

# Exploring Providers Experience on the Current Practices in the Provision of Palliative Care Among Colorectal Cancer Patients in Dar Es Salaam, Tanzania. September, 2022

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## Research Article

**Keywords:** Palliative care, colorectal cancer, morphine, patient

**Posted Date:** November 1st, 2022

**DOI:** <https://doi.org/10.21203/rs.3.rs-2115617/v1>

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# Abstract

## Background

Palliative care is an upfront requirement for the quality life of patients and families, particularly those who are at life-threatening illnesses like colorectal cancer disease. Palliative care requires a collective support of nurses, doctors, social workers, spiritual leaders, families and the community at large. A good palliative care improves quality of patient and family life whereas inadequate can hasten death to patients and lead to psychological effect to family members. Despite involving health care and non-health care personnel, little is done or implemented to improve palliative care, while there are an increase number of new colorectal cancer cases globally particularly in Tanzania, so palliative care is highly demanded due to inadequate treatment of colorectal cancer disease.

**Broad objective:** This study aimed to explore the providers experience on the current practices in the provision of palliative care among Colorectal Cancer patients in Dar es salaam, Tanzania.

## Methods:

The study used phenomenological type in which data was collected by one qualitative data source, in-depth interviews (IDIs) with health care providers, whereby phenomenological type of qualitative study were used during data collection from participants' so as to describe and understand in depth the experiences of the participants. The study population was all health care providers including nurses, doctors and paramedics who serve the colorectal cancer patients and families. Data recorded from the interviews was transcribed in verbatim after data collection. The researcher analyzed the data (English version transcripts) using a computerized qualitative software NVivo 1.0 and conducted deductive method of content analysis based on determined categories of data that emerged from the results.

## Result:

Two themes broadly classified as variation of palliative care service provision and Factors affecting palliative care among colorectal cancer patients, emerged from the study. Among the variation of palliative care service provision included: Hygiene and care were maintained, Psycho-socio support varies and Variation of medical treatment. And the factors affecting palliative care among colorectal cancer patients included: Availability of medical supplies was poor, inadequate palliative care training and facilities for care and unavailability of SOPs and guidelines. The study provided evidence of the variation of provision of care and factors affecting palliative care that care providers experiences while implementing Palliative Care.

## Conclusion and recommendation:

Care providers who practice palliative care for colorectal cancer patients are so much needed in the practice of care to ensure quality care is given. These results demonstrate the need for the government to design and customized training for in-service providers and unveil SOP and palliative care guideline in

health care setting. More research are recommended in the area of supporting such teams that often operate without the full range of tools necessary to meet all of their patients' needs, and ensure palliative care policy is incorporated in health college curricula and all level of hospital setting .

## Introduction

Palliative care utilization is influenced primarily by gender, race, educational level, obesity, socioeconomic status, health insurance type and physician discussion in the final year of life (Molassiotis *et al.*, 2018). Palliative care has been developed in many Sub-Saharan African countries in recent years as a result of the activities of the African Association for Palliative Care (Coyle & Ferrell, 2016). Normally, this type of care involves different chronic diseases/conditions such as cancer, HIV/AIDs, Diabetes and Hypertension. These diseases last a long time and progress at a slow pace (McIlpatrick *et al.*, 2021). Cardiovascular diseases, cancer, chronic respiratory disease and diabetes are the most common types of NCDs and they have a huge impact on people, health systems and societies all over the world (Sullivan, Mcgrane, Clark, & Marshall, 2020). According to Loth et al. (2020), Non Communicable Diseases excessively affect low to middle income countries due to higher rates of premature death, nearly three quarters or 28 million NCD deaths are reported. Although communicable diseases remain the leading causes of morbidity and mortality around the world, non communicable diseases (NCDs) contribute significantly to the disease burden, for example, in Tanzania about 33% of all deaths are due to NCDs among adults populations (WHO, 2018). Therefore, their impact on palliative care is important. In addition, Nwagbara, Ginindza and Hlongwana (2020), stated that the second global cause of death is cancer with an estimation of about 18.1 million cases and 9.6 million deaths in 2018.

Colorectal cancer, also known as bowel /colon cancer, is said to be the third most globally diagnosed and detected cancer that affects both men and women and causes sufferings even before any symptoms (Arnold et al., 2017). The end-stages of colorectal cancer patients experiencing obstruction, colostomy and other distressing symptoms such as fear of leakage, embarrassment caused by noise, gas and bad smell and a desire for more privacy can all lead to social isolation, depression and anxiety (Blackmore et al., 2020). As a result, these patients may be suitable candidates for palliative care to improve their quality of life (Bennardi et al., 2020). The tumor can be overcome surgically, with a 5-year survival rate of up to 60% when detected earlier (Brown, Roeger, & Reed, 2019).

Colorectal cancer (CRC) is the third most common cancer diagnosed and the fourth leading cause of cancer-related deaths worldwide and its burden is expected to rise by 60% to more than 2.2 million new cases and 1.1 million cancer deaths by 2030 (Arnold et al., 2017). While in Africa, it is the sixth most common incidence per 100,000 people in Sub-Saharan Africa. It ranges from 3.1 in men and 2.9 in women. For example, in Malawi, it accounts for 14.9 in men and 14.2 in women in Zimbabwe (Katsidzira *et al.*, 2018). Tanzania has a prevalence of CRC is 1239 cases, with a projection of 37.5 percent increase by 2035 (Katalambula et al., 2016). Generally, the last two decades have shown a gradual increase in the incidence of colorectal cancer in sub-Saharan Africa.

