FORMAT OF FULL VERSION OF RESEARCH REPORT TO BE UPLOADED IN THE IREP

Guidelines for writing the Research Report

- Report should be written in 'Times New Roman 12' Font, with 1.5 line spacing
- Report should be between 5- 10 pages (excluding references)
- Report must be in English (Applicable for Research in Arabic as well)
- Any graphic must be in JPEG

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The arrangement of the of Research Report is as follow:

PROJECT ID/TITLE:	Quality Of Life Assessment In Head And Neck Cancer Survivors: A Follow- Up Study In East Coast Of Malaysia.
PROJECT SPONSOR:	IIUM (RIGS) 2015
AUTHOR NAME(S):	Asst. Prof. Dr. Salizar Mohamed Ludin
DEPARTMENT/KU LLIYYAH/ INSTITUTE/CENT RE:	Critical Care Nursing/ Kulliyyah of Nursing
ABSTRACT:	Introduction: Head and neck cancer is the fifth most common cancer in Malaysia. Head and neck cancer survivors have potential negative effects of the tumour itself and its treatment on various functions such as swallowing, speaking, tasting, and smiling as well as on their appearance which will affect their quality of life. It also may lead to facial deformities or permanent changes in speech and expression which can effect social and emotional. Studies conclude that the complications after chemo-radiotherapy effect head and neck cancer survivor physically, psychologically and emotionally. Despite all the issues, quality of life of treatable head and neck cancer patients is unknown. Aim: This study aims to measure the quality of life of treatable head and neck cancer patients before treatment and after 6 months of treatment. Methods: In this study, a cohort study will be employed to fundamentally look into the actual situation of the head and neck cancer survivors' quality of life. The sample will be those from Ear, Nose & Throat (ENT) clinic and dental clinic of 2 hospitals in East Coast Malaysia. Survey was done before tape in each visit. Results: The mean age of cancer detection was at 53 years, male (65%), married (85%) and squamous cell carcinoma being the most common (80%). Pharynx/ larynx were the most common site of tumour (50%) and surgeries were the most common treatment modality (75%). The mean score of QOL for HNC patient's post-treatments is 4.84, which is significantly lower than pre-treatments score (6.22). Mean symptoms score for post-treatments is 1.25, lower than pre-treatments score (1.58). Patients experienced substantial decrease in amount of pain killer consumed during

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	post-treatments. In terms of Quality of life of head and neck cancer patients were at medium level but reducing; mean score 6.22 before treatment and 4.84 after treatment. Analysis showed only health history (p-value=0.011<0.05; (p-value=0.012<0.05) was directly significant with quality of life of HNC patients before and after the treatment. Post treatment showed only marital status (p-value=0.000<0.05) factor associated with quality of life of HNC patients after the treatment. Conclusion: Quality of life of the patient may reduce after treatment (medium level) and it could be due to underlying illnesses, the effect of other treatment or due to the advancement of cancer.
KEY WORDS:LIST AT LEAST FIVE KEYWORDS	Head and neck cancer, quality of life, treatment
INTRODUCTION:	Head and neck cancer is the fifth most common cancer in Malaysia. Head and neck cancer survivors have potential negative effects of the tumour itself and its treatment on various functions such as swallowing, speaking, tasting, and smiling as well as on their appearance which will affect their quality of life. Head and neck cancer affect such critical life functions as breathing, eating, speech, and swallowing. It also may lead to facial deformities or permanent changes in speech and expression which can effect social and emotional. Studies conclude that the complications after chemo-radiotherapy effect head and neck cancer survivor physically, psychologically and emotionally. Despite all the issues, quality of life of treatable head and neck cancer patients on spiritual well-being before and after treatment is unknown.
BACKGROUND:	Quality of life is a common to study the patient related diseases (King & Hinds, 2012). World Health Organization (WHO) defines quality of life as individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns (World Health Organization Quality of Life, 1998). While, Fallowfield (2003) defines quality of life as illness and its treatment affects the psychological, social, and economic well-being, as well as the biological integrity, of individuals, any definition should be all encompassing while allowing individual components to be delineated. Similarly the Centre for Disease Control and Prevention (CDC) (2011) defines the concept of health-related quality of life (HRQOL) and its determinants that evolved since the 1980s encompasses those aspects of overall quality of life that can be clearly shown to affect health—either physical or mental. The study of quality of life patients allows the impact of different disease states or interventions on overall or specific aspects of quality of life to be determined. As stated in Cancer.net (2015), head and neck cancer (HNC) accounts for about 3% of all cancers in the United States and this year, an estimated 59,340 people (43,390 men and 15,950 women) will develop head and neck cancer. Consistently, head and neck cancer is one of the commonest cancers encountered in Malaysia and Asia. The 2006 National

