



**Implementation Evaluation of Pain Free Hospital Initiative in Seka Chekorsa
Primary Hospital, Oromia Regional State, South West of Ethiopia.**

**Evaluation Thesis to be submitted to Jimma University, Institute of Health,
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**Implementation Evaluation of Pain Free Hospital Initiative in Seka Chekorsa
Primary Hospital, Oromia Regional State, South West of Ethiopia**

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Abstract

Back ground: Pain is an unpleasant sensory and emotional experience which is described in relation to tissue or organ damage. In Ethiopia, many people are affected each year by unnecessary moderate or severe pain. Although the need for proper pain management is increasing in Ethiopia, it has yet to get the attention it deserves apart from the attempt to develop a national guideline. Therefore, it was imperative to conduct this assessment to identify the implementation of pain free hospital.

Objective: To evaluate the implementation status of Pain free Hospital initiatives in Seka Primary Hospital, Oromia Regional state, south west Ethiopia, 2021.

Method: A single case study design was conducted from May 03-24/2021 at Seka Chekorsa Primary Hospital, Oromia Regional state using both qualitative and quantitative data collection methods. Sample of 422 patients who was selected proportionally, 40 patient cards were selected randomly and 20 key informant interviews were selected purposively. Quantitative data were analyzed using SPSS version 25 software. Missing value and outlier were checked. Recoding, categorizing, computing, counting and other statistical analysis were done. Qualitative data were analyzed manually. Thematic analysis technique was used. The collected Qualitative data were transcribed, translated to English language then coded, code was thematized and summarized to respective dimension. After analysis, triangulations of qualitative and quantitative data were done. The conclusion were given based on pre defined judgement parameter. Finally the data were presented using narration and tables.

Result: The availability of resource for implementation of pain free Hospital initiatives; Compliance of health care providers to manage pain with guideline and the mean satisfaction of patients with pain management were good.

Conclusion and recommendation: Overall process of pain management program implementation in seka hospital were well implemented. Nearly greater than half of patients who got service in hospital were assessed for pain level. Clinical audit for pain management was not performed in the Hospital. So, healthcare provider should have to assess pain for all patients and further more pain clinical audit should have to be performed.

Key words: *pain level, opioids, pain management, Evaluation, health care provider*

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Contents

Abstract	II
Acknowledgement.	III
Lists of tables	VII
Lists of figures	VIII
Lists of Acronomy	IX
Operational Definitions	X
Chapter One: Introduction	1
1.1 Background	1
1.2 Statement of the problem	3
1.3 Significance of the study	5
Chapter Two: Program Description	6
2.1 Description of Program stakeholders.	6
2.2, Program Goal and Objectives	3
2.2.1, Program Goal	3
2.2.2, General Objectives	3
2.2.3, Specific Objectives	3
2.4, Major strategies	3
2.5, Program Activities and resources	4
Program resource	4
Program Activities	4
Out puts	4
Out comes	4
Impact	5
2.5, Program logic model	5
2.6, Program stages of development	7
Chapter Three Literature review	8
3.1, Availability Dimension	8
3.2, Compliance Dimension	9
3.3, Satisfaction Dimension	9
Chapter Four: Evaluation Question and Objectives	12

4.2, Objectives of the Evaluation	12
4.2.1 General Objectives	12
4.2.2 Specific Objectives	12
Chapter Five: Evaluation Method	13
5.1 Study Area	13
5.2, Evaluation Period	13
5.3, Evaluation Approach	13
5.4, Evaluation Design	13
5.5, Focus of the Evaluation and Dimensions	14
5.5.1, Focus of the evaluation	14
5.5.2, Evaluation dimensions	14
5.6, Indicators and Variables	15
5.7, Population and Sampling	16
5.7.1, Target Population	16
5.7.2 Source Population	16
5.7.3, Study population and Study Units	16
Units of analysis	17
5.7.4, Sample size determination and Sampling technique.	17
5.7.5, Sampling Technique	19
5.7.6, Inclusion and Exclusion Criteria	19
5.8, Data Collection Method	20
5.8.1, Development of data collection tools	20
5.8.2, Data Collectors.	20
5.8.3, Data collection field work	20
5.8.4, Data quality Control	21
5.9, Data management and Analysis	21
5.9.1, Data entry and cleaning	21
5.9.2, Data analysis	22
5.10, Judgement parameter and Matrix of Analysis.	22
5.11, Ethical Consideration	23
5.12, Evaluation Dissemination Plan.	23

Chapter Six: Result	24
6.1 Availability of Resources	24
6.2 Compliance of Pain management with guideline.	29
6.3, Satisfaction dimension	32
6.2 Patient satisfaction towards pain management service.	34
Chapter Seven: Discussion	38
7.1, Availability of Resources	38
7.2, Compliance of healthcare provider to guidelines.	39
7.3, Satisfaction dimension of Patients towards Pain management	40
Unit eight: Conclusion and Recommendations.	42
8.1, Conclusion	42
8.2, Recommendations	43
Unit Nine: Meta Evaluation	45
Reference	46
Annexes I:	52
Information matrix for Indicators	52
Annex II. judgmental matrix for indicators	58
Annex III: Data Collection tools	59

Lists of tables

Table 1: **Stakeholder analysis of pain free hospital initiative program seka chekorsa hospital 2021** **Error! Bookmark not defined.**

Table 2: Availability of Health care human resource of seka chekorsa hospital 2021

Table 3: Availability of resource needed for Implementation of pain free hospital 2021. **Error! Bookmark not defined.**

Table 4: Availability of medication needed for implementation of pain free hospital initiatives 2021. **Error! Bookmark not defined.**

Table 5: Judgment Matrix of availability Dimension in the evaluation of Pain free hospital initiatives in seka chekorsa Hospital, Southwest Ethiopia 2021. **Error! Bookmark not defined.**

Table 6: Table of frequency of Pain management activities in seka chekorsa hospital 2021 **Error! Bookmark not defined.**

Table 7: Judgment Matrix of Compliance Dimension in the evaluation of Pain free hospital initiatives in seka chekorsa Hospital, Southwest Ethiopia 2021. **Error! Bookmark not defined.**

Table 8: Socio-demographic and economic characteristics of respondents of exit interview for evaluation of implementation of pain management in seka chekorsa hospital 2021. **Error! Bookmark not defined.**

Table 9: The overall satisfaction level of patients with pain management program in seka chekorsa hospital 2021. 35

Table 10: Judgment Matrix for satisfaction dimension on evaluation of Pain free hospital initiative implementation in seka chekorsa hospital 2021. 36

Table 11: The overall judgmental matrix of Implementation of Pain free hospital initiatives in seka chekorsa hospital, South west Ethiopia, 2021. 37

Lists of figures.

Figure 1:Program logic model of pain free Hospital initiative in seka chekorsa Hospital 2021....	6
Figure 2:Conceptual framework on Pain free Hospital initiatives in Seka chekorsa Hospital 2021 (developed by investigator after reviewing literature)	11
Figure 3:Sample size determination for exit interview of pain free hospital initiatives in seka chekorsa hospital 20121	18

Lists of Acronymy.

FMOH: Federal Ministry of Health.

FPS: Facial Pain Scaling.

GPM: General Pain Management.

HCP: Health care provider.

IPT: International Pain Management.

NGO: Non-Governmental Organization.

NRS: Numerical Rating Scale.

OPD: Out-patient Department.

PFHI: Pain Free Hospital Initiatives.

UK: United Kingdom.

USA: United State of America

VRS: Visual rating Scale.

VS: Vital Sign.

WHO: World Health Organization.

Operational Definitions

Acute pain: is type of pain that lasts for less than three months that associated with skeletal muscle spasm and sympathetic nervous system activation, provoked by a specific disease or injury, serves a useful biologic purpose, and is self-limited.

Availability Opioid: Number of availability of anti pain medications within at least three months in the hospital units.

Chronic pain: is type of pain that lasts for more than six months which may arise from psychological states, serves no biologic purpose, and has no distinguishable end-point and persists for more than three months and it is considered as disease condition.

Guideline: A non-specific written rule and principles that provide direction of a given activities or procedure and it contains a set of checklists of which users manipulate in activities.

Health care providers: an individual who care for sick people, Provide Counseling, give health education, gives treatment for different health condition/illness/ and have a professional liscience in health science.

Invasive procedure: is a procedure done in a private form or a procedure done to assess sensitive area of human body by health worker.

Opioids: Opioids are a class of drugs that are chemicals; natural or synthetic wich healthcare providers prescribe to manage moderate to severe pain.

Pain: is a sensory activation occurred due to tissue damage or systemic illness.

Pain assessment: Process of identifying pain level of an individuals by Health care provider by using pain rating scale method in adults and facial appearance for children.

Pain level: Is pain grade based on world health organization pain measuring tool, which done by asking patient complain towards pain.

Satisfaction: Is one's need,expectation, desire, or the feeling gained from pain management service.

Vital sign: is records that are related to life events which includes Temperature, Blood pressure, Pulse rate, Respiratory rate, Pain level and important to determine if a person have illness or normal.

Ward: Is hospital unit in which individuals who need health care kept under medical treatment and health care provider supervision until recovery.

Wheelchair: a two wheeled instrument used to transport patient within hospital.

Chapter One: Introduction

1.1 Background

Pain is an unpleasant sensory and emotional experience which is described in relation to tissue or organ damage. Genetic, cultural, age and gender– related variability results in diverse responses to nociceptive stimuli. Some groups of patients are highly vulnerable to inadequate pain control, especially children, the elderly and patients with communication disorders. Acute pain is worst in immediate postoperative period, early days following trauma injury. It depends on the type of surgery, its duration and level of tissue injury.(1,2)

Based on duration of symptom pain can be categorized as acute or chronic pain. Acute pain is associated with skeletal muscle spasm and sympathetic nervous system activation, provoked by a specific disease or injury, serves a useful biologic purpose, and is self-limited and lasts for less than three months. Chronic pain, in contrast, may be considered as a disease state. It is pain that outlasts the normal time of healing, if related with a disease or injury. Chronic pain may arise from psychological states, serves no biologic purpose, and has no distinguishable end-point and persists for more than three months.(3)

Pain and its aftermath often cause unpleasant consequences for the patient and family. Pain has not only physical and psychological consequences, but also social consequences. Social consequences of pain from severe and chronic pain hinder normal functioning and implementing daily duties; they lead to the elimination of signs of social activity, focus thoughts on the pain and the constant searching for the cause can cause mental isolation and depression victim has a sense of dramatically reduced availability of the surrounding world.(3)

Pain significantly influences an individual's health status and can have serious negative consequences, including morbidity and mortality. It has been reported that postoperative pain is insufficiently managed worldwide. Patient experiences following surgery have been investigated in many countries including France, Germany, Italy, the Netherlands, UK and USA, and up to 80% of those surveyed experienced postoperative pain. Large numbers of patients in middle and low-income countries suffer from acute or chronic pain. It does not seem to result from the lack of effective clinical measures, but much more from inappropriate arrangements of pre or post

procedure pain treatment. In Polish hospitals it is common to choose the painkiller according to its cost, availability and physician's habits.(4–6)

In Ethiopia, it is estimated that nearly 60,000 people affected each year in unnecessary moderate or severe pain from several reasons that contributed people suffering and dying with moderate to the worst possible pain. (7)

Pain management is a combination of patient's pain assessment through taking proper history, examining the patient and provision of appropriate treatment for the pain. It is considered adequate if there is congruence between the patient's reported level of pain and the appropriateness of the therapy which includes both pharmacologic and non-pharmacologic treatment. According to the Ethiopian pain management guideline, the non- pharmacological therapy includes educating both the patient and care giver, psych-therapy- (psychological and behavioral therapy), physical and rehabilitative therapies, complementary and alternative medicine, and other physical and invasive modalities. The treatment also involves several types of health care approaches and providing pharmacological treatment coupled with appropriate non-drug therapy is known to maximize the patients' ability to deal with chronic pain. (8)

Many studies conducted to assess pain management tried to identify the reasons for its poor pain management which among others include: poor or improper assessment of the cause of pain, ignoring the impact of pain on the patient quality of life, not setting a realistic case management goal, not doing regular reassessment to detect changes in pain severity, fear of using strong analgesics (opioids), misdiagnosis of cause of pain mechanism, lack of awareness about the various treatment options by health workers, and not taking a holistic approach to pain management and factors associated with the availability of resources such as drugs.(8)

The tough regulations instituted in many developing countries are mentioned as reasons for not using opioid drugs for pain management however, continued reluctance to prescribe opioid among health professionals was observed despite relaxation of regulation on opioid availability for pain relief. Although the need for proper pain management is increasing in Ethiopia, it has yet to get the attention it deserves apart from the attempt to develop a national guideline. Therefore, it was imperative to conduct this assessment to identify the implementation of pain free hospital initiatives in Seka chekorsa primary hospital.(9)

1.2 Statement of the problem

In many countries Pain is widely untreated causing suffering and financial loss to the individual and society. Large numbers of patients in middle and low-income countries suffer from acute or chronic pain, because the health care givers mostly do not treat pain. Several reasons have contributed to millions of people suffering and dying with moderate to the worst possible pain which includes lack of anti-pain drugs, legal and regulatory restrictions, lack of implementation policy on pain management, cultural misperceptions about pain, inadequate training of healthcare providers on pain assessment and treatment, lack of operational standards and lack of clinical audit at Hospitals, concern about diversion, addiction, and abuse.(7)

Pain is a major public health problem affecting adults worldwide than heart disease, cancer and diabetes combined. In the latest data from the Global Burden of Disease Project published in 2017, the global point prevalence from chronic back pain was 7.8%, meaning that 577 million people are affected at any one time is a common problem affecting all age groups from children to the elderly worldwide. 2018 systematic studies in the United States, United Kingdom and other high-income countries done on workers and general population found that overall, more than 50% of people with low back pain seek care annually in the proportions of 67% in the United States and 48% in Europe respectively.(10)

Approximately 826 million people in Africa, patients in Nigeria, Botswana, Ethiopia, Tanzania, Uganda, and Zimbabwe; are affected by pain from different source including human immunodeficiency virus (HIV), musculoskeletal pain, lower back pain and physiologic pain. Study of 500 farmers in rural Nigeria, more than half had reduced their farming workload and one in 3 had been absent from work because of low back pain which is the same in ethnographic study of villagers in Botswana found that low back pain as well as other musculoskeletal symptoms results in both economic and subsistence consequences. (11)

A 2020 population study in Central Ethiopia on 1812 people found that 30% of the population had sought health care for low back pain. In addition, a study conducted in one Ethiopian Tertiary care hospital found more than 91% patients who had a surgical intervention experienced pain. A similar study in another tertiary care hospital of Ethiopia also showed 78% of postoperative patients suffering from pain ranging from moderate to severe intensity. (11)

Since pain can significantly influence an individual's health status and can have serious negative consequences, Guidelines, Operational standards, Pain assessment and management tool, pain management focal person, pain clinical audit checklists, Hospital pain free standard indicators for the management and sustainable anti-pain medication of pain in the different department have been introduced to provide practical advice to Healthcare provide and other leaders who are developing programs to improve pain management in their services and facilities. The focus was on medical patients, though many of the principles described here are relevant to patients recovering from surgical care who are increasingly co-managed by hospitalists.(7)

So, this study was targeted in identifying Pain management in Hospitalized patients and gaps in Availability, the compliance and satisfaction of PFHI the service. There was also aim to generate appropriate information on the implementation of status of PFHI due to high interest of stakeholders, knowledge of evaluator and the reality that there is no research done before on the area. Therefore, this study was aimed to explore the views of clinicians and patients regarding acute pain management to move toward a pain-free hospital initiative in Seka Chekorsa primary hospital.

