

Satisfaction on Pain Management among Cancer Patient in Selected Cancer Care Center Bhaktapur Nepal

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ABSTRACT

Background: Pain is a subjective, emotional experience which is the most common symptom in cancer patient and its intensity increases as disease advances. Unrelieved pain affects quality of life in all direction. Therefore, assessment of patient's experience of pain is an important factor in providing effective pain management. Assessment of patient satisfaction can help to identify appropriate treatment modalities and can further help in its effectiveness.

Methods: A descriptive cross-sectional study was conducted among 158 cancer patients in Cancer Care Center using consecutive sampling technique. Face to face interview (semi-structured) was conducted by using a validated questionnaire "APS- POQ". Data analysis was done in SPSS version 20 using descriptive statistics. Inferential statistics such as Chi square test was used to determine association.

Result: Out of total 158 respondents, 48.1% of respondents had mild pain followed by moderate pain 25.9% and 25.9% of them had severe pain. Majority of respondents 87.3% were satisfied with pain management. Out of total respondent's, 94.9% were satisfied with nurses response and 93.0% were satisfied with doctor's response regarding pain management. Out of total respondent's 82.3% received medication in less than or equal to 10 minutes. More than half 53.2% respondents verbalized that health care personnel explained on importance and reporting of pain management. Oral pain medication, relaxation and massage were top ranked approaches. Respondents with mild to moderate pain intensity were more satisfied compared to severe pain intensity. There was association between waiting time for pain medication and patient satisfaction.

Conclusion: The study concludes that majority of respondents were satisfied with overall pain management. Among total respondents, 94.9% were satisfied with nurse's response regarding pain management. It was found that respondents with mild and moderate pain were more satisfied than with severe pain. It also revealed that there was significant inverse relationship between waiting time for pain medication and patient satisfaction.

KEYWORDS: Satisfaction, pain management, pain intensity, waiting time

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I. INTRODUCTION

Pain is a subjective, emotional experience¹ which is the most common symptom in cancer patient and its intensity increases as disease advances.² Pain is a major symptom in 40-50% of newly diagnosed patients and 80-90% of those in advanced stage of disease.³ Unrelieved pain affects quality of life in all direction.⁴

In Nepal, among patients of Bhaktapur Cancer hospital 73.7% of cancer patients suffered mild to moderate pain and 1% patients expressed severe pain⁵ which demonstrate the

considerable under treatment of pain in cancer patients.⁶ Therefore, assessment of patient's experience of pain is an important factor in providing effective pain management.⁷ In health care practices, patient voice is regarded as an important contribution to evaluation of care.⁸ A number of studies suggest that failure to identify a patient's expectations can lead to patient dissatisfaction with care, lack of compliance and inappropriate use of medical resources.⁹ Therefore, measuring patient's satisfaction is necessary that influence on the effectiveness of the care.¹⁰

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Patient satisfaction with pain management is an important measurement.¹¹ Studies have shown that higher patient satisfaction is associated with decreased treatment costs and patient defections to other facilities or providers.¹¹ Increased patient volumes and referrals have also been associated with patient satisfaction.¹²

Assessment of patient satisfaction can help to identify appropriate treatment modalities and can further help in its effectiveness. The ultimate result of this assessment will improve quality of life among patients.¹³

Patient's quality of life is based on effective pain management, so the researcher is interested to find out how satisfied patients are with their overall pain management.

II. MATERIAL AND METHODS

a) Study design, Setting and Population

A descriptive, cross-sectional study was conducted to assess patient satisfaction towards pain management among cancer patient. Study was conducted in Bhaktapur Cancer Hospital. This study was conducted among cancer patients who were experiencing pain and were under pain medication.

b) Sampling Technique

A descriptive, cross-sectional study was adopted to assess patient satisfaction towards pain management among cancer patient. This study was conducted among cancer patients who were experiencing pain and were under pain medication. Consecutive sampling technique was used for data collection. The total sample size was 158. Data were collected by using semi-structured interview methods following ethical principles. Data was collected during 5 weeks' time from Dec 13, 2020 to 15 Jan 2021 at Bhaktapur Cancer Hospital.

c) Instrumentation

Semi-structured interview questionnaire was prepared with the help of related review of literature. Data were collected by using: American Pain Society Patient Outcome Questionnaire¹⁴ which consists of question related to intensity of pain, level of patient satisfaction with pain management and with health professional. The same tool have been modified and used by researcher in USA¹⁵ and Nepal¹⁶. The questionnaire consisted of two parts:

Part I: Socio-demographic characteristics

Part II: Related to patient outcome questionnaire- Modified
The modified version of this tool has been adapted in this study. Instrument was translated in Nepali language and

translated back to English language to retain meaning of questionnaire. Face to face interview (Semi-structured) was conducted using Nepali version questionnaire to identify satisfaction regarding pain management.

Inclusion Criteria

Cancer patients 18 years of age and above, experiencing pain and receiving pain management.

Outcome Variable

To assess the satisfaction on pain management among cancer patients.

Explanatory variables

Explanatory variables were age, sex, educational status, ethnicity, occupation, income, intensity of pain, waiting time for medication etc.

