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Original Article

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Insightful health assessment of paediatric hemato-oncology patients' well-being through knowledge and attitude survey of their caretakers: A hospital-based study

Miria Aingel Cherian [1], Nirali Dilip Patil [1], Manjula G [1], Rhea Simon [1], Soukhya Kapsi [1], Abhilasha Sampagar [2] & M. S. Ganachari [1]

[1] KLE College of Pharmacy, Department of Pharmacy Practice, Belagavi, India
[2] Jawaharlal Nehru Medical College, Department of Medical Oncology, Belagavi, India

Abstract

Background and Aim: Cancer is a potentially fatal disease that is characterized by aberrant cell proliferation that spreads and eventually causes the death of the cells. Well- being has been an intricate and distressing obstacle in oncology and is one of the most concerning health issues for cancer patients. The emotional and psychological toll on both the child and their family is equally substantial, as the journey through diagnosis, treatment, and recovery is often marked by fear, uncertainty, and distress. The purpose of the current study was to measure the overall general well-being of paediatric hemato-oncology patients.

Methods: The project was conducted in paediatric hemato-oncology department. In this study, self-developed validated questionnaires were used for the patient's caretakers regarding their child's overall well-being.

Results: The study found that the patient caretaker's opinion and understanding about the illness varies significantly from research to study. A statistical investigation showed that a significant number of caretakers (55.5%) were more aware about the disease. Additionally, there were considerable differences in the attitudes of caretakers regarding the condition; among them (84.7%) disagreed with the statement "Once you've had cancer, you can never be normal again", showcasing a positive and informed attitude.

Conclusion: Enhancing the quality of life for paediatric cancer patients involves comprehensive care, including medical, psychological and social support, pain management and holistic care. Continued research and advocacy are essential to provide hope, comfort, and opportunities for a fulfilling childhood despite cancer's challenges.

Keywords Caretakers · Knowledge and attitude · Paediatric hemato-oncology patients · Well-being

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Corresponding author: Manjula G manjulag@klepharm.edu

INTRODUCTION

Cancer is a potentially fatal disease that is characterized by aberrant cell proliferation that spreads and eventually causes the death of the cells. Malignancies affecting children are referred to as paediatric cancers. Most juvenile cancers are curable, although their causes are ambiguous. The immune system of an individual can be impacted by cancer cells, which could eventually deteriorate the patient's quality of life (QoL).

A child's well-being is often reflected in their QoL, and conversely, factors affecting their QoL can have implications for their overall well-being. Understanding and addressing this interconnectedness are crucial for providing comprehensive and effective healthcare for paediatric patients. The relationship between the well-being and QoL of paediatric patients is integral, as a child's overall well-being is significantly influenced by various factors that contribute to their QoL. Both concepts encompass physical, emotional, social, and psychological dimensions, creating a symbiotic connection.

Enhancing the patient's well-being is of paramount significance in the case of chronic diseases, surpassing the mere goal of averting mortality. Well- being has been an intricate and distressing obstacle in oncology. It is one of the most concerning health issues for cancer patients. Patients perceive it as a specific and complex type of patient- reported outcome that includes their social, economic, psychological, and physical activities (Alam et al., 2020)

Due to the extended life expectancy of cancer patients resulting from advancements in medical research and ongoing progress in early detection and treatment, there is a burgeoning interest in investigating the well-being of cancer patients. After diagnosis and treatment, patients often experience diminished well-being characterized by depression, sleep disturbances, functional disabilities, financial challenges, and various other issues. For these reasons, guidelines have incorporated well-being as a crucial factor in determining the optimal course of treatment (Johansson et al., 2008).

Significant clinical and financial repercussions have been caused by a discrepancy in the adherence to the medications and the incidence of adverse drug events (Kumar et al, 2020). The prescribed medications can be essential in averting the peril of infection, and chemotherapy can be useful in preventing the disease progression. If the patient fails to adhere to the prescribed medication regimen and follow-up advice, the likelihood of the illness developing and getting worse increases and subsequently affects the QoL of the patient.