	Cancer Registry showed head and neck cancer was the fifth most common cancer in Malaysia, and 2,884 cases were reported in the peninsula the highest number after female breast cancer (3,525) and higher than colorectal (2,866) and lung (2,048) cancer cases (Fong, 2012). The incidence of HNC in Peninsular Malaysia was reported as 8.5 per 100,000 populations (National Cancer Registry, Malaysia, 2006). According to Abdullah, Ahmad, Asha'asri, Razali & Leman (2014), head and neck cancer is a broad term, which comprises of epithelial malignancy involving upper aerodigestive tract such as paranasal sinus, nasal cavity, oral cavity, pharynx, larynx, and salivary gland. While, tobacco use, heavy alcohol use, and infection with the human papillomavirus (HPV) it increases the risk of many types of head and neck cancer (National Cancer Institute, n.d). Head and neck cancer treatment usually is radiotherapy, chemotherapy, and surgery. Wong et al., (2015) stated that early to locally advanced stage head and neck cancer can be treated with surgery, radiation with or without chemotherapy or a combination of both. When planning treatment, doctors consider how treatment might affect a person's quality of life, such as how a person feels, looks, talks, eats, and breathes (Cancer.net, 2015). Early stage of head and neck cancer is stage I and stage II, while locally advance disease is stage IIA, stage IIB until stage IVA and B (Rodriguez, 2010). Surgery or radiation alone is often unsuccessful. As stated by Rodriguez (2010), concurrent chemotherapy and radiation improves loco regional control, overall survival and the risk of distant metastasis. However, no curative options exist for metastatic head and neck cancer and palliation of symptoms is the primary goal of care and chemotherapy combinations result in higher response rates with incremental toxicity (Rodriguez, 2010). Basically, the cancer itself will affect the quality of life reduce. But, not much study compares the quality of life head and neck cancer patients' quality of
OBJECTIVES:	 To determine the association of socio-demographic factors and quality of life of head and neck cancer patients before and after treatment in Malaysia To compare the pre-and post-treatments quality of life (QOL) in HNC patients
METHODOLOGY:	In this study, a cohort study was employed to fundamentally look into the actual situation of the head and neck cancer survivors' quality of life. A total of 40 samples were those from Ear, Nose & Throat (ENT) clinic and dental clinic of 2 hospitals in East Coast Malaysia with head and neck cancer cases. Survey were done before patient receive any treatment and after 6

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	months of treatment using questionnaire quality-of-life cancer survivor (QOL-CS) and Quality-of-Life-Questionnaire-Head & Neck 35 (QLQ-H&N35). Semi-structured interviews were also done on those patients who volunteer to be involved in the study. Descriptive and inferential analyses were done to analyse the data.
FINDINGS:	The mean age of cancer detection was 53 years, majority of them were male (65%) and mostly were married (85%). On histopathological examination (HPE), squamous cell carcinoma was found to be the most common cell type carcinoma (80%). Pharynx/ larynx were the most common site of tumour (50%) and surgeries were the most common treatment modality (75%). The mean score of QOL for HNC patient's post-treatments is 4.84, which is significantly lower than pre-treatments score (6.22). Mean symptoms score for post-treatments is 1.25, lower than pre-treatments score (1.58). Patients experienced substantial decrease in amount of pain killer consumed during post-treatments. In terms of Quality of life of head and neck cancer patients were at medium level but reducing; mean score 6.22 before treatment and 4.84 after treatment. Analysis showed only health history (p-value=0.011<0.05; (p-value=0.012<0.05) was directly significant with quality of life of HNC patients before and after the treatment. Post treatment showed only marital status (p-value=0.000<0.05) factor associated with quality of life of HNC patients after the treatment.
CONCLUSION:	Quality of life of the patient reduced after treatment but still consider as medium level. Socio-demographic factors are worth to be considered when obtaining information during assessment to this population to improve patients' perceived care and support, and symptom control during the course of treatment in order to promote optimum quality of life. QOL is negatively affected 6 month after the treatments, a significant deteriorates was observed in quality of life scores. But the respondents experienced fewer symptoms after 6 months of treatment. This might be due to the treatments that may have changed the HNC patients' QOL and symptoms scores.
OUTPUT:	 Paper for publications (submitted) a. Concept analysis - 1 b. Survey paper - 2 Conference presentation a. Oral (QOL of HNC survivors: A conceptual analysis) - 2ND. Nursing conference, USM 2017
FUTURE PLAN OF THE RESEARCH:	 Recommendation: a. Exploration of patients' and family needs during and after treatment in order to prepare for discharge. b. Development of discharge booklet to provide information on the pathway of survivors' journey that will help to increase the quality of patients' life after the treatment.