1.3 Significance of the study

This study helps to generate appropriate information on the implementation of status of Pain free hospital initiatives in Seka Chekorsa Hospital and the result of the stud will be used by different stakeholders.

For Program Implementers and managers the result of this study will be important to see if they are tracking toward objectives and goals and for developing an action plan, to provide immediate response, resource allocation, and predicting future program design, development of strategies.

For a researcher the finding will be used as a baseline for further study and will help in identifying information gaps related to resource needed, Availability and the compliance and satisfaction of the service.

For Other concerned body like Zonal Health department and different NGO's the result will help as an input for strengthening the implementation of the Pain free Hospital initiatives for informed decision-making, strategic decision and resource allocation.

Chapter Two: Program Description

2.1 Description of Program stakeholders.

Key stakeholder involvement enables the design and implementation of an evaluation the use of evaluation results for decision making process. Identifying key stakeholders in a given specific evaluation a critical step, which is the same with identifying evaluation's customers. Improper participation of stakeholders is one of the most common reason for failure of programs and initiatives. Therefore, any effort should be made to promote large and active participation of stakeholders in the planning, implementation of the evaluation process. (12)

During the evaluability assessment the key stakeholders who have identified role in the program were engaged and provided with important information. We have decided on how to execute the evaluation process on assessment of pain free hospital initiatives and what test question should be asked. In addition, their role in the project and in evaluation, interest in this evaluation and communication method was determined to detect and act in order to avoid potential misunderstandings and/or opposition to implementation of evaluation.

Table1: Stakeholder analysis of pain free hospital initiative program seka chekorsa hospital 2021

S/N	Stakeholders	Role in the program	Interest or perspective on evaluation	Role in the evaluation	Communication Strategy	Level of importance
1	Oromia Health Bureau	Capacity building, Monitoring and evaluation, supportive supervision	Identify challenges during evaluation for program improvement, lessons for scale up	Source of information, interpreter and user of evaluation findings	Email Telephone -Review meetings	High <i>(based on legacy and frequency of contact the stakeholder have)</i>
2	Jimma Zonal Health department	Capacity buildings, Monitoring and evaluation, supportive supervisions	<p>need to know areas where improvement is needed.</p> <ul style="list-style-type: none"> •Service quality improvement utilize evaluation findings 	<p>-stablish the criteria for success or failure of the program</p> <p>-supporting evaluation activities,</p> <p>-stockholder identification</p>	<p>-phone</p> <p>-Emails</p> <p>-Reports</p> <p>-Review meetings</p>	High
3	Seka chekorsa Woreda Health office	provide contribution on identifying and selecting clients facilitation, coordination & Integration of activities	<ul style="list-style-type: none"> • program improvement • To know how well care providers is doing according guideline. 	<p>-Developing criteria's</p> <p>Selecting evaluation questions and methods</p> <p>Interpretation of findings</p>	Review meeting	<i>High</i>

		<ul style="list-style-type: none"> • Technical Supports 				
4	Health care Providers.	<p>appropriate service provision, monitoring technical support (follow up)</p> <ul style="list-style-type: none"> • recording & properly 	<p>Enhancing quality service improve Performance status</p> <p>For knowing status of quality and implementation status</p> <p>Interested problems to be identified.</p>	<ul style="list-style-type: none"> • describing program activities, context, priorities and outcomes • serving as sources of data during the evaluation • utilize evaluation results. 	<ul style="list-style-type: none"> • face to face communication • reports • feedback • review meetings 	<i>High</i>
5	Beneficiaries/ Clients	<p>Involvement ownership & membership</p> <p>Provide information (source of data)</p>	<ul style="list-style-type: none"> • Getting quality service 	<ul style="list-style-type: none"> • source of data/information 	Face to face	High

2.2, Program Goal and Objectives

2.2.1, Program Goal

To introduce and maintain the highest standard of pain management, by debilitating condition that often is associated with significant physical, emotional, and improve coping ability and optimize health of Hospitalized patients.

2.2.2, General Objectives

To promote the all-possible approach for pain management implementation in Seka Primary Hospital, South west Ethiopia, 2021.

2.2.3, Specific Objectives

- ❖ To promote pain free Procedures for all patients in Seka chekorsa hospital in 2021.
- ❖ To standardize protocols for use of analgesics for different types of pain in all departement of Seka chekorsa Hospital in 2021
- ❖ To promote pain free surgery for all patients admitted to opeation room in Seka chekorsa Hospital in 2021.
- ❖ To promote pain free prolonged labour of all delivering women in Seka chekorsa Hospital in 2021.
- ❖ To integrate complementary mechanism and non-pharmacological technique for all patients to pain relief in Seka chekorsa Hospital in 2021.
- ❖ To promote pain free discharge for all hospitalized patients in Seka chekorsa Hospital in 2021.
- ❖ To implement pain assesment as 5th vital sign for all patients in Seka chekorsa Hospital in 2021.

2.4, Major strategies

Pain Free Hospital Initiative program uses different approaches to implement and execute its activities in order to meet the projects' goal and objectives. These includes:

- Coordination and cooperation with different stakeholders.
- Good communication and consultation.
- Practice standardized treatment protocols for management of acute pain, use of
- Assessing pain in all patients

- Use of Standardized pain assessment tools must be applied consistently
- Educate patients and get them actively involved in their own pain management
- Use multi-disciplinary team approach in pain management
- Conduct training for all health care staffs on knowledge and skills in pain assessment and managements
- Incorporate non-pharmacological technique into pain management practices

2.5, Program Activities and resources

Program resource

- Human resources like medical doctors, Nurses, Midwives, Pharmacist, and supportive staffs.
- Health care finance
- Antipain drugs and supplies
- Record and documents
- Hospital Units
- Guidelines
- Transportation
- Water and Electric power.

Program Activities

- Training health professionals on pain assesment
- Training Health professional on appropriate pain treatment.
- Developing interdisciplinary team of pain management
- Purchasing anti-pain drugs.
- Dispensing Antipain to Nearest Pharmacy of different Units.

Out puts

- ❖ Trained health professional on pain management
- ❖ Health professionals who can give appropriate pain treatment
- ❖ Number of pains managing team per Hospital
- ❖ Amount of Antipain purchased.
- ❖ Functional pharmacies per units.

Out comes

- ✧ Increased satisfaction of clients towards pain management
- ✧ Increased harmony of Health workers in pain management

- ✧ Decreased pain level of patients.

Impact

- ✓ Healthy and pain free clients

2.5, Program logic model

Program logic is a model that shows program components, how the program operates, in what condition the program undertaking in defined condition to overcome the identified problems. It is cornerstone to show the program expectation, performance, the focus of the program for stakeholders, other concerned bodies. Therefore, logic model is an important tool for evaluation

(12)

Statement of problem: Identifying the gaps in Availability, the compliance of provider to guideline and satisfaction of patients with pain management service in seka chekorsa primary Hospital 2021.

Goal: To make healthy and pain free clients by introducing the highest standard of pain management.

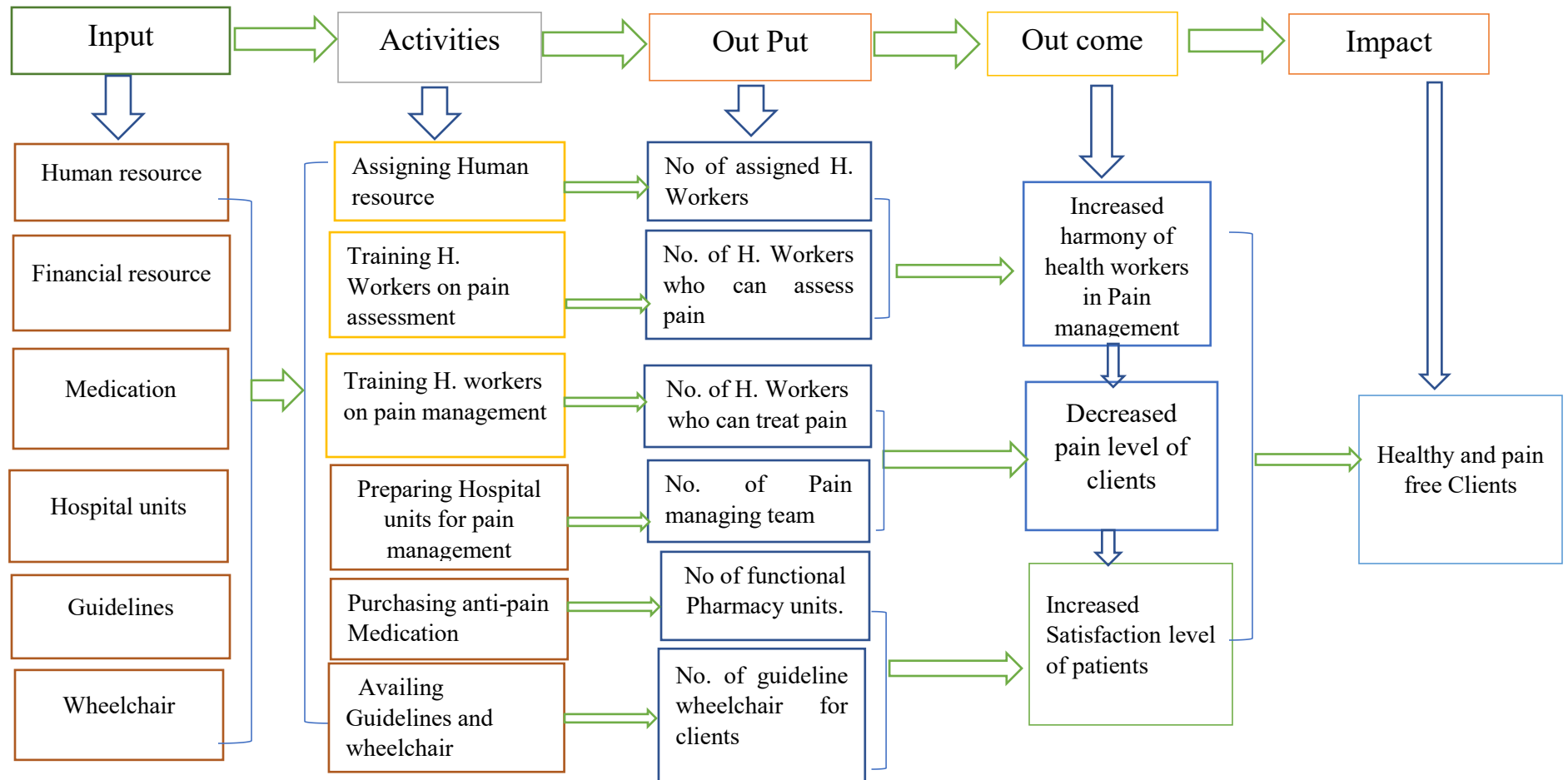


Figure 1: Program logic model of pain free Hospital initiative in seka chekorsa Hospital 2021.

2.6, Program stages of development

In 2014, the Federal Ministry of Health (FMOH) with the American Cancer Society Treat the Pain Program launched the Pain-Free Hospital Initiative (PFHI), a one-year hospital-wide quality improvement initiative to integrate pain treatment into service delivery by providing education for hospital staff, raising motivation and awareness, measuring and documenting pain levels, and improving medicine supply was introduced in Ethiopia.(7)

PFHI was started in Ethiopia with the aim of improving pain management service in health institutions though the strategy like assigning pain management team in hospital, who will use standardized protocol of an adult and pediatric pain management. It also incorporates respective hospital Health workers Communicating PFHI and awareness raising on the endorsement of pain as the 5th vital sign, Coordinate the patient education activities, clinical audit, documentation and reporting to concerning body. (7)

In 2019 PFHI program was initiated in Seka chekorsa primary with the of improving pain management service and it is at implementation stage.

