

**A STUDY ON CUSTOMER SATISFACTION OF ORTHOPEDICAL
IMPLANTS WITH REFERENCE SRI SAI AGENCIES WEST
MAMBALAM CHENNAI**

Masters of Business Administration

by

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**DEPARTMENT OF BUSINESS ADMINISTRATION SCHOOL OF
MANAGEMENT STUDIES**

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE

JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI - 600 119

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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the Bonafede work of **HARISH KUMAR.G (41410118)** who carried out the project entitled "**A STUDY ON CUSTOMER SATISFACTION OF ORTHOPEDICAL IMPLANTS WITH REFERENCE SRI SAI AGENCIES WEST MAMBALAM CHENNAI**" under my supervision from January 2023 to March 2023.

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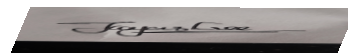
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DECLARATION

I HARISH KUMAR.G (41410118) hereby declare that the Project Report entitled “**A STUDY ON CUSTOMER SATISFACTION OF ORTHOPEDICAL IMPLANTS WITH REFERENCE SRI SAI AGENCIES WEST MAMBALAM CHENNAI**” done by me under the guidance of **Dr. K SASIREKHA .BSC., B.ED., M.B.A., PH. D.**, is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

DATE: 05/05/2023

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HARISH KUMAR. G

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to Board of Management of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

I convey my sincere thanks to **Dr.G. Bhuvaneswari, M.B.A., Ph.D., Dean - School of Management Studies** and **Dr. A. Palani, M.COM., M.Phil., M.B.A., Ph.D., Head - School of Management Studies** for providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to my Project Guide **DR. K. SASIREKHA .BSC., B.ED., M.B.A., PH. D.** for her valuable guidance, suggestions and constant encouragement paved way for the successful completion of my project work.

I wish to express my thanks to all Teaching and Non-teaching staff members of the **School of Management Studies** who were helpful in many ways for the completion of the project.

HARISH KUMAR.G

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ABSTRACT

The healthcare and medical device sectors in India have grown significantly in the last decade. A wide range of medical devices, from consumables to implantable medical devices, are produced in India. The majority of medical devices manufactured in India are disposables like catheters, perfusion sets, extension lines, cannulas, feeding tubes, needles, and syringes, as well as implants like cardiac stents, drug-eluting stents, intraocular lenses, and orthopaedic implants. The medical devices sector is highly capital intensive, and also requires continuous training of the healthcare system providers to adapt to new technologies 2023.

However, there is still a huge gap in the current demand and supply of medical devices in India, as India has an overall 70-80% import dependency on medical devices at present, many medical device manufacturers (domestic and international) are chasing this massive under penetration of medical devices in India as a significant growth opportunity. The government has come up with multiple initiatives and policies to promote India's medical device sector. The global orthopedic implants market is projected to grow from \$43.14 billion in 2022 to \$60.90 billion by 2029, at a CAGR of 5.0% in forecast period

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION OF THE STUDY

In the medical industry future surgical operations in which implants are fully adapted to the particular requirement of each patient. The company produces orthopedic implants in hospitals and clinics and transports them from state to state. We had a set of implant problems it could solve the customer's satisfaction radically one of a kind in connection to things and ought to be promoted in all regards surprisingly. Attracting and catching customers' attention is a critical attribute of a successful marketing campaign. Defining the target market by determining the customers the business is helping, and how the product will solve customers' problems will undoubtedly have a positive impact on increasing the company's profits. Markets must put the needs and interests of the customer first. Measuring customer satisfaction is a concept many companies apply and has increasingly become a critical element of business strategy. In a competitive marketplace, where companies compete for customers, there is a need to understand how to retain existing customers and how to better attract new ones. Gathering this information about customer satisfaction could be done using different tools and methodologies. There are many tools and methods companies might use to measure customer satisfaction. The direct methods are based on personally contacting the customers to get their feedback. This could be achieved in many ways. The peculiarity of using this method in dentistry is the fact that it enables the immediate effect on the target affected organ, as well as affecting along the nerve trunk, vessels that increase the method's effectiveness in the postoperative period. The postoperative rehabilitation of patients is done more effectively to a larger extent if combined with traditional treatment. Companies could get customer feedback through third-party agencies, in-house call centers, or through face-to-face conversations or meeting. Customer complaints are the issues and problems reported by the customer. If the number of complaints the company gets in a specific period is high, this implies that customers are not happy. and changes other hands small levels of complaints are performing well. Loyalties are all so big part of the product Customer loyalty is also a measure of

customer satisfaction. Customer is considered loyal if they repurchase product or services from a company regularly.

Pain International Journal of Research in Industrial Engineering www.riejournal.com
329 Cost minimization of artificial hip bone implantation surgery by adopting additive manufacturing technique... relief is a primary goal in treating these patients. In the critical stage of OA, the medical treatment fails and patients remain in pain with limitations of physical function in daily life.

1.11 BUSINESS MARKETING

marketplace resort to consultants to help them improve their performances. Marketing management as that the art and science of selecting target markets and getting, keeping, and growing customers through creating, delivering, and communicating superior customer value. These consultants are specialized in product life-cycle and product improvement methodologies. They help companies in addressing various quality-related issues with their products and services. In addition to consultants, companies also rely on analysts who study and conduct research on consumers' behavior and consumers' willingness to purchase products and services these companies offer the 4 elements that mainly run our business in the market condition Product b. Price c. Place d. Promotion, and then the quality market scale of business is important the studies market researchers conduct help companies to determine whether they have been able to satisfy their customers or not. They also provide companies with crucial information about the various factors that affect their business. Additionally, these studies help decision-makers in formulating plans, taking necessary measures, and evaluating business performance. In the report on the learning process, medical orthopedic instruments and materials are the main products of the company providing the clients and hospitals. using properly in the products and customers' wellbeing. And we promote and advertise doctors' unknown doctors and clinic doctors even through the specialist of any kind. Industries are manufacturing the implants and companies are delivering high-quality implants. Many companies that attempt to compete in the Implant material selection and applications, the body/oral environment and its impact on implant material performance, the basic concepts of biocompatibility, Tissue attachment mechanisms, Biophysical and biomechanical requirements of

implant materials, Corrosion, and wear behavior, including degradation of polymeric material stop most orthopedic surgery hospitals having in India Tamil Nadu Chennai and the products are very expensive and the market scales all so very similar to large.

1.12SURGICAL ALUMINIUM INSTRUMENT

Surgical Aluminium instrument implants box Screw Empty Case Box Hard Anodized Aluminum Surgical Instrument Box; Stainless Steel AISI; Warranty against Material, Workmanship price level of the instruments are price is 7000 picess in india.

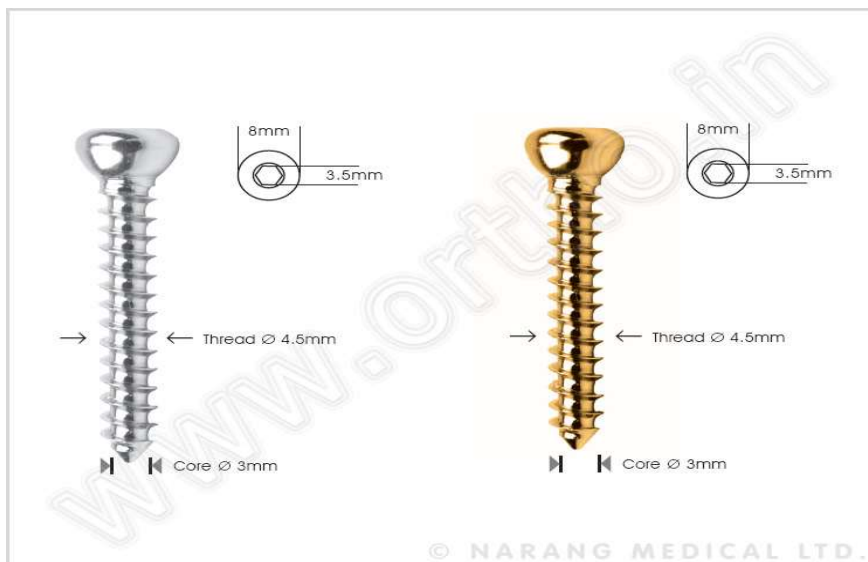


Computer assisted orthopedic surgery; in theses surgery was using computer assisted orthopedic tools to doing the surgery and it made successful and better results CAOS is it reducing surgical tool and bones works it shows display of computer and do the surgeries.



1.13 Screws

The helical-thread screw is surely an extremely important invention in Mechanical Engineering, which changes angular motion to linear motion to transmit power, or to develop large focusses are complex tools to using these having four parts of construction head, shaft, thread, and tip. Orthopedic screws are the most commonly used devices for bone fracture fixation. They are used as both standalone fixators and in conjunction with other orthopedic hardware devices, particularly plates.



1.14 Plate

Plate and screw fixation of fractures has undergone continual design modifications and improvements during recent decades. Plates offer the benefits of anatomic reduction of the fracture with open techniques and stability for the early function of muscle-tendon units and joints, but they must be protected from premature weight bearing. Disadvantages of plate fixation include the risk of bone refracture after their removal, stress protection and osteoporosis beneath a plate, plate irritation, and also in rare cases an immunologic reaction [10]. Plates neutralize deforming forces that cannot be counteracted by screws alone. Plates require counteracting to maintain optimum stability of the fracture reduction.

1.15 ORTHOPEDIC TYPES OF SURGERIES

- ACL Reconstruction Surgery
- Knee Replacement Surgery
- Shoulder Replacement Surgery
- Hip Replacement Surgery
- Knee Arthroscopy
- Shoulder Arthroscopy
- Ankle Repair
- Spinal Surgery

1.16 TYPES OF ORTHOPEDIC IMPLANTS

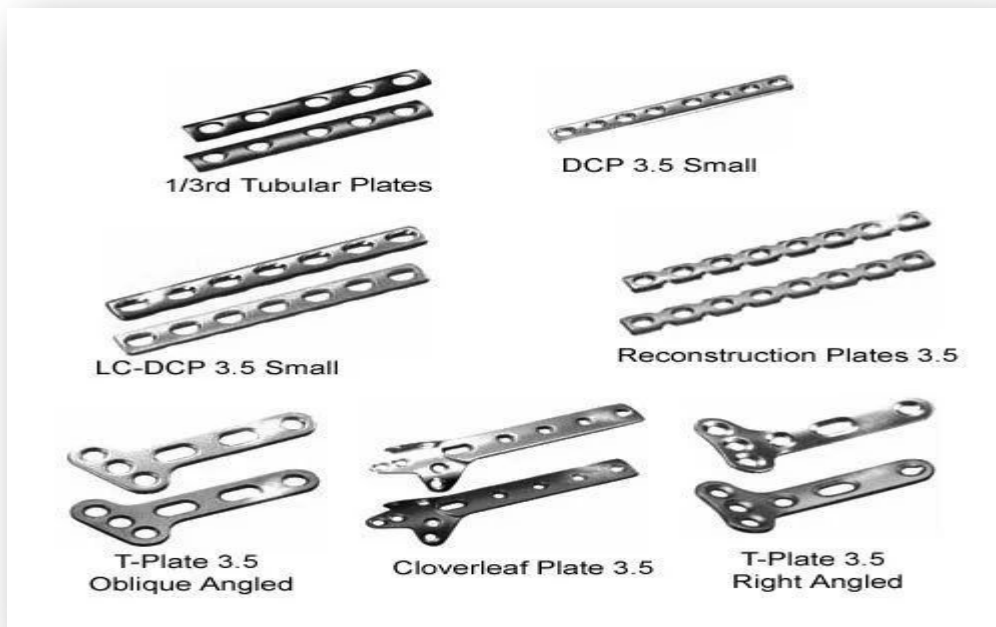
- Austin-Moore prosthesis for fracture of the neck of femur
- Baksi's prosthesis for elbow replacement
- Charnley prosthesis for total hip replacement
- Condylar blade plate for condylar fractures of femur
- Ender's nail for fixing intertrochanteric fracture
- Grosse-Kempf nail for tibial or femoral shaft fracture
- Hansson pin (or LIH for Lars Ingvar Hansson) a hook-pin used for fractures of the femoral neck
- Harrington rod for fixation of the spine
- Hartshill rectangle for fixation of the spine
- Insall Burstein prosthesis , for total knee replacement
- Richard N.W. Wohns interspinous implant and implantation instrument intended to be implanted between two adjacent dorsal spines
- Kirschner wire for fixation of small bones
- Kuntscher nail for fracture of the shaft of femur
- Luque rod : for fixation of the spine
- Moore's pin for fracture of the neck of femur
- Neer's prosthesis for shoulder replacement

1.17 PRODUCT PROFILE

The company produced and transferred products of medical orthopedics company implants names are titanium metal is commonly used for implants to replace a joint, bone, or cartilage due to damage or deformity Austin-Moore prosthesis for fracture of the neck of femur. Baksi's prosthesis for elbow replacement, Charnley's prosthesis for total hip replacement. Condylar blade plate for condylar fractures of the femur, Ender's nail for fixing the intertrochanteric fracture.

