

Patients' Perception of Acute and Chronic Pain and their Satisfaction with Care at the General Hospital Douala

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ABSTRACT

Pain is a constant problem to deal with in our health system. Though standards and treatments have been set to help relieve patients from their pains, pain handling remains a major challenge in our health care system in Cameroon. This thesis set out to analyse patient's perception of acute and chronic pain, nursing modalities in managing pain, the views of healthcare managers and pharmacists on the treatment process. The study employed a survey design and more specifically a concurrent triangulation mixed-method approach. The General hospital in Douala was used. Data was obtained through the survey of 350 respondents sampled purposively and conveniently as to make sure that both acute and chronic pain patients were represented. Data was analysed using SPSS version 24.0. As far as patients' satisfaction was concerned, all the indicators except hygienic condition had scored below the optimal cut-point of 80%, namely pain assessment, pain severity and relief, side effects of treatment, helpfulness of information about pain treatment or counselling, ability to participate in pain-treatment decisions, use of non-pharmacological strategies, satisfaction with therapy, and satisfaction with the pain management while in the ward. Pain management was hindered by lack of appropriate therapy approaches, standard for pain handling was not provided by the hospital, high cost of treatment, unavailability of some drugs, inadequacy of facilities, and limited health personnel. The study therefore recommended that stakeholders should act as to make sure that pain management is better standardized and affordable in hospitals while abiding to professional ethics and good practices and providing the necessary equipment.

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KEYWORDS: Pain, acute, chronic, management, patients, satisfaction

INTRODUCTION

Pain cuts across all the stages of our life [1] and it contributes substantially to morbidity, mortality, and overall healthcare system burdens [2, 3]. Pain is known to be the main symptom that leads people to seek out help from healthcare professionals as it hampers their physical, emotional and spiritual wellbeing [4]. It is a subjective response to physical and psychological stressors and it is a personal experience that can be described as pervasive and that is seen in all settings of health care. In 1979, the International Association for the Study of Pain (IASP) released the following definition of pain

which is considered the most widely used definition of pain to this date: "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage" [5]. Nurses play a vital role in the assessment, planning, interpretation, intervention and pain evaluation in pain management; so it is very important that they are properly educated and knowledgeable about pain assessment and management techniques which can lead to ineffective pain management [8]. Increased healthcare costs, loss of productivity at work and an adverse impact on

quality of life, are some of the problems associated with pain and this couples to the fact that chronic pain occurs as a result of inadequate management of the latter [9]. As such, every member of the healthcare team must be committed to their role as they help patient's relief pain. Pain is a frequent complication of patients admitted to hospitals and negatively impacts multiple aspects of health and when poorly managed the consequences could be dire for the patients. Pain remains a global issue which cannot be ignored. A rate of 93% of patients has suffered pain in the last year globally. It is estimated that about one in five, or about 1.5 billion people suffer from chronic pain, with prevalence increasing with age [10]. While other estimates have put the number as high as 100 million, this average of roughly 20% is commensurate with recent age-adjusted US estimates of chronic pain (50 million people) and the consequence of pain is sleep disturbance, depression, fatigue among others. A study carried out in the General hospital Douala revealed that the general physicians in the Emergency Department were mostly general practitioners who have suboptimal practices in pain management [12]. Traditional pain management such as the use of opioids often results to side effects thus adding challenges for pain management [11]. In addition, there are also concerns about disability in chronic pain patients who underwent surgery [13]. The unfortunate situation is the limited number of studies available on pain management approach in Cameroon and thus the necessity of this study.

Method

The study employed triangulation and more specifically the concurrent-nested mixed method in a cross-sectional survey design. This study was carried out in the General hospital in Douala which is situated in the Littoral region of Cameroon.

Probabilistic sampling was carried to ensure the representativeness of the sample [14]. Sample size was estimated using sample calculation for one population proportion with the support of Epi Info 6.04d (CDC, 2001). Multi-Stage was used to include participants whereby purposive and convenience sampling techniques were used to extract the sample from the population. Dealing with patients and nurses who most often are in pain and busy respectively, convenience sampling was suitable. Altogether, 216 patients were involved in the study. Data was analysed using frequency and proportion while Chi-Square test of equality of proportion was used to compare perceptions among categories of respondents. All statistics were discussed at the 95% CL (Confidence Level).