Chapter Three Literature review

3.1, Availability Dimension

According to the case study done in Ethiopia that Availability of staff – both those who directly deliver services to the community, and health managers and support staff – is relatively poor. For many years, the number of health workers was extremely limited, with an estimated 100–200 medical doctors and 25–30 midwives deployed annually. In this case, shortages of key staff and poor distribution (low staffing in hard-to-reach areas) could be highlighted as two of the main constraints to be tackled.(13)

According to World Health Organization (WHO) data from 2003, in developed countries accounted for 79% of global morphine consumption, while developing countries only accounted for 6% of global opioid consumption despite improved access to pain treatment over the past 2 decades. Solving these problems depends on international communities achieving a balance between ensuring availability of opioids for medical and scientific purposes and preventing their diversion for abuse, a well-known and significant problem.(6)

The study Conducted in 2013 in Middle East countries shows that majority of the countries surveyed that they had limited access to the essential opioids which is <10% of the anticipated Adequacy of Consumption as defined by the International Narcotics Control Board which indicates that opioid availability continues to below throughout most of the Middle East. Formulary deficiencies are severe in several countries.(9)

In 2019 Prospective observational cross-sectional survey and medical chart review conducted on an audit of pediatric pain prevalence, intensity, and treatment at a South African tertiary hospital show that of children who experienced pain during the past 24 hours, 82% had been prescribed analgesic medication and the majority of those (80%) with prescribed analgesia were medical patients.(14)

In 2019 the study done on the views of patients, healthcare professionals and hospital officials on barriers to and facilitators of quality pain management in Ethiopian hospitals show that the high costs of narcotics and the lack of opioids were further significant challenges mentioned by the health care Providers and hospital officials. The lack of resources has prevented the health care system of the country from delivering Quality Pain Management for several years.(15)

Study conducted to assess Perceptions and experiences of laws and regulations governing access to opioids in South, Southeast, East and Central Asia in 2020 show that Codeine and Tramadol were the most readily available opioids supports suggestions that layers of legal and regulatory process are removed for substances not under international control. The survey conducted by the International Narcotic Control Board itself confirmed that negative impact of an international scheduling on the availability of Tramadol. In total, 72% of respondents (33 of 46 countries) expressed concern that the introduction of control measures would limit accessibility to Tramadol and make doctors more reluctant to prescribe it.(1)

3.2, Compliance Dimension

According to Study done on Managing Pain in Patients with Cancer in 2015, The Chinese Good Pain Management (GPM) Experience program on pain management before and after its implementation at four hospitals indicates that Visual Rating Scale (VRS) was the method used for pain assessment shown that rates for patients with moderate and severe pain at Tongji Hospital Cancer Centre were 24.3% ([189 2 143 = 46] of 189) and 38.3% ([47 2 29 = 18] of 47), respectively. These rates improved after a further 2 weeks to 72.0% ([189 2 53 = 136] of 189) and 95.7% ([47 2 2 = 45] of 47), respectively. (16)

In 2015 a study done in America to investigate prevalence, treatment, and management of pain in 78 patients aged 65 and older on six acute care medical units show that the VAS, the Faces pain scaling (FPS), Present Pain Intensity (PPI), and the IPT to assess patients' pain intensity. Of the participants, 94% were able to use the international pain treatment (IPT) to rate their pain. Eighty-five percent (n=22) of those with perceived (identified by the nurse) were able to use the IPT and 98% (n=50) of the cognitively intact group was able to report pain intensity using the IPT. Additionally, the IPT was the tool that correlated best with other tools.(17)

3.3, Satisfaction Dimension

A Study conducted in 2002 to assess Pain Prevalence in a French Teaching Hospital Concerning patient satisfaction, 79% of patients considered that a lot had been done to relieve their pain and 76% were satisfied with pain management. About 30% of patients reported substantial or total pain relief and the pain measured at the time of survey disappeared in 16% of patients. Concerning pain management, 83% of patients perceived that care providers paid attention to

their pain and listened to them, and 64% were told that pain management was an important matter by a nurse or a physician.(18)

A Question Prompt List for Advanced Cancer Patients Promoting Advance Care Planning: A French Randomized Trial of the 46 patients in the intervention arm, 31 (67%) read all the sections in the booklet, 11 (24%) read it partially, and 4 (9%) did not read it. During an average of one month between inclusion and the next consultation, the patients read the booklet twice on average; 80% agreed that it was helpful for communicating with their physician, and 90% thought it was easy to understand and helps in pain management.(19)

Study done in California Pediatric Care in 2014 on cost analysis utilizes focused on the goal of measuring the effect of PF services over time, only caregivers who had at least two responses were included in the satisfaction and quality-of-life analyses. For caregivers to have completed at least two surveys, children had to have been enrolled for at least six months (enough time to complete a baseline and initial follow-up survey). Of their 102 caregivers, 50 responded to at least two surveys, for a 49% response rate at first follow-up. Of the 50 caregivers included in the analysis at first follow-up, 36 had children who were enrolled for at least one year, the minimum time necessary to complete a second follow-up survey. Eighteen of the 36 completed a second follow-up survey, for a 50% response rate at one year. More specifically, caregivers' sense of support from their care coordinator and perceptions of the care coordinators' ability to listen and be sensitive to the family's needs scored at least 9.6 at all points. (20)

A study conducted in New York in 1996 on Implementing National Standards for Cancer Pain Management, on Six hundred and ninety-six patients who reported experiencing pain during hospitalization were interviewed as patients reported being "satisfied" or "very satisfied" with how caregivers treated their pain and reported an increase in being "very satisfied" with caregivers, the greatest improvement in satisfaction with how nurses managed their pain. Overall, the study shows very high patient satisfaction rate of (92%) followed by 8% of less than satisfied with pain management (21)

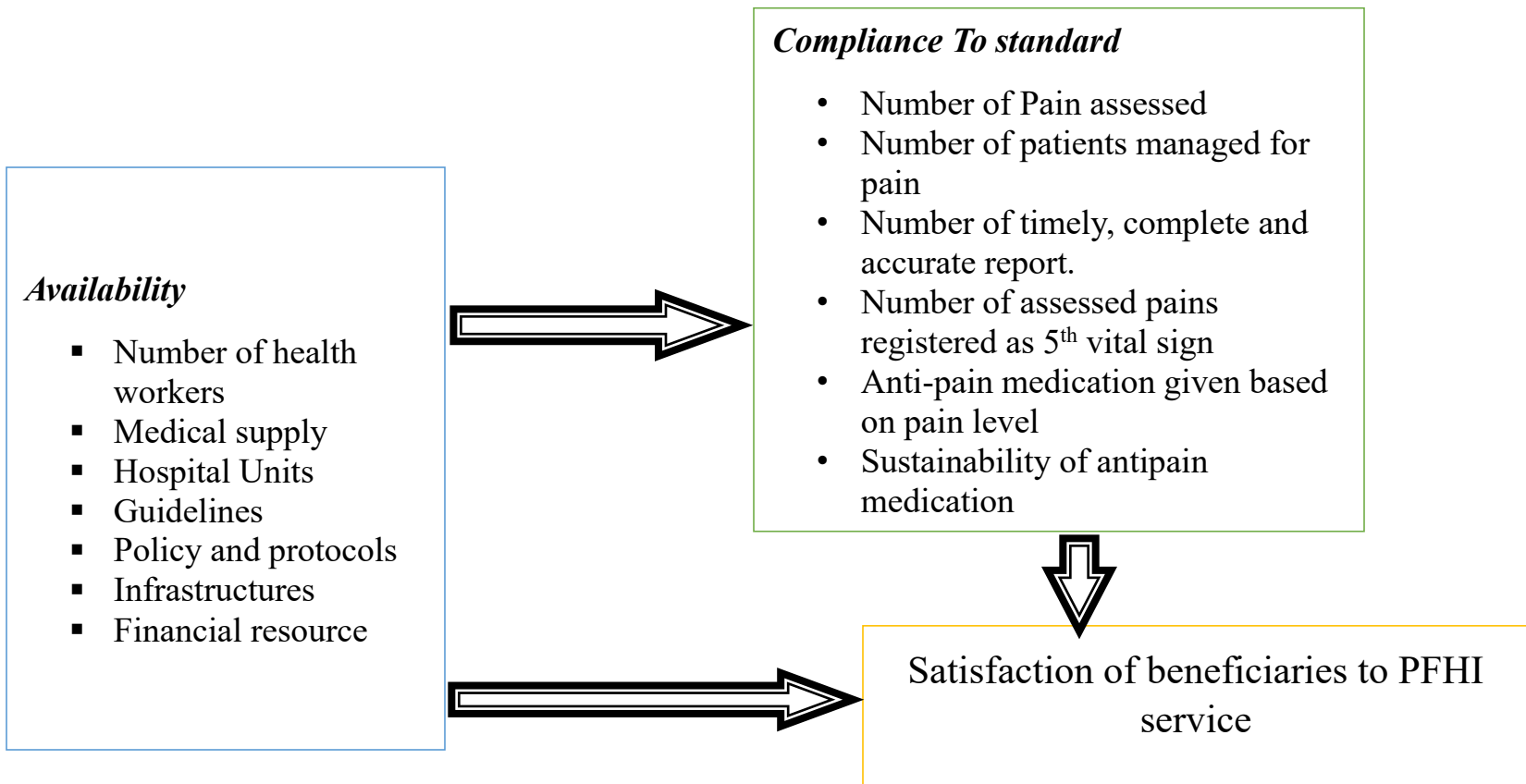


Figure 2: Conceptual framework on Pain free Hospital initiatives in Seka chekorsa Hospital 2021 (developed by investigator after reviewing literature)

Chapter Four: Evaluation Question and Objectives

This evaluation attempt to answer the type of questions related to the implementation of Pain free Hospital initiatives in Seka Chekorsa primary Hospital. These Evaluation questions includes:

1. Are there required infrastructures or resources needed to implement Pain free Hospital Initiative program? If Yes How? If not why?
2. Did the health care providers implement Pain free Hospital Initiative as national guideline protocol? If Yes How? If not why?
3. Are the Clients satisfied with the PFHI program service? If Yes How? If not why?

4.2, Objectives of the Evaluation

4.2.1 General Objectives

To assess the Implementation Evaluation of Pain Free Hospital Initiatives in Seka Chekorsa Primary Hospital, Oromia Regional State, South West of Ethiopia, 2021

4.2.2 Specific Objectives

- To assess the availability of resource needed for successful implementation of pain free hospital initiatives in seka chekorsa primary Hospital, 2021
- To assess if PFHI is implemented according to National guidelines in seka chekorsa primary Hospital, 2021
- To assess the patient satisfaction of pain free program service in seka chekorsa primary Hospital, 2021

Chapter Five: Evaluation Method

5.1 Study Area

The study was conducted in South West Ethiopia, Oromia regional state, Jimma Zone, Seka Chekorsa woreda, which located at a distance of 376Km from capital city of the country Addis Ababa and 22Km from Zonal administration, Jimma town. Seka Chekorsa woreda is bordered on the North Gera and Mana woreda, at South SNNP, by East Dedo woreda and Jimma town and On West by Shabe sombo woreda.

Seka Chekorsa Primary Hospital delivers service for population from Seka chekorsa, Shabe sombo and partely from Gera and SNNPR, which is about 46, 0447 people, 234828(51.1%) male and 225619(48.99%) females. There are total of 206 workers in the Hospital, 96 Health workers and 110 technical staffs who service the people. The hospital have an average of 270 patient flow per day, thirteen department and total of 64 beds.(22)

5.2, Evaluation Period

The Evaluability assessment was conducted from February 15-20/2020 and the Evaluation was conducted from May 03-24/2021

5.3, Evaluation Approach

A formative evaluation approach was employed to assess the implementation status of free hospital initiative implementation. According to evaluability assessment report from Seka Chekorsa Primary Hospital shows, pain free hospital initiative program is ongoing and it is under implementation stage. Therefore, in order to evaluate the implementation status of the program and to provide feedback for the program implementers and other decision-makers for improving and sustaining the program formative evaluation approach was applied .(23,24)

5.4, Evaluation Design

A single case study design was employed to evaluate whether Pain free Hospital initiative implementation is going as per the standard guideline. Case study design is flexible, have the ability to provide comprehensive understanding of the program, and it's the method mostly used for evaluation of program's resource needed, acceptability, and problem addressed due to program implementation. Case study design is the preferred study design for answering "why" study questions and when the study needs to focus the contemporary phenomena. Hence, a

"why" question is being asked about a contemporary set of events over which the investigator has little or no control. Case study allows multiple data collection (qualitative and quantitative) techniques from different source. Qualitative and quantitative data was collected and compiled and independently then it was triangulated. Finally, the result from both data collection method were analyzed and interpreted.(25)

5.5, Focus of the Evaluation and Dimensions

5.5.1, Focus of the evaluation

The focus of this evaluation was on the process of Pain free Hospital initiative program implementation. The focus of program evaluation was dependent on program and stakeholder priority, availability of resource and finance. Depending on purpose of the evaluation and stakeholder's priority: the measurable dimensions: availability, compliance, and Satisfaction of Patient to the service was assessed. These dimensions were used to determine the level of the implementation of Pain free Hospital Initiative program at Seka Chekorsa Primary Hospital.(26)

5.5.2, Evaluation dimensions

Indicators relevant to each dimension i.e., Availability, compliance and satisfaction dimension identified, selected, prioritized and weight was assigned with active participation and consensus was reached with stakeholders.

The dimension of availability was measured the availability of human resource, budget, registration book, medications, guideline and infrastructures in Seka Chekorsa Hospital that were important for implementation of Pain free hospital initiative program.

The dimension of compliance refers the extent to which Pain free hospital initiative program implemented as per stated standard and guideline. This includes Measurements of how Health workers in the hospital performs PFHI implementation activities of program correlates with national guidelines, service delivery, drug and commodity supply, and readiness of professional.

The Satisfaction dimension measured the stakeholders and other concerned body's satisfaction to the service delivered by the program and how were they accept the way of service delivery by the program.

5.6, Indicators and Variables

Indicators were selected with active participation of stakeholders conducted by using nominal group techniques.

Availability indicators

- ▲ Number of pain focal person assigned to hospital units.
- ▲ Number of health care providers assigned to hospital units.
- ▲ Number of hospital units with guideline as per the standard at the date of surveys.
- ▲ Number of pain management guideline assigned for hospital units.
- ▲ Number of opioids available within at least in this quarter in the hospital units.
- ▲ Proportion of hospital units with wheelchair.
- ▲ Proportion of hospital units with Vital sign sheet for pain follow up in hospital units.
- ▲ Proportion of hospital units with pain measuring protocol in hospital units.

Compliance indicators (9 indicators)

1. Proportion of health care provider who registered pain assessment with valid pain level.
2. Proportion of pain management audit performed in the last two quarters.
3. Proportion pain management protocols visible in clinical areas on the time of data collection.
4. Proportion of health care providers who assessed pain in mean time of 40 minutes.
5. Proportion of health worker who assessed pain before patient discharge.
6. Proportion of health care provider who rated pain 0/10 at time of patient discharge.
7. Proportion of health care providers who administer antipain for patients.
8. Proportion of health worker who recorded pain as the fifth vital sign.
9. Proportion of reports send to zonal health department in the last six months.

Client Satisfaction indicators (6 indicators)

- ❖ Proportion of clients satisfied with the Pain free hospital initiative service provided for them.
- ❖ Proportion of clients satisfied with pain relief drugs given to them
- ❖ Proportion of clients satisfied with convenience of pain management post to their home.
- ❖ Proportion of clients satisfied with convenience of Pain management service to working hour.
- ❖ Proportion of clients satisfied with the politeness of health care provider.
- ❖ Proportion of clients satisfied with overall Pain free hospital initiative service provided.

5.6.2 Variables

- Dependent variable: Patient Satisfaction towards PFHI service
- Independent variable: Sociodemographic and economic factors like Age, Ethnicity, Religion, occupation, Income, Marital status, Educational level.

5.7, Population and Sampling

5.7.1, Target Population

Target population was all patients and clients of Seka chekorsa woreda and Shabe sombo Woreda who served by Seka chekorsa primary Hospital.

5.7.2 Source Population

Source population for Qualitative data

Key informant interview found in selected units of Seka primary Hospital. Key informant interview were individuals selected from outpatient department, emergency, surgical ward, medical ward and delivery, and selected document of patients for observation.

Source Population for Quantitative data

All People who come to Seka chekorsa Primary Hospital for the seek of medical care, and patients.

5.7.3, Study population and Study Units

Study population for Qualitative data

Key informants were Health care providers selected from outpatient department, emergency, surgical ward and medical ward

Study Population for Quantitative Data

All selected clients and who was came to treated for pain in Seka primary Hospitals.

