

MEDICAL PLURALISM: USE OF TRADITIONAL, COMPLEMENTARY AND ALTERNATIVE MEDICINE AMONG CANCER PATIENTS IN PUNJAB, PAKISTAN

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ABSTRACT

Pakistan lacks conventional medical facilities for the diagnosis, treatment, and management of cancer, despite it being the second leading cause of death in the country. In the treatment and management of cancer disease, medical pluralism has drawn attention worldwide, including in Pakistan. The purpose of this study was to investigate the adoption of medical pluralism and use of traditional, complementary and alternative medicine by the cancer patients in Punjab, Pakistan. While using qualitative study design, a total of 40 in-depth interviews were conducted with purposively selected cancer patients, in Punjab, Pakistan. The data have been collected in four months between September 2022 and December 2022 from four major cancer hospitals in Punjab and analysed using NVIVO 11 and thematic analysis. Findings revealed that medical pluralism is deeply ingrained in cancer patients' healthcare-seeking behaviours in Punjab. Patients often seek conventional biomedical treatments along with complementary therapies like spiritual healing, herbal medicines, homeopathy, acupuncture, ayurveda and yoga. The use of conventional along with traditional, complementary, and alternative medicine contribute towards better treatment and management of the disease and overall well-being of cancer patients.

Keywords: Medical Pluralism, Traditional, Complementary and Alternative Medicine, Cancer Patients, Punjab, Pakistan

INTRODUCTION

In Pakistan, cancer is the second most common cause of death (Mwaniki, 2019; Tovey & Broom, 2007). The estimated number of new cancer cases in Pakistan for people of all ages in 2020 was 178,388 while the country's cancer death toll remained at 117,149 (Globocan, 2020). The country lacks conventional medical facilities for treatment and management of cancer, even though palliative care for cancer patients is also abjectly low in Pakistan.

Patients are increasingly adopting Medical Pluralism (MP) in the context of cancer treatment, which denotes the use of multiple medical systems or of conventional as well as traditional, complementary, and alternative medicine (TCAM) in countries around the globe (Chang et al., 2011; World Health Organization [WHO], 2015), including Pakistan (Tovey et al., 2005). The use of TCAM owes to

socio-cultural and historical traditions in treatment and management of cancer (Hill et al., 2019). TCAM practices include spiritual healing, natural products, dietary supplements, physical therapies, and mind-body techniques (WHO, 2015).

The TCAM is a significant and underutilized medical system, particularly in treating life-related chronic illnesses (Yi, 2017). Many nations recognize its importance in their healthcare systems, with 98 member states creating national policies, 109 enacting legislation, and 124 enacting herbal medicines regulatory requirements by 2018 (WHO, 2019). Pakistan has a significant cultural tradition of TCAM, with 40 to 59 percent of the population using it.

Cancer is a global health issue with varying prevalence due to advancements in detection

methods, lifestyle changes, and demographic changes. The International Agency for Research on Cancer estimated 19.3 million new cancer cases worldwide, with breast cancer being the leading type. The number could rise to 27.5 million by 2040 if current trends persist. Likewise, in 2020, Pakistan had 178,388 newly diagnosed cancer cases, with breast cancer being the leading type. The country had 117,149 cancer deaths, despite claiming over 50,000 lives annually (Globocan, 2020). Inadequate facilities for treatment and management, as well as inadequate palliative care, further exacerbate the issue.

Research on medical pluralism among cancer patients is limited, with little understanding of deploying multiple medical system by the cancer patients for management and treatment of their disease. This study aims to fill this gap by providing a critical sociological perspective on MP among cancer patients and use of multiple methods by them. It will contribute to the body of knowledge and increase academic awareness on MP and use of TCAM among cancer patients in Pakistan. Additionally, this study could help to increase training opportunities for healthcare professionals and educate patients about potential interactions with conventional treatments.

METHODOLOGY

This research paper is a part of study of Ph.D. dissertation titled “Social Dynamics of Medical Pluralism in Treatment of Cancer and Its Appraisals in Punjab”. The study investigated various aspects including measuring medical pluralism, predominating factors involved in medical pluralism, and patient-centered outcomes among cancer patients. The study used a qualitative research design to gather opinions, judgments, and personal views of the participants.