Findings

Basic information on pain recorded that a significant proportion of the patients were undergoing pain at the moment the study was conducted 199(92.1%), only few were not still feeling pain on their body 17(7.5%). A greater proportion of them were witnessing mild and moderate pain 79(36.6%) to excruciating pain 94(43.5%) in different parts of their bodies like the stomach 48(22.2%), their legs 40(18.5%), head 21(9.7%), arm and waist 19(8.8%) while others had generalized pain 37(17.1%). About half of the patients 120(55.6%) reported experiencing this pain frequently, a good share in the evenings 69(32%), some in the afternoons 15(6.9%), and the rest in the mornings 12(5.6%). Patients believed that this pain was caused mostly by diseases 103(47.7%), followed by injury 74(34.3%), then other factors like spiritual attacks and witchcraft. They have been suffering from these pains for days to months (Table 1).

Table 1: Patients' characterization of pain experienced

Pain related issues	Options	Frequency (n)	Percentage (%)	χ^2 -test
Any feeling of pain in the body	Pain	199	92.1	$\chi^2=85.26$ P=0.000
	No pain	17	7.9	
Pain position in the body	On the leg	40	18.5	$\chi^2=3.22$ P=0.666
	Arm	19	8.8	
	Stomach	48	22.2	
	Head	21	9.7	
	Back	5	2.3	
	Waist	19	8.8	
	Generalize	37	17.1	
	Others	1	0.5	
The severity of the pain	Excruciating	94	43.5	$\chi^2=7.59$ P=0.022
	Mild to moderate	79	36.6	
	Dull pain	1	0.5	
	I can't withstand the pain	42	19.4	

When pain comes	Frequently	120	55.6	$\chi^2=40.04$ P=0.000
	Mornings	12	5.6	
	Afternoons	15	6.9	
	Evenings	25	11.6	
	Nights	44	20.4	
Cause of the pain	Due to the disease process	103	47.7	$\chi^2=15.00$ P=0.002
	As a result of injury	74	34.3	
	Spiritual/witchcraft	7	3.2	
	Don't know	19	8.8	
Duration of pain	few days	82	38.0	$\chi^2=10.73$ P=0.013
	1-3months	86	39.8	
	3-6months	9	4.2	
	6months – 1year	14	6.5	

The pain-relieving substances highly used on these patients after admission were drugs 184(85.2%), and in some cases, counselling 60(27.8%), ointment 53 (24.5%), exercise 45(20.8%), hot water bottle 22(10.2%), cold compress 19(8.8%) and other methods not specified 6(2.8%) as depicted on table 2. Exactly half of these patients were treated using injections 108(50%), infusions 67(31%) and orally 27(12.5%) in rare cases. Others were administered pain therapy through ointment application, hot water bottle on the pain site as well as exercises; at times used in combination. About the person in charge of treatment, a great proportion was actually treated by qualified personnel; 146(67.6%) by nurses/midwives and 75(34.7%) by doctors, others were treated by their relatives 66(30.6%) and some did self-administration. As for other therapeutic methods, patients did not disclose them (table 2).

Table 2: Therapy administration and approaches

Therapy administration and approaches	Options	Frequency (n)	Percentage (%)	χ^2 -test
Reason for using the therapy method	Its effective	87	40.3	$\chi^2=17.44$ P=0.002
	Instructed by the doctor	110	50.9	
	I told the health personnel to administer to me	9	4.2	
	I am use to the treatment and its effective	5	2.3	
	No idea	5	2.3	
Types of therapy administration	Injections	108	50.0	$\chi^2=21.18$ P=0.000
	Infusions	67	31.0	
	Orally	27	12.5	
	Ointment application	4	1.9	
	using hot water bottle on my pain site	3	1.4	
	Exercises	4	1.9	
	Others	3	1.4	
Person in charge of administering medications	Nurse/ midwife	146	67.6	$\chi^2=70.52$ P=0.000
	Doctor	75	34.7	
	Patient	63	29.2	
Frequency of medication administration	Daily	152	70.4	
	Not daily	64	29.6	

At the General hospital in Douala, most of the patients took part in the decision making of their treatment options 157 (72.7%). Some patients practiced self-medication which is a bad practice because the patient's acute pain can result to chronic pain due to poor management by the patient who is not versed with proper ways of pain management. They generally felt better after using pain reliever 165 (76.4%). Cumulatively, 81 (79.7%) received the visit of nurse twice or thrice a day, while cumulatively, 48 (73.5%) received the visit of medical doctor daily or twice a day (table 3).

