

People's Preferences for Traditional, Spiritual, Religious, and Folk Healers for Oncological Disorders

Nabila Anwar^{a#}, Salma Amin Rattani^{b†}, Salima Shams^{b‡},
Farida Bibi Mughal^{a‡} and Sahrish Jalaluddin^{b^}

^a School of Nursing and Midwifery, Aga Khan University, Karachi, Pakistan.
^b Aga Khan University, Karachi, Pakistan.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Introduction: According to the World Health Organization, cancer is a leading cause of death worldwide, accounting for nearly 10 million deaths in 2020, or nearly one in six deaths. The Global Cancer Incidence, Mortality, and Prevalence (GLOBOCAN) in 2020, which is an International Association of Cancer Registries (IACR), estimated 19.3 million new cancer cases globally, in 2020, with over 10.0 million cancer deaths.

Aims: Through empirical literature to investigate why cancer patients and their families prefer traditional, spiritual, folk, and religious healer practices over medical treatment, and to explore the various traditional, spiritual, folk, and religious healing practices used to treat oncological disorders.

Methodology: A comprehensive and systematic literature search was conducted to analyze the relevant literature. The databases: PubMed, Google Scholar, and Sage journals were searched. These databases were searched using keywords 'people preferences' OR 'cancer patients' OR 'oncological patients' AND 'traditional healers' OR 'spiritual healers' OR 'religious healer' OR 'folk healers'. The timeline for the searches was set as 1st January 2011 to 1st January 2022. Additionally, grey literature that supports and explains terminologies were also added.

Student;

† Assistant Professor;

‡ Senior Instructor;

^ Coordinator;

*Corresponding author: Email: Nabila.anwar@scholar.aku.edu;

From the databases, 5,771 articles were obtained. These were evaluated for relevancy and eligibility, and 110 articles that were considered appropriate, were included in this review.

According to the findings of this literature search, none of the studies looked at all the practices that are used by healers for treating oncological disorders. In these articles when the abstracts were determined to be acceptable and relevant to the topic, the complete text of that article was scanned. Articles that were not relevant to the study topic were not included in the review. Through this process, including the grey literature, a total of 48 full publications were reviewed.

Results: After analyzing the literature on previous studies from diverse national and cultural settings, it was found that Muslim people use different processes like using taweez or Holy water, blowing (reciting holy verses and then blowing it on the body of a sick person), wearing stones, pieces of cloth, spiritual practices, burning candles, touching stones, and other methods to cure the disease. Only a few studies have looked at cancer patients' reasons for treatment choices. It was also found that traditional, folk, spiritual, and religious therapies are sought by patients for a number of reasons, including cost, travel distance to obtain medical therapy, family and friend recommendation, low socioeconomic status, the lack of availability of health resources, lack of screening system, cultural barriers, untrained medical healthcare providers, and lack of awareness. These practices lead to a delay in cancer diagnosis and treatment.

Conclusion: After analyzing the literature on previous studies from diverse national and cultural settings, three main themes were extracted: "healing practices for cancer treatment," "factors that cause cancer diagnosis and treatment to be delayed," and "healers' perceptions and knowledge about cancer treatment." These practices, factors, and healers' perceptions lead to a delay in cancer diagnosis and treatment.

Keywords: People preferences; traditional; religious; spiritual; folk; healing practices; oncological disorders.

1. INTRODUCTION

The Global Cancer Incidence, Mortality, and Prevalence (GLOBOCAN) (2020), which is an International Association of Cancer Registries (IACR), estimated 19.3 million new cancer cases globally, in 2020, with over 10.0 million cancer deaths [1]. Whereas, GLOBOCAN 2012 registered 6.7 million new cancer cases [2]. Thus, the prevalence of various types of cancers and their related mortality is rising. Data also presents that breast, lip and oral cavity, lung, esophagus, colorectal, leukemia, stomach, non-Hodgkin lymphoma, liver, and prostate are the top 10 cancers, and their incidence is 89.3 (per 100,000) and the mortality is 58.3 (per 100,000) (IARC, WHO, n.d.). This high mortality is due to the late diagnosis of cancer in Pakistan as well as in many other countries.

One of the measures that can help control this morbidity and mortality is to understand people's healthcare preferences and practices. The present research focused on people's preferences for traditional, spiritual, religious, and folk healers for oncological disorders. Thus, this was the aim of this literature review. The literature searched was analyzed thematically and through this process, three themes were extracted: "healing practices for cancer

treatment," "factors that cause cancer diagnosis and treatment to be delayed," and "healers' perceptions and knowledge about cancer treatment."

2. DEFINITION OF TERMS

2.1 Traditional Healer

According to the World Health Organization (WHO., 2021), a traditional healer is an individual who is considered by the society in which he or she lives as a celebrity qualified to give well-being treatment by employing herbal, mammal, and nutrient techniques and other techniques associated with societal, cultural, and spiritual customs [3].

2.2 Spiritual Healing

Spiritual healing is helping maintain the body, mind, and spirit in a harmonious and neutral state throughout challenging times by enhancing adaptation abilities and good sentiments, like hope and kindness [4].

2.3 Religious Healing

Religious or Faith healing is the care of a sick person by someone who thinks that through

praying or using a supernatural power, they can heal others [5].

2.4 Folk Healing

Folk healing and medicine are the earliest types of structured way of care that is founded on faith and a set of guiding principles. Folk medicine is a collection of traditional therapeutic methods and faiths that include herbal medicine and religious studies, and guide treatments or training to diagnose, its cure, or inhibit disease [6] (NCFH., 2018).

2.5 Cancer

According to WHO (2022), cancer is the fast growth of aberrant cells that expand beyond their normal bounds and spread to other regions of the body, a process known as metastasis.

2.6 Rationale of the Study

The major purpose of this study was to learn about cancer patients' and their family members' perceptions and experiences about traditional, folk, spiritual, and religious healers while undergoing cancer treatment. It tried to determine which circumstances affected the patient's decision to seek traditional, folk, spiritual, and religious healing techniques. It also explored that at what stage of their illness do people seek treatment from these healers.

