality. The mother will be shielded from additional complications by the early diagnosis and treatment. The most direct obstetric problems that cause the majority of deaths include uterine rupture, abruptio placenta, placenta accreta/percreta, placenta previa, acute uterine inversion, eclampsia, and cord prolapse A few pertinent procedures can be used to manage the majority of obstetric problems. One of the main strategies to lower the rate of maternal mortality is to cater to the mother's requirements during an obstetric emergency with competent birth attendants. Therefore, it is important to maintain the health centre strategy for women throughout their pregnancies, during childbirth, and during the first six weeks following the delivery of the baby and placenta. These tactics will aid in lowering the rate of maternal mortality. In order to ensure that every woman receives expert care during childbirth in a

suitable setting. Which implies that they should receive institutional delivery entirely from trained individuals. In these situations, improved obstetric emergency coverage could aid in reducing the still very high rates of maternal mortality. studying choice Articles that met our eligibility requirements for selection had to be in qualitative experience studies on the standard of obstetric emergency care27.

A study conducted by Namita Subramanyam Staff nurses in obstetric care units' readiness for obstetric emergencies There are hazards associated with pregnancy and childbirth at every stage. Because they are the primary healthcare providers, nurses play a crucial role in identifying and promptly handling obstetric emergencies. This study's objective was to evaluate the level of obstetric emergency preparedness among staff nurses working in tertiary care facility obstetric care units. Using a structured questionnaire with questions on personal and professional characteristics as well as emergency preparedness for obstetric situations, a descriptive survey was conducted among all staff nurses (n=117) working in obstetric care units of a tertiary care hospital in the Ernakulam district of Kerala. Results: The percentage of nurses reporting attending obstetric emergency drills at their workplaces (28.2%), familiarity with staff call-up procedures in emergencies (44.4%), familiarity with emergency crash carts at their workplaces (50.4%), and correct triaging of obstetric emergencies (57.3%) were all found to be low in the study. Age (p=0.003), educational attainment (p=0.002), type of employment (p=0.001), years of experience (p=0.016), experience handling obstetric emergencies (p=0.015), and attendance to Continuing Nursing Education (CNE) on obstetric emergencies (p=0.001) all significantly correlated with the overall emergency preparedness score. Conclusions: In order to ensure that the staff nurses are competent in addressing obstetric crises, the areas where the nurses lag in emergency readiness must be reinforced through suitable empowering techniques28.

A study conducted by Yordanos Gizachew Yeshitila's using non-pneumatic anti-shock clothing and related factors to manage postpartum haemorrhage among obstetric care workers in southern Ethiopian public health institutions, in low-resource settings, care delays have been identified as a major cause of maternal mortality. With the non-pneumatic antishock garment, women who have suffered obstetric haemorrhage can endure these delays without suffering any long-term consequences. To improve maternal outcomes and achieve the sustainable development goals, professionals' skills might be expanded and new technologies could be implemented in basic healthcare facilities. Therefore, the purpose of this study is to evaluate how often obstetric care professionals at public health institutions use non- pneumatic anti-shock garments to manage complications of post-partum haemorrhage and related factors. Strengthening in-service and ongoing professional development training should be the main emphasis of strategies and programme activities in order to close the knowledge and attitude gap among obstetric care providers. Future initiatives should concentrate on increasing the availability and use of non-pneumatic antishock garments in health centres29.

A Study Conducted by Neelima Singh,Sree Devi,Sushma about Observational Study of maternal and fetal outcome in Obstetric Emergencies admitted to tertiary care centre. to assess the risks, clinical manifestations, therapy, and maternal and foetal outcomes of frequent obstetric emergencies seen at the government general hospital in Nizamabad, Telangana, from April 2019 to November 2019.This observational study was conducted in a hospital setting by the department of obstetrics and gynaecology. During the 8- month study period, 160 instances of obstetric crises were analysed: 160 obstetric crises out of 3000 deliveries occurred, representing a proportion of 5.33%. The perinatal mortality rate in booked cases was 91.9%, with 84% of women receiving antenatal care and 16% not receiving it. Out of 160 cases of obstetric emergency, obstetric haemorrhage accounted for 94 (58.75%) cases, of which 35 (37.3%) cases were abruptio placenta and 23 (24.5%) were PPH, including both atonic and traumatic haemorrhages. Out of 160 cases of obstetric crises, 29 cases (18.1%) involved obstructed labour, which is a common reason for an emergency caesarean section. There was also one case of septic abortion and 30 cases of eclampsi:29 prenatal deaths resulted in an 181 per 1000 live births perinatal mortality rate. one maternal death from uterine rupture. Maternal morbidity was manifested in 6 cases (3.75%) of wound infections, 2 instances (1.25%) of wound gaping, 19 cases (11.81%) of PPH, 17 cases (10.6%) of septicemia, 6 cases (3.7%) of puerperal pyrexia, 6 cases (3.7%) of vaginal or cervical damage, and 9 cases (5.6%) of ICU hospitalisations. This morbidity lengthened the patients' hospital stays by more days30.

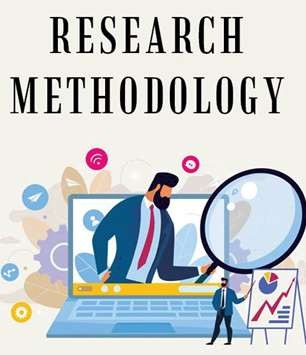
A Study conducted by Dipali Prasad, Huma Nishat, Bhawana Tiwary about Review of Obstetrical Emergencies and fetal out come in a tertiary care centre.Obstetric emergencies can happen quickly and without warning. Obstetrics is distinct in that a mother and a baby or foetus must be taken into account and cared for. Maternal and child health services include the identification and referral of high risk pregnancies. Obstetric emergencies can be prevented by being timely and appropriate. The goal of the current study was to understand the frequency, makeup, and consequences of obstetric emergency.Methods Obesity emergencies admitted to the Obstetrics and Gynaecology department of the Indira Gandhi Institute of Medical Science, Patna, between March 2015 and September 2017 were the subject of a retrospective study.Ectopic pregnancy (19.64%), heart disease (16.64%), abortion (13.69%), severe anaemia (16.66%), purpuric sepsis (9.52%), severe pregnancy-induced hypertension (3.57%), eclampsia/HELLP syndrome (2.38%), multiple pregnancy (1.19%), malignancy disorder with pregnancy (2.97%), and HIV in pregnancy (0.59%) were the most common clinical presentations. Caesarean section (28.57%), vaginal delivery (22.62%), Caesarean hysterectomy (2.38%), exploratory laparotomy (20.83%), and conservative care in (11.90%) of patients are among the interventions performed. Blood transfusions performed in (27.99%), sepsis (15.48%), ICU admission (8.92%), HDU (12.5%), pulmonary oedema (6.54%), DIC (4.16%), CCF (3.57%), ventilation support (1.78%), and maternal mortality (2.38%) are among the maternal outcomes. Live birth (58.8%), NICU admission (27.45%), ventilator support (7.84%), and neonatal mortality (5.88%) are all considered fatal outcomes31.

A Study Conducted by Masresha, Leta,Nega ,Assefa,Maleda ,Tefera about Obstetric Emergencies and adverse maternal-perinatal outcomes in Etihiopia;A Systematic review and meta analysis.Life-threatening medical issues that arise during pregnancy, labour, or delivery are referred to as obstetric crises.Numerous conditions and illnesses that affect pregnant women and their unborn children can be harmful to both the mother's and the unborn child's health. Obstetrical crises can occur both during active labour and postpartum. All pregnancies include some danger, even though the vast majority of them go off without a hitch. Anxiety and worry can accompany pregnancy, along with happiness and excitement. Negative pregnancy outcomes such as preterm birth, stillbirth, and low birth weight are also the main contributors to infant illness, mortality, and long-term physical and mental issues. This study aims to evaluate the prevalence and relationships between obstetric emergencies and poor maternal-perinatal outcomes in Ethiopia. The article was located using four databases: PUBMED, HINARI, SCIENCE DIRECT, and Google Scholar. Then, to find more papers, a search of the identified studies' reference lists was conducted. The PEO (population, exposure, and outcomes) search technique was applied for this review. Population: Ethiopian women who experienced obstetric crises. Predictors of obstetric crises are an exposure. Women who experienced a poor prenatal outcome were the result. Women from Ethiopia were the focus of attention. The frequency of poor maternal and perinatal outcomes among Ethiopian women was the main finding. Life-threatening obstetrical conditions that develop during pregnancy, labour, or the postpartum period are referred to as obstetrical emergencies.The methodological quality of studies was evaluated critically using the Joanna Briggs Institute quality evaluation tool. By study year, study design, sample size, data collection technique, and study outcome, two authors abstracted the data. STATA version 16 and complete meta-analysis [6:54 software were used to combine individual research. The Cochran Q test was used to determine whether there was statistical heterogeneity, and the I2 statistics were used to estimate its degree. It was determined how to construct summary statistics (pooled effect sizes) in an odd ratio with 95% confidence intervals.35 studies in total were used to calculate the combined prevalence of poor maternal and perinatal outcomes; 27 studies were used to calculate the odds with a 95% confidence interval (CI). Of these, 14 studies were cross-sectional, 9 were unmatched case-control studies, 14 were conducted in the south nation and nationality Peoples' Region, and 8 were from Amhara regional states. In total, 40,139 women who experienced an obstetric emergency were included in these studies. In Ethiopia, the percentage of negative maternal and perinatal outcomes as a result of obstetric emergencies was 15.9 and 37.1%, respectively. Contrary to normotensive women, obstetric emergency patients had unfavourable maternal outcomes that were 95% more likely to occur (OR 2.29, 95% CI 2.43-3.52) and perinatal fatalities that were 95% more likely to occur (OR 3.84, 95% CI 3.03-4.65) in these patients32.

A study Conducted by Ngoran Grace Bongban,Dorothy J Meyera about Emergency Obstetrics Knowledge and Practical skill retention among hospital and clinic Staff following advanced life support Obstetrical training in Cameroon,Africa.Maternal mortality remains a significant public health concern in many countries with inadequate resources, despite global rates declining. The maternal mortality rate in Cameroon was ranked 10th highest in the world in 2015. The "three delays" concept outlines three frequent obstacles to receiving emergency obstetrical care (EmOC): 1. deciding to seek emergency treatment; 2. getting to emergency care; and 3. receiving safe and appropriate emergency care in the health facility. The third delay—providing safe and suitable EmOC at the healthcare facility—is the subject of this study. An internationally renowned course called Advanced Life Support in Obstetrics (ALSO) trains health care professionals (HCW) to handle emergency obstetrical circumstances. The Cameroon Baptist Convention Health Services made the ALSO course open to any healthcare facility that wanted to send its HCWs for emergency obstetrical training. This study examines how well these HCWs retained their knowledge and skills six to thirty one months after finishing the training.: 99 (64.5%) of the 156 HCWs who finished the ALSO training course between May 2012 and December 2014 took part in the study on knowledge and skill retention. The HCWs thought the training was helpful (95.9%) and said they had used some of the skills (90.8%). The HCW's capacity to pass the ALSO practical skill retest served as a gauge of skill maintenance. The passing rate for HCW skills dropped from 65.4% during first training to 34.6% during retest (P=0.006). Individual drive and the HCW's capacity to use the skills in their workplace were linked to skill maintenance. There was no correlation between skill maintenance over time after the training course. A failing score on the initial test served as the main indicator of failing the retest.This study demonstrated that continuing "refresher courses" and the capacity for skill practise are necessary to preserve the standard of EmOC. Facilities should be assessed to determine the proper level of emergency care, and staff and facility capacity should be taken into consideration while designing the EmOC training33.

A study conducted by Rachel Camphell Evaluating emergency obstetric care education and training in a remote, fragile region of southeast asia. Emergency obstetric care (EmOC) is the minimal level of care necessary throughout pregnancy and childbirth to manage potentially life-threatening problems (WHO, 2009). The primary causes of maternal death, stillbirth, and early neonatal fatalities are covered in EmOC education and training.Method and content A comprehensive search was done to assess the efficacy of EmOC education and training in Southeast Asia (SEA) from 2018 to 2021 (inclusive). On December 6, 2021, CINAHL, MEDLINE, Scopus, and the grey literature were all searched. Four studies satisfied the requirements for inclusion in this analysis after duplicate records were eliminated and records were independently reviewed by two researchers. We made use of the framework for knowledge, skills, and attitude developed by Anderson et al.Findings: The systematic review's preliminary findings show that team-based learning and simulation-based training

are both successful at enhancing knowledge, abilities, and attitudes. The results of this systematic review show a deficit in the literature regarding the provision of education and training in EmOC within rural areas in SEA. A web-based game in neonatal resuscitation was not helpful in improving retention of knowledge and skills for up to 6 months. I'll be assessing a medical training programme in a rural region of Myanmar as part of my PhD. In conclusion, producing qualified healthcare staff requires effective EmOC packages. This is crucial for assisting the SEA nations in meeting the SDG targets by 203034.



# CHAPTER III RESEARCH METHODOLOGY

Methodology of research indicates the general pattern for organizing the procedure for the empirical study together with the method of obtaining valid and reliable data for problem under investigation.

This chapter deals with methodology of the present study which includes research approach, research design, variable under the study, setting of the study, population, sample and sampling technique, criteria for sample selection, description of the tool, data collection process and plan for data analysis.

#### RESEARCH APPROACH

The selection of research approach is a basic procedure for the conduction of research enquiry. The approach helps the researcher to determine what data to collect and how to analyse it.

Quantitative approach was used for the present study, since the purpose of the study was to Evaluate the Effectiveness of Self-Instructional Module on Knowledge, Attitude and Practice regarding Obstetrics Emergencies and its Management among Staff Nurses at selected Hospital, Kolar’.



Fig 1: SCHEMATIC REPRESENTATION OF RESEARCH PROCESS

Setting

Target population

Sample size

Sample technique

Variables

Instrument

Methods of data collection

Analysis

R.L. Jalappa Hospital and Research centre, Tamaka, Kolar. And SNR District Hospital, Tamaka, Kolar.

Staff Nurses working at

R.L. Jalappa Hospital & Research centre. And SNR District Hospital, Tamaka, Kolar.

200

Samples (100

Experiment al Group and 100 Control Group)

Purposive Sampling Technique.

**Section-I** Socio Demographic data.

**Section-II** Structured Knowledge question nnaire, Attitude Scale & Practice checklist.

**Dependent variable.**

Socio Demographi c variables, Knowledge, Attitude and Practice.

**Independen t variable** Self- Instructional Module.

**Experiment al group** pre-test.

Administrati on of Self- Instructional Module.

Post-test.

**Control group** Pre-test

No Administra tion of

Self- Instruction al Module.

Post test

**Descriptive analysis** Frequency, Percentage,

Mean, Median, SD, Range.

**Inferential statistics**

Paired' t’test, Unpaired ‘t’ test, and Chi- square test.

#### RESEARCH DESIGN

Research Design is a blue print for conducting the study that maximizes control over factors that could interfere with the validity of the findings. It is the arrangement of the conditions for the collection & analysis of data in manner that aims to combine relevance to the research purpose with economy in the procedure.

In this study quasi experimental design was used. Quasi-experiments Samples were not Randomized, the manipulation of independent variables, that is Self-Instructional Module was given.

The research design adopted for the study was Quantitative Study, Pre-test Post-test, Control group design. In the present study the base study measure introduced was the Knowledge, Attitude and Practice depicted as S1 and S2 for Pre-test and Post-test respectively.

The Experimental variable administered for Experimental group was Self-Instructional Module about Obstetrical Emergencies among Staff Nurses Which is represented and treatment. The schematic representation of Research Study design used by the Research investigation is given below: -

#### Schematic representation of the study

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Pre-test** | **Treatment** | **Post-test** |
| Experimental group | Day-1, S1 | X | Day-8, S2 |
| Control group | Day-2, S1 |  | S2 |

**Table 1: symbolic representation of quasi-experimental design.**

**Key: S1**: Pre-test.

**X:** Self-Instructional Module.

**S2**: Post test.

#### VARIABLES UNDER STUDY

In Quantitative study, concepts are usually referred to as variables, which are central building blocks of the study.

The present study is aimed at un ravelling and understanding the effectiveness of an intervention in increasing Knowledge and improving Attitude and Practice in Experimental group as compared to Control group, where as in Control group there is no intervention given.

**Independent Variables:** Self-Instructional Module on Obstetrical Emergencies among Staff Nurses at R.L. Jalappa Hospital & Research centre, Tamaka, Kolar. and SNR district Hospital Tamaka, Kolar.

**Dependent Variables:** Knowledge, Attitude and Practice scores of Staff Nurses measured by Knowledge Questionnaire, Attitude Scale and Practice.

#### SETTING OF STUDY

Setting are the more specific places where data occurs based on the research question and the type of information needed to address it. The study was conducted in R.L. Jalappa Hospital & Research centre Tamaka, Kolar and SNR district hospital, Tamaka, Kolar.

#### POPULATION

A population is a complete set of persons or objects that possess some common characteristics that is of interest to the researcher. The population in this study refers to the Staff Nurses.

#### SAMPLE AND SAMPLE SIZE

Sample is a subset of population that is selected to participate in a particular study. In this study Sample are Staff Nurses working at R.L. Jalappa Hospital & Research Centre Tamaka, Kolar. And SNR District Hospital, Tamaka, Kolar.

Sample size consists of 200 samples (100 Experimental and 100 Control group) working at R.L. Jalappa Hospital & Research Centre Tamaka, Kolar. And SNR District Hospital, Tamaka, Kolar.

#### SAMPLE TECHNIQUE

Sampling is the process of selecting a portion of the population to represent the entire population. The sampling technique used for the study was purposive sampling, which is a type of non-probability sampling. Purposive sampling is based on the belief that the researcher’s knowledge about the population, can be used to hand pick sample members, the sampling technique permits the researcher to decide purposely, to select subjects which are judged to be typical of the population.

In this study, through purposive sampling technique, 100 Staff Nurses who were working in SNR Hospital was taken as Experimental Study and 100 Staff Nurses working at RLJH Hospital was taken as Control group.

#### CRITERIA FOR SELECTION OF SAMPLE:

**INCLUSION CRITERIA:**

The criteria that specify the characteristics that people in the population must possess are referred as eligibility of inclusion criteria.

* 1. who were willing to participate in the study.
  2. who was present at the time of data collection.

#### EXCLUSION CRITERIA:

A population is defined in terms of characteristics that people must not possess are referred as exclusion criteria.

* + 1. Who was having less than 3 months of clinical experience.

#### SAMPLE CHARACTERTICS

A Purposive sample of 200 subjects (100 Experimental and 100 Control group) was taken for the study population data collection. The data obtained to describe the sample characteristics included Age, Gender, Professional Qualification, Working Experience, Working Area, Religion, Area of Residence, Previous Experience in labour or obstetrical wards.

#### DEVELOPMENT AND DESCRIPTION OF TOOL

The tool used for gathering relevant data about obstetric emergencies was structured Knowledge questionnaire, Attitude Scale and Practice Checklist was used among Staff Nurses working at RLJH hospital and SNR district hospital, Kolar, Karnataka. The following steps were carried out in preparing the knowledge tool.

1. Literature review
2. Validity of tool
3. Reliability

**Literature Review**

Literature reviewed from books, journals, published, unpublished studies and electronic media were used to develop the lesson plan and the tool.

**Validation of Tool**

The tool was validated by 8 subject Nursing expects, 4 Obstetric doctors and statistician, working at various institutions and hospitals.

**Reliability**

The Reliability of tool was checked using split half reliability coefficient of 0.75, which showed tool was reliable.

#### Description of the tool

On modifying the tool as per the expert’s suggestions, the final tool consists of four sections.

**Section I:** Information on Socio demographic variables of Staff Nurses containing 10 items.

**Section II:** Structured Knowledge questionnaire of 36 items on Obstetric Emergencies with maximum score of 36.

**Section III:** Attitude Scale consists of total 15 questions with maximum score of 75.

**Section IV:** Practice checklist of 20 questions with maximum score of 20.

#### DATA COLLECTION TOOLS AND TECHINQUE:

The tool was developed by researcher under the following sections.

**Section I:** Socio demographic variables of Staff Nurses which consists of Age, Gender, program, Year of experience, Area of exposure, Previous Knowledge on Obstetric Emergencies.

**Section II:** Structured Knowledge questionnaire on selected Obstetric Emergencies and its management.

**Section III:** Structured Attitude scale on selected Obstetric Emergencies and its management.

**Section IV:** Structured Practice checklist on selected Obstetric Emergencies and its management

#### DATA COLLECTION METHODS:

Collection of data is an important task in Quantitative research. The actual collection of data in a quantitative study often proceeds according to pre-established plan.

The research investigator obtained ethical clearance and formal permission from the Medical Officer, Nursing Superintendent, and participants of R.L. Jalappa hospital, Tamaka, Kolar and SNR district Hospital, Tamaka, Kolar. The data was collected by the following steps:

* 1. Permission was obtained from the concerned authority of the Institute and hospitals.
  2. Permission was obtained from Sri Devaraj Urs College of Nursing Institutional Ethics Committee.
  3. Written consent from the study participants was obtained.
  4. Through purposive sampling technique and following inclusion criteria, 100 Staff Nurses who are working in SNR hospital was taken as Experimental study and 100 Staff Nurses working at RLJH hospital was taken as Control group.
  5. Pre-test was taken from both Experimental and Control group.
  6. Self-Instructional Module was given to Experimental group immediately after Pre- test.
  7. Post test was conducted by using same tool after 8 days from the date of Pre-test administration in Experimental and Control group for assessing gain in Knowledge

and Attitude and Practice about Obstetrical Emergencies among Staff Nurses in Experimental as compared to Control group.

* 1. Self-Instructional Module was given to Control group after Post test to have uniformity in information shared.
  2. Data collected was tabulated and analysed.

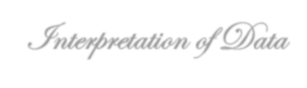
#### DATA ANALYSIS

Analysis involves estimating the values of unknown parameters of the population and testing of hypothesis for drawing interferences. Quantitative data is analysed through statistical procedures. Data obtained was analysed using descriptive and inferential statistics.

* + 1. Socio demographic variable was analysed using Frequency and Percentage.
    2. Effectiveness of SIM was analysed using paired t test and unpaired t test.
    3. Association between Post-test scores of Knowledges, Attitude and Practice score with selected demographic variables was assessed using Chi-square.

#### SUMMARY

This chapter on research methodology has the details of activities which is planned, carried out and various steps undertaken by the researcher during the course of her dissertation.



***Analysis &***

***Interpretation of Data***

**CHAPTER IV**

**ANALYSIS AND INTERPRETATION OF DATA**

This chapter deals with the analysis and interpretation of data collected from 200 Staff Nurses (100 Experimental group and 100 Control group) working at RLJH, Kolar and SNR hospital Kolar in order to Evaluate the Effectiveness of Self-Instructional Module on the Knowledge, Attitude and Practice about Obstetrical Emergencies. The main objective of the analysis is to reduce the data to a manageable and interpretable form, so that the research problem can be studied and tested.

The investigator administered Structured Knowledge questionnaires, Attitude scale and Practice checklist to collect data on Knowledge, Attitude and Practice regarding Obstetrical Emergencies among Staff Nurses working in RLJH Kolar and SNR Hospital Kolar.

The data findings have been tabulated according to the plan for data analysis and interpreted under the following objectives.

1. To Assess the level of Knowledge regarding Obstetrics Emergencies and its management among Staff Nurses using Structured Knowledge questionnaires **in Experimental and Control group.**
2. To Assess the level of Attitude regarding Obstetrics Emergencies and its management among Staff Nurses using Attitude scale **in Experimental and Control group.**
3. To Assess the level of Practice regarding Obstetrics Emergencies and its management among Staff Nurses using Practice checklist **In Experimental and Control group.**
4. To Evaluate the effectiveness of Self- Instructional Module by comparing Pre-test and Post-test Knowledge and Practice scores regarding Obstetrics Emergencies and its management among Staff Nurses **In Experimental and Control group**.
5. To Compare the effectiveness of Self-Instructional Module on Knowledge Attitude and Practice **In Experimental and control group.**
6. To Find out the association between Post-test Knowledge scores with selected demographic variables of Staff Nurses **in Experimental and Control group.**
7. To Find out the association between Post-test Attitude scores with selected demographic variables of Staff Nurses **In Experimental and Control group.**
8. To find out the association between Post-test Practice scores with selected demographic variables of Staff Nurses **In Experimental and Control group.**

#### Presentation of Data

The data obtained was entered into a master data sheet for tabulation and statistical processing. The analysis of data was organized and presented under the following headings: -

* 1. Distribution of sample characteristics according to demographic variables of Staff Nurses **In Experimental and Control group.**
  2. Distribution of Knowledge, Practice and Attitude scores among Staff Nurses regarding Obstetrical Emergencies **In Experimental and Control group.**
  3. Evaluate the Effectiveness of Self-Instructional Module in terms of gain in Post-test Knowledge, Practice and Attitude scores in Experimental group.
  4. Evaluate Control group without administering Self-Instructional Module in terms of Post-test Knowledge, Practice and Attitude scores in Control group.
  5. Data describing association between Pre-test Knowledge scores and selected demographic variables among Staff Nurses **In Experimental and Control group.**

#### Section I: Distribution of sample characteristics according to demographic variables of respondents

**Table 1: Frequency and Percentage Distribution of subjects according to demographic variables in Experimental and Control group. N=200**

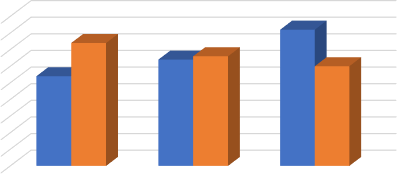
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No** | **Variables** | **Experimental group** | | **Control group** | |
| **Frequency** | **Percentage** | **Frequency** | **Percentage** |
| **1.** | **Age (Years)** |  |  |  |  |
|  | 1.1) Below 25 years | 27 | 27% | 37 | 37% |
|  | 1.2) 26-30 years | 32 | 32% | 33 | 33% |
|  | 1.3) Above 31 years | 41 | 41% | 30 | 30% |
| **2.** | **Gender** |  |  |  |  |
|  | 2.1) Male | 14 | 14% | 31 | 31% |
|  | 2.2) Female | 86 | 86% | 69 | 69% |
| **3.** | **Professional Qualification** |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 3.1) GNM | 57 | 57% | 27 | 27% |
|  | 3.2) P.B.BSc nursing | 16 | 16% | 24 | 24% |
|  | 3.3) BSc nursing | 10 | 10% | 40 | 40% |
|  | 3.4) Msc and Above | 17 | 17% | 9 | 9% |
| **4.** | **Working Experience** |  |  |  |  |
|  | 4.1) 0-2 Years | 06 | 06% | 36 | 36% |
|  | 4.2) 3-5 Years | 14 | 14% | 22 | 22% |
|  | 4.3) 5-7 Years | 27 | 27% | 19 | 19% |
|  | 4.4) 8-10 Years | 23 | 23% | 11 | 11% |
|  | 4.5) Above 11 Years | 30 | 30% | 12 | 12% |
| **5.** | **Working areas** |  |  |  |  |
|  | 5.1) labour ward | 13 | 13% | 12 | 12% |
|  | 5.2) obstetrical ward | 12 | 12% | 05 | 05% |
|  | 5.3) causality | 15 | 15% | 8 | 08% |
|  | 5.4) ICUs | 28 | 28% | 38 | 38% |
|  | 5.5) Medical and Surgical wards | 32 | 32% | 37 | 37% |
| **6.** | **In service education frequency** |  |  |  |  |
|  | 6.1) every month | 84 | 84% | 88 | 88% |
|  | 6.2) every 3 months | 6 | 06% | 9 | 09% |
|  | 6.3) yearly twice | 8 | 08% | 2 | 02% |
|  | 6.4) yearly once | 2 | 02% | 1 | 01% |
| **7.** | **Religion** |  |  |  |  |
|  | 7.1) Hindu | 77 | 77% | 87 | 87% |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 7.2) Muslim | 10 | 10% | - | - |
|  | 7.3) Christian | 13 | 13% | 13 | 13% |
|  | 7.4) Others | - | - | - | - |
|  | **8.Area of residence** |  |  |  |  |
|  | 8.1) Urban | 12 | 12% | 33 | 33% |
|  | 8.2) Rural | 88 | 88% | 67 | 67% |
|  | **9. Previous experience in labour ward** |  |  |  |  |
|  | 9.1) Yes | 78 | 78% | 25 | 25% |
|  | 9.2) No | 22 | 22% | 75 | 75% |
|  | **If yes, specification of ward** |  |  |  |  |
|  | 1) Post-natal ward | 32 | 32% | 8 | 8% |
|  | 2) Ante natal ward | 8 | 8% | 4 | 4% |
|  | 3) Labour room | 26 | 26% | 8 | 8% |
|  | 4) OT | 12 | 12% | 5 | 5% |

**Table 1**: revealed that, **in Experimental group,** Majority 32 (32%) of Staff Nurses, belonged to the Age group of 26-30 years Minority 27(27%) were from the Age group below 25 years. Majority 86(86%) of Staff Nurses were females and Minority14(14%) were males. Majority57(57%) of Staff Nurses completed GNM Nursing, and Minority10(10%) completed B.sc N. Majority30(30%) of Staff Nurses had the Working experience above 10 years, Minority 6(6%) had working experience of 0-2 years. Majority32(32%) of the Staff Nurses work in Medical and surgical wards, Minority12(12%) works in obstetrical wards. Majority84(84%) of Staff Nurses got in-service education every month and Minority2(2%) got in once in a year. Majority77(77%) of Staff Nurses are Hindus and Minority10(10%) were Muslims. Majority88(88%) of the Staff Nurses resides in rural areas and Minority12(12%) in urban. Majority78(78%) of them had previous experience in the labour wards or obstetrical wards.

**in Control group,** Majority37(37%) of Staff Nurses belonged to the age group below 25 years, and Minority30(30%) belong to the age group above 31 years. Majority69(69%) of Staff

Nurses are females and Minority31(31%) were males. Majority40(40%) of staff nurses completed B.sc Nursing, and Minority9(9%) completed M.sc N and above. Majority36(36%) of Staff Nurses had the working experience of 0-2 years, Minority11(11%) had working experience of 8-10 years. Majority38(38%) of the Staff Nurses work in ICU wards, Minority5(5%) works in obstetrical wards. Majority88(88%) of Staff Nurses got in-service education every month and Minority1(1%) got in yearly once. Majority87(87%) of Staff Nurses were Hindus and Minority13(13%) were Muslims. Majority67(67%) of the Staff Nurses resides in rural areas and minority33(33%) in urban. Majority75(75%) of them do not had previous experience in the labour wards or obstetrical wards.

