

Level of Satisfaction among Patients who Underwent Cesarean Section Under Spinal Anesthesia in a Hospital in Rajasthan

Dr. Sunakshi Bhatia¹, Dr. S. P. Chittora², Dr. Mishal³

¹PG Resident

²Head of Department

³Senior Resident

Abstract: ***Background and aims:** This study evaluated the satisfaction levels with service provided by anesthesiologists to the post-partum females who underwent lower segment caesarean section after spinal anesthesia. Methods: 590 parturients operated at SRG Hospital Jhalawar were surveyed and satisfaction level were analyzed in terms of General Information, Anesthesiologist data, Fear statistics, Peri-operative Service, Intra-operative Service, Discomfort And Needs. Additionally awareness about involvement of anesthesiologist in patient care was inquired. **Results:** Almost all of the patients were satisfied with preoperative information provided. However, deeper evaluation revealed that 0.8% failed to understand due to labour pain. Of those who confirmed being dissatisfied, 36.9% feared pain post-surgery, 31.2% patients complained lack of privacy, 33% were averse with long postoperative wait-time, 77.1% described the procedure to be painful while others were multiple attempts, and inadequate attention to post-op complaints. The overall dissatisfaction level was 8.5% and 3.4% of patients were not willing to undergo the same procedure at the institute again. In addition, 25% of patients had knowledge of involvement of anesthesiologist in patient care. **Conclusion:** The patients demonstrated a high rate of satisfaction but not without significant dissatisfaction with consideration to privacy, unsatisfactory counseling prolonged transit time post-surgery to ward admission, lack of proper level of attention to complain. Hence ensuring the better counseling, decreasing number of pricks and proper training of staff with regard to maintain the patient-privacy can improve satisfaction level along with awareness about importance of anesthesiologist.*

Keywords: maternal satisfaction

1. Introduction

Subarachnoid Block for cesarean section is an old and well-established method for cesarean delivery performed by injecting small amounts of local anesthetic agent into the cerebro-spinal fluid. Several studies have shown the relative benefits of neuraxial anesthesia compared with general anesthesia, such as decreased blood loss, need for blood transfusion, rates of thromboembolic events, rates of surgical site infection as well as rapid onset, high frequency of successful blockade, easy to perform all culminating in excellent operating conditions for the surgery [1, 2].

Juhani TP [3] deduced that when compared with General Anesthesia, Subarachnoid Block has advantages like awake mother with intact airway reflexes, lower rates of deep venous thromboembolism and cardiac events, decreased need for post-operative analgesia, minimal neonatal depression etc. hence an overall better fetomaternal outcome.

A recent randomized control trial by Teoh WH [4] describes benefits of earlier intravenous cannula removal, ambulation, breast-feeding initiation and potential for shorter hospitalization after caesarean delivery under spinal anesthesia. A recent study by Kaur, Harmanjyot [5], showed benefits of earlier intravenous cannula removal, ambulation, Keeping mothers and newborns together after caesarean section and early ambulating has got several benefits and potential for shorter hospitalization period after caesarean delivery under Subarachnoid Block hence concluding in higher turnover and less strain on health system.

The development of finer spinal needles and better local anesthetic agents like bupivacaine and levo-bupivacain, a deeper understanding of pathophysiology of hypotension and all the other benefits mentioned above, have led to rise in popularity of this type of anesthesia [6].

From economic standpoint, a study done by S Waris [7] tells that In Pakistan, Subarachnoid Block remains popular amongst the anesthetists owing to its cost-effectiveness.

Anesthesia technique for any caesarean section depends on factors such as the indication of surgery, urgency of surgery, economics of the hospital and patient's as well as surgeon's desire. [8]

Anesthesiologists always prefer the method, which leads to better fetomaternal operative outcomes and the optimal working conditions for the obstetrician.

Despite these, patient satisfaction is one of the meaningful indicators of patient's experience during her stay at the hospital. Satisfaction is now considered a valuable measure of outcome of healthcare processes [9].