POPULATION

The population of study consisted of male and female adults aged 18 or older, diagnosed with one of the top ten cancer types and using traditional, complementary, and alternative medicine along with conventional medicine.

SAMPLING

The study employed Multistage Purposeful Sampling to select participants for in-depth interviews, with two hospitals from central Punjab and two hospitals from south Punjab being purposefully chosen with oncology units. The participants were then chosen through purposive sampling at the second stage from out-patient departments of four major public sector cancer hospitals in Punjab, including the Institute of Nuclear Medicine and Oncology (INMOL) in Lahore, the Punjab Institute of Nuclear Medicine and Radiotherapy (PINUM) in Faisalabad, the Bahawalpur Institute of Nuclear Medicine & Oncology (BINO) in Bahawalpur, and the Multan Institute of Nuclear Medicine and Radiotherapy (MINAR) in Multan.

INTERVIEW GUIDE

Interview guide was prepared in English and Urdu to collect data from study participants. The interview guide was divided into four main sections: introduction, selection criteria, demography, and key questions on major themes including measuring medical pluralism. The initial draft of the interview guide was prepared after a literature review and discussions with the study's supervisor and technical specialists. The participants' responses were elicited naturally, in-depth, and honestly using topical and motivational probes. The interviews helped capture the intended context of the participants.

PILOT TESTING

Pilot testing was done to improve the interview guide and familiarise with the study setting. The researcher with the help of research assistant conduct two in-depth interviews to improve the interview guide by changing the sequence of questions and rephrasing some questions for better understanding of the participants.

DATA COLLECTION PROCESS

In this study, a female research assistant having done MPhil in Sociology was involved in data collection. The Medical Superintendent and Medical Social Officer of each hospital were supportive in participant recruitment and data collection. The researcher and research assistant identified socio-cultural tendencies of all four cities, maintaining a

tidy appearance and speaking directly. Being residents of Punjab, they knew the local culture, dressing codes, body language, and conversation patterns. This positively impacted rapport building with potential participants and their caretakers. Interviews were conducted at patients' convenience and without coercion. However, three participants declined to participate due to health issues or could not complete interviews due to time constraints. These participants were not included in the study. New participants were added until saturation.

INTERVIEWS

This study gathered information on adopting medical pluralism and use of traditional, complementary and alternative medicine by cancer patients. Accordingly, 40 in-depth interviews were conducted with the selected cancer patients, which achieved data saturation. Each interview took 30 to 45 minutes. Each interview was audio recorded with the consent of participants along with that note taking was also done, except three interviews where participants did not show their consent for audio recording.

ANALYSIS

The interviews conducted were verbatim transcribed and translated into English by taking into account the quotations, tone, pauses, fluency and intended context of the participants. This research used NVIVO 11 as well as manual thematic analysis for data analysis, which involved data cleaning, uploading, reorganizing, data exploration, coding, and theme generation. The researcher and research assistant examined the data to eliminate inconsistencies and deduced themes to collect context-specific data. The key findings were reviewed based on the themes deduced from the data.

ETHICAL CONSIDERATIONS

The standards and operational guidelines for ethics review of health-related research involving human participants published by the World Health Organization (2011) were adapted. In this connection, the principles of informed consent, anonymity, confidentiality, and no harm have been observed. The study has certain limitation such as sample was not representative thus findings cannot be generalised to the larger population.

