

DETERMINING SATISFACTION WITH INTERPERSONAL RELATIONSHIP WITH NAVIGATOR (SN-I-PH) MEASURE AMONG CAREGIVERS OF FILIPINO CHILDREN WITH CANCER IN A TERTIARY REFERRAL CENTER: A PATIENT NAVIGATION RESEARCH STUDY

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ABSTRACT

BACKGROUND: Patient navigators are trained to provide support and guidance to patients throughout the cancer care continuum. They help "navigate" through the maze of doctors' clinics, outpatient centers, insurance and payment systems, patient-support organizations, and other components of the health care system. Yet there is no existing patient satisfaction tool to assess the patient navigation program in the Philippines for pediatric cancer.

OBJECTIVES: This study aims to evaluate satisfaction with the patient navigation program using a validated Satisfaction with Interpersonal Relationship with Navigator (SN-I-Ph) Measure among Filipino caregivers in a tertiary referral center for childhood cancer.

METHODOLOGY: The tool was first translated for cultural appropriateness, translated, and back translated into Filipino; the content validity and internal consistency were tested. Caregivers of Filipino children with cancer were recruited to answer the survey and the results analyzed.

OUTCOME: Content validity for all 9 items was acceptable with scores of 4.5-5 and internal consistency showed satisfactory results with cronbach alpha of 0.9067. A total of 202 participants were recruited to join the survey. Results showed mean±SD of 42.6±7.8. All the 9 items showed excellent satisfaction.

CONCLUSION: This study showed good satisfaction with the interpersonal relationship of the navigators among caregivers. Participants enrolled in the patient navigation program reported a positive overall experience with the medical care.

RECOMMENDATION: The tool is recommended for use among hospitals with the patient navigation program to assess satisfaction of the caregivers. Further studies can assess caregiver's satisfaction as to logistic aspects as well as how to measure benefits and outcomes with the program.

KEYWORDS: *Patient Navigation, Childhood cancer, Filipino.*

INTRODUCTION

Cancer is a major cause of death. In high-income countries (HICs), most who develop cancer survive, although survival depends strongly on the type of cancer. While in low and middle income countries (LICs and MICs), less than one-third survive, and in some, the proportion is smaller.¹ The major contributor to poor outcomes in LIC is that only a few patients come for treatment when their cancer is at an early, curable stage, majority only sought consult when their cancer is already in the late stage.² One burden in the fight against childhood cancer includes lack of access to effective cancer prevention and treatment.

Effective coordination of care between different clinicians, services and health sectors throughout the patient journey is fundamental to the provision of high-quality standard of care.³ In the 1990s, Dr. Harold P. Freeman, a surgical oncologist at Harlem Hospital, observed that women at his center, largely the African American and the socioeconomically disadvantaged, died from breast cancer at rates much higher than would be expected from national data. Dr. Freeman observed that these women often received their cancer diagnoses late, after their disease has already spread. To reduce these disparities in the cancer outcomes, Freeman designed an innovative approach which he coined “patient navigation” (PN).⁴ Patient Navigators are trained, culturally sensitive health care workers who provide support and guidance throughout the cancer care continuum. They help people “navigate” through the maze of doctors’ offices, clinics, hospitals, outpatient centers,

insurance and payment systems, patient-support organizations, and other components of the health care system. Services are designed to support timely delivery of quality standard cancer care to ensure that patients, survivors, and families are satisfied with their encounters with the cancer care system.⁵ The success of the Harlem program, which showed a deep decline in the percentage of patients diagnosed with late-stage cancers and a corresponding rise in survival, initiated national and international enthusiasm for the patient navigator concept.⁶