1.2 COMPANY PROFILE

The company of Sri Sai Agencies was a medical sector of products and implants of technologies that create and supply various kinds of Austin-Moore prostheses for fractures of the neck of the femur. Baksi's prosthesis for elbow replacement, Charnley's prosthesis for total hip replacement. Condylar blade plate for condylar fractures of the femur, Ender's nail for fixing intertrochanteric fracture Parts and various of these products are supplying company was us our company address in Sai Sri Agencies 23/1, Adikesava, Perumal Koil St, West Mambalam, Chennai, Tamil Nadu 600033. Then Orthopedists use suture anchors, surgical spoons, angled jaws, and instrument trays the customers are mostly in hospitals and clinics products wants at any time because of the patient urgency of surgeries on time. For example, Newsweek and Statista ranked Apollo Hospital as the world's best smart hospital in 2021 for using the most advanced technologies. An Apollo hospital was a regular client of our Sri Sai agency company. We had a branch in Hyderabad, Andhra Pradesh, Tirupati, and Chennai West Mambalam.



1.3 INDUSTRIAL PROFILE

Indian orthopedists have a legacy dating back more than 4000 years. Starting with the Harappan civilization, ancient orthopedic surgeons reduced fractures and conducted therapeutic trepanations. Since then, Indian physicians have pioneered many of the orthopedic techniques still used today — including the use of prosthetics, fracture tables, and rehabilitative physical therapy. Today, orthopaedical surgeons coexist with traditional Indian bonesetters. Although bone-setting practices can have complication rates as high as 40%, bonesetters still handle a majority of fractures in India and are often culturally preferred. Importantly though, bonesetters are often the only expedient option available in both rural and urban settings. India offers more affordable healthcare compared to popular medical tourist destinations like Turkey, Mexico, and Spain. This is the main reason patients choose to do their knee surgery in India instead of these destinations. The average cost of knee replacement surgery is around ₹1.5 lakh or \$2,000. The best Indian hospitals of orthopedic in Mumbai New Delhi, Chennai, and Hyderabad. Orthopedic Surgery price depends upon multiple variable factors. Starting price is ₹ 23,750. The average cost is ₹ 118,750. The maximum price is ₹ 475,000.

1.4 STATEMENT OF THE PROBLEM

The product and Quality Due to the fast-growing competition our competitors Sri Sai agencies find it difficult to meet their targets and customer satisfaction better than before our orthopedic implants doing well. Due to this slow growth in recent months, sales executives find it difficult to sell the medical tools to their previous records set by them. Is there an effect of product quality on consumer trust in Orthopedic implant products and price perception on consumer Orthopedic implant products?

1.5 NEED OF STUDY

- In a study of customer satisfaction with orthopedical implants.
- product performing the years of gone it will be a satisfaction to the customer.
- the product price level is offendable to the customer.
- our orthopedical implants quality is well performing to the customer's full fill satisfaction.

- The brand image of our orthopedic implants is well-known for the customer's mentality of buying.

1.6 OBJECTIVE OF THE STUDY

- To Study the client satisfaction concerning product and service of medical implants.
- To find out orthopedic implants are fixed a patient's body years goes it will be performing better.
- To Identify the product implant issues in an existing time.
- To finding out the surgical brand of medical implants is very useful to the patient and doctors.

1.7 SCOPE OF Study

- Identify the issues in customers satisfaction with orthopedic implants in Sri Sai Agencies
- various needs and expectations of orthopedic clients.
- Meet or exceed the expectations of the clients by offering a better implant.
- Improve the overall service quality offered to the clients and hospitals.
- Increase the repeat business from the existing clients in long term business.
- Enables the company to get reference leads to sell medical implants.

CHAPTER 2

REVIEW OF LITERATURE

2.1 INTRODUCTION

We had a set of implant problems it could solve the customer's satisfaction radically one of a kind in connection to things and ought to be promoted in all regards surprisingly.

Elmassad, O. (2019) the author is Predicting Customer Satisfaction from Dental Implants Perception Data (Doctoral dissertation). In recent years, measuring customer satisfaction has become one of the key concerns of market research studies. One of the basic features of leading companies is their success in fulfilling their customers' demands. For that reason, companies attempt to find out what essential factors dominate their customers' purchasing habits.

Bandopadhyay. S 2019.the author is reporting Current research perspectives of orthopedic implant materials. Biomaterials and Bio technology, materials used in the manufacture of implants, and associated properties of the materials. An emphasis is also laid on the complications associated with the implantation and methods to get past them both by tweaking the properties (increasing the biocompatibility) and manufacturing method. pp.337-374.

Ahani, A., Nilashi, M., Zogaan, W.A., Samad, S., Aljehane, N.O., Alhargan, A., Mohd, S., Ahmadi, H. and Sanzogni, L., 2021. The authors are Evaluating medical travelers' satisfaction through online review analysis. Journal of Hospitality and Tourism Management, Medical tourism is increasing quickly since it contributes to both the health and tourism sectors. The use of big social data has been effective in the development of medical tourism as a huge amount of data is produced and shared by travelers about the services through different social media platforms. 48, pp.519-537.

Sutthiwichienchot R. 2023 the author is study SG-APSIC1084: Reduce cost and deesterilization rate of reusable medical device sets by reorganizing and rearranging

packaging and process. Antimicrobial Stewardship & Healthcare Epidemiology. Advances in wireless technologies, low-power electronics, the internet of things, and in the domain of connected health are driving innovations in wearable medical devices at a tremendous pace Feb;3(S1): s31-2.

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Harrysson, O. L., & Cormier, D. R. (2020) Direct fabrication of custom orthopedic implants using electron beam melting technology. Advanced Manufacturing Technology for Medical Applications: Reverse Engineering, Software Conversion and Rapid Prototyping, manufacturing technologies (AMTs) combine novel manufacturing techniques and machines with the application of information technology, microelectronics and new organizational practices within the manufacturing sector. They include "hard" technologies such as rapid prototyping, and "soft" technologies such as scanned point cloud data manipulation. 191-206.

Khosravi, A. D., Ahmadi, F., Salmanzadeh, S., Dashtbozorg, A., & Montazeri, E. A. (2020) Study of bacteria isolated from orthopedic implant infections and their antimicrobial susceptibility pattern. The aim of the present study was, to determine the bacteriology of orthopedic implant infections and susceptibilities of isolated bacteria to

the commonly used antimicrobial agents. One hundred and sixty-five patients were investigated for early or late postoperative infections of orthopedic bone implants using conventional microbiological procedures Research journal of microbiology, 4(4), 158-163.

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Calvo-Haro, J. A., Pascau, J. (2021) Conceptual evolution of 3D printing in orthopedic surgery and traumatology 3D printer of implants are show the body inside problems and then it solves the using of implant instrument and do hospital work for the orthopedics.

Choudhury, Dipankar, Filip Urban, Martin Vrbka, (2022) Martin Hartl, and Ivan Krupka. "A novel tribological study on DLC-coated micro-dimpled orthopedics implant interface." paper proposes a system for the detection of hip prosthesis loosening by means of a vibration analysis technique. Although this technique has been adapted before, the novelty presented here lies in the fact that the monitoring is done inside the prosthesis itself, offering better measurement results.

Becchetti, C., & Neri, A. (2022) he providing medical instrument design and development: from requirements to market placements. John Wiley & Sons focuses on contributions of users in early phases of radical innovation projects. In a multiple case study analysis in the field of medical equipment technology, we identify characteristics of users who contribute substantially to the development of radical innovations by being their inventors and (co)-developers.

Irfan. F 2022) "Analysis of the Influence of Product Quality and Price Perceptions on the Purchase Decision of Orthopedic Implant Products (Kangli) Through Consumer Trust as Intervening Variables" Orthopedic implants are one of the health products that are produced to cure people, including from a disease called rheumatoid arthritis. According to Smolen et al., (2010) "Rheumatoid arthritis is characterized by synovial inflammation and a high tendency to destroy bone and cartilage which leads to high operating in Pt. (: 27-34)

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James, Deeptiman, Dennis Martin K (2022) "Elastic stable intramedullary nailing versus submuscular plating in pediatric diaphyseal femur fractures: a randomized controlled trial among children in South India." Introduction of the submuscular locked plate (SMP) fixation construct has opened the debate on treatment options for pediatric diaphyseal femur fractures in the older children and adolescents.

Walter et al. (2007) conducted a Retrospective study on clinical pathway for total knee replacement in a community hospital. Before instituting the pathway, the average length of stay was 4.41 days for patients having total hip replacement and 3.92 days for patients having total knee replacement. The average length of stay for patients having total hip replacement decreased to 3.24 days and to 2.98 days for patients having total

knee replacement. Press Ganey Survey results showed high patient satisfaction rates before and after pathway initiation.

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CHAPTER 3

RESEARCH METHODOLOGY

3.1 METHODOLOGY

The current study made up customers satisfaction on orthopedic implants and identified any issues on the product and cost of price then years of having implants health of well-being the customer. The study gets the customers opinion and verified the issues. The data of collected on directly to the cutover. The research based on customer-oriented product well performing and flexibility.

3.2 RESEARCH DESIGN

Customer satisfaction of Sri Sai Agency's the orthopedic instruments using well on clints directly on the customers.

3.3 SOURCE OF DATA

3.4 PRIMARY; data collected from customer using questioner get the answers.

3.5 PERIOD OF STUDY; 3 months

3.6 LOCATION OF TARGETED; Chennai

3.7 SAMPLE SIZE; 200 Chennai; Information bases are of two kinds through which information is gathered.

Information sources might be named 1. Primary information Essential information is the first information gathered by the specialist direct 2. Secondary information books and journals web sites articles.

3.7 RESEARCH INSTRUMENTS; Research device are the instruments which is utilized for social event or gathering data. The instruments utilized in the investigation are Direct inquiries, Close end questions, Dichotomous inquiries, Multiple decision questions.