3. METHODOLOGY

A comprehensive and systematic literature search was conducted to analyze the relevant literature.

3.1 Rationale of Study

The major purpose of this study is to learn about cancer patients' and their family members' perceptions and experiences about traditional, folk, spiritual, and religious healers while they are undergoing cancer treatment. It determines which circumstances affect the patient's decision to seek traditional, folk, spiritual, and religious healing techniques. It also describes that at what stage of their illness do people seek treatment from these healers.

3.2 Search Strategies

A comprehensive and systematic literature search was conducted to analyze the relevant

literature. The databases: PubMed, Google Scholar, and Sage journals were searched. These databases were searched using keywords 'people preferences' OR 'cancer patients' OR 'oncological patients' AND 'traditional healers' OR 'spiritual healers' OR 'religious healer' OR 'folk healers'. The timeline for the searches was set as 1st January 2011 to 1st January 2022. Additionally, grey literature that supports and explains terminologies was also added.

3.2.1 Inclusion criteria

- Articles are written in English.
- A viewpoint and practices relating to spiritual, religious, traditional, and folk healing for oncological disorders are included in this article.
- Publications released between 2011 and 2022.

3.2.2 Exclusion criteria

- Studies related to non-oncological disorders.
- Articles that do not involve spiritual, religious, folk, and traditional healing practices with medical care.

From the databases, 5,771 articles were obtained. These were evaluated for relevancy and eligibility, and 110 articles that were considered appropriate, were included in this review. According to the findings of this literature search, none of the studies looked at all the practices that are used by healers for treating oncological disorders. In these articles when the abstracts were determined to be acceptable and relevant to the topic, the complete text of that article was scanned. Articles that were not relevant to the study topic were not included in the review. Through this process, including the grey literature, a total of 48 full publications were reviewed. Reports were excluded for reasons one and two: articles whose topics were not matched, articles that related to medical treatment, and reason three, articles that related to healing treatment at the end of oncological disorders.

4. RESULTS

Literature searched was analyzed thematically and through this process, three themes were extracted: "healing practises for cancer treatment," "factors that cause cancer diagnosis

and treatment to be delayed," and "healers' perceptions and knowledge about cancer treatment." These are presented succinctly in this review.

4.1 Healing Practices for Cancer Treatment

Practices used for cancer treatment include consuming herbs; applying herbs on the affected parts of the skin, such as the abdomen, breast, and lymph nodes; and recitation of Holy verses. Also, the faith healers pray and fast on behalf of their patients [7]. Healers recite holy verses and then they blow on their patients. Healers also use Holy water and healing oils to heal their patients [8]. Curing is another traditional therapeutic

practice that includes both 'reading and saying a prayer' and using certain 'tools' during the healing procedure. Iron materials such as blades and a pair of scissors are the common tools that healers use. These iron materials are heated in a forge (extremely hot fire) and then they are put on the affected part of the patient's body. The purpose of this practice is to drive the devils out of the patient's body. Some healers use other materials, like they provide a small piece of cloth and instructing the patient to attach it to the body, such as by wearing it with shirt and other clothes. These practices provide hope and comfort to the patients during their suffering [9]. However, hot iron material could result in physical damage like burn and injury.