AGE OF YEARS

45

40

35

EXPERIMENTAL GROUP

CONTROL GROUP

41

37

32

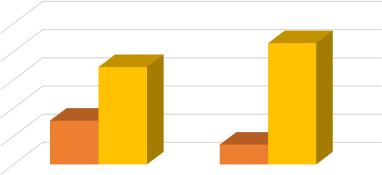
33

30

27

|  |  |  |  |
| --- | --- | --- | --- |
| 30 |  | | |
| 25 |  |  |  |
| 20 |  |  |  |
| 15 |  |  |  |
| 10 |  |  |  |
| 5 |  |  |  |
| 0 | <25 Years | 26-30 Years | >31 years |

**Graph 1: Bar graph showing percentage distribution of Staff Nurses according to Age in Experimental and Control Group.**



Gender

69

86

100

80

31

60

14

40

20

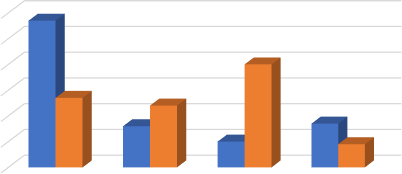
0

1

2

male female

**Graph 2: Bar graph showing percentage distribution of Gender of Staff Nurses in Experimental and Control group.**



Proffessional Qualification

57

60

50

40

40

27

30

24

17

20

16

10

9

10

0

GNM

P.B.SC

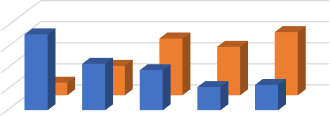
BSC

MSC and above

EXPERIMENTAL GROUP

CONTROL GROUP

**Graph 3: Bar graph showing percentage distribution of Staff Nurses according to Professional Qualification Experimental and Control group.**



working experience

36

40

30

20

10

0

27

30

23

14

6

experimental group

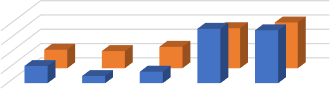
control group

0-2 years 3-5 years 5-7 years 8-10 years above 11

years

control group experimental group

**Graph 4: Bar graph showing percentage distribution of Staff Nurses according to Work Experience Experimental and Control group.**



Working Area

38 28

37 32

40

30

20

10

0

13

12

15

12

5

8

experimental group

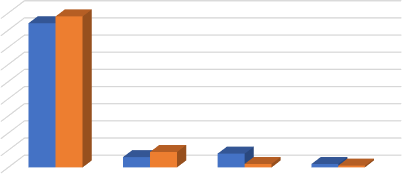
control group

control group experimental group

**Graph 5: Bar graph showing percentage distribution of Staff Nurses according to Working areas Experimental and Control group.**

|  |  |  |  |
| --- | --- | --- | --- |
| 90 |  | | |
| 80 |
| 70 |
| 60 |
| 50 |
| 40 |
| 30 |
| 20  10 |  | 6 9 | 8 |
| 0 |  |  |  |

**Graph 6: Bar graph showing percentage distribution of Staff Nurses according to In- service Education Frequency Experimental and Control group.**



In-service Education

84

88

2

2 1

every month

every 3 month yearly twice

yearly once

EXPERIMENTAL GROUP

CONTROL GROUP

Religion

100

90

80

70

60

50

40

30

20

10

0

87

77

10

13

13

0

0

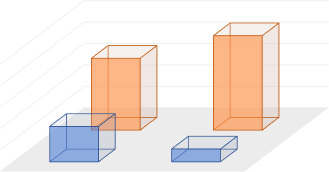
0

hindu muslim christian others

EXPERIMENTAL GROUP

CONTROL GROUP

**Graph 7 : Bar graph showing percentage distribution of Staff Nurses’ Religion Experimental and Control group.**



Area of Residence

88

67

100

80

60

40

20

0

33

rural

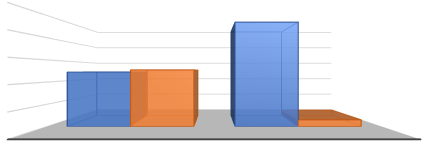
12

urban

control group experimental group

urban rural

**Graph 8: Bar graph showing percentage distribution of Area of Residence of Staff Nurses in Experimental and Control group.**



**Previous experience in labour ward**

**or obstetrical wards**

100

94

80

60

49

51

40

20

6

0

PRE TEST

POST TEST

GOOD AVERAGE

**Graph 9: Bar graph showing percentage distribution of Previous Experience in Labour wards or Obstetrical wards of Staff Nurses in Experimental and Control group.**

Specification of wards

OT

20

5

labour wards

32

8

ante natal wards

16

4

post natal wards

32

8

0

5

10

15

20

25

30

35

experimental group

control group

**Graph 10: Bar graph showing percentage distribution of Specification of wards of Staff Nurses in Experimental and Control group.**

#### Section II: Findings on Knowledge regarding Obstetric Emergencies among Staff Nurses.

**Table 2: Frequency(f) and Percentage (%) distribution of Knowledge scores among Staff Nurses about Obstetric Emergencies in Experimental group. n=100**

#### Scores Pre-test Post test

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Frequency** | **Percentage** | **Frequency** | **Percentage** |
| **Good (28-36)** | **0** | 0 % | 26 | 26 % |
| **Average (19-27)** | 40 | 40 % | 67 | 67 % |
| **Poor (0-18)** | 60 | 60 % | 7 | 7 % |

**Table 2**: revealed that, in pre-test Majority 60(60%) of the Staff Nurses had poor Knowledge, 40(40%) had average Knowledge and none had good Knowledge. In Post-test Majority 67(67%) of Staff Nurses had average Knowledge and 26(26%) had good Knowledge scores. This shows there is gain in Knowledge scores after administering Structured Instructional Module about Obstetric Emergencies.

knowledge scores of staff nurses in experimental

group

80

70

60

50

40

67

60

40

30

20

10

0

26

7

0

good average poor

post test

pre test

#### Graph 11: Line graph Showing the percentage distribution of Staff Nurses

**according to Pre-test and Post-test Knowledge scores in Experimental group.**

#### Table 3: Frequency(f) and Percentage (%) distribution of Knowledge scores among Staff Nurses about Obstetric Emergencies in Control group. n=100

**Scores Pre-test Post test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Frequency** | **Percentage** | **Frequency** | **Percentage** |
| **Good (28-36)** | **0** | 0 % | 0 | 0 % |
| **Average (19-27)** | 55 | 55 % | 55 | 55 % |
| **Poor (0-18)** | 45 | 45 % | 55 | 55 % |

**Table 3** revealed that in Pre-test Majority 55(55%) of the Staff Nurses had average Knowledge, 45(45%) had poor Knowledge and none had good Knowledge. In Post-test 55(55%) of Staff Nurses had average Knowledge and 55(55%) have poor Knowledge scores. This shows there is no gain in Knowledge scores about Obstetric Emergencies without giving Structured Instructional Module.

Knowledge score of Staff Nurses in Control group

60

55

51

50

49

45

40

30

20

10

0

pre-test

post test

Good Average Poor

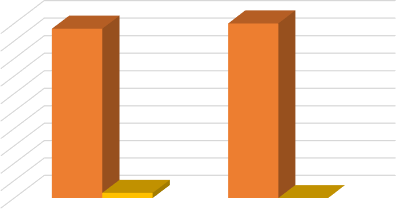
#### Graph 12: Bar graph Showing the percentage distribution of Staff Nurses according to Pre-test and Post-test Knowledge scores in Control group.

**Section III: Findings on Attitude regarding Obstetric Emergencies among Staff Nurses.**

#### Table 4: Frequency(f) and Percentage (%) distribution of Attitude scores among Staff Nurses about Obstetric Emergencies in Experimental group. n=100

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Scores** | **Pre-t** | | **est** | **Post test** | |
| **Frequency** | | **Percentage** | **Frequency** | **Percentage** |
| **Positive (39-75)** | | **97** | 97 % | 100 | 100 % |
| **Negative (38-1)** | | 03 | 03 % | 0 | 0 % |

**Table 4**: revealed that in Pre-test Majority 97 (97%) of the Staff Nurses had Positive Attitude scores, 03(3%) were having negative Attitude scores. In Post-test all 100(100%) of Staff Nurses have had positive Attitude scores. This shows there is gain in Attitude scores after administering Structured Instructional Module about Obstetric Emergencies.



97

100

100

90

80

70

60

50

40

30

20

10

0

3

0

pre test post test

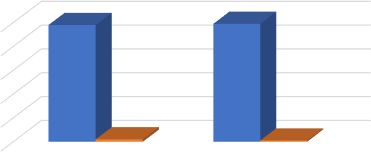
frequency percentage

#### Graph 13: Bar graph Showing the percentage distribution of Staff Nurses according to Pre-test and Post-test Attitude scores in Experimental group.

**Table 5: Frequency(f) and Percentage (%) distribution of Attitude scores among Staff Nurses about Obstetric Emergencies in Control group. n=100**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Scores** | **Pre-t** | | **est** | **Post test** | |
| **Frequency** | | **Percentage** | **Frequency** | **Percentage** |
| **Positive (39-75)** | | **98** | 98 % | 99 | 99 % |
| **Negative (38-1)** | | 02 | 02 % | 0 1 | 0 1 % |

**Table 5:** revealed that in pre-test majority 68(68%) of the Staff Nurses had positive Attitude scores, 02(2%) had negative Attitude scores. In Post-test 99(99%) of Staff Nurses have positive Attitude and 01(1%) have negative Attitude scores.



pre test and post test attititude scores of staff

nurses

98

99

100

80

60

40

20

2

1

0

pre test

post test

frequency percentage

#### Graph 14: Line graph Showing the percentage distribution of Staff Nurses according to pre-test and post-test Attitude scores in Control group.

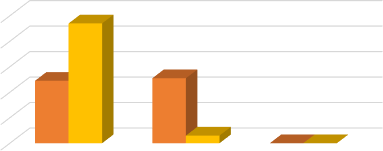
**Section IV: Findings on Practice regarding Obstetric Emergencies among Staff Nurses.**

#### Table 6: Frequency(f) and Percentage (%) distribution of Practice scores among Staff Nurses about Obstetric Emergencies in Experimental group. n=100

**Scores Pre-test Post test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Frequency** | **Percentage** | **Frequency** | **Percentage** |
| **Good (16-20)** | **49** | 49 % | 94 | 94 % |
| **Average (11-15)** | 51 | 51 % | 6 | 6 % |
| **Poor (0-10)** | 0 | 0 % | 0 | 0% |

**Table 6**: revealed that in pre-test majority 51(51%) of the Staff Nurses had average Practice scores, 49(49%) had good practice scores and None had poor Practice scores. In Post-test Majority 94(94%) had of Staff Nurses had good Practice scores. This shows there is gain in Practice scores after administering Structured Instructional Module about Obstetric Emergencies.



PRE-TEST POST-TEST PRACTICE SCORES OF STAFF

NURSES

94

100

80

60

49

51

40

20

6

0 0

0

GOOD

AVERAGE

POOR

pre test post test

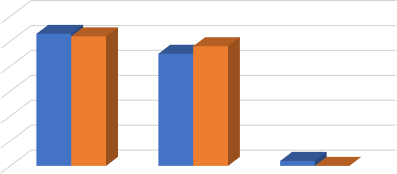
#### Graph 15: Bar graph Showing the percentage distribution of Staff Nurses according to pre-test and post-test Practice scores in Experimental group.

**Table 7: Frequency(f) and Percentage (%) distribution of Practice scores among Staff Nurses about Obstetric Emergencies in Control group. n=100**

#### Scores Pre-test Post test

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Frequency** | **Percentage** | **Frequency** | **Percentage** |
| **Good (16-20)** | **53** | 53 % | 52 | 52 % |
| **Average (11-15)** | 45 | 45% | 48 | 48% |
| **Poor (0-10)** | 2 | 2 % | 0 | 0 % |

**Table 7**: revealed that in Pre-test Majority 53(53%) of the Staff Nurses had good Practice scores, 45(45%) had average Practice scores and None had poor Practice scores. In Post-test Majority 52 (52%) of Staff Nurses had good Practice scores. This shows there is no gain in Practice scores without administering Structured Instructional Module about Obstetric Emergencies.



practice scores of staff nurses in control group

60

53

52

50

45

48

40

30

20

10

2

0

0

good

average

poor

pre test post test

#### Graph 16: Bar graph Showing the percentage distribution of Staff Nurses according to pre-test and post-test Practice scores in Control group.

**Table 8: Mean, Median, Mode, Standard Deviation and Range of Knowledge scores about Obstetric Emergencies among Staff Nurses in Experimental group. n=100**

#### Area of analysis Mean Median Mode Standard Deviation Range

**Pre-test** 18.47 18 17 2.44 11%

**Post test** 24.4 24 19 4.36 16%

**Difference** 5.93 06 2 1.92 5 %

mean,median,mode,range and standard

deviation of knowledge scores in experimental group

30

25

24.4

24

20

18.47

18

15

19

17

16

10

11

5

4.36

2.44

0

mean

median

mode

range

sd

pre test

post test

#### Graph 17: Line graph showing Mean, Median, Mode, Standard Deviation and Range scores of Staff Nurses according to Pre-test and Post-test Knowledge scores in Experimental group.

**Table 9: Mean, Median, Mode, Standard Deviation and Range of Knowledge scores about Obstetric Emergencies among Staff Nurses in Control group. n=100**

#### Area of analysis Mean Median Mode Standard Deviation Range

**Pre-test** 18.31 19 19 3.50 18

**Post test** 18.53 19 19 3.43 17

**Difference** 0.22 0 0 0.07 1



Mean , median,mode,SD, and range of staff

nurses according to pretest post test knowledge scores in control group

20

18.31 18.53

19

19

17

18

15

10

5

33.4.53

0

mean

median

mode

range

SD

pre test

post test

#### Graph 18: Line graph showing Mean, Median, Mode, Standard Deviation and Range scores of Staff Nurses according to Pre-test and Post-test Knowledge scores in Control group.

**Table 10: Mean, Median, Mode, Standard Deviation and Range of Attitude scores about Obstetric Emergencies among Staff Nurses in Experimental group. n=100**

#### Area of analysis Mean Median Mode Standard Deviation Range

**Pre-test** 47.03 47 47 4.97 29

**Post test** 73.38 73 73 1.30 5

**Difference** 26.35 26 26 3.67 24



140

120

100

80

60

40

20

0

mean,median,mode,range,andstandard deviation

of attitude scores of staff nurses in experimental group

73.38

73

73

5

1.3

47.03

47

mean median mode range SD

pre test

post test

#### Graph 19: Line graph showing Mean, Median, Mode, Standard Deviation and Range scores of Staff Nurses according to pre-test and post-test Attitude scores in Experimental group.

**Table 11: Mean, Median, Mode, Standard Deviation and Range of Attitude scores about Obstetric Emergencies among Staff Nurses in Control group. n=100**

#### Area of analysis Mean Median Mode Standard deviation Range

**Pre-test** 50.47 51 51 6.98 33

**Post test** 50.4 49 42 7.002 35

**Difference** 0.007 2 9 0.0022 2



60

50

40

30

20

10

0

mean,median,mode,range and standard

deviation of attitude scores of staff nurses in control group

50.47

51

51

33

49

50.4

42

35

6.98

7.002

0 1 2 3 4 5 6

pre test

post test

#### Graph 20 : Line graph showing Mean, Median, Mode, Standard Deviation and Range scores of Staff Nurses according to pre-test and post-test Attitude scores in Control group.

**Table 12: Mean, Median, Mode, Standard Deviation and range of Practice scores about Obstetric Emergencies among Staff Nurses in Experimental group. n=100**

#### Area of analysis Mean Median Mode Standard deviation Range

**Pre-test** 17.34 17 18 0.73 3

**Post test** 18.49 18 18 0.75 3

**Difference** 1.15 1 0 0.02 0



mean,median,mode,range,standard deviation of

practice scores of staff nurses in experimental

18.49

18

20

group

18

15

17.34

17

18

10

5

3

0.75

0

mean

median

mode

3

range

0.73

SD

pre test

post test

#### Graph 21: Line graph showing Mean, Median, Mode, Standard Deviation and Range scores of Staff Nurses according to pre-test and post-test Practice scores in Experimental group.

**Table 13: Mean, Median, Mode, Standard Deviation and Range of Practice scores about Obstetric Emergencies among Staff Nurses in Control group. n=100**

#### Area of analysis Mean Median Mode Standard deviation Range

**Pre-test** 17.43 18 18 1.37 7

**Post test** 17.51 18 18 1.38 4

**Difference** 0.08 0 0 0.01 3



mean,median,mode,range and standard

deviation of practice scores

20

17.43

18

18

15

17.51

18

18

10

7

5

4

0

1.37

0.75

mean median mode range SD

pre test

post test

#### Graph 22: Line graph showing Mean, Median, Mode, Standard Deviation and Range scores of Staff Nurses according to Pre-test and Post-test Practice scores in Control group.

**TESTING OF HYPOTHESIS**

#### Table 14: Mean Difference, Standard Error and paired t-test of Knowledge scores in Experimental group. n=100

|  |  |  |  |
| --- | --- | --- | --- |
| **Mean difference** | **Standard error** | **Paired t-test Calculated Tabulated** | |
| 5.93 | 0.199 | 12.56 | 1.66 |

**(p<0.05) t=1.66**

**Table 14** revealed that Mean difference is 5.93, Standard error is 0.199 and calculated paired t test is 12.56.

#### Table 15: Mean Difference, Standard Error and paired t-test of Knowledge scores in Control group. n=100

**Mean difference Standard error Paired t-test Calculated Tabulated**

0.22 0.007 3.7 1.66

#### (p<0.05) t=1.66

**Table 15:** revealed that mean difference is 0.22, standard error is 0.007 and calculated paired t test is 3.7

#### Table 16: Mean Difference, Standard Error and paired t-test of Attitude scores in Experimental group. n=100

**Mean difference Standard error Paired t-test Calculated Tabulated**

26.35 0.367 30.77 1.66

#### (p<0.05) t=1.66

**Table 16**: revealed that Mean difference is 26.35, standard error is 0.367 and calculated paired t test is 30.77.the calculated value is less than the tabulated value we are rejecting null hypothesis hence SIM was not Effective in improving the Attitude scores

#### Table 17: Mean Difference, Standard Error and paired t-test of Attitude scores in Control group. n=100

**Mean difference Standard error Paired t-test Calculated Tabulated**

0.07 0.0022 0.22 1.66

#### (p<0.05) t=1.66

**Table 17:** revealed that Mean difference is 0.07, standard error is 0.0022 and calculated paired t test is 0.22 .

#### Table 18: Mean Difference, Standard Error and paired t-test of Practice scores in Experimental group. n=100

**Mean difference Standard error Paired t-test Calculated Tabulated**

1.15 0.002 1.13 1.66

#### (p<0.05) t=1.66

**Table 18**: revealed that Mean difference is 1.15, Standard error is 0.002 and calculated paired t test is 1.13.The calculated value is less than the tabulated value we are rejecting the null hypothesis. hence SIM was not effective in improving the Practice scores of Staff Nurses

#### Table 19: Mean Difference, Standard Error and paired t-test of Practice scores in Control

|  |  |  |
| --- | --- | --- |
| **group.** | **n=100** | |
| **Mean difference** | **Standard error** | **Paired t-test Calculated Tabulated** |
| 0.08 | 0.001 | 0.077 1.66 |
| **(p<0.05) t=1.66** |  |  |

**Table 19:** revealed that mean difference is 0.08, standard error is 0.001 and calculated paired t test is 0.077.

#### Table 20: Mean difference, Standard error and unpaired t-test of Knowledge scores in Experimental group. n=100

|  |  |  |  |
| --- | --- | --- | --- |
| **Mean difference** | **Standard error** | **Unpaired t-test Calculated Tabulated** | |
| 5.93 | 0.199 | 0.3893 | 1.98 |

**(p<0.05) t=1.98**

**Table 20**: revealed that Mean difference is 5.93, standard error is 0.199 and calculated unpaired t test is 0.3893 The calculated value is less than the tabulated value 1.98. hence, we are rejecting the research hypothesis. hence SIM alone was not Effective in improving the Knowledge scores of Staff Nurses.

#### Table 21: Mean difference, standard error and unpaired t-test of Knowledge scores in

|  |  |  |
| --- | --- | --- |
| **Control group.** |  | **n=100** |
| **Mean difference** | **Standard error** | **Unpaired t-test Calculated Tabulated** |
| 0.22 | 0.007 | 0.346 1.98 |
| **(p<0.05) t=1.98** |  |  |

**Table 22:** revealed that mean difference is 0.22, standard error is 0.007 and calculated paired t test is 0.346 and tabulated value was 1.98. hence calculated value was less than tabulated. There was no gain in Knowledge score in Control group.

#### Table 23: Mean Difference, Standard Error and Unpaired t-test of Attitude scores in Experimental group. n=100

**Mean difference Standard error Unpaired t-test Calculated Tabulated**

26.35 0.367 0.361 1.98

#### (p<0.05) t=1.98

**Table 23**: revealed that mean difference is 26.35, standard error is 0.367 and calculated paired t test is 0.361 The calculated value is less than the tabulated value. Hence, we are rejecting research hypothesis. Therefore, SIM alone was not Effective in increasing the Attitude scores of Staff Nurses in Experimental group

#### Table 24: Mean Difference, Standard Error and Unpaired t-test of Attitude scores in Control group. n=100

**Mean difference Standard error Unpaired t-test Calculated Tabulated**

0.07 0.0022 0.502 1.98

#### (p<0.05) t=1.98

**Table 24:** revealed that mean difference is 0.07, standard error is 0.0022 and calculated unpaired t test is 0.502. the calculated value is less than the tabulated value we are rejecting the research hypothesis. Hence the SIM alone was not Effective in increasing the Attitude scores of Staff Nurses in Control group.

#### Table 25: Mean Difference, Standard Error and Unpaired t-test of Practice scores in Experimental group. n=100

**Mean difference Standard error Unpaired t-test Calculated Tabulated**

1.15 0.002 0.110 1.98

#### (p<0.05) t=1.98

**Table 25**: reveals that mean difference was 1.53 standard error is 0.002 and calculated was

0.110 and unpaired t test tabulated value was 1.98. The calculated value was less than the tabulated value we are rejecting the null hypothesis.Hence the SIM alone was not Effective in increasing the practice score of Staff Nurse

#### Table 26: Mean Difference, Standard Error and Unpaired t-test of Practice scores in Control group. n=100

|  |  |  |
| --- | --- | --- |
| **Mean difference** | **Standard error** | **Unpaired t-test Calculated Tabulated** |
| 0.08 | 0.001 | 0.134 1.98 |
| **(p<0.05) t=1.98** |  |  |

**Table 26:** revealed that mean difference is 0.08, standard error is 0.001 and calculated unpaired t test is 0.134, hence there was no munch gain in Practice level among Staff Nurses after administering Self Instructional Module.

#### Table 27: Association between Post-test Knowledge scores and selected demographic variables in Experimental group n=100

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl no | Socio Demographic Variables | Knowledge score | | | Chi square | | |
|  |  | good | Average | Poor | Cal | P value | significance |
| 1 | **AGE** |  |  |  |  |  |  |
| 1.1 | <25 years | 5 | 21 | 1 | 4.623 | 0.328 | SS |
| 1.2 | 26-30 years | 12 | 17 | 3 |
| 1.3 | >30 years | 9 | 29 | 3 |
| 2 | **GENDER** |  |  |  |  |  |  |
| 2.1 | Male | 6 | 8 | 0 | 3.155 | 0.206 | SS |
| 2.2 | Female | 20 | 59 | 7 |
| 3 | **PROFFESSIONAL QUALIFICATION** |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 3.1 | G.N.M nursing | 12 | 40 | 5 | 19.473 | 0.003 | SS |
| 3.2 | P.B.Sc nursing | 4 | 12 | 0 |
| 3.3 | B.Sc nursing | 8 | 2 | 0 |
| 3.4 | M.Sc nursing | 2 | 13 | 2 |
| 4 | **WORKING EXPERIENCE** |  |  |  |  |  |  |
| 4.1 | 0-2 years | 1 | 5 | 0 | 29.354 | 0.0002 | SS |
| 4.2 | 3-5 years | 8 | 6 | 0 |
| 4.3 | 5-7 years | 12 | 14 | 1 |
| 4.4 | 8-10 years | 3 | 20 | 0 |
| 4.5 | Above 10 years | 2 | 22 | 6 |
| 5 | **WORKING AREA** |  |  |  |  |  |  |
| 5.1 | Labour room | 8 | 2 | 3 | 53.537 | 0.0002 | SS |
| 5.2 | Obstetrical wards | 3 | 5 | 4 |
| 5.3 | Causality | 9 | 6 | 0 |
| 5.4 | ICUs | 3 | 25 | 0 |
| 5.5 | Medical & Surgical Wards | 3 | 29 | 0 |
| 6 | **IN-SERVICE EDUCATION** |  |  |  |  |  |  |
| 6.1 | Every month | 16 | 63 | 5 | 21.021 | 0.001 | SS |
| 6.2 | Every 3 month | 5 | 1 | 0 |
| 6.3 | Yearly twice | 4 | 2 | 2 |
| 6.4 | Yearly once | 1 | 1 | 0 |
| 7 | RELIGION |  |  |  |  |  |  |
| 7.1 | Hindu | 12 | 61 | 4 | 29.604 | 0.00004 | SS |
| 7.2 | Muslim | 5 | 5 | 0 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 7.3 | Christian | 9 | 1 | 3 |  |  |  |
| 7.4 | Others | 0 | 0 | 0 |
| 8 | **AREA OF RESIDECE** |  |  |  |  |  |  |
| 8.1 | Urban | 8 | 2 | 2 | 15.65 | 0.0003 | SS |
| 8.2 | Rural | 18 | 65 | 5 |
| 9 | **PREVIOUS EXPERIENCE IN LABOUR WARDS OR OBSTETRIC WARDS** |  |  |  |  |  |  |
| 9.1 | Yes | 18 | 56 | 4 | 4.156 | 0.125 | SS |
| 9.2 | No | 8 | 11 | 3 |
| 10 | **SPECIFICATION OF WARD** |  |  |  |  |  |  |
| 10.1 | Post natal wards | 12 | 18 | 2 | 5.776 | 0.4487 | SS |
| 10.2 | Ante natal wards | 2 | 4 | 2 |
| 10.3 | Labour room | 13 | 10 | 3 |
| 10.4 | OT | 4 | 5 | 3 |

**TABLE 27:** The findings regarding Post-test Knowledge scores and selected Socio demographic variables in Experimental group showed that, in Age t(cal) 4.623 was greater than t(tab) 0.328, Gender t(cal) 3.144 was greater than t(tab) 0.206, Professional qualification t(cal) 19.473was greater than t(tab) 0.003, Working experience t(cal) 29.354 was greater than t(tab) 0.0002,Working area t(cal) 53.537 was greater than t(tab) 0.0002, In service education t(cal) 21.021 was greater than t(tab) 0.001, Religion t(cal) 29.604 was greater than t(tab) 0.00004, Area of residence t(cal) 15.65 was greater than t(tab) 0.0003, Previous experience in labour and obstetrical wards t(cal) 4.156 was greater than t(tab) 0.125, specification of ward t(cal) 5.776 was greater than t(tab) 0.4487 and this showed that there was an association between Age, Gender, Professional qualification, Working experience, Working area, In service education, Religion, Area of

residence, Previous Experience in labour and obstetrical wards and specification of the ward. Hence H7 was accepted.

#### Table 28: Association between Post-test knowledge scores and selected demographic variables in Control group n=100

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl no | Socio Demographic Variables | Knowledge score | | | Chi square | | | |
|  |  | good | Averag e | Poor | Cal | P value | De gre e of fre edo m | significanc e |
| 1 | **AGE** |  |  |  | 1.448 | 0.835 | 4 | SS |
| 1.1 | <25 years | 0 | 18 | 19 |
| 1.2 | 26-30 years | 0 | 18 | 15 |
| 1.3 | >30 years | 0 | 19 | 11 |
| 2 | **GENDER** |  |  |  |  |  |  |  |
| 2.1 | Male | 0 | 25 | 6 | 11.938 | 11.938 | 2 | SS |
| 2.2 | Female | 0 | 30 | 39 |
| 3 | **PROFFESSIO NAL QUALIFICATI ON** |  |  |  |  |  |  |  |
| 3.1 | G.N.M nursing | 0 | 15 | 12 | 4.826 | 4.826 | 6 | SS |
| 3.2 | P.B.Sc nursing | 0 | 12 | 12 |
| 3.3 | B.Sc nursing | 0 | 20 | 20 |
| 3.4 | M.Sc nursing | 0 | 8 | 1 |
| 4 | **WORKING EXPERIENCE** |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4.1 | 0-2 years | 0 | 15 | 21 | 9.8 | 0.279 | 8 | SS |
| 4.2 | 3-5 years | 0 | 15 | 7 |
| 4.3 | 5-7 years | 0 | 15 | 4 |
| 4.4 | 8-10 years | 0 | 5 | 6 |
| 4.5 | Above 10 years | 0 | 5 | 7 |
| 5 | **WORKING AREA** |  | | | | | | |
| 5.1 | Labour room | 0 | 10 | 2 | 7.489 | 0.484 | 8 | SS |
| 5.2 | Obstetrical wards | 0 | 4 | 1 |
| 5.3 | Causality | 0 | 5 | 3 |
| 5.4 | ICUs | 0 | 20 | 18 |
| 5.5 | Medical & Surgical Wards | 0 | 16 | 21 |
| 6 | **IN-SERVICE EDUCATION** |  | | | | | | |
| 6.1 | Every month | 0 | 47 | 41 | 1.423 | 0.9644 | 6 | SS |
| 6.2 | Every 3 month | 0 | 6 | 3 |
| 6.3 | Yearly twice | 0 | 1 | 1 |
| 6.4 | Yearly once | 0 | 1 | 0 |
| 7 | **RELIGION** |  |  |  |  |  |  |  |
| 7.1 | Hindu | 0 | 45 | 42 | 2.902 | 0.8210 | 6 | SS |
| 7.2 | Muslim | 0 | 0 | 0 |
| 7.3 | Christian | 0 | 10 | 3 |
| 7.4 | Others | 0 | 0 | 0 |
| 8 | **AREA OF RESIDECE** |  |  |  |  |  |  |  |
| 8.1 | Urban | 0 | 20 | 13 | 0.625 | 0.731 | 2 | SS |
| 8.2 | Rural | 0 | 35 | 32 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9 | **PREVIOUS EXPERIENCE IN LABOUR WARDS OR OBSTETRIC WARDS** |  |  |  |  |  |  |  |
| 9.1 | Yes | 0 | 15 | 10 | 0.337 | 0.844 | 2 | SS |
| 9.2 | No | 0 | 40 | 35 |
| 10 | **SPECIFICATI ON OF WARD** |  |  |  |  |  |  |  |
| 10.1 | Post natal wards | 0 | 5 | 3 | 5.012 | 0.542 | 6 | SS |
| 10.2 | Ante natal wards | 0 | 3 | 1 |
| 10.3 | Labour room | 0 | 2 | 6 |
| 10.4 | OT | 0 | 4 | 1 |

**Table 28:**The findings regarding Post-test Knowledge scores and selected Socio demographic variables in Control group showed that, in Age t(cal) 1.448 was greater than t(tab) 0.835,Working experience t(cal) 9.80 was greater than t(tab) 0.279,Working area t(cal) 7.489 was greater than t(tab) 0.484,In service education t(cal) 1.423 was greater than t(tab) 0.9644, Religion t(cal) 2.902 was greater than t(tab) 0.8210, Specification of ward t(cal) 5.012 was greater than t(tab) 0.542 and this showed that there is an association between Age, Working experience, Working area, In service education, Religion, Specification of the ward. Hence H7 was accepted.

#### Table 29: Association between Post-test Attitude scores and selected demographic variables in Experimental group n=100

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl no | Socio Demographic Variables | Attitude scores | | Chi square | | | |
|  |  | positive | Negative | Cal | P  value | Degree of freedom | significance |
| 1 | **AGE** |  |  |  |  |  |  |
| 1.1 | <25 years | 27 | 0 | 0 | 1 | 2 | SS |
| 1.2 | 26-30 years | 32 | 0 |
| 1.3 | >30 years | 41 | 0 |
| 2 | **GENDER** |  |  |  |  |  |  |
| 2.1 | Male | 14 | 0 | 0 | 1 | 1 | SS |
| 2.2 | Female | 86 | 0 |
| 3 | **PROFFESSIONAL QUALIFICATION** |  |  |  |  |  |  |
| 3.1 | G.N.M nursing | 57 | 0 | 0 | 1 | 3 | SS |
| 3.2 | P.B.Sc nursing | 16 | 0 |
| 3.3 | B.Sc nursing | 10 | 0 |
| 3.4 | M.Sc nursing | 17 | 0 |
| 4 | **WORKING EXPERIENCE** |  |  |  |  |  |  |
| 4.1 | 0-2 years | 6 | 0 | 0 | 1 | 4 | SS |
| 4.2 | 3-5 years | 14 | 0 |
| 4.3 | 5-7 years | 27 | 0 |
| 4.4 | 8-10 years | 23 | 0 |
| 4.5 | Above 10 years | 30 | 0 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 5 | **WORKING AREA** |  |  |  |  |  |  |
| 5.1 | Labour room | 13 | 0 | 0 | 1 | 4 | SS |
| 5.2 | Obstetrical wards | 12 | 0 |
| 5.3 | Causality | 15 | 0 |
| 5.4 | ICUs | 28 | 0 |
| 5.5 | Medical & Surgical Wards | 32 | 0 |
| 6 | **IN-SERVICE EDUCATION** |  |  |  |  |  |  |
| 6.1 | Every month | 84 | 0 | 0 | 1 | 3 | SS |
| 6.2 | Every 3 month | 6 | 0 |
| 6.3 | Yearly twice | 8 | 0 |
| 6.4 | Yearly once | 2 | 0 |
| 7 | **RELIGION** |  |  |  |  |  |  |
| 7.1 | Hindu | 77 | 0 | 0 | 1 | 3 | SS |
| 7.2 | Muslim | 10 | 0 |
| 7.3 | Christian | 13 | 0 |
| 7.4 | Others | 0 | 0 |
| 8 | **AREA OF RESIDECE** |  |  |  |  |  |  |
| 8.1 | Urban | 12 | 0 | 0 | 1 | 1 | SS |
| 8.2 | Rural | 88 | 0 |
| 9 | **PREVIOUS EXPERIENCE IN LABOUR WARDS OR OBSTETRIC WARDS** |  |  |  |  |  |  |
| 9.1 | Yes | 78 | 0 | 0 | 1 | 1 | SS |
| 9.2 | No | 22 | 0 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | **SPECIFICATION OF WARD** |  |  |  |  |  |  |
| 10.1 | Post natal wards | 32 | 0 | 0 | 1 | 3 | SS |
| 10.2 | Ante natal wards | 8 | 0 |
| 10.3 | Labour room | 26 | 0 |
| 10.4 | OT | 12 | 0 |

**\*Statistically Significant=SS**

**Table29:** The findings regarding Post-test Attitude scores and selected Socio demographic variables in Experimental group showed that, significant. and this showed that there was no association between Age, working experience, Working area, In service education, Specification of the ward. Signifant. Hence H7 was accepted.