Because patient navigation has the potential to improve cancer outcomes and transform complex and fragmented health care systems to a more patient-centered care, the patient navigation programs have rapidly proliferated.⁹ In May 2011, the Breast Cancer Medicines Access Program was started in our country through a patient navigation scheme with the goal of promoting early screening and improving survival rates of breast cancer among Filipinos. Data showed that the attrition rate decreased from 62% in 2011 to 18% in 2012.¹⁰ Thereafter, in 2013, the patient navigation program for childhood cancer was launched. One of the priority goals of the program is to increase treatment compliance and decrease treatment failure through a decrease in the abandonment rate. The reported abandonment rate of childhood Acute Lymphoblastic Leukemia (ALL) at the Philippine Children’s Medical Center from 44.4% in 2012 remarkably declined to 15.1%, in the span of 1 year with the patient navigation program, and the overall survival for childhood ALL has dramatically

increased to 65.3% from 32.3% (from the Department of Health Rizal Cancer Registry).^{8,11}

In general, studies found patients who are involved in patient navigation programs are satisfied with their care experiences.¹² Yet studies that examine patient-navigator relationships are lacking.¹³ No patient satisfaction tool was yet established to assess the effectiveness of the patient navigation program in the Philippines for pediatric cancer. This study adopted the Interpersonal Relationship with the Navigator (SN-I) Measure. Prior to use in the Filipino setting, this instrument was modified for cultural appropriateness and then translated and validated prior to using it.

The general objective is to evaluate satisfaction with the patient navigators using Satisfaction with Interpersonal Relationship with Navigator (SN-I-Ph) Measure among Filipino caregivers in a Tertiary Referral Center for Childhood Cancer. The specific objectives aim to describe the demographics included age, gender, race/ethnicity, and educational level of the caregivers of Filipino Children with cancer, to validate (English/Filipino) Interpersonal Relationship with the Navigator (SN-I) measure for use with Tagalog-speakers in childhood cancer patient navigation research study, and to determine socio-demographic and clinical factors associated with satisfaction among caregivers of Filipino Children with cancer.

METHODOLOGY

RESEARCH DESIGN: Cross Sectional Analytic with Cross-Language Validation Study

POPULATION: Caregivers of pediatric cancer patients aged 18 years and above diagnosed in a tertiary referral center for childhood cancer

INCLUSION CRITERIA:

- Caregivers enrolled in the patient navigation program aged 18 years old and/or above who can read and write English and Filipino language.

EXCLUSION CRITERIA:

- Inability to read and other cognitive impairment
- Those who will not consent to join the study

PART I Translation process

The translation process consisted of three phases. Phase I was the modification of the questionnaire for cultural appropriateness. Phase II included the translation into Filipino and the testing of its content validity. Phase III was the road test on the evaluation of the internal consistency and the reliability of the Interpersonal Relationship with the Navigator (SN-I) measure.

Subject Selection: The participants were chosen randomly at the Cancer and Hematology Center of the Philippine Children's Medical Center. They were

literate and able to comprehend and communicate well using the English and/or Filipino language.

Data Collection: Modification of the original Satisfaction with Interpersonal Relationship with the Navigator (SN-I) for cultural appropriateness was accomplished by an expert panel consisting of 5 bilingual participants of Pediatric Hematologist/Oncologist, parent, and child life coordinator. Items on the original questionnaire were altered as the expert panel saw fit for cultural adaptation. The modified version was then checked by the moderator to see if the modified content was comprehensive and complete.

Two bilingual experts were recruited for translation and back translation in English/Filipino language. Completed demographic information of the translators including age, gender, race/ethnicity, and educational level were obtained. The use of conversational language was preferred, choosing simpler and more commonly used terms. The translation was examined by members of the same expert panel from Phase I. Semantic accuracy, adequacy and representativeness were rated using a 5-point Likert scale. "1" corresponded to very unsatisfactory, "3" to neutral and "5" to very satisfactory. A space after each item was provided for comments and suggestions for modification. Following the initial review of the expert panel, revisions to the questionnaire were performed accordingly with the supervision of the Filipino translator.