REFERENCES:	• Abdullah K, Ahmad RLR, Asha'ari ZA, et al (2014). An outcome of surgically treated
	head and neck cancer in one of the tertiary referral center in the East Coast of
	Malaysia: a 6-year retrospective analysis. 21, 28–36.
	Abendstein H, Nordgren M, Boysen M, et al (2005). Quality of life and head and
	neck cancer: a 5 year prospective study. The Laryngoscope [Online].
	http://doi.org/10.1097/01.MLG.0000181507.69620.14. [Accessed May 21, 2017].
	 Ackerstaff AH, Rasch CRN, Balm AJM, et al (2012). Five-year quality of life results
	of the randomized clinical phase III (radplat) trial, comparing concomitant intra-
	arterial versus intravenous chemoradiotherapy in locally advanced head and neck
	 cancer. Head Neck, 34, 974-80. Akkas E, Yucel B, Kilickap S (2017). Evaluation of Quality of Life in Turkish Patients
	 Akkas E, Yucel B, Kilickap S (2017). Evaluation of Quality of Life in Turkish Patients with Head and Neck Cancer. Quality of Life in Turkish Patients with Head and Neck Cancer [Online]. http://dx.doi.org/10.7314/APJCP.2013.14.8.4805. [Accessed May 21, 2017].
	 Aplak B, Malkoc M, Gelecek N, et al (2007). Quality of life of Turkish patients with
	head and neck cancer. Turk J Cancer, 37, 129-36.
	 Appelbaum FR, Gundacker H, Head DR, et al (2006). Age and acute myeloid leukemia. Blood, 107, 3481e5.
	 Argiris L, Athanassios J, Karamouzis BK, et al (2008). Head and neck cancer-
	ProQuest [Online].
	http://search.proquest.com/docview/199015506/fulltextPDF/36ACAA4559B94B9AP
	Q/4?accountid=44024. Accessed May 24, 2017.
	Basri NA (2014). The relationship between Islamic religiosity, depression and
	anxiety among Muslim cancer patient [Online].
	http://eprints.sunway.edu.my/238/1/ANg%20Lai%20Onn.%20Relationship%20betw
	een%20Islamic.pdf. [Accessed May 18, 2017].
	 Bhide SA, Miah AB, Harrington KJ, et al (2009). Nutting C M. Radiation-induced
	xerostomia: pathophysiology, prevention and treatment. Clin Oncol (R Coll Radiol),
	21, 737-744.
	• Bilal S, Doss JG, Cella D, et al (2015). Quality of life associated factors in head and
	neck cancer patients in a developing country using the FACT-H&N. Journal of Cranio-Maxillo-Facial Surgery, 43, 274-280.
	 Bjordal K, Hammerlid E, Ahlner-Elmqvist M, et al (1999). Quality of Life in Head and