Ethical committee approval

Approval from Institutional Review Committee of Nepal Medical College was taken. Permission was taken from concerned authorities by submitting official request letter to Bhaktapur Cancer Hospital. Written consent was taken from respondents. Privacy and confidentiality of all the collected information were maintained. Respondents were clearly explained that they have the choice to reject or discontinue the research study at any point during the study time.

Questionnaire design

The content validity of instrument was established in terms of adequacy and appropriateness of the content by seeking opinion of subject matter expertise and literature review. It is a valid and standard tool. Instrument was translated in Nepali language and translated back to English language to retain meaning of questionnaire. Besides, pre-testing was done among 12 respondents to assess the practicability of use of the instrument and was excluded from the main study.

Data management and statistical analysis

The collected data were checked, reviewed and organized for completeness and accuracy. Data were edited, categorized, coded, entered and analyzed using SPSS (Statistical Package for Social Science) software version 20. The data were analyzed using descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics such as chi-square test was applied

RESULTS

Table 1: Socio-demographic Characteristics n=158

Characteristics	Frequency (f)	Percentage (%)
Age (in years)		
≤ 30	10	6.3
31-40	21	13.3
41-50	27	17.1
51-60	37	23.4
61-70	32	20.3
More than 70	31	19.6
Mean ±SD=55.56 ± 15.76, Min age=19, Max age=91		
Sex		
Male	62	39.2
Female	96	60.8
Religion		
Hindu	128	81.0
Buddhist	21	13.3
Christian	4	2.5
Islam	5	3.2
Ethnicity		
Brahmin	17	10.8
Chettri	40	25.3
Janjati	92	58.2
Dalit	9	5.7
Educational Status		
Illiterate	75	47.5
Primary level	29	18.4
Secondary level	36	22.8
Higher secondary	9	5.7
Bachelor and above	9	5.7
Occupation		
Home maker	36	22.8
Agriculture	65	41.1
Business	31	19.6
Service	24	15.2
Student	2	1.3
Family Income (Per month)		
≤ 20,000	78	49.4
> 20,000	80	50.6

Table 1 shows socio- demographic characteristics of respondents. Out of 158 respondents 23.4% come under age of 51-60. The calculated mean and SD for age was 55.56 ±15.76 with minimum age 19 and maximum age 91. Among them 60.8% were female and 39.2% were male. Majority of the respondents (81.0%) were Hindu and minorities (2.5%)

were Christian. More than half (58.2%) respondent's lie under Janjati ethnicity and 5.7% lie under Dalit. Similarly, 47.5% were illiterate and 5.7% of them had completed bachelor and above. Regarding occupation, 41.1% were agriculturist. More than half 50.6% family income was more than 20,000.

Table 2: Level of Pain Intensity of Respondents n=158

Pain intensity at present	Frequency (f)	Percentage (%)
Mild (0 to ≤ 4)	76	48.1
Moderate (5-6)	41	25.9
Severe (≥7)	41	25.9

Table 2 shows intensity of pain. Nearly, half of the respondents, 48.1% had mild pain, 25.9% had moderate and 25.9% had severe pain.

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Table 3: Level of Satisfaction with Pain Management of Respondents n=158

Satisfaction Status	Frequency (f)	Percentage (%)
With Pain Management		
Satisfied	138	87.3
Dissatisfied	20	12.7

Table 3 illustrates respondent's satisfaction with pain management. respondents satisfaction ratings were merged into two grouping satisfied (comprising all three levels of satisfaction) and dissatisfied (comprising all levels of

dissatisfaction). Majority of respondents that is 87.3% were satisfied with pain management and 12.7% were dissatisfied with pain management.

Table 4: Satisfaction on Pain Management with Health Personnel Response n=158

Satisfaction Status	Frequency (f)	Percentage (%)
With nurses response		
Satisfied	150	94.9
Dissatisfied	8	5.1
With doctor's response		
Satisfied	147	93.0
Dissatisfied	11	7.0

Table 4 depicts that 94.9% were satisfied with nurse's response and 93.0% were satisfied with doctor's response regarding pain management.

Table 5: Approaches of pain management used by respondents (Multiple responses) n=158

Approach	Frequency (f)	Percentage (%)
Oral medications	131	82.9
Relaxation	117	74.1
Massage	114	72.2
Intravenous injections	110	69.6
Heat application	110	69.6
Intra-muscular injections	61	38.6
Prayer	55	34.8
Touch	49	31.0
Music therapy	33	20.9
Epidural catheter	9	5.7
Distraction	8	5.1
Guided imaginary	4	2.5
Cold application	3	1.9

Table 5 shows that majority (82.9%) responded using oral medications as pain management approach, followed by

relaxation 74.1%, Massage 72.2% and cold application was only done by 1.9%.