#### Table 30: Association between Post-test Attitude scores and selected demographic variables in Control group n=100

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl no | Socio Demographic Variables | Attitude scores | | Chi square | | | |
|  |  | positive | Negative | Cal | P  value | Degree of freedom | significance |
| 1 | **AGE** |  |  |  |  |  |  |
| 1.1 | <25 years | 37 | 0 | 2.051 | 0.358 | 2 | SS |
| 1.2 | 26-30 years | 32 | 1 |
| 1.3 | >30 years | 30 | 0 |
| 2 | **GENDER** |  |  |  |  |  |  |
| 2.1 | Male | 30 | 1 | 2.248 | 0.133 | 1 | SS |
| 2.2 | Female | 69 | 0 |
| 3 | **PROFFESSIONAL QUALIFICATION** |  |  |  |  |  |  |
| 3.1 | G.N.M nursing | 27 | 0 | 1.515 | 0.678 | 3 | SS |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 3.2 | P.B.Sc nursing | 24 | 0 |  |  |  |  |
| 3.3 | B.Sc nursing | 39 | 1 |
| 3.4 | M.Sc nursing | 9 | 0 |
| 4 | **WORKING EXPERIENCE** |  |  |  |  |  |  |
| 4.1 | 0-2 years | 36 | 0 | 3.581 | 0.465 | 4 | SS |
| 4.2 | 3-5 years | 21 | 1 |
| 4.3 | 5-7 years | 19 | 0 |
| 4.4 | 8-10 years | 11 | 0 |
| 4.5 | Above 10 years | 12 | 0 |
| 5 | **WORKING AREA** |  |  |  |  |  |  |
| 5.1 | Labour room | 12 | 0 | 1.648 | 0.800 | 4 | SS |
| 5.2 | Obstetrical wards | 5 | 0 |
| 5.3 | Causality | 8 | 0 |
| 5.4 | ICUs | 37 | 1 |
| 5.5 | Medical & Surgical Wards | 37 | 0 |
| 6 | **IN-SERVICE EDUCATION** |  |  |  |  |  |  |
| 6.1 | Every month | 87 | 1 | 0.138 | 0.986 | 3 | SS |
| 6.2 | Every 3 month | 9 | 0 |
| 6.3 | Yearly twice | 2 | 0 |
| 6.4 | Yearly once | 1 | 0 |
| 7 | **RELIGION** |  |  |  |  |  |  |
| 7.1 | Hindu | 86 | 1 | 0.151 | 0.985 | 3 | SS |
| 7.2 | Muslim | 0 | 0 |
| 7.3 | Christian | 13 | 0 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 7.4 | Others | 0 | 0 |  |  |  |  |
| 8 | **AREA OF RESIDECE** |  |  |  |  |  |  |
| 8.1 | Urban | 33 | 0 | 0.498 | 0.480 | 1 | SS |
| 8.2 | Rural | 66 | 1 |
| 9 | **PREVIOUS EXPERIENCE IN LABOUR WARDS OR OBSTETRIC WARDS** |  |  |  |  |  |  |
| 9.1 | Yes | 25 | 0 | 0.337 | 0.561 | 1 | SS |
| 9.2 | No | 74 | 1 |
| 10 | **SPECIFICATION OF WARD** |  |  |  |  |  |  |
| 10.1 | Post natal wards | 7 | 1 | 2.214 | 0.529 | 3 | SS |
| 10.2 | Ante natal wards | 4 | 0 |
| 10.3 | Labour room | 8 | 0 |
| 10.4 | OT | 5 | 0 |

**Table 30:** The findings regarding Post-test Attitude scores and selected Socio demographic variables in Control group showed that, in Age t(cal) 2.051 was greater than t(tab) 0.352, Gender t(cal) 2.248 was greater than t(tab) 0.133, Professional qualification t(cal) 1.515 was greater than t(tab) 0.678, Working experience t(cal) 3.581 was greater than t(tab) 0.465,Working area t(cal) 1.648 was greater than t(tab) 0.800, Area of residence t(cal) 0.498 was greater than t(tab) 0486, specification of ward t(cal) 2.214 was greater than t(tab) 0.529 and this showed that there was an association between Age, Gender, Professional qualification, Working experience, Working area, Area of residence, and specification of the ward. Hence H7 was accepted.

#### Table 31: Association between Post-test Practice scores and selected demographic variables in Experimental group n=100

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl no | Socio Demographic Variables | Practice score | | | Chi square | | | |
|  |  | Good | Average | Poor | Cal | P  value | Degree of freedom | significance |
| 1 | **AGE** |  |  |  |  |  |  |  |
| 1.1 | <25 years | 25 | 2 | 0 | 0.19 | 0.995 | 4 | SS |
| 1.2 | 26-30 years | 30 | 2 | 0 |
| 1.3 | >30 years | 39 | 2 | 0 |
| 2 | **GENDER** |  |  |  |  |  |  |  |
| 2.1 | Male | 12 | 2 | 0 | 1.982 | 0.371 | 2 | SS |
| 2.2 | Female | 82 | 4 | 0 |
| 3 | **PROFFESSIONAL QUALIFICATION** |  |  |  |  |  |  |  |
| 3.1 | G.N.M nursing | 54 | 3 | 0 | 0.341 | 0.999 | 6 | SS |
| 3.2 | P.B.Sc nursing | 15 | 1 | 0 |
| 3.3 | B. Sc nursing | 9 | 1 | 0 |
| 3.4 | M.Sc nursing | 16 | 1 | 0 |
| 4 | **WORKING EXPERIENCE** |  |  |  |  |  |  |  |
| 4.1 | 0-2 years | 4 | 2 | 0 | 8.722 | 0.366 | 8 | SS |
| 4.2 | 3-5 years | 13 | 1 | 0 |
| 4.3 | 5-7 years | 26 | 1 | 0 |
| 4.4 | 8-10 years | 22 | 1 | 0 |
| 4.5 | Above 10 years | 29 | 1 | 0 |
| 5 | **WORKING AREA** |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5.1 | Labour room | 12 | 1 | 0 | 0.727 | 0.999 | 8 | SS |
| 5.2 | Obstetrical wards | 11 | 1 | 0 |
| 5.3 | Causality | 14 | 1 | 0 |
| 5.4 | ICUs | 26 | 2 | 0 |
| 5.5 | Medical & Surgical Wards | 31 | 1 | 0 |
| 6 | **IN-SERVICE EDUCATION** |  |  |  |  |  |  |  |
| 6.1 | Every month | 81 | 3 | 0 | 9.553 | 0.144 | 6 | SS |
| 6.2 | Every 3 month | 5 | 1 | 0 |
| 6.3 | Yearly twice | 7 | 1 | 0 |
| 6.4 | Yearly once | 1 | 1 | 0 |
| 7 | **RELIGION** |  |  |  |  |  |  |  |
| 7.1 | Hindu | 75 | 2 | 0 | 7.086 | 0.312 | 6 | SS |
| 7.2 | Muslim | 8 | 2 | 0 |
| 7.3 | Christian | 11 | 2 | 0 |
| 7.4 | Others | 0 | 0 | 0 |
| 8 | **AREA OF RESIDECE** |  |  |  |  |  |  |  |
| 8.1 | Urban | 10 | 2 | 0 | 2.751 | 0.252 | 2 | SS |
| 8.2 | Rural | 84 | 4 | 0 |
| 9 | **PREVIOUS EXPERIENCE IN LABOUR WARDS OR OBSTETRIC WARDS** |  |  |  |  |  |  |  |
| 9.1 | Yes | 74 | 4 | 0 | 0.478 | 0.787 | 2 | SS |
| 9.2 | No | 20 | 2 | 0 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | **SPECIFICATION OF WARD** |  |  |  |  |  |  |  |
| 10.1 | Post natal wards | 13 | 19 | 0 | 5.026 | 0.540 | 6 | SS |
| 10.2 | Ante natal wards | 6 | 2 | 0 |
| 10.3 | Labour room | 11 | 15 | 0 |
| 10.4 | OT | 8 | 4 | 0 |

**Table 31:** The findings regarding Post-test Practice scores and selected Socio demographic variables in Experimental group showed that, in Gender t(cal) 1.982 was greater than t(tab) 0.371, Working experience t(cal) 8.722 was greater than t(tab) 0.366, In service education t(cal) 9.553 was greater than t(tab) 0.144, Religion t(cal) 7.086 was greater than t(cal) 0.312, Area of residence t(cal) 2.751was greater than t(tab) 0.252, specification of ward t(cal) 5.026 was greater than t(tab) 0.540 and this showed that there association between Gender, Working experience, In service education, Religion, Area of residence, and specification of the ward. Hence H7 was accepted.

#### Table 32: Association between Post-test Practice scores and selected demographic variables in Control group n=100

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl no | Socio Demographic Variables | Practice score | | | Chi square | | | |
|  |  | Good | Average | Poor | Cal | P  value | Degree of freedom | significance |
| 1 | **AGE** |  |  |  |  |  |  |  |
| 1.1 | <25 years | 20 | 17 | 0 | 5.881 | 0.2082 | 4 | SS |
| 1.2 | 26-30 years | 12 | 21 | 0 |
| 1.3 | >30 years | 20 | 10 | 0 |
| 2 | **GENDER** |  |  |  |  |  |  |  |
| 2.1 | Male | 22 | 9 | 0 | 6.476 | 0.039 | 2 | SS |
| 2.2 | Female | 30 | 39 | 0 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **PROFFESSIONAL QUALIFICATION** |  |  |  |  |  |  |  |
| 3.1 | G.N.M nursing | 15 | 12 | 0 | 2.689 | 0.846 | 6 | SS |
| 3.2 | P.B.Sc nursing | 15 | 9 | 0 |
| 3.3 | B.Sc nursing | 17 | 23 | 0 |
| 3.4 | M.Sc nursing | 5 | 4 | 0 |
| 4 | **WORKING EXPERIENCE** |  |  |  |  |  |  |  |
| 4.1 | 0-2 years | 12 | 24 | 0 | 16.798 | 0.32 | 8 | SS |
| 4.2 | 3-5 years | 10 | 12 | 0 |
| 4.3 | 5-7 years | 10 | 9 | 0 |
| 4.4 | 8-10 years | 10 | 1 | 0 |
| 4.5 | Above 10 years | 10 | 2 | 0 |
| 5 | **WORKING AREA** |  |  |  |  |  |  |  |
| 5.1 | Labour room | 10 | 2 | 0 | 8.181 | 0.415 | 8 | SS |
| 5.2 | Obstetrical wards | 3 | 2 | 0 |
| 5.3 | Causality | 5 | 3 | 0 |
| 5.4 | ICUs | 20 | 18 | 0 |
| 5.5 | Medical & Surgical Wards | 14 | 23 | 0 |
| 6 | **IN-SERVICE EDUCATION** |  |  |  |  |  |  |  |
| 6.1 | Every month | 45 | 43 | 0 | 0.998 | 0.985 | 6 | SS |
| 6.2 | Every 3 month | 5 | 4 | 0 |
| 6.3 | Yearly twice | 1 | 1 | 0 |
| 6.4 | Yearly once | 1 | 0 | 0 |
| 7 | **RELIGION** |  |  |  |  |  |  |  |
| 7.1 | Hindu | 40 | 47 | 0 | 9.726 | 0.136 | 6 | SS |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7.2 | Muslim | 0 | 0 | 0 |  |  |  |  |
| 7.3 | Christian | 12 | 1 | 0 |
| 7.4 | Others | 0 | 0 | 0 |
| 8 | **AREA OF RESIDECE** |  |  |  |  |  |  |  |
| 8.1 | Urban | 22 | 11 | 0 | 4.245 | 0.119 | 2 | SS |
| 8.2 | Rural | 30 | 37 | 0 |
| 9 | **PREVIOUS EXPERIENCE IN LABOUR WARDS OR OBSTETRIC WARDS** |  |  |  |  |  |  |  |
| 9.1 | Yes | 15 | 10 | 0 | 0.855 | 0.652 | 2 | SS |
| 9.2 | No | 37 | 38 | 0 |
| 10 | **SPECIFICATION OF WARD** |  |  |  |  |  |  |  |
| 10.1 | Post natal wards | 2 | 6 | 0 | 3.666 | 0.721 | 6 | SS |
| 10.2 | Ante natal wards | 3 | 1 | 0 |
| 10.3 | Labour room | 5 | 3 | 0 |
| 10.4 | OT | 3 | 2 | 0 |

**Table 32:** The findings regarding Post-test Knowledge scores and selected socio demographic variables in Experimental group showed that, in Age t(cal) 5.881 was greater than t(tab) 0.2081, Gender t(cal) 6.476 was greater than t(tab) 0.039, Professional qualification t(cal) 2.689 was greater than t(tab) 0.846, Working experience t(cal) 16.798 was greater than t(tab) 0.32,Working area t(cal)

8.189 was greater than t(tab) 0.415, In service education t(cal) 0.998 was greater than t(tab) 0.985, Religion t(cal) 9.726 was greater than t(tab) 0.136, Area of residence t(cal) 4.245 was greater than t(tab) 0.119, Previous experience in labour and obstetrical wards t(cal) 0.855 was greater than t(tab) 0.652, specification of ward t(cal) 3.666 was greater than t(tab) 0.721 and this showed that there was an association between Age, Gender, Professional qualification, Working experience,

Working area, In service education, Religion, Area of residence, Previous experience in labour and obstetrical wards and specification of the ward. Hence H7 was accepted.

Calculated values was more than tabulated values hence demographic values such as Age, Gender, Professional qualification, working experience, working area, In-service education, Religion, Area of residence, Previous experience in labour and Obstetrical ward and ward specification was found to be statistically significant for 0.05of significance.

*Major Findings Discussion, Summary, Conclusion, Implications, Limitations & Recommendations*

### CHAPTER V

**FINDINGS, DISCUSSION AND SUMMARY**

This chapter deals with the discussion and summary of the study findings. In addition to this, it also discusses with conclusion.

The present study is under taken to Evaluate the Effectiveness of Self-Instructional Module on Knowledge, Attitude and Practice regarding Obstetrics Emergencies and its management among Staff Nurses working at selected hospital, Kolar.

#### MAJOR FINDINGS OF THE STUDY

**The data on sample characteristics:**

**In Experimental group, revealed that,** Majority32 (32%) of Staff Nurses, belonged to the Age group of 26-30 years Minority27(27%) was from the age group below 25 years. Majority86(86%) of Staff Nurses were females and minority14(14%) were males. Majority57(57%) of Staff Nurse completed GNM Nursing, and minority10(10%) completed B.sc

N. Majority 30(30%) of Staff Nurses have the working experience above 10 years, Minority 6(6%) had Working experience of 0-2 years. Majority 32(32%) of the Staff Nurses work in Medical and surgical wards, Minority 12(12%) works in Obstetrical wards. Majority 84(84%) of Staff Nurses got In-service education every month and Minority2(2%) got in once in a year. Majority77(77%) of Staff Nurses were Hindus and Minority10(10%) were Muslims. Majority 88(88%) of the Staff Nurses resides in rural areas and minority12(12%) in urban. Majority 78(78%) of them had previous Experience in the labour wards or Obstetrical wards.

**in Control group,** Majority 37(37%) of Staff Nurses, belonged to the Age group below 25 years, and Minority 30(30%) belong to the Age group above 31 years. Majority 69(69%) of Staff Nurses were females and minority 31(31%) were males. Majority 40(40%) of Staff Nurses completed B.sc Nursing, and minority 9(9%) completed M.sc N and above. Majority36(36%) of Staff Nurses had the Working Experience of 0-2 years, Minority 11(11%) had Working Experience of 8-10 years. Majority 38(38%) of the Staff Nurses work in ICU wards, Minority

05(5%) works in obstetrical wards. Majority 88(88%) of Staff Nurses got In-service education every month and Minority 1(1%) got in yearly once. Majority 87(87%) of Staff Nurses were Hindus and Minority 13(13%) were Muslims. Majority 67(67%) of the Staff Nurses resides in rural areas and minority 33(33%) in urban. Majority 75(75%) of them do not had Previous experience in the labour wards or Obstetrical wards.

### Data analysis on the level of knowledge regarding Obsterics Emergencies among Staff Nurses:

**In Experimental group findings:** revealed that in pre-test majority 60(60%) of the staff nurses had poor knowledge, 40(40%) had average Knowledge and none had good knowledge. In post- test majority 67(67%) of Staff Nurses have had average Knowledge and 26(26%) had good Knowledge scores. This showed there was gain in Knowledge scores after administering structured teaching module about Obstetric Emergencies.

**In Control group findings:** revealed that in pre-test majority 55(55%) of the staff nurses had average Knowledge, had poor Knowledge and none had good Knowledge. In Post-test 55(55%) of Staff Nurse had average Knowledge and 55(55%) had poor Knowledge scores. This showed there was no gain in Knowledge scores about Obstetric Emergencies without administering Self Instructional Module.

### Data analysis on the level of Attitude regarding Obstetric Emergencies among Staff Nurses:

**In Experimental group findings:** revealed that in pre-test majority 97(97%) of the Staff Nurses had Positive Attitude scores had negative Attitude 03(3%) scores. In post-test all 100(100%) of staff nurses have had positive attitude scores. This showed there was gain in Attitude scores after administering Self Instructional Module about Obstetric Emergencies.

**In Control group findings:** revealed that in pre-test majority 98(98%) of the Staff Nurses had positive attitude scores, 02(2%) had negative attitude scores. In post-test 99(99%) of Staff Nurses had positive Attitude and 01(1%) had negative Attitude scores.

### Data analysis on the level of Practice regarding Obstetric Emergencies among Staff Nurses:

**In Experimental group findings:** revealed that in pre-test majority51(51%) of the Staff Nurses had average Practice scores, 49(49%) had good Practice scores and none had poor Practice scores. In Post-test Majority 94(94%) had of Staff Nurses had good Practice scores. This shows there was gain in Practice scores after administering Self Instructional Module about Obstetric Emergencies.

**In Control group findings:** revealed that in Pre-test majority53(53%) of the Staff Nurses had good practice scores, 45(45%) had average Practice scores and none had poor Practice scores. In post-test Majority52(52%) had of Staff Nurses had good Practice scores. This shows there was no gain in practice scores without administering Self Instructional Module about Obstetric Emergencies.

#### Data analysis of Self-Instructional Module:

The Effectiveness of SIM on Obstetric Emergencies the pre and post test data analysis on Knowledge scores in Experimental group revealed that mean Post-test Knowledge scores was higher than the mean Pre-test Knowledge scores.

In Control group the Pre and Post test data analysis on Knowledge scores in Control group revealed that there was no much difference between mean Post-test Knowledge scores and mean Pre-test Knowledge scores.

In Experimental group the Pre and Post test data analysis on Attitude scores revealed that mean Post-test Attitude scores was higher than the mean Pre-test Knowledge scores.

In Control group the Pre and Post test data analysis on Attitude scores revealed that there was no much difference between mean post-test Attitude scores and mean pre-test knowledge scores.

In Experimental group the Pre and Post test data analysis on practice scores in Experimental group revealed that mean Post-test Practice scores was higher than the mean Pre-test Knowledge scores.

In Control group the Pre and Post test data analysis on Practice scores revealed that there was no much difference between mean Post-test Practice scores and mean Pre-test Knowledge scores.

**Knowledge scores in experimental group** revealed that mean difference was 5.93, standard error was 0.199 and calculated paired ‘t’ test was 12.56.

**Knowledge scores in Control group** revealed that mean difference was 0.22, standard error was

0.007 and calculated paired ‘t’ test was 3.7

**Attitude scores in Experimental group:** revealed that mean difference was 26.35, standard error was 0.367 and calculated paired ‘t’ test was 30.77.the calculated value is less than the tabulated value. Hence we are rejecting null hypothesis. hence SIM alone was not effective in improving the attitude scores.

**Attitude scores control group:** revealed that mean difference is 0.07, standard error is 0.0022 and calculated paired ‘t’ test was 0.22.

**Practice scores in experimental group**: revealed that mean difference was 1.15, standard error was 0.002 and calculated paired ‘t’ test was 1.13. The calculated value was less than the tabulated value.hence we are rejecting the null hypothesis. hence SIM alone was not effective in improving the Practice scores of Staff Nurses.

**Practice scores in control group:** revealed that mean difference was 0.08, standard error was

0.001 and calculated paired ‘t’ test was 0.077.

### DISCUSSION

The present study focused on the Evaluate the Effectiveness of Self-Instructional Module on Knowledge, Attitude and Practice regarding Obstetrics Emergencies and its management among Staff Nurses working at selected hospital, Kolar. The findings of the study are discussed under the following headings:

#### OBJECTIVES

1. To Assess the level of Knowledge regarding Obstetrics Emergencies and its management among Staff Nurses using Structured Knowledge Questionnaires **in Experimental and Control group.**
2. To Assess the level of Attitude regarding Obstetrics Emergencies and its management among Staff Nurses using Attitude scale **in Experimental and Control group.**
3. To Assess the level of Practice regarding Obstetrics Emergencies and its management among Staff Nurses using Practice checklist **in Experimental and Control group.**
4. To Evaluate the Effectiveness of Self-Instructional Module by comparing Pre-test and Post- test Knowledge, Attitude and Practice scores regarding Obstetrics Emergencies and its management among Staff Nurses **in Experimental and Control group.**
5. To Compare the Effectiveness of Self-Instructional Module on Knowledge Attitude and Practice **in Experimental and Control group.**
6. To Find out the association between Post-test Knowledge scores with selected demographic variables of Staff Nurses **in Experimental and Control group.**
7. To Find out the association between Post-test Attitude scores with selected demographic variables of Staff Nurses **in Experimental and Control group.**
8. To Find out the association between Post-test Practice scores with selected demographic variables of Staff Nurses **in Experimental and Control group.**

#### Findings related to sample characteristics

**IN EXPERIMENTAL GROUP**: Majority32(32%) of Staff Nurses, belonged to the age group of 26-30 years Minority27(27%) was from the age group below 25 years. Majority 86(86%) of Staff Nurses are females and minority 14(14%) were males. Majority57(57%) of Staff Nurses completed GNM Nursing, and minority10(10%) completed B.sc N. Majority 30(30%) of Staff Nurses had the working experience above 10 years, Minority6(6%) had working experience of 0- 2 years. Majority 32(32%) of the Staff Nurses work in Medical and surgical wards, Minority 12(12%) works in obstetrical wards. Majority 84(84%) of Staff Nurses got in-service education every month and Minority 2(2%) got in once in a year. Majority 77(77%) of Staff Nurses were Hindus and Minority10(10%) were Muslims. Majority 88(88%) of the Staff Nurses resides in rural areas and minority12(12%) in urban. Majority 78(78%) of them had previous experience in the labour wards or obstetrical wards. The mean age of Staff Nurse is 33.33

The similar findings was found in the study conducted by Zeinab R A shows the socio- demographic data of the Staff Nurses. Nearly half (48.1%) of nurses were in the age group of 30

< 40. The mean age of them was 31.69 ± 7.06 years. Nearly three quarter (74.0%) of the studied nurses were diploma nurse and more than half (57.4%) of them had >10 years of experience with mean experience year about 12.07 year. The majority of the studied nurses (85.2%)

**IN CONTROL GROUP:** Majority 37(37%) of Staff Nurses, belonged to the age group below 25 years, and Minority30(30%) belong to the age group above 31 years. Majority69(69%) of Staff Nurses were females and minority31(31%) were males. Majority 40(40%) of staff nurses completed B.sc Nursing, and minority 9(9%) completed M.sc N and above. Majority36(36%) of Staff Nurses had the working experience of 0-2 years, Minority 11(11%) had working experience of 8-10 years. Majority38(38%) of the Staff Nurses work in ICU wards, Minority 05(5%) works in obstetrical wards. Majority88(88%) of Staff Nurses got in-service education every month and Minority 1(1%) got in yearly once. Majority 87(87%) of Staff Nurses were Hindus and Minority 13(13%) were Muslims. Majority 67(67%) of the Staff Nurses resides in rural areas and minority 33(33%) in urban. Majority 75(75%) of them do not have previous experience in the labour wards or obstetrical wards.

#### related to knowledge of the staff nurses about Obstetrical emergencies in experimental and control group;

**In Experimental group Findings:** revealed that in pre-test majority60(60%) of the staff nurses had poor knowledge, 40(40%) had average knowledge and none had good knowledge. In post-test majority 67(67%) of staff nurses have had average knowledge and 26(26%) have good knowledge scores and the mean pre test score 18.47 and the mean post test score is 24.4. This showed there was gain in knowledge scores after administering Self- Instructional module about obstetric emergencies.

**In Control group Findings:** revealed that in pre-test majority55(55%) of the staff nurses had average knowledge, 45(45%) had poor knowledge and none had good knowledge. In post-test 55(55%) of staff nurses have had average knowledge and 55(55%) had poor knowledge scores. This showed there was no gain in knowledge scores about obstetric emergencies without giving Self- Instructional module.

The similar findings were found in the study conducted by **Danasu** on obstetric emergency among 30 staff nurses revealed that out of 30 staff nurses, the mean pre- test score was 42.60 and post test mean score was 88.23. hence post test score was more than pretest score35.

The similar findings was found in the study conducted by **Kavitha** among 60 staff to assess the level of knowledge regarding management of obstetrical emergencies. The results of thestudy showed that majority (65%) of the staff had moderately adequate knowledge, 35% of the staff had adequate knowledge18.

The similar findings was found in the study conducted by **Heikham R** among the 50 Final Year GNM Students on Knowledge Regarding Management of Selected Obstetric Emergencies. The study results revealed that in pre test majority of the subjects 32(64%) had average knowledge, 11(22%) had poor knowledge and 7(14%) had good knowledge. In post test, majority 33(66%) of them had good knowledge, 16(32%) had average knowledge and 1(2%) had poor knowledge36.

#### Findings related to attitude of the Staff nurses about obstetric emergencies in experimental and control group.

**In Experimental group Findings:** revealed that in Pre-test majority 97(97%) of the Staff Nurses had Positive Attitude scores 03(3%) are had negative Attitude scores. In Post-test all 100(100%) of Staff Nurses had positive attitude scores. This showed there was gain in attitude scores after administering Self- Instructional Module about Obstetric Emergencies.

**In Control group Findings showed** that in Pre-test majority98(98%) of the Staff Nurses had positive Attitude scores, 02(2%) had negative Attitude scores. In Post-test 99(99%) of Staff Nurses had positive Attitude and 01(1%) have negative Attitude scores.

Similar findings was found in the study conducted by **Elizabeth Wanjugu Itote** Obstetric care providers had positive attitudes towards common perceptions about pregnancy, childbirth, and the period immediately after child birth. The majority of the OCPs strongly disagreed (66%), strongly agreed (4%), strongly disagreed.37.

No other supportive study on obstetrical emergency related to attitudes was done to support the study findings.

#### 4. Findings related to practice scores of the Staff nurses about obstetric emergencies in experimental and control group.

**In experimental group:** revealed that in Pre-test majority51(51%) of the Staff Nurses had average practice scores, 49(49%) had good practice scores and none had poor practice scores. In post-test Majority94(94%) had of staff nurses had good practice scores. This showed there was gain in practice scores after administering structured Self-Instructional Module about Obstetric Emergencies. The mean Post-test scores was 17.34 and mean Post-test scores was 18.49.

**In Control group:** revealed that in Pre-test majority53(53%) of the Staff Nurses had good practice scores, 45(45%) had average practice scores and none had poor practice scores.and mean post test score was 17.51 and mean Pre-test score was 17.43.

The similar findings were found in the study conducted by Zeinab; Results of the study revealed that more than half of the nurses included in the study had incorrect Knowledge regarding Obstetrical Emergencies that negatively reflected upon the nursing care offered for the admitted cases with Obstetrical Emergencies.

Similar findings were found in the study conducted by Bhavana Verma, revealed that the mean post-test expressed practices score (16.30) was higher than the pre-test expressed practices score (14.43).

#### Findings related to effectiveness of self-instructional module in terms of gain in knowledge about obstetrics emergencies in experimental group compared to control group.

While assessing the Effectiveness of SIM on Obstetric emergencies the Pre and Post test data analysis on Knowledge scores in Experimental group revealed that mean Post-test Knowledge scores was higher than the mean Pre-test Knowledge scores.

In Control group the pre and post test data analysis on Knowledge scores revealed that there was no much difference between mean Post-test Knowledge scores and mean Pre-test Knowledge scores.

In Experimental group Pre and Post test data analysis on Attitude scores in Experimental group revealed that mean Post-test Attitude scores was higher than the mean Pre-test Knowledge scores.

In Control group the pre and post test data analysis on Attitude scores in Control group revealed that there was no much difference between mean Post-test Attitude scores and mean Pre-test Knowledge scores.

In Experimental group the Pre and Post test data analysis on Practice scores in Experimental group revealed that mean Post-test Practice scores was higher than the mean Pre-test Knowledge scores.

In Control group the Pre and Post test data analysis on Practice scores in Control group revealed that there was no much difference between mean Post-test Practice scores and mean Pre-test Knowledge scores.

#### NURSING IMPLICATIONS

**Nursing services**

This study findings will help to gain the Knowledge among Staff Nurses on Obstetric Emergencies and its management. Further SIM can be used as an effective method of teaching in improving the knowledge, Attitude and practice level

#### Nursing educations

The nurse educator can use SIM as a tool to teach the staff in hospital settings.

A module can be prepared based on present findings for improve the knowledge, Attitude and Practice of Staff Nurses of Obstetric Emergencies.

The findings will help nursing student to understand about the importance of management of obstetric emergencies and improve their management skills in obstetric emergencies.

#### Nursing research

The findings of the study can be utilized for conducting research on a large sample, various settings.

#### Nursing administration

Administrative authority can use SIM as an educative tool to educate staff nurses in hospitals. They can prepare modules on various conditions and distribute to the staff nurses during induction program.



### SUMMARY

The primary aim of the study was to Evaluate the Effectiveness of Self-Instructional Modules on Knowledge, Attitude, and Practice regarding Obstetric Emergencies and its management among staff nurses working at selected hospitals, Kolar.

#### The Objectives of the study were to:

1. To Assess the level of Knowledge regarding Obstetrics Emergencies and its management among Staff Nurses using Structured Knowledge Questionnaires **in Experimental and Control group.**
2. To Assess the level of Practice regarding Obstetrics Emergencies and its management among Staff Nurses using Practice Checklist **in Experimental and Control group.**
3. To Assess the level of Attitude regarding Obstetrics Emergencies and its management among Staff Nurses using Attitude scale **in Experimental and Control group.**
4. To Evaluate the Effectiveness of Self-Instructional Module by comparing Pre-test and Post-test Knowledge and Practice scores regarding Obstetrics Emergencies and its management among Staff Nurses **in Experimental and Control group.**
5. To Compare the Effectiveness of Self-Instructional Module on Knowledge Attitude and Practice

#### in Experimental and Control group.

1. To Find out the association between Post-test Knowledge scores with selected demographic variables of Staff Nurses **in Experimental and Control group.**
2. To Find out the association between Post-test Attitude scores with selected demographic variables of Staff Nurses **in Experimental and Control group.**
3. To Find out the association between Post-test Practice scores with selected demographic variables of Staff Nurses **in Experimental and Control group.**

The investigator assumed that

* 1. Staff Nurses has basic Knowledge on Obstetric Emergencies.
  2. Practice level of Staff Nurses was improved after administering SIM on management of Obstetric Emergencies.