	Neck Cancer Patients Validation of the European Organization for Research and
	Treatment of Cancer Quality of Life Questionnaire-H&N35 [Online].
	http://jco.ascopubs.org/content/17/3/1008.abstract. [Accessed May 22, 2017].
	Bower WF, Vlantis AC, Chung TM, et al (2009). Quality of life in head and neck
	cancer patients after surgical resection: translation into Cantonese and validation of
	the EORTC QLQ-H&N35.Acta Oto-laryngologica,129, 779-785.
	 Cancer.Net. (2014). Head and Neck Cancer: Treatment Options. Cancer.Net
	[Online]. http://www.cancer.net/cancer-types/head-and-neck-cancer/treatment-
	options. Accessed May 21, 2017.
	 Cella DF, Wiklund I, Shumaker S A (1993). Integrating health-related quality of life into cross-national clinical trials. Quality of Life Research, 2, 433–40.
	 Cengiz M, Ozyar E, Esassolak M, et al (2005). Assessment of guality of life of
	nasopharyngeal carcinoma patients with EORTC QLQ-C30 And H&N-35 Modules.
	International Journal of Oncology, Biology, Physics, 63, 1347-1353.
	Chandu A, Smith AC, Rogers SN (2006). Health-related quality of life in oral cancer:
	a review. J Oral Maxillofac Surg, 64, 495-502.
	Chaukar DA, Das AK, Deshpande MS, et al (2005). Quality of life of head and
	neck cancer patient: validation of the European organization for research and
	treatment of cancer QLQ-C30 and European organization for research and
	treatment of cancer QLQ-H&N35 in Indian patients. Indian Journal of Cancer, 42,
	178-184.
	Cheung EJ, Wagner HJ, Botti JJ, et al (2009). Advanced oral tongue cancer in a 22-
	year-old pregnant woman. Ann Otol RhinolLaryngol, 118, 21-6.
	 Coebergh JWW, van der Heijden LH, Janssen-Heijnen MLG (1995). Cancer Insidense and Survival in the Southeast of the Netherlands. 1955, 1994; a Report
	Incidence and Survival in the Southeast of the Netherlands, 1955–1994: a Report from the Eindhoven Cancer Registry. p 101. Comprehensive Cancer Centre South
	Eindhoven.
	 Corry J, Poon W, McPhee N, et al (2009). Prospective study of percutaneous
	endoscopic gastrostomy tubes versus nasogastric tubes for enteral feeding in
	patients with head and neck cancer undergoing (chemo) radiation. Head Neck, 31,
	867-876.
	 Cripps C, Winquist E, Devries MC, (2010). Epidermal growth factor receptor