FINDINGS

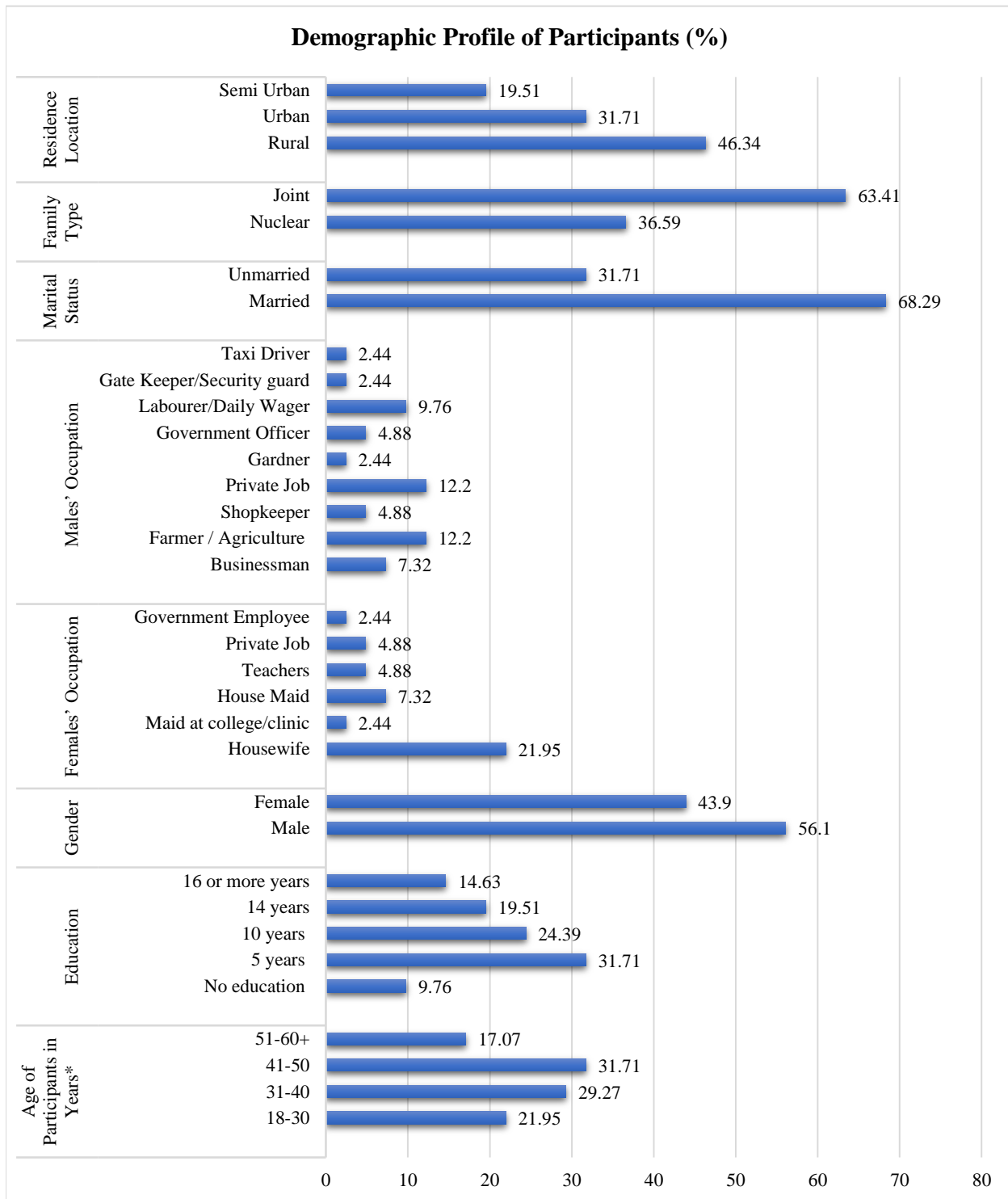
Demographic Characteristics

With a standard deviation of 10.33, the participants' ages ranged from 18 to 63 years. The participants in this study were from various educational backgrounds. Around 24 percent of the participants had completed 10 years of education, compared to about 40 percent of the participants who had either no formal education or only up to five years of education. On the other hand, about 20 percent of participants had completed 14 years of education and 15 percent completed 16 years of education or more. The participants' demographic profile showed that 22 percent of the female participants were housewives. But among the male participants, farmer/agriculture and private employment each had a percentage of 12 percent, followed by labourer/daily wagers at 10 percent. The percentage of married participants was about two third (68 percent) and the percentage of single participants was about one third (32 percent). Moreover, 37 percent of participants lived in nuclear family systems, compared to 63 percent who were in joint families.