3.8 ANALYTICAL TOOLS; analysis using Karl Pearson's correlation, chi-square test I – (ψ^2)

3.9 Chai square; chi-square statistic is one way to show a relationship between two categorical variables. In statistics, there are two types of variables: numerical (countable) variables and non-numerical (categorical) variables. The chi-square goodness of fit test is used to test whether the frequency distribution of a categorical variable is different from your expectations. The chi-square test of independence is used to test whether two categorical variables are related to each other.

$$\chi^2 = \sum (O_i - E_i)^2 / E_i$$

- O_i = Observed value (actual value)
- E_i = Expected value

4.0 Correlation; A correlation coefficient is a descriptive statistic. That means that it summarizes sample data without letting you infer anything about the population. A correlation coefficient is a bivariate statistic when it summarizes the relationship between two variables, and it's a multivariate statistic when you have more than two variables. correlation coefficient is based on sample data, you'll need an inferential statistic if you want to generalize your results to the population

$$\rho_{xy} = \frac{\text{Cov}(r_x, r_y)}{\sigma_x \sigma_y}$$

- ρ_{xy} = Correlation between two variables
- $\text{Cov}(r_x, r_y)$ = Covariance of return X and Covariance of return of Y
- σ_x = Standard deviation of X, σ_y = Standard deviation of Y

CHAPTER 4

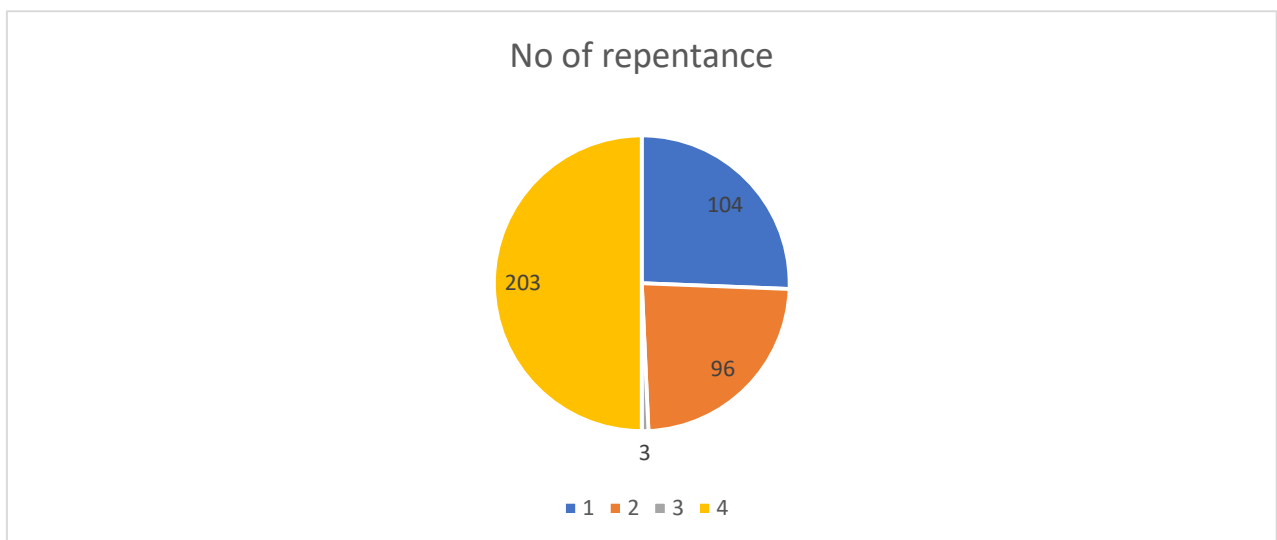
DATA ANALYSIS AND INTERPRETATION

Percentage analysis

4.1 Table How many years of you having an implant.

Gender	No of repentance	Percentage
Male	104	51.6
Female	96	47.3
Others	3	0.3

4.1 Chart How many years of you having an implant.



4.1 Interpretation

The table of above is genders of male is resonance is 104 51.6 percentage female 96 resonance 47.3 % other 3 response and 0.3%.

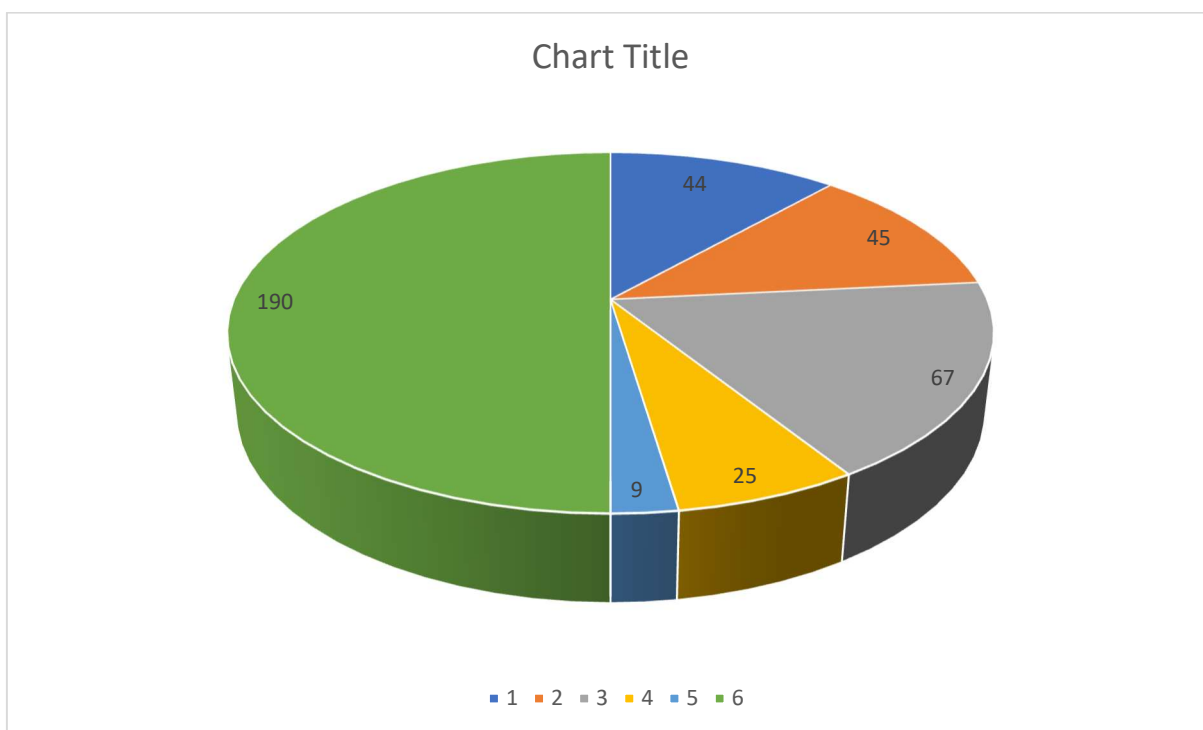
4.1 Inference

The major or male are higher 104 (51.6) response female to higher of equal

4.2Table age

Age	No of response	No of percentage
25-45	44	21.7
15-25	45	22.2
45-60	67	33.0
60-70	25	12.3
Above age	9	4.4

4.2 Chart age



4.2 Interpretation

Age of list is coming over the table 44 response and 21.7% the age of 25-45 45-60 age response 67 percentage was 33.0 60-70 is 25 response percentage 12.3 above age was 9 response percentage 4.4.

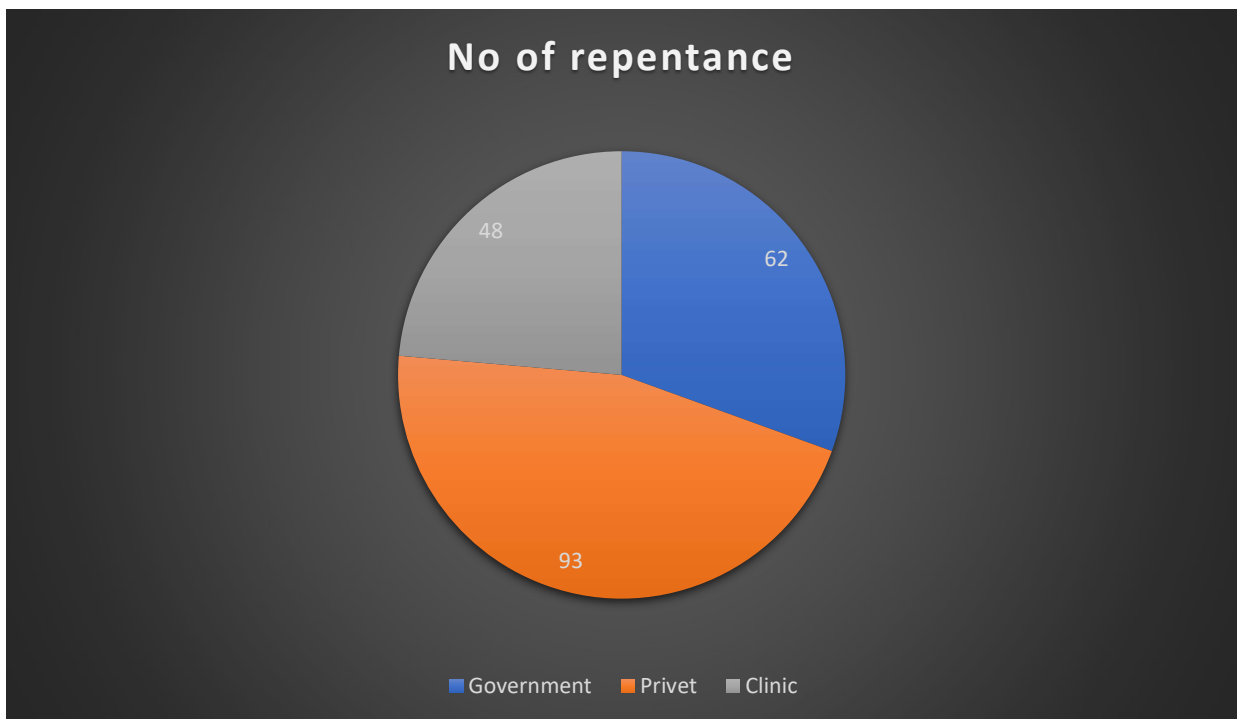
4.2 Inference

Major of 45-60 age is higher the level of percentage is 33.0.

4.3 table Hospital

Hospitals	No of repentance	Percentage
Government	62	30.5
Privet	93	45.8
Clinic	48	23.6

4.3 Chart Hospital



4.3 Interpretation

The table of list is hospital of government 62 (30.5) and privet 93 (45.8) international hospital clinic 48 (23.6) response and percentage

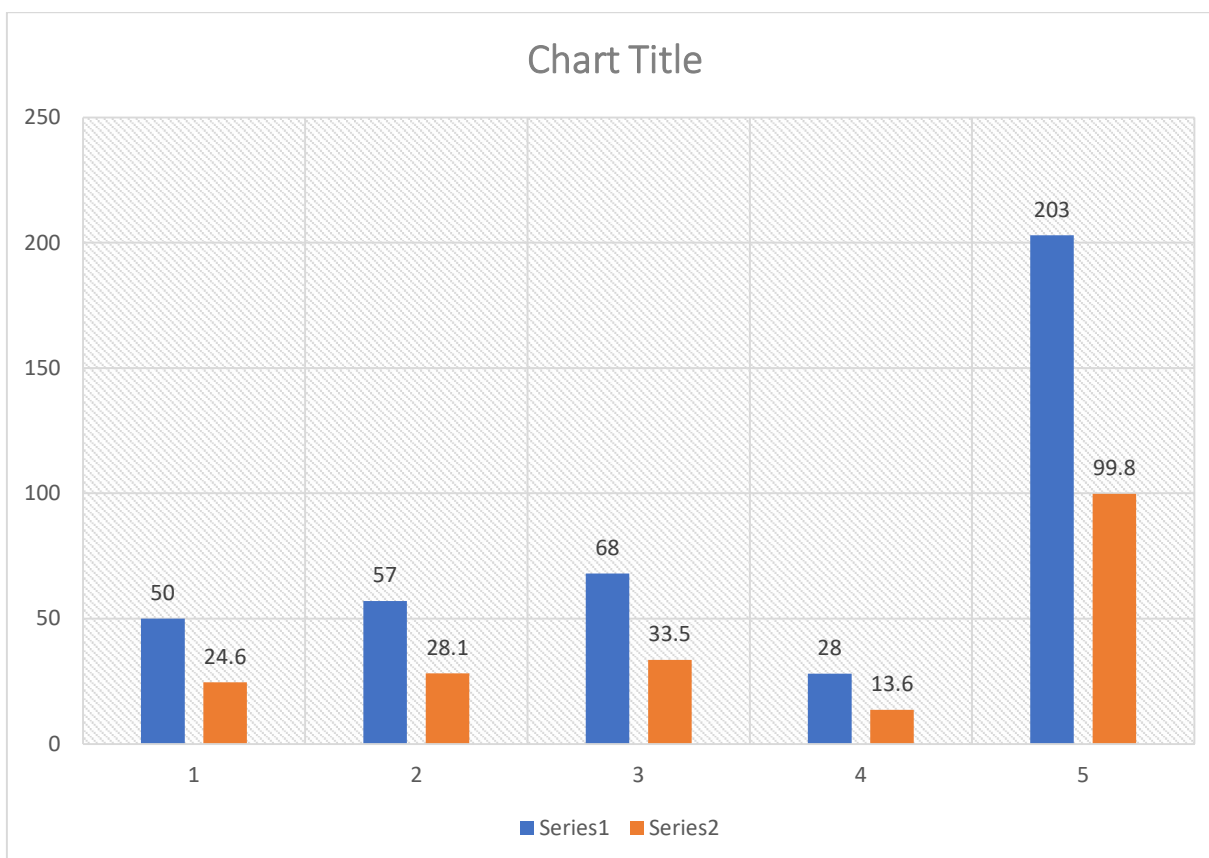
4.3 Inference

Major of privet hospital is higher 93 (45.8) the patients

4.4 Table many years of you had an implant

Years	No of repentance	No percentage
3 years	50	24.6
1 years	57	28.1
6 months	68	33.5
2 years	28	13.6

4.4 Chart years of having implants



Interpretation

3 years response 50 24.6% 2 year 57 28.1% and 1 year 68 33.5% then 6 months 28 13.6% of the list of table comes.