The role of an onco-pharmacist in the assessment of the well-being of paediatric cancer patients is indispensable. Their expertise in tailoring medications, managing side effects, and ensuring the safety and efficacy of treatment significantly contributes to the overall well-being of these young patients. By collaborating with the healthcare team and educating families, onco-pharmacists empower children to endure the challenges of cancer treatment with minimal disruption to their lives, ultimately enhancing their QoL during this difficult journey. In order for the patients to adhere to the medication and be able to manage cancer conservatively, there is an underlying need for oncology pharmacists in the healthcare team to play a collaborative role in developing an effective treatment plan based on patient needs and satisfaction (Kumar et al., 2020).

The knowledge, attitude and practice (KAP) paradigm postulates that augmenting one's information base can modify an individual's attitude, which in turn impacts practice. It is imperative to look at patients' KAP degree of health self-management in order to improve the course of their illness (Lai et al., 2021). Parental perspectives regarding KAP and the child's QoL are strongly connected (Sadanandan et al., 2023).

The current study aimed at assessing the well- being of the vulnerable group of patients in paediatric hemato-oncology department. Due to the significant reliance of paediatric populations on their parents, assessing the well-being of patients requires consideration of the representatives' knowledge and attitude towards the disease.

MATERIALS AND METHODS

The original research paper obtained approval from the institutional ethics committee of KLE college of pharmacy, Belagavi, under reference number KLE/COP/EC/708/2022/23, ensuring that the study adhered to ethical standards throughout its execution.

The study was conducted in paediatric hemato-oncology department. The study design was a hospital-based prospective observation study. The inclusion criteria for the current study were caretakers of paediatric patients of both genders receiving both chemotherapy and supportive therapy. The exclusion criteria encompassed caretakers whose children had a life expectancy of less than 6 months and those unwilling to provide consent. A total of 151 patient's caretakers were screened, of which 72 patient's caretakers met the eligibility criteria and the consent and of those enrolled were taken through ICF (Informed consent form). Questions from a self-developed, validated questionnaire were posed to the patient caretakers to gauge the overall well-being of their children.

The sample size for this study was determined by the availability of participants within the study period of 9 months, given the lower flow of paediatric oncology patients' caretakers. A total of 72 participants were included, representing all

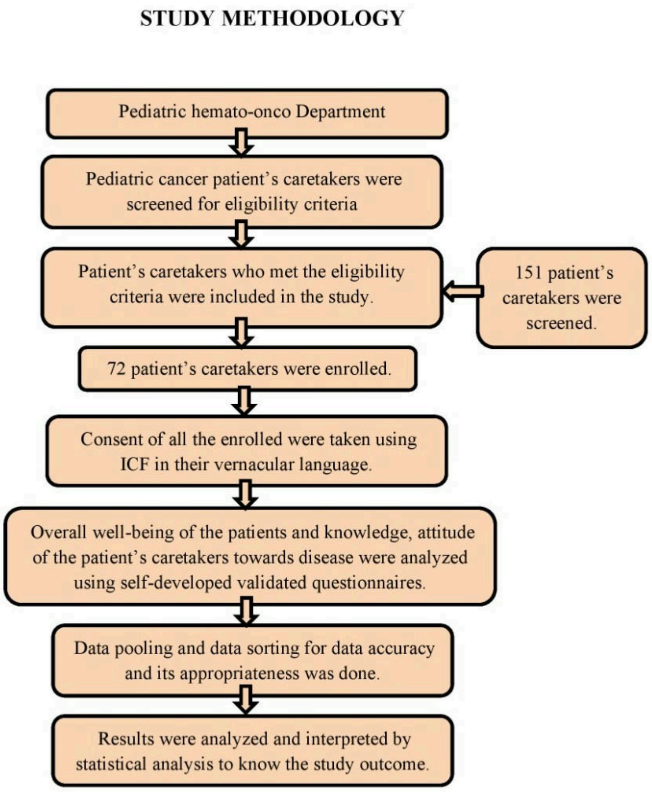

Figure 1. Methodology chart

eligible caretakers who met the study criteria during this time. Although no formal sample size calculation was performed prior to data collection, the reliability of the sample size was confirmed in consultation with a statistician during the analysis phase. The statistician verified that the sample size was sufficient for meaningful statistical analysis and reliable conclusions, ensuring the study's findings were robust. IBM SPSS 26 was used for all data analyses.