In several countries, it has become a major step in health institution accreditation processes [10].

Moreover, satisfaction may have an important influence on various aspects of patient's behavior, such as global consumption of healthcare resources, compliance with treatments, or steadiness of relationship with practitioners

[11]. It is a subjective and complex concept involving physical, emotional, mental, social, and cultural factors [12].

Patient satisfaction is thus a proxy but a very effective indicator to measure the success of doctors and hospitals. Patient satisfaction affects clinical outcomes, patient retention, and medical malpractice claims. It affects the timely, efficient, and patient-centered delivery of quality health care. [13]

In absence of remedial measures, procedural discomfort and complications or indifference towards concerns of the parturient from staff might lead to a version of the technique and compel patients to prefer General Anesthesia or another healthcare facility in significant population, which might hinder profits of private business setting. Patient's views became an important tool in the processes of monitoring and improving quality of health care services.

Considering the perspective of clinicians, a study concluded, 78% of clinicians reported patient satisfaction scores moderately or severely affected their job satisfaction negatively, and 28% of the scores made them consider quitting [3]. This should be taken into account looking at the current trend of decreasing job satisfaction rates among so-called white-collar jobs. For reasons stated above, evaluation of services by patients should be an integral part of continuous quality improvement in anesthesia. Therefore, it is important to identify the factors for patient dissatisfaction. [14]

This study was aimed to evaluate the quality of in hospital patient stay and to Assess patient experience and satisfaction level along with highlighting factors causing dissatisfaction and probable future refusal for subarachnoid block in subsequent pregnancy.

The study had an added benefit of spreading awareness and improving perception of pregnant women as well as local population about the field of Anesthesiology.

2. Methodology

After getting approval from ethical committee, a hospital-based cross-sectional study was conducted and evaluated on 600 married pregnant female patients who underwent caesarean section under subarachnoid blocks in the operating rooms of Janana Hospital Jhalawar, Rajasthan over 6 months. Both elective and emergency cesarean sections were included.

3. Results

After compilation of data following were the results.

1) General Information (6)

1. BMI (after surgery)	>25 value	<25 value
No. of patients	159	431
%	26.9	73.1
2. Employment status	Employed	Unemployed
No. of patients	50	540

Patients who were Included were, Age 18 or older, Elective and emergent cesarean deliveries, Primary and repeat cesarean sections, Single and multiple gestations, Able and willing to provide written informed consent

In case of inadequate or failed spinal anesthesia, if the caesarean section was performed under general anaesthesia, Patients with psychological disorders and language barriers were excluded from the study

In the patient receiving room, each patient were explained the risk and complications of anesthesia, what to expect inside the Operation Theater and purpose of presence of a specialized doctor other than surgeon. Patient characteristics, significant past history, previous experience and knowledge with anesthesia were recorded. Inside the OT, each patient was connected to vitals, preloaded with RL at 15ml/kg, aspiration prophylaxis was administered, given lateral position and given the subarachnoid block [with prior intradermal lignocaine 1ml infiltration only in case of elective surgery] using 25 G Quinke's Needle and 0.5% hyperbaric Bupivacain [dose calculated according to height and number of attempts were recorded. Intraoperative complications including nausea/vomiting, hypotension, shivering, inadequate analgesia etc. were also recorded. Post-operatively survey was done on procedural anesthesiologist and his/her responses were recorded. A day after the surgery, patients were surveyed by another trained anesthesia personnel who was not directly involved in that patient's care using a constructed questionnaire and 5 point Likert scales. The trained personnel, even though changed frequently, their assessment of patient response were standardized.

During the study 10 cases were converted to general anesthesia due to intra-op seizure or inappropriate block effect etc. . A total of 600 patients were given subarachnoid block. So finally, 590 patients were surveyed.