Study Units: Are the actual data source of the evaluation include patients, health care providers and patients' card/document.

Units of analysis

- ✓ Primary units of analysis are patients, health care providers and patients' card/document.
- ✓ Secondary units of analysis are Hospital units which includes Out Patient Department, Emergency, Surgical ward and medical ward.
- ✓ Tertiary units of analysis are Seka chekorsa primary Hospital.

5.7.4, Sample size determination and Sampling technique.

Sample size Determination for exit Interview

To obtain a representative of sample of the target population to be measured was determined by using a single population proportion formula. Based on these assumptions, the actual sample size for the study was computed using single population proportion formula of PFHI the sample size for this evaluation was calculated by using single population formula by taking as p value 50% due to the reality that, there is no similar study conducted on PFHI. Based on this:

Z = Z score for 95 % confidence interval = 1.96, p = proportion of clients satisfied with Pain free Hospital initiative = 50%, d = margin of error 0.05.

$$n = \frac{(z_{\alpha/2})P(1-P)}{d^2}$$

$$n = (1.96)^2(0.5)(0.5) / (0.05)^2 = 384$$

By adding 10% of non-respondent was added to calculated sample size.

384+38 = 422 individuals were interviewed.

Sample size for exit interview to each selected unit was calculated by using proportional probability to sample size. By taking last year achievement of the same month from selected unit, sample size for selected unit was calculated as:

Sample size for selected unit

$$= \frac{\text{Calculated sample size} * \text{last year quarter achiev't of the same quarter of selected unit}}{\text{Summation of last year quarter achiev't of total selected units.}}$$

Based on this the selected units result of last year quarter achievement of the same quarter for Outpatient = 610, Emergency = 354, Mediacal ward =305 and surgical ward =161.

So, the sample size for exit interview was summarized as follow.

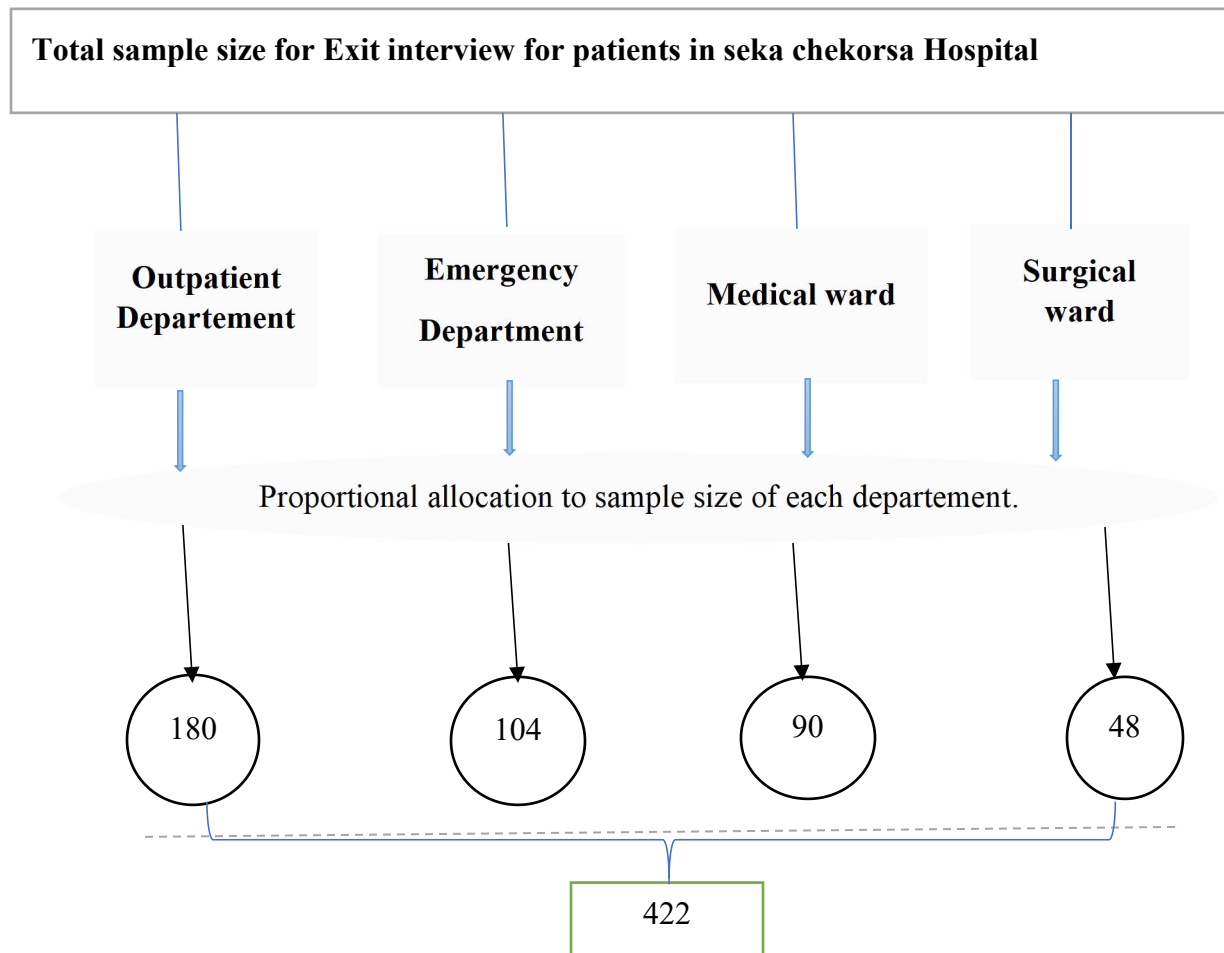


Figure 3:Proportional allocation of Sample size for exit interview of pain free hospital initiatives in seka chekorsa hospital 20121

Sample Size for Document review

In order to determine the sample size for document review, Pain Free Hospital Initiative Implementation Manual was used. Based on this 10 Patient card were observed from selected units of hospital, generally 40 patients' cards were reviewed based on pain management guideline to assess the implementation of pain Free Hospital Initiative in the hospital.

Sample Size for Key informant Interview

Based on Ethiopian Federal Ministry of Health Guideline on implementation of pain free hospital initiatives, 5 Health workers from selected units, total of 20 individuals were selected to KPI interview to assess implementation of PHI.(7)

5.7.5, Sampling Technique

Document review: Purposively four quarter of Patients card was selected to assess pain free hospital initiative implementation.

Key informant interview: Based on their work experience, 20 key informants employed for qualitative in-depth interview was selected purposively.

Sampling technique for Interview: Consecutive sampling technique was conducted which selects individuals for study in selected units of Seka chekorsa Hospital by lottery method of simple random sampling technique.

5.7.6, Inclusion and Exclusion Criteria

Inclusion criteria

- All individuals who served in selected units (Outpatient departement, Emergency, Surgical ward and medical ward) of Seka Chekorsa primary Hospital in which Pain assesment and invasive procedures done, selected patients card and healthcre provider who assigned to selected units.

Exclusion Criteria

- Patients that comes out of study period, incomplete patient documents and health care workerswho are on annual leaves during data collection on selected units.Patients that was not respond due to severity of their illness.

5.8, Data Collection Method

5.8.1, Development of data collection tools

Interview questionar Was modified from previous research based on selected dimension of the assessment pain free hospital initiatives.(28)

Document review: Document review checklist was developed from pain free hospital initiative manual by principal evaluator.

Key informant interview: Key informant interview questionnaire was developed from pain free hospital initiative manual by principal evaluator.

5.8.2, Data Collectors.

Five data collectors (BSc health professional) and two supervisors with MSc/MPH who were trained on data collection and have an experience of more than two year. To minimize bias both data collectors and supervisor were selected from out of study Hospital,Jimma town office experts. Principal investigator was given two days training on data collection tools and ethical issues. Data collectors were collect a quantitative data, exit interview and document review and Key informant interview was conducted by principal investigator by using already prepared questionnaires for the purpose of data collection.

5.8.3, Data collection field work

The daily performance of data collection and its process was assessed closely with data collectors and supervisor on daily basis to minimize error. Data collector, supervisor, and principal investigator was check consistency and completeness of the collected data daily. Appropriate correction was taken soon during the period of data collection. Questioner, in-depth interview and document review was obtained at their appropriate site.

Quantitative Data

Interviewee with patients: It was conducted after each participant discharge from the hospital while they exit from service. Separate place was set for interview to protect the privacy of the client. Patients were interviewed about their socio demographic history, their pain status,

Availability of resources needed for pain management and their satisfaction level to the program service during their hospital stay through face-to-face interview.

Document review: Patient charts were reviewed from those charts of clients who were treated for pain and other medical service in Hospital in last one year.

Resource inventory: Resource inventory was conducted by both observation of resources and interview with responsible bodies (head nurses in Outpatient, emergency, medical and surgical ward, and pharmacy head). Availability and functionality of guidelines, registration and protocols for pain management were counted. It was conducted by the principal evaluator himself.

Qualitative Data

KII: key informants were interviewed after conducting resource inventory, observation and document reviewed. Field note for each question and responses was taken in Afan Oromo language, Interviewee guide with probes was used to clarify and expand on the key informant's response. The place of interview was at the department head office of respective key informant. It was conducted by the principal evaluator himself.

5.8.4, Data quality Control

Data collector and supervisor were provided with two days training. Regular follow up of data collection process and technical support was done during data collection period. Pre-testing of questioner was done on 5% (on 21 individuals) sample size in shanan gibe general hospital. The questioner was translated to local (Afan Oromo) language to increase consistency. The questioner was examined for completeness on daily basis after data collection by data collector and supervisor. Quantitative data was entered to Epidata version 4.6.02. Then exported to SPSS software version 25 to minimize error during data entry.

5.9, Data management and Analysis

5.9.1, Data entry and cleaning

Quantitative data was checked and reviewed for completeness and consistency every day after data collection by principal investigator in collaboration with data collector and supervisor. After

checked and corrected data was coded and entered to Epidata version 4.6.02 software, then exported to SPSS and data cleaning was done. Qualitative data collected from KII was summarized and retranslated to English language for further analysis.

5.9.2, Data analysis

Quantitative data analysis: Quantitative data were analyzed using SPSS version 25 software. Missing value and outlier were checked. Recoding, categorizing, computing, counting and other statistical analysis were done. Descriptive statistics (including means, frequencies and percentages) were calculated for demographic variables other variables and presented in texts, and table.

Patient satisfaction data was scored by transforming in to percentages of scale mean score. This formula was given individual percentage mean score each indicator and to know the overall level of satisfaction of the study population, the average of this score was taken.(29)

$$(\%SM) = \frac{(\text{Actual score} - \text{potential minimum score})}{\text{potential maximum score} - \text{potential minimum score}} \times 100\%$$

The level of patient satisfaction was determine based on the judgment parameter.

Qualitative data: Qualitative date was analyzed manually, thematic analysis technique was used transcribed, translated to English language then coded, and each code was thematized and summarized to respective dimension.

5.10, Judgement parameter and Matrix of Analysis.

Judgment Criteria: the criteria were agreed up with the interest of stakeholders. The cut of point was set by considering one study studies in Axum St. Marry Hospital with some modification based on the situations in program operation(30). So, the cutoff point for level of pain management was decided to be >85% excellent, 75-85% v. good 60-75% good, 45-60% fair, <45% Program not implemented. The overall level of pain management service was judged based on this criterion.

Weighting of dimensions and Indicators: weight was given for each dimension in terms of their relative importance in the evaluation. It was decided by stakeholders as 35% for Availability, 40% for compliance, 25% for patient satisfaction by stakeholder agreement.

5.11, Ethical Consideration

Ethical clearance letter was obtained from Institutional Review Board (IRB) of Jimma University, department of Public Health before the beginning of data collection activity. In addition, support letter to the evaluation was obtained from the Jimma Zonal health department. During the time of data collection, informed verbal consent was obtained from interviewee and KII. In addition, participants were informed that the participation in the study was voluntary and they have a right to withdraw from study at any time in the absence of any precondition and Coding method to be used instead of writing names on questionnaires to protect confidentiality of participants. To keep physical privacy of respondent's separate place was prepared for interview purpose.

5.12, Evaluation Dissemination Plan.

This evaluation finding will be presented to Jimma University, institute of health and department of health economics, management and policy, health monitoring and evaluation unit. Similarly, the soft copy and hard copy of evaluation result will be disseminated to Seka Chekorsa Hospital and other stakeholders because it will help them to classify their strength and weakness on program use the finding for the improvement of performance. Lastly, efforts will be made to publish this evaluation finding on the national and/or international journals.

Chapter Six: Result

Description of the study participants

Four hundred twenty-two (422) patients who came to the hospital for the seek of medical care, in four separated department were included in the study. Resource inventory was conducted in each department of hospitals (medical, surgical, Emergency outpatient and Outpatient Departement) Ten (10) Patient card (individual document) from each department total of fourty (40) were reviewed to check the records of pain management service in the hospital and twenty (20) health worker were selected for key informant interview were also included in the study.

6.1 Availability of Resources

Human resource.

In Public Hospital of Seka Chekorsa there were 123 total Health professionals and health care finance worker of which 12 were general practitioner (GP), 56, Nurses, 18 midwives,13 Pharmacist, 2 Psychiatrist, 2 Emergency surgeon 4 anesthetist,8 laboratory workers and 7 Health care finance workers who were assigned to different departement of the hospital and there is one pain management focal person as a general.

Table 2: Availability of Health care human resource of seka chekorsa hospital 2021

SN	Professionals	Expected Standard	Number of professionals	Percentage
1	General practitioners (GP)	14	12	85.7
2	Nurses in different level	64	56	87.5
3	Midwives	20	18	90
4	Pharmacist and druggist	16	13	81.2
5	Psychiatry professional	2	2	100
6	Emergency Surgeon	2	2	100
7	General Surgeon	1	1	100
8	Laboratory technician and technologist	10	8	80
9	Anesthesia workers	3	4	100
10	Health care finance workers	8	7	87.5
Total		140	123	87.8

“Even if there is assigned nurses to in-patient department there is work overload due to that nurse who have night program is day off and still this cause shortage of nurses in medical and surgical ward because of Nurse Staff turnover. The other problem is that Nurses are on training and annual leaf which cause shortage of human resource”.

[KII, 27 years old Male BSc nurse, medical ward]

Finance and Medical equipment

During survey of infrastructure used for pain management there were guidelines, protocols, vital sign sheets and 2 wheelchairs per unit totally 8, that was used for patients that was in severe pain who cannot walk and needs help in movement from one unit to other in the Hospital. There was also pain measuring scales, pain recording vital sign sheet and protocols that used for pain management in Hospital units.