Based on these data, it suffices to say that the burden of the disease is increasing despite the treatment provided at the hospital. This trend calls for palliative care to support patients to smoothen their quality of life. In developed countries, this care is given a priority while less prioritized in developing countries. In Tanzania, Ocean Road Cancer Institute (ORCI) initially provided the care in 1996 to cancer patients but this was to all types of cancer cases. Thereafter, palliative care within the country was preceded by other institutes including Faith-Based Organizations [FBOs] such as the Evangelical Lutheran Church in Tanzania (ELCT), Selian and Muheza Hospice Care, and Pastoral Activities and Services for AIDS patients provided by Dar es Salaam Archdiocese (PASADA).

Despite the establishment of these Institutions in Tanzania, there is inadequate information and awareness about Colorectal cancer symptoms, treatment and palliative care services among health care providers who care patient with colorectal cancer (Herman, Hawkins, Misso, Issangya, & Tarmohamed, 2020). The available information relies much on communicable diseases while colorectal cancer cases are sparingly discussed, thus making it difficult for care provider to offer palliative care services. Stigma and discrimination are among the factors that hinder the utilization of palliative care by patients with colorectal cancer (Loth et al., 2020). In addition, currently with an increase of CRC, still there are minimal resources and shortages of health workers with palliative care knowledge (Just et al., 2021). The national health systems of Tanzania and other many African countries have mainly focused primarily on preventive, curative and maternal health services, while palliative care has been given less priority or none. Therefore, this study aims to explore the providers' experience on the current practices in the provision of palliative care among Colorectal Cancer patients in Tanzania

The study findings are of important to policymakers in the formulation of successful policies for palliative care training among care givers who care the colorectal cancer patients. And it enable health leaders to identify and assess current palliative care gaps and apply corrective measures to enhance quality palliative care to all patients.

## **Materials And Methods**

### **Study area**

The study was conducted in Dar es Salaam City, whereby purposeful sampling were utilized to choose the hospital where in-depth interview were held (Høydahl, Edna, Xanthoulis, Lydersen, & Endreseth, 2020). Participants had diverse background and were chosen base on the following criteria; - number of palliative care patients admitted or attend at the hospital and number of healthcare providers at a particular hospital who attend colorectal cancer patients receiving palliative care.

Dar es Salaam is Africa's seventh-largest city by population and one of the world's fastest growing cities, with a mix of different ethnic group within Tanzania and hence most of the patients with the disease are referred to the Muhimbili National Hospital and Ocean Road cancer Institute. The current population is approximately 7 million, with a projected increase to 13 million by 2035. Dar es Salaam is chosen for this

study because nearly 70% of its low and middle income residents eat street food for their daily survival. As a result, the street food market supports livelihoods and employs a large number of people. However, variety and nutritional quality of street food are frequently questioned, particularly in low income settings such as Tanzania. Due to the nature of their business, street food vendors may prioritize taste over nutritional value and hygiene when preparing food, resulting in the consumption of high carbohydrate and high protein dishes with limited fruit and vegetables. As a result, the street food consumers struggle to consume the WHO recommended minimum of 400 grams of fruits and vegetables per day to prevent non communicable diseases including colorectal cancer disease (Kagaruki, Mahande, & Jaffar, 2021).

## **Study Design And Population**

This was phenomenological study in which data was collected by one qualitative data source, in-depth interviews (IDIs) with health care providers, whereby phenomenological type of qualitative study were used during data collection from participants' so as to describe and understand in depth the experiences of the participants. The study population was all health care providers including nurses, doctors and paramedics who serve the colorectal cancer patients and families.

## **Inclusion And Exclusion Factors For Research Participants**

The health care providers must have > 2 years' of experience and a license for the specific profession. A care provider with zero experience of palliative care and who do not work in a colorectal cancer ward were excluded from the study.

## **Sample Size Consideration And Sampling**

The study interviewed 10 participants (6 nurses, 1 social workers and 3 medical doctors) this final number was reached after information saturation point where no new ideas came out during interviews. Health care provider participant's variations based on gender, educational level, professional and years of experience were all considered during sampling so as to bring the diverse views on the topic. Two hospitals in Dar es Salaam City were purposefully selected according to the population density of the hospital so that a larger number of caregivers were selected in higher population areas. Informed consents were obtained from all participants who met the criteria and accepted to participate prior to any study procedures. Other criteria for the selection of hospitals were based on (i) the presence of a service given by the hospital and (ii) the involvement of a relative in helping the patients.

## **Data Collection Tool**

In depth interview was used for health care providers, the interviews were conducted by the main researcher with an average time of 30 minutes per interview using a tape recorder. The interviews were conducted at the MNH (Kibasila ward no 9, 11, 12 and 13) and ORCI (chemotherapy ward, palliative care

unit, and ward 3) and confidentiality was ensured that everything discussed was not to be shared outside the research scope.

The interview guides containing open ended questions with probes were used as a data collection. The guide contained questions, probes and follow-up questions which fully explored information on personal perspective on experience of palliative care among colorectal cancer patients. This method was used because it gave in depth understanding and rich information on their experiences, thoughts and barriers on their experience of palliative care.

## **Data processing and analysis**

Data recorded from the interviews was transcribed in verbatim after data collection. The transcribed data collected from informants was then verified to ensure all information is well captured. Thereafter transcribed data was translated from Swahili language to English and verified to capture the essence of the transcription. For any noted discrepancy, it was rectified after a discussion and reaching a consensus in understanding. The researcher read all transcripts to attain a preliminary understanding of the participants' experiences and the context. All personal details and identities were removed from the transcripts to ensure confidentiality. The digital recordings of interviews, in Swahili version and translated English version softcopies of transcripts were stored in a protected computer.

The researcher analysed the data (English version transcripts) using a computerized qualitative software NVivo 1.0 and conducted deductive method of content analysis based on determined categories of data that emerged from the results.