Table 6: Association between Satisfaction of pain management with selected Socio-demographic Variables n=158

Variables	Satisfaction of pain medication		Total	p value
	Satisfied	Dissatisfied		
Age				
≤ 55	70 (90.9%)	7 (9.1%)	77	0.106
> 55	68 (84.0%)	13 (16.0%)	81	
Sex				
Male	55 (88.7%)	7 (11.3%)	62	0.678
Female	83 (86.5%)	13 (13.5%)	96	
Ethnicity				
Brahmin and Chettri	52 (91.2%)	5 (8.8%)	57	0.115
Janjati	77 (83.7%)	15 (16.3%)	92	
Dalit	9 (100.0%)	0 (0.0%)	9	

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Income				
≤ 20,000	65 (83.3%)	13 (16.7%)	78	0.135
> 20,000	73 (91.2%)	7 (8.8%)	80	

p- Value significant at <0.05

Table 6 shows association between demographic information and patient satisfaction. The table illustrates

there is no association between patient satisfaction and selected socio-demographic variables.

Table 7: Association between patient satisfaction of pain management with level of pain intensity and waiting time n=158

Variables	Satisfaction of pain management		Total	p value
	Satisfied	Dissatisfied		
Pain intensity				<0.001
Mild	76 (100.0%)	0 (0.0%)	76	
Moderate	40 (97.6%)	1 (2.4%)	41	
Severe	22 (53.7%)	19 (46.3%)	41	
Waiting time				<0.001
≤ 10 minutes	119 (91.5%)	11 (8.5%)	130	
11-20 minutes	17 (70.8%)	7 (29.2%)	24	
21-30 minutes	2 (50.0%)	2 (50.0)	4	

Significance level < 0.05

Table 7 reveals that the relationship between patient satisfaction with pain management and level of pain intensity and waiting time. It was found that respondents with mild and moderate pain were more satisfied than with severe pain intensity ($p < 0.001$) and there was a significant relationship ($p = 0.001$) between waiting time for pain medication and patient satisfaction.

IV. DISCUSSION

In this study, 48.1% had experienced mild pain, 25.9% had moderate and remaining 25.9% had severe pain. This result is consistent to study conducted in Nepal where majority 58.1% complained of mild pain⁵ and is not consistent to study conducted in USA¹⁷ and India¹⁸ where majority reported severe pain which may be due to different country context. In relation to satisfaction status in overall pain management, majority of respondents 87.3% were satisfied with pain management and minority 12.7% were dissatisfied with pain management. This is comparable to studies conducted among cancer patient where majority respondents were satisfied with pain management^{19, 20} and is also comparable to study conducted in Nepal among post-operative patients.²¹

Majority of respondents were satisfied to both doctors and nurse's response regarding pain management which is similar to study conducted among medical-surgical patients.¹⁷ This finding is not similar with study done in USA where satisfaction with physician response was greater than with nurse's response.^{7, 22} This finding is also not similar with study conducted in Sweden where majority patients were satisfied with nurses response than physician response.¹²

Regarding respondent's waiting time for pain medication, majority 82.3% received medication within 10 minutes and only 2.5% received within 21-30 minutes. This finding is in support with study conducted among patient's getting opioid

analgesics, diagnosed with cancer, post-operative patients respectively where most of the respondent's received medication within or less than 10 minutes.^{7, 19, 23, 21} This can conclude that most requests for pain medication were promptly met. Only 24.7 % asked for different or more medicine as pain was not controlled, out of which 66.7% received within less than 1 hour which is in support with study conducted in USA.⁷

More than half 53.2% reported that their health personnel explained on importance and reporting of pain management which is similar with other studies findings (65-87%).^{7, 17, 19} Regarding approaches of pain management, most of the patients reported that they received pain medication (oral, intravenous) for pain management. This finding is similar with the study conducted in USA.⁷

Regarding relationship between patient satisfaction and level of pain intensity it was found that there is significant relationship as evidenced by ($p < 0.001$). This study is similar with results evaluated by other studies conducted in Taiwan^{17, 24, 25} and contrast with the result of study conducted in USA.^{15, 19}

In current study, significant association between waiting time for pain medication and patient satisfaction was reported as evidenced by ($p < 0.001$) which is similar to study conducted in USA and Taiwan^{7, 24} and dissimilar to the research finding from study conducted in USA.^{17, 19} It shows association between pain intensity and patient's satisfaction as majority of patient received pain medication within 10 minutes.

V. CONCLUSION

The study concluded that most of the cancer care patient pain intensity was mild. Majority of respondents were satisfied with overall pain management. All most all were satisfied with doctor's and nurse's response regarding pain

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management. Oral medications were mostly used pain management approaches. In association with different variables, respondent's satisfaction was significantly associated with pain intensity and waiting time for pain medication. However, few numbers of respondents with severe pain are still dissatisfied.

VI. LIMITATIONS OF THE STUDY

This study was conducted only in Bhaktapur cancer hospital, so study cannot be generalized to other cancer hospital. The result of this study depends on accuracy and truthfulness of respondent's response.

VII. RECOMMENDATION

It would be better to use pain measuring scale regularly and as needed. Similar type of study can be conducted taking large sample size for more representative sample. Further all the patients should be explained about importance and reporting of pain management by health personnel at time of admission. Patient with severe pain are still dissatisfied. So, interventional study can be done to explore satisfaction level on these groups.

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CONFLICT OF INTEREST

The authors do not have any conflict of interest arising from the study.

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