“The finance and budget needed for the purchasing of medication is covered by Health care Financing System of Hospital i.e., Budget that were funded to Hospital by ministry of health through Oromia regional Health Bureau and budget from hospital income by selling medication to the beneficiaries”.

[Majority of Key Informants responded]

Medication

This study findings showed that the availability of Medication showed that no stoke out of all type of anti-pain medication needed for pain management service during the last quarter except low dose codeine that was used to manage moderate pain level.

Table 3: Availability of medication needed for implementation of pain free hospital initiatives 2021.

WHO pain Level (Numeric rating scale NRS)	Medication With Regard to WHO pain level	Availability of Medication	
		Yes	No
Mild pain (1-3 NRS)	Paracetamol	✓	
	Ibuprofen		✓
	Diclofenac	✓	
	Acetacyclic acid (ACA)	✓	
Moderate pain (4-6 NRS)	Tramadol	✓	
	Codeine (low dose)		✓
	Morphine (low dose)	✓	
Severe Pain (7-10 NRS)	Codeine (High dose)	✓	
	Morphine (High dose)	✓	

Supply of Anti-pain medication was constantly available. Because there is strong relationship between Seka Hospital and pharmaceutic, Fund and Supply agency (PFSA) of Jimma District. The stock out occurred when Demanded items of medication by the Hospital is not present in PFSA and this problem lasts for short period of time, for not more than week.

[27 years old male nurse]

Regarding the availability of medication in all departments more than 80.8% (341) of respondents were answered that they got anti-pain medication that prescribed for them in the hospital.

Guidelines, recording and reporting tools

Guideline of Pain management in practice was available in selected units of Hospital. As health workers response, Department of Hospital had provided guideline that help in pain management. However Standard registration book for pain management is not available separately in all departments. There was also vital sign sheet with pain record as a 5th vital sign in selected unit of hospital.

Table 4: Availability of resource needed for Implementation of pain free hospital 2021.

S. N	Departement	Availability of resource					
		Guidelines	Pain management protocol	Registration book	Pain management audit checklist	Vital sign sheet with pain level	Policy statement for pain management
1	Outpatient departement	Yes	No	No	No	Yes	Yes
2	Emergency outpatient	Yes	Yes	No	No	Yes	Yes
3	Medical ward	Yes	Yes	No	No	Yes	Yes
4	Surgical ward	Yes	Yes	No	No	Yes	Yes

There was availability of medication, guidelines and protocols needed for anti-pain management, but there is no separated registration book for pain management, instead the procedure is registered on a format prepared and printed by hospital for pain assessment and management that documented in patient card /document. On the other hand, even if there is availability of anti-pain medication it is not as needed by patients. [All of key informants]

Regarding the availability of Policy statement, Pain management audit checklist and pain management registration ,

“There was availability of policy statement for pain management, but there were no pain management audit checklist and separate registration book of pain management due to low commitment of pain focal person and concerned body to fulfill it. [29 male nurse key informant]

Table 5: Judgment Matrix of availability Dimension in the evaluation of Pain free hospital initiatives in selected units of seka chekorsa Hospital, Southwest Ethiopia 2021.

S. N	Indicators	Weight (a)	Expected (b)	Observed (c)	Ach't(e) =c/b*100	Score (e*a)/100	Judgmental parameter
1	Number of health care providers assigned to hospital units	14.5	35	28	80	11.6	<p>>85% excellent, 75-85% v. good 60-75% good, 45-60% fair, <45% program not Implemented</p>
2	Number of Hospital department with guideline and manuals as per the standard at the date of surveys	12.5	4	4	100	12.5	
3	Number of pain focal person assigned to hospital units.	10.5	1	1	100	10.5	
4	Number of registration book assigned for hospital departement.	14	4	0	0	0	
5	Number of availability of opioids within at least next three months in the hospital units.	11.5	3	3	100	11.5	
6	Number of availabilities of transportation in Hospital units	12.5	4	4	100	12.5	
7	Number of hospital's departement in which Vital sign sheet for pain follow up is available.	12	4	4	100	12	
8	Number of Availability of pain measuring protocol in hospital departement	12.5	4	4	100	12.5	
Total Score of variables		100				83.1	

6.2 Compliance of Pain management with guideline.

In selected hospital department 40 patient documents/individual cards were selected and reviewed to get that patient comes to the hospital was assessed and managed for their pain during their stay in the hospital. The document reviewed showed that Pain was assessed and recorded according to national guideline of pain management on mean time of 40 minute for about 85% (34) patients and document reviewed from emergency outpatient showed that the mean time of pain assessment for patients triaged to emergency is 5 minutes.

This study also showed that Pain assessed for patients were recorded based on World health organization (WHO) rating scale, Numerical rating scale (NRS) which scaled from 0 to 10 and donated as 0/10 for each individual except document reviewed form outpatient department. This showed that about 57.5% (23/40) patients who were assessed for pain and their result were recorded according to guideline in seka chekorsa Hospital. This low percentage is due to that there were no pain rating scale system in documents of patients who threatred in outpatient departement.

From reviewed patient formats/cards, 70% (28) patients were properly administered anti-pain for patients according to their level of pain-based pain management protocol that is analogue to their result of assessed pain during their stay in hospital.

There were also recorded pain assessment for more than 55% (22) as the 5th vital sign for patients and it was done continually and regularly with other vital sign (Blood pressure, Pulse rate, temperature and Respiratory rate) in Emergency outpatient, Medical and surgical ward but there were no Pain recorded as 5th vital sign in outpatient departement.

Additionally, there were patient's reassessment for their pain before discharge for all patients and the pain assesment were reported quarterly for zonal health department. But there was no performed pain management audit in the Hospital at all during the period of data collection.

“For every patient attaining, we do proper pain assessment in a proper time and then rate the pain level of the patient based on numeric rating scale. Based on the pain level we label; anti-pain medication is given for patient. Then it is recorded as a vital sign on patient document. At the end of quarter, it is counted and reported for concerned body”.

(29 Years old General Practitioner)

Table 6: Table of frequency of document review of Pain management activities in seka chekorsa hospital 2021

S. N	Activities	Frequency(N=40)	Percentage
1	Pain assessment performed by health care provider	34	85
2	Pain management protocol attached to patients' card	30	75
3	Patient assessment for pain within mean time of 40 minute	34	85
4	Patient's pain recorded in Numeric rating scale system	23	57.5
5	Anti-pain medication given based on pain level	28	70
6	Pain assessment recorded as 5 th vital sign	22	55
7	Patient re-assessed for pain at time discharge	40	100
8	Pain assessment audit performed during last quarter	0	0
9	Pain assessment and management report	1	100

Table 7: Judgment Matrix of Compliance Dimension in the evaluation of Pain free hospital initiatives in seka chekorsa Hospital, Southwest Ethiopia 2021.

S. N	Indicators	Weight (a)	Expected (b)	Observed (c)	Ach't(e) =c/b*100	Score (e*a)/100	Judgmental parameter
1	Proportion of clients whose pain assessment with valid pain level or numeric rating scale for patients	11.25	40	30	75	8.437	>85% excellent,
2	Proportion of pain management audit performed in the last quarter.	9.25	1	0	0	0	75-85% v. good
3	Proportion pain management protocols visible in-patient document/clinical area on the time of data collection.	11.75	40	30	75	8.812	60-75% good
4	Proportion of health care providers who assessed pain in mean time of 40 minutes.	11.5	40	34	85	10.92	
5	Proportion of health worker who assessed pain before pain discharge.	11.25	40	30	75	8.434	45-60% fair,
6	Proportion of health care provider who reassess pain at time of patient discharge.	11.75	40	22	55	6.462	<45% Program not implemented
7	Proportion of health care providers who administer antipain for patients with respect of pain assessed.	11.25	40	28	70	7.875	
8	Proportion of Health worker who recorded pain as the fifth vital sign.	11.25	40	22	55	6.187	
9	Proportion of reports send to Zonal health department in the last six months.	10.75	2	2	100	10.75	
Total Score of variables		100				67.88	

6.3, Satisfaction dimension

Socio demographic characteristics of patients

From 422 sampled patients all of them participated in the study which provides respondent rate of 100%. From sampled patient 179(42.4%) were selected from outpatient department. About 104 (24.6%), 90(21.3%) and 49(11.6%) of patients were selected from Emergency outpatient, medical ward and surgical ward respectively. Among all participants 227(53.8%) were male and 195(46.2%) females. A larger proportion of the respondents 175(41.5%) were in the age group 31-40 years followed by 20-30 age group 163(38.6%). About 243(57.6%) of the participants were Muslim followed by orthodox 112(26.5%) and 66 (15.6) of which protestant. Majority of the respondents 395(93.6%) were Oromo and the rest, 26 (6.4%) was Amhara. More than 65% (327) of study respondent were married and lives together, while 15.4% (65) were single. Regarding educational status, 113(26.8%) of the participants were Illiterate and could not read and write, while 98(23.2%) of them had attended primary school. About 21.3% (90) of participants had attended Degree and above. Regarding the occupational status of the respondent 107(25.4%) of the respondents were farmers, 103 (24.4%) of them were participated in private employee, followed by 18.7(79) governmental employee and 17.5% (74) merchants. The average monthly family income of respondents was 1500ETB.

Table8: Socio-demographic and economic characteristics of respondents of exit interview for evaluation of implementation of pain management in seka chekorsa hospital 2021.

Variables	Frequency (N=422)	Percentage
Sex		
Male	227	53.8
Female	195	46.2
Age		
20-30	163	38.6
31-40	175	41.5
41-50	70	16.6
>50	14	3.3
Marital status		
Single	65	15.4

Married	348	82.5
Divorced	2	0.5
Widowed	7	1.7
Ethnicity		
Oromo	395	93.6
Amhara	27	6.4
Religious status		
Orthodox	112	26.5
Muslim	243	57.6
Protestant	66	16.6
Catholic	1	0.2
Educational status		
Illiterate	113	26.8
Write and read only	81	19.2
Elementary school	98	23.2
Secondary school	40	9.5
Diploma	51	12.1
Degree and above	39	9.2
Occupational status		
Governmental employee	79	18.7
Self-employee	103	24.4
Merchants	74	17.5
Farmer	107	25.4
House wife	24	5.7
Student	25	5.9
Daily labor	10	2.4
Monthly income		
Less than 1000ETB	111	26.3
1000-2000ETB	149	35.3
2000-4000ETB	117	27.7
Greater than 4000ETB	45	10.7

Patient condition and Pain assessment in hospital

During stay in the Hospital more than 98% (416) of patients were used to felt pain and among the patients about 29.6% (125), 48.8% (206), 20.1% (85) were experienced severe, moderate and mild pain respectively. To alleviate from their pain about 79.6% (336) of patient were told their pain condition to doctors. About 98.6% (416) of the patients were treated by anti-pain medication which was 65.2% (275) with injectable anti-pain and 34.8(147) of them were treated by oral anti-pain. Concerning anti-pain drugs prescribed for them 80.8% (341) of them had got medication in Hospital and 19.2% (81) of them was buy the medication from private and other drug stores.

6.2 Patient satisfaction towards pain management service.

The overall patient satisfaction mean score with pain management services, in seka chekorsa hospital who were got service was 71.9%

About 118(28%) patients were very satisfied by the service of pain management program provided by seka chekorsa and 189(44.8%) were satisfied with the service provided for them. Regarding anti-pain medication provided for them 108(25.6%) patients were very satisfied and 197(46.7%) of them were satisfied by anti-pain medication provided for them.

This study shows that 117(27.7%), 204(48.3%) of the patient were very satisfied with the politeness of health care provider and convinence of pain management program in seka chekorsa hospital.

Table 9: The overall satisfaction level of patients with pain management program in seka chekorsa hospital 2021.

S. N	Satisfaction item	Satisfaction categories (N=422)				
		Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied
1	How much are you satisfied with pain management program in the hospital?	4(0.9%)	44(10.4%)	67(15.9%)	189(44.8%)	118(28%)
2	How much are you satisfied with anti-pain drugs provided to you?	4(0.9%)	44(10.4%)	69(16.4%)	197(46.7%)	108(25.6%)
3	How much are you satisfied with the convinence of pain management program?	3(0.7%)	43(10.2%)	67(15,9%)	190(45%)	119(28%)
4	How much are you satisfied with the politeness of health care provider during service delivery?	3(0.7%)	45(10.7%)	53(12.6%)	204(48.3%)	117(27.7%)
5	How much are you satisfied with the overall pain management service?	6(1.4%)	50(11.8%)	68(16.1%)	192(45.5%)	106(25.1%)

Table 10: Judgment Matrix for satisfaction dimension on evaluation of Pain free hospital initiative implementation in seka chekorsa hospital 2021.

S. N	Indicators	Weight(a)	Expected(b)	Observed(c)	Ach't(e) =c/b*100	Score (e*a)/100	Judgmental parameter
1	Proportion of clients satisfied with the service provided for them	26	100	72.10	72.10	18.746	<p>>85% excellent, 75-85% v. good 60-75% good 45-60% fair <45% program not implemented</p>
2	Proportion of clients satisfied with anti-pain drugs given to them	18	100	71.39	71.39	12.85	
3	Proportion of clients satisfied with convenience of Pain management service to working hour.	20	100	72.45	72.45	14.49	
4	Proportion of clients satisfied with the politeness of health care provider.	22	100	72.93	72.93	16.04	
5	Proportion of clients satisfied with overall service provided	14	100	70.26	70.26	9.836	
Total Score of variables						71.962	

Overall Judgment Matrix

Based on the weight given for each dimension of Implementation of pain free hospital initiatives in Seka chekorsa hospital, the total observed value of the program is 74.2. It indicated that the program is well implemented in seka primary hospital.

Table 11: The overall judgmental matrix of Implementation of Pain free hospital initiatives in seka chekorsa hospital, south west Ethiopia, 2021.

S. N	Dimensions	Weight	Observed	Achievement (%)	Level of implementation
1	Availability	35	29.1	83.1	<i>Pain free Hospital initiative program is Good in seka Hospital</i>
2	Compliance	40	27.15	67.88	
3	Satisfaction	25	17.99	71.96	
Total value of Implementation		100	74.2		

Chapter Seven: Discussion

Based on Judgmental matrix parameter the findings of evaluation showed that the Overall process of pain management program implementation in seka hospital was 74.2%. The availability of resource for implementation of pain management was 83.1%, Compliance of health care providers to manage pain with guideline was 67.88%, and the mean satisfaction of patients with pain management was 71.96%.