In this study, unit of analysis were an individual in-depth interview. Firstly, researcher condensed the data to meaningful units and did open-coding approach to code the units. The codes were grouped to sub-categories by an abstraction process. Accurate analysis was ensured by comparison of codes and checks thereafter a thorough step-by-step interpretations was done, initial interpretation was done to validate data and final interpretation illustrated specific findings from in-depth interview within each of the major categories. Where categories used were drawn from the study questions and objectives as well as consideration of the most recurring thematic phrases throughout all transcripts while in coding stage.

## **Trustworthiness And Rigor**

In this study, in-depth interview were used to collect data of important basic questions, probes and follow-up questions which fully explore experience of participant on palliative care. The validity of data was ensured by trustworthiness of the findings. According to Lincoln (Feeler, 2012), on theory trustworthiness was assessed by ensuring credibility, dependability, conformability and transferability. All data was shared between the researcher and her assistant for debriefing to ensure shared understanding and addressing any inconsistencies in data collected. To ensure credibility, there was variation of data sources in order to capture variations in experience of palliative care among colorectal cancer providers. The dependability was guaranteed by recruiting participants who gave rich information such the health

care providers. Conformability was guaranteed by two researchers derive the interpretations. Transferability was sought by providing clear thick descriptions of all aspects of the study that makes a reader to judge applicability of the findings in other contexts.

## Research Ethics Considerations

The University of Dodoma Directorate of Research and Publication Ethical Review Board provided the ethical clearance letter with **Ref. No MA.84/261/02/A/30**. In addition, permission to conduct the research in Dar es salaam City was sought from the appropriate authorities. Legal consideration, before beginning this study, the UDOM ethical committee were contacted, and permission to visit health facilities were obtained from the President's Office, Regional Administration and Local Government Authority (PORALG), through a letter with **Ref. No AB.307/223/01**, Regional Secretariat (RAS) of Dar es Salaam, and District Executive Directors.

Before administering interview guide to family members and conducting interviews with patients and health care providers, written informed consent were obtained. Participation in this study was entirely voluntary, and anyone who wishes to withdraw from the study may do so at any time. Informed consent is one method of ensuring a patient's right to autonomy and beneficence. The research was of benefit, and do not harm the participants. It promotes the welfare of our constituents. Privacy and respect, Private information were kept private and not be shared with others unless an agreement is reached with family, patient, or caregiver. Before fully and actively participating in the interview each study participant were given informed consent, and participants' confidentiality was ensured by using code numbers on each interview in place of their names. However, the participants were given an explanation given before, and all methods were carried out in accordance with relevant guidelines and regulations.

## Results

In this study, various palliative care experiences were found to health care providers, and these included a category of varying ways of palliative care service provision, as these will be further discussed in detail in the subsequent sections.

## Social Demographic Characteristics Of Study Participants

A total of 10 participants were interviewed (10 health care providers), and were recruited from the Muhimbili Hospital (Kibasila ward no 9, 11, 12 and 13) and Ocean Road Cancer Institute (chemotherapy ward, palliative care unit, and ward 3). All study participants were of different years with majority being around 29–49 years. Details about study participants distribution are presented in Table 1. The study included the health care providers of the patients including nurses, medical doctors, palliative care specialist, social workers and oncologist, where all of those caretakers were closely involved with the patients. All the care providers were employed in respective hospital, majority that means six of them

were nurses with one oncologist, three medical doctors and one social worker. Among health care participants seven of them had an experience of more than five years of work.

Table 1  
Social demographic characteristics of participants n = 10

<b>Participant #</b>	<b>Age</b>	<b>Gender</b>	<b>Professional</b>	<b>Level of education</b>	<b>Experience</b>
1	48	Male	Nurse	Diploma	Five year and above
2	36	Female	Nurse	Diploma	Five year and above
3	54	Female	Nurse	Certificate	Five year and above
4	32	Male	Nurse	Diploma	Three to five years
5	29	Female	Medical doctor	Degree	One to two years
6	45	Male	Nurse (Oncologist )	Masters	Five years and above
7	48	Male	Social worker	Diploma	Five year and above
8	34	Male	Medical doctor	Degree	One to two years
9	40	Male	Medical doctor	Degree	Five year and above
10	42	Female	Nurse (palliative care specialist)	Masters	Five year and above

Table 2  
Summary of the emerging codes, sub -categories and Emerging categories

<b>CODES</b>	<b>SUB-CATEGORIES</b>	<b>EMERGING CATEGORIES</b>
Wound dressing	Variation of medical treatment	<b>Varying ways of palliative care service provision</b>
Pain management		
Changing patient position		
Physical assessment		
Emotional support	Psycho-socio support	<b>Factors affecting palliative care among colorectal cancer patients</b>
Spiritual support		
Body hygiene	Hygiene and care	
Nutrition management		
Knowledge and Working experience	Palliative care training	
Ability to provide care		
Patient response	Facilitators in palliative care service provision	
Age of the patient		
Availability of medical supplies	Inhibitors in palliative care service provision	
Facilities for care		
SOPs and guidelines		
Number of care providers		

**Varying way of providing Palliative care.**

There were different ways regarding provision of palliative care services which explained how the patient needs to be treated or handled, as shown in Table 2 and all could be described as catalysts or of important during the palliative care provision experience. Different type(s) and nature of palliative care administered to the colorectal cancer patients were explained in details as participants’ suggested that health providers who actively observe and fulfil their patient’s needs were able to provide sensitive assistance, which communicated their psycho social availability to their patient. Psycho social availability was a common sub category discussed by the care providers includes the concepts of checking in by being present and reassurance of availability.