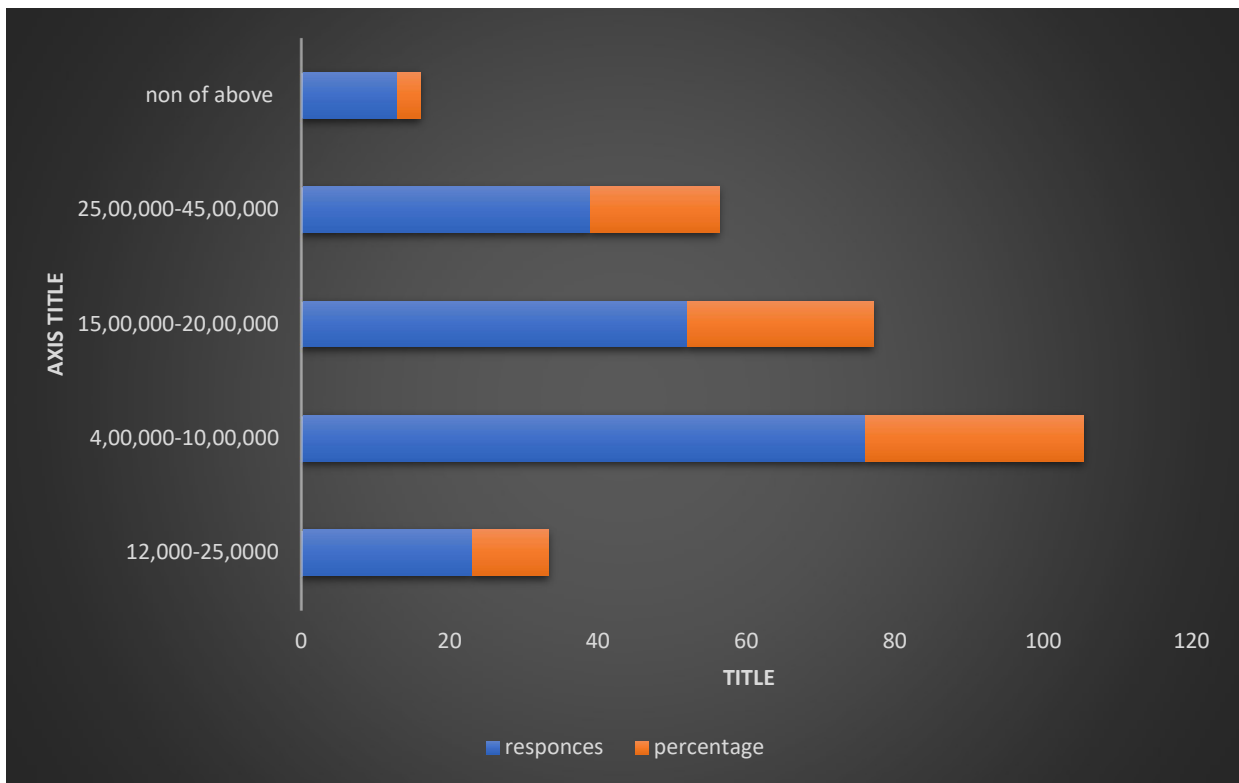
inference

major of 68 responses 33.5 percentage comes years of 1 year duration patients.

4.5 Table annual salary of customers.

Annual salary	Response	Percentage
12,00,000-25,00,000	23	10.3
4,00,000-10,00,000	76	29.4
15,00,000-20,00,000	52	25.1
25,00,000-45,00,000	39	17.3
None of above	13	3.01

4.5 Chart of annual salary



Interpretation

The 12,000-25,000 and 4,00,000-10,00,000 or 15,00,000-20,00,000 25,00,000-45,00,000 None of above theses are here response and percentages comes higher level of response and (%).

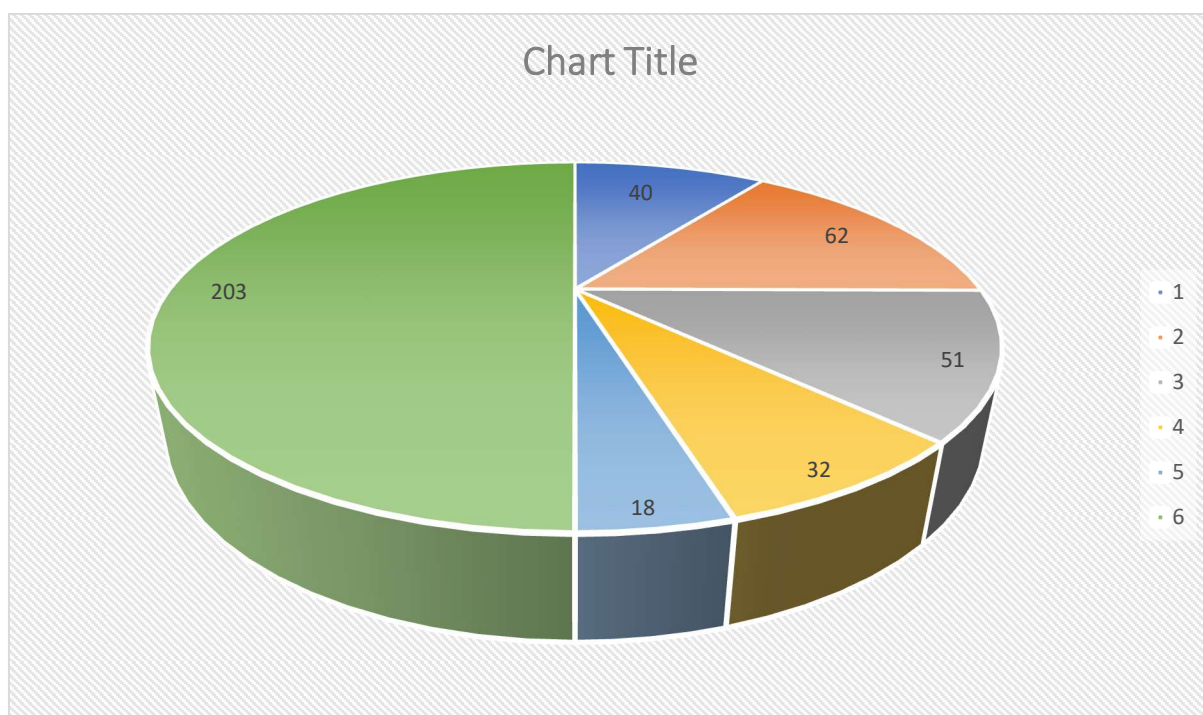
Inference

Major of 76 response of the 4lk-10lk was best 29.4 percentage higher.

4.6 Table kind of orthopedic patients

Patient kind	No of response	No of percentage
Knee replacing surgery	40	19.7
Shoulder replacing surgery	62	30.5
Hip replacing surgery	51	25.1
Spinal card surgery	32	15.8
Others	18	8.1

4.7 Chart kind of orthopedic patients



Interpretation

kind of orthopedic patient are you Knee Replacement Surgery 40 (19.7) Shoulder Replacement Surgery 62 (30.5) hip replacement surgery 51 (25.1) Spinal surgery 32 (15.8) others 18 (8.1) percentage.

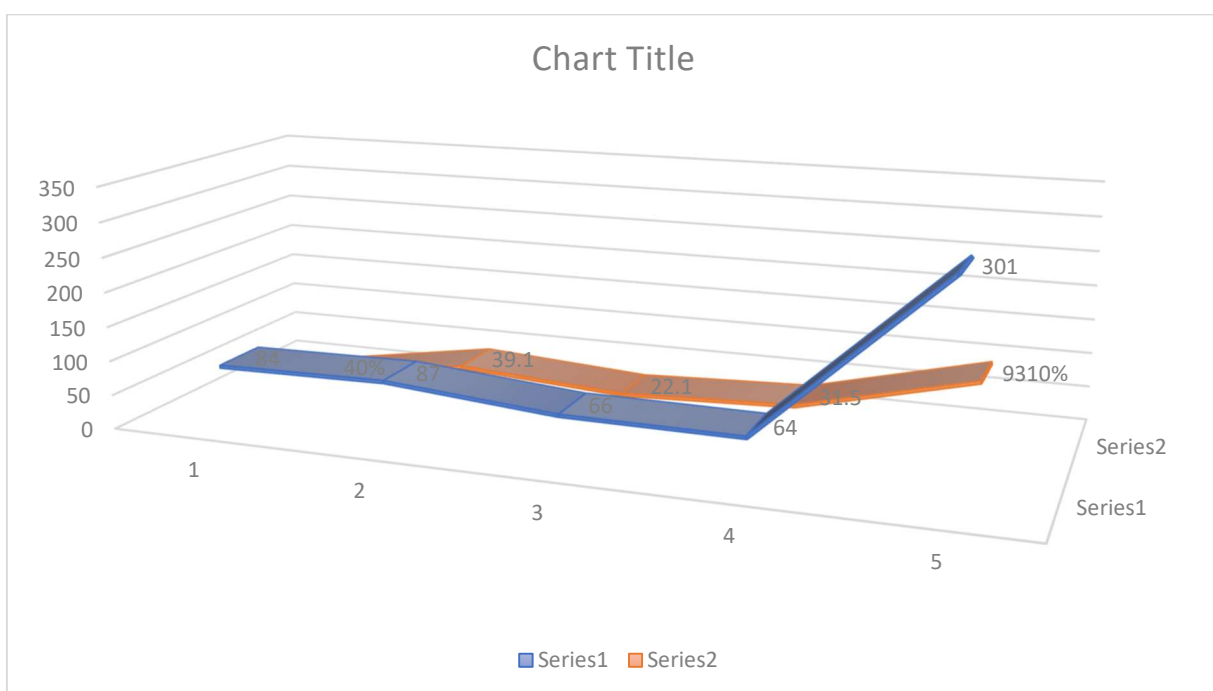
Inference

Major of the response is 62 and percentage 30.5 higher.

4.7 Table Product quality on consumer trust in Orthopedic implant products at Sri Sai Agenesis

Production	No of response	No of percentage
Dealer	84	40%
Product flexibility	87	39.1
Cost of product	66	22.1
Transportation	64	31.5

4.7Chart Product quality on consumer trust in Orthopedic implant products at Sri Sai Agenesis



Interpretation

the Product quality on consumer trust in Orthopedic implant products at Sri Sai Agenesis responses dealer 84 40.1 percentage product flexibility 87 39.1% cost of product 66 22.1 % transportation 64 31.5%.