The questionnaire was inspired from various sources and it had ten components comprising of a total of 38 items which included General Information [6 items], Anesthesiologist data [2 items], Fear statistics [5 items], Patient satisfaction [4 items], Peri-operative services [4 items], Intra-operative Service [6 items], Discomfort and Needs [6 items], Overall satisfaction [5 items]. All questions were asked in English, Hindi or the mother tongue of the patient. Satisfaction and understanding about anesthetist's explanation regarding mode of anesthesia, satisfaction in receiving spinal anesthesia, adverse effects and willingness to accept or refuse spinal anesthesia for a similar surgery again and its reasoning.

%	8.5	91.5
3. Gravida	Primi-gravida	Multigravida
No. of patients	240	350
%	40.7	59.3
4. Type of surgery	Elective	Emergency
No. of patients	109	481
%	18.5	81.5
5. Previous anesthesia exposure	Yes	No
No. of patients	97	493
%	16.4	83.6
6. Significant medical history	Present	Not present
No. of patients	7	583
%	1.2	98.8

Previous cesarean section was the most common indication of cesarean delivery (40% approx) followed by non-reassuring the fetal heart rate pattern (20% approx.)

Patients that had history of same procedure-97 (16.4%)

2) Anesthesiologist data (2)

1. Number of attempts	No. of patients	%
1	418	70.8
2	155	26.2
More than 2	17	2.9
2. Incidence of complication intraoperative that required intervention	91	15.4

Patients that required intra-operative intervention of any sort-91 (15.4%)

3) Fear statistics (5)

1. Were you afraid of staying awake during the surgery?					
Parameter of fear	Not at all	A little bit	Moderately	Quite a bit	Extremely
No. of patients	109	105	320	49	7
%	18.5	0.3	54.2	8.3	1.2

2. Were you afraid of not waking up after the operation?					
Parameter of fear	Not at all	A little bit	Moderately	Quite a bit	Extremely
No. of patients	306	117	106	59	2
%	51.9	19.8	18	10	0.3

3. Were you afraid of seeing the operating room?					
Parameter of fear	Not at all	A little bit	Moderately	Quite a bit	Extremely
No. of patients	14	252	298	21	5
%	2.4	42.3	51	4	0.9

4. Were you afraid of pain after the surgery?					
Parameter of fear	Not at all	A little bit	Moderately	Quite a bit	Extremely
No. of patients	42	277	54	212	5
%	7.1	47	9.2	36	0.9

5. Were you afraid of mistakes by the doctor?					
Parameter of fear	Not at all	A little bit	Moderately	Quite a bit	Extremely
No. of patients	431	112	37	7	3
%	73.1	19	6.3	1.2	1

No. of patients fearing being left conscious intraoperative was 56 (9.5%)

Patients were most afraid of pain after the surgery-217 (36.9%)

Patient satisfaction intra-operatively (4)

1. To what degree were you satisfied with the staff of the OT taking into account your privacy?					
Parameter of satisfaction	Completely dissatisfied	Dissatisfied	Neither satisfied, nor dissatisfied	Satisfied	Completely satisfied
No. of patients	14	170	107	289	10
%	2.4	28.8	18.1	49	1.7

2. To what degree were you had confidence in staff?					
Parameter of satisfaction	Completely dissatisfied	Dissatisfied	Neither satisfied, nor dissatisfied	Satisfied	Completely satisfied
No. of patients	3	20	105	390	72
%	0.5	3.4	17.8	66.1	12.2

3. To what degree did you find the staff of the OT professional?					
Parameter of satisfaction	Completely dissatisfied	Dissatisfied	Neither satisfied, nor dissatisfied	Satisfied	Completely satisfied
No. of patients	8	71	81	379	51
%	1.4	12	13.7	64.2	8.6

4. To what degree were you satisfied with the attention given to your questions and complaints like pain and nausea if any?					
Parameter of satisfaction	Completely dissatisfied	Dissatisfied	Neither satisfied, nor dissatisfied	Satisfied	Completely satisfied
No. of patients	19	89	64	351	67
%	3.2	15.1	10.9	59.5	11.4