Questionnaire Development and Validation Process

The survey instrument was collaboratively self-structured in reference to several articles and consisted of 20 questionnaires, which were further validated, reframed, and made lucid with the help of Pharmacy practice professors and oncology professional experts of medical oncology, surgical oncology & paediatric hemato-oncology of the tertiary care hospital. The questionnaire was validated according to a 5-point Likert scale. The validation score obtained was 0.867 by applying the Cronbach's formula. An intelligent questionnaire tool was achieved after implementing them in a pilot study. The validated questionnaires were further sorted and statistical analysis enabled us to have the final coherent questionnaire tool.

It consists of 20 close-ended questions that included the demographic details, knowledge about the disease, cancer challenges in oncology treatment and attitude of patient and patient caretaker towards cancer.

RESULTS

The Table 1 depicts the demographic details of the patients and the patient caretakers. As presented in Table 1, the majority of patients in the study were male (79.2%) and aged between 1 and 6 years (58.3%). Among patient caretakers, it was found that females (79.2%) were from the age group of 20-30 years (86.1%). It was found that most of the patients were unschooled (33.3%) and a similar number of patients were in pre-primary (33.3%). Comparing the patients' caretaker's education, most of the parents had completed matriculation/pre-university courses. (83.4%) and few were postgraduates (2.8%). Only one patient was seen to have a family history of the disease (1.4%). Only one patient (1.4%) was not immunised with vaccines properly. Most of the patients were from a poor socio-economic background (62.5%). It was found that 52.8% of the patient caretakers were preoccupied in labour works. The table also portrays that 50.7% of the patients did not possess any inborn errors of immunity. (Table 1)

The distribution of diagnoses among the study population is illustrated in Table 2, with Pre-B ALL (Precursor B- cell acute lymphoblastic leukaemia) being the most common diagnosis (58.3%), followed by ALL (8.3%) and Hodgkin's lymphoma (5.6%). (Table 2)

In Table 3, the knowledge level of the caretakers regarding their child's illness is outlined, with 55.5% of caretakers being mostly aware of the disease. It also conveys that 81.9% of the patients did not possess any symptoms-induced complications. Moreover, 63.8% of the patients had chemotherapy appointments scheduled during hospitalization. (Table 3)

According to Table 4, over half of the patients experienced discomfort and bodily pain multiple times daily (51.3%). Additionally, a significant portion of the community (84.7%) extended support to children with health issues. Notably, the children's health condition substantially affected the mental health of all guardians (100%). (Table 4)

The attitudes of caretakers towards the illness are presented in Table 5, where 84.7% of caregivers disagreed with the statement that "Once you've had cancer, you can never be normal again." The table reveals that half of the patients (50%) reported experiencing pain affecting their sleep. Caretakers noted that 34.7% of patients moderately accepted changes in their physical appearance. Additionally, 38.8% of caregivers expressed a moderate ability to meet their child's needs, while 93% were aware of hospital schemes addressing their financial requirements. (Table 5)

The table shows the correlation between the different variables.

Table 1. Demographic details of patients and patient caretakers

1.	Patient Characteristics	Category	Frequency (N= 72)	Percentage (%)
	Age	Less than 1 Year	3	4.2
		1-6 Years	42	58.3
		7 to 12 Years	17	23.6
		13 to 18 Years	10	13.9
	Gender	Male	57	79.2
		Female	15	20.8
	Education	Not Going to School	24	33.3
		Pre-Primary	24	33.3
		Lower Primary	6	8.3
		Upper Primary	6	8.3
		Secondary	12	16.7
	Family history	Nothing significant	71	98.6
		Genetics	1	1.4
	Immunisation history	Yes	71	98.6
		No	1	1.4
	Inborn errors of immunity	None	37	50.7
		I don't know	26	35.6
		Autoimmune	4	5.5
		Kidney disease	2	2.7
		Liver disease	3	4.1
2.	**Patient caretaker demographics**	**Category**	**Frequency (N= 72)**	**Percentage (%)**
	Age	20-30 Years	62	86.1
		30-40 Years	10	13.8
	Gender	Male	15	20.8
		Female	57	79.2
	Education	Matric, PUC	60	83.4
		Graduation	6	8.3
		Post-Graduation	2	2.8
		No basic education	4	5.6
	Socioeconomic status	Poor	45	62.5
		Middle class	25	34.7
		Rich	2	2.8
	Occupation	Professional Job	7	9.8
		Business	3	4.2
		Labour	38	52.8
		Housewife	1	1.4
		Farmer	23	31.9