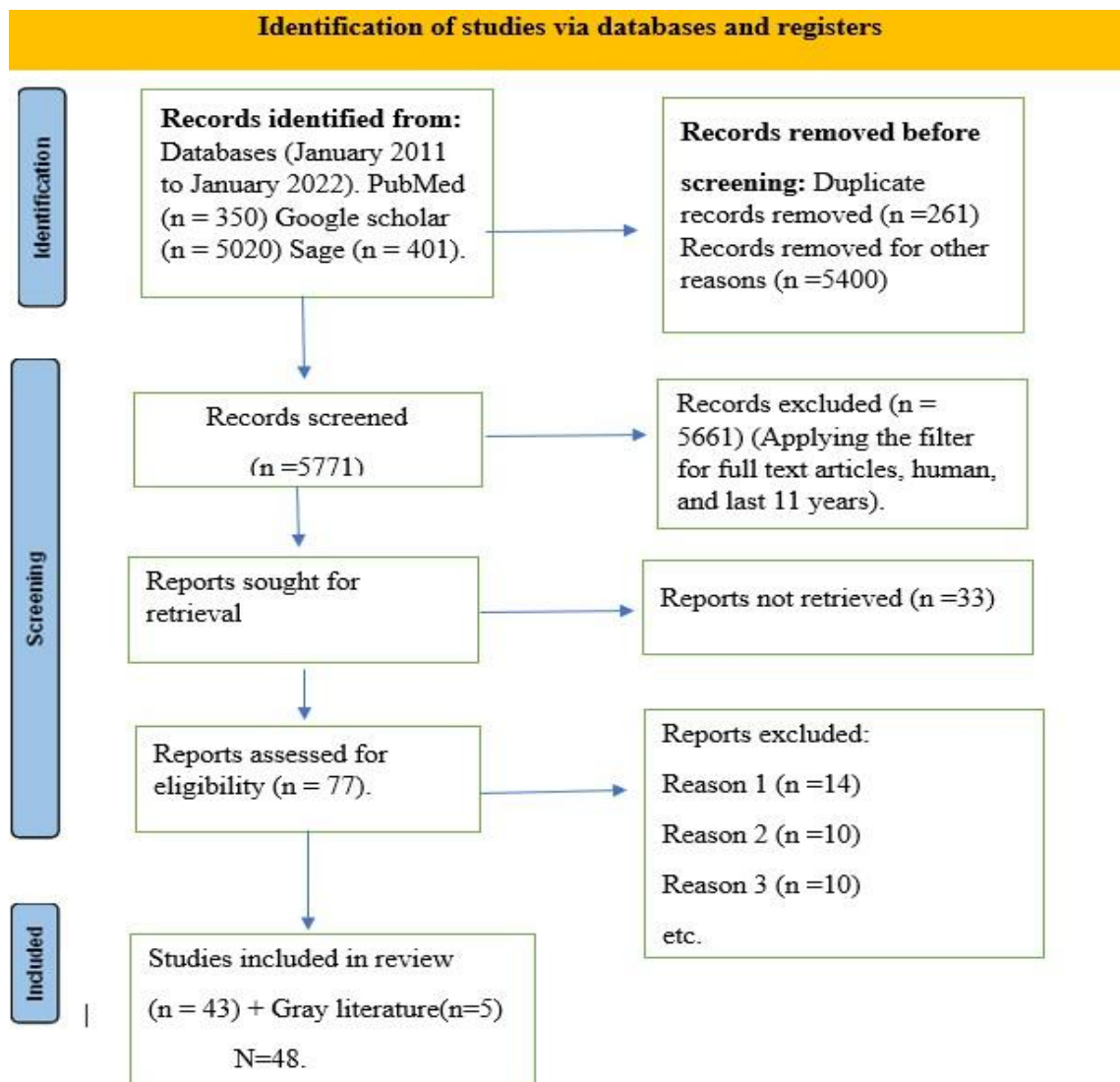


Fig. 1. Preferred reporting items for systematic reviews and meta-analyses (PRISMA)

It is also reported that for the management of cancer related symptoms camel waste products are applied to harmful to patients' bodies, which may cause brucellosis, which is a bacterial infection. This is extremely harmful to immune-compromised people and most of the patients with a cancer diagnosis are immuno-compromised [10]. Going to healers and not obtaining medical treatment may lead to delayed diagnosis and its cure of cancer patients [7,11].

Rukyah is another practice used for cancer treatment. In Islam, Ruqyah is a therapeutic approach based on the recitation of verses from the Quran and the Hadith used for seeking health protection and for the treatment of diseases [12]. It is also described as an Islamic term that refers to a charm, spell, or incantation, including the Quran or Hadith passages, for treatment of any illness. This is one of the attempts to purify the spirit, based on the concept that every ailment is given by God, and that merely God has the ability to cure it [13].

Muslim healers guide the patients to recite the Quran, continue praying, Uses Holy water (recite the Quran verses and blow on water and then drink it), and drink Zamzam water, which is obtained from the Zamzam Well located near the Holy Kaaba, a holy place in Islam. These are the most popular practices that Muslim healers use [14,15]. Another method that Muslim, the followers of Islam, used to treat cancer patients is complementary and traditional methods [16].

Describing the practices in the Islamic Republic of Pakistan [17], state that in northern rural Punjab people practice rituals like using a broom, performing a ritual with a strainer, killing tumors with a pitcher of mud and a piece of solid salt according to the tumor size, and removing the effects of the evil eye with raw egg, by drawing five straight lines with a piece of coal and placing a stick between the lines, and clamping nails in half shadow and half sunlight.

With regard to the use of a broom, it has been described as people visiting a shrine where the spiritual healer uses a broom slowly over the patient's body as a healing technique. In this, the healer silently recites some phrases while sweeping the broom over the patient's body. The healer performs this practice for about five to seven minutes. Then, the healer takes a piece of salt from a stone pot and tells the patient to add it to his/her kitchen's salt.

The idea behind this practice is that the shrine's brush is precious and that it would cure the patient and through the use of the shrine salt in the meals, the blessings of the shrine will get into the patient's body [17].

In the procedure of performing a ritual with a strainer, the patient places the strainer in a bucket filled with water, holds it and walks ten steps. Then the patient places the water container (bucket) on the floor between the first and the tenth step, takes out the strainer from the container and walks with it. This ritual is believed to build the defense mechanism against the disease. Placing a strainer in a water-filled bucket symbolizes the removal of disease and giving health through new life. This ritual is performed at midnight so as to conceal the fact that the disease is chronic, and that survival is difficult, but patients' battle will allow them to survive [17].

In killing tumors with a pitcher of mud and a piece of solid salt practice, every morning, before dawn the patient is required to fill a pitcher made of mud with fresh water and under that place a hard piece of salt, according to the size of the tumor. This ritual is performed for the removal of the tumor from the body. As the pitcher is made of clay the water seeps through it dissolves the salt, and "thereby" reducing its size. Through this process, the size of the tumor is believed to be reduced [17].

The ritual of removing the effects of the evil eye with black coal is described as a procedure to get rid of the effects of the casting which is believed to be the cause of a disease. A procedure that is adopted gets rid of the of this evil eye. This ritual is performed in many ways. In one, a raw egg is painted with yellow food color, on this, the verses from Holy Quran are recited and then the egg is rotated clockwise seven times around the patient's body by saying that 'if this disease is due to somebody's evil eye, then that evil be lifted and may that person's eye explode'. Then the egg is placed in a pan, and it is covered with a lid. This, then is put on a burner turned on, till the egg bursts and its sound is heard [17].

Using coal is another practice in which the spiritual healer draws five straight lines using a piece of coal. Then the healer reads a few verses from the Holy Quran, takes a stick in his left hand and starts hitting on these straight lines. While performing this practice the healer puts his right hand on the patient's forehead. This practice

lasts for about 14 minutes. This practice is performed in seven sittings. Thus, after the initial sitting, the healer calls the patient to come for follow-up for the remaining six sittings. The idea behind this practice is to drain the evil power from the patient's body and allow it to heal [17].

In the Clamping iron nails in half shadow and half sunlight procedure, two iron nails are hammered into the ground at an unspecified space beneath the two circumstances of half- darkness and half-sunlight. A family member uses a thread to measure the patient's body from head to toe and then that thread is fastened with these two nails. After that, the thread is unrolled from the nails and then it is buried under the ground. It is believed that iron has strength, and it can protect from the devil that caused this disease. These healers learn these practices from their ancestors and believe them to be effective in healing illnesses [17].