Patients were mainly dissatisfied with the operation theater staff not taking account of the privacy= 184 (31.2%)

4) Peri-operative Service (4)

1. Were you operated on agreed date and time?		
Degree	Yes	No
No. of patients [out of 109]	87	22
%	79.8	20.2

2. How long did you find the waiting time between your arrival at the OT and the operation?				
Degree	Too long	Long	Just right	Too short
No. of patients	9	57	45	479
%	1.5	9.6	7.6	81.2

3. How long did you find the waiting time between your time spent in the recovery room and your leaving of the OT?				
Degree	Too long	Long	Just right	Too short
No. of patients	104	91	306	89
%	17.6	15.4	51.9	15.1

4. To what degree were you satisfied with explanation done in the preoperative Visit? [Out of 109]					
Degree	Completely dissatisfied	Dissatisfied	Neither satisfied, nor dissatisfied	Satisfied	Completely satisfied
No. of patients	4	20	27	43	15
%	3.7	18.4	24.8	39.5	13.8

Patients were mainly dissatisfied with the long waiting time postoperatively to be taken into the ward= 195 (33%)

5) Intra-operative Service (6)

1. Did the anesthesiologist take too much time to do the procedure?		
Degree	Yes	No
No. of patients	45	545
%	7.6	92.4

2. Were you in comfortable positions while giving spinal block?		
Degree	Yes	No
No. of patients	294	296
%	49.8	50.2

3. Was the procedure done by the anesthesiologist painful?		
Degree	Yes	No
No. of patients	455	135
%	77.1	22.9

4. Did you have any intraoperative and compliant like pain?		
Degree	Yes	No
No. of patients	8	582
%	1.4	98.6

5. Were they resolved after coming to the attention of the anesthesiologist?		
Degree	Yes	No
No. of patients	8	0
%	100	0

5. To what degree was it painful? (Out of 455)			
Degree	Minimum	Mild	Moderate
No. of patients	400	41	14
%	88	9	3

Most common complaint was that the patients found the procedure painful =445 (77.1%) and 14 said moderately

(6) Discomfort And Needs (6)

1. To what degree did you had postoperative pain at the site of surgery?					
Parameter of pain	Not at all	A little bit	Moderately	Quite a bit	Extremely
No. of patients	14	496	57	21	8
%	2.4	84.1	9.7	3.6	1.4

2. To what degree did you after the operation had back pain?					
Parameter of pain	Not at all	A little bit	Moderately	Quite a bit	Extremely
No. of patients	63	459	57	11	0
%	10.7	77.8	9.7	1.9	0

3. To what degree did you after the operation had postoperative cold?					
Parameter of pain	Not at all	A little bit	Moderately	Quite a bit	Extremely
No. of patients	481	81	27	0	0
%	81.5	13.7	4.6	0	0

4. Did you have any nausea or vomiting after the surgery?		
PONV	Yes	No
No. of patients	213	377
%	36.1	63.9

5. Did you have hunger/thirst after the surgery?		
Hunger/thirst	Yes	No
No. of patients	185	405
%	32	68.6

6. Did you have headache/ PDPH after the surgery?		
PDPH	Yes	No
No. of patients	2	588
%	0.3	99.7

Nausea or vomiting was the most common complain =213 (36.1%)

7) Overall satisfaction (5)

1. To what degree you were satisfied with pain relief after surgery?					
Parameter of satisfaction	Not at all	A little bit	Moderately	Quite a bit	Extremely
No. of patients	8	21	57	490	14
%	1.4	3.6	9.7	83.1	2.4

2. How satisfied were you with the treatment of your complaints after the operation?					
Parameter of satisfaction	Not at all	A little bit	Moderately	Quite a bit	Extremely
No. of patients	14	194	264	103	12
%	2.3	32.8	44.7	17.4	2