As shown in Table 6, there is a significant positive correlation between socio-economic status and financial stability to meet the child's needs (p=0.002). Those who were from a poor socio-economic background found it more difficult to meet the daily needs of their children.

Similarly, the correlation between the frequency of comorbidities after being diagnosed with cancer and the frequency of complaints was positive. Patients who developed comorbidities after being diagnosed with cancer also had frequent complaints. This reveals the clinical significance among the two variables, and as the p-value is 0.001, it can be concluded that both the variables are statistically significant.

Correspondingly, the correlation between the health status for the frequency of complaints and for abnormality in the

Table 2. Distribution of the type of diagnosis among the population

Diagnosis	Frequency (N= 72)	Percentage (%)
Pre B ALL	42	58.3
B ALL	1	1.4
ALL	6	8.3
AML	2	2.8
Leukaemia	2	2.8
Lymphoma	2	2.8
Hodgkin's Lymphoma	4	5.6
Clear cell sarcoma	1	1.4
Ewing's sarcoma	2	2.8
Wilm's Tumour	2	2.8
Rhabdomyosarcoma	1	1.4
Burkitt's lymphoma	1	1.4
Medulloblastoma	2	2.8
Hepatoblastoma	1	1.4
Neuroblastoma	1	1.4
GPI deficiency	2	2.8

Pre B ALL: Precursor B- cell acute lymphoblastic leukaemia
AML: Acute Myeloid Leukaemia

sleep pattern due to pain were done. It conveyed that both were negatively correlated but had a statistical significance as the p values were 0.009 and 0.001, respectively. This implies that the frequency of complaints as well as abnormality in the sleep pattern due to pain decreases as the health status increases.

The table also highlights a negative correlation between health status and the frequency of complaints, indicating that as health improves, there is a corresponding decrease in the occurrence of illnesses. The statistical significance of this relationship is confirmed by a p-value below 0.05, underscoring its validity. (Table 6)

DISCUSSION

Patient-centred outcomes, such as well-being, have become the paramount objective in paediatric research and clinical care (Rosenberg et al., 2016). Assessing well-being and(QoL) among cancer patients is critical for developing treatments that enhance outcomes (Gudhoor et al., 2023).

This study aimed to assess the overall well-being of the paediatric cancer population by evaluating the knowledge of their guardians. The current study mainly focused on the social determinants of health to assess the well-being.

The current study included 72 patients. The study's demographic analysis found that the predominant age group is 1-6 years old, with a higher prevalence of male patients across all age ranges. A study conducted by Alnaim et al. (2023) was in agreement with the ongoing study and it depicts that patients under the age of 6 years (57%) and boys (59%) were more predominant (Alnaim et al., 2023). In another study conducted by Landolt et al. (2006) it was revealed that males exhibited a higher well-being in cognitive and emotional aspects while females expressed notably stronger autonomy functioning (Landolt et al., 2006).

The majority of the patient population in the current study was unschooled or in pre-primary school. Most of the unschooled patients come under the age group of less than 6 years and some patients discontinued due to their deteriorating health conditions. Most patients are from low-income families, leading to financial constraints that make it challenging for the parents to cover both medical and educational expenses.