7.1, Availability of Resources

According to national guidelines for primary hospital, 35 all types of health care providers should have to assigned to Outpatient, emergency, medical and surgical ward. But this study showed that only (83%) health care provider was assigned to the units(31). This study is comparable with the study done in Ethiopia on health care provider work force in case of governmental hospital which was 75% (32). But the result was low when compared to pain management guidelines which recommend that maximum number of health care provider members with expertise in pain management and quality improvement with all professional embedded in-service units and where the project is to be implemented. This discrepancy may be due to health system and policy of the country that settled for access health service instead of quality service, which cause un equal distribution of health worker and lack of coordination between population needs and the management of the human resources available (33,34).

According to the result of this study, about 80.8% of respondent were answered that they have got anti-pain medication the hospital. This result comparable with the study done in Malawi on availability of essential anti-pain medication which was 84% (35). But the result of this study was greater than study done on pain management competency in ethiopia which was show availability of anti-pain medication were 60.1%.(36). The difference might be time variation and commitment of drug therapeutic committee at the hospital in supplying anti-pain drugs.

Nevertheless, the result of the study (80.8%) was lower than the national pain management guideline that recommend the hospital is responsible to ensure the availability of an uninterrupted supply of 95% availability of pain management medications at any given period of time (7). The difference might be due to improper demand and supply of medication between hospital and pharmaceutical Fund and supply agency and it was also due to gaps in identifying hospital consumption level of anti-pain drugs by drug therapeutic Commite.

The result of this study also showed that the Availability of pain measuring protocol, pain management policy and statement and vital sign sheet for monitor of pain assessment was 100%. The result of this study can be compared with national guideline; operational guideline assists in Preparing Healthcare workers to describe the activity, timeline Pain Free Hospital Implementation. The study result was higher than the study done in Jimma, on pain management competency and associated factors among nurses working in public hospitals, which was 53.4%. The variation could be due to time variation, sample size and study design difference.(36)

7.2, Compliance of healthcare provider to guidelines.

The result of this study showed that pain assessment was done for 75% of patient served in the hospital was based on the National protocol of pain assessment and management. The result was comparable with study done in Germen on survey of pain for the quality of pain management in Germen Hospitals, Study done in Lebanon on Patient Perception of Acute Pain Management and study done in Darussalam on Barriers and Solutions for Improving Pain Management Practices Which was 80% (28,37,38).

The result of this study was higher than study done in South west Ethiopia on pain management competency and associated factors among nurses working in public hospitals, which showed about 63.4% patients were completely assessed for pain (36). However, the result of this study was lower than study done in Wolaita Sodo University Teaching Referral Hospital on Post-operative Pain Management, which was 91.3% of patient was assessed for pain. (39). The difference could be due to sample size difference and might be inappropriate use of pain management guideline in Hospital.

This study also revealed that 57.5% of patient assessed for pain was used by validated pain assessment tool, Numerical rating Scale. This result was similar with survey done in Europe on pain assessment tool which was 57%.(40). In addition, the result of this study was higher than study done in Uganda, of assessed pain 4% NRS was used as a pain assessment tool(41). The variation might be due to geographical difference. However, the result was lower than study result done in Italy on pain monitoring as standard clinical practice for inpatients at a medical oncology unit, 98% of pain score was recorded by using numerical rating scale.(42). The difference might be due to low experience of health workers to use NRS as pain assessment tool in the hospital.

This Study revealed that about 55% of patients pain assessment were recorded as 5th Vital sign, and the result was comparable with study done referral hospital of Wolaita Sodo which showed that 58% of nurses register pain as vital signs(39).However the result is greater than study done in Jimma zone, about 37.6% pain assessment were documented and used as indicator of vital sign. (36). The difference Might be due to time variance and low awareness of health care provider about pain as indicator of vital sign in previous study. Nevertheless, the result of this study was lower when compared to pain management national guideline which recommend the hospital should have a written policy on pain assessment and Pain scores should be recorded when vital sign measurements are needed and recorded in the routine observation as the 5th vital sign regardless of the patient condition.(7)

The study indicated that about 70% of patient who were assessed for pain were received anti-pain medication based of WHO pain level of numeric rating scale. The result was greater than that of study done in Wolaita Sodo which revealed that 36% of patient were got anti-pain medication according to WHO pain level of NRS(39). But the result was lower than study done Jimma on Quality of post-operative pain management, 92.9% of patient pain was treated predominantly based on WHO pain level (43). The variation may be due to sample size difference and health worker awareness on pain treatment based on Numeric pain leveling scale.

7.3, Satisfaction dimension of Patients towards Pain management

The overall patient satisfaction mean score of patients who served in seka hospital for pain management were 71.9%. This result was comparable with study done in Lebanon, Department of Pharmacy Practice, School of Pharmacy, Patient Perception of Acute Pain Management and study done in University of Gonder on Assessment of Patient's Satisfaction and Associated with Pain Management which were 67.2% and 72.2% respectively.(28,44). However, the finding was higher when compared with the study Jimma University medical center, on Post Operative Pain Management which showed that the overall proportion of patient's satisfaction was 50% and study conducted on pain management outcomes among adults treated at a tertiary hospital in Moshi, Tanzania was 41.1%. This could be due to the good caring attitude of health care professional, high rate of pain education, presence of good communication, and providing frequent education on pain related issues and due to the frequent measurement of pain assessment.(45,46)

But the study finding was low when compared with other study conducted study conducted in New York on Implementing Cancer Pain Management, study done in Sweden on Influence of actual pain experience and pain management, and study that was conducted in Pain Management and Its Possible Implementation in North Ethiopia, was found that of the patients satisfied with pain management were 92%, 81%and 80.9% respectively. This variation could be due to strategic difference used in pain management and geographical variation and there were also direct participation of patient in their pain management decision.(21,47)

This study also showed that about 76% of the respondents were satisfied with the politeness of health care provider during pain management. The result of this study was higher than with study done in Tigray region which was 56%.(48). But it was lower when compared with national guideline on pain management that recommends every individual with disability have to be treated in compantionate and respectful manner.(7)

Unit Eight: Conclusion and Recommendations.

8.1, Conclusion

Based on judgment parameter the availability of resources for implementation of pain free hospital initiative was good. There was no shortage of guidelines, manuals and pain measuring protocol, instruments and medication needed for implementation of pain free hospital initiatives in the hospital. There was lack of separate pain registration book in all selected department of the hospital.

Based on judgment parameter the compliance of health workers with national guideline during provision of pain assessment and management, the overall activities were good. Based on parameter compliance of health worker with national guideline the pain assessment audit was at critical in the Hospital.

Moreover, according to the finding of our evaluation the level patient satisfaction towards pain free hospital initiative, the implementation status was good based on judgmental parameter.

8.2, Recommendations

For Oromia regional health Bureau:

- ▲ Maximum amount of human resource that is greater than ninety percent is needed to run the program according to the guideline should have to be allocated.
- ▲ Standardized registration book for pain management should have to be prepared and supplied for hospitals according to pain management policy.

Zonal Health Department

- ❖ Continuous supervision should be provided to the hospitals to the continuity of program improvement.

For Hospital:

- ☒ Hospital should have to arrange health workers as national guideline recommendation.
- ☒ Pain management team and pain focal person should be assigned.
- ☒ Guidelines, registration and pain management protocol should be fulfilled.
- ☒ Hospital should conduct regular monitoring of pain management implementation and pain audit regularly.
- ☒ Hospital should have to supply proper anti-pain medication needed for the program.

For Health workers

- ✚ Health worker should have to assess pain for all hospitalized patients based on national guideline.
- ✚ Health worker should have to rate pain 0 to 10 based on WHO pain assessment numeric rating scale or visual rating scale tool.
- ✚ Health worker should have to register assessed pain as a 5th vital sign on patients document.
- ✚ Health worker should have to administer proper anti-pain medication based on WHO pain level.

For Researcher:

- ♣ It will be better if researchers conduct research on pain free hospital initiative implementation to investigate further findings on Access, quality and safety dimensions of pain free hospital initiative program.

Unit Nine: Meta Evaluation

Summative Meta-Evaluation was conducted. The evaluation was conducted by using four program evaluation standards. (Utility, feasibility, propriety and accuracy). The tool was adapted from Daniel L. Stufflebeam.(49). The Judgment parameter was decided to be Excellent, if >85% V. Good, if 75-85%, Good, if 60-74% Fair, if 45-60% Poor, <45%. The overall status of the evaluation was measured 85.8 percent which was excellent according to the standards criteria.

Utility: This standard was measured by 26 check points among this 23 of them were scored yes/met, which was scored 88.4% based on judgment parameter.

Feasibility: This standard was measured by 19 check points among this 14 of them were scored yes/met, which was scored 73.7% based on judgment parameter.

Propriety: This standard was measured by 32 check points among this 29 of them were scored yes/met, which was scored 93.6 % based on judgment parameter.

Accuracy: This standard was measured by 46 check points among this 41 of them were scored yes/met, which was scored 89% based on judgment parameter.

Reference

1. Clark J, Gnanapragasam S, Greenley S, Pearce J, Johnson M. Perceptions and experiences of laws and regulations governing access to opioids in South, Southeast, East and Central Asia: A systematic review, critical interpretative synthesis and development of a conceptual framework. *Palliat Med.* 2021;35(1):59–75.
2. Patricia H. Berry, PhD, APRN, BC C. Pain :Current Understanding of Assessment, Management, and Treatments. 2001;(December):11.
3. Swieboda P, Filip R, Prystupa A, Drozd M. Assessment of pain: types, mechanism and treatment. *Ann Agric Environ Med.* 2013; 1(July 2014):2–7.
4. Meissner W, Huygen F, Neugebauer EAM, Benhamou D, Betteridge N, Coluzzi F, et al. Management of acute pain in the postoperative setting : the importance of quality indicators. *Curr Med Res Opin [Internet].* 2018;0(0):187–96. Available from: <https://doi.org/10.1080/03007995.2017.1391081>
5. Park TJ, Buffenstein R. Pain free. Vol. 26, *Scientist.* 2012.
6. Manjiani D, Paul DB, Kunnumpurath S, Kaye AD, Vadivelu N. Availability and utilization of opioids for pain management: Global issues. *Ochsner J.* 2014;14(2):208–15.
7. Sugawara E, Nikaido H. Pain free hospital initiative Implementation Manual. a program Am Cancer Assoc with Collab Ethiop public Heal. 2014;58(12):7250–7.
8. Ethiopia. FD republic of. Management, Baseline Evaluation of pain management practice and teaching in health facility and Health training in Ethiopia. *Ethiop public Heal Assos.* :12.
9. Cleary J, Silbermann M, Scholten W, Radbruch L, Torode J, Cherny NI. research article Formulary availability and regulatory barriers to accessibility of opioids for cancer pain in the Middle East : a report from the Global Opioid Policy Initiative (GOPI) research article. *Opioid Availab Access Reli cancer pain Africa, Asia, India, Middle East, Lat Am Caribb Final Rep Int Collab Proj [Internet].* 2013;24(Supplement 11):xi51–9. Available from: <https://doi.org/10.1093/annonc/mdt503>

10. American Society of Anesthesiologists Task Force on Acute Pain Management. Practice Guidelines for Acute Pain Management in the. *Anesthesiology*. 2012;116(2):248–73.
11. Buchbinder R, Underwood M, Hartvigsen J, Maher CG. The Lancet Series call to action to reduce low value care for low back pain: an update. *Pain*. 2020;161(9):S57–64.
12. Brugha R, Varvasovszky Z. Review article Stakeholder analysis : a review. *Health Policy Plan*. 2000;15(3):239–46.
13. Human Resources for Health in Ethiopia.
14. Velazquez Cardona C, Rajah C, Mzoneli YN, Friedrichsdorf SJ, Campbell F, Cairns C, et al. An audit of paediatric pain prevalence, intensity, and treatment at a South African tertiary hospital. *PAIN Reports*. 2019;4(6):e789.
15. Tesfaye M, Id E, Baeumler PI, Siebeck M, Tesfaye M, Wonde D, et al. The views of patients , healthcare professionals and hospital officials on barriers to and facilitators of quality pain management in Ethiopian hospitals : A qualitative study. 2019;1–20.
16. Yu SY, Wang JJ, Huang YG, Hu B, Wang K, Li PP, et al. Managing pain in patients with cancer. The Chinese good pain management experience. *J Glob Oncol*. 2017;3(5):583–95.
17. Ware LJ, Herr KA, Booker SS, Dotson K, Key J, Poindexter N, et al. Psychometric Evaluation of the Revised Iowa Pain Thermometer (IPT-R) in a Sample of Diverse Cognitively Intact and Impaired Older Adults: A Pilot Study. *Pain Manag Nurs [Internet]*. 2015;16(4):475–82. Available from: <http://dx.doi.org/10.1016/j.pmn.2014.09.004>
18. Salomon L, Tcherny-lesse S, Collin E, Coutaux A, Levy-soussan M, Legeron M, et al. Pain Prevalence in a French Teaching Hospital. 2002;24(6):9–11.
19. Bouleuc C, Savignoni A, Chevrier M, Renault-Tessier E, Burnod A, Chvetzoff G, et al. A Question Prompt List for Advanced Cancer Patients Promoting Advance Care Planning: A French Randomized Trial. *J Pain Symptom Manage*. 2021;61(2):331-341.e8.
20. California Department of Health Care Services. California Pediatric Palliative Care (PPC) Waiver : Evaluation Report California Pediatric Palliative Care (PPC) Waiver : Evaluation Report. 2014;(September).