In this study, different types of emotional support are discussed, depending on the patient's circumstances, the people involved, and cultural or social norms. However, some healthcare professionals offer patients good emotional support while others offer poor emotional support. For example some participants shared that

*"My patient is not happy since he got here and diagnosed with such disease so as a team we comfort him and make sure all the time is with the person at his room at least one attendant nurse to keep company and we sometime take him for some walk around hospital environment" (CP 3) .*

Also another health care provider added by saying that " *it is a must to involve patient and their family in decision making so that to keep them aware on their health progress condition and make them prepared for anything that will come along, by doing this they become so happy*"(CP 2).

On ensuring patients view are heard and are kept in a good emotion one nurse state " *Actively participating in the patient's conversation while paying close attention to what they have to say about their health. This demonstrates to the patient how much their words matter*".(CP10).

Psychosocial support constantly seems to make patients and their family in a good state of mind. This was proved when one of the family members stated,

*"After being involved in decision making concerning my patient by the nurses and doctors honestly I get relief out of stress as i become capable of arranging things together with the family members especially on finance issues and the preparation of transport for clinic"* (FMO4)

Patients' and families' spiritual needs are listed among their constant essential needs. The health and happiness of a patient are significantly impacted by their spiritual well-being. While providing spiritual care and determining a patient's spiritual needs is an essential component of the health care provider in palliative care as narrated by the participants,

According to one nurse said that, " *a patient who receive adequate spiritual care from the spiritual leader are also happier with their palliative care treatment given by the care providers, faith is everything madam*". (CP7).

While other added, " *When a patient needs spiritual support, we will either call our hospital's pastor or a sheikh depending on the patient's faith, and we will then let them speak without us being present*" (CP 1).

Hygiene and care is one of the most important things for all human beings either well or sick and even among patient who are admitted at the hospital, Hygiene and care is among the providers responsibility as to make sure a patient is in hygienic environment and well cared, either by assisting them to clean or let them perform activities that will ensure hygiene is maintained. Some of these activities performed by nurses and other provider could cause the patient to have a good or a bad experience on the care given.

Patients reported finding relaxation in bathing, though those who had health care professionals perform their bathing expressed a sense of being violated due to patient's values, beliefs, culture, mental state, and prior experience with hospitalization, and wished that someone from home could do it for them. However, patients who had care providers perform their bathing for them when their relatives were not present expressed gratitude for this.

One care provider responded that “..... *bathing the patient especially those with no relative here, is my role and it make my patients feel comfortable though it has some challenges especially for the male patients as they feel shy and others are telling me to see them after they have been discharged*”(CP6).

While other added that “*Oral hygiene and colostomy change improve patient appetite a lot am telling you*” CP 8).

In this study food is typically linked to patient health and wellbeing, so healthcare providers take responsibility for feeding patients who are having trouble eating and offer nutrition guidance to patients who are able to do so and sometime lose appetite and that was a good experience to patients and family on palliative care. Though some patients and family were getting trouble to even get or afford food to feed their patients.

*“I make sure my patient are getting enough nutritious food every day, by feeding them food especially for those in worse condition and guide relatives on how to prepare food for their patient” (CP7) .*

In reducing treatment-related side effects, diet may also play a part. For instance, opiates, which are used to treat pain, frequently result in constipation, but this side effect may be lessened by eating a diet rich in fluid and fibers.

This was supported by a doctor by stating that “*Due to nature of disease a patient can't use a normal route to defecate, hence a colostomy so it's better to ensure softness of the stool, by providing patient with a lot of fluids and fibers food frequently*” (CP 4).

Some cultural issues also emerge, whereby some family members fail to adhere to some type of food like eggs, and Irish potatoes with the faith that they will give hard time their patient to be healed

During family conference one family member said “*I am not going to give my patient boiled eggs and Irish potatoes as they will let my patient not to be healed early*” (CP2).

## **Variation Of Medical Treatment**

On this study different type of medical treatment mentioned to be of important to the patient condition such as pain management, wound dressing at the hospital, and changing position but also there were some challenges that made health care providers fail to give full package of palliative care to their patients, as reported by the participants.

Wound dressing is the basic technique in palliative care service for patient with colorectal cancer that has direct effects on the treatment outcome. On the important of medical treatment one mentioned the essence of wound dressing as

*“Wound dressing is one of the important medical treatment, especially to patient with bed sores, doing this regularly make the patient more comfortable and missing performing dressing patient become uncomfortable” (CP1).*

Managing pain for health care provider mentioned to be a challenge in this study, as health care provider were struggling to help their patient out of pain. But this was hard for them as they reported

*“I sometime cry and fail to work properly in harmony as my patient are complaining of pain for which i cannot help at a time, due to an availability of ant pain at the hospital setting especially morphine” (CP10).*

Other care provider added by saying that,

*“Due to difficulty of finding morphine we improvise by mixing different ant pain at least to reduce pain to our patient like diclofenac injection and paracetamol at the same time” (CP6).*

*“Initiating a good interpersonal relationship and be more close to the patient sometime help us to know the cause of pain either psychological or physical pain, in that manner help on making decision on how to help the patient” (CP3).*

## **Factor Affecting Palliative Care Accessibility**

On this study there were no uniformity on care given to the patients by different health care givers due to lack of palliative care knowledge, as every health care givers use their own experience and the ones told by other care givers to care for their patient which lead to poor results of patient condition as reported by some participants,

*“Palliative care training supposed to be given now and then so as to update providers knowledge but in our setting we are not provided with one rather our ward in charge organize a morning refresher that is been done every Thursday, whereby we remind each other on important topics that for sure help our patients” (CP3).*

*“I used to work at Nkoaranga hospital in Arusha region before shifted to here, there we were given palliative care training for a week by hospital donor before attending new batch of cancer patient as a refresher course but since I have been here I have never seen that hence we collide in provision of care, I use my experience and they use theirs” (CP5).*

Caregivers expressed insecurity about their role before the implementation of the palliative care program. Specific doubts included their self-perception that they are incapable of performing well in the role

because of inexperience. Likewise, they voiced the fear of facing the death of patients. Caregivers were worried about not being capable enough to take care of the patients, those worries caused some stress and psychological discomfort to caregivers as stated by one of them.