Traditional and complementary therapies, including use of herbaceous plants, fresh vegetables, fruits, and multivitamins, are the most common method used for the treatment of cancer patients because these therapies are considered to be inexpensive, readily available, and reliable for enhancing the immune system [18]. People in Muslim countries also use the Sabah snake grass, known as *Clinacanthus nutans* belong to family Acanthaceae, which is bitter in the test; to reduce the bitterness, it is suggested that Sabah snake grass to be mixed with fruit juice. Since the grass has anticancer properties, therefore, patients with a variety of tumors have recovered [19]. Moreover, betel nut (*Areca catechu*), and betel leaf (*Piper betle*) are considered to have anticancer properties and are used to cure cancer [18]. People chew betel nuts and betel leaves either alone, together, or they do both [20]. However, betel nuts are also identified as one cause of oral cancer.

Traditional practices also include rituals and complex prayers like Hindu healers perform or suggest the patient perform 'pooja' and Muslim healers suggest performing 'chila'. These prayers need to be performed for a longer time, such as for a week or more.

These healers also provide specific material for the patients for recovery from disease and protection from complications. These materials include 'taweez' (a piece of paper with religious verses written on it) and rings (ring with a special stone from the shrine/mandir) for the patient to

wear [21]. However, an increase in the use of traditional healing practices delays cancer diagnosis and treatment [7].

A few people think that evil spirits cause cancer. These devils live on earth, harming humans and creating illnesses such as cancer. Traditional healers use healing rituals to assist people in capturing these spirits to regain their psychosocio-physio-anatomic balance, allowing them to be in harmony with themselves, their partner humans, and the souls of their forefathers. These spirits can only be handled by traditional healers [22].

Some traditional healers use cutaneous incisions, flames, or drills on the affected part of the body to treat cancer. Some healers burn the patient's skin with toxic herbs; the skin is cut over the tumor site; hot nails are used to drill into the tumor through the skin and into these punctured sites healers administer some semisolid mixtures like botanical composites [23]. Another practice that healers commonly use is 'hijama' in which blood, lymph, as well as other bodily fluids, are sucked from a patient's body by using vacuums or scraping of the superficial skin of the affected area [24].

All the stated practices are the most widespread traditional healing systems in rural regions, and they are focused on abundant herbal remedies and animal-derived compounds. They are also used by professional practitioners, employing combined Indigenous knowledge and contemporary laboratory equipment, and for the treatment of physical disorders when signs of sickness are visible.

Some healers also use 'Bhandari and Kabiraji' for healing their patients. These healers are recognized as charismatic religious persons and are considered to have supernatural abilities. In some areas, physicians of Unani and Ayurvedic treatment are also referred to as Kabiraj [25].

Cancer patients have a strong belief that religion and spirituality may cure cancer [26]. Thus, religious faith and practices are seen as a sign of inspiration and a means of coping with terrible illnesses [27]. Besides, many patients employ meditation, yoga, and faith-healing activities to get psychologically refreshed and to relieve of symptoms, including tension, emotional discomfort, nausea, and pain [18]. Meditation is described as a mindfulness-based therapy

focusing on being aware of sensations and feelings in the present situation without judging or interrupting them. Breathing practices and guided imagery may also be used in meditation to promote a profound level of calmness in physical and mental health. Yoga is described as combining specific postures with mindfulness and relaxation techniques to help individuals attain better well-being. These techniques promote stress reduction, a sense of well-being, peaceful sleep, and improved quality of life in patients with recently diagnosed cancer [28].

Spiritual healing methods can help people restore physical, psychological, and spiritual balance, coherence, and peace [29]. Spiritual healing is practiced with communication between spiritual healer and the human medium, with spiritual healer contacting various sacred souls and pious forefathers. Hence, healers employ a range of physical, intellectual, and sociological techniques to maintain balance in a person's body, perceptions, emotions, and attitude, as well as in their local social platform [30]. In this process, healers frequently offer excruciating therapies as well as incantations to drive away imaginative evil forces, the effects of black magic, or covetous and harmful characters in the spiritual healing practices.

Spirituality is also used to improve adaptive abilities and good attitudes such as desire and grace, and to keep the mind, soul, and body in a balanced and harmonious state throughout difficult conditions. Some people get engaged in numerous rites, such as candle torching or the usage of soothing icons, such as curative stones of shrines, to represent various aspects of spirituality [29].

Describing the outcomes spirituality [31] report that spiritual beliefs have been shown to have good associations with the observed well-being scores of cancer patients and healthy individuals. Also, spiritual beliefs have been found to have a substantial and even greater, impact on the reported health of cancer patients [31,32]. Moreover, Spiritual care can dramatically improve patients' emotional well-being and provider-patient interactions [33]. However, [34] report that patients who receive help and guidance from their religious communities and do not obtain healthcare services are more prone to getting intensive medical procedures at the end of life and expiring in the intensive care unit. Moreover, spiritual care offered by religious groups differs significantly from that provided by

medical teams, which has a significant impact on patients' medical decisions [34].

Another type of faith healing is through laying a hand in which the healer places his or her palms on the sufferer and utilizes his or her body as a gateway for an external supernatural force [35].

4.2 Factors That Cause Delay in Cancer Diagnosis and Treatment

Many factors contribute to cancer diagnosis and treatment delays. People seldom see a doctor, due to large distances and the high expense of medical treatment [8,11]. A few patients seek complementary and alternative medicine (CAM) because of their values and belief systems, which leads them to believe their situation is hopeless. This shows that religious beliefs and culture have an influence on cancer patients' decision-making when it comes to choosing a therapeutic method [36]. These rituals have been passed down to them through their elders and are believed to facilitate leading this provides them with psychological fulfillment [17].