21. Bookbinder M, Coyle N, Kiss M, Goldstein ML, Holritz K, Thaler H, et al. Implementing national standards for cancer pain management: Program model and evaluation. *J Pain Symptom Manage*. 1996;12(6):334–47.
22. Statistical C. 2007 Population And Housing Census Of Ethiopia Administrative Report Central Statistical Authority Addis Ababa. 2012;(April).
23. Professional Forc. Monitoring And Evaluation Framework. *Monit Eval Fram Work Contin Prof Dev*. 2012;
24. Petter H.Rossi, Mark W.Lipsey Ha Approach In Evaluation Seventh Editition. 2004. Evaluation.
25. Shier MI. Book Review: Handbook Of Practical Program Evaluation. *Nonprofit Volunt Sect Q*. 2012;41(6):1269–72.
26. Kumar Dhk And Sr. Measurement And Evaluation In Education Directorate Of Distance Education. *Meas Eval Educ*. 2016;2nd Editio.
27. Market Research Society. MRS guidelines for research with children and young people. 2014;(September):34. Available from: <https://www.mrs.org.uk/pdf/2014-09-01Children and Young People Research Guidelines.pdf>
28. Ramia E, Nasser SC, Salameh P, Saad AH. Patient Perception of Acute Pain Management: Data from Three Tertiary Care Hospitals. *Pain Res Manag*. 2017;2017.
29. Assessment of Nursing quality service in public Hospital. *Eval Nurs Serv Qual Public Hosp Dawro Zo South Ethiop*. 2018;
30. Feleke AA, Demise YA, Garedew MG. Patient Satisfaction and Associated Factors on In-patient Nursing Service at Public Hospitals of Dawro zone, Southern Ethiopia. *Int J Caring Sci* [Internet]. 2020;13(2):1411–20. Available from: <https://web.b.ebscohost.com/abstract?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=17915201&AN=146256006&h=zsEO2hyksiW87WGKHJldzCKKZ1txg2wf7g1D80L02h9SvQd4Pj0NHOzc0QE2TSrZ2MWxUboOK%2B1ehS9m8QZ2Nw%3D%3D&crl=c&resultNs=AdminWebAuth&resultLocal=>

31. Ethiopian Standards Agency (ESA). ETHIOPIAN Primary Hospital - Requirements. 2012;0–188.
32. Semachew A. Implementation of nursing process in clinical settings: The case of three governmental hospitals in Ethiopia, 2017. BMC Res Notes [Internet]. 2018;11(1):4–8. Available from: <https://doi.org/10.1186/s13104-018-3275-z>
33. Sweet R. Improving Pain Management for Hospitalized Patients. 2016;13. Available from: <http://scholarworks.waldenu.edu/dissertations>
34. Girma S, Yohannes A, Kitaw Y, Ye-Ebiyo Y, Seyoum A, Desta H, et al. Human Resource Development for Health in Ethiopia: Challenges of Achieving the Millennium development Goals. *Ethiop J Heal Dev*. 2008;21(3).
35. Gupta N, Coates MM, Bekele A, Dupuy R, Fénelon DL, Gage AD, et al. Availability of equipment and communicable medications for non-communicable diseases and injuries at public first-referral level hospitals: a cross-sectional analysis of service provision assessments in eight low-income countries. 2020;1–14.
36. Neme A. Pain Management Competency And Associated Factors Among Nurses Working In Public Hospitals, Jimma Zone, Oromia Regional State, Southwest Ethiopia. *Pain Manag Competency Assoc Factors Among Nurses Work Public Hosp Jimma Zo Oromia Reg State, Southwest Ethiop*. 2017;6:5–9.
37. Akbar N, Teo SP, Artini Hj-Abdul-Rahman HN, Hj-Husaini HA, Venkatasalu MR. Barriers and Solutions for Improving Pain Management Practices in Acute Hospital Settings: Perspectives of Healthcare Practitioners for a Pain-Free Hospital Initiative. *Ann Geriatr Med Res*. 2019;23(4):190–6.
38. Maier C, Nestler N, Richter H, Hardinghaus W, Pogatzki-Zahn E, Zenz M, et al. The Quality of Pain Management in German Hospitals. *Deutsches*. 2010;107(36):607–14.
39. Dendir G, Sintayehu A, Anmut W. Knowledge, Attitude and Practice of Nurses towards Post-operative Pain Management in Wolaita Sodo University Teaching Referral Hospital, Ethiopia, Institutional Based Cross-sectional Study *Journal of Anesthesia & Clinical Research*. *Anesth Clin Res*. 2020;(January):1–9.

40. O'connor. world wide pain assessmet. *Physiol Behav.* 2016;176(1):139–48.
41. Betty I, Kanaabi J, Kohi TW, Chalo R. Nurses ' knowledge of the principles of acute pain assessment in critically ill adult patients who are able to self-report *International Journal of Africa Nursing Sciences* Nurses ' knowledge of the principles of acute pain assessment in critically ill adu. *Int J AFRICA Nurs Sci* [Internet]. 2016;4(March):20–7. Available from: <http://dx.doi.org/10.1016/j.ijans.2016.02.001>
42. Martoni AA, Esposti CD, Cricca A, Rocchi G, Giaquinta S. Twice-daily pain monitoring as standard clinical practice for inpatients at a medical oncology unit : a descriptive study. *Ann Oncol* [Internet]. 2007;18(1):158–62. Available from: <https://doi.org/10.1093/annonc/mdl314>
43. Tesfaye M, Id E, Baeumler PI, Siebeck M, Tesfaye M, Haileamlak A, et al. Quality of postoperative pain management in Ethiopia : A prospective longitudinal study. 2019;1–22.
44. Belay Bizuneh Y, Fitiwi Lema G, Yilkal Fentie D, Woldegerima Berhe Y, Enyew Ashagrie H. Assessment of Patient's Satisfaction and Associated Factors regarding Postoperative Pain Management at the University of Gondar Compressive Specialized Hospital, Northwest Ethiopia. *Pain Res Manag.* 2020;2020.
45. Neme Negewo A, Nemera Germossa G, Mathewos B, Bacha Ayane G. Post Operative Pain Management Knowledge, Attitude, Practice and Associated Factors Regarding Among Nurses' Working in Jimma Medical Center, South-West Ethiopia, 2019. *Clin Med Res.* 2020;9(5):114.
46. Herbert M, Kondo C. Postoperative pain management outcomes among adults treated at a tertiary hospital in Moshi , Tanzania. *Tanzan J Health Res.* 2014;16(1).
47. Tequare MH, Huntzicker JJ, Mhretu HG, Zelelew YB, Abraha HE, Tsegay MA, et al. Pain Management and Its Possible Implementation Research in North Ethiopia : A before and after Study. 2020;2020.
48. Berhe H. Status of Caring , Respectful and Compassionate Health Care Practice in Tigray Regional State : Patients ' Perspective. 2017;10(3):1118–28.
49. Stufflebeam DL. *American Journal of Evaluation.* 2001;

Annexes I:

Information matrix for Indicators

Evaluation Questions	Dimensions	Indicators	Formula	Source of Data	Data collection method	Data collection tool
Are there required infrastructures or Resources (like Human resources, financial and other	Availability	Number of Hospital units with guideline, manuals as per the standard at the date of surveys.	$\frac{\text{Numbers of hospital units}}{\text{Total numbers of Hospital units}} * 100$	Patient cards Health care providers in selected hospital units.	Document review KII interview	Document review checklist Questionaries for prepared for KII
		Number of pain focal person assigned to hospital units.	$\frac{\text{Number of focal persons assigned to each units}}{\text{Selected Hospital units}} * 100$	Patient cards Health care providers in selected hospital units.	Document review KII interview	Document review checklist Questionaries for prepared for KII
		Number of pain management guidelines assigned for hospital units.	$\frac{\text{Number of guidelines assigned to each units}}{\text{Divided by total unit selected}} * 100$	Patient cards Health care providers in selected hospital units.	Document review KII interview	Document review checklist Questionaries for prepared for KII

		Number of opioids available within at least next three months in the hospital.	Total number of months in which antipain drug available *100 divided by total of three months	Patient cards Health care providers in selected hospital units.	Document review KII interview	Document review checklist Questionaries for prepared for KII
		Proportion of hospital units with wheelchair.	Number of units with wheelchair*100 divided by total number of selected units	Patient cards Health care providers in selected hospital units.	Document review KII interview	Document review checklist Questionaries for prepared for KII
		Proportion of hospital units with Vital sign sheet for pain follow up in hospital units.	Number of units follow up pain with vital sign sheet*100 divided by total numbers of selected Hospital units	Patient cards Health care providers in selected hospital units.	Document review KII interview	Document review checklist Questionaries for prepared for KII
		Proportion of hospital units with pain measuring protocol instruments in hospital units	Number of units which have pain measurement protocols*100 divided by total selected hospital units.	Document Clients	Questionaries	Questionaries format
	Com	Proportion of health care provider who registered pain	Number of health care provider registers pain	Selected health care provider	KPI interview	KII interview Questionaries

<p>Did the health care provider implement PFHI as national guideline protocol? If Yes How? If not Why?</p>	<p>assessment with valid pain level.</p>	<p>assesment*100 divided by total number of health care provider in selected units of hospital</p>			
	<p>Proportion of pain management audit performed in the last quarter.</p>	<p>Number of months in which pain audit performed*100 divided by months of the quarter.</p>	<p>Selected health care provider</p>	<p>KPI interview</p>	<p>KII interview Questionaries</p>
	<p>Proportion pain management protocols visible in clinical areas on the time of data collection</p>	<p>Numbers of hospital units with pain management protocol*100 divided by total numbers of selected hospital units.</p>	<p>Selected health care provider</p>	<p>KPI interview</p>	<p>KII interview Questionaries</p>
	<p>Proportion of health care providers who assessed pain in mean time of 40 minutes.</p>	<p>Number of Health care provider who assessed <u>within 40minutes *100</u> Total number of health care providers in selected units of hospitals</p>	<p>Health care provider</p>	<p>KPI interview</p>	<p>KII interview Questionaries</p>
	<p>Proportion of health worker who assessed pain before pain discharge.</p>	<p>Number of health care providers who assessed pain before patient discharge</p>	<p>Health worker</p>	<p>KPI interview</p>	<p>KII interview Questionaries</p>

			*100 divided_total number numbers of health care provider in selected units of hospital			
		Proportion of health care provider who rated pain 0/10 at time of patient discharge.	Number of health care provider who rate pain 0/10*100 divided by total number of health care provider in selected units of hospital	Health worker	KPI interview	KII interview Questionaries
		Proportion of health care providers who administer antipain for patients.	Number of health care provider who administer anti-pain*100 divided by total number of health care provider in selected units of hospital	Health worker	KPI interview	KII interview Questionaries
		Proportion of Health worker who recorded pain as the fifths vital sign.	Number of health care provider who recorded pain as fifths vital sign *100 divided by total number of health care provider in selected units of hospital	Health worker	KPI interview	KII interview Questionaries

		Proportion of reports send to Zonal health department in the last six months	Number reports sent to Zonal health department in corresponding month*100 divided by total number of expected reports.	Health workers	KPI interview	KII interview Questionaries
Did the Clients satisfy with the PFHI program service? If Yes How? If not Why?	Satisfaction	Proportion of clients satisfied with the service provided for them	Number of patients satisfied with availability of <u>service</u> *100 Total numbers of patients served by the program	Beneficiaries/Patients	Patient exit interview	Questionaries
		Proportion of clients satisfied with anti-pain drugs given to them	Number of patients satisfied with availability of <u>antipain drugs</u> *100 Total numbers of patients served by antipain drug	Patients	Patient exit interview	Questionaries
		Proportion of clients satisfied with convenience of pain management post to their home.	Number of patients satisfied with convenience of pain management after <u>discharge</u> *100 Total number of patients discharged after treated for pain	Patients	Patient exit Interview	Questionaries

	Proportion of clients satisfied with convenience of Pain management service to working hour.	Number of patients satisfied with timelines convenience of pain <u>management</u> *100 Total numbers of patients return home after treated for pain	Patients	Patient exit interview	Questionaries
	Proportion of clients satisfied with the friendliness/politeness of the provider.	Number of patients satisfied by health <u>workers habits</u> *100 Total number of patients get service by health workers	Patients	Patient exit interview	Questionaries
	Proportion of clients satisfied with overall service provided	Number patients satisfied by pain management <u>service</u> *100 Total number of patients served by Pain management program	Patients	Patient exit interview	Questionaries

Annex II. judgmental matrix for indicators

Dimension	No of indicators	Value Given (x)	Value achieved(y)	Percentage Achieved	Judgement Criteria
Availability	8	35	Y	$y/x * 100$	>85% excellent, 75-85% v. good 60-75% good, 45-60% fair, <45% Program not implemented
Compliance	8	35	Y	$y/x * 100$	>85% excellent, 75-85% v. good 60-75% good, 45-60% fair, <45% program not implemented
Satisfaction	6	30	Y	$y/x * 100$	>85% excellent, 75-85% v. good 60-75% good, 45-60% fair, <45% program not implemented
Total	22	100	Total of y	$TY/Tx * 100$	>85% excellent, 75-85% v. good 60-75% good, 45-60% fair, <45% program not implemented

Annex III: Data Collection tools

Jimma University

**Institute of Health, Faculty of Public Health, Department of Health Economics,
Management and Policy, Health Monitoring and Evaluation**

**Questionnaires For exit interview to be filled by data collectors Region _____
Zone _____ Woreda _____**

Cod number of the health institution _____

Good morning/afternoon dear client! My name is _____. I came from Jimma University. I am a member of research team on assessment of Pain free Hospital initiatives. The purpose of this study is to assess the Pain free Hospital initiatives implementation in Seka primary Hospital and to give important comment that will help to strengthen and improve quality Pain free hospital initiative service provided by hospital. To do this, your information is very important. I Would like to ask you a few questions about your visit to the hospital to find out your experience today. I would be very grateful if you could spend a few minutes to answer questions related to the service. I will not put your name or registration number in the format. All the information you give will be kept strictly confidential. Your participation is voluntary and you are not obliged to answer any questions you don't want. But your honest participation will contribute to generate information that can be used to improve Pain free Hospital initiative implementation in the Hospital.

Do I have your permission to continue?

Yes _____ No _____

Part I: Socio – Background characteristics

No	Questions/Characteristics	Coding categories	Skipping rule
101	Gender	Male_____ Female_____	
102	Age categories	Less than 18 years_____ 18 to 30 years_____ 31 to 40 years_____ 41 to 50 years_____ 51 years and more_____	
103	Marital status	1, Single 2.Married & live together 3.Married but not live together 4. Divorced. 5. Widowed 6, No answer	
104	Educational Status	1.Illiterate 2. Write & read only 3.Primary school (1-8) 4.Secondaryschool completed 5.Tweleve +1& above 6, Degree and above	
105	What is your religion	1.Orthodox Christian 2.Catholic 3.Protestant 4.Muslim 5.wakefata 6, others (Specify).....	
106	What is your ethnicity	1.Oromo 2.Amara 3.Tigre 4.Guragie 5.Other (specify)----	
107	Occupational status	1.Government employee 2.Private employee 3.Merchant 4.Un employed 5.House wife 6.Student	

		7.Daily laborer 8.Other (specify)-----	
108	Monthly in come	<1000 1000 – 2000 2000 -40000 >45000	

Part II: Availability Questionaries

No	Questionaries	Code and categories	Skipping rule
201	Have you felt pain while you are in hospital?	Yes _____ No _____	If No for Question Skip no 2
202	How would you describe severity of your pain?	No pain _____ Mild pain _____ Moderate pain _____ Severe pain _____ Excruciating pain _____	
203	If you feel Pain for whom you tell for solution?	Doctor _____ Nurses _____ Ho _____ Pharmacy _____ Others/Specify/ _____	
204	What Was done for your pain	Counseling _____ Physiotherapy _____ Medication _____ Other/Specify/ _____	
205	If Your answer is Medication, what type of medication you received?	Oral antipain _____ Injectable antipain _____ Anal suppository _____ Bilingual antipain _____ Other/Specify/ _____	
206	Have you got all prescribed antipain drugs for you in the Hospital?	Yes _____ No _____	
207	Did you believe pain management is functional in Hospital?	Yes _____ No _____	

Part III, Compliance Questionaries

This checklist will be used to conduct document review (patient chart) in order to assess pain assessment and management for patient served in Hospital.