*"I was more worried about how to deal with their symptoms when they were dying" (CP6).*

Caregivers were also worried about having insufficient communication skills to explain the strategies for supporting an ongoing care to their patients,

*"I am worried that family members wouldn't accept or understand what I had told them about the way I took care of their patient"(CP4).*

Caregivers did mention that they were afraid of facing the death of patient especially those with less than one year of experience,

*"I have never encountered death before since I get completed my internship, It feels weird and I am scared"(CP 6).*

Participants also expressed the desire to have structured SOPs and guideline in the provision of palliative care. But health care providers reported to use their own experience on provision of palliative care as reported by one of the participant

*"..... since I have been employed here in palliative care unit I have never seen or work with the PC guideline rather we follow the hospital routine"(CP2).*

Another added

*"The SOPs that are followed are not specifically we are combined with VCT and Social worker as you can see so it is very hard to perform our specific work"(CP4).*

## Discussion

The aim of this study was to explore the providers experience on the current practices in the provision of palliative care among Colorectal Cancer patients. This study revealed various views and experiences on the part of the care providers which fell into the following four categories from that were developed from the results: **"Pain management among colorectal cancer patients was poorly implemented," "Nutrition support services among colorectal cancer patients delayed", "Palliative care training among caretakers were unavailable" and "wound dressing to patient was inadequate due to unavailability of resources and enough equipments"**.

Health care provider in this study claimed a scarcity of important medicine like morphine that prevented them from providing their patients with adequate care, this raised concerns from the public, and this could be due to inadequate of fund during budgeting process, lack of motivation of staff, legal restriction and lack of knowledge on pain management. This was supported by (Rhee et al., 2018) on their study

about factors affecting palliative care development in Africa, that the access of morphine in Africa is a challenge, for a variety of reasons like lack of knowledge, lack of legal protections, and expiring opioids. Hence this highlights the poor treatment provided to patients.

Similarly to study done by (Hasson et al., 2021) on the challenge of palliative care services, reported that this challenge of accessing morphine is due to lack of staff knowledge and legal protection made by the country. On the other hand morphine made up 50% of the total surveyed medicines, according to a cross-sectional study done in Dar es Salaam (Tanzania) by (Black, McGlinchey, Gambles, Ellershaw, & Mayland, 2018), but only 30% of patients could afford to purchase morphine medications from medical facilities.

In contrast to study done in China by (Chi, Demiris, & Pike, 2019), they came up with government policy and management are the reasons for scarcity of morphine in different health facilities.

Inadequate availability of medical supplies was reported by health care providers as a major challenge in ensuring effective palliative care is implemented. This was also observed by the study conducted in Lusaka Zambia on speciality of palliative care (Mbozi, Namukwaya, & Chaila, 2019), that lack of resources in the implementation of palliative care services and unavailability of medical equipments was reported to be among the issues that fail the palliative care services provision.

Also health care provider express having a lot of patients but medical equipments are not related with the number of patients hence end up giving them referrals home or to other nearby hospital for family with good financial status and left with few that the hospital can accommodate and able to help. Similarly to a recent study conducted in Canada family with good financial status can buy equipments and let their patient stay at the hospital (Shah, Qaisar, Azam, & Mansoor, 2020). If the patient remained in hospital, many of these costs would be absorbed by the government, including expenses related to medical equipment, special meals, renovations to accommodate disabilities, repairs and in some instances, prescription and non-prescription drugs. However, Canada has also just introduced legislation that will expand the availability of medical equipments at all levels of the hospital (Shah et al., 2020).

In contrast to study done in Malaysia (Marzuki, Wichaikhum, & Nantsupawat, 2013) on resources adequacy impact on patient outcomes shows that there were available resource but with inadequate staff that does not have knowledge on the use of resources and hence poor quality of services to patients. Similarly to study conducted by (Seidu, 2020) whereby he reported the availability of resources within the health facilities but misuse of resources by the care providers due to unstable health facility management.

The current study found that majority of the health care provider were aware on the importance of balance diet in palliative care but failed to adhere on provision of balance diet to their patients due to different factors including financial status of the patient's family, the hospital provide routine food due to availability. This was supported by (Katsidzira et al., 2018) on the similar context of importance of nutrition on balance diet, that health care provider made patients to skip balance diet related to number of

reasons as poor financial family status and overloaded with work due to shortage of staff at the hospital these made large number of participants fail to provide meals hence patients become unhealthy.

In contrast to study done in South Brazil by (Eckert-dreher et al., 2020) on dietary pattern and risk of colorectal cancer suggested that, education given by care providers on consuming a balanced diet each day that includes beans, vegetables, leaves, and fruits can reduce the negative health effects of dietary carcinogens because these foods contain several antioxidants that may be enough to control the overproduction of reactive oxygen species before it results in oxidative damage to critical biomolecular and cell membranes. Consuming dietary fiber may help slow down the development of colorectal cancer in addition to consuming micronutrients, as shorter intestinal transit times indicate a shorter persistence of dietary carcinogens in the lumen. The increase in fecal volume is also connected to the protective action of the fibers (Lewandowska et al., 2022).