The lack of access to and availability of modern technologies, poor delivery of healthcare services, and budgetary constraints contribute to delays in seeking medical care [11,37]. Moreover, the lack of supplies and qualified workers, also impedes cancer awareness, identification, and treatment [38]. There is also a lack of understanding about cancer and its cure, hence, cancer is not identified until later stages [39]. Moreover, it is noted that individuals do not seek medical treatment because of their casual attitude toward the illness, due to the lack of awareness about cancer signs and symptoms, and because they seek help from traditional healers [40]. Even if the signs are identified patients may prefer not to discuss them with anyone but keep this secret. For example, women may hide if they note any abnormality, a sign of breast cancer, due to the fear of or feeling of embarrassment and stigmatized by society [41,42]. Additionally, traditional healers are not well-versed regarding cancer, its causes, and treatment [7]. Furthermore, illiteracy, low socioeconomic status, and incorrect perceptions about sickness and screening also play a role. A point to the fact that people who contact a traditional healer are more likely to be illiterate [40,43].

Table 1. Literature review table

Author (s)Name and Year.	Purpose of study	Study design and Sample Size	Key findings
1. Abuelgasim et al. (2018).	The incidence and pattern of complementary and alternative medicine usage among Saudi cancer patients are explored in this research.	Cross sectional study. Sample size=156 patients	While certain forms of complementary and alternative medicine (CAM) might be useful, others, particularly for cancer patients, can be extremely dangerous. Camel products have been correlated to brucellosis and the Middle East respiratory illness coronavirus (MERS-CoV).
2. Afungchwi et al. (2017).	The goal of this study was to look into parents' and traditional healers' (TH) perceptions and actions about Traditional medicine (TM) in children with BL in order to develop suggestions for an integrative method and increased approach to life-saving therapy for infants with BL.	Descriptive case series. Sample size=387	Traditional healers are unaware of Burkitt lymphoma (BL), they do not refer patients, resulting in a delay in diagnosis and treatment. Collaboration with TH might help to enhance the early detection and cure rates of BL and other children's malignancies.
3. Ahmadi et al. (2019).	The purpose of this study was to look at the usage of meaning-making coping mechanisms (existential, spiritual, and religious coping) by ethnic Malay cancer patients in Malaysia, as well as the influence of culture on their coping methods.	Exploratory Qualitative Study. Sample size = 29	The current findings imply that cancer patients' coping mechanisms and perspectives on their experience as cancer patients are influenced by Malay culture, which is filled with Islamic spirituality.
4. Asuzu et al. (2019).	The purpose of this study was to identify cancer patients who have used traditional healers, as well as their traditional healers' understanding of cancer, its reasons, and treatment, patients' inspirations for using traditional therapists, and their views on association between western medicine specialists and traditional therapists as part of the overall health care system.	Descriptive qualitative study. Sample size =20.	Patients and alternative healers poorly understand the etiology and the management of cancer. They want to work together more closely with healers and western doctors to provide better care for cancer patients.
5. Asuzu et al. (2017).	The review focused on cancer patients' use of traditional healers, the relationship between the time it took them to get to this clinic and their use of traditional healers, why cancer patients choose western medicine after attempting traditional therapy, and the expense of getting traditional care.	A Descriptive cross- sectional study. Sample size =400.	Patients go to traditional healers to get rid of their symptoms, therefore, doctors should try to keep cancer- related symptoms under control, particularly pains, while they wait for a diagnosis. The inexpensive cost of traditional therapy, as well as the regular promise of cure and other benefits provided to patients, may be an alluring element in its adoption.

Author (s)Name and Year.	Purpose of study	Study design and Sample Size	Key findings
6. Balboni et al. (2013).	To examine if spiritual assistance from religious groups influences the medical care and quality of life (QoL) of terminally ill patients as they approach death.	Multisite cohort study. Sample size =343.	Patients with terminal illnesses who are highly supported by religious communities are less likely to seek hospice care and are more likely to seek intensive medical treatment as they approach death.
7. Berger- González et al. (2016).	Investigated at Maya healers' views on cancer, its diagnosis, and treatment.	Exploratory qualitative study. Sample size =67	Traditional diagnostic techniques and treatment choices are dictated by Maya concepts of cancer, which involve the patient's social-spiritual support system. Cancer is resolved and/or treated by restoring the patients' bodily, mental, emotional, and spiritual balance, as well as spreading that equilibrium to their broader social circle.
8. Bibi et al. (2019).	This study looked at the social, economic, and religious factors that lead to the implementation of rituals practices.	Case-study method. Sample size =101.	Rituals are also performed for a variety of socioeconomic reasons, such as the lack of affordable and accessible therapy. These behaviors or performances appeared crazy, yet their motivations and goals were sensible.
9. Čačala et al. (2017).	To determine what improvements may be made to improve the time to presentation, researchers looked at the patients' socio-demographic features and the causes for their delay.	Prospective quantitative study. Sample size =172.	Patients who presented late were more likely to reside in rural locations, where they had less utilities (such as insufficient electricity in their houses), were less educated, and had a poor understanding of BC.
10. Chin et al. (2020).	To investigate the prevalence and forms of complementary and alternative medicine (CAM) used by patients with breast cancer BC, in Taiwan, while getting conventional therapy.	A cross- sectional descriptive design was used. Sample size =106.	The current study demonstrates the prevalence of (CAM) usage among BC patients in Taiwan, with the most popular types being nutritional supplements, exercise, and spiritual healing. Family, friends, and relatives are the primary sources of knowledge about (CAM) for these patients, and half of them do not tell their doctors about their CAM usage.
11. Farooqi et al. (2021).	The purpose of this research was to look at the factors that contribute to the late breast cancer detection in the women in Punjab, Pakistan.	Descriptive qualitative research. Sample size=15.	In women with breast cancer, diagnosis delay is a major health issue that is connected to a variety of factors. like lack of knowledge, resources, and facilities.
12. Farooqui et al. (2016).	The goal of this study was to see how cancer patients from a local Malaysian hospital used (CAM). And CAM usage disclosure to	Descriptive study. Sample size= 393.	This research revealed that CAM usage is frequent among Malaysian cancer patients, emphasizing the significance of patient education on CAM therapies