targeted therapy in stages III and IV head and neck cancer. Curr Oncol, 17, 37-48.
• Dempster M, McCorry NK, Brennan E, et al (2011). Do changes in illness
perceptions predict changes in psychological distress among oesophageal cancer survivors? Journal of Health Psychology, 16, 500–509.
• Edvardsson D, Sandman PO, Rasmussen B (2006). Caring or uncaring-meanings
of being in an oncology environment. Journal of Advanced Nursing, 55, 188-97.
 Fang C, Wei W (2014). Factors influencing comfort level in head and neck neoplasm patients receiving radiotherapy. International Journal of Nursing Science, 394-399.
 Fang FM, Chien CY, Tsai WL, et al (2008). Quality of life and survival outcome for
patients with nasopharyngeal carcinoma receiving three-dimensional conformal
radiotherapy vs. intensity-modulated radiotherapy-a longitudinal study. International
Journal of Radiation Oncology Biology Physics, 72, 356-364.
 Fang FM, Chiu HC, Kuo WR, et al (2002). Health related quality of life for nasopharyngeal carcinoma patients with cancer-free survival after treatment.
International Journal of Radiation Oncology, Biology, Physics, 53, 959-968.
Ferrell BR, Hassey DK (1997). Quality of Life among Long-Term Cancer Survivors
Cancer Network.Oncology [Online].http://www.cancernetwork.com/oncology-
 journal/quality-life-among-long-term-cancer-survivors. Accessed May 20, 2017. Ferrell BR, Hassey DK, Grant M (2012). Quality of Life Patient/Cancer Survivor
 Version (QOL-CSV). Measurement Instrument Database for the Social Science
[Online]. www.midss.ie. Accessed May,24 2017.
• Finkel T, Serrano M, Blasco MA (2007). The common biology of cancer and ageing.
 Nature, 448, 767-74. George JW, Michael AC, David FC, et al (1999). Analysis of the Impact of
 George SW, Michael AC, David PC, et al (1999). Analysis of the impact of Demographic, Clinical, and Social Factors on Health-Related Quality of Life. Value
in Health, 308-317.
• Ghazali N, Cadwallader E, Lowe D, et al (2012). Fear of recurrence among head
 and neck cancer survivors: Longitudinal trends. Psycho-Oncology. Gilbert J, Murphy BA, Jackson L (2014). Quality of life in head and neck cancer
 Gilbert J, Murphy BA, Jackson L (2014). Quality of life in head and neck cancer [Online]. http://http://www.uptodate.com/contents/quality-of-life-in. Accessed May 22, 2017.
 Hammerlid E, Bjordal K, Ahlner-Elmqvist M (2001). A prospective study of quality of
life of head and neck cancer patients. I: at diagnosis [Online].
doi:10.1097/00005537-200104000-00021. [Accessed May 21, 2017].
 Hashibe M, Brennan P, Benhamou S, et al (2007). Alcohol Drinking in Never Users of Tobacco, Cigarette Smoking in Never Drinkers, and the Risk of Head and Neck
Cancer : Pooled Analysis in the International Head and Neck Cancer Epidemiology
Consortium. Journal National Cancer Institute, 777–789.
 Kim KU (2013). Measurement of quality of life in patients with end-stage cancer. Cancer Nursing, 37, 44-49.
 Koch L, Jansen L, Brenner H, et al (2012). Fear of recurrence and disease
progression in long-term (≥ 5 years) cancer survivors—A systematic review of
quantitative studies. Psycho-Oncology.
 Lai YH, Chang JT, Keefe FJ, et al (2003). Symptom distress, catastrophic thinking, and hence in percentagy agreed agreement of the second secon
 and hope in nasopharyngeal carcinoma patients. Cancer Nursing, 26, 485-93. Lalami Y, de Castro GJ, Bernard-Marty C, et al (2009). Management of head and
neck cancer in elderly patients. Drugs Aging, 26, 571-83.
• Larsson M, Hedelin B, Athlin E (2007). Needing a hand to hold: Lived experiences
during the trajectory of care for patients with head and neck cancer treated with
 radiotherapy. Cancer Nursing, 30, 324-334. Lewis S, Salins N, Rao M, et al (2014). Spiritual well-being and its influence on
fatigue in patients undergoing active cancer directed treatment: A correlational study [Online]. ProQuest.
http://search.proquest.com/docview/1620029277/410C9375327419APQ/9?accounti
d=44024. [Accessed May 20, 2017].
 Linn LKW, Nasir F, Wahab NA (2015). Prevalence of dysphagia in patients with based and nask senser at dental disis. Heapital USM (Option)
headand neck cancer at dental clinic, Hospital USM [Online]. http://www.dental.usm.my/aos/docs/Vol_10/aos-article-0196.pdf. Accessed May, 24
2017.
 Malaysian National Cancer Registry Report (MNCR) 2007-2011 [Online].
https://kpkesihatan.com/2016/12/07/the-malaysian-national-cancer-registry-report-
 mncr-2007-2011/. [Accessed May 20, 2017]. Mattson M, Hall JG (2011). Linking health communication with social support. In
 Mailson M, Hall JG (2011). Linking realth communication with social support. In Health as communication nexus: A Service-learning approach.
 Maxwell JH, Kumar B, Feng FY, et al (2010). Tobacco use in human