Guideline: Tick the answer on space provided.

Documents Review checklist (patient chart)

No	Questionaries	Code and categories	Skipping rule
	Did the health care provider register pain assessment with valid pain level?	Yes _____ No _____	
	Did pain management audit was performed in last quarter?	Yes _____ No _____	
	Did pain management protocol present in clinical area during time of data collection?	Yes _____ NO _____	
	Did health care providers assess pain with a mean time of 40 minutes	Yes _____ No _____	
	Did health care providers perform pain assessment before patient discharge?	Yes _____ No _____	
	Did health care provider rates pain scale 0/10 at time of patient discharge?	Yes _____ No _____	
	Did health care provider administer anti-pain drugs for patients?	Yes _____ No _____	
	Did the health care provider records pain as a fifth vital sign?	Yes _____ No _____	
	Did report sent to zonal health department?	Yes _____ No _____	

Part IV, Satisfaction Questionnaires

No	Questionaries	Code and categories	Skipping rule
1	How much are you satisfied with the service provided for you?	<ol style="list-style-type: none"> 1. Very dissatisfied 2. dissatisfied 3. I cannot decide 4. Satisfied 5. Very satisfied 	
2	How much are you satisfied with antipain drugs given for you?	<ol style="list-style-type: none"> 1. Very dissatisfied 2. dissatisfied 3. I can decide 4. Satisfied 5. Very satisfied 	
3	How much are you satisfied with convenience of pain management service to working hour?	<ol style="list-style-type: none"> 1. Very dissatisfied 2. dissatisfied 3.I can decide 4. Satisfied 5.Very satisfied 	
4	How much are you satisfied with the politeness of health care provider during your pain management?	<ol style="list-style-type: none"> 1. Very dissatisfied 2. dissatisfied 3.I can decide 4. Satisfied 5.Very satisfied 	
5	How much are you satisfied with the overall pain management service?	<ol style="list-style-type: none"> 1. Very dissatisfied 2. dissatisfied 3.I can decide 4. Satisfied 5.Very satisfied 	

Part V: Interview questionnaires for Key Informant Interview

1. Are the resources needed for implementation of PFHI available? If yes How? If not Why?
2. Is there policy statement needed for pain management available in this unit? If yes How? If not why?
3. Have you performed pain management audit in this last quarter? If yes how if not why?
4. Did you perform pain assessment? If yes how? If not Why?
5. Did your register after you perform pain assessment? If yes how, if not why?
6. Did you used pain management protocol to assess pain? If yes how? If not why?
7. Did you register pain assessment in a valid pain rating scale? If yes how? If not why?
8. Have you administered proper anti-pain drug for a patient? If yes How, if noy why?
9. Have you rate pain assessment 0/10 at time of patient discharge? If yes how if not why?
10. Did you record pain assessment as a fifth vital sign? If yes how, if not why?

Part VI Resource Inventory Checklist for pain management.

This checklist will be used to conduct an inventory availability of infrastructure and program resources in each hospitals/ward. And it will be answering by interviewing each ward heads nurses/ representatives and observing the functionality of the program.

Date of Assessment _____ Region _____ Zone/Sub city _____ District/woreda _____ Name of Hospital _____ Name of ward _____.

1, Is there policy statement needed for pain management available in this unit?

Yes _____ No _____

2, Is there registration for pain assessment and management?

Yes _____ No _____

3, Is there pain management protocol to assess pain in selected hospital units?

Yes _____ No _____

4, Is there resources / Protocols/ needed for implementation of PFHI available?

Yes _____ No _____

5, Is there Pain management audit check list in hospitals units

Yes _____ No _____

6, Different types of medication depending on WHO pain ladder.

S. No	Pain level	Medication according to WHO pain level	Availability of medication	
			Yes	No
1	Mild pain (1-3 pain level)	Paracetamol		
		Ibuprofen		
		Diclofenac		
		Acetylsalicylic acid		
		Others NSAIDs		
2	Moderate pain (4-6 pain level)	Tramadol		
		Codeine low dose		
		Morphine low dose		

3	Severe Pain (7- 10 pain level)	Morphine high dose		
		Codeine high dose		

Af gaaffii qorannoo dhukkubsataaf taasifamu

Yunivarsiitii Jimmaa

Muummee saayinsii Fayyaa, Faakaltii Saayinsii Uumamaa, Dippartimentii Hordoffii fi Xinxala fayyaa. Af gaaffii dhukkubsataa nama ragaa Funaanuu guutamu,
Naannoo _____ Godina _____ Aanaa _____

Lakkoofsa addaa dhaabbata fayyaa _____

Akkam bultan/ooltan maamilaa keenya? Ani maqaan koo _____ n jedhama. Kanan dhufe Yunivarsiitii jimmaa irraati. Ani miseensa garee qorattoota qorannoo *sagantaa Hospitaala dhukkubbii irraa bilisa taasisuu* jedhuuti. Kaayyoon Qorannoo kanaas sagantaan kun hospitaala saqqaa coqorsaa keessatti sirnaan raawwatamaa jiraachuu isaa adda baasuufi qulqullina tajaajila isaa ilaaludha. Kana raawwachuuf immoo odeeffannoon isin nuuf kennitan murteessadha. Haaluma kanaan sagantaa kana ilaalchisee waantota isin hospitaala kana keessatti argitan irratti hundaa’udhaan gaaffii mursaasa isin gaafannuuf akka yeroo muraasa deebii gaaffii kanaa deebisaa nu waliin dabarsitaniif kabajaan isin gaafanna. Ragaan isin nuuf kennitan hundinuu akka namni biraa hin barretti ciminaan eegamaadha. Maqaanifi eenyummaan keessan waraqaa qorannoo kana irratti hin ibsamu Qorannoo kanarratti hirmaachuun keesanis fedha keessan irratti kan hundaa’efi deebii hundaa deebisuuf dirqamni isinitti kenname hin jiru. Haata’uuti odeeffannoon isin nuuf kennitan immoo saganta hospitaala dhukkubbii irraa bilisa taasisuun jedhu jajjabeessuu keessatti qooda guddaa qaba.

Akka itti fufnuuf Eeyyamamoo dha?

Eeyyee _____ Lakki _____

Kutaa I: Socio – Background characteristics

lakk	Amala	Lakkoofsa addaa /code/	Ulaagaa gaaffii irra darbuu (yoo barbaachise)
101	Saala	Dhiira _____ Dhalaa _____	
102	Qoodamiinsa Umurii	Waggaa 18 gadi _____ Waggaa 18 hanga 30 _____ Waggaa 31 hanga 40 _____ Waggaa 41 hanga 50 _____ Waggaa 51 fi isaa ol _____	
103	Haala gaa’elaa	1, Kan hi heerumne/fuune _____ 2. gaa’elaan kan waliin jiraatan _____	

		3.Gaaela uumanii kan gargar jiraatan_____ 4. Kan gaa'elaa diidge/de_____.	
104	Sadarkaa Barnootaa	1.Kan omaa hin baranne_____	
		2. Barreessuufi dubbisuuf qofa _____	
		3.Barnoota sadarkaa 1ffa (1-8) _____	
		4.Barnoota sadarkaa 2ffaa kan xumuree_ _____	
		5.12+1 fi isaa ol _____	
		6, Digrii fi isaa ol _____	
105	Amantaa keessan maaliinni?	1.Ortodoksii _____	
		2.Kaatolikii _____	
		3.Pirotestaantii _____	
		4.Musliima _____	
		5.Kan biraa (ibsi)-----	
106	Sabni keessan maali?	1.Oromoo	
		2.Amaara	
		3.Tigree	
		4.Guraagee	
		5. Kan biraa (ibsi) _____	
107	Ga'ee hojii	1.Hojjataa mootummaa _____	
		2.Hojii dhuunfaa hojjadha _____	
		3.Daldalaadha _____	
		4.Hojii hin qabu _____	
		5.Haadha warraati _____	
		6.Barataadha _____	
		7.Hojjataa Humnaa _____	
		8. Kan biraa (ibsi) _____	
108	Galii Ji'aa	Qarshii <1000	
		Qarshii 1000 – 2000	
		Qarshii 2000 -40000	
		Qarshii >45000	

Kutaa II: Af-gaaffii dhukkubsataaf taasifamu.

Lakk.	Af-gaaffilee	Lakkoofsa addaa /code/	Ulaagaa gaaffii irra darbuu (yoo barbaachise)
201	Yeroo hospitaala kana keessa turtetti miirri dhukkubbii sitti dhagaahamaa turee?	Eeyyee _____ Lakki _____	Gaaffii tokkoffaa yoo Lakki jette 2ffaa irra darbi
202	Dhukkubbii sitti dhagaahamaa ture akkamitti ibsita?	Dhukkubbii hin qabu _____ Dhukkubbii xiqqaa _____ Dukkubbii madaalawaa _____	

		Dhukkubbii cimaa _____ DhukkubbiiBaay'ee cimaa _____	
203	Dhukkubbiin sitti dhagaahamee ture yoo ta'e furmaata argachuuf eenyutti himatte?	Doktarii _____ Narsii _____ Qondaala fayyaa _____ Ogeessa faarmaasii _____ Kan birra /ibsi/ _____	
204	Ogeessi ati itti himatte dhukkubbii kee to'achuuf maal siif godhe	Gorsa naaf kennan _____ Qaama koo naaf _____ sukkuume _____ Qoricha farra dhukkubbii naaf _____ kennan _____ Kan biraa /ibsi/ _____	Deebin kee yoo Qoricha hin taane gaaffii 205 irra darbi
205	Deebin kee gaaffii 204 Qoricha farra dhukkubbii ta'e gosa kamtu siif kenname?	Qoricha afaanin liqimfamu _____ Marfeen _____ kan waraannatamu _____ Arraba jala _____ kan kaawwatam _____ Kan biraa/ibsi/ _____	
206	Qoricha farra dhukkubbii ogeessii isiniif ajaje hundaa asitti argattanii?	Eeyyee _____ Lakki _____	
207	Tajaajilli yaala dhukkuba (PFHI) hospitaala kana keessatti hojiirra oolaa jira jette ni yaaddaa?	Yes _____ No _____	

Kutaa III: Gaaffilee Hojiirra oolmaa Sagantaa hospitaala dhukkubarraa bilisa taasisuu

No	Gaaffilee kaardiin dhukkubsataa ittiin ilaalamu	Lakkoofsa addaa /code/	Ulaagaa gaaffii irra darbuu (yoo barbaachise)
301	Ogeessi fayyaa dhukkuba dhukkubsataa adda baasuun sirnaan galmeessee jiraa?	Eeyyee _____ Lakki _____	
302	Sagantaan dhukkubbii to'achuu kurmaana darbe keessa ooditii ta'eeraa?	Eeyyee _____ Lakki _____	
303	Kutaalee yaalii addaaddaa keessa pirotokooliin ittiin dhukkubbiin to'atamu kaa'amee jiraa?	Eeyyee _____ Lakki _____	
304	Ogeessi fayyaa dhukkuba dhukkubsataa giddu galaan daqiiqaa 40 keessatti qoratee jira?	Eeyyee _____ Lakki _____	
305	Ogeessi fayyaa osoo dhukkubsataan kutaa ciisichaa keessaa hin bahin dhukkuba akka qabu qoratee jiraa?	Eeyyee _____ Lakki _____	
306	Ogeessi fayyaa osoo dhukkubsataan kutaa ciisichaa keessaa hin bahin dhukkubbii isaa iskeelii 0/10 n galmeesseraa?	Eeyyee _____ Lakki _____	

307	Did health care provider administer anti-pain drugs for patients?	Eeyyee _____ Lakki _____	
308	Ogeessi fayyaa dhukkuba qorate akka agarsiiftu ijoo shanaffaatti galmeesseraa?	Eeyyee _____ Lakki _____	
309	Ogeessi fayyaa gabaasa HDIB waajira eegumsa fayyaa godinaaf ergaa jiraa?	Eeyyee _____ Lakki _____	

Kutaa IV: Gaaffilee Hojiirra oolmaa Sagantaa hospitaala dhukkubarraa bilisa taasisuu ragaan itti quufinsa maamilaa ittiin funaanamu/patient satisfaction/

Lakk.	Af-gaaffilee	Lakkoofsa addaa/code	Ulaagaa gaaffii irra darbuu (yoo barbaachise)
401	Tajaajila sagantaa kanaan siif kennametti ammam itti quuftan?	1. Baay'ee Quubsadha miti 2. Quubsadha miti 3. Murteessuu hin danda'u 4. Quubsadha 5. Baay'ee quubsaadha.	
402	Qoricha farra dhukkubbii isiniif kennametti ammam quuftan?	1. Baay'ee Quubsadha miti 2. Quubsadha miti 3. Murteessuu hin danda'u 4. Quubsadha 5. Baay'ee Quubsadha	
403	Namatti toliinsa Sa'aati to'annaan dhukkubbii isiniif taasifameetti ammam quuftan?	1. Baay'ee Quubsadha miti 2. Quubsadha miti 3. Murteessuu hin danda'u 4. Quubsadha 5. Baay'ee quubsaadha	
404	Naamusa ogeessaa fayyaa tajaajila yaala dhukkubbii keessaniitti ammam quuftan?	1. Baay'ee Quubsadha miti 2. Quubsadha miti 3. Murteessuu hin danda'u 4. Quubsadha 5. Baay'ee quubsaadha	
405	Walii gala tajaajila yaala dhukkubbii isisniif taasifameetti ammam quuftan/?	1. Baay'ee Quubsadha miti 2. Quubsadha miti 3. Murteessuu hin danda'u 4. Quubsadha 5. Baay'ee quubsaadha	

ASSURANCE OF PRINCIPAL INVESTIGATOR AND ADVISORS

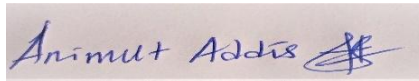
The undersigned agrees to accept responsibility for the scientific ethical and technical conduct of the research project and for provision of required progress reports as per terms and conditions of the Faculty of Public Health in effect at the time of grant is forwarded as the result of this application.

Name of the student: **Sisay Wakuma**

Date: **26/9/2021** Signature: 

APPROVAL OF THE FIRST ADVISOR

Name of the first advisor:



Date: **October 27, 2022**

APPROVAL OF THE SECOND ADVISOR

Name of the Second advisor : **Beshea Gelana**

Date: **26/09/2022** Signature: 