Author (s)Name and Year.	Purpose of study	Study design and Sample Size	Key findings
	doctors.		and their relations with conventional treatments.
13. Friebe- Klingner et al. (2021).	The goal of this study was to investigate patient-level clinical and socio- demographic characteristics linked to the late-stage cervical cancer identification in Botswana.	Descriptive case studies. Sample size =984.	Increased education and knowledge about the benefits of cervical cancer screening among women. The creation of support structures for single women, as well as support structures for men, may aid in the reduction of cervical cancer illness and death in Botswana.
14. Graham et al. (2013).	From the perspective of traditional healers, this research attempted to evaluate the care requirements and cultural methods of Xhosa patients and relatives, towards the end of life.	Qualitative cross- sectional. Sample size =8.	By being aware of potential requirements at the end of life, clinicians may better comprehend their patients' choices and design successful end-of-life care plans that benefit patients and their families.
15. Grosse et al. (2018).	To investigate the influence of patient and healthcare system-related reasons on the time to first healthcare visit, identification, and its cure of breast cancer patients.	Prospective cohort study. Sample size =64	According to this study, the median duration between first and subsequent healthcare visits is about five times longer than the period between diagnosis and treatment.
16. Hanna et al. (2020).	To determine the relationship between cancer treatment delay and death for each four-week delay in order to better understand cancer therapy approaches.	Systematic review and meta-analysis. 34 studies (n=1, 272, 681 patients).	A four-week delay in cancer treatment is linked to an increased risk of death in the surgical, systemic, and radiation categories.
17. Hansen et al. (2020).	This qualitative study looked at the health-seeking behaviors of nine cancer patients in Norway and how they affected their healing paths.	Exploratory qualitative study. Sample size =9.	They found that social health care was limited, so they turned to religious coping, self-care, complementary and alternative medicine, and traditional healing to suit their requirements. These practices are associated with the Norwegian culture.
18. Haque et al. (2018).	The purpose of this study was too looked at several types of traditional healing techniques in rural Bangladesh.	Descriptive and observational qualitative research. Sample size =87.	Traditional healing was commonly used as a primary treatment method in Bangladesh's rural areas, particularly among those with low socioeconomic standing.
19. Hassen et al. (2021).	To assess the prevalence of patient delay at presentation and the factors those contribute to it among breast cancer patients.	Cross- sectional study. Sample size= 204.	The absence of a lump in the under armpit, age, educational status, profession, housing, and visits to a traditional healer were all important predictors in the delayed presentation.
20. Hill et al. (2019).	To determine the benefits and disadvantages of using T&CM.	Descriptive qualitative study. 2 focus groups.	T&CM usage was shown to be facilitated by cultural customs, T&CM access, T&CM accomplishment, and CT failure. The failure of CT and T&CM were highlighted as impediments.

Author (s)Name and Year.	Purpose of study	Study design and Sample Size	Key findings
21. Jazieh et al. (2012).	The goal of this research was to determine the patterns of complementary and alternative medicine (CAM) use among cancer patients in Saudi Arabia.	A cross-sectional study. Sample size= 453.	Complementary treatments are widely used by Saudi cancer patients, with a majority using religious interventions, demonstrating the tremendous effect of religion on people's lives, particularly when they are faced with life- threatening illnesses.
22. Kristoffersen et al. (2019).	The aim of this research was to find out about the prevalence of visits to TM- and CM providers in an urban population, as well as the health and socio-demographic connections.	A population- based cohort study. Sample size 21,083.	In comparison to CM users, TM users were older, their religion was more important to them, they had worse economy and health, and they had less education.
23. Kuteyi et al. (2020).	The goal of this research was to analyze cancer patients' and traditional therapists' perceptions regarding cancer, its reason(s), its cure effectiveness, and their views on relationship between western medical practitioners and traditional therapists.	Descriptive qualitative study. Sample size=39.	Validating the role of Traditional Healers in cancer therapy, there is a need for deeper collaboration between healers and western physicians to improve cancer patient care.
24. Langås- Larsen et al. (2017).	The purpose of this research was to see if health professionals' knowledge, attitudes, and experiences with traditional healing have an impact on their clinical practice.	Phenomenon qualitative study. Sample size =32.	Health practitioners develop knowledge and competence in "reading" via their clinical practice. They aide patients in applying and performing readings and treatments according to their needs.
25. Langås- Larsen et al. (2018).	Traditional therapists' knowledge of traditional therapy, the therapy process, and their own practices were investigated.	Exploratory qualitative study. Sample size =15.	Healers served as instruments or reservoirs for God's power. Healing rites were used to activate this power, which was presented as the strength of God and the placebo influence.
26. Lor et al. (2017).	The goal of this study was to find out how Hmong people choose between using traditional healers (shaman) and seeking Western medical help.	Exploratory qualitative study. Sample size = 11.	Health-care clinicians who interact with Hmong patients may be unaware of how cultural norms impact their health-care decisions.
27. Majeed et al. (2021).	This research focuses on the variables that cause diagnostic and therapy delays in breast cancer patients.	Exploratory quantitative study. Sample size=372.	Due to lack of services and knowledge about the condition, the fear of surgery and chemotherapy, and the use of traditional therapies, the illness is diagnosed at a later stage.
28. Merriam et al. (2014).	To determine the responsibility of traditional therapists in the identification and treatment of cancer	Exploratory qualitative study. Sample size= 39.	Medical therapist, emotional comforter, religious guide, and palliative caregiver are the four roles traditional healers perform in cancer therapy. Acceptance of these tasks by the Western medical system is recommended as a first step in reducing Malaysia's cancer incidence. .