3. To what degree you were satisfied with pre-operative information provided just before the surgery?					
Parameter of satisfaction	Not at all	A little bit	Moderately	Quite a bit	Extremely
No. of patients	19	78	168	289	36
%	3.2	13.2	28.5	49	6.1

4. How would you rate the quality of your overall care by the anesthetist?				
Parameter of quality of care		Poor	Average	Good
No. of patients		7	75	508
%		1.2	12.7	86.1

5. How was this time compared any previous experience?				
Degree	Better	Worse	Same	Not applicable
No. of patients	30	4	63	424
%	5.1	0.7	1.1	71.9

6. Will you be willing to undergo same procedure if need arises in future at our institute?			
Degree	Yes	No	May be
No. of patients	540	20	30
%	91.5	3.4	5

5 patients were unable to understand due to distraction by labour pain so their replies were included in moderate section. No. of patients who are unwilling the undergo the same procedure in future if need arises = 20 (3.4%) and 91.5% are willing (overall satisfaction indicator)

No. of patients not satisfied with the treatment for their complaints after the operation=208 (35.2%)

*The anesthesiologist visited all patients before taking into the OT conversely all patients confirmed being visited by the anesthesiologist. We considered the sum of extremes as significant value.

An additional question was asked to the patient about their knowledge of Presence of a doctor apart from their surgeon responsible for taking care of the patient and ensuring pain and complication free experience of the surgery. It was found that only 25% of patients knew of the same.

4. Discussion

Researching patient satisfaction is important for understanding the problems that patients experience from Subarachnoid block, and can be an efficient tool in improving the quality of service in the healthcare as well as patient experience for any facility.

Hence for this study, multidimensional perspectives were considered as predictors of patient satisfaction in our

institute. Referring the study done in 2005 by P. Auquier et al. we estimated from that attention, privacy, information, pain, discomfort, and waiting can be inculcated in one form or the other as they reflect a relevant content validity [14]and might be good predictors of satisfaction level. Several aspects of perioperative care that were thought to likely influence maternal satisfaction were assessed based on different perspectives in the preoperative visit and information communication between the mothers and the anesthesia provider, intraoperative patient care and quality of management, and overall interaction between the staffs and the parturient.

Although most studies done previously report high satisfaction levels for spinal anesthesia in cesarean section, the satisfaction rate can be overestimated because patients like to please service providers by replying 'satisfied' [15]. To overcome this limitation, trained personals that were not directly involved in that patient's care were assigned to perform the survey.

In study done by Samuel Debas Bayable in 2020 [14], satisfaction with preanesthesia information session was 29.1%, which is relatively low compared with Dharmalingam and Ahmad Zainuddin (98%) [17], Shisanya and Morema [18] (36%), and Makoko et al. (67.1%) [19]. In our study it was found to be 55.1% for immediate preoperative information and 53.3% (planned surgeries) for those who were explained in a scheduled session.

Also on evaluation of the understanding of these explanations among the patients revealed that 5 (0.8%) of the patients failed to completely understand because they were unable to concentrate on the explanations due to ongoing labour pain. This was predominantly observed among emergency cases that were in active phase of labor.

In the study done by Roy K. Esakin 2009 he demonstrated that patients not undergoing general anesthesia most often expect and subjectively experience total unconsciousness. The perception of any sensory stimuli beyond unconsciousness might thus be misinterpreted as unintended intraoperative awareness and recall. The potential for such misinterpretation, anesthesia providers should clearly set appropriate expectations preoperatively. Hence in our study we made a point to explain that it clearly to the patient that she will remain conscious and will be able to communicate with anesthesia provider and also by informing the patient about advantages of regional anesthesia over general anesthesia and potential complications of the same. Consequently complain being left conscious intraoperative was in less percentage (9.5%) [20].