**The study involved the testing of the following hypothesis: -**

**H1:** There will be significant difference in mean score of Pre-test and Post-test Knowledge score after implementing Self-Instructional Module on Obstetric Emergencies and its management among Staff Nurses **in Experimental and Control group.**

**H2:** There will be significant difference in mean attitude score of Pre and Post-test Practice score on Obstetric Emergencies and its management among Staff Nurses **in Experimental and Control group.**

**H3:** There will be significant difference in mean Practice score of Pre and Post-test Practice score on Obstetric Emergencies and its management among Staff Nurses **in Experimental and Control group.**

**H4:** There will be increased Knowledge and Practice level in Experimental group compared to Control group.

**H5:** There will be significant association between Post test Knowledge scores with selected demographic variables **in Experimental and Control group.**

**H6:** There will be significant association between Post-test Attitude scores with selected demographic variables **in Experimental and Control group.**

**H7:** There will be significant association between Post-test Practice scores with selected demographic variables **in Experimental and Control group.**

The independent variable was a Self-Instructional Module on Knowledge, Practice and Attitude about Obstetric Emergencies among Staff Nurses working at selected hospitals and the dependent variable was knowledge, Attitude and practice. The extraneous variables such as Age, Gender, Professional qualification, working experience, Working area, in service education, Religion, Area of residence, Previous Experience in labour or Obstetric wards. were statistically treated as dependent variable.

Need for the study was based on the fact that the maternal mortality ratio in the world, over 300,000 women die each year from problems that arise during pregnancy and childbirth. The World Health Organization (WHO) reports that approximately 830 women die each day worldwide, caused by the problems that arise during pregnancy, labour and postpartum period. Obstetric emergencies are Eclampsia, pre-eclampsia, placenta previa, cord prolapse, post-partum hemorrhage, puerperal sepsis, etc. Educating the staff nurses on obstetric emergencies helps in improving knowledge and increasing positive attitude and practice. This helps to reduce labour complications and decrease maternal mortality.

Quasi experimental, pretest posttest and control group design, with an evaluative approach was used to test the proposed hypothesis. The study sample (n=200, 100Experimental and 100 Control

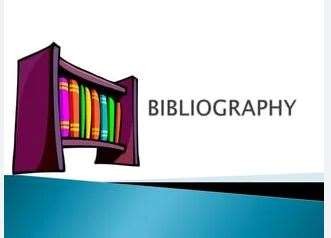
group) consisted of Staff Nurses working at selected hospitals Kolar. Purposive sampling technique was utilized for the collection of the study samples.

In order to collect the data on Knowledge, Attitude and Practice, a structured knowledge questionnaire was designed about Obstetric Emergencies and its management. The structured Knowledge questionnaire was constructed by preparing a blue print, reviewing literature, content validation and establishing reliability.

The percentage of agreement between the 5 experts who validated the tool and lesson plan was 99% on obtaining ethical clearance from the hospital and informed consent of the individual sample data was collected from 10/2/23 to 25/2/23 in Control group and 13/02/23 to 25/02/23 in Experimental group. Pretest was administered followed by Self-Instructional Module was administered and posttest was done after 7 days of pretest in both experimental and control group.

In order to fulfil the objectives and test the hypothesis the data was analyzed using both descriptive and inferential statistics. The descriptive statistics used were frequency, percentage of sample characteristics, computation of mean, standard deviation, median and range of pretest and posttest knowledge scores and association in experimental and control group about labour. Inferential statistics used were

1. Paired ‘t’ test and computation of ‘p’ values to evaluate the effectiveness of Self- Instructional Module in Experimental and Control group.
2. unpaired ‘t’ test to identify the effectiveness of self-instructional module in experimental as compared to control group.
3. Chi-square test to find the association between pretest knowledge scores and selected demographic variables in experimental and control group. The level of significance for testing the research hypothesis was 0.05.



**BIBLIOGRAPHY**

* 1. Obstetrics.” Merriam-Webster.com Dictionary, Merriam-Webster Accessed 2 Jun. 2023.

Available at : <https://www.merriam-webster.com/dictionary/obstetrics>

* 1. International Journal of Nursing and Midwifery research, Volume 7(3)- 2020, (Page no: 31-35) Available at :

[https://medical.advancedresearchpublications.com/index.php/IntlJ-Nursing-](https://medical.advancedresearchpublications.com/index.php/IntlJ-Nursing-MidwiferyResearch/article/view/438) [MidwiferyResearch/article/view/438](https://medical.advancedresearchpublications.com/index.php/IntlJ-Nursing-MidwiferyResearch/article/view/438)

* 1. World health Organization. The word Health report: making every mother and child count. Geneva 2013, published1 Apr 2005. Available at:

[https://reliefweb.int/report/world/world-health-report-2005-make-every-mother-and-child-](https://reliefweb.int/report/world/world-health-report-2005-make-every-mother-and-child-count?gclid=CjwKCAjwjtOTBhAvEiwASG4bCI2J-WP5118TPBCVsTAnoT-dl-wD5lza9DQmtHhfelMmx3HgO0QhvBoCdQ0QAvD_BwE) [count?gclid=CjwKCAjwjtOTBhAvEiwASG4bCI2J-WP5118TPBCVsTAnoT-dl-](https://reliefweb.int/report/world/world-health-report-2005-make-every-mother-and-child-count?gclid=CjwKCAjwjtOTBhAvEiwASG4bCI2J-WP5118TPBCVsTAnoT-dl-wD5lza9DQmtHhfelMmx3HgO0QhvBoCdQ0QAvD_BwE) [wD5lza9DQmtHhfelMmx3HgO0QhvBoCdQ0QAvD\_BwE](https://reliefweb.int/report/world/world-health-report-2005-make-every-mother-and-child-count?gclid=CjwKCAjwjtOTBhAvEiwASG4bCI2J-WP5118TPBCVsTAnoT-dl-wD5lza9DQmtHhfelMmx3HgO0QhvBoCdQ0QAvD_BwE)

* 1. Global Progress and Projection for Maternal Mortality; Gates Foundation, Report 2022 Available at:

[https://www.gatesfoundation.org/goalkeepers/report/2021-report/progress-indicators/maternal-](https://www.gatesfoundation.org/goalkeepers/report/2021-report/progress-indicators/maternal-mortality/) [mortality/](https://www.gatesfoundation.org/goalkeepers/report/2021-report/progress-indicators/maternal-mortality/)

* 1. Mustafa Adelaja L, Olufemi Taiwo O. Maternal and foetal outcome of obstetric emergencies in a tertiary health institution in South-Western Nigeria. International Scholarly Research Notices. 2011;2011.

Available at : <https://pubmed.ncbi.nlm.nih.gov/21776397/>

* 1. Ameh CA, Mdegela M, White S, van den Broek N. The effectiveness of training in emergency obstetric care: a systematic literature review. Health policy and planning. 2019 May 1;34(4):257-70.; 34(4): 2019 May 05: 257-270.

Available at : <https://www.researchgate.net/publication/333291792>

* 1. Brogaard L, Glerup Lauridsen K, Løfgren B, Krogh K, Paltved C, Boie S, Hvidman L. The effects of obstetric emergency team training on patient outcome: A systematic review and meta‐ analysis. Acta obstetricia et gynecologica Scandinavica. 2022 Jan;101(1):25-36.

Available at: <https://obgyn.onlinelibrary.wiley.com/doi/full/10.1111/aogs.14263>

* 1. Pregnancy Obstetric Emergencies- Better Health Channel Available at :

<https://www.betterhealth.vic.gov.au/health/healthyliving/pregnancy-obstetric-emergencies>

* 1. Resources - Vital Records and Records Disaster Mitigation and Recovery -1999 Web Edition , Available at : <https://www.archives.gov/records-mgmt/vital-records>
  2. Cantwell R, Clutton-Brock T, Cooper G, Dawson A, Drife J, Garrod D, Harper A, Hulbert D, Lucas S, McClure J, Millward-Sadler H. Saving mothers' lives: reviewing maternal deaths to make motherhood safer: 2006-2008. The eighth report of the confidential enquiries into maternal deaths in the United Kingdom. BJOG: an international journal of obstetrics and gynaecology. 2011 Mar 1;118:1- 203..Available at : <https://doi.org/10.1111/j.1471-0528.2010.02847.x>
  3. Koşum Z, Yurdakul M. Factors affecting the use of emergency obstetric care among pregnant women with antenatal bleeding. Midwifery. 2013 May 1;29(5):440-6.

Available at : <https://pubmed.ncbi.nlm.nih.gov/22652487/>

* 1. Angelina JA, Stephen KM, Ipyana M. The impact of low fidelity simulation on nurse competence in active management of third stage of labor: An intervention study in primary health care settings in Tanzania. Clinical Simulation in Nursing. 2021 Jul 1;56:10-21.

Available at :

[https://www.thehindu.com/news/national/explained-what-are-the-major-causes-of-maternal-](https://www.thehindu.com/news/national/explained-what-are-the-major-causes-of-maternal-mortality/article65237100.ece) [mortality/article65237100.ece](https://www.thehindu.com/news/national/explained-what-are-the-major-causes-of-maternal-mortality/article65237100.ece)

* 1. Donna Murray, RN, BSN, Maternal Mortality Rate, Causes, and Prevention, COMPLICATIONS & CONCERNS- Updated on October 23, 2021

Available at :

<https://www.verywellfamily.com/maternal-mortality-rate-causes-and-prevention-4163653>

* 1. Bindu Shajan Perappadan, Maternal Mortality Ratio of India declines by 10 points, UPDATED: MARCH 14, 2022

Available at :

[https://www.thehindu.com/news/national/maternal-mortality-ratio-of-india-declines-by-10-](https://www.thehindu.com/news/national/maternal-mortality-ratio-of-india-declines-by-10-points/article65224041.ece) [points/article65224041.ece](https://www.thehindu.com/news/national/maternal-mortality-ratio-of-india-declines-by-10-points/article65224041.ece)

* 1. Devi SK. Assess the Knowledge of Staff Nurses regarding Obstetric Emergencies in a selected Hospital, Salem, Tamilnadu. International Journal of Nursing Education and Research. 2015;3(1):9- 12.

Available at : [https://ijneronline.com/HTMLPaper.aspx?Journal=International%20Journal%20of%20Nursing%20E](https://ijneronline.com/HTMLPaper.aspx?Journal=International%20Journal%20of%20Nursing%20Education%20and%20Research%3BPID%3D2015-3-1-4) [ducation%20and%20Research;PID=2015-3-1-4](https://ijneronline.com/HTMLPaper.aspx?Journal=International%20Journal%20of%20Nursing%20Education%20and%20Research%3BPID%3D2015-3-1-4)

* 1. Rutaremwa G, Wandera SO, Jhamba T, Akiror E, Kiconco A. Determinants of maternal health services utilization in Uganda. BMC health services research. 2015 Dec;15:1-8.

Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3378461/>

* 1. Okonofua F, Ntoimo LF, Ogu R, Galadanci H, Gana M, Adetoye D, Abe E, Okike O, Agholor K, Assessing the knowledge and skills on emergency obstetric care among health providers: Implications for health systems strengthening in Nigeria. PLoS One. 2019 Apr 8;14(4).

Available at:<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6453439/>

* 1. Kavitha P, Tesfay A, Prasath R, Habtegiorgis L, Girmay S, Sereke Y. To assess level of knowledge of staff nurses on emergency obstetric management at orotta national referral maternity hospital. Int.

J. of Allied Med. Sci. and Clin. Research. Issue date 2014 Oct; Volume2(4). Available at :

[https://www.researchgate.net/publication/330104765\_To\_assess\_level\_of\_knowledge\_of\_staff\_nurs](https://www.researchgate.net/publication/330104765_To_assess_level_of_knowledge_of_staff_nurses_on_emergency_obstetric_management_at_orotta_national_referral_maternity_hospital) [es\_on\_emergency\_obstetric\_management\_at\_orotta\_national\_referral\_maternity\_hospital](https://www.researchgate.net/publication/330104765_To_assess_level_of_knowledge_of_staff_nurses_on_emergency_obstetric_management_at_orotta_national_referral_maternity_hospital)

* 1. Bhavana verma, To assess the effectiveness of planned teaching program on knowledge regarding selected obstetrical emergencies among staff nurse in selected hospitals of Shimla district, Himachal Pradesh. Issue date:2022 oct 1; Volume14(10).

Available at :<https://pubmed.ncbi.nlm.nih.gov/36337794/>

20.Ulfat Rashid, Muneera Bashir. To assess the Effectiveness of Structured Teaching Programme on Knowledge regarding Management of Selected Obstetric Emergencies among B.Sc. Nursing 3rd Year Students of Bibi Halima College of Nursing and Medical Technology Srinagar Kashmir.vol.7 no.3(2020); International journal of nursing &midwifery research.

Available at: [https://medical.advancedresearchpublications.com/index.php/IntlJ-Nursing-](https://medical.advancedresearchpublications.com/index.php/IntlJ-Nursing-MidwiferyResearch/article/view/438#%3A~%3Atext%3DAbstract%2Cof%20obstetric%20emergencies)

[MidwiferyResearch/article/view/438#:~:text=Abstract,of%20obstetric%20emergencies](https://medical.advancedresearchpublications.com/index.php/IntlJ-Nursing-MidwiferyResearch/article/view/438#%3A~%3Atext%3DAbstract%2Cof%20obstetric%20emergencies)

1. Dr shabir Mossa, MMed,MBA,PHD. The effectiveness 0f training in emergency obstetric care. Health policy planning, published :05 may 2019.

Available at:

[https://profmoosa.com/the-effectiveness-of-training-in-emergency-obstetric-care-a-systematic-](https://profmoosa.com/the-effectiveness-of-training-in-emergency-obstetric-care-a-systematic-literature-review/) [literature-review/](https://profmoosa.com/the-effectiveness-of-training-in-emergency-obstetric-care-a-systematic-literature-review/)

1. Reynolds A, Ayres-de-Campos D, Lobo M. Self-perceived impact of simulation-based training on the management of real-life obstetrical emergencies. European Journal of Obstetrics & Gynaecology and Reproductive Biology. 2011 Nov 1;159(1):72-

Available at: <https://pubmed.ncbi.nlm.nih.gov/21831504/>

1. Xing L, Luo B, Lei A, Chen P, Li Y, Wang H, Deng X, Ren J. Exploring the knowledge, attitudes, behaviours and training needs of obstetric and gynaecological nurses regarding COVID-19 during the peak period of the pandemic in middle-risk areas of China: A cross-sectional study. International Journal of Disaster Risk Reduction. 2023 May 9:103746.

Available at:

[https://www.slideshare.net/pharmaindexing/to-assess-level-of-knowledge-of-staff-nurses-on-](https://www.slideshare.net/pharmaindexing/to-assess-level-of-knowledge-of-staff-nurses-on-emergency-obstetric-management-at-orotta-national-referral-maternity-hospital) [emergency-obstetric-management-at-orotta-national-referral-maternity-hospital](https://www.slideshare.net/pharmaindexing/to-assess-level-of-knowledge-of-staff-nurses-on-emergency-obstetric-management-at-orotta-national-referral-maternity-hospital)

1. Nishimwe A, Conco DN, Nyssen M, Ibisomi L. Context specific realities and experiences of nurses and midwives in basic emergency obstetric and newborn care services in two district hospitals in Rwanda:a qualitative study. BMC nursing. 2022 Jan 4;21(1):9.

Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10167776/>

1. Santhoshkumari M, Sharmil SH. Efficacy of capacity building educational interventions in the management of obstetric complications: A systematic review. Journal of Education and Health Promotion. 2022;11.

Available at :<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9393949/>

1. Abi Merriel, Jo Ficquet,Katie Barnard,Setor k kunutsor,Jasmeet soar.erik lenguerrand,Deborah m Caldwell,christy burden,cathy winter,tim draycott,dimitrios siassakos.The effects of interactive training of health care providers on the management of life threatening emergencies in hospital.cochrane database syst rev.2019 ;2019(9).published online 2019 Sep 24..

Available at :<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6757513/>

1. Dr Priyanka Chaudhary. To assess the knowledge of labor room staff nurse regarding obstetric emergency management by the use of planned teaching programme.wesleyan journal of research,volume 14 no.01(V 12021).

Available at :

[https://www.researchgate.net/publication/358200077\_TO\_ASSESS\_THE\_KNOWLEDGE\_OF\_LA](https://www.researchgate.net/publication/358200077_TO_ASSESS_THE_KNOWLEDGE_OF_LABOR_ROOM_STAFF_NURSE_REGARDING_OBSTETRIC_EMERGENCY_MANAGEMENT_BY_THE_USE_OF_PLANNED_TEACHING_PROGRAMME) [BOR\_ROOM\_STAFF\_NURSE\_REGARDING\_OBSTETRIC\_EMERGENCY\_MANAGEMENT\_](https://www.researchgate.net/publication/358200077_TO_ASSESS_THE_KNOWLEDGE_OF_LABOR_ROOM_STAFF_NURSE_REGARDING_OBSTETRIC_EMERGENCY_MANAGEMENT_BY_THE_USE_OF_PLANNED_TEACHING_PROGRAMME) [BY\_THE\_USE\_OF\_PLANNED\_TEACHING\_PROGRAMME](https://www.researchgate.net/publication/358200077_TO_ASSESS_THE_KNOWLEDGE_OF_LABOR_ROOM_STAFF_NURSE_REGARDING_OBSTETRIC_EMERGENCY_MANAGEMENT_BY_THE_USE_OF_PLANNED_TEACHING_PROGRAMME)

1. Subrahmanyam N, Joseph J, Abraham R. Obstetric emergency preparedness among staff nurses working in obstetric care units. Int J Reprod Contracept Obstet Gynecol. 2017 Jul 1;6:2960-3. Available at: [https://www.researchgate.net/publication/317905359\_Obstetric\_emergency\_preparedness\_among\_st](https://www.researchgate.net/publication/317905359_Obstetric_emergency_preparedness_among_staff_nurses_working_in_obstetric_care_units) [aff\_nurses\_working\_in\_obstetric\_care\_units](https://www.researchgate.net/publication/317905359_Obstetric_emergency_preparedness_among_staff_nurses_working_in_obstetric_care_units)
2. Bekele G, Terefe G, Sinaga M, Belina S. Utilization of non-pneumatic anti-shock garment and associated factors for postpartum hemorrhage management among health care professionals in public hospitals of Jimma zone, south-West Ethiopia, 2019. Reproductive health. Issue date 2020 Dec; Volume17(1-0).

Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8553034/>

1. Singh N. Observational study of maternal and fetal outcome in obstetric emergencies admitted to tertiary care centre. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2021 Jul 1;Volume10(7).

Available at: https:/[/www.ijrcog](http://www.ijrcog.org/index.php/ijrcog/article/view/10379).[org/index.php/ijrcog/article/view/10379](http://www.ijrcog.org/index.php/ijrcog/article/view/10379)

1. Prasad D, Nishat H, Tiwary B, Nisha S, Sinha A, Goel N. Review of obstetrical emergencies and fetal out come in a tertiary care centre. International Journal of Research in Medical Sciences. 2018 May;6(5): 1554.

Available at: <https://www.msjonline.org/index.php/ijrms/article/view/4844>.

1. Leta M, Assefa N, Tefera M. Obstetric emergencies and adverse maternal-perinatal outcomes in Ethiopia; A systematic review and meta-analysis. Frontiers in Global Women's Health.2022;3 Available at: <https://www.frontiersin.org/articles/10.3389/fgwh.2022.942668/full>.
2. Bongban NG, Meyer DJ, Gatongi PM, Isabella MI. Emergency obstetrics knowledge and practical skills retention among hospital and clinic staff following advanced life support obstetrical training in Cameroon, Africa. Frontiers in Women’s Health. 2016;1.

Available at:

[https://www.oatext.com/Emergency-obstetrics-knowledge-and-practical-skills-retention-among-](https://www.oatext.com/Emergency-obstetrics-knowledge-and-practical-skills-retention-among-hospital-and-clinic-staff-following-advanced-life-support-obstetrical-training-in-Cameroon-Africa.php) [hospital-and-clinic-staff-following-advanced-life-support-obstetrical-training-in-Cameroon-](https://www.oatext.com/Emergency-obstetrics-knowledge-and-practical-skills-retention-among-hospital-and-clinic-staff-following-advanced-life-support-obstetrical-training-in-Cameroon-Africa.php) [Africa.php.](https://www.oatext.com/Emergency-obstetrics-knowledge-and-practical-skills-retention-among-hospital-and-clinic-staff-following-advanced-life-support-obstetrical-training-in-Cameroon-Africa.php)

1. Campbell R, Sinclair M, Kernohan WG, Dornan L. Evaluating emergency obstetric care education and training in a remote, fragile region of Southeast Asia: an ethnographic study. In21st International Normal Labour and Birth Research Conference 2022 Sep

Available at : . <https://pure.ulster.ac.uk/en/publications/evaluating-emergency-obstetric-care-education-and-training-in-a-r>

1. Danasu R, Dharshini RP. A pilot study report on effectiveness of skill training programme on selected obstetrical emergencies. International Journal of Research and Review. 2017;4(11):27-31.

Available at : <https://www.ijrrjournal.com/IJRR_Vol.4_Issue.11_Nov2017/Abstract_IJRR004.html>

1. Heikham GC, Raddi SA. Effectiveness of Planned Teaching Programme (PTP) on Knowledge Regarding Management of Selected Obstetric Emergencies among the Final Year GNM Students of Selected School of Nursing, Belgaum, Karnataka- One Group Pretest Post Test Pre Experimental Study. International Journal of Science and Research 2015; 4(3): 1336-1340

Availableat:[https://medical.advancedresearchpublications.com/index.php/IntlJ-Nursing-](https://medical.advancedresearchpublications.com/index.php/IntlJ-Nursing-MidwiferyResearch/article/view/438) [MidwiferyResearch/article/view/438](https://medical.advancedresearchpublications.com/index.php/IntlJ-Nursing-MidwiferyResearch/article/view/438)

1. Itote EW. Knowledge, Attitudes, and Practices of Intrapartum Care among Obstetric Care Providers in Rural Kenya (Doctoral dissertation, George Mason University).

Available at : <http://mars.gmu.edu/bitstream/handle/1920/10436/Itote_gmu_0883E_11098.pdf?sequence=1&isAllowed=y>

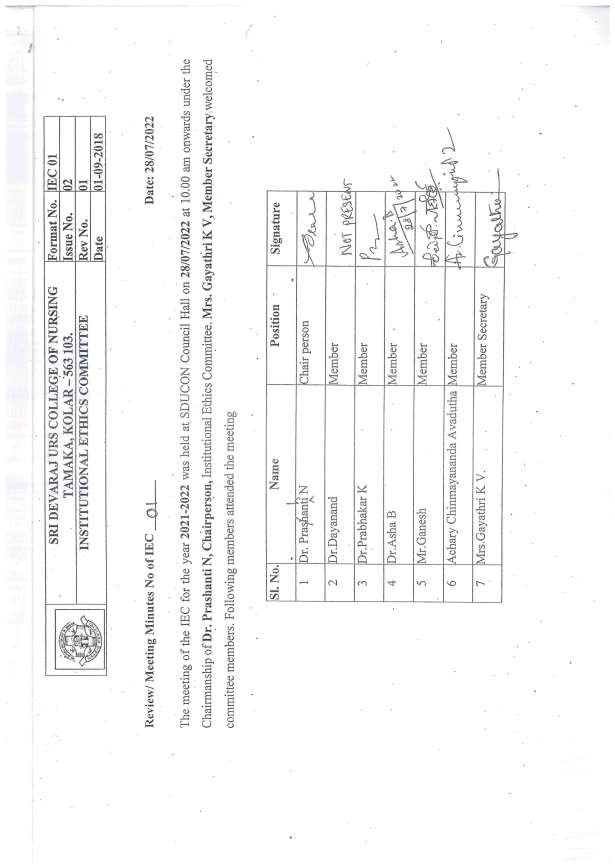
37. Itote EW, Fleming LC, Mallinson RK, Gaffney KF, Jacobsen KH. Knowledge of intrapartum care among obstetric care providers in rural Kenya. International Health. 2019 Jul 1;11(4):258-64.

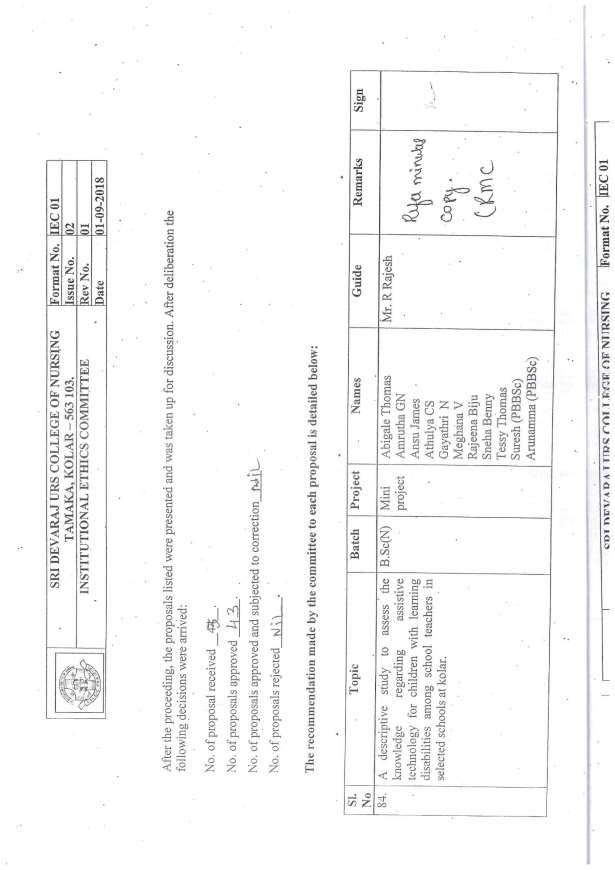
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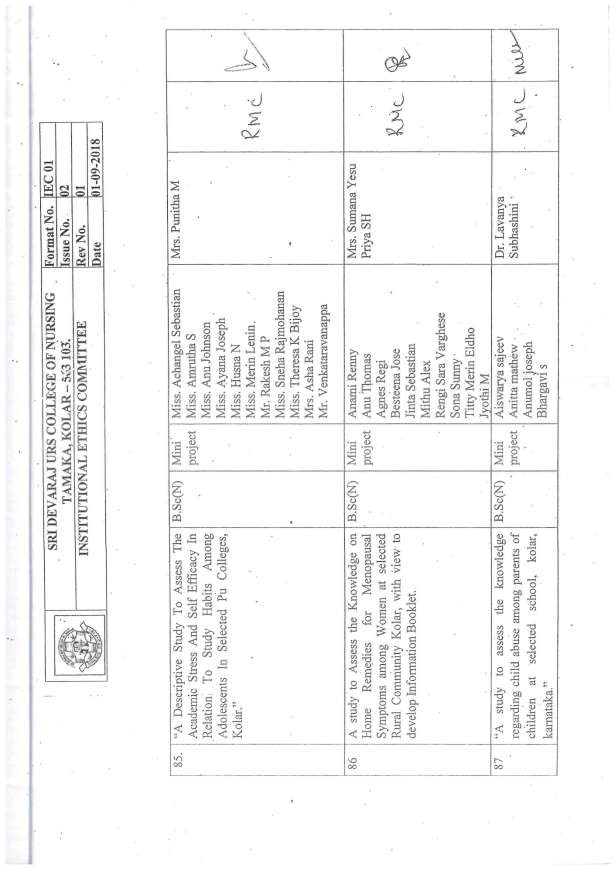
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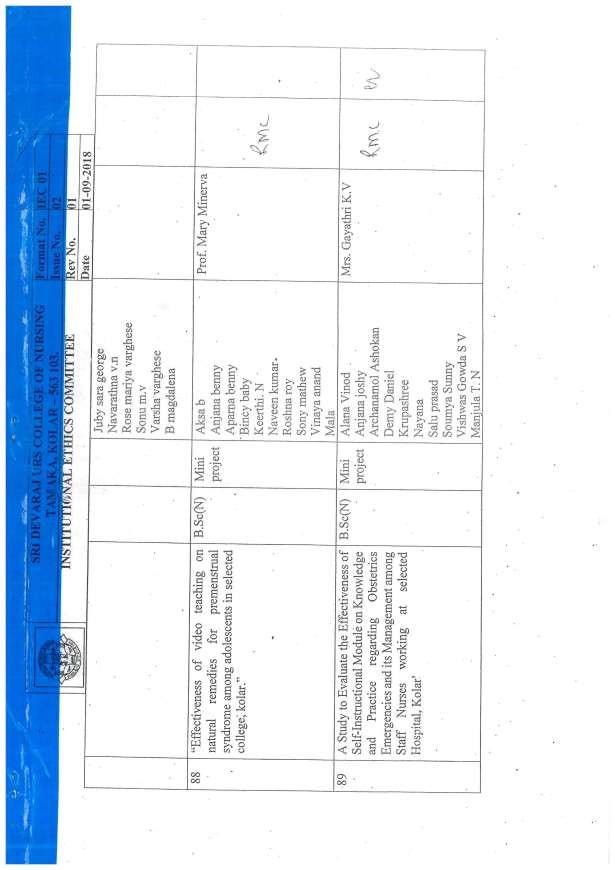


**ANNEXURE-II INSTITUTIONAL ETHICAL COMMITTEE**



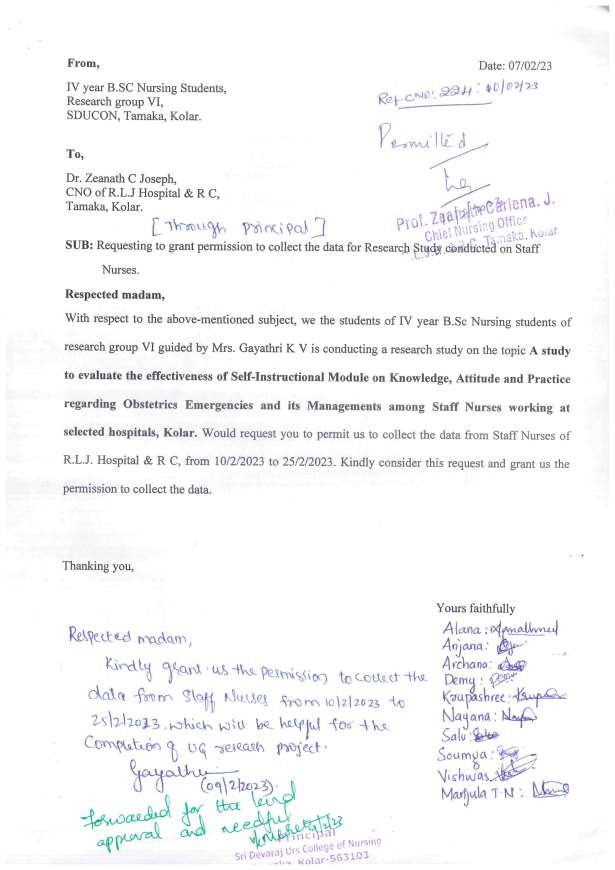






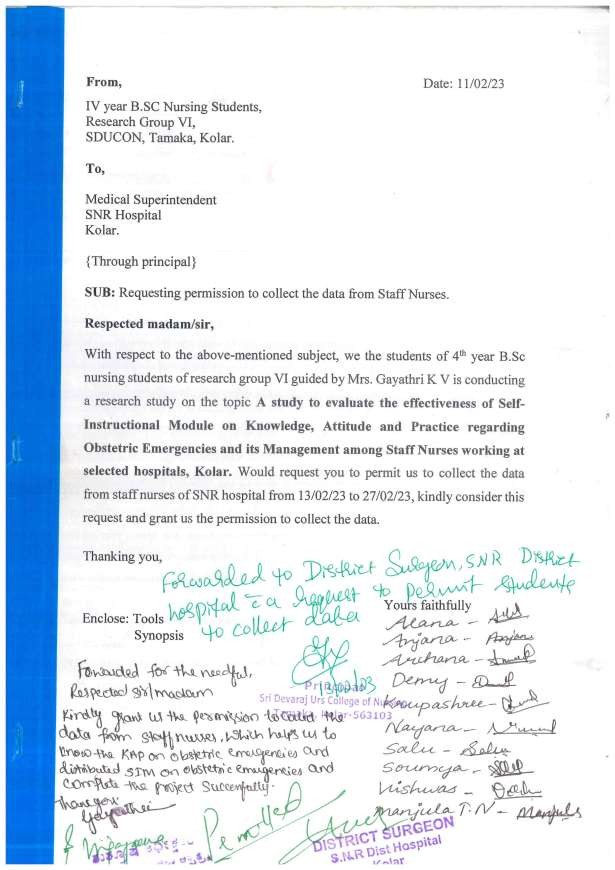
### ANNEXURE-III

**PERMISSION LETTER FROM R.L JALAPPA HOSPITAL.**



### ANNEXURE-IV

**PERMISSION LETTER FROM SNR HOSPITAL**



### ANNEXURE-V

**LIST OF TOOL VALIDATORS**

* 1. Dr. Zeanath C.J

HOD of Medical Surgical Nursing Department

And CNO of RLJH & RC.