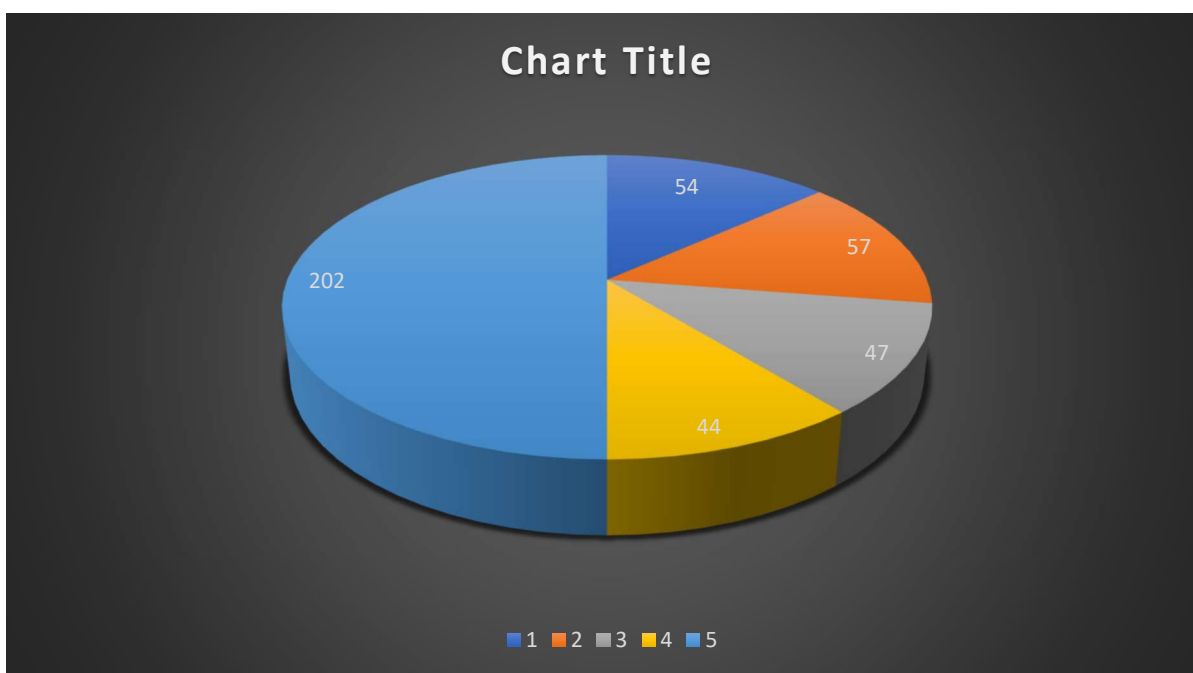
Inference

Major of the product quality higher is 87 product flexibility 39.1%.

4.8 Table What is the powerful implant when performing rehabilitation during a period not suffering the patient.

Powerful implants	No of response	No of percentage
Hernia Surgical Mesh Implants	54	26.6
Metal-on-Metal Hip Implants	57	28.1
Breast Implants	47	23.2
Cochlear Implants	44	21.7

4.8 Chart powerful implant when performing rehabilitation during period but not so suffering the patient



Interpretation

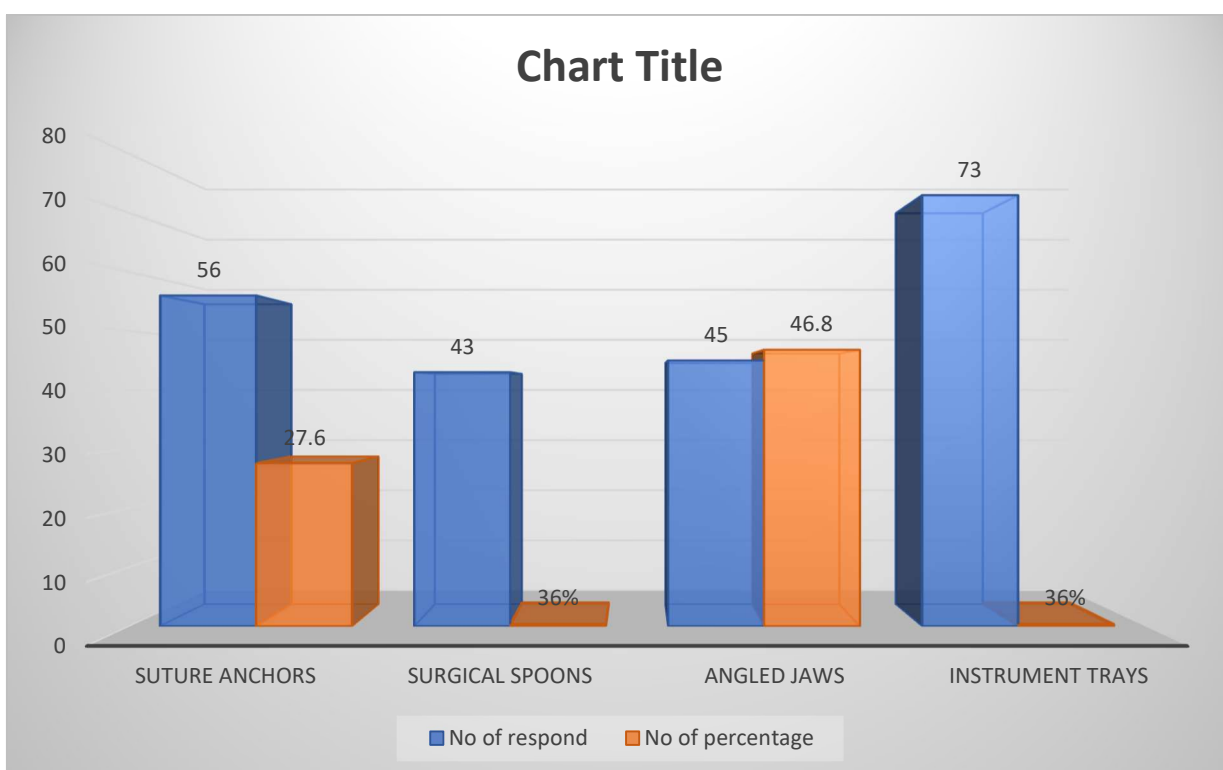
the powerful implant when performing rehabilitation during period not suffering the patient
Hernia Surgical Mesh Implants 54 26.6 responses Metal-on-Metal Hip Implants 57 28.1 Breast Implants 47 23.2 Cochlear Implants 44 21.7 response.

Inference; Major of the metal hip implant 57 28.1 response percentage.

4.9 Table What are the common implants of using in orthopedic surgeries?.

Commune implants	No of respond	No of percentage
Suture anchors	56	27.6
Surgical spoons	43	36%
Angled jaws	45	46.8
Instrument trays	73	36%

4.9 Chart common implants of using in orthopedic surgeries



Interpretation

the common implants of using in orthopedic surgeries, suture anchors 56 27.6, surgical, spoons 73 36%, angled jaws 95 46.8, instrument trays 73 36% response and percentages

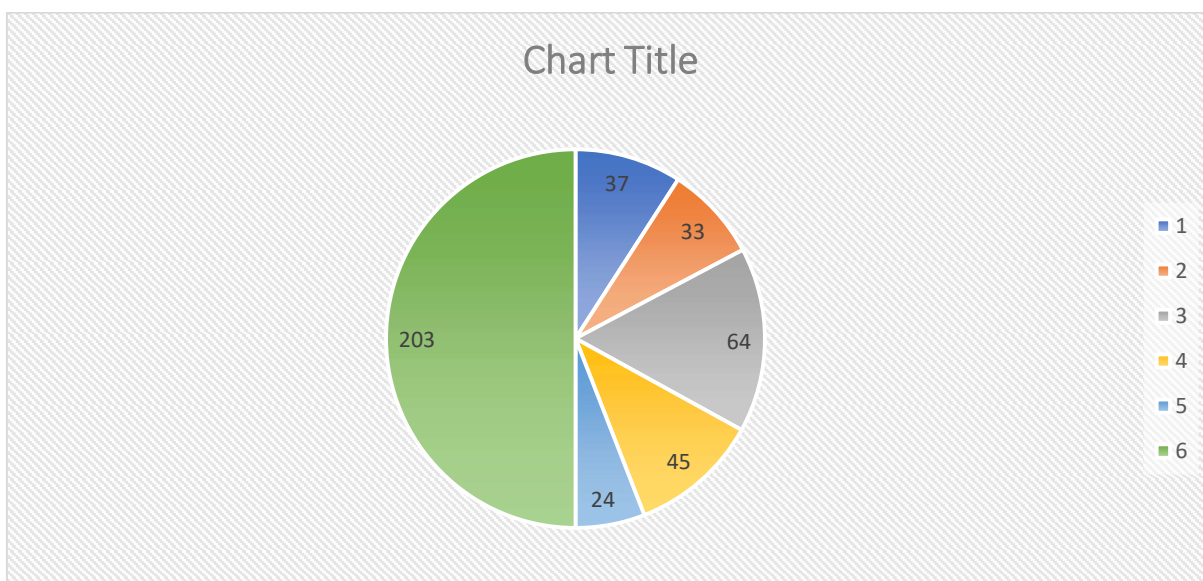
Inference

Major of the common implants is 95 46.8% higher the angled jaws.

4.10 Table of What kind of patients are during to come over for surgery of orthopedic.

Patients choose	No of respond	No of percentage
ACL reconstruction surgery	37	18.2
Knee replacement surgery	33	16.3
Shoulder replacement surgery	64	31.5
Hip replacement surgery	45	22.2
Knee arthroscopy	24	11.8

4.10 Chart patients are during to come over for surgery of orthopedic



Interpretation

The patients are during come over orthopedic surgery knee replacement 18% hip replacement 45 22.2 37 knee arthroscopy 24 11.8% and ACL replacement 33 16%

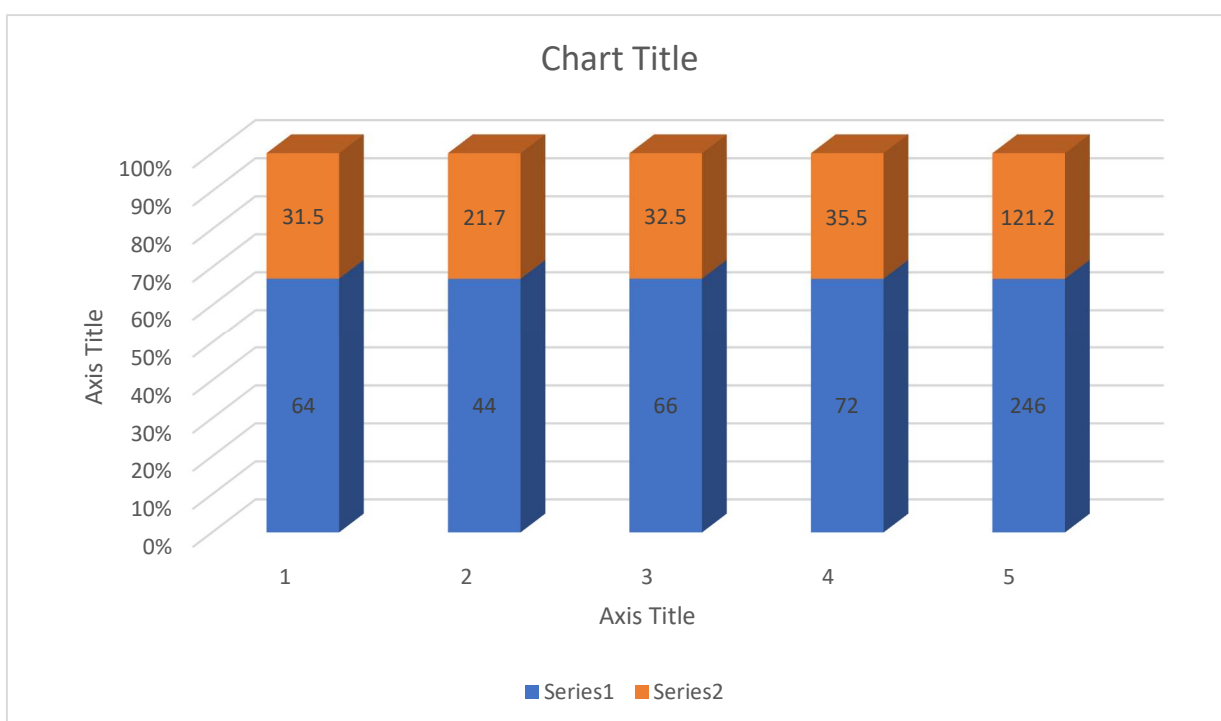
Inference

Major of 64 31.5% shoulder replacement higher response.