In the study done by T. Bashir, A. Shahzadin 2011 to determine the patients' dissatisfaction after spinal anesthesia, showed the following factors resulted in patient dissatisfaction; increasing number of attempts of spinal block, procedural pain during spinal block, inadequate perioperative analgesia and post-operative urinary retention [12]. In a study by Bhattarai et al. in 2005, the main cause of discomfort intra-operative from regional anesthesia was reported to be the immobility of lower limbs [21]. In our study, Maximum patient were attempted spinal blockade in single attempt. 26.2 % subarachnoid were successful after the second attempt while 2.9% patients required more than 2 attempts. Patients were also explained before spinal anesthesia was administered, symptoms such as numbness, transient paralysis, and transient sensory loss in the lower extremities because of the spinal block. Also there was compulsory placement of urinary catheter according to institutional protocol. Therefore, patients might not have considered immobility of lower limbs and post-operative urinary retention as dissatisfaction.

A study conducted by Sindhvananda et al. (2004) [22], revealed that post-dural puncture headache, pruritus due to intra-theal morphine, and PONV were predictors of dissatisfaction. However, we did not use intra-the calmorphine similar to another study [17] or observe pruritus and instead gave prophylaxis as per the institute protocol.

In addition, post-operative backache was associated with dissatisfaction and refusal of spinal blocks in one study [23]. Although the backache could be directly be attributed to the number of attempts to give spinal block, it was difficult to ascertain the actual cause of backache as variables such as positioning during surgery, surgical trauma, operation time, age, previous physical activity, change in center of gravity can also contribute to post-operative backache according to a study [24].

Post-operative complications included post-dural puncture headache PDPH in 2 [0.3%] patients were effectively

managed with oral analgesics, complete bed rest, caffeine and ensuring good hydration. However, none of these patients required an epidural blood patch.

In our study, we found that, the overall satisfaction level after inferring from the part of the survey which assesses the willingness to undergo the same procedure at our institute if need be in future to be 91.5%.

According to a study done in Tunisia in 2012 to assess the satisfaction of participants towards spinal anesthesia; 16.4% of them were dissatisfied with the care. The dissatisfaction was provoked by complications and side effects of spinal anesthesia [25].

The major reasons to refuse SA for the same surgical procedures again in the future were surgical pain post operatively, afraid of being awake during the procedure, side effects, and unknown reasons, 27 (5.2%), 13 (3.3%), 11 (2.9%), and 6 (1.6%), respectively [16].

In a study done in Telangana in 2016 conclude 65% are afraid of postoperative pain but our study found it to 36.5% which can attributed to the timing of our survey which was done 24 hours after the surgery which would have given the patient the actual experience of pain protocol of our institute [26].

In our study, the overall satisfaction level after inferring from the part of the survey which assesses the willingness to undergo the same procedure at our institute if need be in future to be 91.5%. This can be due to, Immediate pain-relief, early contact with the child, better patient staff interaction and explanation with sufficient acknowledgement of patient concerns by the procedural anesthesiologist, shorter stay in receiving area before the surgery, better pain management post operatively, having previous anesthesia is more satisfied. This is due to parturient who were exposed to anesthesia before might be familiar with the environment and the activities with the possible coping mechanisms. Therefore these participants were satisfied than those of have no previous exposure. Ensuring good quality of spinal anesthesia and improving clinical skill of anesthesiologists might further improve patient satisfaction rate.

It was also deduced that 3.4% of patients were unwilling for the same. We postulate the reasons behind this to be, lack of sufficient time given to information session just before the surgery due to high patient turnover or emergency case, multiple procedural attempts, residual post operative pain, backache, PONV, headache, shivering, Hunger/thirst, headache, delay in shifting toward postoperatively which might be due to high patient to bed ratio at our facility, failed effect, feeling of stretch, a preconception that natural birthing leads to better fetal outcomes despite contraindications, discomfort from blood pressure cuff inflation and deflation, intra operative noise pollution. It was also seen that having an increased educational level was related to less satisfaction level, which might be due to high expectations that is a usual accompaniment of knowledge.