* 1. Dr. G Vijayalakshmi Principal of SDUCON
  2. Prof. Jaiarakani Aruna HOD of Mental health Nursing Department SDUCON
  3. Prof. Punitha M

HOD of Obstetrics & Gynecology Health Nursing Department SDUCON

* 1. Dr. Lavanya Subhashini HOD of Child Health Nursing Department SDUCON
  2. Dr. Malathi K.V

HOD of Community Health Nursing Department.

SDUCON

* 1. Mrs. Vani. R

Asst. prof. of Community Health Nursing Department.

SDUCON

* 1. Mrs. Sumana Yesupriya

Asst. Prof. of Community Health Nursing department

SDUCON.

* 1. Dr Kavyarani C MBBS, DGO, DNB Department of OBG Assistant professor of RLJH &RC.
  2. Dr. Shreya Singh

MBBS, MS, Senior Resident Department of OBG

RLJH &RC.

* 1. Dr. Deeksha Rao

MBBS, MS, Senior resident Department of OBG

RLJH &RC

* 1. Dr.Ravishankar

Statistician

SDUMC, Tamaka Kolar.

### ANNEXURE –VI

#### SECTION A: STRUCTURED KNOWLEDGE QUESTIONNAIRE ON KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING OBSTETERIC EMERGENCIES AMONG STAFF NURSES

**INSTRUCTIONS:** Dear Participants

1. Please read the statements carefully and follow the instructions given.
2. Your answers will be kept confidential.
3. Do not leave any questions unanswered.
4. Encircle the correct answer from the options.
5. Please return the completed questionnaire to the investigator.

#### PART I – PROFORMA FOR BACKGROUND INFORMATION

**INSTRUCTION:** Kindly read the statement carefully and encircle the alphabet indicating the appropriate answer:

1. Age:
   1. Below 25years
   2. 26-30years
   3. Above 31years
2. Gender:
   1. Male
   2. Female 3.Professional qualification
3. GNM
4. P.B.B. Sc Nursing
5. B.Sc. Nursing
6. M.Sc. and Above
7. Working experience
   1. 0-2 years
   2. 3- 5years
   3. 5-7 years
   4. 8-10 years
   5. Above 11 years
8. Working area
   1. Labour ward
   2. Obstetric wards
   3. Causality
   4. ICU’S
   5. Medical and surgical wards
9. In-service education frequency
   1. Every month
   2. Every three months
   3. Yearly twice
   4. Yearly once
10. Religion
    1. Hindu
    2. Muslim
    3. Christian
    4. others
11. Area of residence
    1. Urban
    2. Rural
12. Previous experience in Labour or obstetric wards
    1. Yes
    2. no
13. if yes: specify ward \_

#### PART B: STRUCTRED KNOWLEDGE QUESTIONNAIRE ON OBSTETERIC EMERGENCIES.

**Instructions:** Kindly read the statement carefully and encircle the alphabet indicating the appropriate answer:

**1. Items related to obstetric emergency**

1. **Obstetric emergency refers to**
   1. Life threatening medical condition that occurs in pregnancy or during labour or after delivery
   2. Life threatening medical condition that occurs in pregnancy.
   3. Life threatening medical condition that occurs in labour.
   4. Life threatening medical condition that occurs in after delivery

#### Common obstetric emergency during pregnancy are

* 1. Uterine prolapse
  2. Cord prolapse
  3. Post-partum haemorrhage
  4. All of the above

#### the most significant risk of ectopic pregnancy is

* 1. Pelvic inflammatory disease.
  2. Diabetes.
  3. Pre-eclampsia.
  4. Hypertension.

**2. Items related to Post-Partum Hemorrhage**

1. **post-partum haemorrhage refers to the amount of blood loss**
   1. More than 800 ml following birth of the baby.
   2. Excess than 500 ml during labour.
   3. Excess of 1000 ml during and after delivery.
   4. Excess of 500 ml from pregnancy till birth of baby.

#### the most common cause of PPH is

* 1. Cervical laceration
  2. Coagulopathy
  3. Uterine atony
  4. Retained placenta

#### Risk factor for a PPH include except

* 1. Over- distended uterus
  2. Obesity
  3. Previous history of a PPH
  4. Preterm delivery

#### The first nursing intervention for treating a PPH is

* 1. Pad count
  2. Patient teaching
  3. Uterine massage
  4. Have patient empty their bladder

#### Haemorrhage control method for post-partum haemorrhage does not include

* 1. Bimanual compression.
  2. Administer IV fluids to maintain perfusion.
  3. Encouraging the neonate to suckle.
  4. Massaging the fundus.

#### Specific cause of primary post-partum haemorrhage does not include

* 1. Pregnancy induced hypertension.
  2. Recto- perineal tears.
  3. An atonic uterus.
  4. Delivery of an incomplete placenta.

#### The minimum blood loss occurs within the first 24 hours after delivery in post-partum haemorrhage

* 1. 1000ml
  2. 500ml
  3. 700ml
  4. 900ml

#### Prostaglandin commonly used in induction of labour is

* 1. Methargin.
  2. Oxytocin.
  3. Misoprostol.
  4. Atenolol.

#### The position preferred for the patient with PPH is

* 1. Prone position
  2. Side lying position
  3. Supine position
  4. Lithotomic position

#### 13 The important reason to implement a protocol for the management of PPH is

1. To stabilize the patient
2. Restore fluid and electrolyte
3. Restore and maintain the circulating blood volume
4. Maintain blood pressure

**3. ITEMS RELATED TO ECLAMPSIA**

1. **Eclampsia refers to**
   1. Pregnancy causing hypertension
   2. Pregnancy causing hypertension and seizure
   3. Pregnancy causing high blood pressure and proteinuria
   4. High BP during pregnancy

#### The following is risk factor of eclampsia

* 1. Multiparty
  2. Smoking
  3. Multiple pregnancy
  4. History of PID

#### The cause of convulsions is

* 1. Hypoxia
  2. Proteinuria
  3. Ischemia
  4. Anoxia

#### The four stages of eclampsia fits are

* 1. Premonitory, tonic, clonic, unconscious
  2. Monitory, tonic, clonic, unconscious
  3. Premonitory, tonic, clonic, coma
  4. Monitory, tonic, clonic, coma

#### The maternal complication of eclampsia is

* 1. CNS damage
  2. Haemorrhage
  3. Pulmonary insufficiency
  4. Sepsis

#### The drug choice of eclampsia is

* 1. Magnesium sulphate
  2. Phenytoin
  3. Diazepam
  4. Lytic cocktail

#### Blood pressure of 140/90 mm/hg or greater in a pregnant patient who is normally normotensive is called

* 1. Eclampsia.
  2. Pregnancy-induced hypertension.
  3. Supine- hypotension syndrome.
  4. Preeclampsia.

#### Side effect of rapid administration of magnesium sulphate leads to

* 1. Hypotension
  2. Cardiac arrest.
  3. Respiratory depression.
  4. All of the above.

#### the most effective management for eclampsia seizure is

* 1. Administration of calcium gluconate.
  2. Administration of normal saline.
  3. Administration of magnesium sulphate.
  4. Administration of midazolam.

#### Pre- eclampsia is known as

* 1. A hypertensive disorder of pregnancy.
  2. Seizures during pregnancy.
  3. A life- threatening condition.
  4. None of the above.

#### the most significant risk of ectopic pregnancy is

* 1. Pelvic inflammatory disease.
  2. Diabetics.
  3. Pre-eclampsia.
  4. Hypertension.

#### The risk factor of pre-eclampsia is

* 1. Family history of pre-eclampsia in mother or sister.
  2. Maternal age >40.
  3. Obesity BMI>35.
  4. Change of partner.
  5. First pregnancy.

**4. Items related to Cord prolapse.**

1. **The appropriate management of cord prolapse is**
   1. Clamp and cut the cord facilitate delivery.
   2. Ask the mother to replace the cord back into her vagina and position her to prevent cord compression.
   3. Position the mother supine and instigate early transport.
   4. Wrap the cord in plastic wrap and continuously palpate for the foetal pulse.

#### Patient WHO has prolapsed cord which method is contraindicated

* 1. Administer high flow oxygen.
  2. Check the cord for pulsations.
  3. Push the cord back in the vagina.
  4. Put mother in Trendelenburg position.

**5. Items related to Miscarriage/Abortion**

1. **The sign of inevitable miscarriage is**
   1. Lower back pain and abdominal cramping.
   2. Vaginal bleeding prior to 20 weeks.
   3. Rupture of the foetal membrane.
   4. Prolonged abdominal pain.

#### 80 % spontaneous abortion occur during

* 1. 1st trimester
  2. 2nd trimester
  3. 3rd trimester
  4. 4th trimester

#### Complications of abortion include

* 1. Risk of breast cancer.
  2. Infection.
  3. Risk of heavy bleeding.
  4. All of the above.

**6. Items related to Placenta previa.**

1. **The symptom of placental Previa is**
   1. Birth red, painless vaginal bleeding.
   2. Quickening.
   3. Nausea and vomiting.
   4. Dizziness.

#### The type of placenta Previa has occurred when the placenta is adjacent to the cervical or but does not extend over it

* 1. Total
  2. Marginal.
  3. Complete.
  4. Partial.

**7. Items related to Abruptio Placenta**

1. **Abruptio placentae is the** 
   1. Adherence.
   2. Connecting.
   3. Separating.
   4. Reattachment.

#### of the placenta and the uterine

1. **the most common cause of abruption placenta**
   1. Diabetes.
   2. Trauma.
   3. High blood pressure.
   4. Drugs.

#### The biggest risk to the mother after an abruption placental abruption is

* 1. Haemorrhage
  2. Seizures
  3. Oxygen deprivation
  4. Pain

#### All are an etiological factors of abruption placenta except ----------

* 1. Cocaine abuse
  2. Cigarette smoking
  3. Long umbilical cord
  4. Sudden uterine compression

Scoring key: each correct answer is awarded a

score of ‘1’(one) and incorrect answer ‘0’(Zero)

Total number of items: 36 Maximum score: 36

Minimum score: 0

#### Key answers to the knowledge questionnaire on obstetric emergencies SECTION II

|  |  |  |
| --- | --- | --- |
| **Question number** | **Correct response** | **Score of each item** |
| 1 | a | 1 |
| 2 | b | 1 |
| 3 | a | 1 |
| 4 | b | 1 |
| 5 | c | 1 |
| 6 | d | 1 |
| 7 | c | 1 |
| 8 | c | 1 |
| 9 | B | 1 |
| 10 | B | 1 |
| 11 | C | 1 |
| 12 | B | 1 |
| 13 | C | 1 |
| 14 | B | 1 |
| 15 | C | 1 |
| 16 | A | 1 |
| 17 | C | 1 |

|  |  |  |
| --- | --- | --- |
| **Question number** | **Correct response** | **Score of each item** |
| 21 | d | 1 |
| 22 | c | 1 |
| 23 | a | 1 |
| 24 | a | 1 |
| 25 | e | 1 |
| 26 | a | 1 |
| 27 | d | 1 |
| 28 | b | 1 |
| 29 | a | 1 |
| 30 | d | 1 |
| 31 | a | 1 |
| 32 | c | 1 |
| 33 | c | 1 |
| 34 | b | 1 |
| 35 | a | 1 |
| 36 | c | 1 |
|  | | |

#### SECTION II: ATTITUDE SCALE REGARDING OBSTERETIC EMERGENCIES.

**Instructions:** please rate how strongly you strongly disagree or agree with each of the following statement by ticking the appropriate option

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl.no** | **Items** | **Strongly agree** | **Agree** | **Disagree** | **Strongly disagree** | **Unknown** |
| **1** | Massage of the uterus is done to make the uterus hard and express the blood clot**.** |  |  |  |  |  |
| **2** | 10 units of oxytocin is given for  placental site bleeding. |  |  |  |  |  |
| **3** | Credes expression is done in placenta  abandoned |  |  |  |  |  |
| **4** | Golden one hour is the time  resuscitation is not started in PPH |  |  |  |  |  |
| **5** | Labetalol Is An Adrenoreceptor  Antagonist |  |  |  |  |  |
| **6** | Mgso4 is an anticonvulsant  administered in fulminant pre-eclampsia |  |  |  |  |  |
| **7** | In status eclampticus thiopentone sodium 0.5g dissolved in 20ml of 5%  dextrose |  |  |  |  |  |
| **8** | Deep Tendon reflex negative indicates  mgso4 toxicity |  |  |  |  |  |
| **9** | Occult prolapse is not felt during PV |  |  |  |  |  |
| **10** | In cord prolapse no attempt should be  made to replace the cord |  |  |  |  |  |
| **11** | 400 to 750ml of NS is filled in foleys  catheter and the balloon is inflated. |  |  |  |  |  |
| **12** | Shock is present in abruption placenta |  |  |  |  |  |
| **13** | Couvelaire uterus is seen in placenta  previa |  |  |  |  |  |
| **14** | MRSA infection is treated with  vancomycin |  |  |  |  |  |
| **15** | Epinephrine is given during newborn  resuscitation |  |  |  |  |  |

**SECTION III: PRACTICE QUESTIONNAIRE ON OBSETRIC EMERGENCIES**

**Instructions:** tick the correct answers in the table given below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No** | **Items** | **Yes** | **No** |
|  |  |  |  |
| 1. | Post-partum haemorrhage management protocol is practiced  correctly |  |  |
| 2 | Drug used to stop Excessive bleeding immediately after LSCS  is given correctly |  |  |
| 3 | oxytocin infusion is started with correct dosage immediately  for PPH |  |  |
| 4 | ZUSPAN regimen is administered for eclampsia cases |  |  |
| 5 | Dosage of Labetalol is administered correct |  |  |
| 6 | Intake and output chart, knee jerk reflex is check for the  patients who are on Mgso4 treatment |  |  |
| 7 | Airway is maintained for the eclampsia patients |  |  |
| 8 | Vitals are maintained every half hourly |  |  |
| 9 | CORD principal is practice in cord prolapse cases |  |  |
| 10 | Knee-chest position is maintained for the clients with cord  prolapse |  |  |
| 11 | 20% magnesium sulphate is administered in eclampsia patient |  |  |
| 12 | 400-750ml of saline is filled in bladder with Foleys catheter to  prevent complications |  |  |
| 13 | Per vaginal examination is done in placenta Previa case |  |  |
| 14 | Lateral tilt position is given for placenta praevia patients |  |  |
| 15 | Intrauterine balloon tamponade is used for placenta praevia  patients |  |  |
| 16 | Babies born with apgar score 6 has peripheral cyanosis and  breathing spontaneously |  |  |
| 17 | Immediate suctioning of back and sole is done after delivery |  |  |
| 18 | Oxygen is started at a rate of 5-8L/imn in case baby  HR<100bpm |  |  |
| 19 | Drug of choice epinephrine is give in newborn resuscitation |  |  |
| 20 | Chest compression is 60compressions/min and 30 breaths/min |  |  |

### ANNEXURE-V

**SELF INSTRUCTIONAL MODULE.**

*Information Bookleton*

***OBSTETRIC EMERGENCIES***



# GUIDED BY: PREPARED BY:

## MRS.GAYATHRI K.V Alana Vinod

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## Dept of OBG Archanamol Ashokan

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## Salu prasad Soumya Sunny Vishwas Gowda S VManjula T. N

**OBSTETRIC EMERGENCIES AND ITS MANAGEMENT**

**OBSTETRIC EMERGENCIES**

**Definition**

Obstetric emergencies are life threatening medical conditions that occur in pregnancy, during, or after labor and delivery.

**Causes/ Etiology**

* Ectopic pregnancy
* Spontaneous abortion
* Hematocolpos
* Sepsis
* Uterine rupture
* Fetal distress
* Genetic factors

**Selected Obstetric Emergencies**

* Postpartum Hemorrhage
* Eclampsia
* Pre-eclampsia
* Cord prolapse
* Placenta Previa
* Abruptio placenta
* Abortion/miscarriage
* Birth Asphyxia

**POST-PARTUM HEMORRHAGE**

**Definition**

Post-partum hemorrhage is defined as excessive bleeding (above 500ml) from genital tract at any time following the baby’s birth up to 6 weeks after delivery.

**Types**

* + - Primary Post-partum hemorrhage
    - Secondary Post-partum hemorrhage

**Primary Post-partum Hemorrhage**

If it occurs during the third stage of labor or within 24 hours of delivery, it is termed as primary post-partum hemorrhage.

These are of two types:

* + - * Third- stage hemorrhage: bleeding occurs before expulsion of placenta.
      * True post-partum hemorrhage: bleeding occurs subsequent the expulsion of Placenta.

**Secondary Post-partum Hemorrhage**

If it occurs subsequent to the first 24 hours following birth, until the 6th week postpartum, its termed as secondary post-partum hemorrhage.

**Causes**

There are several reasons why a post-partum hemorrhage may occur;

* Atonic uterus
* Retained placenta
* Trauma
* Blood coagulation disorder

**Atonic uterus** is caused by

* Incomplete separation of placenta
* Retained cotyledon , placental fragment or membranes
* Precipitating labor
* Prolonged labor
* Uterine inertia
* Poly-hydramnios
* Placenta Previa
* Placental abruption

**Retained placenta** is caused by

* Bits of placenta
* Blood clots

**Trauma** occurs following

* Operative delivery
* Spontaneous delivery
* Blood loss from the episiotomy wound
* Cesarean section

**Blood coagulation disorder** caused by

* Placental abruption
* Jaundice in pregnancy
* Thrombocytopenic purpura
* Severe pre-eclampsia

**Management of primary post-partum hemorrhage**

¯ **Management of 3RD stage bleeding:**

The principles in the management are:

* + to empty the uterus
  + to replace the blood
  + to ensure effective hemostasis

#### Prevention of PPH

Antenatal: improvement of the health status, High risk patients are screened. Blood grouping should be done, placental localization should be done, all women with prior cesarean delivery check placental site.

Intranatal: active management of the third stage for all women in labor should be a routine. Cases with inducted or augmented labor by oxytocin should be continued for one hour after delivery. Exploration of the uterovaginal canal, observation for about two hours after delivery, expert obstetric anesthetist is needed when the delivery is conducted. Examination of the placenta should be done.

**Steps of management**

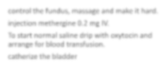
1. Placenta site bleeding
2. Traumatic bleeding

**Placental site bleeding**

* + to palpate the fundus and massage
  + to start crystalloid solution (NS or RL) with oxytocin 1L with 20 units at 60 drops/min. if needed blood transfusion
  + oxytocin: 10 units IM or methergine 0.2 mg is given IV. Carbetocin 100 mcg as alternative
  + to catheterize
  + to give antibiotics

#### Traumatic bleeding

The utero-vaginal canal is to be explored under general anesthesia after the placenta is expelled and hemostatic sutures are placed on the ending sites.



**Management**

control the fundus, massage and make it hard.

injection methergine 0.2 mg IV.

To start normal saline drip with oxytocin and arrange for blood transfusion.

placenta separated

not separated

express the placenta out

by controlled cor traction

manual removal under GA

Traumatic hemorrhage should be tackled

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Drug | Dose | Route | Frequency | Side effect | Contra indication |
| Oxytocin | 10-40 Units in 500L of crystalloid solution. | First line IV (10 units) Second line IV : IM (10  units) | Continuous IV. | Nausea. Water intoxication. Hypotension | Not as IV bolus, otherwise none. |
| Methergine | 0.2 mg | 1st line – IM/IV  2nd line -PO | Every 2-4 hours. | Nausea, Vomiting. | Hypertension, preeclampsia. |
| 15 Methyl  pgf 22 | 0.25 mg | 1st line –IM  2nd line – intrauterine. | Every 15-90  minute (8 dose max.) | Nausea Diarrhea. | Bronchial asthma. |
| Misoprostol (PGE1) | 600-  1000mcg. | 1st line –PR 2nd line –  sublingually. | Single dose. | Fever. Tachycardia. | None. |

***MANAGEMENT OF TRUE POSTPARTUM HEMORRHAGE***

Principles: simultaneous approach

Communication, resuscitation, monitoring, arrest of bleeding.

#### Management:

**Immediate measures:**

Call for extra help, put in two large bore(14 gauge) IV Cannulas, keep patient flat and warm. Send blood test, infuse rapidly 2L of NS or plasma substitues like haemaccel (colloids), an urea linked gelatin, to reexpand the vascular bed. Given oxygen by mask 10-15 L/min. start 20 units of oxytocin in 1L of NS, IV/60 drops/min. transfuse blood as soon as possible.

#### ACTUAL MANAGEMNT

a. Atonic b. traumatic. C. retained tissues. D. coagulopathy.

#### Atonic uterus: step I:

* 1. Massage the uterus to make it hard & express the blood clot
  2. Methergine 0.2mg is given intravenously
  3. Injection oxytocin drip is started (10 unit in 500ml of normal saline) at the rate of 40-60 drops per min (100ML/HR)
  4. Foleys catheter to keep bladder empty & to monitor urine output
  5. To examine the expelled placenta & membranes
  6. **Step II:** The uterus is to explored under general anesthesia (in refractory cases: inj. 15 methyl PGF2a, 250 mcg IM in the deltoid muscle every 15 min is given up to max of 2 mg. or misoprostol(PGE1) 1000 Mcg per rectum is effective. Inj. Tranexamic acid 0.5 gm or 1 gm IV may be given in addition to oxytocin. If uterine atony is due to tocolytic drugs, calcium gluconate igm IV slowly should be given.
  7. **Step III:** Uterine massage & bimanual compression
  8. **Step IV:** Uterine tamponade
     + Tight intrauterine packing is done uniformly under general anesthesia
     + Balloon tamponade its considered the first line surgical intervention for most women with atonic PPH

**Note:** in **Normal vaginal delivery:** inj. Oxytocin 10IU is given IV and 20 IU- IM. Inj. Methergin- 0.2mg, IM and Inj. Carboprost-250mcg IM.

**In LSCS:** Inj. Oxytocin- 20IU-IV followed by Inj. Pause-1gm. IV.

#### Step V: Surgical management

* B-lynch compression suture & multiple square suture
* Liquation of uterine arteries
* Liquation of the ovarian & uterine artery anastomosis
* Liquation of anterior division of internal iliac artery
* Angiographic selective arterial embolization
  1. **Step VI:** Hysterectomy

**Secondary post-partum hemorrhage management**

1. Supportive therapy
   1. Blood transfusion
   2. To administer methergine 0.2mg IM
   3. To administer antibiotics
2. Conservative: careful watch for a period of 24 hours is done in the hospital.
3. Active treatment : explore the uterus urgently under general anesthesia.

##### Nursing management

*Monitor TPR and oximeter, enter the amount of fluids the patient has receive, urine output measurement, drugs details,*

**Management of the true PPH**

Immediate measures.

call for extra help

commence IV Line with two wide bore cannulas.

send blood for cross-matching tests, coagulations screening, includingfibrinogen level and ask for 2 units of blood.

rapidly infuse normal saline/haemaccel 2 L till blood is available to catheterize the bladder

uterus atonic

massage the uterus to make it hard.

add oxytocin 10-20 IU in 500 ml of NS

uterus hard and

contracted

uterus atonic: 15 methyl PGF2a,

250 MCG IM. or misoprostol 10000 MCG rectum or Carbetocin 100 mcg IV

traumatic- exploration-

hemostatic sutures on thetear sites, bleeding stopedcontinuous observation inICU.

UTERUS ATONIC

Uterine tamponade. bimanual compression, tight intrauterine packingunder anesthesai

**ECLAMPSIA**

**Introduction**

When there is occurrence of convulsion in a patient with pre-eclampsia with no coincidental neurological disc ore it is called eclampsia

**Definition**

Eclampsia is defined as the occurrence of one or more convulsion or coma association with syndrome of pre-eclampsia.

**Risk factors**

* Pregnancy history
* Patient age
* Family history
* Obesity
* Hypertension
* Diabetes
* Kidney diseases

**Types**

* + Antepartum
  + Intrapartum
  + Postpartum

**Clinical features**

1. Premonitory stage: The patient becomes unconscious, there is twitching of the muscles of the face, tongue and limbs, the eyeballs twined into a oneside and becomes tired. This stage last for 30 seconds.
2. Tonic stage: The entire body becomes rigid and the face becomes contorted or suffused, respiration ceases and the tongue protrudes blur the teeth. Cyanosis appears, eyeballs becomes fixed. This stage lasts for about 30 seconds.
3. Clonic stage: Jerky movements then appears starting from the facial muscles into involve the entire body of the convulsions. Cyanosis gradually disappears. This stage lasts for 1- 4 minutes.
4. Stage of coma: following the fit ,the patient on to the stage of coma , it may last for a brief period or in the other deep comes persists till another convulsion

**General management of medical & nursing**

1. Supportive care:
   1. To prevent serious injury from face,
   2. To prevent aspiration
   3. Airway ensure oxygenation
2. Patient is kept in a roiled cot & a tongue blade is inserted to blur the teeth. She kept in a lateral position.

* Detailed history to be taken: - from the relevant to the diagnosis of eclampsia, duration of pregnancy, no of fits and nature pf medication administered outside.
* Examination: - once the patient is stabilized a through but quick general abdominal and vaginal examination are made. The continuous drainage facilitates measurement of urinary output and periodic urine analysis.
* Monitoring: - half hourly pulse, respiration, blood pressure is recorded, hourly output is to be noted. If undelivered, the uterus should be palpated at regular intervals to detect the progress of labor and the fetal heart rate is to be monitored.
* Fluid balance: - Crystalloid solution is started as first choice, total fluid should not exceed the previous 24 hours urinary output plus 100 ml.

Infusion of balanced salt solution should be out the route of 1ml/kg/hr.

* + CVP monitoring is needed for patient with severe hypertension or reduced urine output.
  + Invasive hemodynamic monitoring is rarely indicated.
* Antibiotics: To prevent infection, Ceftriaxone IV twice daily is given.
* Anticonvulsants: Magnesium sulphate is the drug of choice and does the same as given in the intermittent eclampsia.
* Maternal acidosis: it should be corrected when present.

**Management of Eclampsia**

**Regimens of mgso4 for the management of severe pre-eclampsia and eclampsia**

|  |  |  |
| --- | --- | --- |
| **Regimen** | **Loading dose** | **Maintenance dose** |
| Intramuscular (Pritchard) | 4g (20% solution) IV over 15-20 minute followed by 10g (50%) deep IM (5g in each buttock ) +IML OF 2% LIGNOCAINE | 5g (50%) IM 4 hourly in alternate buttock |
| Intravenous (Zuspan or Saibai) | 4-6 g IV slow over 15-20 minutes | 1-2 g/h IV infusion |

* Call for extra help (Communication)
* To put patient in left lateral recumbent position
* Maintain oral airway
* O2 inhalation – nonbreather mask; 10 L/minute
* Commence IV lines; 1 or 2 wide bore cannulas
* Foley catheter with urometer
* To monitor O2 saturation; pulse oximeter (SPO2 > 95%)
* Control of seizures: MgSO4, (IV/IM regimens)
* To monitor vitals; fetal status and magnesium toxicity
* Control of hypertension: Labetalol, Hydralazine
* Fluids: Crystalloids (saline) or colloids (albumin/blood)
* ≤ 125 mL/h
* Suction: oropharyngeal
* Diuretics: pulmonary edema
* Investigations to organize: Blood: CBC, AST, ALT, LDH,
* Creatinine, Uric Acid, Urine analysis - protein

#### HOSPITAL—the Principles of Management are:

* Maintain: airway, breathing and circulation
* Hemodynamic stabilization (control BP)
* Oxygen administration 8–10 L/minute
* Organize investigations
* Arrest convulsions
* Deliver by 6–8 hours
* Ventilator support (if needed)
* Prevention of complications
* Prevention of injury
* Postpartum care (intensive)

#### GENERAL MANAGEMENT (MEDICAL AND NURSING)

Patient is kept in a railed cot and a tongue blade is inserted between the teeth. She is kept in the lateral decubitus position to avoid aspiration. Vomitus and oral secretions are removed by frequent suctioning, oxygenation is maintained through a face mask (8–10 L/minute) to prevent respiratory acidosis. Oxygenation is monitored using a transcutaneous pulse oximeter. Arterial blood gas analysis is needed when O2 saturation falls below 92%. Sodium bicarbonate is given when the pH is below 7.10.

#### Detailed history is to be taken Examination:

**Monitoring**: **Half hourly pulse**, **respiration rate and blood pressure**

**Supportive care**: (i) to prevent serious maternal injury from fall, (ii) prevent aspiration, (iii) to maintain airway and (iv) to ensure oxygenation. Hourly urinary

output is to be noted. If undelivered, the uterus should be palpated at regular intervals to detect the progress of labour and the fetal heart rate is to be monitored.

**Immediately after a convulsion**, **fetal bradycardia is common Fluid balance**: Crystalloid solution (Ringer’s solution)

**Total fluids should not exceed the previous 24 hours urinary output plus 1000 mL**. Normally, it should not exceed 2 litres in 24 hours. Infusion of balanced salt solution should be at the rate of 1 mL/kg/h. In preeclampsia–eclampsia although there is hypovolemia, the tissues are overloaded. An excess of dextrose or crystalline solutions should not be used as it will aggravate the tissue overload leading to pulmonary edema and adult respiratory distress syndrome. Colloids (albumin or Haemaccel) remain in the vascular tree and they withdraw fluids from the interstitial space. Unless used carefully, they can lead to circulatory overload. CVP monitoring is needed for a patient with

severe hypertension and reduced urine output. In preeclampsia, eclampsia, both the PCWP and CVP appear to be in the low to normal range. Invasive hemodynamic monitoring is rarely indicated.

**Antibiotic**: To prevent infection, **Ceftriaxone 1 g IV** twice daily is given.

**Note: in IMMINENT ECLAMPSIS**

Tab. Labetalol-40mg given (check BP every 2hrs, repeat Tab. Labetalol until 120mg).

Inj. Mgso4- loading dose- 4mg given followed by 10gm (10-12hrs)-IV. After delivery for 24hours zuspan flow maintained.

If BP controlled-continue Tab. Labetalol 100mg(TID)/200mg.

**Complications**

* Abruptio placenta with or without disseminated intravascular coagulation
* Pulmonary edema
* Respiratory arrest.
* Pulmonary edema.
* Decreased urine output

**PRE- ECLAMPSIA**

**Definition**

It is a multisystem disorder of unknown etiology characterized by development of hypertension to the extent of 140/90 mmhg or more with proteinuria after the 20th week in a previously normotensive and nonproteinuric woman.

**Causes**

1. Family history.
2. Placental abnormalities.
   * Hyperplacentosis.
   * Placental ischemia.
3. Failure of trophoblast invasion.
4. Vascular endothelial damage.
5. Inflammatory mediators (cytokines).
6. Coagulation abnormalities.
7. Preexisting vascular disease.
8. Thrombophilia’s.
9. Genetic predisposition (polygenic disorder).
10. Dietary deficiency or excess.

**Clinical features**

**Symptoms:** Mild symptoms: slight swelling over the ankles, which persists on risking from the bed in the morning or tightness of the ring on the finer.

Alarming symptoms: 1. Headache 2. Disturbed sleep, 3. Diminished urinary output. 4. Epigastric pain. 5. Eye symptoms like blurring, scotomata, dimness of vision or at times complete blindness.

Signs: abnormal weight gain, rise of blood pressure, edema, pulmonary edema.

**Management**

**Prophylactic measures for prevention:**

1. regular antenatal checkup
2. Antiplatelet agents.
3. Heparin or low molecular weight is not recommended.
4. Calcium supplementation 2g/day reduces the risk of gestational hypertension.
5. Antioxidants like vitamins C and E and nutritional supplementation with magnesium, zinc, fish oil and low-salt diet have been tried but are of limited benefit.
6. Balanced diet rich in protein may reduce the risk.

**Medical management**

1. Diuretics.
   * Frusemide(40mg) given orally after breakfast for 5 days in a week.
2. Antihypertensive drugs.
   * Labetalol(100mg) orally.
   * Nifedipine (5-10mg) orally.
   * Angiotensin (captopril) orally 6.5mg.

**Nursing management**

1. Assess the condition of patient
2. Provide rest

Increase renal blood flow Diuresis Increases uterine blood flow Improves placental perfusion and reduce the blood pressure.

1. Monitor vital signs frequently.
2. Diet – The diet should contain adequate amount of daily protein (about 100g).
3. Check for any convulsion.
4. Monitor fluid intake and urinary output.