The educational backgrounds of patient caregivers are diverse, with the majority having completed pre-university courses or matriculation. In another study by Racine et al. (2018) in the Canadian population revealed that most parents in the study have pursued education at the college level (33.67%) (Racine et al., 2018). This highlights an incongruity in educational attainment between the two countries, with Canadian parents typically attaining a higher education level than Indian parents. In another study conducted by Hudson et al. (2003) in adult survivors of childhood cancer, it was found that a diminished level of educational achievement correlated

Table 3. Patient's caretakers' knowledge about the disease

SR. NO	QUESTIONS	FREQUENCY (N=72)	PERCENTAGE (%)
1	**Does your child have any symptom-induced complications?**		
	Yes	13	18
	No	59	81.9
2	**At this time, is your child receiving or scheduled to receive chemotherapy?**		
	Yes	46	63.8
	No	26	36.1
3	**How well are you aware of your child's health condition?**		
	A little bit	5	6.9
	Moderately	22	30.5
	Mostly	40	55.5
	Completely	5	6.9
4	**What kind of infection is your child suffering from?**		
	Bacterial	42	58.3
	Fungal	1	1.4
	Viral	1	1.4
	No infection	14	19.4
	Bacterial+ Fungal	4	5.5
	Bacterial+ viral	9	12.5
	Bacterial + Viral + Fungal	1	1.4
5	**Does your child have any of the following symptoms?**		
	Diarrhoea	3	4.1
	Abdominal pain	5	6.9
	Fever	23	31.9
	Coughing	1	1.4
	Headache	2	2.8
	Nil	10	13.8
	Fever and abdominal pain	10	13.8
	Fever and cough	4	5.5
	Diarrhoea, abdominal pain, fever	2	2.8
	Fever, aching muscles and headache	1	1.4
	Abdominal pain, fever, coughing, and headache	1	1.4
	Abdominal pain, fever, aching muscles, and headache	2	2.8
	Fever and skin rashes	1	1.4
	Abdominal pain, fever, and coughing	1	1.4
	Fever and headache	3	4.1
	Fever, cough, and headache	2	2.8
	Fever, aching muscles and cough	1	1.4
6	**Were you ever told that your child had a low White blood cell count?**		
	No	25	34.7
	I don't know	20	27.7
	Yes	27	37.5
7	**Have you noticed any increase in comorbidities since your child was diagnosed with cancer?**		
	Not at all	8	11.1
	A little bit	30	41.6

SR. NO	QUESTIONS	FREQUENCY (N=72)	PERCENTAGE (%)
	Somewhat	20	27.7
	Quite	11	15.2
	Very much	3	4.1

Table 4. Cancer challenges faced by Patients and Patient's caretakers

8	**How would you rate your child's health now as compared to earlier? (Before getting diagnosed with cancer)**		
	Very poor	3	4.1
	Poor	20	27.7
	Neither poor nor good	24	33.3
	Good	25	34.7
9	**How often were the complaints of bodily pain or discomfort in your child?**		
	Once a day	22	30.5
	Twice in a day	37	51.3
	Three times in a day	12	16.6
	More than 3 times a day	1	1.4
10	**How often does your child experience mood swings? (blue mood, despair, anxiety, depression)**		
	Never	9	12.5
	Seldom	26	36.1
	Quite often	24	33.3
	Very often	12	16.6
	Always	1	1.4
11	**Is your child's health condition affecting your (guardian) mental health?**		
	Yes	72	100
	No	0	0
12	**How is your child's appetite?**		
	Decreased	24	33.3
	Not altered	45	62.5
	Increased	3	4.1
13	**How did the society respond to your child's health condition?**		
	Not supportive	11	15.2
	Supportive	61	84.7

with unfavourable results across all domains, particularly impacting functional and activity statuses (Hudson, 2003).

According to the family history analysis, with only one case indicating a genetic risk, 71 individuals developed the disease without regard for family history or genetics. Immunisation compliance is significant, except one patient who had not been fully inoculated because of the ongoing treatment. The majority of patient caregivers are primarily engaged in labour-related occupations. Additionally, the study showed that the majority of patients did not have inborn defects of immunity, offering detailed insights into the demographics and possible influencing variables of the population under study.

The impact of various social determinants of health on well-being in patients and caregivers is multifaceted. All these factors influence the coping mechanisms and health-care behaviours. Educational status and socioeconomic status are vital indices in the assessment of the well-being of the patients, influencing access to resources, health literacy, and overall support. These features offer significant insights into the social and economic milieu that impact the health of paediatric patients, hence facilitating tailored interventions for enhancing their overall QoL.

