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Research Article

Use of Complementary and Integrative Medicine in Pediatric Oncology Patients in Chile: Prevalence and Patient Characteristics

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Abstract

The use of complementary and integrative medicine (CIM) has increased in pediatric oncology care, aiming to improve quality of life and mitigate the adverse effects of conventional treatments. This descriptive study aims to evaluate the prevalence and demographic characteristics of pediatric oncology patients using CIM in Chile. An anonymous survey was conducted among parents of patients undergoing oncology treatment, analyzing 107 valid responses. The results show a prevalence of 50.5% in the use of CIM, with limited communication between patients and medical teams regarding these practices. It is concluded that greater education and communication between healthcare professionals and patients about the use of CIM are necessary.

Keywords: *Complementary Medicine, Integrative Medicine, Pediatric Oncology, Prevalence, Patient Characteristics, Chile.*

Introduction

Integrative medicine (IM) combines conventional treatments with methods from complementary and alternative medicine (CAM), focusing on the overall well-being of the patient. In the pediatric field, the use of CIM has shown a significant increase, with studies indicating that between 38% and 75% of oncology patients do not inform their doctors about their use of these therapies. In Chile, CIM has not yet been widely institutionalized in pediatric oncology care. This study seeks to explore the prevalence of CIM use and the demographic characteristics of patients in this context. [1-6]

Materials and Methods

Study Design

A descriptive, observational, and prospective study was conducted. An anonymous survey was administered, adapted from a validated English questionnaire, translated, and conducted via Google Forms. The survey included questions about CIM use, demographic characteristics, and related factors.

Participants

Participants were parents of pediatric oncology patients recruited from May to June 2021. Inclusion criteria were: parents aged 18 years or older, whose children were undergoing active treatment or follow-up. Those who did not complete the survey or did not provide consent were excluded.

Statistical Analysis

Descriptive analyses were performed, and statistical tests, including Fisher's exact test and logistic regressions, were applied to assess the relationship between CIM use and sociodemographic variables. Data were stored in a Redcap database and analyzed using STATA 14.0.

Results

Demographic Characteristics: A total of 107 valid surveys were analyzed. The sample consisted of 57 (52.3%) males and 50 (47.7%) females. The most common cancer diagnosed was leukemia (55%), followed by solid tumors (20.6%) and central nervous system tumors (17.8%). Most parents (69.7%) worked full-time, and 41.3% had university education.

Prevalence of CIM Use: 50.5% of respondents reported having used CIM. The most common practices included herbal remedies (36.4%), followed by meditation (22.2%) and acupuncture (15.5%). 41.8% of patients used CIM for more than one year.

Communication with the Medical Team: 52.7% of parents communicated the use of CIM to their medical team. Of these, 44.8% indicated that the doctor "understood and agreed" with the use of CIM. However, 47.3% did not inform about the use of these therapies.

No significant associations were found between CIM use and cancer type, sex, or income. However, a significant association was observed with educational level ($p<0.006$), and patients diagnosed with brain tumors had a 20% increased likelihood of using CIM compared to those with leukemia, independent of or adjusted for sex, age, and parental education, but not statistically significant. [Table 1]

Table 1. Summary of Key Findings from the Survey (N = 107)

Category	Variable	n (%)
Demographic Characteristics	Male	57 (52.3%)
	Female	50 (47.7%)
	Leukemia	59 (55.0%)
	Solid Tumors	22 (20.6%)
	CNS Tumors	19 (17.8%)
	Parents employed full-time	74 (69.7%)
	Parents with university education	44 (41.3%)
Prevalence of CIM Use	Reported using CIM	54 (50.5%)
	Herbal remedies	39 (36.4%)
	Meditation	24 (22.2%)
	Acupuncture	17 (15.5%)
	Used CIM for more than one year	45 (41.8%)
Communication with Medical Team	Communicated CIM use to medical team	56 (52.7%)
	Doctor understood and agreed	25 (44.8% of those who communicated)
	Did not inform medical team	51 (47.3%)

Discussion

The results of this study support the importance of integrating Complementary and Integrative Medicine (CIM) into healthcare, as more than half of pediatric oncology patients in Chile use it. This aligns with the global trend of increasing CIM use in pediatrics, with studies revealing that between 30% and 75% of cancer patients resort to CIM measures without informing their doctors. This trend underscores the need for improved communication between patients and medical teams. The lack of communication regarding the use of CIM can undermine treatment efficacy and threaten patient safety. Therefore, healthcare professionals properly trained in CIM must ensure an integrated approach to address oncology treatment concerns. This would not only improve treatment adherence but also foster trust between doctor and patient. [1]

Additionally, the demographic analysis of this study suggests that the educational level of parents influences whether they will use CIM. Parents with university education may be more informed about complementary treatment options, highlighting the need to plan and direct educational strategies to all socioeconomic groups.

Finally, this study has some limitations, such as the sample size and the self-reported nature of the data. Future research is recommended to assess the long-term quality of life of pediatric cancer patients and CIM therapies, as well as to consider the potential ethical implications. [2]

The comparison of the Chilean study (in pediatric oncology) versus overall findings, especially in the United States (USA), in Complementary and Integrative Medicine (CIM) demonstrates marked differences in prevalence and communication. In the Chilean study, 50.5% of participants reported using CIM, with herbal products as the most frequent use, while 69% of cancer patients in a U.S. survey practiced integrative care. Communication with physicians was also significantly higher in the U.S., where 62% declared their use of CIM compared to 47.3% of Chilean patients who did not inform their physicians. Another study from Chile addressed the role of parental educational level on CIM use indicating that parents with a higher educational background are more prone to use of CIM approaches.[3]

On the other hand, regarding the most common CIM practices, such as herbal remedies and acupuncture, it is essential to evaluate their efficacy and safety in pediatrics. The critical and careful expansion of CIM should be guided by established protocols that ensure the safety and well-being of the child. The implementation of clinical studies, if justified, is recommended. [4,5]

However, the limitations of both studies are like include reliance on self-reported data, which may be biased. The demographic data in Chilean series presented a population of 52.3% (males) 47.7% females, diagnosis with the major frequency of leukemia 55% for counterpart's previous report in a study in USA, there were no available data. In general, the results emphasize the importance of more effective communication procedures and educational outreach in Chile in building successful interactions between patient and provider concerning CIM, with the goal of improving adherence to treatment and patient confidence in the healthcare system. [6]

Conclusion

In summary, the CIM usage reported in pediatric oncology patients in Chile is high and the discrepancy between patients' perception of their own CIM use and communication with their of concern. By ensuring that healthcare professionals are adequately trained in CIM, and by creating clear lines of communication, we may be able to improve the delivery of care, improve quality of life, and improve the integration and application of all treatments. This integrated model provides both immediate support and opportunities for clinicians to develop and leverage supportive care skills in the treatment of pediatric oncology patients and is a model for health care in which integrative care can benefit patient outcomes.

Conflict of Interest

The authors declare no conflict of interest.

Acknowledgement

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