The modified Satisfaction with Interpersonal Relationship with the Navigator (SN-I-Ph) was then back translated into English by another bilingual (Filipino/English) professor, who was unaware of the Satisfaction with Interpersonal Relationship with the Navigator (SN-I). The backward English translation was compared with the original by the authors to assess if the Filipino translation was accurate semantically. The Filipino translation of the items that were not semantically accurate were modified by the Filipino translator and were then back translated again to English. Semantic accuracy was re-assessed by the authors.

A pilot testing of the modified Satisfaction with Interpersonal Relationship with the Navigator (SN-I-Ph) was performed to test clarity and comprehensibility. Content validity was also determined by asking pediatric physicians and oncology nurses to review the translated questionnaire. Using the English version as a reference, each item was rated if the translated question was clear, close to the original version of the question and other similar qualitative questions. The participants were asked to give a comprehensive rating on each of the items using a scale of 1 to 5. A rating of "1" meant that the item was difficult to understand and they had difficulty answering the question while a rating of "5" meant that the item was easy to understand and answer.

Pre-testing of the assessment tool was done on 30 caregivers of children with cancer. Modifications were made according

to the results of the rating performed by the participants during the pilot testing. The respondents who participated in the pre-testing of the questionnaire were not included in the actual study.

Statistical Analysis: Median and mean were used for descriptive statistics both for the rating of the expert panel and for the pilot testing. If the mean score for each item was equal to or more than 3.5 and the median score was equal to or more than 4, the item was considered semantically accurate, culturally relevant and adequate and thus, was not modified. However, if the mean and median scores were below the cut-off, the statement was modified by the Filipino translator. Internal consistency during the pre-testing was computed using cronbach alpha.

PART II. Survey Proper

Eligible participants were invited to participate in the study. Informed consent was obtained by a trained nurse from the Cancer and Hematology Center who had no involvement in the present study and had no involvement in the direct medical care of the patient.

The SN-I-Ph were distributed to the targeted population. Caregivers who received individualized navigation from 2013 onwards were included in the study. The participants were asked to answer the SN-I-Ph, a self-administered questionnaire. It was accomplished at the waiting area of the Cancer and Hematology Center, Out-Patient Division; or the In-Patient Division at bedside; depending on where the caregivers were seen. It took approximately 5 minutes to finish answering the questionnaire (Table 1).

I feel my Navigator...	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Don't Know/ Refuse to answer
is easy to talk to	1	2	3	4	5	98
listens to my problems	1	2	3	4	5	98
is dependable	1	2	3	4	5	98
is easy for me to reach	1	2	3	4	5	98
cares about me personally	1	2	3	4	5	98
is courteous and respectful to me	1	2	3	4	5	98
gives me enough time	1	2	3	4	5	98
figures out the important issues in my health care	1	2	3	4	5	98
makes me feel comfortable	1	2	3	4	5	98

The SN-I employs a Likert scale to evaluate patient perception of their interaction with PN, including communication, empathy, and reliability. Satisfaction with Navigation-Interpersonal scores range from 9 to 45, with higher scores indicating better satisfaction. A cut off score of 4.5 was set to categorize the scale as highly satisfied.

Descriptive statistics was utilized to summarize the clinical characteristics of the subjects. Frequency and proportion was used for nominal variables, median and range for ordinal variables, and mean and SD for interval/ratio variables. Item-level content validity index was used to determine the accepted items. Internal consistency was computed using cronbach alpha. All valid data were included in the analysis. Categorical data was be analyzed using logistic regression. Missing variables was neither replaced nor estimated. STATA 13.1 was used for data analysis.

Bioethical approval from the Institutional Review Board of the Philippine Children's Medical Center was obtained prior to commencement of the study.

RESULTS

PART I Translation process

The modification of the original Satisfaction with Interpersonal Relationship with the Navigator (SN-I) for cultural appropriateness was discussed by the expert panel; each item on the original questionnaire was discussed and reviewed, and the expert panel decided to modify the term "reach" to "contact", as reach could

also mean attain or accomplish but the original scale is referring to reach as "easy to contact or get hold of". As for the other items in the questionnaire, the expert panel saw it fit for cultural adaptation and decided that no modification was needed.