**Managing the hypertensive crisis in pregnancy**

|  |  |
| --- | --- |
| Therapy | Description |
| Anti- hypertensive management | * Hypertensive urgency: BP elevation >160/110 with no target organ damage. * Reduction of blood pressure in 24 to 48 hours. * Oral antihypertensive agents. * Intermediate care unit with continuous non-invasive monitoring of Bp. * Hypertensive emergency elevation >160/110 with target organ damage. * Immediate reduction of Bp. * Intravenous vasodilators and oral and hypertensive agents. * Goal therapy in pregnancy: from 140 to 150 mmHg and DAP under 90mmHg is associated with an increased risk of uteroplacental failure. * Goal of therapy in postpartum lower than 140/90mmHg in 9<24 hr period. * Intensive care unit with continuous invasive monitoring of Bp. |
| Prevention of eclampsia | Magnesium sulphate (IV)  Impregnation dosage: 4-6 grams, Maintenance dosage up to 24 hrs. Postpartum- 1-2 grams per hours |
| Obstetric Management | Watchful management in pregnancies under 32 weeks after maternal stabilization, seeking to reach lung maturation as long as both the maternal and fetal status allow it, only recommended at high complexity units, with maternal intensive care units and high technology for fetal and neonatal health monitoring. Termination of pregnancy in gestations under 32 weeks not amenable to expectant management. At high complexity units and after maternal stabilization. Vaginal delivery must be monitored continuously and there are no contraindications for the use of obstetric analgesia or  regional anesthesia if the platelet unit is over 75,000 lcc 6 hours before delivery. |
| Others | Intravenous |

SEVERE PRE-ECLAMPSIA

Admit to labor and delivery area maternal and fetal evaluation 24 hours

Iv magnesium sulfate antihypertensive if systole greater than 160mm Hg, Diastolic less than 110 or mean arterial pressure >125 mm Hg

Corticosteroids for lung maturity.

Eclampsia Pulmonary edema Acute renal failure

Disseminated coagulopathy

<23 weeks’ gestation Gestational age 33 0/7-34 0/7 weeks

Non- reassuring fetal status.

Delivery before completion of steroids.

HELLP syndrome

Severe FGR+ oligohydramnios, UAD with reverse diastolic flow, Persistent symptoms, thrombocytopenia Gestational age 33 0/7-34 0/7 weeks labor or rupture or membrane.

Steroids

48 hr delay if possible.

**CORD PROLAPSE**

**Definition**

Before or during birth, the umbilical cord can drop through the open cervix into the vagina ahead of the body. This condition is called umbilical cord prolapse.

**Causes**

* + Premature rupture of membranes
  + Preterm labor
  + Contracted pelvis
  + Twins
  + Prematurity
  + Hydramnios
  + Malpresentation of fetus
  + Stabilizing induction

**Types**

There are three clinical types of abnormal descent of the umbilical cord by the side of the presenting part.

1. Occult prolapses
2. Cord presentation
3. Cord prolapses

Occult prolapses: The cord is placed by the side of the present part and is not felt by the fingers on internal examination.

Cord presentation: The cord is slipped down below the presenting part and is felt lying in the intact bag of membranes.

Cord prolapses: The cord is lying inside the vagina or outside the vulva following rupture of the membranes.

**MANAGEMENT**

**C-** call for help

**O** – organized for delivery

**R** – relieve pressure

**D** - delivery

**SURGICAL MANAGEMENT**

A lower (uterine) segment caesarean section (LSCS)

**NURSING MANAGEMENT**

Nursing management starts with assessment phase, when the pregnant women visit the hospital for antenatal checkups.

1. Identify prolapse cord and provide immediate intervention.
   * Assessing the laboring client often if the fetus is preterm or small for gestational age, if the fetal presenting part is not engaged, and if the membranes are ruptured.
   * Periodically evaluate FHR, especially right after rupture of membranes, (spontaneous or surgical), and again in 5 to 10 mints.
   * If prolapse cord is identified, notify the physician and prepare emergency caesarean birth.
   * If the client is fully dilated, the most emergent delivery route must be vaginal. In this case, encourage the client to push and assist with the delivery as follows.
2. Lower the head of the bed and elevate the clients’ hips on a pillow, or place the client in the knee-chest position to minimize pressure from the cord.
3. Assess cord pulsations constantly.
4. Gently wrap gauze soaked in sterile normal saline solution around the prolapsed cord.
5. Provide physical and emotional support.
   * Bladder filling: done to raise the presenting part off the compressed cord till the patient delivers. Bladder is filled with 400- 750 ml of saline with a foley’s catheter, balloon is inflated and catheter is clampsed.
   * Provide client and family education.

Vertex

Breech extraction

Immediate vaginal delivery not

possible or c/L

First

aid

Immediate safe vaginal

delivery

idea

Definitive management

cs

Cord prolapse

baby living

|  |  |  |
| --- | --- | --- |
| Baby death | |  |
|  |  | |
| Await spontaneous delivery or destructive | | |

Int.version followed by

|  |  |
| --- | --- |
| Low down | |
|  |  |
| Forceps | |

|  |  |  |
| --- | --- | --- |
| High up | | |
|  | |  |
|  | Int.version | |

Reposition of the cord

Cs facilitates N.A or baby premature oxytocin/forceps

**PLACENTA PREVIA**

#### Definition

When the placenta is implanted partially or completely over the lower uterine segment is called placenta previa. The term previa denotes the position of the placenta in relation to the presenting part.

#### Causes

1. Presence of uterine scar
2. Multiple pregnancies
3. Placenta size and abnormality
4. Smoking
5. Low implantation of the fertilized egg
6. Maternal factors; infertility treatment
7. Abnormalities of the placenta

#### Types

There are four types of placentae previa depending upon the degree of extension of placenta to the lower segment

**Type 1:**The major part of the placenta is attached to the upper segment and only the lower segment but not up to the OS

**Type 2 :**The placenta reaches the margin of the internal OS but does not cover it

**Type 3:**Covers the internal OS partially

**Type 4 :**The placenta completely covers the internal OS even after it is fully dilated

#### Management Prevention:

Regular antenatal care, antenatal diagnosis of type of placenta at 20wks and 34wks. Significance of warning hemorrhage check, color flow Doppler USG and MRI.

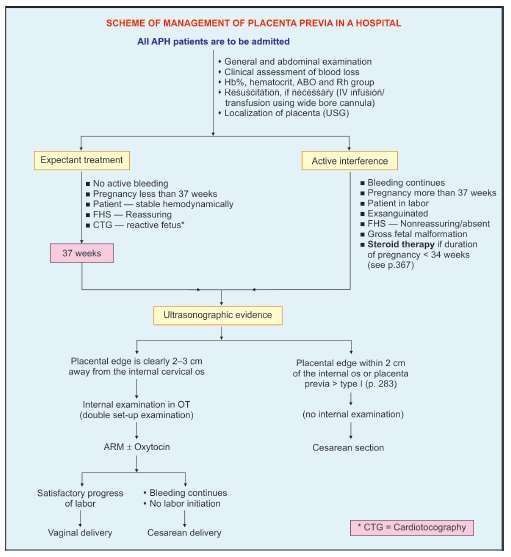
#### Treatment:

* 1. Immediate attention: check for amount of blood loss, blood samples are taken for grouping and cross matching, a large bore IV cannula is sited and an infusion of normal saline. Gentle abdominal palpation for tenderness and FHR. Inspection of vulva.
  2. Formulation of the line of treatment.
     1. Expectant management: blood transfusion if required. Facilities for cesarean section should be available throughout 24 hrs.

Bedrest complete, investigations, periodic inspection, and supplementary hematinic should be given and the blood loss is replaced by adequate cross matching Blood transfusion. A gentle speculum examination use of tocolysis associated with uterine contraction. Use of cervical cerclage to bleeding. Rh immunoglobulin for Rh-mothers.

Steroid therapy.

* + 1. Active management: LSCS. If placenta edge is 2-3cm away from cervical normal



**ABRUPTIO PLACENTA**

Abruption placenta is bleeding after premature separation of a normally situated placenta

**Etiology**

* + - * Direct trauma to the uterus
      * Cigarette smoking increases the incidence of placental abruption
      * Sudden decompression of the uterus after membrane rupture in patient with poly hydramnios and multiple pregnancy
      * Increased level of alpha-lipotropin
      * Maternal hypertension
      * Folic acid deficiency may have an important role in placental abruption
      * Placental abruption divided based on the grades

**Grading of placental abruption**

Grade 0;asymptomatic patient with a small retroplacental cot

Grade 1;Vaginal bleeding uterine tetany and tenderness may be present no signs of maternal shock or Fetal distress.

Grade 2;External vaginal bleeding possible no signs of maternal shock , signs pf Fetal distress.

Grade 3;External bleeding impossible: marked urine tetany , yielding a borderline consistency on palpation persistent abdominal pain with maternal shock and Fetal demise coagulopathy maybe evident in 30% of cases .

**Diagnosis**

* Physical examination
* Urine test
* Ultra sound

**Treatment;**

Prevention:

Early detection and effective therapy of hypertensive disorders. Needle puncture with ultrasound guidance. Avoidance of trauma, to avoid sudden decompression of the uterus, to avoid supine hypotension, routine administration of folic acid from the early pregnancy.

Treatment in the hospital

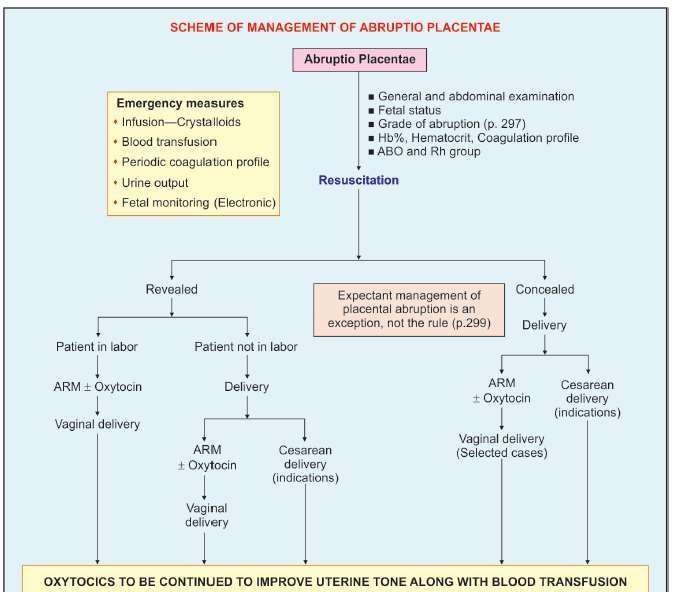
Check for amount of blood loss, maturity of the fetus, whether the patient is in labour or not, presence of any complication and type and grade of placental abruption.

Emergency measures: blood test should be sent. Ringer solution drip is started. Definitive treatment.

The patient is in labor: low rupture of the membranes. Oxytocin drip started. Vaginal delivery in favored cases.

**Patient not in labor:** bleeding continues and grade I abruption, delivery either by induction of labor or LSCS.

1. The baby isn’t close to full term
   * If the abruption seems mild your baby’s heart rate is normal and its too early for the baby to be born
   * Might have hospitalization for close monitoring
   * Medication to be given to help baby’s lungs mature and to protect the baby’s brain
2. The baby is close to full term
   * Generally after 34 weeks of pregnancy, if the placental abruption seems minimal
   * Closely monitored vaginal delivery might be possible
   * If the abruption worsens your baby’s health then immediate delivery necessary



**PUEPERAL SEPSIS**

**Definition**

According to WHO; puerperal sepsis is defined as the infection of the genital tract occurring at labor or within 42 days of the postpartum period.

**Causes**

* Streptococci
* Staphylococcus
* Escherichia coli
* Clostridium tetani
* Chlamydia
* Gonococcus

**MANAGEMENT**

Prophylaxis: antenatal: improvement of nutritional status of the pregnant woman and eradication of any septic focus (skin, throat, and tonsils) in the body.

Intranatal: full surgical asepsis during delivery, screening of group B Streptococcus in a high-risk patient. Prophylactic use of antibiotic at the time of cesarean section.

Postpartum: aseptic precautions for at least 1 week, following delivery until the open wounds in the uterus, perineum and vagina.

Treatment:

#### General care: isolation of the patient, adequate fluid and calorie by IV. Anemia correction by oral iron or blood transfusion, an indwelling catheter to relieve urine retention. TPR Chart including lochia and IO chart.

* + Antibiotics; ideal antibiotic regimen should depend on the culture and sensitivity report.
  + Gentamycin; 2mg/kg IV loading dose followed by 1.5mg/kg/8hourly]+clindamycin[900mg/8hours and clindamycin 900mg IV every 8 hours.
  + Metronidazole 0.5 g IV every 8 hours-anaerobic group.
  + Treatment for 7-10 days

Antibiotic regimens: severe sepsis a combination of piperacillin-tazobactam or carbapenem plus clindamycin of antimicrobial coverage. Women with methicillin resistant s ciuerus (MRASA) infection should be treatment with vancomycin or teicoplanin.

#### SURGICAL MANAGEMENT

* + - stiches of the perineal wound: sitz bath with an antiseptic ointment or powder.
    - Retained uterine products: 3cm or less is disregarded and left alone. Or else surgical evacuation after antibiotic coverage for 24 hours done. In cases with septic pelvic thrombophlebitis IV Heparin for 7-10 days done.
    - Pelvic abscess: colpotomy done.
    - Wound dehiscence: scrub the wound twice daily, debridement of all necrotic tissue and then closing the wound with secondary suture.
    - Laparotomy: in unresponsive peritonitis, laparotomy is done.
    - Hysterectomy in rupture or perforation, abscesses, gangrenous uterus or gas gangrene infection.
    - Necrotizing fasciitis: rehydration, wound scrubbing, debridement of all necrotic tissues and use of high-dose broad-spectrum and antibiotics.
    - Management of bacteremic or septic shock: fluid and electrolyte balance, respiratory supports, dopamine or dobutamine drugs to support circulation, intensive antibiotic therapy and surgical removal of septic foci.

#### NURSING MANAGEMENT

* + - * Clinical examination to assess the general condition of the patient and her hemodynamic stability.
      * Inspection of the external genitalia and perineum to detect any tears or episiotomy as well as the amount, small and color of the discharges.
      * Assess the size of the uterus or well as the presence of any tenderness by both abdominal and bimanual examination.

**ABORTION /MISCARRIAGE**

**Definition**

Abortion is the expulsion or extraction from its mother of an embryo or fetus weighing 500 gm or less when it is not capable of independent survival.

(WHO)

**Incidence**

10-20% of all clinical pregnancies end in miscarriage . 75% abortions occur before the 16th week and of those, about 75% occur before the 8th week of pregnancy .

**Causes**

* fetal causes
* maternal causes
* paternal causes

**fetal causes ;** 50 percentage of chromosomal abnormalities are due to chromosomal abnormalities.

* + Genetic abnormalities
  + Structural abnormalities

**Maternal causes ;**

1.Maternal age; The risk increase with advancing maternal age . 2.Infections; Rubella, listeria and chlamydia.

1. Maternal disease ;Diabetes mellitus, Renal disease, Thyroid dysfunction.
2. Environmental factors ; Excessive consumption of alcohol, coffee, along with cigarette, smoking

,inducing passive exposure to cigarette.

**Paternal causes ;**

**T-** Trauma

**(I)2 –** Infections / Immunological Causes

**M –** Maternal Medical Diseases

1. **2 –** Environmental Factors / Endocrine Problems

**D-** Developmental / Anatomical Problem

**O-**Obesity In Mother

**Management**

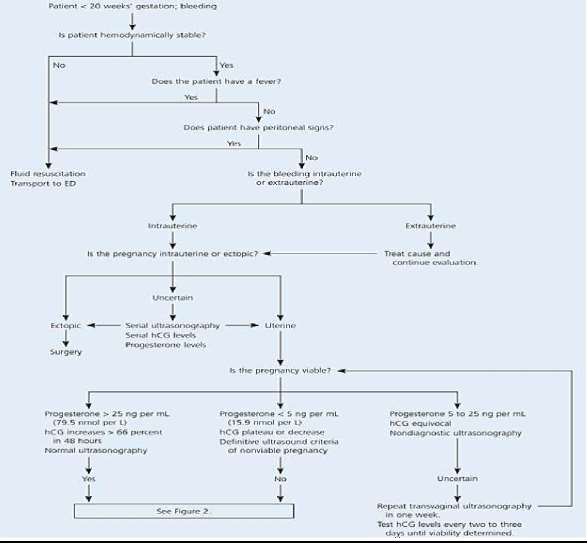
* Obtain a history of onset, duration,amount,colour, and consistency of bleeding
* Obtain a history of associated symptoms , prior bleeding episodes and physical activity at onset of bleeding
* Record visual blood loss in cubic centimetres of blood stained on pad in a certain period of time , or weigh saturated pads , linen protectors
* Record blood pressure, pulse and respiration as indicated
* Observe for passage of tissue or clots.
* Observe for signs of shock.
* Keep an accurate record of intake and output
* Refer to lab data such as hemoglobin level, hematocrit level , and red blood cell count
* Determine gestational age by estimated date of delivery
* Save all expelled tissue clots for examination
* If bleeding is severe or the hemoglobin or hematocrit is low , start and iv line with a 14 gauge intra catheter and normal saline to be prepared for blood component therapy or blood administration as ordered . start another iv line to administer a crystalloid solution such as lactated ringer’s solution as ordered , usually 1.5 to 2 liters given through a warming device

. prepare for type and cross match , and have oxytocin available . usual dose of oxytocin is 10-40 units in 1000 ml of 0.9% normal saline or D5W solution to infuse at a rate to control uterine atony .

* Notify physician if the blood pressure drops , pulse or respiration increase , more than one pad is saturated with blood in one hour , urinary output drops below 30 ml per hour or 120 ml per 4 hour , or the hematocrit level is less than 30% or hemoglobin level less than 11g .

Be prepared to intervene based on % of blood loss

* Assist with expectant management, medical therapy, or surgical management based on diagnosis and patient choice.



**BIRTH ASPHYXIA**

Birth Asphyxia is defined as failure to initiate and maintain spontaneous respiration following birth.

Perinatal asphyxia is the state of decreased oxygen delivery (hypoxia) to the fetus or neonate resulting in inadequate tissue perfusion (ischemia).

**TYPES AND DEGREE**

There are two types

* 1. Asphyxia livida
  2. Asphyxia pallida

|  |  |  |
| --- | --- | --- |
|  | Asphyxia livida | Asphyxia pallida |
| Degree | Mild (Early stage) | Severe (Last stage) |
| Skin color | Blue | Pale white |
| Respiratory efforts | May be present | Absent |
| Heart beats | Strong , 8-120 /min | Weak <80 /min |
| Eyes | Reactive pupils | Dilated pupils |
| Muscle tone | A degree of muscle tone | Flaccid |
| Reflexes | Present | Absent |
| Prognosis | Good easy, resuscitating | Bad, difficult |

**ETIOLOGY**

1. Paralysis due to cerebral hemorrhage.
2. Depression by drugs such as morphine, pethidine or anesthesia.
3. Maternal lack of oxygen due to placental insufficiency.
4. Antepartum hemorrhage, premature separation of placenta.
5. Obstruction of the baby’s airway by mucus, blood \_liquor or meconium.
6. Intranatal pneumonia developed when membranes have been ruptured fir some time.
7. Tracheal prolapsed.
8. Congenital heart defect.
9. Congenital atelectasis.

**MANAGEMENT**

**Preventive management**

* Antenatal detection of high-risk patients.
* Careful intrapartum fetal monitoring to ensure early detection of fetal distress and timely delivery.
* Intrapartum use of electronic fetal monitoring and scalp blood pH assessment when indicated.
* Judicious administration of anesthetic agents and sedatives during labour.
* Cooperation between obstetric and pediatric staff since delivery and
* Avoidance of difficult or traumatic delivery.

#### Definitive treatment

* Assessment of respiratory efforts must be done. The APGAR score is assessed within a minute and 5 minutes after birth.

1. Babies with Apgar score 8-10: pink, breathing spontaneously, HR>100bpm.
   * The oropharynx and the nasopharynx are to be cleared off any mucus by suction.
   * Dry the infant and place under radiant heat source.
   * Oxygen is administered only when required.
   * The condition is reassessed at 5 minutes and if found normal, the infant should be given to the mother.
2. Babies with Apgar score 5-7: peripheral cyanosis, breathing spontaneously, HR>100bpm.
   * Baby may follow primary apnea.
   * Place under a radiant heater, dry the baby.
   * A pulse oximeter placed on the right hand.
   * The baby is put flat, head in midline with slight extension position.
   * Immediate suction of the oropharynx and nasopharynx is done.
   * Stimulus to back and sole.
   * Oxygen 100% is administered at a rate of 5L/min by bag and mask at a pressure range of 30-40cm H2O.
   * CPAP may be given if necessary.
   * Support should be continued until respiration are spontaneous color improves and the heart rate is>100bpm.
3. Baby is apneic despite tactile stimulation: central cyanosis or HR<100bpm (3-4)
   * Baby may develop secondary apnea: call for assistance.
   * A bag (750ml) and a mask ventilation is started, O2 is administered at the rate of 5-8L/min. positive pressure of 25-30 cm H2O may be needed for appropriate chest rise.
   * If not effective intratracheal intubation and IPPV is started. A rate of 40-60 breaths/min should be used. Baby is reassessed in next 15-30 seconds. Support is continued until respirations are spontaneous, HR is >100bpm. These infants will be acidotic but are able to correct themselves once spontaneous respiration is established.
4. Baby is apneic, HR<100bpm despite 30 seconds of assisted ventilation (Apgar score 0- 2).
   * HR>60bpm, to continue positive pressure ventilation. The heart rate is rechecked in 30 seconds ventilation.
   * Increase the oxygen concentration to 100% if resuscitation was started using an air-oxygen blend.
   * Failure to increase HR, poor status of oxygen saturation, persistent cyanosis, intubation is done rapidly by a skilled person.
   * Cardiac massage is given to maintain circulation if HR<60bpm.

**Drugs used for resuscitation:** HR<60 bpm even after ventilation and chest compression. Drug of choice is epinephrine.

**MAS:** Endotracheal intubation and suctioning is performed with negative pressure of 80- 100mmHg.

#### Steps in resuscitation

* Dry and position the baby

Absence of any effort, resuscitation measures are taken immediately.

* + The baby’s upper airway should be cleaned by gentle suction of the oropharynx and nasopharynx.
  + The baby is dried quickly and transferred to a well facilitated resuscitation area.
  + The baby’s shoulders may be elevated on a small rolled towel to straighten the trachea by slight extension of head.
* Clear the airway
  + If meconium, is present in the airway, suction under direct vision should be performed by using a laryngoscope and visualizing the larynx.
  + If the baby does not respond to clearing of his airway, further steps of neonatal resuscitating to be started.
* Prevention of heat loss\_opening of airway and ventilation with bag and mask. The prevention of heat loss in a newborn is vital because hypothermia increases oxygen consumption and impedes effective resuscitation,
  + Ventilation should be performed with a bag and mask with oxygen if immediately available, if oxygen is not available, room air can be used. The face mask should be placed on the face so as to cover the nose\_ mouth and chin to obtain a good seal.
  + Adequate ventilation is assessed by observing chest movements.
  + The bag should be squeezed with 2 fingers to obtain a breath rate of 40 breaths per minute. Stop briefly after one minute to establish if newborn is breathing spontaneously.
  + If the arrangements should be made to transfer the newborn to the health facility with neonatal intense care facilities.

**CONCLUSION**

An obstetric emergency is described as a serious and frequently dangerous condition that developsabruptly or unexpectedly and necessitates rapid attention in order to preserve lives.

Obstetrics is the medical field with the highest volume of emergencies. While most birth-related issues may be well managed with enough time, a few can manifest as obstetric emergencies wheretreatment effectiveness depends on quick response, methodical fast, and management.

# PHOTO GALLERY



|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sociodemographic data in Control group | | | | | | | | | |
| SL.NO | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Sample 1 | b | a | b | a | a | a | b | a | a |
| Sample 2 | a | c | a | d | a | e | c | b | a |
| Sample 3 | b | a | d | b | b | d | c | b | c |
| Sample 4 | b | a | b | e | d | a | a | b | a |
| Sample 5 | a | b | a | a | d | a | a | a | a |
| Sample 6 | c | b | d | b | a | e | b | a | b |
| Sample 7 | b | c | a | c | b | b | a | a | a |
| Sample 8 | a | c | a | c | a | c | a | b | a |
| Sample 9 | b | a | a | e | c | a | a | b | a |
| Sample 10 | a | b | d | c | b | b | b | a | b |
| Sample 11 | a | b | b | e | d | b | a | a | a |
| Sample 12 | b | c | a | c | d | c | c | b | b |
| Sample 13 | c | a | d | e | d | a | c | b | a |
| Sample 14 | b | b | a | c | b | a | a | b | a |
| Sample 15 | b | a | b | a | b | c | b | b | a |
| Sample 16 | b | b | a | d | e | a | a | b | b |
| Sample 17 | a | a | a | d | d | a | a | b | a |
| Sample 18 | b | a | a | d | a | a | a | b | a |
| Sample 19 | c | a | b | e | e | a | a | a | a |
| Sample 20 | b | b | a | c | d | c | a | b | b |
| Sample 21 | c | b | c | e | e | a | b | b | a |
| Sample 22 | b | a | a | b | a | a | a | b | a |
| Sample 23 | a | b | a | e | e | a | c | b | a |
| Sample 24 | b | a | b | d | d | a | a | b | a |
| Sample 25 | c | b | a | d | d | a | a | b | b |
| Sample 26 | b | b | a | b | a | c | a | b | a |
| Sample 27 | c | b | c | c | d | a | b | b | a |
| Sample 28 | a | c | b | e | b | a | a | b | a |
| Sample 29 | c | b | d | d | e | a | a | b | a |
| Sample 30 | b | b | d | e | c | c | a | b | a |
| Sample 31 | c | b | a | c | e | a | a | b | a |
| Sample 32 | c | b | b | b | e | a | a | b | b |
| Sample 33 | a | b | a | e | d | c | b | b | a |
| Sample 34 | b | b | a | d | e | a | a | b | a |
| Sample 35 | c | b | a | c | d | a | a | b | a |
| Sample 36 | c | b | b | e | a | c | a | a | a |
| Sample 37 | c | b | a | c | e | a | a | a | a |
| Sample 38 | c | b | a | a | c | a | a | b | a |
| Sample 39 | a | b | d | e | e | b | a | b | b |
| Sample 40 | b | b | a | d | b | a | a | b | a |
| Sample 41 | b | a | a | d | e | b | c | b | a |
| Sample 42 | a | b | b | e | d | a | a | a | a |
| Sample 43 | b | b | a | c | d | c | a | b | a |
| Sample 44 | c | b | d | e | d | a | a | b | a |
| Sample 45 | b | c | a | d | c | a | a | b | b |
| Sample 46 | a | a | a | c | d | a | c | a | a |
| Sample 47 | a | b | a | b | b | c | a | b | a |
| Sample 48 | b | b | d | e | b | a | a | b | a |
| Sample 49 | c | b | a | d | e | a | a | a | b |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample 50 | a | a | d | c | d | a | c | b | a |
| Sample 51 | a | b | c | b | a | a | a | b | b |
| Sample 52 | c | a | d | c | a | a | a | b | c |
| Sample 53 | c | b | a | c | d | b | b | b | b |
| Sample 54 | a | b | b | b | c | a | a | b | b |
| Sample 55 | b | a | d | e | d | a | a | b | b |
| Sample 56 | c | b | c | d | d | a | a | b | a |
| Sample 57 | b | b | a | c | d | b | a | b | a |
| Sample 58 | c | b | a | a | a | a | a | b | b |
| Sample 59 | b | a | d | e | c | d | a | b | a |
| Sample 60 | a | b | a | b | a | a | b | b | a |
| Sample 61 | c | b | b | c | e | a | a | b | a |
| Sample 62 | c | b | a | d | b | a | c | b | a |
| Sample 63 | c | b | c | e | d | a | a | b | c |
| Sample 64 | a | b | a | b | e | b | a | a | a |
| Sample 65 | b | b | a | c | a | a | a | b | a |
| Sample 66 | c | b | a | c | c | a | a | b | a |
| Sample 67 | c | b | c | c | e | a | c | b | a |
| Sample 68 | a | a | a | b | c | a | c | a | a |
| Sample 69 | a | b | d | e | e | a | a | b | a |
| Sample 70 | a | b | b | d | a | c | a | b | a |
| Sample 71 | c | b | a | c | d | c | a | b | a |
| Sample 72 | b | b | d | e | b | a | a | b | a |
| Sample 73 | c | b | a | c | e | a | a | a | c |
| Sample 74 | c | a | b | d | b | a | b | b | a |
| Sample 75 | a | b | a | e | c | a | a | b | a |
| Sample 76 | c | a | d | a | d | a | a | b | a |
| Sample 77 | b | b | a | e | e | a | a | b | b |
| Sample 78 | b | b | a | e | c | a | a | b | a |
| Sample 79 | c | b | b | b | e | a | b | a | a |
| Sample 80 | c | b | d | e | e | a | a | b | a |
| Sample 81 | a | b | a | d | b | a | a | b | a |
| Sample 82 | c | a | a | c | d | a | b | b | a |
| Sample 83 | a | b | b | e | e | a | a | b | a |
| Sample 84 | c | b | a | d | e | a | a | b | a |
| Sample 85 | b | b | c | e | a | a | b | a | b |
| Sample 86 | b | b | c | c | e | a | a | a | b |
| Sample 87 | c | b | a | e | c | b | c | b | b |
| Sample 88 | b | b | d | b | e | a | a | b | a |
| Sample 89 | c | b | a | e | c | d | c | b | a |
| Sample 90 | a | b | b | c | d | a | a | b | a |
| Sample 91 | c | b | a | e | e | a | a | b | a |
| Sample 92 | a | b | a | a | e | a | a | b | c |
| Sample 93 | c | b | d | c | c | a | a | b | a |
| Sample 94 | b | b | a | d | e | a | a | b | a |
| Sample 95 | b | a | a | e | d | a | b | b | a |
| Sample 96 | a | b | b | b | e | a | a | b | b |
| Sample 97 | c | b | a | c | a | d | a | b | b |
| Sample 98 | b | b | a | e | d | a | a | b | a |
| Sample 99 | b | b | b | e | c | a | a | b | a |
| Sample 100 | a | a | a | c | d | a | a | b | b |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| pre test Knowledge score in Control group. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Slno | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| Sample 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| Sample 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Sample 4 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| Sample 6 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 7 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| Sample 8 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Sample 9 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Sample 10 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Sample 11 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Sample 12 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| Sample 13 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| Sample 14 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Sample 15 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Sample 16 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| Sample 17 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 18 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 19 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sample 20 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |
| Sample 21 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 22 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Sample 23 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Sample 24 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| Sample 25 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Sample 26 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Sample 27 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 28 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| Sample 29 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| Sample 30 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| Sample 31 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Sample 32 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 33 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 34 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| Sample 35 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 36 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| Sample 37 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| Sample 38 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| Sample 39 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| Sample 40 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 |
| Sample 41 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |
| Sample 42 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| Sample 43 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Sample 44 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| Sample 45 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 |
| Sample 46 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| Sample 47 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| Sample 48 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 49 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 |
| Sample 50 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Sample 51 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| Sample 52 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Sample 53 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| Sample 54 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| Sample 55 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Sample 56 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 |
| Sample 57 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 |
| Sample 58 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Sample 59 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| Sample 60 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| Sample 61 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 62 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Sample 63 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 |
| Sample 64 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Sample 65 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| Sample 66 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| Sample 67 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Sample 68 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 |
| Sample 69 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 |
| Sample 70 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample 71 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| Sample 72 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | |
| Sample 73 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | |
| Sample 74 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | |
| Sample 75 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | |
| Sample 76 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | |
| Sample 77 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | |
| Sample 78 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | |
| Sample 79 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Sample 80 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | |
| Sample 81 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Sample 82 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | |
| Sample 83 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | |
| Sample 84 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | |
| Sample 85 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | |
| Sample 86 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| Sample 87 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | |
| Sample 88 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | |
| Sample 89 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | |
| Sample 90 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | |
| Sample 91 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | |
| Sample 92 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | |
| Sample 93 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | |
| Sample 94 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | |
| Sample 95 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | |
| Sample 96 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | |
| Sample 97 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Sample 98 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | |
| Sample 99 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | |
| Sample 100 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | |
| Post test Knowledge score in Control group | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample 101 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Sample 102 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | |
| Sample 103 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| Sample 104 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | |
| Sample 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | |
| Sample 106 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | |
| Sample 107 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | |
| Sample 108 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | |
| Sample 109 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | |
| Sample 110 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| Sample 111 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Sample 112 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | |
| Sample 113 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | |
| Sample 114 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | |
| Sample 115 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | |
| Sample 116 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | |
| Sample 117 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | |
| Sample 118 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | |
| Sample 119 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | |
| Sample 120 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | |
| Sample 121 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | |
| Sample 122 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | |
| Sample 123 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | |
| Sample 124 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | |
| Sample 125 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | |
| Sample 126 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Sample 127 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | |
| Sample 128 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | |
| Sample 129 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | |
| Sample 130 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | |
| Sample 131 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | |
| Sample 132 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | |
| Sample 133 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | |
| Sample 134 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | |
| Sample 135 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | |
| Sample 136 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | |
| Sample 137 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | |
| Sample 138 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | |
| Sample 139 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | |
| Sample 140 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | |
| Sample 141 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample 142 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| Sample 143 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Sample 144 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| Sample 145 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 |
| Sample 146 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| Sample 147 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| Sample 148 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 11 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 149 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 |
| Sample 150 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Sample 151 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| Sample 152 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Sample 153 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| Sample 154 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| Sample 155 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Sample 156 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 |
| Sample 157 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 |
| Sample 158 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Sample 159 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| Sample 160 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| Sample 161 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 162 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Sample 163 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 |
| Sample 164 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Sample 165 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| Sample 166 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| Sample 167 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Sample 168 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 |
| Sample 169 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| Sample 170 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sample 171 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Sample 172 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| Sample 173 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Sample 174 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 175 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| Sample 176 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| Sample 177 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| Sample 178 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 |
| Sample 179 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Sample 180 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 181 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 182 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 183 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 184 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sample 185 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Sample 186 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Sample 187 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| Sample 188 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| Sample 189 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 |
| Sample 190 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| Sample 191 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| Sample 192 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| Sample 193 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 |
| Sample 194 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 195 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 196 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| Sample 197 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 198 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Sample 199 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| Sample 200 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |

