

## ORIGINAL ARTICLE

# Patient's Satisfaction with Use of Spinal Anaesthesia for Day-Case gynaecological procedures

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## ABSTRACT

**Background:** Patient Satisfaction is defined as the individual's positive evaluation of a distinct dimension of care. Satisfaction is positive when the perception of the care given meets patients' level of expectation. The ideal anaesthesia for ambulatory procedures should provide a rapid and smooth onset of action, good intraoperative analgesia, good operating condition, short recovery time free from side effect and high level of patient satisfaction. Patient satisfaction is a vital part of assessing quality of care, and different instruments have been developed to measure it without a consensus on an ideal one. Achieving high satisfaction among patients that undergo day case gynaecological procedures under spinal would promote the acceptance of this anaesthetic technique in our locality.

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**Method:** This was an observational prospective study in which ninety (90) patients aged 18 – 45 years with ASA class I or II scheduled for day case gynaecological procedures were recruited. Spinal anaesthesia was given in sitting position using a range of 7.5mg to 10mg of 0.5% hyperbaric bupivacaine. The procedures lasted less than one (1) hour, during which the haemodynamic parameters (SBP, DBP MAP Pulse rate, and Spo2) were monitored continually. Patients were discharged home on the same day of procedure. Two days following the procedure, a structured questionnaire on patient's satisfaction level was administered via phone call and data collected included satisfaction with explanation of the anaesthesia for the procedure, postoperative complications and overall level of satisfaction, and acceptance of spinal anaesthesia in the future.

**Results:** Outcome showed that 88 patients (97.8%) were overall satisfied with the use of spinal anaesthesia for Day case gynaecological procedures and 2 patients (2.2%) were not satisfied with the anaesthetic technique used for the procedure. All the

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patients accepted to use spinal anaesthesia for similar procedure in the future.

## INTRODUCTION

Patient's satisfaction is an important aspect of quality of care in Ambulatory surgery. Patient satisfaction is defined as the individual's positive evaluation of a distinct dimension of care.<sup>1</sup> <sup>2</sup>Satisfaction is positive when the perception of the care given meets patients' level of expectation. Preoperative patient education, intraoperative care, right anaesthesia technique, and minimal side effect should improve the quality of care and bring the acceptance close to 100%.<sup>2</sup> The ideal anaesthesia for ambulatory procedures should provide a rapid and smooth onset of action, good intraoperative analgesia, good operating condition, short recovery time free from side effect and high level of patient satisfaction<sup>3</sup>. The use of spinal anaesthesia for short day case gynaecologic procedures is convenient, cost effective and safe. However local studies still suggest that general anaesthesia is still mostly used for ambulatory surgery in Nigeria.<sup>4</sup> Therefore with good acceptance from patients, it can be the anaesthetic technique of choice for day case gynaecologic procedures. Patient satisfaction is a vital part of assessing quality of care, and different instruments have been developed to measure it without a consensus on an ideal one. Achieving high satisfaction among patients that undergo daycase gynaecological procedures under spinal anaesthesia would promote the acceptance of this anaesthetic technique in our locality. No study has been conducted in the past to assess satisfaction with the use of spinal anaesthesia for day case in our region.

The study was to establish the satisfaction level among patients with the use of spinal anaesthesia for day case gynaecological procedures in our locality, the reason for dissatisfaction and the likelihood of accepting spinal anaesthesia for similar procedures in the future. The outcome would help to improve the quality of spinal anaesthesia and other factors

that affect patient's satisfaction in the ambulatory setting.

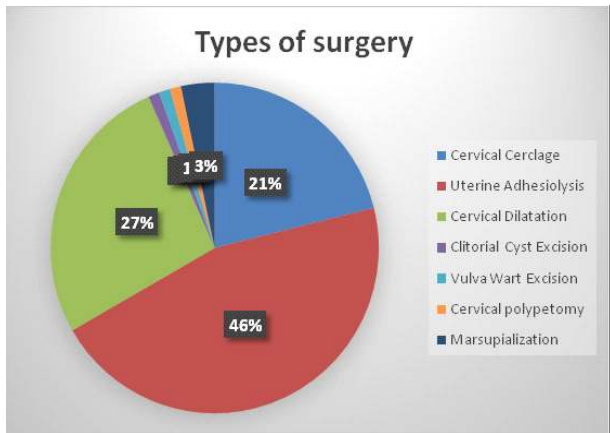
## METHODOLOGY

This was an observational prospective study carried out following approval from the Ethics and Research Committee of the University of Port Harcourt Teaching Hospital. Ninety (90) patients aged 18 – 45 years with ASA class I or II scheduled for day case gynaecological procedures were recruited into the study in 2016. In the morning of the procedure, preoperative review, explanation of the research plan and consent collection were done in the gynaecology ward. In the theatre, patients were preloaded with 10ml/kg of normal saline over 15 minutes after recording of the base line vital signs. Spinal anaesthesia was given in sitting position using a range of 7.5mg to 10mg of 0.5% hyperbaric bupivacaine. During the procedures which lasted less than one (1) hour, the haemodynamic parameters: systolic blood pressure (SBP), diastolic blood pressure (DBP), mean arterial pressure (MAP), Pulse rate (PR) and arterial oxygen saturation (Spo<sub>2</sub>) were monitored continually. Intraoperative complications such as Nausea and vomiting, hypotension, and bradycardia were treated if they occurred. Post operatively, patients were transferred to the Post Anaesthesia Care Unit (PACU) where monitoring was continued until full recovery and then discharged home on meeting the discharge criteria according to hospital policy. They were provided with emergency contact numbers in case they had any complications that required immediate attention. Two days following the procedure, a structured questionnaire on Patient's satisfaction level was administered via phone call to each patient by another anaesthetist who was not previously involved in patient management. Data collected included satisfaction with explanation of the anaesthesia for the procedure, postoperative complications, overall level of satisfaction, and acceptance of spinal

anaesthesia in the future. The data was analyzed using SPSS version 20.