papillomavirus-positive advanced oropharynx cancer patients related to increased risk of distant metastases and tumor recurrence. Clin Cancer Res, 16, 1226-35.
 Nagy J, Braunitzer G, Antal M, et al. (2014). Quality of life in head and neck cancer patients after tumor therapy and subsequent rehabilitation: an exploratory study. ProQuest, 23, 135.
 Pearce MJ, Coan AD, Herndon JE, et al (2012). Unmet spiritual care needs impact emotional and spiritual well-being in advanced cancer patients [Online]. ProQuest.
 http://doi.org/10.1007/s00520-011-1335-1. [Accessed May 19,2017]. Pitiphat W, Diehl SR, Laskaris G, et al (2002). Factors associated with delay in the
diagnosis of oral cancer. Journal of Dental Research, 81, 192-197.
 Pöschl G, Seitz HK (2004). Alcohol and cancer. Alcohol, 39, 155-65. Ridge JA, Mehra R, Lango MN, et al (2011). Head and Neck Tumors. [Online].
http://www.cancernetwork.com/cancer-management/head-and neck/article/10165/l802498. [Accessed May 20, 2017].
 Rogers SN, Scott B, Lowe D, et al (2010). Fear of recurrence following head and
neck cancer in the outpatient clinic. European Archives of Otorhinolaryngology, 267, 1943–1949.
 Rose P, Yates P (2001). Quality of life experienced by patients receiving radiation treatment for cancers of the head and neck. Cancer Nursing, 24, 255-263.
 Rosenquist K (2005). Risk factors in oral and oropharyngeal squamous cell carcinoma: a population-based case-control study in southern Sweden. Swed Dent Suppl, 179,1-66.
 Scrimger R, Kanji A, Parliament M, et al (2007).Correlation between saliva production and quality of life measurements in head and neck cancer patients treated with intensity-modulated radiotherapy. American Journal of Clinical Oncology, 30, 271-277.
 Sesterhenn AM, Teymoortash A, Folz BJ, et al (2005). Head and neck cancer in the elderly: A cohort study in 40 patients. Acta Oncologica, 44, 59-64.
 Singer S, Langendijk J, Yarom N (2013). Assessing and improving quality of life in patients with head and neck cancer. American Society of Clinical Oncology Educational Book, 230-235.
So WK, Choi KC, Chen JM, et al (2014). Quality of life in head and neck cancer
survivors at 1 year after treatment: the mediating role of unmet supportive care needs .ProQuest [Online].
http://search.proquest.com/docview/1566997879/fulltextPDF/30EA9E0F471B4DFBF Q/6?accountid=44024. Accessed May 24, 2017.
 Soares A, Biasoli I, Scheliga A, et al (2013). Association of social network and socia support with health related quality of life and fatigue in long-term survivors of Hodgkin lymphoma. Supportive Care in Cancer, 21, 2153-2159.
 Study protocol for the World Health Organization project to develop a Quality of Life assessment instrument (WHOQOL) (1993). Qual Life Res, 2, 153-159.
 Taylor JC, Terrell JE, Ronis DL, et al (2004). Disability in patients with head and neck cancer [Onine]. http://www.ncbi.nlm.nih.gov/pubmed/15210560. Accessed May 23, 2017.
 Tazaki M, Nakane M, Endo T, et al (1998). Results of a qualitative and field study using the WHOQOL instrument for cancer patients. Japanese Journal of Clinical
Oncology, 28, 134-141.
 Teerlink CC, Albright FS, Lins L, et al (2012). A comprehensive survey of cancer risks in extended families.Genet Med, 14, 107-14.
 Visacri MB, Ferrari GB, Pimentel R, et al (2015). Evaluation of the quality of life of patients before treatment of squamous cell carcinoma of the head and neck by means of the mean of the squamous cell carcinoma of the head and neck by
 means of chemoradiotherapy. Contemporary Oncology, 19, 148–153. WHOQOL, Group TW (1998). Development of the World Health Organization WHOQOL-BREF quality of life assessment. The WHOQOL Group. Psychol Med, 28
551–558.
 Yahaya A, Hussin NDH (2017). Stress level and its influencing factors among secondary school teachers in Johor, Melaka, Negeri Sembilan and Selangor - Universiti Teknologi Malaysia Institutional Repository [Online].
 http://eprints.utm.my/2399. [Accessed May 21, 2017]. Yu-Hui JH, Yuan-Chin AL, Qian L, et al (2015). Family History of Cancer and Head and Neck Cancer Risk in a Chinese Population. Asian Pacific Journal of Cancer
 Prevention, 16, 8003- 8008. Żmijewska-Tomczak M, Milecki P, Olek-Hrab K, et al (2014). Factors influencing

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(Compulsory for the principal researcher to prepare this report for the presentation of the result of the research project at the IIUM Seminar on Research Findings)

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