Two bilingual experts were recruited for translation and back translation in English/Filipino language. The translations were examined by members of the same expert panel from Phase I. Semantic accuracy, adequacy and representativeness was rated by the group using a 5-point Likert scale with "5" as very satisfactory, revisions to the questionnaire were made until the results became satisfactory to cut off value of >4.5.

In the back-translation process, although item number 3 "maasahan" was back-translated as "I can rely on", this is considered by the group as similar to "dependable". Item 6 "may paggalang sa akin" is back-translated to "treats me with respect", in the original scale courteous and respectful are actually synonymous terms and the Filipino translation of both words is the same which is "paggalang" hence it was agreed upon by the group to use one term for both to avoid confusion.

Content validity was determined by asking the experts to review the translated questionnaire. The experts were requested to rate the forward translated questionnaire from 1-5, with 1 as Very Dissatisfied and 5 as Very Satisfied. This was done to ensure that the Filipino questionnaire was able to capture the clinical questions related to the patients. For all of the 9 questions, the

experts rating were significantly higher than 3 (Neutral), indicating satisfactory rating for the translated questions.

Reliability

The internal consistency of the forward translated version of Satisfaction with Interpersonal Relationship with the Navigator (SN-I-Ph) was analyzed. The questionnaire was administered to 30 respondents. Items 1 and 2 showed excellent internal consistency with $\alpha \geq 9$, items 3, 4, 5, 6, 7, 8 and 9 showed good internal consistency $0.9 > \alpha \geq 8$. For the 9 questions tested, the answers of the respondents showed excellent internal consistency based on the total computed cronbach alpha of 0.9067.

PART II. Survey Proper

A total of 202 participants were recruited to join the study. Table 4 shows the socio-demographic and clinical profile of the caregivers of the Filipino children with cancer diagnosed in a tertiary referral center for childhood cancer. The mean age of the participants was at 36.8 years \pm 8.8 standard deviation. There were more female participants compared to male at a ratio of 5.3:1. Majority of the caregivers were mothers comprising of 80.7%, the fathers were 15.3% and the rest at 4%. As per language preference, majority of the participants are bilingual (Filipino and English) at 56.9% while the pure Filipino speaking are 43.1%. As to the educational attainment, the greater proportion of the population was high school graduates at

43.7%, followed by college graduates at 33.6%, college undergraduate at 7.9%, and the remaining 13.9%. Majority of the participants were unemployed at 76.7%. Monthly income was noted to be less than 5000 pesos in 80.2%. Most of the caregivers have health insurance at 93.1%. Hematologic malignancies comprised 74.3% as the classification of the childhood cancer of the participating caregivers, and the rest were solid tumors at 25.7%. The years of diagnosis was distributed every 2 years as this was the transition period of the nurse navigators. Majority of the participants have their child ongoing treatment at 77.7%, off treatment at 19.8% and the remaining 2.5% were on oral metronomics therapy.

Table 2. Socio-Demographic and Clinical Profile of the Caregivers of Filipino Children with Cancer in a Tertiary Referral Center for Childhood Cancer