4.11 Table implant quality of years goes over how it works and perfumes.

Performing	No of response	No of percentage
Positively	64	14.2
Negatively	44	21.7
Standard	66	32.5
Not better	29	31.5

4.11 Chart implant quality of years a goes how it works and perfuming



Interpretation

The implants are how it performing during patients' rehabilitation periods positively is 64 31.5 negatively 77 35.5 neutral 66 32.5 not better 44 31.5 percentage and response

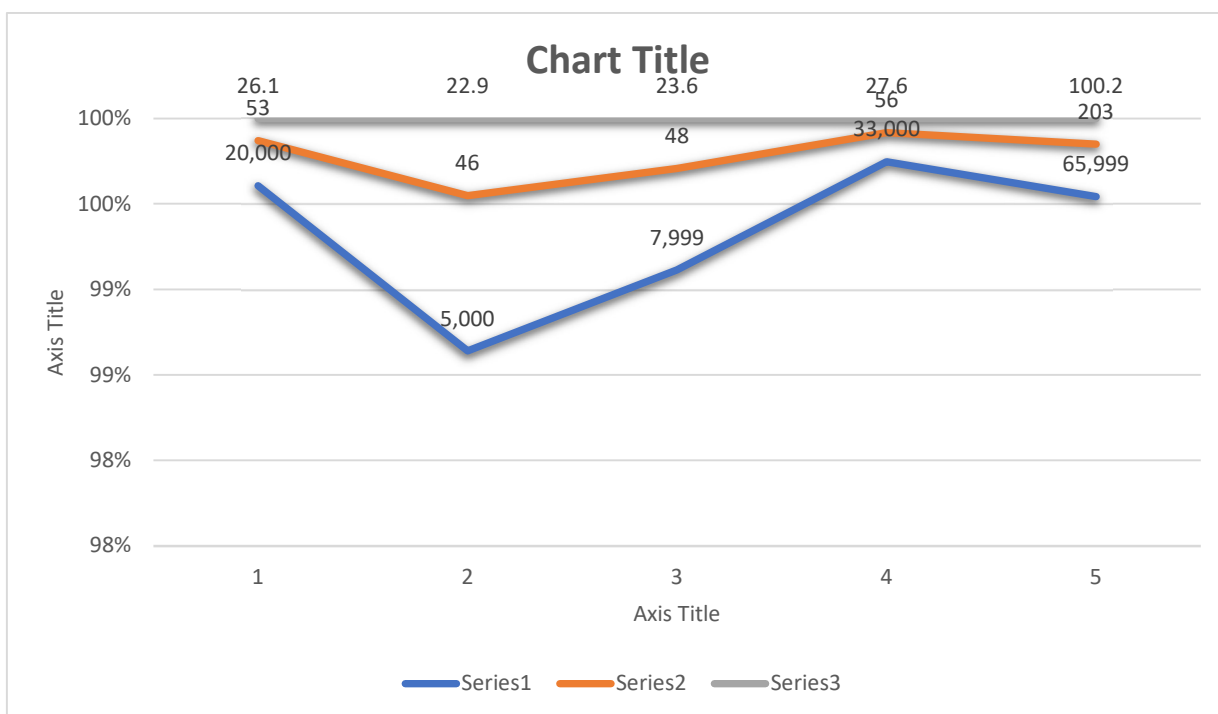
Inference

Major of the positively comes the 77 response and 35.5 percentage.

4.12 Table of What are the orthopedic instruments suture anchors, surgical spoons, angled jaws, and implant trays are affectable price in patiently to buying.

Amounts	No of response	No of percentage
20,000	53	26.1
5,000	46	22.9
7,999	48	23.6
33,000	56	27.6

4.12 Chart orthopedic instruments suture anchors, surgical spoons, angled jaws and instrument trays are affectable price in patiently to buying.



Interpretation

Orthopedic instruments amounts of cast levels 20,000 and 5000 then 7,999 33,000 responses are 56 higher level of responses.

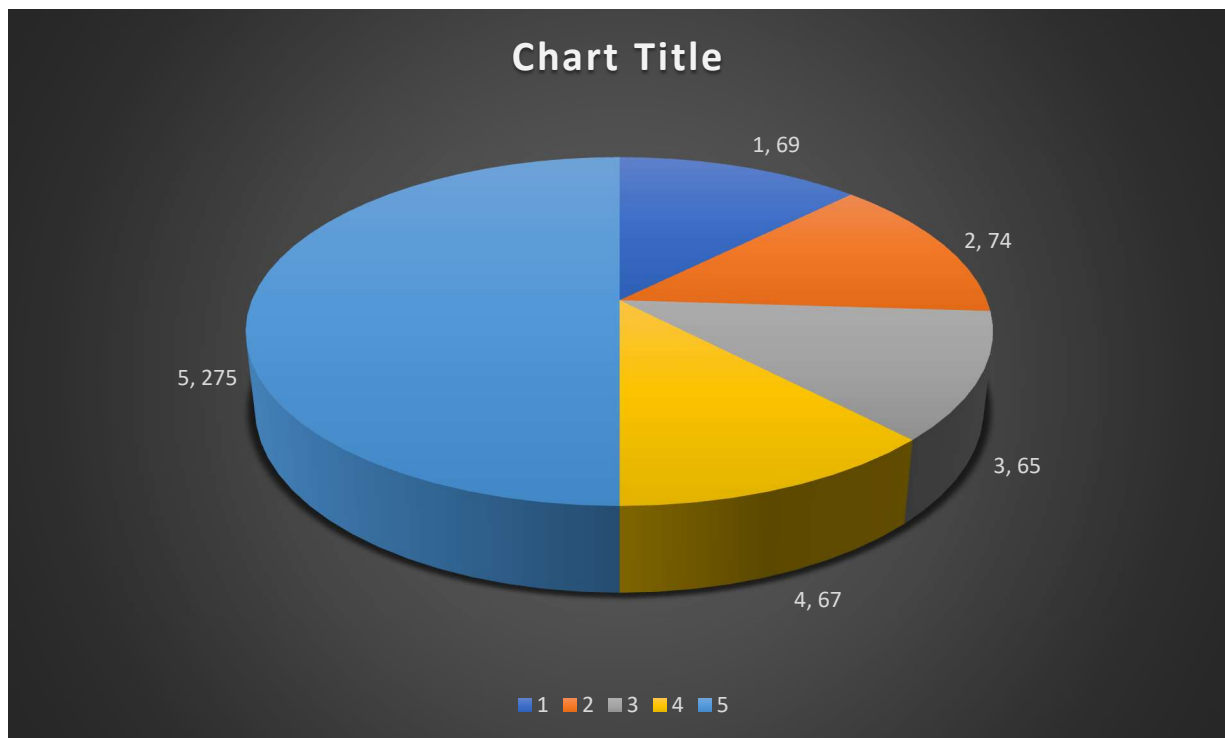
Inference

Majority of responses is 33,000 was higher the number of patients wants

4.13 Table How makes patient choose a particular hospital.

Choices of patients	No of response	No of percentage
Qualified doctors	69	34%
Banners special surgery's	74	36.5
Doctors counseling	65	32%
Patients wants	67	33%

4.13 Chart makes patient choose a particular hospital.



Interpretation

Patients choose of particular hospitals or clinics qualifies doctors 69 34% banner special surgery 74 36.5 doctors counseling 65 32% patients wants

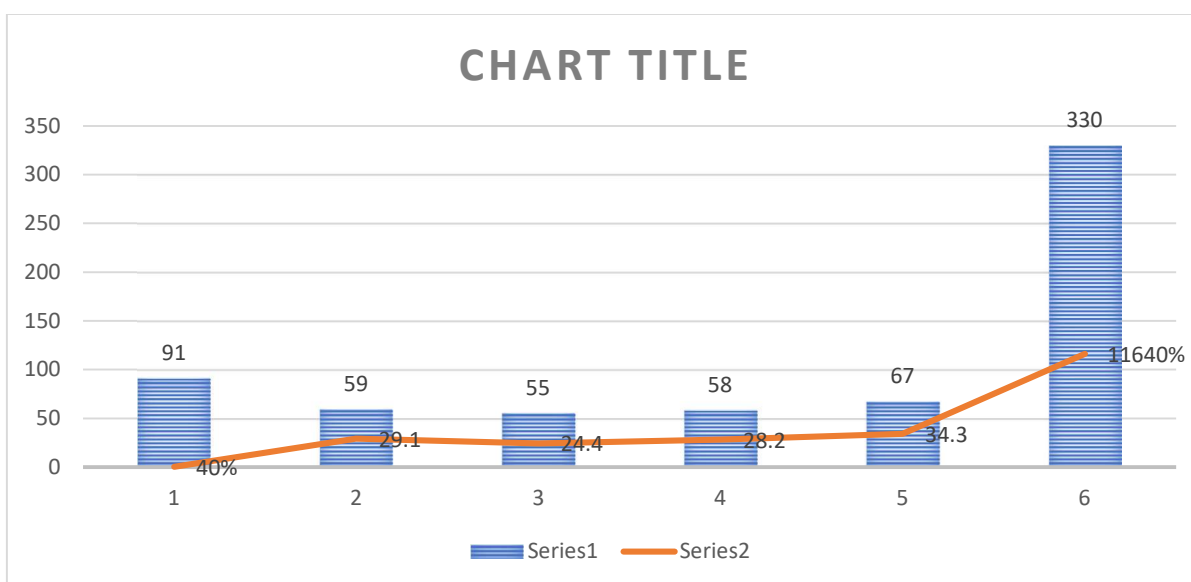
Inference

Major of Patients wants is majority of response 74 36.5.

4.14 Table of We had a lower cost of implants will be a fixable price that will serve a long-term of duration works.

Implants serving long	No of response	No of percentage
Skull implants	91	40%
Spain implants	59	29.1
Chest implants	55	24.4
Harms implants	58	28.2
Knee implant	67	34.3

4.14 Chart lower cost of implants and it will be a fixable price it well serving long term of duration works



Interpretation

Table takes about the skull implants 91 40% chest implants 55 24.4 Spain implant 59 29.1 harms implants 58 28.2 knee implants percentage and response

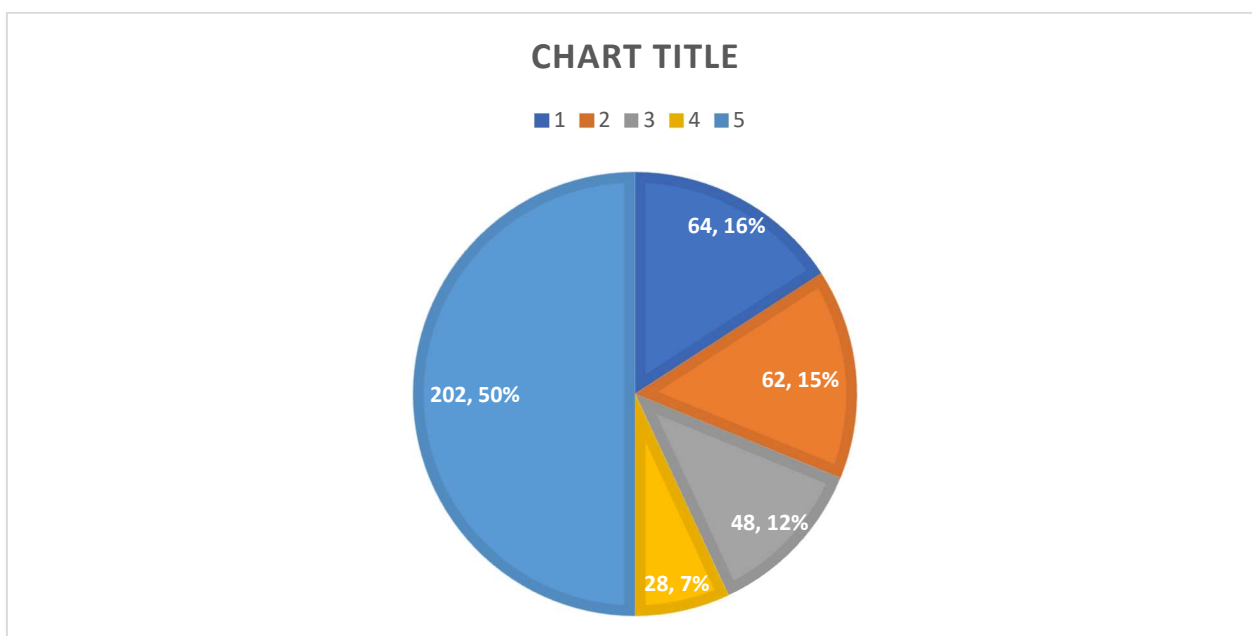
Inference

Major of 91 40% is the maximum of responses' higher.