Table 3: Distribution of the study population with regards to patients views on post treatment of pain

Indicators of Post treatment	Options	Frequency (n)	Percentage (%)	χ^2 -test
Feeling better after using pain reliever	Yes	165	76.4	$\chi^2=47.14$ P=0.000
	No	51	23.6	
Involvement of the patients in deciding the treatment	I was involved	157	72.7	$\chi^2=37.04$ P=0.000
	I was not involved	59	27.3	
Frequency of nurse visit to patients	twice a day	31	14.4	$\chi^2=69.87$ P=0.000
	thrice a day	10	4.6	
	once a week	5	2.3	
	twice a week	1	0.5	
	thrice a week	11	5.1	
	Only when I call for his attention	6	2.3	
	Many times, a day	151	69.9	
Frequency of doctor visit to patients in the ward	Daily	17	7.9	$\chi^2=2.63$ P=0.269
	Twice a day	31	14.4	
	Thrice a day	4	1.9	
	Once a week	3	1.4	
	Twice a week	6	2.8	
	Thrice a week	1	0.5	
	Only when I call for his attention	3	1.4	

This section examines patients' satisfaction with acute and chronic pain management from the hospital. Using different confounders as demographic information different management aspects such as therapy, satisfaction with relationship with health care providers, satisfaction with pain management, satisfaction with cost medications and satisfaction with hygiene are appraised. The findings are presented on (Table 4). Majority of patients were dissatisfied with the approach used to manage their pain 130(60.2%) while lower proportion was satisfied 86(39.8%). But a great proportion of them 139(64.4%) expressed much satisfaction with the relationship they had with the health care providers after the treatment period against an insignificant proportion which was dissatisfied. This was consistent with which their satisfaction with their relationship with health care providers in the post treatment period. In relation to satisfaction with cost of medication administered, only 60(27.8%) of the respondents were satisfied and 185(85.6%) were satisfied with the hygienic conditions of the hospital (Table 4).

Table 4: Patients' responses on their Satisfaction with therapy

Variables	Options	Frequency	Percentage	χ^2 -test	p-value
Satisfaction with therapy given to patients for pain management in this hospital	Satisfied	57	26.4	31.48	0.000
	Extremely satisfied	29	13.4		
	Dissatisfied	124	57.4		
	Extremely dissatisfied	6	2.8		
Satisfaction with relationship with health care providers in this post treatment period	Satisfied	139	64.4	29.56	0.000
	Dissatisfied	11	5.1		
	Neutral	66	30.6		
Satisfied with the cost of medication	Unsatisfied because of very high bills	156	72.2	35.17	0.000
	Satisfied because the bills are moderate.	60	27.8		
Satisfied with the hygienic conditions of the hospital	Yes, hospital very clean	185	85.6	74.44	0.000
	No, hospital very dirty	31	14.4		

Binary Logistic Regression was employed to identify the factors affecting patients' satisfaction with pain management. Age, gender, ward, marital status, educational level, duration of admission, occupation, location of pain, cause of pain, duration of pain and pain management methods were examined via Binary Logistic Regression grouping the patients into satisfied and dissatisfied group. Among the socio-demographic factors, age, gender, ward, level of education, length of admission, occupation, location of pain, time of pain, causes of

pain, pain duration and type of treatment used significantly predicted satisfaction with pain management ($P < 0.05$). For age, higher probability of satisfaction of the pain management approach accorded for middle age patients (age between 35-59 years). For gender, men were 47.42 times [OR: 47.42, $P < 0.05$] more likely to be satisfied than women. Those in the emergency had highest likelihood of being satisfied. As for level of education, it was those that had attained higher education; those that had stayed in the hospital more than 3 months for the predictor length of stay in the hospital; public employee for occupation; the arm for the predictor location of pain; afternoon for time of pain; and injury for the cause of pain. Other determinants of the level of satisfaction with pain management approach were duration of admission, severity of pain, the cause of pain, and counselling for the type of treatment used.