The demographic profile of participants is given in Figure 1.



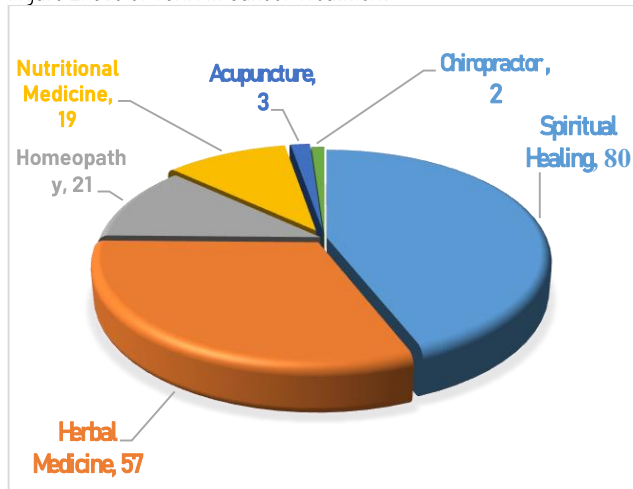
Figure 1. Demographic Profile of Participants



*Standard Deviation: 10.33, Mean 38.97

Medical Pluralism and Use of Traditional,

Figure 2. Use of TCAM in Cancer Treatment



Complementary and Alternative Medicine by Cancer Patients

Medical pluralism involves patients seeking care from both traditional and modern medical systems. The TCAM practices, such as spiritual healing, herbal medicines, homeopathy, and self-help practices are deeply rooted in Punjab's cultural and social context. These practices are often seen as complementary or alternative to modern medical treatments.

Findings of the present study revealed that medical pluralism has been common among cancer patients in Punjab, with many seeking care from both modern and traditional healthcare systems. The measurement of medical pluralism, particularly the use of Traditional, Complementary, and Alternative Medicine (TCAM), is essential to understand the healthcare-seeking behaviours of cancer patients in Punjab, Pakistan. The study found that along with conventional medicine, TCAM is commonly used in Punjab, Pakistan for cancer treatment. Figure 2 shows that Spiritual Healing, including Dam Darood, was the most frequently used TCAM practise (80 percent). Whereas, 57 percent of the cancer patients have been using herbal medicines. Almost one fifth of the study participants have been using homeopathy and nutritional medicine (21 vs 19 percent), followed by acupuncture (3 percent), chiropractors (2 percent), yoga (2 percent) and Ayurveda (1 percent).

Spiritual Healing

The TCAM technique most frequently used by cancer patients in Punjab was spiritual healing. To address the emotional and psychological effects of cancer treatment, patients reported turning to religious authorities such as Imams and Peers for spiritual direction and support. The most frequently mentioned spiritual healing technique used by cancer patients was the recitation and listening of Surah Rehman (verses of the Quran). In the course of the interviews, some participants also mentioned that the hospital administration regularly played Surah Rehman for cancer patients, who reported to feel comforted and solaced.

Herbal Medicines

Herbal Medicines were the second most common TCAM practice used by cancer patients in Punjab. Patients reported using a range of herbs and natural products, such as ginger, turmeric, black pepper, aloe vera, and various other herbal products such as Khoon Safa, Thandi Murad, Notan Shifa, Desi Antibiotic Shifa, Kali Karwi Shifa, and Marham Sakoon [to apply in case of breast cancer] including the products made in their Dawakhana [indigenous pharmacy] to treat cancer or to alleviate symptoms such as pain and nausea. Many patients also used traditional cupping, acupuncture, and massage to complement their modern medical treatments.

Homeopathy

Some cancer patients have used homeopathy as an additional treatment to ease their symptoms and enhance their general health. Homeopathy is a type of complementary medicine that stimulates the body's natural healing processes by administering highly diluted substances, usually made from plants and minerals. Based on the patient's symptoms and the underlying cause of their condition, homeopathic remedies are chosen. Cancer patients reported to have relief in their pain, fatigue, and nausea that come as along with conventional treatment such as chemotherapy or radiations. Furthermore, patients reported to have emotional and psychological strength by using homeopathic medicines and found reduction in their level of depression and anxiety.