In this study loss of appetite found to be a challenge to colorectal cancer patient as it lead to poor prognosis of the patient status and effect on cancer therapy given by health care providers. Similarly to study done by (Lewandowska et al., 2022) found that people who have extremely low appetites for longer than a few days typically lose weight. People who lose weight because they don't eat enough frequently experience weakness and exhaustion. Their quality of life and capacity to carry out daily tasks could be impacted by this, and hence may react differently to cancer treatment as a result care givers are poorly rated in care.

Together with this, health care provider reported different issues that were the leading causes of loss of appetite to colorectal cancer patients example the medication used, fear of pain and the disease, while also (Katsidzira et al., 2018) emphasize on the similar causes and added on dehydration, melancholy, and stress all of this can lead to loss of appetite.

In contrast to study done by (Muleya et al., 2020), Stress that may be caused by financial status and family conflict are the reasons most of the patient loss their appetite and made patient body weak. This was also supported by (Laryionava et al., 2018) that depression and stress of the patient that are triggered by family members and patient area of work are the causes of loss of appetite to the patient, and this made the health care provider hard time on provision of palliative care on a particular patient.

In this study it has been observed that, there is inadequate palliative care knowledge among health care providers. This was also observed by (Medicine & Journal, 2020) whereby 60% of the participants had no knowledge regarding palliative care and how it works. Our study mentioned how unpleasant it was for inexperienced care provider to recommend and utilize palliative care for their patients. They also stated that because their colleagues did not recognize the significance of palliative care, their lack of knowledge prevented them from receiving help from them.

Respondents in this study noted how crucial the training was for closing the knowledge gap and enabling successful palliative care implementation. This was also observed by (Mbozi et al., 2019) who found that a palliative care training significantly improved participants' knowledge, attitudes, beliefs, and

experiences. They emphasized one more how beneficial the palliative care training was for palliative care implementation.

Among the disparities observed in this study were the years of experience, the use of SOP and palliative care guideline, for the provider with more than five years of experience in work were able to provide quality palliative care with unstructured palliative care guideline compare to providers with less than five years. This is supported by the previous study done by (Anyanwu & Agbedia, 2020), on the practice of palliative care among nurses, found that nurses generally had good experience of palliative care and effective follow guideline compare to other paramedics of about 73.7%. while (Adisa & Anifowose, 2019) found most health care providers had experience with insufficient knowledge on palliative care especially on the important, philosophy and principles of palliative care.

On the current study showed that male gender were a good performer on wound dressing compare to female gender, this was also supported by (Mwakanyamale et al., 2019) that male gender was proved better on caring the wound by using different surgical equipments compared to female nurses. This was limited by the amount of patients who desired that their wounds be dressed by men. The same findings regarding the influence of male gender on the appropriate use of wound dressing materials were shown in studies done by (Lee et al., 2021).

The number of colorectal cancer patients in the palliative care unit was higher than the number of dressing supplies, hence the requirement was not met. Cotton wool and a lot of kidney dishes were both offered. Conversely, toothed forceps were a rare commodity among healthcare professionals in the hospital. Povidon was completely unavailable. The same outcomes showed by study done in Vietnam by (Dung, Trang, & Tung, 2020) on the practice of confidence of wound dressing whereby health care providers fail to show their confidence in practicing wound dressing properly due to less number of dressing supplies like toothed forceps were few for the accomplishment of the task.

## **Implication Of The Study**

The study placed a strong emphasis on educating healthcare professionals about palliative care for people with colorectal cancer, this was supported by (Muleya et al., 2020) on their study on Nurses' experiences of providing nonpharmacological pain management in palliative care, by stating that no matter the type of employment, regular chances for continuing education should be made available to nurses working in palliative care. As a result, policymakers should include palliative care education in the college curricula for health students so they can acquire expertise before beginning their careers. Additionally, it is important to develop policies that ensure palliative care is covered at all levels of care, as this will benefit patients from all over the nation. This was also explained by (Chiang, Wu, & Peng, 2021) on the study of experience to Implement Palliative Care in Long-term Care Facilities whereby the Government should develop policy in an effort to enhance collaboration between health worker teams working within hospitals and long-term care facilities.

## Strength And Limitation Of The Study

The study was conducted in tertiary hospitals of Tanzania (MNH and ORCI) and hence the results represent the experience of health care providers at the national level. While on the limitation, the study is prone to social desirability bias and the study only included one palliative care team, which can reduce the diversity in results that might have been seen with inclusion of more diversified groups.

## Conclusion

This study shows that the role of the healthcare provider is crucial for the improvement of the palliative care program, so the government must develop and implement specialized training for in-service providers as well as incorporate SOP and guidelines due to the low capability in terms of skills and knowledge as reported in our study. Palliative care services should be included in the college curriculum so that students can understand care before entering the workforce. A trained care provider, equipped with education and important resources, can be a powerful advocate for people at the end of life, whether the disease be cancer of any stage. Effectiveness of the providers' experience of care, whether for pain relief or other domains of palliative care, can be measured and shown to be of value for clients and their families' response, but there is a psychological burden for care providers trained in palliative care and the use of practice when they are asked to deliver palliative care. More research is warranted in the area of supporting palliative care team especially health care providers that often operate without the full range of tools necessary to meet all of their patients' needs.

### Recommendations of the study.

The study recommends further qualitative research into experience of the care providers in other regions, at other levels of study including to patient with diabetic and hypertension.

## Declarations

### Ethics approval and consent to participate.

The ethical approval letter was provided by the University of Dodoma's Directorate of Research and Publication Ethical Review Board with reference number **MA.84/261/02/A/30**.

Family members and conducting interviews with patients and health care providers, written informed consent were obtained

### Consent for publication.

Not applicable

### Availability of data and materials.

The data used and analyzed to accomplish the article, are available from the corresponding author on request through the University of Dodoma, Public health and community nursing department.