4.15 Table Which surgical brands of implants are too useful for the patient and doctors?.

Brand	No of response	No of percentage
Depuysenthes	64	31.5
Cliniva health care	62	30.5
Bond + well	48	24.1
Aadvin	28	13.8

4.15 Chart surgical brand of implants are very useful to the patient and doctors.



Interpretation

The table talks about Depuysenthes 64 31.5 Cliniva health care 62 30.5 Bond + well 48 24.1 Aadvin 28 13.8 response.

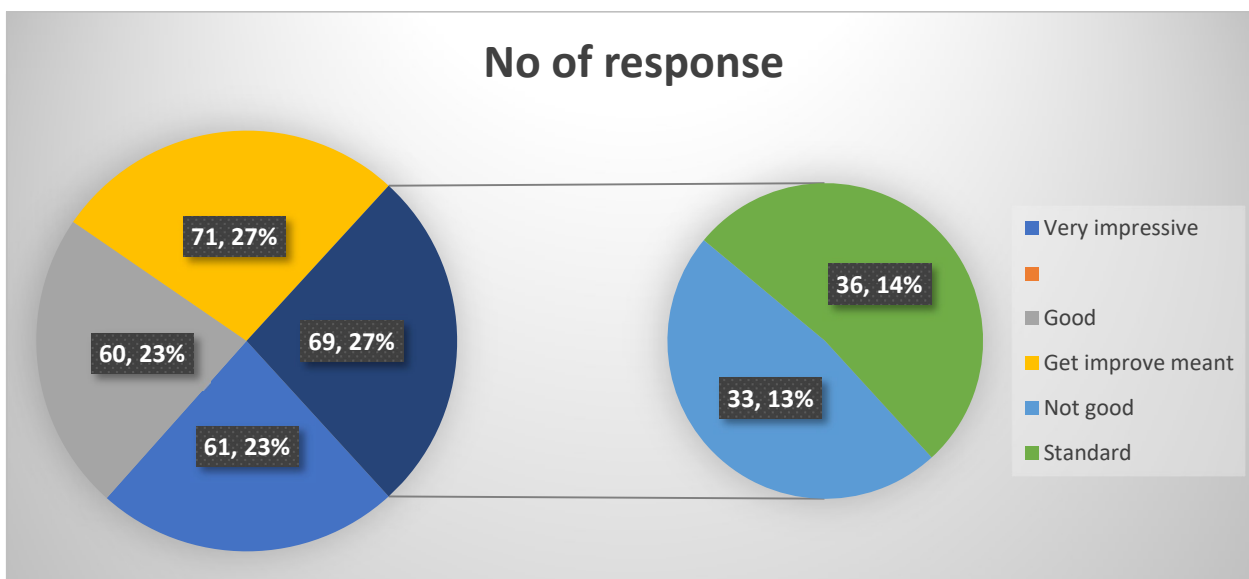
Inference

Major of higher response is depuysenthes 64 31.5.

4.15 Table how is the timekeeping on the surgery and delivery of implant on the time.

Time keeping	No of response	No of percentage
Very impressive	61	30%
Good	60	24.6
Get improve meant	71	36%
Not good	33	16.3
Standard	36	17.7

4.15 Chart time keeping on the surgery and delivery the implant on the time.



Interpretation

time keeping on the surgery and delivery of implant on the time very impressive 61 30%percentages good 60 24.6 response get improve meant 71 36% not good 33 16.3 standard 36 17.7 response

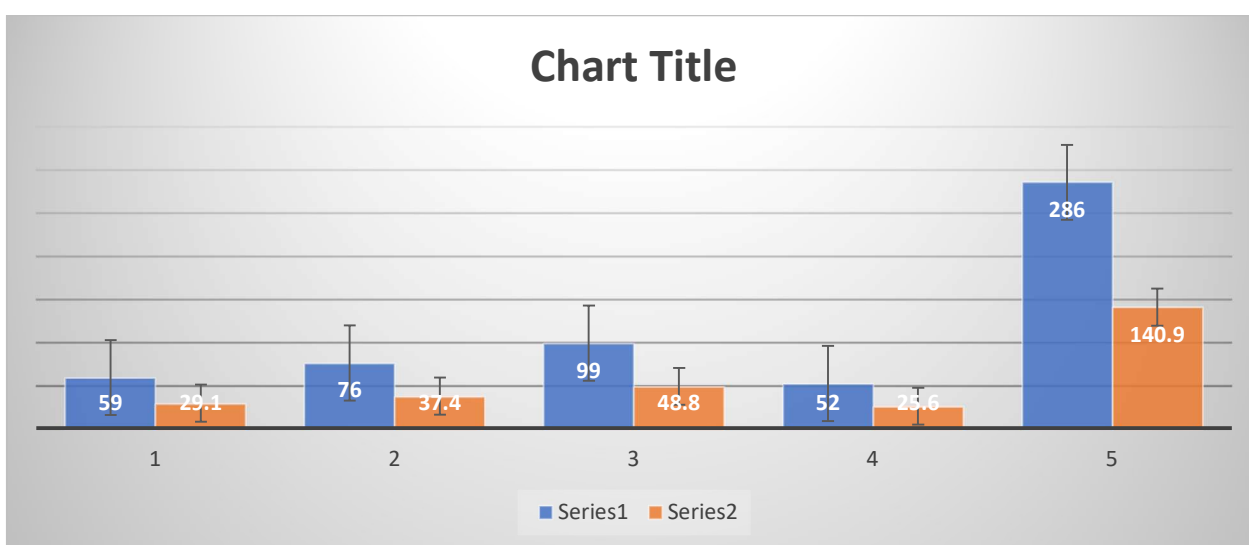
Inference

Major of 71 responses and 36% of percentage is maximum level.

4.16. Table of orthopedic instruments are manufactory companies so many which one is preferable?.

Manufacture company	No of response	No of percentage
Jayon implement pv.ltd	59	29.1
Universal surgical equipment	76	37.4
Sateen bio metical	99	48.8
Orthopedic technologies	52	25.6

4.16 Chart instruments are manufactory companies so many which one is preferable.



Interpretation

manufactory companies so many which one is preferable Jayon implement p.v.ltd 59 29.1 Universal surgical equipment 79 37.4 Sateen bio metical 99 48.8 Orthopedic technologies 52 25.6 percentages and responses'

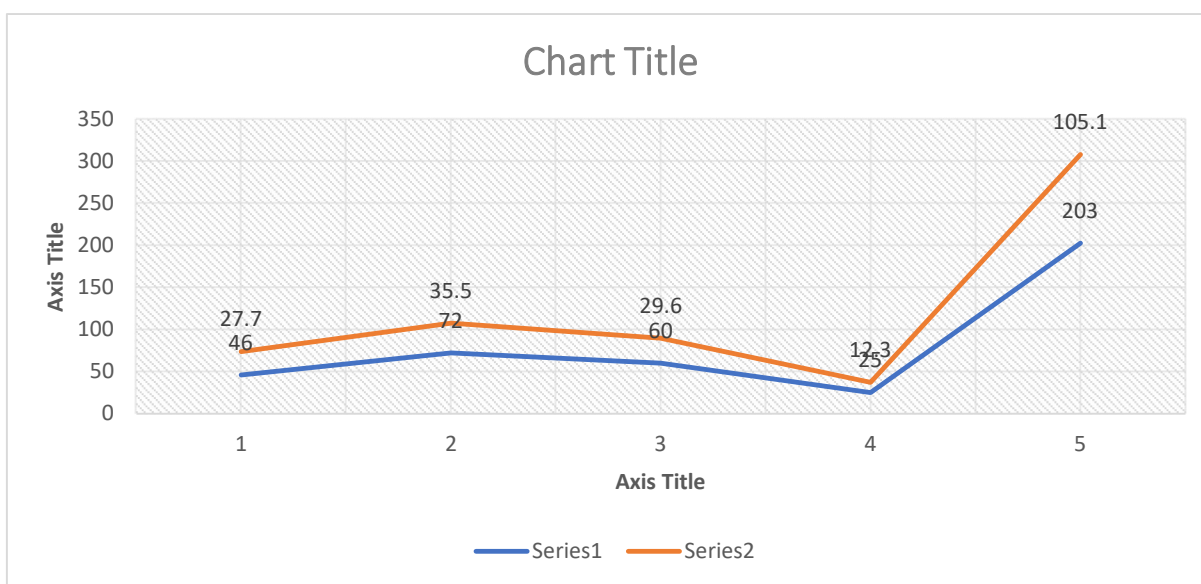
Inference

Major of 79 37.8 universal surgical equipment is higher response.

4.17 Table of What is the process of having clients and hospitals discuss and then getting the instrument fix?

Client implant discussing	No of response	No of percentage
Problem of client	46	27.7
Fixing point of body	72	35.5
Major injuries	60	29.6
Any other	25	12.3

4.17 Chart process having client and hospitals discussing then get the instrument fix.



Interpretation

Above table list out the problem of clients response 46 27.7 fixing point 72 35.5 of body major 60 29.6 any others 25 12.3 response.

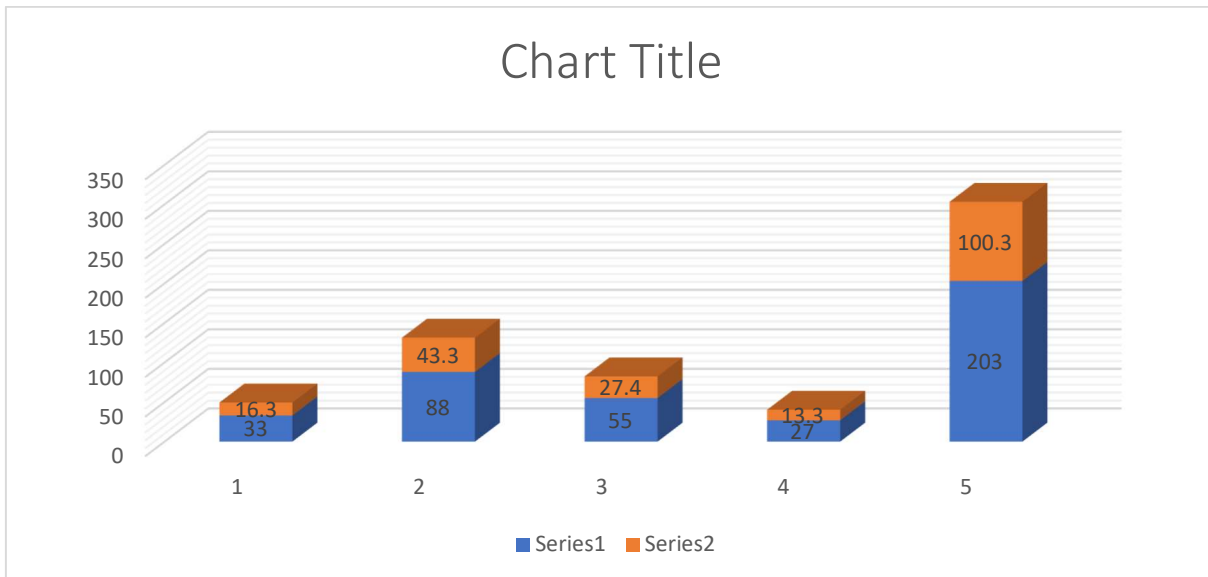
Inference

Major is fixing point 72 and 35.5 response of percentage is higher.