The cause of increased incidence of more than two attempts, post operative backache and substantial perioperative complications can be attributed to our institute being a teaching institute with anesthesiologists at various stages of learning.

Assessment of awareness about the importance of anaesthesiologist presence inside the operation theater in the local population found to be less than one third.

Counseling to alleviate fears of pain after the surgery, better institutional protocols regarding patient privacy, better management of patient transport and hence reducing time to take the patient back into the ward, better management of patients complains like nausea vomiting can take the overall satisfaction percentage of this institute from 91.5 to higher.

5. Conclusion

Side effects, inadvertent mistakes, indifferent attitude and unskillful techniques, can negatively affect patient perspectives regarding subarachnoid block and overall hospital care. Some active steps that can be taken to increase the satisfaction rate of patients who are undergoing a surgery under spinal anesthesia are as follows.

First giving due audience to patients concerns and respect towards privacy with better institutional protocols and continued educational practices for the same. Second, the anesthetists must provide complete explanations regarding, what to expect intra op, spinal anesthesia, and possible post op side effects along with counseling to alleviate fears if present of pain after the surgery. Third, efficient management of patient transport inside the hospital and minimize unnecessary stay inside the post anesthesia care unit. Fourthly, giving due attention to patient's complains like nausea and vomiting in addition to pain hunger and thirst. Finally, A lot of population is still not aware of a special doctor inside the operating room who is responsible for wellbeing of the patient while the surgeon operates even though the procedure done by them is increasingly gaining acceptance among the patients due to its benefits. Hence there is a need to spread awareness about importance of anaesthesiologist among the local population, which can be done by better counseling practices for both patient and attenders.

References

- [1] Demilew, BasazineWChokol et al. "Assessment of satisfaction and associated factors of parturients underwent cesarean section with spinal anesthesia at the General Hospital, Ethiopia; 2019." *Annals of medicine and surgery* (2012) vol. 65 may 102282
- [2] Davis FM, Laurensen VG, Gillespie WJ, Wells JE, Foate J, Newman E. Deep vein thrombosis after total hip replacement. A comparison between spinal and general anaesthesia. *J Bone Joint Surg Br.* 1989 March, 71 (2), P (181-5)
- [3] Juhani TP, Hannele H. Complications during spinal anaesthesia for caesarean delivery: a clinical report of one year's experience. *RegAnesth.* 1993, V18 (2), P (128-131)
- [4] Teoh WH, Shah MK, Mah CL. A randomized controlled trial on beneficial effects of early feeding post-caesarean delivery under regional anaesthesia. *Singapore Med J.* 2007, V48 (2), P (152-157)
- [5] Kaur H & Kaur S & sikka, P. A Quasi-Experimental Study To Assess The Effectiveness Of Early Ambulation In Post-Operative Recovery Among Post-Caesarean Mothers Admitted In Selected Areas Of Nehru Hospital, PGIMER, Chandigarh, Nursing and Midwifery Research Journal. 2015.
- [6] Kestin I, Spinal anesthesia in obstetrics Br. J. Addiction: Br. J. Anaesth, 1991, V 66, P (596-607)
- [7] Waris S, Yousuf M, Ahmed RA, Shahid M. An experience of spinal anesthesia versus general anesthesia in severe pre-eclmptic patients undergoing lower section caesarian section, *J Surg Pak* 2002, V 7, P (25-7)
- [8] Yirgu AN, Bikila MD, Dalecha AS. Factors influencing selection of anesthesia types among pregnant mothers who underwent cesarean section In Jimma University specialized hospital. *J AnesthCrit Care Open Access.* 2022; 14 (1): 28–31.
- [9] SchugSA, Patient satisfaction-politically correct fashion of the nineties or a valuable measure of outcome? *RegAnesth Pain Med* 2001, V26, P (193-5)
- [10] Pascoe G, Patient satisfaction in primary health care: A literature review and analysis. *EvalProg Planning* 1983, V6, P (185-210)
- [11] Carr-Hill RA: The measurement of patient satisfaction. *J Public Health Med* 1992, V14, p (236-49)
- [12] Bashir T, Shahzad A, Khilji BA, Bashir R Study of patients satisfaction and hospital care in Pakistan, case study of Madina teaching Hospital University Faisalabad, *World Appl. Sci. J.*, 2011, V 12, p (1151-1155)
- [13] Prakash B. Patient satisfaction. *J CutanAesthet Surg.* 2010 Sep; 3 (3): 151-5. doi: 10.4103/0974-2077.74491. PMID: 21430827; PMCID: PMC3047732.
- [14] Auquier P, Pernoud N, Bruder N, et al. Development and validation of a perioperative satisfaction questionnaire *Anesthesiology*, 2005, V102, p (1116-1123)
- [15] Siddiqi R, Jafri SA. Maternal satisfaction after spinal anaesthesia for caesarean deliveries. *J Coll Physicians Surg Pak.* 2009, V19 (2), P (77-80)
- [16] Bayable S D, Ahmed SA, Lema GF, MelesseDY, Assessment of Maternal Satisfaction and Associated Factors among Parturients Who Underwent Cesarean Delivery under Spinal Anesthesia at University of Gondar Comprehensive Specialized Hospital, Northwest Ethiopia, 2019, *Anesthesiology Research and Practice*, vol. 2020, 8 pages
- [17] Dharmalingam TK and ZainuddinNAA, Survey on maternal satisfaction in receiving spinal anaesthesia for caesarean section, *The Malaysian Journal of Medical Sciences*, 2013. v 20 (3), p (51)
- [18] Shisanya MS and MoremaEN, Determinants of maternal satisfaction with spinal anaesthesia care for caesarian delivery at the Kisumu county Hospital, *IOSR Journal of Nursing and Health Science*, 2017, v6, (1), p (91-95)