Characteristic	Caregivers of Filipino Children with Cancer (N = 202)
	Frequency (%); Mean \pm SD
Age (years)	36.8 \pm 8.8
Gender	
Male	33 (16.3%)
Female	169 (83.7%)
Relationship to the patient	
Father	31 (15.3%)
Mother	163 (80.7%)
Grandfather	1 (0.5%)
Grandmother	5 (2.5%)
Uncle	1 (0.5%)
Aunt	1 (0.5%)
Language Preference	
Bilingual (English/Filipino)	115 (56.9%)
Filipino only	87 (43.1%)
Educational Attainment	
College Graduate	68 (33.6%)
College Undergraduate	16 (7.9%)
High School Graduate	88 (43.7%)
High School Undergraduate	15 (7.4%)
Elementary Graduate	13 (6.4%)
Elementary Undergraduate	2 (1%)
Employment Status	
Full time employment	40 (19.8%)
Part time employment	7 (3.5%)
Unemployed	155 (76.7%)
Monthly Income	
Less than P 5000	162 (80.2%)
More than P 5000 but < P 9999.99	15 (7.4%)
More than P 10000 but < P29999.99	21 (10.4%)
More than P 30000 but < P49999.99	3 (1.5%)
More than P 50000	1 (0.5%)
Health Insurance (Philhealth)	
With Health Insurance	188 (93.1%)
Without Health Insurance	14 (6.9%)

Characteristic	Caregivers of Filipino Children with Cancer (N = 202)
	Frequency (%); Mean \pm SD
Diagnosis	
Hematologic Malignancy	150 (74.3%)
ALL Standard Risk	75 (37.1%)
ALL High Risk	52 (26.4%)
ALL Relapse	8 (4.0%)
AML	8 (4.0%)
JMML	2 (1.0%)
LCH	5 (2.5%)
Solid Tumor	52 (25.7%)
Hodgkin's Lymphoma	5 (2.5%)
Non-Hodgkin's Lymphoma	5 (2.0%)
Ependymoma	1 (0.5%)
Germ Cell Tumor	5 (2.5%)
Hepatoblastoma	2 (1.0%)
Neuroblastoma	6 (3.0%)
PNET	3 (1.5%)
Pineal Parenchymal Tumor	1 (0.5%)
Astrocytoma	1 (0.5%)
Rhabdomyosarcoma	7 (3.5%)
Wilms' Tumor	6 (3.0%)
Retinoblastoma	6 (2.0%)
Osteosarcoma	2 (1.0%)
Lymphoblastic Lymphoma	2 (1.0%)
Year of Diagnosis	
2013-2014	27 (13.4%)
2015-2016	49 (24.2%)
2017-2018	126 (62.4%)
Treatment Status	
On-going treatment	157 (77.7%)
Oral Metronomics	5 (2.5%)
Off Treatment	40 (19.8%)

The SN-I employs a Likert scale to evaluate the patient perception of their interaction with the navigator. The sum of the scores for all 9 questions range from 9 to 45, with higher scores indicating better

satisfaction. The general satisfaction score average was 42.12 (range 20-45). The results of the 202 participants showed mean \pm SD of 42.6 \pm 7.8. A cut off score of 4.5 for each item was set to be categorized as

highly satisfied. All the 9 items showed excellent satisfaction.

Socio-demographic and clinical factors associated with satisfaction among caregivers of Filipino children with cancer was analyzed using odds ratio in logistic regression. A cut off score of 4.5 was set to categorize as the participant as very satisfied and less than 4.5 as somehow satisfied. Out of the 202 participants, 187 (92.6%) were categorized as very satisfied and 15 (7.4%) as somehow satisfied. Odds ratio of close to 1 would indicate no relationship to the clinical factors, while that at >1 would show positive relationship and <1 negative

relationship. The age of the caregivers as well as gender, educational attainment, language preference, employment status, monthly income, health insurance, diagnosis showed no clinical significance as to the level of satisfaction of the participants. As to the year the patients were diagnosed, those who were diagnosed 2013-2014 showed a trend in the result with odds ratio of more than 1 implying that the subjects were much satisfied with services of the patient navigators employed 2015-2016 and 2017-2018. All the socio-demographic and clinical factors showed no clinical significance (Table 3).