**RESULTS**

Ninety patients were recruited for this study and all of them participated throughout the study. The mean age in years for the participants was 35.10 ±5.27. Of the day case procedures done, uterine adhesiolysis was the commonest procedure with a percentage of 45.6%, and next to it was cervical dilatation (26.7%). The mean duration of procedure was 21.33 ± 6.39.



Overall, eighty-nine patients (98.9%) expressed satisfaction with the explanation and counselling given to them about the anaesthesia. Of these patients, 81.1% were very satisfied with the explanation and counselling given while 17.8% said they were just satisfied. Only 1 patient (1.1%) responded that she was not satisfied; that patient said she was not informed about the likely duration of post-operative recovery period.

**Level of satisfaction with Preoperative Explanation**

very satisfied	73	81.1
Satisfied	16	17.8
not satisfied	1	1.1
Total	90	100.0

In responding to the overall satisfaction with the use of spinal anaesthesia for day case gynaecological procedures, 88 patients (97.8%) were satisfied and 54 patients out of this number responded that they were very satisfied. Only 2 patients(2.2%) were reported not to be happy with the anaesthetic technique used for the procedure.

**Overall Level of satisfaction**

Overall Level of satisfaction	Frequency	Percent
very satisfied	54	60.0
Satisfied	34	37.8
not satisfied	2	2.2
Total	90	100.0

The common complications experienced by the patients included pain at injection site (5.6%) and Post Dural Puncture Headache (1.1%). No patient experienced transient neurologic syndrome and post-operative nausea and vomiting (PONV)

**Complications from procedure**

Complication	Frequency	Percentage (%)
Pain at injection site	5	5.6
Transient Neurologic Syndrome	0	0
Post dural Puncture Headache (PDPH)	1	1.1
Postoperative nausea and vomiting (PONV)	0	0

### Acceptance of spinal anaesthesia in future for similar Procedures

	Yes	No	Percentage
Accept Spinal Anaesthesia for similar procedure	90	0	100

The participants were unanimous in their decision to accept spinal anaesthesia for similar procedures in the future(100%)

### DISCUSSION

The overall satisfaction from the study was 97.8% which represent patient's satisfaction during preoperative, intraoperative and post-operative events. This result is consistent with previous studies.<sup>5,6</sup>The result of patient satisfaction depends on the questionnaire used and parameters assessed for satisfaction. Previous studies done with a validated English version Leiden Perioperative care Patient Satisfaction questionnaire (LPPSq) which was designed to measure the patient satisfaction with perioperative anaesthesia service recorded 67.43% and 61.9% satisfactions in Rwanda<sup>7</sup> and Saudi<sup>8</sup> respectively, and high mean scores levels of 92.1% and 86.7% in Netherlands<sup>9</sup> and England<sup>10</sup> respectively. However, none of these studies looked at the patients that had day case procedures with spinal anaesthesia.

According to a Sohag University study, lack of preoperative surgical information and guidance was also one of the causes of dissatisfaction.<sup>8</sup> This was consistent with findings in this study where(1.1%) of the patients was not satisfied with preoperative explanation and counselling. Preoperative explanation is very important especially with ambulatory patients and was done in this study by a physician anaesthetist. Other studies suggested that doctor-patient sessions preoperatively reduce

preoperative anxiety and improves satisfaction.<sup>11,12</sup>

Good communication skills and allocating quality time to the patient, helps to meet patient's expectation which invariably leads to a high satisfaction level.

Complications of spinal anaesthesia are uncomfortable for patients and can be a source of dissatisfaction. This study observed that all the patients(2.2%) who were not satisfied overall in the study had post spinal complications. One patient had post dural puncture headache (PDPH)(1.1%)and the other had pain at the spinal needle puncture site (1.1%). Similar to this study, the incidence of PDPH has been noted to vary between 0.2% and 24%.<sup>13,14</sup> The risk factor associated with PDPH include size and type of needle, age, BMI, number of puncture attempts, and position of patient. The use of 26G sprotte needle for this study contributed to the low incidence of PDPH observed. The patient who had PDPH in the present study experienced headache within 24 hours after dural puncture which resolved spontaneously after 3 days. In a study by Rhee WJ and colleagues, PDPH with an incidence of 3.2% accounted for 10% in Patient's dissatisfaction after spinal anaesthesia.<sup>15</sup>This study observed one(1) person (1.1%) with spinal puncture site pain who was dissatisfied. This is consistent with the observation in a similar study where pain at puncture site was responsible for 2.6% of the dissatisfied patients.<sup>15</sup>

All the patients in this study(100%) accepted to use spinal anaesthesia in the future for similar procedures. This reflects the growing trend of acceptance of spinal anaesthesia in day case procedures. This result could be attributed to the low incidence of complications, high level of satisfaction with preoperative explanations and the fact that all of them were discharged same day as planned. Concerns about the risks of prolonged motor block and side effects of spinal anaesthesia have limited its use in day case procedures.<sup>16,17</sup> This study has demonstrated that with modification in

dose of local anaesthetic to achieve shorter motor block and also with reduced incidence of side effects, many patients are willing to use spinal anaesthesia for day case procedures.

In conclusion, overall satisfaction of patients from use of spinal anaesthesia for day case procedure was high and this is consistent with other studies.<sup>5,6</sup> Major causes of dissatisfaction noted in the study were the inadequate preoperative information and side effects of spinal anaesthesia. All the patients in the study expressed willingness to use spinal anaesthesia in the future for similar day case procedures which demonstrates high acceptance of spinal for short stay procedures in patients.

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