### Competing interests

The authors declare that they have no competing interests.

### Funding

The funders of this study are the authors, the funders has all the roles of preparation of manuscript, designing and the decision to publish.

### Authors' contributions

The literature search was planned and carried out with equal contributions from each member of the study team. For this study, all researchers reviewed and judged the suitability of the articles. Agness oversaw the article's writing and drafted the text. The final manuscript was written by all authors, who also read and approved it.

### Acknowledgements

The authors would like to thank the University of Dodoma for assisting the research team in carrying out this research project.

## References

1. Adisa, R., & Anifowose, A. T. (2019). *Pharmacists' knowledge, attitude and involvement in palliative care in selected tertiary hospitals in southwestern Nigeria*. 8, 1–13.
2. Anyanwu, E. C., & Agbedia, C. (2020). *The Practice of Palliative Care amongst Nurses in Selected Hospitals in Eastern Nigeria*. 617–635. <https://doi.org/10.4236/ojn.2020.106043>
3. Arnold, M., Sierra, M. S., Laversanne, M., Soerjomataram, I., Jemal, A., & Bray, F. (2017). Global patterns and trends in colorectal cancer incidence and mortality. *Gut*, 66(4), 683–691. <https://doi.org/10.1136/gutjnl-2015-310912>
4. Bennardi, M., Diviani, N., Gamondi, C., Stüssi, G., Saletti, P., Cinesi, I., & Rubinelli, S. (2020). Palliative care utilization in oncology and hemato-oncology: A systematic review of cognitive barriers and facilitators from the perspective of healthcare professionals, adult patients, and their families. *BMC Palliative Care*, 19(1), 1–17. <https://doi.org/10.1186/s12904-020-00556-7>
5. Black, A., Mcglinchey, T., Gambles, M., Ellershaw, J., & Mayland, C. R. (2018). *The 'lived experience' of palliative care patients in one acute hospital setting – a qualitative study*. 1–10.
6. Blackmore, T., Norman, K., Kidd, J., Cassim, S., Chepulis, L., Keenan, R., ... Lawrenson, R. (2020). Barriers and facilitators to colorectal cancer diagnosis in New Zealand: A qualitative study. *BMC Family Practice*, 21(1), 1–10. <https://doi.org/10.1186/s12875-020-01276-w>

7. Brown, L. J., Roeger, S. L., & Reed, R. L. (2019). Patient perspectives on colorectal cancer screening and the role of general practice. *BMC Family Practice, 20*(1), 1–9. <https://doi.org/10.1186/s12875-019-0997-5>
8. Chi, N., Demiris, G., & Pike, K. C. (2019). *HHS Public Access. 35*(4), 601–611. <https://doi.org/10.1177/1049909117729477.Pain>
9. Chiang, S., Wu, S., & Peng, T. (2021). The Experience to Implement Palliative Care in Long-term Care Facilities: A Grounded Theory Study of Caregivers. *Asian Nursing Research, 15*(1), 15–22. <https://doi.org/10.1016/j.anr.2020.10.006>
10. Coyle, N., & Ferrell, B. R. (2016). *Supporting Families in Palliative Care Social Aspects of Care Supporting Families in Palliative Care Supporting Families in Palliative Care*. <https://doi.org/10.1093/med/9780190244132.001.0001>
11. Dung, P. T., Trang, L. T., & Tung, H. H. (2020). *Nurses ' Knowledge , Practice , and Confidence after the Training Program on Wound Care at the Agriculture General Hospital in Vietnam*. 646–656. <https://doi.org/10.4236/ojn.2020.106045>
12. Eckert-dreher, R. G., Coelho, D., Zibetti, A. W., Felipe, K. B., Wilhelm-filho, D., & Pedrosa, R. C. (2020). *Dietary Patterns and Empirical Dietary Inflammatory Index in Southern Brazil and Risk of Colorectal Cancer: A Case-Control Study*. 281–300. <https://doi.org/10.4236/fns.2020.114021>
13. Feeler, W. G. (2012). *DigitalCommons @ University of Nebraska - Lincoln Being There: A Grounded-Theory Study of Student Perceptions of Instructor Presence in Online Classes*.
14. Hasson, F., Jordan, J., McKibben, L., Graham-Wisener, L., Finucane, A., Armour, K., ... Kernohan, W. G. (2021). Challenges for palliative care day services: a focus group study. *BMC Palliative Care, 20*(1), 1–9. <https://doi.org/10.1186/s12904-020-00699-7>
15. Herman, A. M., Hawkins, A. T., Misso, K., Issangya, C., & Tarmohamed, M. (2020). *Colorectal Cancer in Northern Tanzania: Increasing Trends and Late Presentation Present Major Challenges original reports abstract*. 375–381.
16. Høydahl, Ø., Edna, T.-H., Xanthoulis, A., Lydersen, S., & Endreseth, B. H. (2020). *Long-term trends in colorectal cancer: incidence, localization, and presentation*. 1–13. <https://doi.org/10.21203/rs.3.rs-22840/v1>
17. Just, J., Schmitz, M.-T., Grabenhorst, U., Joist, T., Horn, K., Engel, B., & Weckbecker, K. (2021). Factors influencing length of survival in ambulatory palliative care - a cross sectional study based on secondary data. *BMC Palliative Care, 20*(1), 1–9. <https://doi.org/10.1186/s12904-021-00762-x>
18. Kagaruki, G. B., Mahande, M. J., T, M. M., & Jaffar, S. (2021). *Prevalence and Correlates of Cardio-Metabolic Risk Factors Among Regular Street Food Consumers in Dar es Salaam , Tanzania*. 1011–1024.
19. Katalambula, L. K., Ntwenya, J. E., Ngoma, T., Buza, J., Mpolya, E., Mtumwa, A. H., & Petrucka, P. (2016). *Pattern and Distribution of Colorectal Cancer in Tanzania: A Retrospective Chart Audit at Two National Hospitals. 2016*. <https://doi.org/10.1155/2016/3769829>