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|  |  |  | Pre test Practice score in Control group | | | | | | | | | | | | | | | | | |
| SL.NO | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Sample 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 2 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 3 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 13 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 14 | 1 | 1 | 1 | 1 | 11 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 15 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 17 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 18 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 19 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 20 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 21 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 22 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 23 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 24 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 25 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 26 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 27 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 28 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 29 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 30 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 31 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 32 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 33 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 34 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 35 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 36 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 37 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 38 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 39 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| Sample 40 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 41 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| Sample 42 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 43 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 44 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 45 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| Sample 46 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 47 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 48 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Sample 49 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 50 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 51 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| Sample 52 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 53 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| Sample 54 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 55 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 56 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 57 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 58 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 59 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| Sample 60 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| Sample 61 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 62 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 63 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| Sample 64 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 65 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 66 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 67 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |

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| Sample 68 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 69 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 70 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| Sample 71 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 72 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 73 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| Sample 74 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 75 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 76 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 77 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 78 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 79 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 80 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 81 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 82 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 83 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| Sample 84 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 85 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 86 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 87 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 88 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| Sample 89 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 90 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 91 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 92 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 93 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 94 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 95 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| Sample 96 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 97 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| Sample 98 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|  |  |  | post test Practice score in Control group | | | | | | | | | | | | | | | | | |
| Sample 99 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 100 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| Sample 101 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| Sample 102 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 103 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| Sample 104 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 105 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 106 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 107 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 108 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 109 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 110 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 111 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 112 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 113 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 114 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 115 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 116 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 117 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 118 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 119 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 120 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 121 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 122 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 123 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 124 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 125 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 126 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 127 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 128 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 129 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 130 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 131 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 132 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 133 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 134 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 135 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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| Sample 136 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 137 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 138 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 139 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 140 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 141 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 142 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 143 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 144 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 145 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 146 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 147 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 148 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 149 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 150 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 151 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 |
| Sample 152 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 153 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 154 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 155 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 156 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 157 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 158 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 159 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 160 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 161 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 162 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 163 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 164 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 165 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 166 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 167 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 168 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 169 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 170 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 171 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 172 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| Sample 173 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 174 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 175 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 176 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 177 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 178 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 179 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 180 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| Sample 181 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 182 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 183 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 184 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 185 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 186 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 187 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 188 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 189 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 190 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 191 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 192 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 193 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 194 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| Sample 195 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 196 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 197 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 198 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 199 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 200 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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| SL.NO | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Pre test Attitude score in Control group | | | | | | | | | | | | | | | |
| SAMPLE 1 | 5 | 4 | 3 | 5 | 4 | 4 | 4 | 5 | 4 | 5 | 4 | 3 | 2 | 4 | 1 |
| SAMPLE 2 | 5 | 4 | 3 | 3 | 2 | 1 | 4 | 4 | 5 | 5 | 5 | 3 | 2 | 4 | 4 |
| SAMPLE 3 | 5 | 4 | 3 | 5 | 2 | 2 | 1 | 1 | 5 | 5 | 5 | 4 | 4 | 3 | 3 |
| SAMPLE 4 | 3 | 3 | 1 | 3 | 4 | 5 | 3 | 4 | 1 | 2 | 4 | 5 | 1 | 1 | 1 |
| SAMPLE 5 | 4 | 3 | 1 | 3 | 4 | 5 | 2 | 1 | 1 | 1 | 5 | 1 | 1 | 5 | 5 |
| SAMPLE 6 | 3 | 3 | 4 | 4 | 4 | 3 | 1 | 1 | 1 | 4 | 4 | 1 | 4 | 4 | 4 |
| SAMPLE 7 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 2 | 5 | 4 | 2 | 2 | 5 |
| SAMPLE 8 | 1 | 3 | 3 | 1 | 1 | 4 | 5 | 5 | 3 | 4 | 1 | 1 | 1 | 1 | 5 |
| SAMPLE 9 | 4 | 3 | 1 | 1 | 4 | 4 | 5 | 4 | 1 | 5 | 4 | 4 | 1 | 1 | 1 |
| SAMPLE 10 | 3 | 3 | 1 | 4 | 4 | 5 | 1 | 1 | 1 | 4 | 5 | 4 | 4 | 4 | 4 |
| SAMPLE 11 | 3 | 3 | 3 | 1 | 1 | 4 | 4 | 5 | 4 | 4 | 5 | 1 | 4 | 4 | 4 |
| SAMPLE 12 | 4 | 3 | 3 | 5 | 1 | 5 | 4 | 5 | 3 | 1 | 4 | 4 | 4 | 4 | 1 |
| SAMPLE 13 | 1 | 2 | 1 | 4 | 4 | 1 | 4 | 1 | 1 | 4 | 4 | 1 | 5 | 4 | 1 |
| SAMPLE 14 | 1 | 2 | 1 | 1 | 1 | 5 | 4 | 4 | 1 | 1 | 1 | 5 | 4 | 5 | 4 |
| SAMPLE 15 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 1 | 1 | 5 | 4 | 3 | 4 | 5 |
| SAMPLE 16 | 4 | 2 | 4 | 1 | 4 | 4 | 3 | 1 | 1 | 3 | 4 | 1 | 3 | 4 | 5 |
| SAMPLE 17 | 3 | 3 | 1 | 1 | 4 | 4 | 3 | 1 | 2 | 3 | 4 | 1 | 1 | 4 | 5 |
| SAMPLE 18 | 3 | 2 | 1 | 5 | 4 | 4 | 3 | 1 | 1 | 1 | 5 | 1 | 5 | 5 | 5 |
| SAMPLE 19 | 3 | 2 | 1 | 1 | 1 | 4 | 5 | 4 | 1 | 3 | 5 | 1 | 3 | 4 | 5 |
| SAMPLE 20 | 3 | 3 | 1 | 1 | 4 | 4 | 3 | 1 | 3 | 3 | 4 | 1 | 3 | 4 | 5 |
| SAMPLE 21 | 4 | 2 | 4 | 4 | 4 | 4 | 3 | 1 | 3 | 1 | 4 | 3 | 3 | 1 | 5 |
| SAMPLE 22 | 1 | 3 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 4 | 1 | 1 | 4 | 5 |
| SAMPLE 23 | 3 | 3 | 4 | 1 | 1 | 4 | 4 | 1 | 1 | 4 | 4 | 5 | 3 | 4 | 4 |
| SAMPLE 24 | 3 | 3 | 4 | 1 | 1 | 5 | 1 | 3 | 3 | 4 | 5 | 1 | 1 | 4 | 4 |
| SAMPLE 25 | 4 | 2 | 4 | 1 | 4 | 5 | 1 | 3 | 1 | 4 | 4 | 1 | 1 | 4 | 1 |
| SAMPLE 26 | 2 | 3 | 3 | 1 | 4 | 4 | 4 | 1 | 1 | 4 | 4 | 1 | 1 | 4 | 4 |
| SAMPLE 27 | 3 | 3 | 1 | 1 | 4 | 4 | 4 | 1 | 1 | 1 | 4 | 1 | 3 | 4 | 4 |
| SAMPLE 28 | 4 | 3 | 1 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 1 | 4 | 4 |
| SAMPLE 29 | 3 | 3 | 1 | 1 | 4 | 4 | 4 | 4 | 1 | 1 | 4 | 3 | 1 | 4 | 4 |
| SAMPLE 30 | 3 | 3 | 1 | 1 | 4 | 4 | 4 | 1 | 4 | 1 | 4 | 1 | 1 | 4 | 4 |
| SAMPLE 31 | 3 | 3 | 1 | 1 | 4 | 5 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 |
| SAMPLE 32 | 4 | 3 | 1 | 1 | 4 | 4 | 4 | 5 | 4 | 3 | 4 | 4 | 1 | 4 | 4 |
| SAMPLE 33 | 3 | 3 | 1 | 1 | 5 | 4 | 4 | 4 | 1 | 1 | 4 | 1 | 4 | 4 | 4 |
| SAMPLE 34 | 4 | 3 | 1 | 1 | 4 | 4 | 4 | 1 | 4 | 3 | 4 | 4 | 1 | 4 | 4 |
| SAMPLE 35 | 3 | 3 | 1 | 3 | 4 | 4 | 4 | 4 | 1 | 1 | 4 | 4 | 1 | 4 | 4 |
| SAMPLE 36 | 4 | 3 | 1 | 5 | 5 | 5 | 4 | 4 | 2 | 1 | 4 | 3 | 4 | 2 | 1 |
| SAMPLE 37 | 5 | 3 | 2 | 1 | 4 | 5 | 3 | 1 | 3 | 2 | 5 | 4 | 3 | 5 | 1 |
| SAMPLE 38 | 4 | 5 | 1 | 3 | 4 | 3 | 4 | 4 | 2 | 3 | 1 | 4 | 3 | 2 | 5 |
| SAMPLE 39 | 3 | 5 | 2 | 4 | 1 | 2 | 5 | 2 | 4 | 5 | 1 | 3 | 2 | 5 | 2 |
| SAMPLE 40 | 4 | 5 | 1 | 3 | 4 | 5 | 5 | 1 | 2 | 5 | 1 | 4 | 3 | 2 | 5 |
| SAMPLE 41 | 5 | 4 | 2 | 1 | 3 | 4 | 3 | 2 | 3 | 5 | 4 | 1 | 3 | 4 | 2 |
| SAMPLE 42 | 5 | 4 | 1 | 4 | 5 | 3 | 2 | 3 | 1 | 5 | 2 | 4 | 3 | 4 | 1 |
| SAMPLE 43 | 4 | 5 | 1 | 2 | 1 | 4 | 2 | 5 | 4 | 3 | 2 | 5 | 1 | 5 | 2 |
| SAMPLE 44 | 4 | 5 | 1 | 3 | 5 | 5 | 4 | 3 | 5 | 5 | 4 | 4 | 5 | 5 | 1 |
| SAMPLE 45 | 5 | 4 | 2 | 5 | 4 | 4 | 3 | 4 | 5 | 1 | 4 | 3 | 4 | 4 | 5 |
| SAMPLE 46 | 5 | 4 | 3 | 4 | 4 | 2 | 5 | 4 | 4 | 5 | 5 | 5 | 3 | 3 | 4 |
| SAMPLE 47 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 1 | 2 | 3 | 4 |
| SAMPLE 48 | 4 | 2 | 2 | 5 | 3 | 4 | 4 | 4 | 1 | 4 | 1 | 1 | 1 | 4 | 5 |
| SAMPLE 49 | 2 | 3 | 4 | 5 | 5 | 5 | 3 | 5 | 3 | 5 | 5 | 5 | 4 | 4 | 5 |

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| SAMPLE 50 | 3 | 1 | 4 | 1 | 4 | 5 | 3 | 4 | 3 | 4 | 5 | 5 | 4 | 5 | 5 |
| SAMPLE 51 | 5 | 5 | 5 | 3 | 2 | 4 | 1 | 4 | 5 | 4 | 5 | 5 | 4 | 2 | 1 |
| SAMPLE 52 | 4 | 4 | 5 | 3 | 2 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 2 | 5 | 4 |
| SAMPLE 53 | 2 | 2 | 4 | 2 | 3 | 3 | 4 | 5 | 4 | 2 | 3 | 4 | 2 | 4 | 3 |
| SAMPLE 54 | 5 | 5 | 2 | 5 | 5 | 4 | 4 | 5 | 4 | 1 | 5 | 3 | 5 | 4 | 5 |
| SAMPLE 55 | 5 | 5 | 5 | 4 | 4 | 2 | 5 | 1 | 5 | 5 | 4 | 5 | 4 | 5 | 4 |
| SAMPLE 56 | 4 | 4 | 1 | 4 | 2 | 5 | 5 | 3 | 3 | 5 | 4 | 2 | 4 | 5 | 4 |
| SAMPLE 57 | 4 | 4 | 5 | 5 | 1 | 5 | 4 | 5 | 4 | 4 | 3 | 2 | 5 | 4 | 5 |
| SAMPLE 58 | 3 | 3 | 3 | 5 | 3 | 2 | 2 | 4 | 5 | 4 | 3 | 5 | 5 | 5 | 5 |
| SAMPLE 59 | 5 | 2 | 5 | 4 | 5 | 5 | 5 | 4 | 3 | 3 | 5 | 4 | 4 | 2 | 3 |
| SAMPLE 60 | 4 | 1 | 5 | 3 | 5 | 4 | 2 | 3 | 2 | 5 | 5 | 5 | 4 | 1 | 2 |
| SAMPLE 61 | 2 | 5 | 3 | 2 | 5 | 2 | 1 | 5 | 1 | 4 | 5 | 4 | 1 | 5 | 1 |
| SAMPLE 62 | 5 | 4 | 4 | 1 | 2 | 1 | 5 | 2 | 5 | 5 | 4 | 4 | 5 | 4 | 5 |
| SAMPLE 63 | 4 | 2 | 4 | 5 | 4 | 3 | 4 | 2 | 4 | 5 | 2 | 5 | 5 | 4 | 5 |
| SAMPLE 64 | 2 | 2 | 5 | 5 | 5 | 5 | 4 | 5 | 4 | 4 | 1 | 3 | 4 | 1 | 4 |
| SAMPLE 65 | 5 | 4 | 1 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 5 | 5 | 4 | 5 | 4 |
| SAMPLE 66 | 5 | 5 | 4 | 4 | 3 | 1 | 2 | 3 | 1 | 5 | 5 | 5 | 2 | 4 | 3 |
| SAMPLE 67 | 5 | 5 | 3 | 3 | 2 | 3 | 5 | 1 | 3 | 4 | 4 | 2 | 2 | 4 | 2 |
| SAMPLE 68 | 4 | 4 | 2 | 2 | 2 | 3 | 1 | 4 | 5 | 3 | 4 | 2 | 1 | 2 | 3 |
| SAMPLE 69 | 4 | 4 | 5 | 1 | 1 | 4 | 2 | 2 | 4 | 5 | 2 | 4 | 5 | 2 | 4 |
| SAMPLE 70 | 4 | 3 | 1 | 5 | 5 | 4 | 4 | 5 | 4 | 4 | 3 | 4 | 4 | 5 | 2 |
| SAMPLE 71 | 5 | 3 | 4 | 5 | 4 | 5 | 5 | 1 | 5 | 4 | 5 | 3 | 2 | 1 | 1 |
| SAMPLE 72 | 4 | 3 | 5 | 4 | 4 | 5 | 1 | 5 | 2 | 3 | 1 | 3 | 3 | 1 | 5 |
| SAMPLE 73 | 3 | 4 | 5 | 4 | 2 | 2 | 5 | 4 | 2 | 5 | 4 | 5 | 5 | 5 | 5 |
| SAMPLE 74 | 5 | 5 | 3 | 3 | 2 | 5 | 5 | 3 | 1 | 4 | 4 | 5 | 1 | 4 | 4 |
| SAMPLE 75 | 4 | 4 | 3 | 2 | 3 | 5 | 4 | 2 | 5 | 4 | 2 | 4 | 5 | 4 | 4 |
| SAMPLE 76 | 5 | 4 | 4 | 1 | 5 | 2 | 4 | 1 | 5 | 3 | 2 | 4 | 4 | 4 | 3 |
| SAMPLE 77 | 5 | 4 | 4 | 5 | 4 | 2 | 3 | 5 | 3 | 3 | 3 | 2 | 3 | 3 | 2 |
| SAMPLE 78 | 4 | 2 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 2 | 2 | 5 |
| SAMPLE 79 | 3 | 2 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 5 | 1 | 5 | 5 | 2 | 2 |
| SAMPLE 80 | 3 | 5 | 1 | 3 | 5 | 3 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 |
| SAMPLE 81 | 5 | 5 | 5 | 2 | 4 | 5 | 1 | 2 | 5 | 4 | 2 | 4 | 4 | 1 | 1 |
| SAMPLE 82 | 5 | 4 | 2 | 3 | 2 | 5 | 5 | 4 | 2 | 5 | 5 | 2 | 4 | 5 | 5 |
| SAMPLE 83 | 5 | 5 | 4 | 1 | 3 | 5 | 4 | 3 | 1 | 2 | 1 | 4 | 5 | 5 | 4 |
| SAMPLE 84 | 4 | 3 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 2 | 5 | 5 | 4 | 4 | 1 |
| SAMPLE 85 | 3 | 2 | 3 | 2 | 5 | 5 | 1 | 5 | 4 | 5 | 3 | 3 | 1 | 5 | 2 |
| SAMPLE 86 | 3 | 4 | 2 | 3 | 5 | 4 | 4 | 1 | 5 | 5 | 4 | 4 | 3 | 3 | 2 |
| SAMPLE 87 | 3 | 4 | 5 | 5 | 5 | 4 | 4 | 5 | 3 | 5 | 5 | 5 | 5 | 4 | 5 |
| SAMPLE 88 | 4 | 5 | 5 | 5 | 4 | 3 | 5 | 4 | 2 | 4 | 5 | 5 | 1 | 4 | 5 |
| SAMPLE 89 | 4 | 3 | 4 | 5 | 3 | 3 | 5 | 5 | 5 | 3 | 4 | 5 | 5 | 5 | 5 |
| SAMPLE 90 | 4 | 2 | 3 | 4 | 2 | 5 | 5 | 3 | 5 | 5 | 4 | 5 | 5 | 4 | 5 |
| SAMPLE 91 | 5 | 1 | 3 | 4 | 1 | 5 | 3 | 2 | 4 | 5 | 4 | 4 | 5 | 4 | 1 |
| SAMPLE 92 | 5 | 5 | 2 | 3 | 5 | 5 | 3 | 1 | 3 | 4 | 3 | 2 | 4 | 4 | 5 |
| SAMPLE 93 | 5 | 5 | 5 | 3 | 4 | 4 | 3 | 5 | 5 | 5 | 5 | 2 | 4 | 4 | 5 |
| SAMPLE 94 | 4 | 4 | 3 | 2 | 1 | 3 | 2 | 3 | 4 | 2 | 3 | 3 | 2 | 1 | 4 |
| SAMPLE 95 | 3 | 3 | 2 | 1 | 2 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 1 |
| SAMPLE 96 | 1 | 3 | 1 | 5 | 3 | 5 | 2 | 3 | 5 | 2 | 3 | 2 | 3 | 5 | 3 |
| SAMPLE 97 | 2 | 2 | 5 | 3 | 3 | 4 | 4 | 2 | 4 | 1 | 4 | 4 | 2 | 4 | 5 |
| SAMPLE 98 | 5 | 5 | 4 | 4 | 5 | 3 | 1 | 1 | 1 | 5 | 1 | 3 | 1 | 1 | 4 |
| SAMPLE 99 | 4 | 5 | 3 | 4 | 5 | 5 | 3 | 3 | 2 | 4 | 2 | 3 | 4 | 3 | 3 |
| SAMPLE 100 | 5 | 4 | 3 | 4 | 1 | 5 | 5 | 4 | 3 | 3 | 4 | 1 | 4 | 1 | 4 |

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| Post test Attitude score in Control group. | | | | | | | | | | | | | | | |
| SAMPLE 101 | 5 | 4 | 3 | 5 | 4 | 5 | 5 | 4 | 4 | 3 | 3 | 5 | 3 | 2 | 1 |
| SAMPLE 102 | 5 | 4 | 3 | 4 | 4 | 4 | 5 | 4 | 4 | 3 | 2 | 5 | 3 | 2 | 1 |
| SAMPLE 103 | 4 | 4 | 3 | 3 | 4 | 4 | 5 | 4 | 4 | 2 | 2 | 5 | 3 | 2 | 1 |
| SAMPLE 104 | 4 | 3 | 3 | 2 | 1 | 3 | 2 | 3 | 4 | 2 | 3 | 3 | 2 | 1 | 4 |
| SAMPLE 105 | 5 | 4 | 3 | 2 | 1 | 3 | 2 | 3 | 4 | 2 | 3 | 3 | 2 | 1 | 4 |
| SAMPLE 106 | 4 | 3 | 3 | 3 | 1 | 3 | 2 | 3 | 4 | 3 | 3 | 3 | 2 | 1 | 4 |
| SAMPLE 107 | 5 | 4 | 3 | 4 | 3 | 5 | 5 | 4 | 3 | 1 | 4 | 1 | 4 | 1 | 4 |
| SAMPLE 108 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 2 | 1 | 4 | 1 | 1 | 1 | 1 | 1 |
| SAMPLE 109 | 4 | 1 | 2 | 3 | 3 | 2 | 4 | 3 | 2 | 5 | 1 | 3 | 3 | 3 | 4 |
| SAMPLE 110 | 3 | 2 | 3 | 3 | 5 | 5 | 1 | 5 | 4 | 3 | 3 | 3 | 1 | 4 | 2 |
| SAMPLE 111 | 4 | 4 | 3 | 4 | 3 | 5 | 5 | 4 | 3 | 4 | 4 | 1 | 4 | 1 | 4 |
| SAMPLE 112 | 1 | 2 | 3 | 5 | 2 | 3 | 4 | 4 | 5 | 3 | 4 | 3 | 3 | 4 | 4 |
| SAMPLE 113 | 5 | 5 | 4 | 4 | 3 | 3 | 2 | 2 | 3 | 3 | 1 | 3 | 3 | 3 | 3 |
| SAMPLE 114 | 5 | 4 | 4 | 4 | 3 | 3 | 2 | 2 | 1 | 5 | 1 | 3 | 3 | 3 | 3 |
| SAMPLE 115 | 3 | 4 | 3 | 4 | 3 | 5 | 4 | 5 | 1 | 3 | 5 | 3 | 3 | 2 | 3 |
| SAMPLE 116 | 4 | 4 | 2 | 3 | 3 | 2 | 4 | 3 | 2 | 3 | 1 | 2 | 3 | 4 | 5 |
| SAMPLE 117 | 3 | 3 | 1 | 3 | 2 | 2 | 4 | 3 | 2 | 5 | 1 | 2 | 3 | 4 | 5 |
| SAMPLE 118 | 2 | 4 | 1 | 3 | 3 | 5 | 4 | 5 | 1 | 5 | 5 | 3 | 3 | 2 | 3 |
| SAMPLE 119 | 2 | 3 | 1 | 2 | 2 | 5 | 4 | 5 | 1 | 5 | 5 | 2 | 2 | 2 | 1 |
| SAMPLE 120 | 2 | 3 | 5 | 2 | 2 | 4 | 4 | 5 | 1 | 5 | 5 | 2 | 2 | 2 | 2 |
| SAMPLE 121 | 2 | 4 | 1 | 3 | 4 | 5 | 4 | 5 | 1 | 5 | 5 | 1 | 3 | 2 | 3 |
| SAMPLE 122 | 2 | 3 | 1 | 1 | 1 | 5 | 1 | 3 | 3 | 1 | 1 | 5 | 4 | 4 | 5 |
| SAMPLE 123 | 2 | 4 | 2 | 1 | 1 | 5 | 1 | 3 | 3 | 1 | 1 | 5 | 4 | 4 | 5 |
| SAMPLE 124 | 2 | 2 | 4 | 4 | 3 | 3 | 5 | 5 | 4 | 3 | 3 | 2 | 1 | 1 | 1 |
| SAMPLE 125 | 3 | 1 | 1 | 2 | 3 | 3 | 4 | 5 | 5 | 1 | 3 | 4 | 4 | 2 | 2 |
| SAMPLE 126 | 2 | 2 | 3 | 3 | 3 | 3 | 5 | 5 | 4 | 3 | 3 | 2 | 1 | 1 | 1 |
| SAMPLE 127 | 1 | 1 | 1 | 2 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | 2 |
| SAMPLE 128 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 5 | 5 | 2 | 3 | 4 | 4 | 3 | 3 |
| SAMPLE 129 | 2 | 2 | 3 | 4 | 3 | 3 | 5 | 5 | 4 | 3 | 3 | 2 | 1 | 1 | 1 |
| SAMPLE 130 | 1 | 1 | 1 | 2 | 2 | 3 | 4 | 5 | 5 | 3 | 3 | 4 | 3 | 2 | 2 |
| SAMPLE 131 | 4 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 3 | 3 | 3 | 3 | 2 | 2 |
| SAMPLE 132 | 3 | 3 | 4 | 4 | 3 | 2 | 5 | 5 | 4 | 3 | 3 | 3 | 2 | 2 | 3 |
| SAMPLE 133 | 3 | 1 | 1 | 2 | 3 | 3 | 4 | 5 | 5 | 1 | 3 | 4 | 4 | 2 | 2 |
| SAMPLE 134 | 3 | 2 | 1 | 2 | 3 | 3 | 4 | 5 | 5 | 1 | 3 | 4 | 4 | 2 | 2 |
| SAMPLE 135 | 3 | 2 | 2 | 2 | 3 | 3 | 4 | 5 | 5 | 3 | 3 | 4 | 4 | 2 | 2 |
| SAMPLE 136 | 3 | 2 | 3 | 2 | 3 | 3 | 4 | 5 | 5 | 1 | 3 | 4 | 4 | 2 | 2 |
| SAMPLE 137 | 3 | 3 | 4 | 4 | 3 | 3 | 5 | 5 | 4 | 3 | 3 | 2 | 3 | 2 | 3 |
| SAMPLE 138 | 3 | 2 | 3 | 2 | 3 | 3 | 4 | 5 | 5 | 3 | 3 | 4 | 4 | 3 | 3 |
| SAMPLE 139 | 2 | 2 | 4 | 4 | 3 | 3 | 5 | 5 | 4 | 3 | 3 | 2 | 2 | 2 | 3 |
| SAMPLE 140 | 3 | 3 | 3 | 2 | 3 | 3 | 4 | 5 | 5 | 3 | 3 | 4 | 4 | 2 | 2 |
| SAMPLE 141 | 3 | 2 | 2 | 2 | 3 | 3 | 4 | 5 | 5 | 3 | 3 | 4 | 4 | 2 | 2 |
| SAMPLE 142 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 5 | 5 | 3 | 3 | 4 | 4 | 2 | 2 |
| SAMPLE 143 | 3 | 2 | 2 | 3 | 3 | 2 | 5 | 4 | 3 | 5 | 3 | 4 | 2 | 4 | 2 |
| SAMPLE 144 | 5 | 4 | 3 | 4 | 4 | 5 | 3 | 2 | 5 | 5 | 4 | 4 | 5 | 3 | 3 |
| SAMPLE 145 | 5 | 3 | 3 | 3 | 4 | 5 | 3 | 2 | 5 | 4 | 4 | 4 | 4 | 3 | 2 |
| SAMPLE 146 | 5 | 4 | 4 | 4 | 4 | 5 | 3 | 2 | 5 | 5 | 4 | 4 | 5 | 3 | 3 |
| SAMPLE 147 | 5 | 4 | 4 | 4 | 4 | 5 | 3 | 2 | 4 | 4 | 4 | 4 | 4 | 3 | 3 |
| SAMPLE 148 | 2 | 3 | 2 | 4 | 3 | 5 | 3 | 4 | 5 | 2 | 3 | 3 | 2 | 2 | 3 |
| SAMPLE 149 | 5 | 5 | 5 | 5 | 4 | 5 | 3 | 2 | 5 | 5 | 4 | 4 | 5 | 3 | 3 |
| SAMPLE 150 | 5 | 5 | 4 | 4 | 4 | 5 | 3 | 2 | 4 | 4 | 4 | 4 | 4 | 3 | 3 |

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| SAMPLE 151 | 5 | 5 | 4 | 4 | 4 | 5 | 3 | 2 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| SAMPLE 152 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 3 | 5 | 4 | 4 | 4 | 5 | 5 |
| SAMPLE 153 | 2 | 5 | 4 | 4 | 3 | 3 | 5 | 5 | 4 | 3 | 3 | 2 | 3 | 2 | 3 |
| SAMPLE 154 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 2 | 3 | 5 | 4 | 4 | 4 | 4 | 5 |
| SAMPLE 155 | 5 | 4 | 5 | 4 | 4 | 5 | 5 | 2 | 3 | 5 | 4 | 4 | 4 | 4 | 5 |
| SAMPLE 156 | 5 | 5 | 4 | 4 | 4 | 5 | 3 | 2 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| SAMPLE 157 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 2 | 3 | 5 | 4 | 4 | 4 | 4 | 5 |
| SAMPLE 158 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 2 | 3 | 5 | 4 | 4 | 3 | 3 | 4 |
| SAMPLE 159 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 2 | 3 | 5 | 4 | 4 | 3 | 3 | 4 |
| SAMPLE 160 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 2 | 3 | 4 | 4 | 3 | 3 | 3 | 3 |
| SAMPLE 161 | 1 | 1 | 1 | 2 | 3 | 3 | 4 | 5 | 5 | 3 | 3 | 4 | 3 | 2 | 2 |
| SAMPLE 162 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 2 | 3 | 5 | 4 | 4 | 3 | 3 | 4 |
| SAMPLE 163 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 2 | 4 | 5 | 4 | 4 | 3 | 3 | 4 |
| SAMPLE 164 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 3 | 3 | 4 |
| SAMPLE 165 | 4 | 5 | 4 | 5 | 5 | 4 | 4 | 5 | 4 | 5 | 3 | 3 | 2 | 4 | 2 |
| SAMPLE 166 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 3 | 2 | 4 | 2 |
| SAMPLE 167 | 3 | 2 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 2 |
| SAMPLE 168 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 3 | 2 | 2 |
| SAMPLE 169 | 3 | 2 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 2 |
| SAMPLE 170 | 4 | 4 | 4 | 5 | 5 | 3 | 4 | 5 | 4 | 5 | 3 | 3 | 2 | 2 | 4 |
| SAMPLE 171 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 |
| SAMPLE 172 | 2 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 2 | 3 |
| SAMPLE 173 | 4 | 5 | 4 | 5 | 5 | 4 | 4 | 5 | 4 | 5 | 3 | 3 | 2 | 4 | 3 |
| SAMPLE 174 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 3 |
| SAMPLE 175 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 3 |
| SAMPLE 176 | 3 | 4 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 3 |
| SAMPLE 177 | 2 | 4 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 4 | 3 |
| SAMPLE 178 | 4 | 5 | 4 | 5 | 5 | 4 | 4 | 5 | 4 | 5 | 3 | 3 | 3 | 4 | 3 |
| SAMPLE 179 | 3 | 4 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 3 |
| SAMPLE 180 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 |
| SAMPLE 181 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 2 | 4 | 4 | 3 | 3 | 5 | 3 | 3 |
| SAMPLE 182 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 5 | 3 | 3 | 5 | 3 | 3 |
| SAMPLE 183 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 2 | 4 | 4 | 3 | 5 | 3 | 3 | 3 |
| SAMPLE 184 | 3 | 4 | 3 | 3 | 3 | 5 | 4 | 5 | 4 | 4 | 5 | 5 | 4 | 5 | 4 |
| SAMPLE 185 | 3 | 2 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 2 |
| SAMPLE 186 | 3 | 3 | 5 | 3 | 3 | 4 | 4 | 2 | 4 | 3 | 4 | 3 | 3 | 3 | 4 |
| SAMPLE 187 | 5 | 4 | 5 | 5 | 3 | 3 | 4 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 188 | 5 | 3 | 5 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 4 | 5 |
| SAMPLE 189 | 5 | 4 | 5 | 3 | 4 | 3 | 5 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 5 |
| SAMPLE 190 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 4 |
| SAMPLE 191 | 5 | 4 | 5 | 4 | 3 | 3 | 4 | 4 | 4 | 5 | 3 | 4 | 5 | 5 | 5 |
| SAMPLE 192 | 2 | 2 | 3 | 4 | 2 | 3 | 3 | 3 | 2 | 3 | 5 | 3 | 3 | 3 | 3 |
| SAMPLE 193 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 3 | 4 |
| SAMPLE 194 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| SAMPLE 195 | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 3 | 3 | 3 |
| SAMPLE 196 | 3 | 4 | 2 | 3 | 3 | 4 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 |
| SAMPLE 197 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 |
| SAMPLE 198 | 3 | 4 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 4 | 3 |
| SAMPLE 199 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 4 |
| SAMPLE 200 | 2 | 4 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 4 | 3 |