This investigation substantiates that a significant proportion of patients received a diagnosis of Pre-B-ALL, constituting 58.3% of the cases, which is a subtype of ALL. This finding aligns with a study by Racine et al. (2018) in which a higher incidence of patients diagnosed with ALL, specifically 26.9%, was observed (Racine et al., 2018).

Table 5. Patient's caretakers' Attitude towards the disease

SR. NO	Questions	Frequency	Percentage
1	**Due to health problems, is there any difficulty for your child to perform any activities?**		
	Yes	30	41.6
	No	42	58.3
2	**Is the pain-affecting your child's sleep or sleeping pattern?**		
	Yes	36	50
	No	36	50
3	**Is your child accepting changes in his/her bodily appearance?**		
	Not at all	4	5.5
	A little bit	20	27.7
	Moderately	25	34.7
	Mostly	22	30.5
	Completely	1	1.4
4	**Which choice best describes your child?**		
	I don't know	24	34.7
	I am fully active and able to perform all the activities that I could before I became sick	10	13.8
	I cannot do heavy activities, but I can do light activities that do not require me to stand for longer duration	13	18
	I can take care of myself, but I cannot go to work. I am up and out of bed almost all the time	4	5.5
	I can take care of myself but with some help	14	19.4
	I am not able to take care of myself. I spend all of my time in a bed or chair	7	9.7
5	**Statement: Once you've had cancer, you can never be normal again.**		
	Disagree	61	84.7
	Agree	11	15.3
	Attitude of patient's caretakers towards the financial aspects		
6	**Did you have enough money to meet your child's needs?**		
	A little bit	22	30.5
	Moderately	28	38.8
	Mostly	21	29.1
	Completely	1	1.4
7	**Are you aware of the schemes that are available in hospital to meet your financial needs?**		
	Yes	67	93.05
	No	5	6.9

Table 6. Correlation among different variables using the Rho Corrélation Coefficient

PEARSON'S CORRELATION N=72		Financial stability to meet the child's needs	Frequency of complaints	Abnormality in the sleep pattern due to pain
Socio-economic status	ρ^{*}	0.366	-	-
	Sig (p- value)	0.002	-	-
Health status	ρ^{*}	-	−0.307	−0.484
	Sig (p- value)	-	0.009	0.001
Frequency of comorbidities after being diagnosed with cancer	ρ^{*}	-	0.456	-
	Sig (p- value)	-	0.001	-

* Rho (Correlation Co-efficient)

From a self- validated questionnaire, knowledge about the disease and attitude towards the disease were analysed. Through the patient caretaker interviews, it was observed that the majority of the guardians (92.9%) were possessing a comprehensive understanding of their children's health condition. 63.8% of the paediatric patients had their chemotherapy scheduled, during their hospitalisation. 81.9% of the patients were not having any symptoms induced complication. In a study conducted by Nair et al. (2017) it was observed that 88% of the mothers were aware of the type of cancer diagnosed in their child, 93% were aware that their child undergoes painful procedures like lumbar puncture and bone marrow assessment and all the parents knew about typical adverse effects associated with chemotherapy (Nair et al., 2017).

As cancer is a life-threatening disease, there may be health-related challenges that could be faced by both the patients and the patient's caretakers. The current study analysed the cancer challenges faced by both revealing that majority of the patients (51.3%) were having discomforts and bodily pain at least twice a day. 84.7% of the society had offered support to the child's health condition. Notably, the children's health condition was found to significantly impact the mental health of the guardians (100%). A study conducted by Nair et al. (2017) revealed that 81% of parents disclosed being absorbed in thoughts concerning their child's illness, grappling with heightened levels of anxiety, not one parent voiced a preference for their child to be informed about the situation. Their reservations stemmed from concerns that such knowledge could in-still fear, lead to depression, impede cooperation with treatment, or render the child challenging to manage (Nair et al., 2017).

From the questionnaire asked to the patient caretakers regarding their children's condition, it was concluded that they have a positive attitude towards the disease. 50% of the patients experienced pain that disturbed their sleeping patterns. According to the caretakers, 34.7% of the patients moderately accepted their changes in their physical appearance. A statement "Once you've had cancer, you can never be normal again" was asked to the patient caregivers to gauge their perspective on the disease. 84.7% of the caregivers disagreed with the statement, indicating that they had a well-informed and positive attitude towards the disease.

Of the caregivers, 38.8% expressed a moderate capacity to meet their child's needs and 93% were aware of the hospital schemes designed to address their financial requirements.

In a study conducted by Landolt et al. (2006), it was revealed that improved parental adjustment was linked to enhanced well-being in the child, particularly in the emotional domain (Landolt et al., 2006). This study aligns with the current study, in which the evaluation of parental knowledge and attitude indirectly provided insights into the overall well-being of the patient.

The research findings underscore a crucial link between socio-economic status and the financial capacity to meet a child's needs, with individuals from less affluent backgrounds facing heightened challenges in fulfilling their children's daily requirements. This observed positive correlation between socio-economic status and financial stability holds statistical significance, as reflected by a p-value below 0.05, emphasising the robustness of this association. Similarly, an investigation into the frequency of comorbidities following a cancer diagnosis and patient complaints revealed a positive correlation, signifying clinical importance. The noteworthy p- value of 0.001 attests to the statistical significance of this correlation. Similarly, an analysis was conducted to assess the correlation between health status for both complaint frequency and abnormal sleep patterns due to pain. The results revealed a negative correlation between these variables, with statistical significance demonstrated by p-values of 0.009 and 0.001, respectively. This indicates that as the health status improves, there is a concurrent decrease in both complaint frequency and abnormal sleep patterns due to pain. Moreover, the data presented in the Table 6 illustrates a negative correlation between health status and the frequency of complaints, suggesting that an enhancement in health is associated with a reduction in illness occurrence. The statistical significance, with a p-value below 0.05, further supports this observation.

CONCLUSION

Understanding the overall well-being of paediatric cancer patients is crucial for tailoring effective and holistic care approaches. The current study not only evaluated the well-being of the patient but also the knowledge of the caretakers of the patients. This ultimately highlights the pivotal role of caretakers. This study underscores the significance of a holistic approach in paediatric oncology, emphasising the need for comprehensive care that addresses both the medical and psychosocial dimensions to improve the QoL for these young individuals battling cancer.

The contribution of an onco-pharmacist in the assessment of the well-being for paediatric cancer patients is essential. Their proficiency in customising medications, handling side effects and guaranteeing the safety and effectiveness of treatment plays a crucial role in the comprehensive well-being of these young patients. Through collaboration with the healthcare team and providing education to families, onco-pharmacists empower children to navigate the challenges of cancer treatment with minimal impact on their daily lives, ultimately improving their QoL throughout this challenging journey.

ABBREVIATIONS

QoL: Quality of Life

KAP: Knowledge, attitude, and practice

ICF: Informed Consent Form

HOD: Head of Department

Pre B- ALL : Precursor B- cell acute lymphoblastic leukaemia

ALL: Acute Lymphoblastic Leukaemia

AML: Acute Myeloid Leukaemia

Ethical Committee Approval	The original research paper obtained approval from the institutional ethics committee of KLE college of pharmacy, Belagavi, under reference number KLE/COP/EC/708/2022/23.
Informed Consent	Informed consent was obtained from the participants.
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Author Details

Miria Aingel Cherian
[1] KLE College of Pharmacy, Department of Pharmacy Practice, Belagavi, India
0009-0000-3665-1233

Nirali Dilip Patil
[1] KLE College of Pharmacy, Department of Pharmacy Practice, Belagavi, India
0009-0007-4546-0341

Manjula G
[1] KLE College of Pharmacy, Department of Pharmacy Practice, Belagavi, India
0000-0002-7173-6408 ✉ manjulag@klepharm.edu

Rhea Simon
[1] KLE College of Pharmacy, Department of Pharmacy Practice, Belagavi, India
0009-0005-3693-7684

Soukhya Kapsi
[1] KLE College of Pharmacy, Department of Pharmacy Practice, Belagavi, India
0009-0007-1646-970X

Abhilasha Sampagar
[2] Jawaharlal Nehru Medical College, Department of Medical Oncology, Belagavi, India
0000-0001-8604-4167

M. S. Ganachari
[1] KLE College of Pharmacy, Department of Pharmacy Practice, Belagavi, India
0000-0003-0098-8752

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