Table 3. Socio-Demographic and Clinical Factors associated with Satisfaction among Caregivers of Filipino Children with Cancer

Factors	Very Satisfied (N = 187)	Somehow Satisfied (N = 15)	Odds Ratio	P-Value
Age (years)	36.8±8.9	35.6±7.3	1.01	0.594
Gender				
Female	157 (84.0%)	12 (80.0%)	Reference	Reference
Male	30 (16.0%)	3 (20.0%)	0.76	0.691
Relationship to the Patient				
Mother	151 (80.8%)	12 (80.0%)	Reference	Reference
Father	28 (15.0%)	3 (20.0%)	0.74	0.659
Others	8 (4.2%)	0	-	-
Educational Attainment				
College Level	79 (42.3%)	5 (33.3%)	0.58	0.351
Secondary Level	93 (49.7%)	10 (66.7%)	Reference	Reference
Primary Level	15 (8.0%)	0	-	-
Language Preference				
Bilingual (English/Filipino)	110 (58.8%)	5 (33.3%)	Reference	Reference
Filipino only	77 (41.2%)	10 (66.7%)	0.35	0.064
Employment Status				
Employed	42 (22.5%)	5 (33.3%)	0.58	0.342
	145 (77.5%)	10 (66.7%)	Reference	Reference

Factors	Very Satisfied (N = 187)	Somehow Satisfied (N = 15)	Odds Ratio	P-Value
Unemployed				
Monthly Income				
Less than P 5000	152 (81.3%)	10 (66.7%)	Reference	Reference
More than P 5000	35 (18.7%)	5 (33.3%)	0.46	0.188
Health Insurance				
With Health Insurance	173 (92.5%)	15 (100.0%)	Reference	Reference
Without Health Insurance	14 (7.5%)	0	-	-
Diagnosis				
Hematologic	138 (73.8%)	12 (80.0%)	Reference	Reference
Malignancy Solid Tumor	49 (26.2%)	3 (20.0%)	0.70	0.599
Year of Diagnosis				
2013-2014	24 (12.8%)	3 (20.0%)	2.94	0.255
2015-2016	47 (25.1%)	2 (13.3%)	1.45	0.593
2017-2018	116 (62.1%)	10 (66.7%)	Reference	Reference

DISCUSSION

Patient navigation is rapidly becoming an integral aspect of the cancer-related care process on a continuum from cancer screening to diagnostic resolution to cancer treatment and survivorship.¹⁵ Patient navigators vary in educational and socioeconomic status backgrounds ranging from lay health workers (i.e., trained paraprofessional) to health professionals (e.g., nurse and social worker).¹⁶ Irrespective of their educational and training background navigators generally provide support to patients that can be categorized as emotional (e.g., direct emotional such as accompanying patients to visits or indirect emotional such as through referral to a support group or mental health treatment) or instrumental/technical (e.g., assistance with insurance, arranging transportation, assisting with financial aid), and educational (e.g.,

sharing approved information, explanation of medical terms, and coaching).¹⁷ The Philippine childhood cancer patient navigation program employs oncology nurses as patient navigators. The patient navigators undergo a two day training module and workshop prior to commencement of their responsibilities. In our institution, oncology nurse navigators are transitioned every 2 years hence, since 2013, there have been 3 sets of different navigators who were employed in the cancer center.

The patient satisfaction with interpersonal relationship with the navigator measure was developed to assess a key dimension of patient navigation: perceptions of the interpersonal/relational aspects of navigation. This measure represents the first validated scale for patient satisfaction with their navigator. Currently, there are no gold standard measures to assess the patient

navigator relationship. The 9-items scale assesses key aspects of navigator performance including time spent, dependability and accessibility, in addition to more affective-laden aspects such as listening, respect and caring. As navigation becomes increasingly integrated into cancer care, it is critical to have valid measures for its assessment.¹⁸

There was a validation study of the patient satisfaction with interpersonal relationship with the navigator (PSN-I) measure to a Spanish version done by Jean-Pierre et. al. The scale was translated and back translated to Spanish and English and administered to Spanish fluent participants. They also conducted a psychometric validation as well as internal consistency and correlations analyses to examine divergence and convergence of the scale. The PSN-I was found suitable measure of satisfaction with a patient navigation for the Spanish group.¹⁹