Self Help Practices

Participants of the study reported a number of self-help practices which they deployed during their cancer treatment as complementary and alternative techniques. These practices included lifestyle changes, dietary modification, relaxation techniques and meditation. Modification in diet included increased use of fresh vegetables and fruits and reduced consumption of processed food. Likewise, lifestyle changes which patients adopted included engaging regular exercise, walking, deep breathing, yoga. There had been some instances where patients used herbal supplements also for improving their immune system. Patients reported to use these techniques to manage their cancer disease and to reduce the symptoms such as pain, nausea, and other side effects of biomedical treatment of cancer. Findings of this study revealed that patients used self-help practices along with conventional medicine to achieve their overall health and well-being. Along with self-help practices, cancer patients reported to use some less common TCAM practices also which included acupuncture, chiropractic, and Ayurveda.

DISCUSSION

The TCAM incorporates a variety of therapeutic modalities, including acupuncture, nutritional therapy, mind-body techniques, and herbal medicine, in addition to modern medical treatments for cancer. TCAM has gained recognition and acceptance as an essential element of comprehensive cancer treatment that attends to patients' physical, psychological, social, and spiritual needs.

As per selection criteria, the present study recruited only those cancer patients who had been using conventional medical treatment along with TCAM. Concomitantly, findings of the study revealed that selected cancer patients have been using conventional biomedical treatment along with various TCAM including herbal medicine, spiritual healing practises, homoeopathy, Ayurveda, Yoga, and Acupuncture. In this connection, a study by Smith et al. (2022) focused on how cancer patients use various healthcare modalities throughout their cancer journey and examined the prevalence and patterns of medical pluralism in cancer therapy. The study's key findings showed that medical pluralism is common among cancer patients, with many simultaneously seeking care from several healthcare

systems. Furthermore, he discovered several variables impacting patients' choices, such as cultural views, individual experiences, and recommendations from friends and family. Likewise, this finding of the present study is corroborated by a study by Johnson et al. (2019), which found a sizable incidence of medical pluralism in cancer therapy. However, study by Smith et al. (2022), provides a more nuanced picture of the patterns of medical pluralism by focusing on the particular healthcare modalities selected by patients, such as conventional medical practices, complementary treatments, and alternative therapies.

In contrast, Anderson et al. (2021) found that cancer patients had lower levels of medical pluralism. According to their findings, the majority of patients mostly used biomedical therapies and seldom used alternative healthcare methods. These conflicting results imply that there are context-dependant differences in the prevalence of medical pluralism in cancer therapy, which cultural, regional, and healthcare system variables may impact. Findings of present study are consistent with several other research on the use of TCAMs in cancer therapy. Research carried out in various areas has revealed a significant incidence of TCAM usage among cancer patients (Khan, 2017). For instance, research conducted in India by Sarada et al., (2021) discovered that 34.4 percent of cancer patients used TCAM in addition to traditional therapies.

This study found that spiritual healing is most common TCAM practice among cancer patients when it comes to adoption of MP. Owing to the belief in efficacy, most of the cancer patients use religious practices as spiritual healing for better treatment and management of the disease. Moreover, it is commonly suggested by the elders, family members, and religious practitioners to perform certain religious practices to mitigate the suffering during treatment of cancer. Wisarith et al., (2021) found that cancer patients need spiritual care and they have a number of spiritual needs. This naturally demands the incorporation of spiritual healing practices for holistic care of cancer patients. Similarly, Petet and Balboni (2013) found that religious and spiritual beliefs influence in the cancer patients' decision regarding adoption of medical pluralism and use of complementary therapies. Adopting spiritual healing in cancer treatment becomes important because most

of the patients turn to it as a method to cope with the psychological and emotional trauma attached to cancer disease. Arguably, spiritual healing being the most common TCAM therapy among the study participants could be a valuable technique for cancer patients in managing emotional distress, stigma, and pain.