Author (s)Name and Year.	Purpose of study	Study design and Sample Size	Key findings
29. Mohammad et al. (2014).	To analyze the frequency and types of faith/spiritual healing practices used by patients.	Prospective, observational study. Sample size=953.	Faith/spiritual healing practices are a prevalent occurrence in society, but they are also a major cause of late presentation, diagnosis, and treatment of illnesses, resulting in poor outcomes.
30. Mwaka et al. (2020).	The aim was to learn about (i) the prevalence of use, (ii) types of medicine, (iii) reasons for taking T & C, (iv) current knowledge about safety and risks, (v) characteristics of adult cancer patients who use T & C, and (vi) Treatment results as perceived by cancer patients receiving conventional cancer treatment.	Scoping review approach. 23 articles were chosen based on relevancy to the entire text.	The desire to get rid of cancer symptoms, especially pain, cure cancer, enhance physical and psychological well-being, alleviate toxicity of conventional cancer medicines, and increase immunity were all reported as motivations for using T&CM in eight of the twelve papers.
31. Mwaka et al. (2021).	To investigate THPs' beliefs regarding malignancies, cancer causes, and preferred cancer treatments	Ethnographic study. Sample size =21.	Traditional health practitioners must be educated on cancer origins, symptoms, and indicators, as well as the need of starting effective therapies as soon as possible to enhance cancer outcomes.
32. Phelps et al. (2012).	The aim was to describe the perceptions of spiritual care during treatment.	Mix method study. Sample size 414.	Spiritual care is valued by the majority of advanced cancer patients, physicians, and oncology nurses. The themes outlined give a scientific foundation for addressing spiritual difficulties in therapeutic treatment.
33. Pilleron et al. (2019).	Investigates existing and future worldwide trends of cancer incidence among persons aged 65 and above.	No study design. Estimates of cancer incidence for 2012 were gathered in 184 countries.	Study reported that globally, 6.7 million new cancer instances were detected among older people in 184 countries, in 2012, with 14 million new cancer cases predicted by 2035.
34. Popper- Giveon et al. (2013).	To determine CTM therapists' opinions regarding integrative medicine among Arab cancer patients in Israel.	Exploratory qualitative study. Sample size =27.	The majority of Arab CTM therapists advocate integrating their therapies with the conventional approach, but they are unsure how to do this or how to build a parallel model in which two systems are operational but not combined.
35. Rafii et al. (2020).	The goal of spiritual healing concept analysis from the perspective of Iranian cancer patients. (23 articles were included for analysis).	Hybrid method. Sample size 12.	Connection with supernatural powers; effective, noninvasive, affordable, and efficient treatment procedure; a way to attain peace, adaptability, and health; and affected by cultural and religious beliefs were four topics explored with Iranian cancer patients.

Author (s)Name and Year.	Purpose of study	Study design and Sample Size	Key findings
36. Sharma, D., et al. (2017).	The goal of the study was to see how spiritual beliefs of cancer patients and healthy people affected their perceptions regarding of their health.	Correlational research design. Sample size=120.	Spiritual ideas had a crucial impact in molding nature, according to the study's findings. Gender has also been found to have a considerable influence on the participants' perceptions of their health.
37. Sharma et al. (2020).	To learn about faith healers' demographics, the many ailments for which people come to them, and the varied procedures and processes they employ.	Cross sectional study. Sample size=21.	People visit healers for a variety of reasons, including supernatural possession, unemployment, and family issues, and these healers utilized a variety of methods to remedy the problems, including offering charms and amulets, and making personal sacrifices.
38. Stickley et al. (2013).	Assess the prevalence of consulting alternative (folk) medicine practitioners in eight former Soviet Union nations, as well as the factors that influence their usage.	Cross- sectional survey. Sample size =18,428.	In eight nations, practitioners of alternative (folk) medicine were used to treat a variety of common medical problems.
39. Suhami et al. (2014).	To recognize how Islamic healing practices can be used in combination with traditional medicine to cure cancer.	Exploratory quantitative study. Sample size=18.	Recitation of Quran verses as a principal approach with du'a' and sunnah (voluntary) salat is one types of Islamic therapeutic treatment; the other is a mix of herbs with recitation of Quran verses, prayers, and healing water. The healer's practice of Islamic healing is compatible with Islam's beliefs.
40. Suhami et al. (2016).	To understanding why cancer patients seek Islamic healing.	Exploratory Quantitative study. Sample size=18.	Patients seek healers because of (1) family, friend, and medical referrals; (2) belief in Islamic therapy; and (3) perceived ineffectiveness and unhappiness with conventional therapies.
41. Salma A Rattani et al., (2022).	To learn about cancer identification, cure, and palliative support in Pakistan.	Descriptive Qualitative case study. Sample size=12.	Poverty, lack of education, beliefs, and cultural norms hampered their access to healthcare, resulting in late cancer detection and consequent suffering. The shortage of healthcare providers and facilities is also one reason for seeking help from healers.
42. Ahmed et al. (2021).	To investigate the composition of tap and bottled Zamzam water and evaluate its excellence with regard to worldwide drinking water standards	Six Zamzam water samples were collected from Zamzam well taps.	Except for Total Dissolved Solids, which primarily affect the flavor of water and have no considerable wellbeing implications, all metrics were within the acceptable ranges of international authorities.
43. Lin et al. (2021).	This research demonstrates C. nutans' effectiveness as a cancer	Review study of 41 studies.	C. nutans is known for its antiviral, antibacterial, and antioxidant properties. C. nutans extracts have potent

