

Assessment of patient satisfaction with acute pain management service: Monitoring quality of care in clinical setting

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ABSTRACT

Background and Aims: Assessment of patient satisfaction is an important tool for monitoring the quality of care in hospitals. The aim of this survey was to develop a reliable tool to assess patient satisfaction with acute pain management service (APMS) and identify variables affecting this so that care can be improved. **Methods:** A questionnaire was developed and administered to patients after being discharged from APMS care by an unbiased person. Data collected from record included patient demographics, surgical procedure, analgesic modality, co-analgesics and dynamic and static pain scores. Questions included pain expected and pain experienced, APMS response time, quality of pain relief with treatment, professionalism of APMS team, overall experience of pain relief and choosing/suggesting same modality for themselves/family/friends again. Five-point Likert scale was used for most of the options. Statistical analysis was done using SPSS 19. **Results:** Frequency and percentages were computed for qualitative observation and presented on pie chart and histogram. Seventy-one per cent patients expected severe pain while 43% actually experienced it. About 79.4% would choose same analgesia modality in future for self/family/friends. Ninety-nine per cent found APMS staff courteous and professional. About 89% rated their experience of pain management as excellent to very good. **Conclusion:** The survey of patients' satisfaction to monitor the quality of care provided by APMS provided positive inputs on its role. This also helps to identify areas requiring improvement in care and as a tool to gauge the quality of care.

Key words: Acute pain, acute pain management service, quality of care, patient satisfaction

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INTRODUCTION

Timely and effective management of acute pain has been one of the biggest challenges of modern medicine. About two-thirds of patients admitted to hospitals still suffer from uncontrolled pain despite extensive research and education vis-à-vis pain management.^[1] It is also an established fact that uncontrolled pain leads to many deleterious effects.^[2] Quality assurance efforts in pain management consist of methods to establish pain management protocols, to monitor their application, and to assess the benefits they provide to the patients. The quality of pain management that results from these efforts can be evaluated by assessment of various pain management outcomes,^[3] patients' satisfaction being one of them.^[4] Health-care facilities routinely use patient

satisfaction evaluations to identify methods of practice improvement and better care provision.

Patient satisfaction with post-operative pain management depends on a number of variables including patients' expectations, intensity of pain experienced, promptness of acute pain service response, effectiveness of treatment and health-care professionals' attitude.^[5] The American Pain Society

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in Quality Assurance Standards for relief of acute and cancer-related pain [Table 1] specifies that patient satisfaction with pain management must be surveyed in clinical practice.^[6] Authors' institute is a Tertiary Care Hospital that caters to multiple emergency situations including bomb blasts, mass casualties and road traffic accidents and is hence faced with a huge burden of trauma and injury. It also provides care to a range of complicated tertiary care surgical patients brought in from all parts of the country besides elective surgical patients. Formal acute pain service has been established in the institute since 2001. It is an anaesthesia consultant-led service where everyday care is provided by dedicated pain nurses and anaesthesia residents with the help of ward nurses. The current audit was conducted to monitor the quality of care provided by acute pain management service (APMS), to develop a reliable tool for assessing patient satisfaction with APMS, and to identify different variables affecting patient satisfaction with an aim to improve the overall quality of service.

Table 1: American Pain Society's quality assurance pain-relief standards

Recognize and treat pain promptly
Chart and display pain and relief (process)
Define pain and relief levels to initiate review (process)
Survey patient satisfaction (outcome)
Make information about analgesics readily available (process)
Promise patients attentive analgesic care (process)
Define explicit policies for use of advanced analgesic technologies (process)
Monitor adherence to standards (process)

METHODS

Approval for the audit was granted by the Institutional Ethics Review Committee. Data were collected over a 3-month period on 102 consecutive, adult patients, who were provided care by APMS and consented to participate. A questionnaire was designed and administered to each patient on the day of discharge, before going home. The questionnaire was delivered, explained to the patient and filled out by an independent, unbiased person who had no link with APMS. This was achieved by assigning this task to a medical student visiting from another medical school, and not known to the APMS team or patients, except for one of the authors who briefed her about the questionnaire.

The questionnaire consisted of two parts: Part I comprised patient's demographics including age, gender, surgical speciality, surgical procedure, post-operative analgesic modality and co-analgesics used. This part was completed from patients' medical records. Part II of the questionnaire included 10 questions [Table 2]. Six of these questions had options to respond on a 5-point Likert scale arranged from highest to lowest. Four questions had 'yes' or 'no' options while at the end, patients were encouraged to give their comments/opinions in an open-ended manner.

All statistical analyses were performed using statistical packages for social science version 19 (SPSS Inc., Chicago, IL, USA). Mean and standard deviation were computed for age, and frequency and percentages were reported for qualitative observations.