4.18 Table Is our product having any issues with passing implants or existing periods of implant time

Implant issues	No of response	No of percentage
No issues	33	16.3
Some pain issues	88	43.3
Dislocate issues	55	27.4
Perfect	27	13.3

4.18 Chart product having any issues of passing implants or existing period of implant time



Interpretation

Table verify the customers no issues is 33 responses 16.3 percentage some pain issues 88 43.3 dislocate 55 27.4 case perfect 27 13.3 percentages

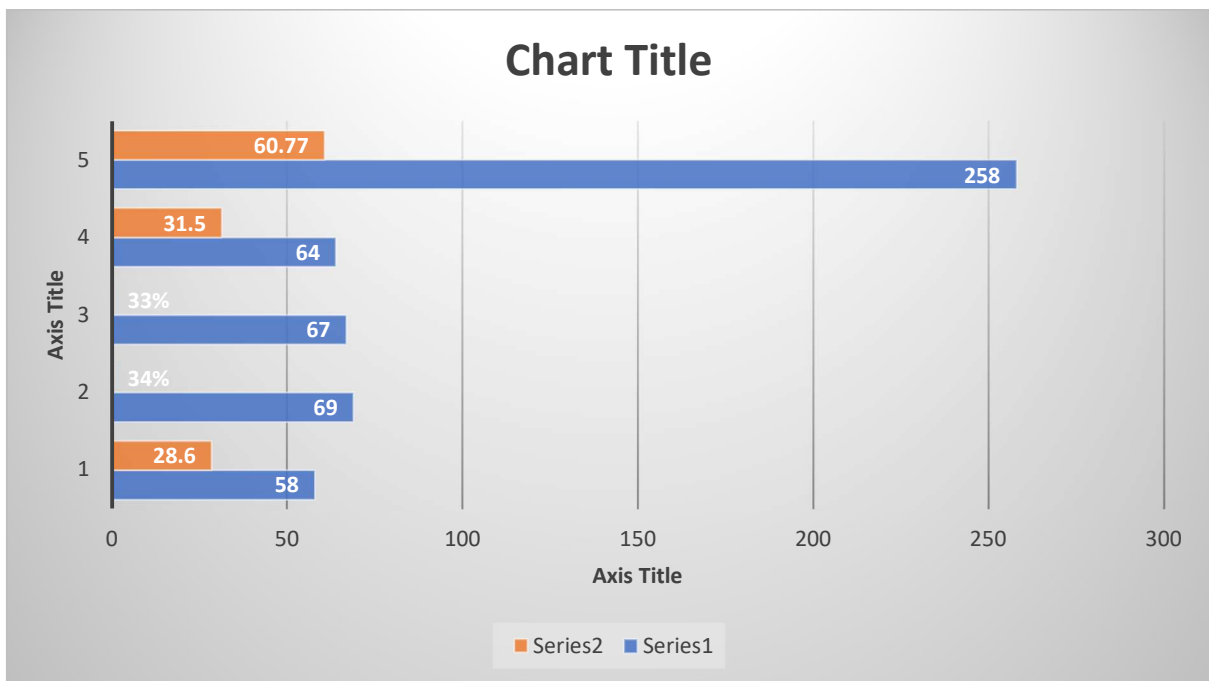
Inference

Major of the percentage and response is 88 and 43.3 level is higher.

4.20 Table Tell me about the orthopedic instrument are having in your body and how it feels

Feels of customers	No of response	No of percentage
Disturbance some times	58	28.6
Reliving in to the pain	69	34%
Nothing just normal	67	33%
Some pain	64	31.5

4.20 Chart about the orthopedic instrument is having in your body how it feels.



Interpretation

The same pain and nothing just normal 67 33% some pain 64 31.5% reliving in the pain 69 34% disturbance sometimes 58 28.6 percentages.

Inference

The major of 69 34 percentage of reliving pain is higher

4.2.1 STATISTICAL ANALYSIS

4.2.1 CHI SQUARE

H0: there is no significant association between the type of implant quality of years goes over how it works and perfumes.

H1: it is signified between the type of implant quality of years goes over how it works and perfumes.

Value	Observed N	Expected N	Residual
1 years	57	50.75	6.25
6 months	68	50.75	17.25
2 years	28	50.75	-22.75
3 years ago,	50	50.75	-.75
Total	203		

quality

Value	Observed N	Expected N	Residual
Positively	64	50.75	13.25
Negatively	44	50.75	-6.75
not better	29	50.75	-21.75
Standard	66	50.75	15.25
Total	203		

Test Statistics

	Chi-square	Df	Asymp. Sig.
Years having implant	16.84	3	.001
Quality	18.26	3	.000

INFERENCE

Since the value of the test is (203) .001 asymp.sig we accept the null hypothesis is no significant association between the type of implant quality of years goes over how it works and perfumes.

4.22 CORRELATION

4.2.2 Correlation of the table of brand implant and implants performing customers.

H0: there is no significant association between the type of brand and implant existing period in customers a lifetime.

H1: there is a significant association between the type of brand and implant existing period in the customer's lifetime.

		brand	Implants
Brand	Pearson Correlation	1.000	.657
	Sig. (2-tailed)		.000
	N	203	203
Implants	Pearson Correlation	.657	1.000
	Sig. (2-tailed)	.000	
	N	203	203

Inference:

Since the p-value was come (0.00) is > 0.05 we accept the null hypothesis there is no significant association between the type of brand and implant existing period in the customer's lifetime.

Chapter -5

findings, suggestions and Conclusion

5.1 Findings;

- Major of the 45-60 age is higher the level of percentage is 33.0. The majority of private hospital is higher 93 (45.8) patients.
- Major of the 76 responses of the 41k-101k was the best at 29.4 percent higher.
- The majority of responses are 68 33.5% then 6 months comes years of 1-year duration patients is higher.
- Major of the response is 62 and the percentage is 30.5 higher.
- Major of the product quality higher is 87 product flexibility 39.1%.
- Major of the metal hip implant 57 28.1 response percentage.
- Major of the common implants is 95 46.8% higher than the angled jaws
- Major of 64 31.5% shoulder replacement higher response.
- Major of the positive comes from the 77 responses and 35.5 percent.
- The majority of responses 33,000 was higher than the number of patients who want
- Major of the Patients want is a majority of response 74 36.5.
- A major of 91 40% is the maximum of responses higher.
- Major of the higher response is depuy-senathes 64 31.5
- Major of the 71 responses and 36% of the percentage is the maximum level.
- Major of the 79 37.8 universal surgical equipment is a higher response
- Major is fixing point 72 and the 35.5 response of percentage is higher.
- Major of the percentage and response is 88 and the 43.3 level is higher.
- The major of 69 34 percent of relieving pain is higher.
- The major or male are higher 104 (51.6) response female to higher of equal.

5.2 suggestions;

On the basis of my survey, it is found that orthopedic implants provider of Sri Sai agencies satisfied they are customers and implants holders then doctor of hospitals and clinics.

Analyze the data. In individual customers fix nonproductive marketing efforts first identified the issues of existing period time.

Focus on top customer.

Just company doing producing implants and delivering hospitals focusing on the customer's implant.

Solving the issues in cost of implants.

Books; Titanium and Titanium Alloys, Relevant Biologic Activity, Clinically Relevant Mechanical Properties, surgically Applicable Machining Properties

Websites; <https://www.bing.com/search?q=orthopetical+implants+web+sits&qsn&form=QBRE&sp=-1&ghc=1&lq=0&pq=orthopetical+implants+web+sits&sc=7-30&sk=&cvid=688AAA81EFB9420B8144021FECED13BC&ghsh=0&ghacc=0&ghpl=#>

5.3 LIMITATIONS

for anything, there should be some limitations like my projects also having some limitations. Following are some limitations that I faced.

- The limitation of the study it becomes 200 customers of orthopaedic implants.
- Availability of Data is the primary customer of data collection.
- customers having some kind of limitation of having because of the duration of the product performance.

5.4 Conclusion

In this report study of the medical implant of Sri, Sai agencies had to find out the customer of implant holders and customers of hospitals and doctors in clinics these all want to identify whether the implant is running successfully safe and healthy than any part of issues finds out and then clear that issues the total of all these theses are find out some answers in the report. Each response of customers tells implants are a very impressive product that achieved customer benefits and trust.

The solution of the report is the major of the response decided the solution of the problem the main solution is highly implanted are buying day to day and the customers of implants holders are normally living being and product was satisfied the customers on the years ago having an implant in the body. The methodological solution of the implant is the brand and quality of the product then implants are fixed a patient's body years ago it will be performing better. the report of the study finds out the medical implant's product company produced price level of benefits for customer lower cost upper cost all amount is having implants of Sri Sai agencies are medical business successful and they grabbed the customer's belief and trust over the years of medical orthopedic implants and customer satisfaction over the product.

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APPENDIX

QUESTIONARIE

1. NAME;

2. AGE;

- 25-30
- 30-45
- 40-55
- 50-60

3. GENDER;

- Male
- Female
- Others

4. Hospital

- Government hospitals
- Privet hospitals
- Clinics

5. How many years of you had an implant

- 1 year ago
- 6 months ago
- 2 years ago
- Last 3 years

6. Table annual salary of customers.

- 12,00,000-25,00,000
- 4,00,000-10,00,000
- 15,00,000-20,00,000

- 25,00,000-45,00,000
 - None of above
7. What kind of orthopedic patient are you
- Knee Replacement Surgery
 - Shoulder Replacement Surgery
 - hip replacement surgery
 - Spinal surgery
8. How the Product quality on consumer trust in Orthopedic implant products at Sri Sai Agenesis.
- trustable
 - good
 - not trustable
 - none of above
9. What is the powerful implant when performing rehabilitation during a period not suffering the patient.
- Hernia Surgical Mesh Implants.
 - Metal-on-Metal Hip Implants.
 - Breast Implants.
 - Cochlear Implants
10. What are the common implants of using in orthopedic surgeries?.
- suture anchors
 - surgical spoons
 - angled jaws
 - instrument trays
11. What kind of patients are during to come over for surgery of orthopedic.

- ACL Reconstruction Surgery.
- Knee Replacement Surgery.
- Shoulder Replacement Surgery.
- Hip Replacement Surgery.
- Knee Arthroscopy.

12. The implant quality of years goes over how it works and perfumes.

- Positively
- Not at all
- Negatively
- Not applicable

13. What are the orthopedic instruments suture anchors, surgical spoons, angled jaws, and implant trays are affectable price in patiently to buying?.

- 20,000
- 5,000
- 7,999
- 33,5000

14. How makes patient choose a particular hospital

- Qualified doctors
- Banners special surgery's
- Doctors counseling
- Patients wants

15. We had a lower cost of implants will be a fixable price that will serve a long-term of duration works

- Satisfaction

- Dissatisfaction
- Neutral
- Highly satisfaction
- Highly dissatisfaction

16. Which surgical brands of implants are too useful for the patient and doctors?

- Depuysenthes
- Cliniva health care
- Bond + well
- Aadvin

17. how is the timekeeping on the surgery and delivery of implant on the time?.

Very impressive	Higher	Very higher	Lower	Very lower
Good				
Get improve meant				
Not good				
Standard				

18. The orthopedic instruments are manufactory companies so many which one is preferable?

- Jayon implement pv.ltd
- Universal surgical equipment
- Sateen bio metical
- Orthopedic technologies

19. What is the process of having clients and hospitals discuss and then getting the instrument fix?

- Problem of client
- Fixing point of body
- Major injuries
- Any other

20. Tell me about the orthopedic instrument are having in your body and how it feels.

- Disturbance some times
- Reliving in to the pain
- Nothing just normal
- Some pain

21. Is our product having any issues with passing implants or existing periods of implant time

- No issues
- Some pain issues
- Dislocate issues
- Perfect