Author (s)Name and Year.	Purpose of study	Study design and Sample Size	Key findings
	treatment.		anti-cancer properties, including suppression of cell growth, delay of cell migration, and activation of apoptosis and necrosis.
44. Toprani & Patel (2013).	The properties of betel leaves, an ancient Indian plant, are being explored.	Review study from previous evidence	The benefit of BL in maintaining salivary ascorbic acid levels in humans has been proven. While salivary antioxidant activity might prevent future mouth malignancy, the impacts of betel leaves on other parts of the body may persist.
45. Sung et al. (2021).	This article uses the GLOBOCAN 2020 cancer incidence and mortality rates estimates to offer an update on the global prevalence rate.	The Global Cancer Observatory provides an overview and methodology used to generate the GLOBOCAN Projections for 2020.	Mortality and Prevalence according to GLOBOCAN (2020), which is an International Association of Cancer Registries (IACR), globally, 19.3 million new cancer cases are expected to be recognized in 2020, with over 10.0 million cancer deaths.
46. Mao et al. (2022).	Current clinical standards, including integrative oncology therapies, were presented, and discussed.	Scoping review	Integrative oncology presents a comprehensive concept and organized strategy for combining traditional, complementary, and integrative medicine (TCIM) and traditional cancer therapy, as well as the ability to make cancer care more inexpensive, available, and accessible for individuals globally, especially in LMICs (low-and middle-income countries) .
47. Sayed & Weber (2015).	This research looks into the provision of nonclinical health information resources to consumers in a developing nation, the State of Qatar.	Qualitative Study	For health-related information, consumers typically resort to family, friends, and traditional practitioners, rather than medical specialists. In the recent decade, people's views regarding cancer have shifted, with more individuals ready to get cancer tests and discuss cancer openly.
48. Zeleke et al. (2021).	The goal of this research was to find out what factors were linked to cervical cancer diagnosis being delayed.	Cross-Sectional study. Sample size =422.	Cervical cancer was diagnosed late due to a high rate of illiteracy, poor socioeconomic position, and lack of knowledge, faith healers, and the unavailability of health screening programs.

Gender is another common factor in late diagnoses of cancer. As women have less access to wealth and knowledge, they are more inclined to follow cultural values through socialization, and as a consequence, they seem to be more prone to utilizing traditional therapies [44]. Furthermore, in many cultures, women are not permitted to share their illnesses with others. Females with breast cancer often use traditional and religious practices because of fear of surgery and separation from their husband [41]. In a study by [45], in 86.3% of women cervical cancer was diagnosed at a late stage of the disease. The causes behind the greater incidence of late cervical cancer detection among women were: a high rate of illiteracy, lack of experience, and lack of systematic screening. Married women may be concerned about being divorced or afraid that their husband may marry another woman.

Hence, Women seek treatment from traditional healers more than men [46].

Chieh-Ying Chin et al. (2020) reported that patients with breast cancer who are residents of Taiwan, China, use traditional practices to get rid of the side effects of conventional medications. Second, family culture and friends recommend using these therapies [47]. In many cases, Culture may have an even bigger influence on the management than core religious beliefs [26]. Approaching spiritual healers and contacting family about health concerns are cultural attitudes that hamper early identification and cure [11]. Also, cancer is often seen as a contagious disease that can be cured by using traditional healers' therapies [43]. Among those who use these therapies most are from rural regions than those from metropolitan areas [48]. Besides, numerous adverse effects of conventional cancer drugs and fear of surgical procedures also contribute people to opting for traditional healing methods [49].

Saeed et al. [27] report that religious misunderstandings and misinterpretations, societal pressure, and erroneous beliefs about health healers are the reasons that individuals approach religious healers for cancer treatment. With regard to breast cancer, there is a cultural myth and a myth among healers that unmarried females have lumpy breasts that improve with marriage [27]. There are some individuals who believe that faith healers can cure breast cancer more effectively than medical doctors [50]. Although traditional therapists' knowledge of cancer is limited, people trust them because of

their diverse role in the community, and a massive portion of the cost of medical services is paid to traditional healers [51].

4.3 Healers' Perceptions and Knowledge about Cancer Treatment

Most healers are of the opinion that when it comes to cancer diagnosis and treatment, traditional medicine plays the most crucial role [16]. Whereas, the traditional healers learn about illness and cures through various cultural sources and are they acquire knowledge for curing but they have a poor understanding of the origins of illnesses and effective therapies [22]. Spiritual healers are not well-versed in knowledge related to cancer, its causes, signs, and symptoms, or how to treat it, but they are confident that they can treat it [7]. There are a variety of modern medical therapies available to treat cancer and to improve human health.

Yet, patients with a cancer diagnoses, instead of using medical therapy, prefer to use the services of traditional, spiritual, religious, and folk healers. This delays cancer diagnosis and treatment and increases the rate of mortality [52].

One factor that contributes to a late cancer diagnosis is people seeking help from spiritual healers first. People believe these healers will provide divine intervention in healing; moreover, they are less expensive than accessing the healthcare system [53]. The majority of people who seek therapy from traditional and spiritual healers are referred to them by relatives and friends [54], and they are from low socioeconomic and educational backgrounds [25].

5. SUMMARY

After analyzing the literature on previous studies, from diverse national and cultural settings, it was found that people use different processes, like using Taweez or Holy water, blowing verses, wearing stones, pieces of cloth, spiritual practices, burning candles, touching stones, and other methods, to cure the disease. These practices lead to a delay in cancer diagnosis and treatment. Only a few studies have looked at cancer patients' reasons for treatment choices. It was also found that traditional, folk, spiritual, and religious therapies are sought by patients for a number of reasons; including cost, travel distance to obtain medical therapy, family and friend recommendations, low socioeconomic

status, lack of availability of health resources, lack of screening system, cultural barriers, untrained medical healthcare providers, and lack of awareness. Limited data is available in Pakistan to understand the perceptions and knowledge of cancer patients, their family members, and healers about traditional, spiritual, folk, and religious practices for oncological disorders.

6. CONCLUSION

After analyzing the literature on previous studies from diverse national and cultural settings, three main themes were extracted: "healing practises for cancer treatment," "factors that cause cancer diagnosis and treatment to be delayed," and "healers' perceptions and knowledge about cancer treatment." These practices, factors, and healers' perceptions lead to a delay in cancer diagnosis and treatment.

CONSENT AND ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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