This study found that use of herbal medicine is also very common among cancer patients. More than a half of participants (57 percent) reported to use herbal medicine for treatment and management of their cancer disease. Lack of biomedical facilities for treatment of cancer, particularly in low income countries including Pakistan, give rise to the need of complementary and alternative medicine including herbal medicines. This need is supported by the positive outcomes of using herbal medicine where cancer patients reported to have benefitted from herbal medicine and their survivability enhanced significantly (Ho et al., 2002). In recent years, numerous studies have demonstrated the pharmacological benefits of herbal medicines, including their anti-inflammatory, anti-microbial, and antioxidative properties, all of which are crucial for the treatment of cancer (Safarzadeh et al., 2022). The common belief that herbal medicine have least possible side effects could be a point of interest in cancer care. Moreover, there is a paucity of scientific literature where the efficacy of herbal medicine in treatment of cancer is studied by deploying reliable clinical trials (Tavakoli et al., 2012). This situation demands that there is a need of more research to understand the maximum therapeutic potentials of herbal medicines in treatment of cancer.

Use of homeopathy as complementary and alternative medicine has also been reported by a sizeable number of study participants (21 percent). The efficacy of homeopathy is seen with scepticism by the medical academia and professional thus it still stands outside from the conventionally prescribed prescriptions. However, Frenkel (2015) found that cancer patients deploy integrative and complementary medicine, including homeopathy in their arena of treatment. With regard to its efficacy, Frass et al. (2020) found that homeopathy and conventional medicines together work effectively and quality of life of cancer patients increased.

Like homeopathy, a sizeable number of participants reported to use nutritional supplements as

complementary and alternative medicine to treat and manage their disease. A research indicated that cancer patients use nutritional supplements with the perception that these are antitoxic and anticancer agents. Although, randomized control trials have been mainly negative, but there are still some notable adverse as well as beneficial effects of using nutritional supplements by the cancer patients (Harvie, 2014). In this context, patients and clinicians should discuss nutritional supplements openly. Advice on supplements should be tailored to the individual and come from a reliable source; a doctor is the best person to give this advice.

Individual treatment preferences are complex and a varied phenomenon (Smith et al., 2022). While the results support earlier studies showing medical diversity, they also offer novel insights into patients' treatment modalities. Medical pluralism prevalence varied depending on the context, highlighting the need for more study to uncover the underlying causes. Thus, understanding medical diversity is essential for fostering good healthcare delivery in various cultural contexts and enhancing patient-centered care.

Future studies should investigate the specific settings in which medical pluralism is more frequent or restricted to improve our understanding of medical pluralism in cancer therapy. This can entail looking at how cultural norms, patient education, and accessibility to healthcare affect treatment decisions. Furthermore, longitudinal studies can shed light on how patients' preferences for various treatment modalities vary as they navigate the cancer treatment process and the effects of medical pluralism on treatment results and patient satisfaction.

A personalized and context-specific strategy for TCAM integration in cancer care is required. Beyond only knowing patients' treatment preferences, research on medical diversity in cancer therapy is essential. It has ramifications for researchers, legislators, and healthcare professionals. Healthcare practitioners may create better patient-centered care and encourage successful communication and collaboration among various healthcare systems by recognising and respecting patients' decisions to participate in many healthcare modalities. The importance of medical plurality may be recognised by policymakers while maintaining patient safety and high standards of care.

CONCLUSIONS

This research study has examined the adoption of MP and use of TCAM by the cancer patient. Findings reveal that cancer patients in Punjab adopt medical pluralism by deploying TCAM along with conventional biomedical system. Use of TCAM in Punjab, Pakistan owes to long standing and still evolving socio-cultural and religious practices based on diverse beliefs and theories in Punjab, Pakistan. Patients use various TCAM therapies for better treatment and management of cancer. The most common therapies include spiritual healing, followed by herbal medicines, homeopathy, nutritional supplements, acupuncture, chiropractors, yoga, and ayurveda. Cancer patients adopt MP and use TCAM in pursuit of better treatment and management of cancer and for achieving overall wellness and wellbeing during cancer treatment. Further investigation on medical pluralism can add to the corpus of knowledge on healthcare utilization, patient choices, and the fusion of many healthcare systems

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