20. Katsidzira, L., Laubscher, R., Gangaidzo, I. T., Swart, R., Makunike-Mutasa, R., Manyanga, T., ... Rusakaniko, S. (2018). Dietary patterns and colorectal cancer risk in Zimbabwe: A population based case-control study. *Cancer Epidemiology*, 57(October), 33–38. <https://doi.org/10.1016/j.canep.2018.09.005>
21. Laryionava, K., Pfeil, T. A., Dietrich, M., Reiter-theil, S., Hiddemann, W., & Winkler, E. C. (2018). *The second patient? Family members of cancer patients and their role in end-of-life decision making*. 1–9.
22. Lee, T. Y., Susanti, H. D., Hung, K. C., Yang, S. Y., Fang, H. F., Tsai, J. R., ... Chung, M. H. (2021). Health care needs of elderly patients with lung, liver, or colon cancer in Taiwan. *BMC Palliative Care*, 20(1), 1–9. <https://doi.org/10.1186/s12904-021-00708-3>
23. Lewandowska, A., Religioni, U., Czerw, A., Deptała, A., Karakiewicz, B., & Kmiec, K. (2022). *Nutritional Treatment of Patients with Colorectal Cancer*. 1–12.
24. Loth, C. C., Namisango, E., Powell, R. A., Pabst, K. H., Leng, M., Hamada, M., & Radbruch, L. (2020). From good hearted community members we get volunteers" - An exploratory study of palliative care volunteers across Africa. *BMC Palliative Care*, 19(1), 1–10. <https://doi.org/10.1186/s12904-020-00545-w>
25. Marzuki, M., Wichaikhum, O., & Nantsupawat, R. (2013). Unfavorable staffing and resources adequacy impact on patient outcomes and quality of care in the three university hospitals in Malaysia. *Open Journal of Nursing*, 03(08), 58–63. <https://doi.org/10.4236/ojn.2013.38a008>
26. Mbozi, P., Namukwaya, E., & Chaila, J. (2019). *The Experiences of Palliative Care Specialists in Implementing Palliative Care into Their Work Settings in Lusaka , Zambia*. 1664–1683. <https://doi.org/10.4236/health.2019.1112126>
27. McIlpatrick, S., Slater, P., Beck, E., Bamidele, O., McCloskey, S., Carr, K., ... Hasson, F. (2021). Examining public knowledge, attitudes and perceptions towards palliative care: a mixed method sequential study. *BMC Palliative Care*, 20(1), 1–11. <https://doi.org/10.1186/s12904-021-00730-5>
28. Medicine, P., & Journal, I. (2020). *Staff nurses ' knowledge and attitude toward the concept of palliative care; F atin A busyriah RN BSN , abdelqader tayyem RN MSN questionnaire in a quaternary central hospital*. 4(2), 27–32. <https://doi.org/10.15406/hpmij.2020.04.00181>
29. Molassiotis, A., Roberts, S., Cheng, H. L., To, H. K. F., Ko, P. S., Lam, W., ... Marshall, A. P. (2018). *Partnering with families to promote nutrition in cancer care: feasibility and acceptability of the PlcNIC intervention*. 1–12.
30. Muleya, W., Integrative, M., Science, H., Worker, S., Petersson, K., & Elgán, C. (2020). *Nurses ' experiences of providing nonpharmacological pain management in palliative care: A qualitative study*. (February), 1643–1652. <https://doi.org/10.1111/jocn.15232>
31. Mwakanyamale, A. A., Mukaja, A. M. A., Ndomondo, M. D., Zenas, J. P., Stephen, A. M., & Mika, E. Z. (2019). Nursing Practice on Post-Operative Wound Care in Surgical Wards at Muhimbili National Hospital, Dar-es-Salaam, Tanzania. *Open Journal of Nursing*, 09(08), 870–890. <https://doi.org/10.4236/ojn.2019.98065>

32. Nwagbara, U. I., Ginindza, T. G., & Hlongwana, K. W. (2020). *Lung cancer awareness and palliative care interventions implemented in low-and middle-income countries: a scoping review*.
33. Rhee, J. Y., Garralda, E., Namisango, E., Luyirika, E., de Lima, L., Powell, R. A., ... Centeno, C. (2018). Factors Affecting Palliative Care Development in Africa: In-Country Experts' Perceptions in Seven Countries. *Journal of Pain and Symptom Management*, 55(5), 1313-1320.e2. <https://doi.org/10.1016/j.jpainsymman.2018.01.009>
34. Seidu, A. (2020). *Using Anderson ' s Model of Health Service Utilization to Assess the Use of HIV Testing Services by Sexually Active Men in Ghana*. 8(September), 1–10. <https://doi.org/10.3389/fpubh.2020.00512>
35. Shah, S., Qaisar, F., Azam, I., & Mansoor, K. (2020). Perceptions, knowledge and attitudes towards the concept and approach of palliative care amongst caregivers: a cross-sectional survey in Karachi, Pakistan. *BMC Palliative Care*, 19(1), 1–9. <https://doi.org/10.1186/s12904-020-00688-w>
36. Sullivan, K. O., Mcgrane, A., Clark, S., & Marshall, K. (2020). *Exploring the Impact of Home-Schooling on the Psychological Wellbeing of Irish Families During the Novel Coronavirus ( COVID-19 ) Pandemic: A Qualitative Study Protocol*. 19, 1–6. <https://doi.org/10.1177/1609406920980954>