Table5: Logistic Regression depicting factors affecting satisfaction with pain management

Model validation	df	X ²	P	McFadden R ²	Nagelkerke R ²	Tjur R ²	Cox & Snell R ²
H ₁	161	102.597	<0.001	0.485	0.605	0.663	0.378
			Estimate	SE	Odds Ratio	Wald Statistic	P-Value
Age ranges	35-59		-2.586	1.145	0.075	5.101	0.024*
	60-80		-3.833	2.718	0.022	1.989	0.158
	81yrs and above		-3.075	2.671	0.046	1.325	0.250
Gender	Gender (Male)		3.859	1.218	47.420	10.038	0.002*
Ward	Emergency		4.715	2.163	11.615	4.754	0.029*
	Oncology		1.615	1.490	5.030	1.175	0.278
	Surgical		1.234	1.108	3.434	1.240	0.265
Marital status	Single		-0.544	1.009	0.581	0.291	0.590
	Widow		-1.037	1.688	0.355	0.377	0.539
	Divorced		5.798	8.782	39.800	0.436	0.509
Education	Primary Level		-0.877	1.884	0.416	0.217	0.641
	Secondary Level		-1.658	1.335	0.191	1.542	0.214
	Vocational		-1.691	1.692	0.184	1.000	0.317
	Higher Education		-2.486	1.170	0.083	4.516	0.034*
Length of admission	1-4 Weeks)		1.094	1.257	2.988	0.758	0.384
	1-3months		-1.699	1.217	0.183	1.948	0.163
	Greater Than 3months		7.415	2.201	11.474	11.348	.001**
Occupation	Public Employee		7.061	2.043	15.472	11.945	.001**
	Private Employee		0.330	1.301	1.390	0.064	0.800
	Self-Employed		0.171	1.250	1.187	0.019	0.891
	Student		2.416	1.392	11.196	3.010	0.083*
	Farmer		2.946	1.633	19.031	3.256	0.071**
	Retired		-0.203	2.946	0.816	0.005	0.945
Location	Arm		-4.531	1.799	0.011	6.347	0.012*
	Stomach		-0.308	1.170	0.735	0.069	0.792
	Head		-0.714	1.711	0.490	0.174	0.676
	Back		-0.433	2.297	0.648	0.036	0.850
	Waist		-2.293	1.546	0.101	2.200	0.138
	Generalizes		-0.627	1.445	0.534	0.188	0.664
Time of pain	Mornings		3.348	2.309	28.437	2.102	0.147
	Afternoons		9.037	2.862	81.389	9.971	0.002**
	Evenings		3.007	1.114	20.234	7.291	0.007*
Cause of pain	Result of Injury		1.821	0.960	6.177	3.595	0.058**
	Spiritual/Witchcraft		0.915	2.159	2.497	0.180	0.672
Pain duration	< 1 month		-13.376	4.800	1.552e-6	7.765	0.005*
	1-3months		2.404	1.041	11.066	5.333	0.021*
	3-6months		-19.916	175.3	2.24e-9	1.33e-4	0.991
	6months – 1yr		2.789	2.444	16.260	1.302	0.254
	Above 1yr		-0.127	1.573	0.881	0.006	0.936

Type of treatment used	Drugs (Yes)	2.219	1.150	9.199	3.726	0.054
	Exercise (Yes)	-0.466	0.948	0.628	0.241	0.623
	Water (Yes)	2.638	1.576	13.981	2.802	0.094
	Compress (Yes)	1.933	1.412	6.908	1.872	0.171
	Counselling (Yes)	-4.337	1.244	0.013	12.156	< .001*
	Ointments (Yes)	-2.235	1.464	0.107	2.330	0.127