Table 2: Questionnaire

Questions	No pain	Mild	Moderate	Less than severe	Severe
What type of pain did you expect in the post-operative period?	1	2	3	4	5
What type of pain did you experience in the post-operative period?	1	2	3	4	5
	Within ½ h	Within 1 h	Within 2 h	After 2 h	Never
When you were in pain, APMS responded	1	2	3	4	5
	Excellent	Very good	Good	Fair	Poor
What was the quality of pain relief after APMS management?	1	2	3	4	5
How would you rate the attentiveness and sensitivity of APMS staff?	1	2	3	4	5
How was your overall experience with your pain management service?	1	2	3	4	5
		Yes			No
Would you use the same analgesia modality again if required?		1			2
Would you recommend the same modality to your family/friends?		1			2
Was the APMS team courteous and professional during your entire interaction?		1			2
Are you aware that a team of specialist pain doctors looked after your pain relief that is a part of anaesthesia department?		1			2

(APMS – Acute pain management service)

RESULTS

A total of 132 patients were managed by APMS during the 3 months of the survey, of which 102 agreed to participate. The average age of patients was 45.27 ± 16.47 years. There were 55.9% females and 44.1% males. Different analgesic modalities were employed, but majority (66.7%) received epidural analgesia. The analgesic modalities used and the surgical specialties are provided in Table 3. For co-analgesia, patients received paracetamol, a combination of paracetamol with tramadol or ketorolac. Diclofenac suppository and paracetamol were administered as co-analgesics to patients undergoing gynaecological operations. The expectation of experiencing severe pain was higher than the pain actually experienced, as shown in Figure 1.

Of the patients followed up by APMS during the study period, 56.9% received interventions within ½ h of the call given for inadequate pain relief or management of side effects, 13.7% were managed within 1 h, 2% within 1–2 h and 1% after 2 h of the call, while 26.4% did not require any intervention by APMS and were free of pain and side effects. After interventions by APMS, excellent to very good pain relief was reported by 72% of the patients, moderate pain relief by 25.3%, while 2.7% reported poor pain relief. Attentiveness and sensitivity of APMS staff were considered very good to excellent by 91% of patients, fair by 8%, while 1% considered the service as poor.

About 46.1% patients were aware that APMS is a service provided by anaesthesia department. About 79.4% planned to use the same modality in future and

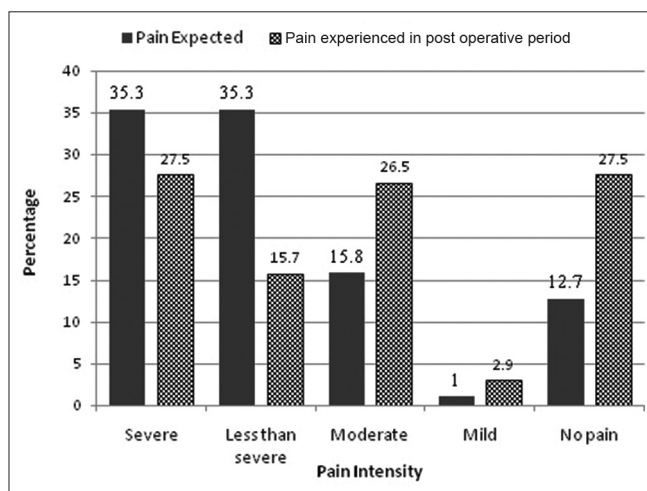


Figure 1: Comparing pain expected by patients and pain actually experienced in post-operative period (n = 102)

81.4% intended to recommend it to their friends/family. Ninety-nine per cent patients considered APMS staff professional and courteous. The overall experience with APMS was considered good to excellent by 97% of the patients [Figure 2]. The comments of the patients are presented in Table 4.

DISCUSSION

The results of this study show that multimodal analgesia was used in all patients included in the survey which is part of current recommendations for best analgesic practice.^[7] There is a scarcity of strong opioid analgesics in our country and even in centres where morphine and fentanyl are available, their supply is limited and erratic. In resource-limited set-ups, careful selection of the available drugs and techniques is the best hope for the provision of optimal pain relief to

Table 3: Analgesic modality and surgical speciality of the patients (n=102)

Variable	Percentage
Intraoperative analgesic modality	
Epidural	67.6
Continuous opioid infusion	2.0
Patient-controlled analgesia	27.5
Others	2.9
Surgical speciality	
General surgery	44.1
Gynaecology	30.4
Urology	3.9
Neurosurgery	1.0
Orthopaedic surgery	20.6



Figure 2: Response of patients regarding acute pain management service staff and management progress (n = 102)

Table 4: Patients' comments regarding their pain management (n=12)**Pain medication/analgesia**

Drugs like paracetamol should be available in post-operative period readily so we do not suffer (1 patient)

Another painkiller instead of paracetamol was given which was not effective (2 patients)

Pain relief was really bad with epidural alone. Will use spinal block+epidural for any of my next surgery (1 patient)

PCA* dose was not effective enough. I would prefer epidural over PCA next time (1 patient)

Nursing care

PCA got disconnected on way to the ward and APMS staff reached late (1 patient)

In recovery, I was in severe pain, but staff responded late. I had to call them more than twice (2 patients)

Pain related factors

I had severe bursts of pain as soon as I gained consciousness (2 patients)

I had severe pain during sleep, and I woke up in pain in the ward (2 patient)

*PCA – Patient-controlled analgesia; APMS – Acute pain management service

the patient. It has rightly been said that the solution to the problem of inadequacy of post-operative pain management does not actually lie in the acquisition of expensive medication or development and use of new techniques, but rather in the optimal utilisation of already available drugs, techniques and facilities.^[8,9] Thus, a combination of regional technique and multimodal analgesia, which most of our patients received, was the best available option for providing effective pain relief in the post-operative period.