- [19] Makoko UM, Modiba LM, and Nzaumvila DK, Satisfaction with spinal anesthesia for Caesarean section at Tembisa Hospital, South Africa: a cross-sectional study, *South African Family Practice*, 2018, V 61 (2), p (39-47)
- [20] Roy KE, George AM. Levels of Consciousness During Regional Anesthesia and Monitored Anesthesia Care: Patient Expectations and Experiences. *A & A*. 2009, V108 (5), P (1560-1563)
- [21] Bhattarai B, Rahman TR, Sah BP, Singh SN. Central neural blocks: a quality assessment of anesthesia in gynecological surgeries, *Nepal Med Coll J.*, 2005, V7 (2), P (93-96)
- [22] Sindhvananda W, Leelanukrom R, Rodanant O, Sriprajittichai P. Maternal satisfaction to epidural and spinal anesthesia for cesarean section. *J Med Assoc Thai*. 2004, V87 (6), P (628-635)
- [23] Rhee WJ, Chung CJ, Lim YH, Lee KH, Lee SC. Factors in patient dissatisfaction and refusal regarding spinal anesthesia. *Korean J Anesthesiol*, 2010, V 59 (4), P (260-264)
- [24] Dharmalingam TK, Ahmad Zainuddin NA. Survey on maternal satisfaction in receiving spinal anesthesia for caesarean section. *Malays J Med Sci*, 2013, V20 (3), P (51-54)
- [25] Smaoui M, Ayedi M, Derbel A, Barkia R, Akrouf S, Kolsi K. Factors of patient dissatisfaction after spinal anesthesia for Cesareansection, *J. Anaesthesiol*, 2012, V 29, p (164)
- [26] Rajesh Veeramachaneni*, Pradeep S. Indurkar Awareness about anaesthesia in India: a survey in southern India, *Int J Res Med Sci.*, 2016 Feb, V4 (2) P (499-508)