*** Significant at 0.001, **0.005, * 0.01; (N=242)

Discussion

Patients' perception of pain care is a vital criterion and a relevant outcome measure for healthcare institutions [15]. Published clinical guidelines consider pain as the "fifth vital sign" that requires a holistic management approach [16]. Patients are becoming increasingly informed and want to be treated as partners in their health care but, finding or anticipating ambivalence among their primary care providers, they tend not to divulge their concurrent use of complementary medicine [17]. Patients' satisfaction with treatment is crucial to measure performance and success of healthcare [18]. Patients overall satisfaction depends on multiple factors including delivering a quick intervention, engaging patients in their own care, encouraging their communication of pain, interacting with their healthcare provider, and establishing a trust-based relationships [19]. Satisfaction with pain management was equally associated with demographic characteristics such as age, gender, ward, marital status, educational level, duration of admission, occupation, location of pain, cause of pain, duration of pain and pain management methods playing a major role. The conduciveness of the hygienic condition in the hospital and its positive impact on patients was highlighted in this study, thus supports the Kolcaba's Comfort Theory, whereby patient's comfort is cited as a goal in its standards of care, and is an established value in nursing care [187]. The relationship with health professional and a patient has been demonstrated to directly influence health outcomes. The core of nursing and health care is the therapeutic nurse-patient relationship. The nurse [20] establishes and maintains this key relationship by using nursing knowledge and skills, as well as applying caring and attitude and behaviours. This relationship is based on trust, respect, empathy, and professional intimacy. Positive relationships between patients and healthcare providers are associated with better health outcomes, improved patient satisfaction, and increased adherence to treatment plans. Patient preferences can vary depending on factors such as culture, individual characteristics, and healthcare context, thus emphasized the importance of involving patients in decision-making processes [271]. Pain treatment is expensive especially with chronic pain

[21] thus making the context of this study not appearing specific or unique.

Conclusion

Less than majority of patients was satisfied with the outcome of treatment. However, they were in their strong majority satisfied with their relationship with health care providers in this post treatment period as well as the hygienic conditions of the hospital. Majority of the patients said they felt better after using pain reliever and also acknowledged their involvement in the treatment process. The more care givers were given health education, the more patients efficiency participated in their treatment. A weak majority of the patients preferred pharmacological medication, thus indicating that a good share was interested in non-pharmacological medication. Hence, the best adaptable approach to pain management in this hospital requires that both the pharmacological and non-pharmacological therapies be concurrently prescribed, while applying WHO standards where necessary. Age, gender, ward, marital status, educational level, duration of admission, occupation, location of pain, cause of pain, duration of pain and pain management methods should be highly considered in the pain management process since they highly predicted patients' satisfaction.

Recommendations

There is need for the hospital management to strive to reduce challenges related to pain management by ensuring that therapeutics are defined and approaches/methods customized and affordable. Staff related challenges associated with limited health personnel can equally be addressed by ensuring that more medical personnel are recruited and placed under good working conditions. Enhancements of pain management should be made in professional medical school curricula, postgraduate training programs, and continuing education courses in Cameroon. There is need to educate health professionals and caregivers to ensure that they offer the required level of assistance that the patients need. Enhancements of pain management should be included. Policy makers at both regional and state levels should ensure that the procurement, storage and supply of pharmacological and non-pharmacological

products for managing pain should strictly follow the WHO standard [90]. They should avoid essential drug shortages by warning and informing health directors and pharmacists in advance for the availability of essential drugs at all times in adequate amounts, appropriate dosage forms with assured quality and affordable prices for all patients. The government should subsidize the prices of all analgesics and non-pharmacological products in all hospitals so that all patients will be able to afford their treatment. The hospital management should adopt an electronic inventory management system for the hospital in order to ease the system management of hospital data and drug requisition.

Implication for practices

From the findings of this study, it can be recommended that patients and care givers be educated to ensure that they offer the required level of assistance that the patients need. This can be done both by the nurses at the level of the ward visit as well as the doctors during admission of the patient. Other educational tools include television programs, patient hand-outs, web resources, and support groups to optimize patient outcomes. Nurses and other health personnel who frequently serve as frontline staffs are sometimes expected by patients to offer the solution to their acute and chronic pain conditions irrespective of the doctors' prescriptions; they should therefore have the mastery of the various approaches of pain management as to properly help patients, since they are at the frontline of health care.

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