Campbell *et al.* define assessment of quality care as determining 'whether individuals can access the healthcare structures and processes of care which they need, and whether the care received is effective'.^[10] One method of evaluating users' perception of a service is to assess their satisfaction with the care they receive. The American Pain Society in Quality Assurance Standards for Relief of Acute and Cancer-related pain specifies that patient satisfaction with pain management must be surveyed in clinical practice.^[6] Assessment of patient satisfaction is of particular importance if the aim is to improve service to achieve better outcomes and improved quality of life.^[11] Furthermore, a satisfied patient is said to be more likely to comply with the prescribed treatment^[12,13] and hence has a better chance of earlier recovery.

Satisfaction is a subjective feeling dependent upon patients' past experiences and future expectations.^[14] It is easy to assume that effective pain relief would correlate highly with patients' satisfaction with their pain management. However, earlier research has

shown that patients may be highly satisfied with their pain management even when they have reported considerable levels of pain during their hospital stay.^[3,15-17] This imposes difficulty in interpreting the results of patient satisfaction surveys on pain management,^[15-17] and explanation needs to be sought for the high satisfaction scores even with inadequate pain relief. In our survey, even though pain management interventions by APMS were required in a significant number of patients and 28% of the patients had moderate to poor pain relief despite the interventions, 97% of the patients reported their overall experience regarding pain management as good to excellent. The response time of APMS staff and their attitude and attentiveness might have played a role in defining the level of patient satisfaction since more than 70% of our patients received pain management interventions within 1 h of the call given to APMS. Furthermore, 91% of our patients reported attentiveness and sensitivity of the APMS staff as very good to excellent. Thus, one of the reasons for the high rate of patient satisfaction in our study could be a professional and courteous attitude of APMS. Lin has provided a similar explanation for high satisfaction scores even with high pain levels in his patients and states that caring attitude of the staff may be one of the reasons for high overall satisfaction levels in patients suffering with pain.^[3]

Our results show that patients' expectation of experiencing severe pain was higher than the pain actually experienced by them. It has been claimed that patient's expectations have a strong effect on degree of patient's satisfaction about an experience. Squires states that the ratio between expectations and perception of an experience results in the level of satisfaction for the person making the judgement.^[18] The fact that majority of our patients (70.6%) expected severe pain post-operatively, but not as many (44%) suffered from it, could have been one of the reasons for majority being satisfied with the service.

More than half of the patients included in the survey (54%) were not aware that APMS was a part of anaesthesia department. This identifies the need for the conduct of public awareness sessions regarding pain management by dedicated acute and chronic pain physicians and nurses. Such sessions would make the patients aware that pain relief is their basic right; pain-relieving medicines are accessible and who to turn to in case of unrelieved pain. In addition, APMS staff needs to introduce the team members and

the service provided by them to the patients and their families in adequate detail during APMS rounds so that they can be traced back whenever patients need help.

Despite the high satisfaction scores in our study, we identified some shortcomings, which need to be addressed with the aim of formulating and implementing strategies for improvement. More than 4% patients waiting for over an hour to receive analgesia is one of the identified parameters requiring improvement. Similarly, at least, four patients complained of severe pain on waking up from anaesthesia in the recovery room [Table 4], which was not addressed in a timely manner. This highlights the need for APMS team to make a process for timely provision of pain management in the recovery room and wards. There were several limitations and strengths of our survey.

One of the strengths was that it was conducted by an unbiased person, unrelated to the APMS. That person had not participated in the care of the patients and patients plausibly expressed their honest opinion rather than feeling obliged to respond positively. In addition, it was a clinically relevant exercise as far as improving the quality of care was concerned. Questions were developed with a view to identifying the areas requiring improvement in APMS care. APMS team re-strategized their care plan after the data analyses. That made the entire exercise clinically relevant and useful. Once developed, this tool will be utilised at repeated intervals to audit the performance of APMS. Where limitations are concerned, high patient satisfaction may have been related to professional and caring attitude of APMS personnel rather than superior pain relief measures. Furthermore, there were no open-ended questions for in-depth assessment of patients' experience.

CONCLUSION

We largely succeeded in our objective strategy to monitor the quality of care provided by APMS and to identify areas requiring improvement in a satisfaction survey of patients receiving care by APMS by an unbiased person. Based on the present survey, we aim to develop that as a tool to gauge quality care on a regular basis.

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Conflicts of interest

There are no conflicts of interest.

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