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| Socio demographic data in Experimental group. | | | | | | | | | |
| sample 1 | a | b | b | a | a | a | a | b | a |
| sample 2 | a | a | c | d | e | a | c | b | a |
| sample 3 | a | b | d | b | d | c | c | b | b |
| sample 4 | b | b | a | d | e | a | a | b | a |
| sample 5 | b | a | a | d | a | a | a | a | a |
| sample 6 | c | b | b | d | e | a | a | b | b |
| sample 7 | c | b | a | c | b | a | a | b | a |
| sample 8 | c | a | a | c | c | a | a | a | b |
| sample 9 | a | b | a | c | e | a | a | b | a |
| sample 10 | b | a | c | b | b | b | a | b | a |
| sample 11 | b | b | a | e | d | a | a | b | a |
| sample 12 | c | b | a | d | d | c | c | b | b |
| sample 13 | c | a | d | e | d | a | c | b | a |
| sample 14 | b | b | a | c | b | a | a | b | a |
| sample 15 | b | a | b | a | b | a | a | b | a |
| sample 16 | b | b | a | e | e | a | a | b | b |
| sample 17 | a | a | a | d | d | a | a | b | a |
| sample 18 | b | b | a | d | a | a | a | b | a |
| sample 19 | c | a | a | e | e | a | a | a | a |
| sample 20 | b | b | a | c | d | a | a | b | b |
| sample 21 | c | b | c | e | e | a | b | b | a |
| sample 22 | c | b | a | b | c | a | a | b | a |
| sample 23 | a | b | a | e | e | a | c | b | a |
| sample 24 | b | a | b | d | d | a | a | b | a |
| sample 25 | c | b | a | d | d | a | a | b | b |
| sample 26 | b | b | a | b | a | c | a | b | a |
| sample 27 | c | b | c | c | d | a | b | b | a |
| sample 28 | a | a | a | e | b | a | a | b | a |
| sample 29 | c | b | d | d | e | a | a | b | a |
| sample 30 | b | b | d | e | c | c | a | b | a |
| sample 31 | c | b | a | c | e | a | a | b | a |
| sample 32 | c | b | b | b | e | a | a | b | b |
| sample 33 | a | b | a | d | d | a | b | b | a |
| sample 34 | b | b | a | d | e | a | a | b | a |
| sample 35 | c | b | a | c | d | a | a | b | a |
| sample 36 | c | b | b | e | a | c | a | a | a |
| sample 37 | c | b | a | c | e | a | a | a | a |
| sample 38 | c | b | a | a | c | a | a | b | a |
| sample 39 | a | b | d | e | e | b | a | b | b |
| sample 40 | b | b | a | d | b | a | a | b | a |
| sample 41 | c | b | a | d | e | b | c | b | a |
| sample 42 | a | b | b | e | d | a | a | b | a |
| sample 43 | b | b | a | c | d | c | a | b | a |
| sample 44 | c | b | d | e | d | a | a | b | a |
| sample 45 | b | b | a | d | c | a | a | b | b |
| sample 46 | a | a | a | c | d | a | c | a | a |
| sample 47 | a | b | a | b | b | a | a | b | a |
| sample 48 | b | b | d | e | b | a | a | b | a |
| sample 49 | c | b | a | d | e | a | a | a | b |
| sample 50 | a | a | d | c | d | a | c | b | a |
| sample 51 | a | b | c | b | a | a | a | b | b |
| sample 52 | c | a | d | c | a | a | a | b | b |
| sample 53 | c | b | a | c | d | b | b | b | b |
| sample 54 | a | b | b | b | c | a | a | b | b |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| sample 55 | b | b | d | e | d | a | a | b | b |
| sample 56 | c | b | c | d | d | a | a | b | a |
| sample 57 | b | b | a | c | d | b | a | b | a |
| sample 58 | c | b | a | a | a | a | a | b | a |
| sample 59 | b | b | d | e | c | d | a | b | a |
| sample 60 | a | b | a | b | a | a | b | b | a |
| sample 61 | c | b | b | c | e | a | a | b | a |
| sample 62 | c | b | a | d | b | a | c | b | a |
| sample 63 | c | b | c | e | d | a | a | b | a |
| sample 64 | a | b | a | b | e | b | a | a | a |
| sample 65 | b | b | a | c | a | a | a | b | a |
| sample 66 | c | b | a | c | c | a | a | b | a |
| sample 67 | c | b | c | c | e | a | a | b | a |
| sample 68 | a | b | a | b | c | a | c | a | a |
| sample 69 | a | b | d | e | e | a | a | b | a |
| sample 70 | a | b | b | d | a | c | a | b | a |
| sample 71 | c | b | a | c | d | c | a | b | a |
| sample 72 | b | b | d | e | b | a | a | b | a |
| sample 73 | c | b | a | c | e | a | a | b | a |
| sample 74 | c | b | b | d | b | a | a | b | a |
| sample 75 | a | b | a | e | c | a | a | b | a |
| sample 76 | c | a | d | a | d | a | a | b | a |
| sample 77 | b | b | a | e | e | a | a | b | a |
| sample 78 | b | b | a | e | c | a | a | b | a |
| sample 79 | c | b | b | b | e | a | b | b | a |
| sample 80 | c | b | d | e | e | a | a | b | a |
| sample 81 | a | b | a | d | b | a | a | b | a |
| sample 82 | c | b | a | c | d | a | b | b | a |
| sample 83 | a | b | b | e | e | a | a | b | a |
| sample 84 | c | b | a | d | e | a | a | b | a |
| sample 85 | b | b | c | e | a | a | b | a | b |
| sample 86 | b | b | c | c | e | a | a | a | b |
| sample 87 | c | b | a | e | c | a | c | b | b |
| sample 88 | b | b | d | b | e | a | a | b | a |
| sample 89 | c | b | a | e | c | a | c | b | a |
| sample 90 | a | b | b | c | d | a | a | b | a |
| sample 91 | c | b | a | e | e | a | a | b | a |
| sample 92 | a | b | a | a | e | a | a | b | a |
| sample 93 | c | b | d | c | c | a | a | b | a |
| sample 94 | b | b | a | d | e | a | a | b | a |
| sample 95 | b | b | a | e | d | a | b | b | a |
| sample 96 | a | b | b | b | e | a | a | b | b |
| sample 97 | c | b | a | c | a | d | a | b | b |
| sample 98 | b | b | a | e | d | a | a | b | a |
| sample 99 | b | b | b | e | c | a | a | b | a |
| sample 100 | a | b | a | c | d | a | a | b | b |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| pre test knowledge score in Experimental group. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Slno | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| Sample 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| Sample 2 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 |
| Sample 3 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| Sample 4 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| Sample 5 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| Sample 6 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 8 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Sample 9 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Sample 10 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| Sample 11 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 12 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| Sample 13 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Sample 14 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| Sample 15 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |
| Sample 16 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 17 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Sample 18 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 19 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| Sample 20 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| Sample 21 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| Sample 22 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| Sample 23 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 24 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 25 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Sample 26 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Sample 27 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 28 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| Sample 29 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 30 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 31 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| Sample 32 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 33 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 34 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Sample 35 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Sample 36 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Sample 37 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 38 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| Sample 39 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 40 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 41 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 42 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 43 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 44 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 45 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 46 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 47 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 48 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| Sample 49 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |
| sample 50 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 |
| Sample 51 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| Sample 52 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| Sample 53 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| Sample 54 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 55 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Sample 56 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 57 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Sample 58 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 59 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Sample 60 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 61 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Sample 62 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |
| Sample 63 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Sample 64 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sample 65 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 66 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| Sample 67 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| Sample 68 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Sample 69 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| Sample 70 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| Sample 71 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 72 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 73 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Sample 74 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| Sample 75 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 76 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| Sample 77 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |

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| Sample 78 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| Sample 79 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| Sample 80 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 81 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| Sample 82 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 83 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sample 84 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 |
| Sample 85 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| Sample 86 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Sample 87 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sample 88 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Sample 89 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 90 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| Sample 91 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 92 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 |
| Sample 93 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 94 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 95 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 96 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Sample 97 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 |
| Sample 98 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| Sample 99 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 100 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| Post test Knowledge score in Experimental group. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample 101 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Sample 102 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 |
| Sample 103 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 104 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 105 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 106 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |
| Sample 107 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| Sample 108 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 109 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| Sample 110 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 111 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 112 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Sample 113 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 114 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 115 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 116 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 117 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| Sample 118 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| Sample 119 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| Sample 120 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 121 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 |
| Sample 122 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| Sample 123 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 124 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 125 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Sample 126 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 127 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| Sample 128 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 129 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 130 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 131 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 132 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| Sample 133 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 |
| Sample 134 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| Sample 135 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| Sample 136 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 137 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 138 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 139 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| Sample 140 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 141 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| Sample 142 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 143 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| Sample 144 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Sample 145 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 146 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 147 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 148 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 149 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 150 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 151 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 152 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 153 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 154 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 155 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample 156 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 157 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 158 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 159 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 160 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 161 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 162 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 163 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 164 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 165 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 166 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 167 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 168 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 169 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 170 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 171 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 172 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 173 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Sample 174 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| Sample 175 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Sample 176 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 177 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 178 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| Sample 179 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Sample 180 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| Sample 181 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| Sample 182 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 183 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Sample 184 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 185 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| Sample 186 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| Sample 187 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 |
| Sample 188 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Sample 189 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 190 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 191 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sample 192 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sample 193 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 194 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 195 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 196 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Sample 197 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 198 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 199 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 200 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |

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| Practice pre test score in experimental group | | | | | | | | | | | | | | | | | | | | |
| SL.NO | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Sample 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| Sample 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 3 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 6 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 8 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 10 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 13 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 14 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 15 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| Sample 16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 17 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 18 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 19 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 20 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 21 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 22 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 23 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 24 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 25 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 26 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 27 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 28 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 29 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 30 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 31 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 32 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 33 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 34 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| Sample 35 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 36 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 37 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 38 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 39 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 40 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 41 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 42 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| Sample 43 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |

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| Sample 44 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| Sample 45 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 46 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 47 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 48 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 49 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 50 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 51 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 52 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 53 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 54 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 55 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| Sample 56 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 57 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 58 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 59 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 60 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 61 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 62 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 63 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 64 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 65 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 66 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 67 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 68 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 69 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 70 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 71 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 72 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 73 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 74 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 75 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 76 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 77 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| Sample 78 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| Sample 79 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 80 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 81 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 82 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 83 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 84 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 85 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 86 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 87 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 88 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 89 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |

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| Sample 90 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 91 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 92 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 93 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 94 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 95 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 96 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 97 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 98 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 99 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 100 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Practice post test score in experimental group | | | | | | | | | | | | | | | | | | | | |
| Sample 101 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 102 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 103 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 104 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 105 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 106 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 107 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 108 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 109 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 110 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 111 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 112 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 113 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 114 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 115 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 116 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 117 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 118 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 119 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 120 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 121 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 122 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 123 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 124 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 125 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 126 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 127 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 128 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 129 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 130 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 131 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 132 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| Sample 133 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |

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| Sample 134 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 135 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 136 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 137 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 138 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 139 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 140 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 141 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 142 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 143 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 144 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 145 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 146 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| Sample 147 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 148 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 149 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 150 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 151 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 152 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 153 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 154 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 155 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Sample 156 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 157 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 158 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 159 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 160 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 161 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 162 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 163 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 164 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 165 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 166 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 167 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 168 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 169 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 170 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 171 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 172 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 173 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 174 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 175 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 176 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 177 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 178 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 179 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |

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| Sample 180 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 181 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 182 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 183 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 184 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 185 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 186 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 187 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 188 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 189 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 190 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 191 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| Sample 192 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 193 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 194 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Sample 195 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 196 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Sample 197 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Sample 198 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| Sample 199 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Sample 200 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |

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| **Attitude pre test score in Experimental group.** | | | | | | | | | | | | | | | |
| SL.NO | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| SAMPLE 1 | 5 | 2 | 4 | 3 | 4 | 3 | 3 | 5 | 2 | 2 | 5 | 4 | 3 | 1 | 2 |
| SAMPLE 2 | 5 | 4 | 3 | 3 | 5 | 5 | 2 | 2 | 3 | 4 | 3 | 3 | 4 | 5 | 2 |
| SAMPLE 3 | 2 | 3 | 3 | 2 | 3 | 4 | 4 | 4 | 1 | 5 | 2 | 3 | 1 | 5 | 3 |
| SAMPLE 4 | 1 | 5 | 3 | 2 | 1 | 3 | 2 | 5 | 3 | 2 | 5 | 5 | 4 | 4 | 3 |
| SAMPLE 5 | 3 | 3 | 4 | 4 | 1 | 1 | 5 | 5 | 3 | 2 | 5 | 4 | 1 | 3 | 2 |
| SAMPLE 6 | 2 | 3 | 4 | 5 | 2 | 2 | 3 | 5 | 2 | 3 | 5 | 2 | 4 | 3 | 2 |
| SAMPLE 7 | 5 | 2 | 3 | 3 | 4 | 4 | 5 | 2 | 3 | 1 | 2 | 3 | 3 | 4 | 4 |
| SAMPLE 8 | 5 | 5 | 2 | 3 | 3 | 4 | 2 | 3 | 5 | 4 | 3 | 2 | 5 | 5 | 1 |
| SAMPLE 9 | 5 | 2 | 3 | 4 | 2 | 3 | 5 | 4 | 3 | 5 | 2 | 2 | 1 | 3 | 4 |
| SAMPLE 10 | 4 | 3 | 2 | 1 | 3 | 2 | 1 | 1 | 2 | 3 | 3 | 4 | 1 | 3 | 2 |
| SAMPLE 11 | 4 | 2 | 3 | 1 | 2 | 3 | 4 | 5 | 5 | 2 | 5 | 4 | 3 | 2 | 5 |
| SAMPLE 12 | 5 | 2 | 2 | 3 | 5 | 2 | 3 | 4 | 5 | 2 | 2 | 1 | 3 | 1 | 2 |
| SAMPLE 13 | 5 | 2 | 1 | 3 | 2 | 1 | 3 | 3 | 4 | 5 | 4 | 5 | 5 | 1 | 1 |
| SAMPLE 14 | 2 | 2 | 1 | 3 | 5 | 2 | 4 | 3 | 2 | 5 | 4 | 3 | 2 | 3 | 1 |
| SAMPLE 15 | 3 | 2 | 1 | 3 | 4 | 4 | 5 | 4 | 3 | 2 | 3 | 3 | 2 | 3 | 2 |
| SAMPLE 16 | 2 | 1 | 3 | 2 | 3 | 4 | 5 | 5 | 4 | 4 | 3 | 2 | 4 | 3 | 2 |
| SAMPLE 17 | 1 | 2 | 5 | 4 | 3 | 2 | 4 | 3 | 4 | 3 | 5 | 5 | 4 | 4 | 3 |
| SAMPLE 18 | 4 | 5 | 3 | 2 | 5 | 3 | 4 | 4 | 2 | 3 | 5 | 4 | 3 | 3 | 5 |
| SAMPLE 19 | 5 | 4 | 3 | 2 | 5 | 4 | 3 | 2 | 5 | 4 | 5 | 4 | 3 | 3 | 2 |
| SAMPLE 20 | 2 | 3 | 5 | 4 | 5 | 4 | 3 | 2 | 5 | 4 | 3 | 2 | 2 | 3 | 3 |
| SAMPLE 21 | 5 | 4 | 3 | 2 | 3 | 4 | 5 | 5 | 4 | 3 | 2 | 2 | 1 | 3 | 2 |
| SAMPLE 22 | 5 | 4 | 2 | 3 | 5 | 4 | 3 | 2 | 1 | 3 | 2 | 1 | 5 | 4 | 3 |
| SAMPLE 23 | 5 | 4 | 2 | 2 | 5 | 3 | 2 | 5 | 3 | 2 | 5 | 4 | 4 | 3 | 4 |
| SAMPLE 24 | 4 | 5 | 3 | 3 | 2 | 3 | 4 | 2 | 3 | 1 | 5 | 4 | 5 | 3 | 2 |
| SAMPLE 25 | 2 | 3 | 2 | 5 | 4 | 3 | 3 | 2 | 5 | 4 | 3 | 2 | 5 | 4 | 4 |
| SAMPLE 26 | 5 | 4 | 5 | 4 | 5 | 4 | 5 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| SAMPLE 27 | 3 | 2 | 4 | 3 | 1 | 5 | 4 | 3 | 2 | 5 | 4 | 3 | 2 | 1 | 5 |
| SAMPLE 28 | 2 | 3 | 3 | 2 | 5 | 4 | 5 | 3 | 2 | 5 | 4 | 3 | 5 | 2 | 5 |
| SAMPLE 29 | 4 | 5 | 2 | 5 | 4 | 4 | 3 | 3 | 2 | 3 | 4 | 4 | 3 | 2 | 1 |
| SAMPLE 30 | 5 | 1 | 5 | 4 | 5 | 4 | 5 | 5 | 4 | 2 | 3 | 2 | 4 | 1 | 3 |
| SAMPLE 31 | 2 | 5 | 4 | 3 | 3 | 4 | 4 | 1 | 5 | 4 | 1 | 4 | 3 | 1 | 4 |
| SAMPLE 32 | 3 | 3 | 3 | 2 | 5 | 2 | 2 | 3 | 1 | 5 | 4 | 5 | 2 | 5 | 3 |
| SAMPLE 33 | 5 | 2 | 2 | 1 | 3 | 5 | 4 | 3 | 2 | 5 | 3 | 2 | 1 | 4 | 3 |
| SAMPLE 34 | 4 | 1 | 3 | 5 | 5 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 3 | 2 |
| SAMPLE 35 | 2 | 3 | 5 | 4 | 5 | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | 5 |
| SAMPLE 36 | 2 | 5 | 4 | 3 | 5 | 5 | 2 | 3 | 4 | 5 | 4 | 3 | 2 | 1 | 5 |
| SAMPLE 37 | 5 | 4 | 3 | 2 | 4 | 5 | 4 | 3 | 2 | 5 | 4 | 1 | 2 | 3 | 4 |
| SAMPLE 38 | 4 | 3 | 5 | 1 | 3 | 4 | 3 | 2 | 1 | 2 | 3 | 4 | 5 | 1 | 3 |
| SAMPLE 39 | 5 | 2 | 4 | 5 | 2 | 5 | 3 | 2 | 1 | 5 | 4 | 4 | 3 | 2 | 1 |
| SAMPLE 40 | 4 | 3 | 3 | 4 | 2 | 5 | 2 | 3 | 5 | 4 | 3 | 2 | 4 | 2 | 5 |
| SAMPLE 41 | 2 | 2 | 2 | 3 | 3 | 5 | 3 | 4 | 2 | 5 | 2 | 4 | 3 | 5 | 2 |
| SAMPLE 42 | 3 | 4 | 5 | 2 | 4 | 5 | 1 | 3 | 2 | 4 | 4 | 5 | 3 | 2 | 1 |
| SAMPLE 43 | 5 | 5 | 4 | 1 | 1 | 5 | 4 | 5 | 4 | 5 | 5 | 5 | 3 | 2 | 2 |
| SAMPLE 44 | 4 | 3 | 3 | 2 | 5 | 5 | 2 | 3 | 2 | 4 | 4 | 5 | 3 | 2 | 1 |
| SAMPLE 45 | 3 | 4 | 2 | 5 | 1 | 2 | 3 | 1 | 3 | 1 | 3 | 5 | 1 | 2 | 4 |
| SAMPLE 46 | 2 | 2 | 3 | 3 | 4 | 3 | 3 | 2 | 4 | 2 | 4 | 4 | 3 | 3 | 5 |
| SAMPLE 47 | 5 | 1 | 4 | 5 | 4 | 2 | 4 | 5 | 2 | 3 | 4 | 3 | 5 | 1 | 4 |
| SAMPLE 48 | 3 | 5 | 5 | 4 | 2 | 5 | 5 | 1 | 4 | 5 | 4 | 3 | 2 | 5 | 3 |
| SAMPLE 49 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 1 | 2 | 4 | 4 | 3 | 3 | 3 | 4 |
| SAMPLE 50 | 2 | 3 | 5 | 2 | 3 | 4 | 1 | 4 | 5 | 2 | 3 | 4 | 3 | 2 | 2 |
| SAMPLE 51 | 1 | 1 | 3 | 4 | 3 | 5 | 5 | 5 | 1 | 2 | 2 | 2 | 3 | 1 | 1 |
| SAMPLE 52 | 3 | 2 | 2 | 3 | 3 | 5 | 4 | 5 | 4 | 4 | 4 | 1 | 5 | 2 | 5 |
| SAMPLE 53 | 2 | 5 | 1 | 2 | 4 | 1 | 2 | 1 | 1 | 3 | 3 | 2 | 2 | 1 | 2 |
| SAMPLE 54 | 5 | 4 | 2 | 3 | 3 | 1 | 4 | 5 | 2 | 3 | 4 | 3 | 4 | 2 | 4 |
| SAMPLE 55 | 5 | 2 | 4 | 5 | 3 | 5 | 1 | 1 | 2 | 2 | 2 | 3 | 4 | 2 | 3 |
| SAMPLE 56 | 4 | 5 | 3 | 3 | 2 | 1 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 2 | 1 |
| SAMPLE 57 | 5 | 4 | 4 | 3 | 1 | 2 | 5 | 4 | 4 | 2 | 4 | 1 | 5 | 4 | 3 |
| SAMPLE 58 | 3 | 2 | 3 | 1 | 4 | 5 | 5 | 4 | 1 | 2 | 2 | 4 | 4 | 3 | 2 |

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| SAMPLE 59 | 2 | 3 | 5 | 1 | 4 | 2 | 1 | 3 | 2 | 1 | 5 | 4 | 3 | 1 | 1 |
| SAMPLE 60 | 4 | 1 | 5 | 2 | 3 | 3 | 3 | 5 | 1 | 4 | 3 | 4 | 1 | 2 | 2 |
| SAMPLE 61 | 5 | 3 | 4 | 2 | 3 | 2 | 1 | 4 | 2 | 4 | 3 | 1 | 5 | 3 | 3 |
| SAMPLE 62 | 4 | 4 | 3 | 3 | 3 | 1 | 5 | 4 | 4 | 3 | 2 | 1 | 5 | 3 | 4 |
| SAMPLE 63 | 5 | 3 | 1 | 2 | 2 | 1 | 3 | 4 | 2 | 5 | 2 | 4 | 3 | 4 | 1 |
| SAMPLE 64 | 5 | 2 | 3 | 2 | 4 | 3 | 1 | 2 | 3 | 5 | 4 | 1 | 3 | 2 | 1 |
| SAMPLE 65 | 4 | 5 | 2 | 1 | 3 | 1 | 3 | 4 | 3 | 2 | 2 | 3 | 4 | 1 | 5 |
| SAMPLE 66 | 4 | 3 | 5 | 4 | 2 | 2 | 3 | 3 | 5 | 1 | 1 | 4 | 3 | 2 | 4 |
| SAMPLE 67 | 4 | 4 | 5 | 2 | 5 | 2 | 3 | 4 | 3 | 5 | 2 | 2 | 4 | 1 | 2 |
| SAMPLE 68 | 5 | 3 | 1 | 3 | 2 | 3 | 3 | 5 | 5 | 3 | 3 | 5 | 1 | 5 | 1 |
| SAMPLE 69 | 5 | 1 | 3 | 5 | 4 | 3 | 1 | 4 | 5 | 3 | 3 | 1 | 3 | 3 | 1 |
| SAMPLE 70 | 1 | 2 | 5 | 3 | 4 | 1 | 2 | 2 | 4 | 2 | 5 | 2 | 5 | 3 | 2 |
| SAMPLE 71 | 3 | 4 | 4 | 3 | 2 | 1 | 4 | 2 | 1 | 4 | 1 | 4 | 2 | 5 | 3 |
| SAMPLE 72 | 2 | 4 | 4 | 1 | 5 | 2 | 1 | 3 | 3 | 2 | 3 | 2 | 5 | 1 | 4 |
| SAMPLE 73 | 2 | 1 | 3 | 5 | 3 | 5 | 2 | 5 | 4 | 4 | 4 | 5 | 2 | 3 | 1 |
| SAMPLE 74 | 2 | 1 | 3 | 5 | 3 | 3 | 2 | 4 | 3 | 5 | 2 | 2 | 2 | 4 | 3 |
| SAMPLE 75 | 4 | 3 | 3 | 4 | 4 | 3 | 1 | 2 | 3 | 4 | 5 | 1 | 3 | 3 | 2 |
| SAMPLE 76 | 3 | 3 | 4 | 2 | 3 | 2 | 2 | 3 | 1 | 5 | 3 | 2 | 3 | 2 | 1 |
| SAMPLE 77 | 4 | 1 | 3 | 4 | 3 | 4 | 1 | 4 | 4 | 2 | 1 | 3 | 4 | 4 | 5 |
| SAMPLE 78 | 4 | 1 | 5 | 3 | 5 | 2 | 3 | 4 | 4 | 1 | 3 | 2 | 2 | 1 | 5 |
| SAMPLE 79 | 5 | 4 | 2 | 3 | 2 | 1 | 3 | 2 | 3 | 1 | 1 | 2 | 4 | 5 | 2 |
| SAMPLE 80 | 4 | 3 | 4 | 2 | 2 | 3 | 4 | 3 | 2 | 1 | 3 | 5 | 4 | 3 | 2 |
| SAMPLE 81 | 4 | 3 | 2 | 5 | 3 | 5 | 2 | 4 | 3 | 2 | 1 | 2 | 3 | 5 | 4 |
| SAMPLE 82 | 2 | 2 | 1 | 3 | 4 | 5 | 3 | 1 | 3 | 5 | 2 | 4 | 3 | 4 | 5 |
| SAMPLE 83 | 4 | 2 | 5 | 3 | 4 | 2 | 3 | 3 | 4 | 2 | 2 | 1 | 4 | 5 | 3 |
| SAMPLE 84 | 3 | 5 | 2 | 1 | 5 | 3 | 3 | 5 | 4 | 2 | 3 | 2 | 1 | 3 | 4 |
| SAMPLE 85 | 5 | 3 | 1 | 4 | 5 | 5 | 3 | 4 | 1 | 5 | 3 | 3 | 1 | 2 | 4 |
| SAMPLE 86 | 2 | 3 | 2 | 3 | 1 | 1 | 3 | 2 | 2 | 1 | 3 | 5 | 1 | 5 | 3 |
| SAMPLE 87 | 2 | 4 | 4 | 3 | 5 | 4 | 2 | 5 | 2 | 2 | 5 | 4 | 4 | 5 | 2 |
| SAMPLE 88 | 5 | 2 | 1 | 2 | 3 | 2 | 2 | 5 | 5 | 4 | 4 | 2 | 1 | 3 | 3 |
| SAMPLE 89 | 3 | 4 | 3 | 5 | 4 | 3 | 2 | 4 | 1 | 5 | 3 | 2 | 3 | 3 | 1 |
| SAMPLE 90 | 5 | 5 | 2 | 5 | 4 | 2 | 4 | 5 | 5 | 3 | 3 | 2 | 1 | 3 | 1 |
| SAMPLE 91 | 2 | 5 | 2 | 4 | 4 | 2 | 3 | 4 | 1 | 5 | 4 | 1 | 2 | 2 | 3 |
| SAMPLE 92 | 1 | 3 | 3 | 5 | 5 | 4 | 3 | 4 | 5 | 2 | 5 | 1 | 4 | 3 | 2 |
| SAMPLE 93 | 5 | 4 | 3 | 2 | 1 | 1 | 3 | 2 | 3 | 4 | 4 | 3 | 5 | 4 | 3 |
| SAMPLE 94 | 1 | 4 | 5 | 2 | 3 | 3 | 4 | 3 | 2 | 1 | 4 | 3 | 2 | 1 | 5 |
| SAMPLE 95 | 3 | 2 | 4 | 4 | 3 | 2 | 2 | 4 | 2 | 3 | 5 | 5 | 4 | 1 | 3 |
| SAMPLE 96 | 4 | 3 | 3 | 1 | 5 | 5 | 5 | 4 | 5 | 5 | 3 | 5 | 4 | 3 | 4 |
| SAMPLE 97 | 5 | 3 | 2 | 5 | 4 | 3 | 3 | 2 | 1 | 4 | 3 | 5 | 1 | 2 | 2 |
| SAMPLE 98 | 2 | 5 | 2 | 4 | 1 | 2 | 3 | 3 | 4 | 1 | 4 | 3 | 2 | 2 | 3 |
| SAMPLE 99 | 4 | 2 | 1 | 5 | 5 | 4 | 2 | 5 | 3 | 5 | 5 | 3 | 3 | 2 | 3 |
| SAMPLE 100 | 4 | 1 | 5 | 1 | 3 | 2 | 1 | 4 | 5 | 2 | 1 | 3 | 2 | 5 | 4 |
| Attitude post test score in Experimental group. | | | | | | | | | | | | | | | |
| SAMPLE 101 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 4 | 5 | 5 | 5 |
| SAMPLE 102 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 103 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 104 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 105 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 106 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 107 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 108 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 109 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 110 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 |
| SAMPLE 111 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 112 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 |
| SAMPLE 113 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 114 | 5 | 5 | 5 | 4 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 |
| SAMPLE 115 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 116 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | 5 |
| SAMPLE 117 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 118 | 4 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 |
| SAMPLE 119 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

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| SAMPLE 120 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 |
| SAMPLE 121 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 122 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 123 | 5 | 4 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 124 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 125 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 126 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 127 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |
| SAMPLE 128 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 129 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 |
| SAMPLE 130 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 131 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 132 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 133 | 5 | 5 | 4 | 5 | 2 | 5 | 5 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 134 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 |
| SAMPLE 135 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 |
| SAMPLE 136 | 5 | 5 | 5 | 5 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 |
| SAMPLE 137 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 138 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 139 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 140 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 141 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 142 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2 | 5 |
| SAMPLE 143 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 144 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 145 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 146 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 147 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 148 | 5 | 2 | 5 | 5 | 5 | 5 | 2 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 |
| SAMPLE 149 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 150 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 151 | 5 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2 | 5 | 4 | 5 |
| SAMPLE 152 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 153 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 3 | 5 | 5 |
| SAMPLE 154 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 155 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 156 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 157 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 |
| SAMPLE 158 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 159 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 160 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 |
| SAMPLE 161 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 162 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 5 |
| SAMPLE 163 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 |
| SAMPLE 164 | 5 | 5 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 165 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 166 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 167 | 5 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 168 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 169 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 170 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 4 | 5 |
| SAMPLE 171 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 |
| SAMPLE 172 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 173 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 2 | 5 | 5 | 5 | 5 |
| SAMPLE 174 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 175 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 176 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 177 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 |
| SAMPLE 178 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 179 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 180 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 181 | 5 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SAMPLE 182 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 183 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 184 | 5 | 5 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 185 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 |
| SAMPLE 186 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 187 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |
| SAMPLE 188 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 189 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 |
| SAMPLE 190 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 191 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 192 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 193 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 |
| SAMPLE 194 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 4 | 5 | 5 |
| SAMPLE 195 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 196 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 197 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 198 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 |
| SAMPLE 199 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| SAMPLE 200 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |