

# Assessment of quality of life of children with cancer undergoing chemotherapy in Moi Teaching and Referral Hospital

Okemwa Julian Nyaboke

nokemwa@kisiiversity.ac.ke

Tutorial fellow, Nutrition and Dietetics Department, Kisii University Kisii, Kenya

DOI: 10.29322/IJSRP.10.11.2020.p10788

<http://dx.doi.org/10.29322/IJSRP.10.11.2020.p10788>

**Abstract-** The incidence of cancer globally has been on an upward trend in the past decade. Promotion of quality of life (QoL) for children with cancer has become a priority in pediatric research and clinical care. The QoL reflects individual perceptions of the impact of illness on overall, physical, functional, emotional, social, and spiritual well-being. Many studies have indicated presence of a high degree of symptom-distress leading to poor patient and family outcomes. This research assessed the quality of life of 52 paediatric cancer patients undergoing chemotherapy at Moi Teaching and Referral Hospital (MTRH) Eldoret, Kenya. A cross-sectional analytical design was applied and the Lansky scoring table was used for data collection. Data was analysed using the statistical package for social sciences (SPSS) and presented descriptively. The findings revealed that most patients had a moderate QoL.

**Index Terms-** Quality of life, paediatric, cancer

## I. INTRODUCTION

Quality of Life is a subjective multidimensional construct reflecting functional status, psychosocial wellbeing, health perception and disease- and treatment-related symptoms (Lis, Gupta, Lammersfeld, Markman & Vashi, 2012). According to Marin, Laviano & Pichard (2007), QoL assessment has been used as an important tool for studying the impact of disease, drawing up indicators of disease severity and course and predicting treatment efficiency. In oncology, the patient's general health status directly impacts QoL, which, in turn, is influenced by a broad range of nutritional factors. The importance of measuring the QoL in patients undergoing cancer treatment has been acknowledged, as information about it could contribute to improvements in management and further improve the quality of life. For example, knowledge about a patient's QoL might influence decision-making regarding choices between alternative treatments, or initiating appropriate intervention if QoL is deteriorating. Quality of life has until recently, been underexplored in children with cancer (Malihi et al., 2013).

According to Meeske et al., (2004) quality of life assesses the performance status and attempts to quantify the general wellbeing of patients with cancer. This measure is used to determine whether they can receive chemotherapy, whether dose adjustment is necessary and as a measure for the required intensity of palliative care. It is also used in oncological randomized controlled trials as a measure of quality of life. The Lansky Play Performance Scale (LPPS) is among the most frequently used instruments to assess the functional performance capacity and wellbeing in paediatric oncology patients which is also recommended for use by WHO (Lansky, List, Lansky, Ritter-Sterr & Miller, 1987). The LPPS is designed to assess general quality of life and physical performance status in children through rating their usual play activity. It includes a spectrum of age-appropriate play described with varying participation in active and quiet activities, ranging from 'unresponsive' to 'fully active, normal' functioning. The maximum score is 100 ('fully active, normal') and the worst possible score is 0 ('unresponsive') Scores 0-40 is classified as poor QoL, 50-70 moderate QoL and those with a score 80 and above the QoL is rated as good (Lansky et al., 1987). Other most frequently used instruments to assess the functional performance capacity are; the pediatric advanced care-quality of life scale (PAC-QoL) (Cataudella et al., 2014), pediatric cancer-specific quality-of-life (QoL) instrument (Anthony et al., 2013) and Cancer Module Peds-QL (Bariah, Roslee, Zahara, & Norazmir, 2011).

## II. OBJECTIVE OF THE STUDY

The main objective of the study was to assess the quality of life (QoL) of children with cancer aged (1-17) years undergoing chemotherapy in MTRH, Eldoret.

### III. METHODOLOGY

#### Research design

The study adopted a cross-sectional analytical method (Gravetter & Forzano, 2011) to assess the quality of life of paediatric cancer patients who were undergoing chemotherapy at Moi Teaching and Referral Hospital.

#### Study population

The study targeted children aged between (1-17) years on chemotherapy who attended the Hemato-oncology clinic in MTRH Uasin Gishu County.

#### Sample size

Using the fisher formula and the finite population correction factor a sample size of 52 was used in the study.

#### Sampling Techniques

Purposive sampling was used given that there was a small population of approximately 20 patients per month on chemotherapy. The study used all the eligible participants until the required sample size of 52 was obtained.

#### Research Instruments

Lansky scoring table was used to rate the cancer patients play activity. It included a spectrum of age-appropriate play described with varying participation in active and quiet activities, ranging from ‘unresponsive’ to ‘fully active, normal’ functioning. The maximum score is 100 (‘fully active, normal’) and the worst possible score is 0 (‘unresponsive’).

#### Pre-Testing of instruments

The questionnaires were pre-tested to check on the length, content, question wording and language. The questionnaire was administered to five respondents in the paediatric oncology unit in Kenyatta National Hospital.

#### Data analysis and presentation.

Data was entered and analyzed using SPSS version 21 and presented in the form of a table of frequencies and percentages.

### IV. FINDINGS AND DIDCUSSION

Majority of the respondents (n=20, 38.5%) had a lansky score of 60 while slightly more than a fifth (n=11, 21.2%) of the respondents had a lansky score of 50. One sixth (n=7, 13.5%) of the respondents had a lansky score of 70 and 40 each. Six (11.5%) respondents who aged above15 years managed to score a lansky score of 80 which was the best score among the respondents. The lowest score (30) was scored by one respondent aged between 18-23 months as shown in table 1.

**Table 1: Quality of life of the respondents**

Age	Quality of life scores(n=52)						Total
	80.00	70.00	60.00	50.00	40.00	30.00	
<b>Respondents below 5 years</b>							
12-17 months	0	0	0	0	0	0	<b>0</b>
18-23 months	0	0	0	1	1	1	<b>3</b>
24-35 months	0	0	0	1	0	0	<b>1</b>
36-47 months	0	2	1	2	1	0	<b>6</b>
48-59 months	0	2	1	2	2	0	<b>7</b>
<b>Respondents 5 years &amp; above</b>							
5-10 years	3	2	8	4	0	0	<b>17</b>
11-15 years	3	1	5	1	2	0	<b>12</b>
Above15 years	0	0	5	0	1	0	<b>6</b>

<b>TOTAL</b>	<b>6</b>	<b>7</b>	<b>20</b>	<b>11</b>	<b>7</b>	<b>1</b>	<b>52</b>
	<b>11.54%</b>	<b>13.46%</b>	<b>38.46%</b>	<b>21.15%</b>	<b>13.46%</b>	<b>1.92%</b>	<b>100%</b>

The lansky score of 60 among majority of the patients indicates moderate QoL which meant, moderate restrictions with varying amount of assistance was needed especially in their involvement in active quieter activities. A study that analyzed the Quality of Life in children with cancer found a relatively similar mean value of QoL (62.3) for the whole group (Fawzy1, Saleh, El-Wakil, Monir & Eltahlawy, 2013). In the present study the worst score (30) was scored by a respondent aged between 18-23 months showing that he had poor QoL and therefore needed considerable assistance even for quiet play activities. The study conquers with that by Hamidah et al., 2011 who found that younger child age was associated with lower scores ( $P = 0.007$ ). Generally the current study found that the cancer children had poor QoL. This finding is supported by [Batra, Kumar, Gomber & Bhatia, \(2014\)](#) and [Bansal, Sharma, Vatsa & Bakhshi \(2013\)](#), who found that the overall QoL of children with cancer was significantly poor.

## V. CONCLUSION

Generally the current study found that the cancer children had poor QoL. The patients therefore require some assistance in participation in play and other activities.

## VI. RECOMMENDATION

The majority of the patients indicated moderate QoL which meant , moderate restrictions with varying amount of assistance was needed especially in their involvement in active quieter activities. This was as a result of their disease, its treatment, or both therefore there is need to have a comprehensive policy agenda that links improved health care delivery and follow-up, investments in education and training for health care providers, and expanded research to improve the long-term outlook for this growing population.

## ACKNOWLEDGMENT

I take this opportunity to thank the staff of the cancer clinic at Moi Teaching and Referral Hospital (MTRH), Eldoret, Kenya for their cooperation and useful role played towards the collection of the required data for this research work.

## REFERENCES

- [1] Anthony. S. J., Selkirk, E., Sung, L., Klaassen, R.,Dix, D., Scheinemann, K.&Klassen, A., (2014). Considering quality of life for children with cancer: a systematic review of patient-reported outcome measures and the development of a conceptual model.*Quality of Life Research*. 23(3), 771-789. doi: 10.1007/s11136-013-0482-x
- [2] Bansal, M., Sharma, K.K., Vatsa, M. & Bakhshi, S. (2013). Comparison of health-related quality of life of children during maintenance therapy with acute lymphoblastic leukemia versus siblings and healthy children in India. *Leukemia & lymphoma*, 54(5):1036-41. doi: 10.3109/10428194.2012.736985.
- [3] Bariah, A.H.S., Roslee, R.,Zahara, A.M. &Norazmir, M. (2011). Nutritional Status and Quality of Life (QoL) Studies among Leukemic Children at Pediatric Institute, Hospital Kuala Lumpur, Malaysia. *Asian Journal of Clinical Nutrition*, 3(2), 62-70. doi:10.3923/ajcn.2011.62.70
- [4] Batra, P., Kumar, B., Gomber, S.&Bhatia, M.S. (2014). Assessment of quality of life during treatment of pediatric oncology patients.*Indian journal of public health*, 58(3), 168-73. doi:10.4103/0019-557X.138623.
- [5] Cataudella, D., Morley, T.E., Nesin, A., Fernandez, C.V., Johnston, D.L., Sung, L. &Zelcer, S. (2014). Development of a quality of life instrument for children with advanced cancer: The pediatric advanced care quality of life scale (PAC-QoL).*Pediatric blood & cancer*, 61(10), 1840-5. doi:10.1002/pbc.25115
- [6] Fawzy1, M., Saleh., M. El-Wakil, M., Monir, Z. &Eltahlawy, E. (2013). Quality of Life in Egyptian Children with Cancer. *Journal of Cancer Therapy*, 4(7), 1256-1261 doi:10.4236/jct.2013.47148
- [7] Hamidah, A., Wong, C.Y., Tamil, A.M., Zarina, L.A., Zulkifli, Z.S. &Jamal, R. (2011). Health-related quality of life (HRQOL) among pediatric leukemia patients in Malaysia.*Pediatric blood & cancer*, 57(1):105-9. doi:10.1002/pbc.23125
- [8] Lansky, S.B., List, M.A., Lansky, L.L., Ritter-Sterr, C. &Miller, D.R.(1987). The measure of performance inchildhood cancer patients. *Cancer*60(7), 1651-1656.
- [9] Lis, C.G., Gupta, D., Lammersfeld, C.A., Markman, M. &Vashi, P.G. (2012). Role of nutritional status in predicting quality of life outcomes in cancer – a systematic review of the epidemiological literature. *Nutrition Journal*, 11, 27. doi:10.1186/1475-2891-11-27.
- [10] Marín, C., Laviano, A. &Pichard, C. (2007). Impact of nutrition on quality of life during cancer. *Current Opinion in Clinical Nutrition and Metabolic Care*, 10(4),480-7.doi:10.1097/mco.0b013e3281e2c983
- [11] Malihi, Z., Kandiah, M., Chan, Y.M., Hosseinzadeh, M., Sohanaki, A.M. &Zarif Y.M. (2013). Nutritional status and quality of life in patients with acute leukaemia prior to and after induction chemotherapy in three hospitals in Tehran, Iran: a prospective study. *Journal of human nutrition and dietetics: the official journal of theBritish Dietetic Association*26(1), 123-131. doi:10.1111/jhn.12043.
- [12] Nourissat, A., Vasson, M.P, Merrouche, Y., Bouteloup, C., Goutte, M. & Mille, D., Chauvin F. (2008). Relationship between nutritional status and quality of life in patients with cancer. *European Journal of Cancer (Oxford, England: 1990)*,44(9), 1238-1242. doi: 10.1016/j.ejca.2008.04.006.

## AUTHORS

**First Author** – Okemwa Julian Nyaboke, Master of Science in Food, Nutrition & Dietetics, Kisii University, Kenya, juliannyaboke@yahoo.com

**Correspondence Author** – Okemwa Julian Nyaboke, juliannyaboke@yahoo.com, +254727763884