In a study done at the Massachusetts General Hospital, they compared to groups: patients who benefited from the patient navigation program and the group who did not. They found out that patients who received patient navigation had higher satisfaction scores with overall medical care.¹⁴

Our study showed well satisfied caregivers with the interpersonal relationship of the navigators in our institution through the use of the Satisfaction with Interpersonal Relationship with Navigator (SN-I-Ph) Measure among Filipino caregivers. The SN-I-Ph is an

acceptable tool in parallel with the study done by Jean-Pierre et. al., for assessing important dimensions of the effort of the navigators including time spent with patients, navigator's dependability and accessibility, and important interpersonal characteristics of patient navigators such as abilities to listen, respect and care for patients. The translation to the Filipino language of the questionnaire showed acceptable content validity and good reliability. The SN-I-Ph was administered by a research assistant and not by the patient navigators to avoid any issue related to social desirability biases. The age of the caregivers as well as gender, educational attainment, language preference, employment status, monthly income, health insurance, diagnosis showed no clinical significance as to the level of satisfaction of the participants. All of the socio-demographic and clinical factors showed no clinical significance.

This study was not able to establish a correlation as to the degree of satisfaction to the clinical factors since majority of the caregivers showed highly satisfied results even with a higher cut off score of 4.7. We attempted to determine if there will be a significant difference as to the different set of navigators employed in the cancer center every 2 years, but the logistic regression analysis failed to show any clinically significance.

Our study has some limitations. First, our study took place in a single institution with an established patient navigation program, which may not be the same as the other institutions. In addition, our data are entirely patient-reported and therefore

subject to recall bias as all patients (old and new) whether diagnosed recently or previously were included in the study.

Health professionals value the patient navigation program and credit the program with; better patient preparedness, providing more support for patients, improved collaboration among health professionals, more efficient clinical involvement with patients, and identification of service gaps. Navigators have become one of the primary sources of assistance for patients, along with family doctors, oncologists, and staff at the cancer centers. The patient navigator does not replace other sources of support, but rather complements and reinforces the support, information and education provided especially by physicians.²⁰ Their role in bridging the gaps towards treatment compliance is vital for cancer survival.

CONCLUSIONS

Addressing barriers to cancer care through the patient navigation program is an essential part of the cancer care continuum and should be employed among hospitals with cancer programs. Caregivers of children with cancer who initially have a negative outlook with the disease process and prognosis reported a more positive overall experience with medical care when they are enrolled in the patient navigation program.

This study showed well satisfied caregivers with the interpersonal relationship of the navigators in our institution through the use of the Satisfaction with Interpersonal Relationship with

Navigator (SN-I-Ph) Measure among Filipino caregivers. The translation to the Filipino language of the questionnaire showed acceptable content validity and good reliability. The age of the caregivers as well as gender, educational attainment, language preference, employment status, monthly income, health insurance, diagnosis showed no clinical significance as to the level of satisfaction of the participants. All of the socio-demographic and clinical factors showed no clinical significance. It is our hope that the government will continue to support the patient navigation program in the country to improve treatment compliance and decrease abandonment rate, giving every child fighting for cancer a chance to be cured.

Nurse navigator program is a promising resolution for patient care inadequacies, effective means for reducing barrier in oncology care and increase patient satisfaction and quality of care. This model has been already implemented in most of the developed countries and is now being adopted in the Philippines. Some cancer centers in the Philippines are yet familiar with the patient navigation concept and have not incorporated this program in their institutions. It is recommended that this program should be encourage for use nationwide and extended to other chronic diseases in childhood such as neurologic, nephrologic, rheumatologic and other diseases.

The SN-I-Ph assesses only one dimension of navigation program, the patient-navigator interpersonal relationship. We do not know yet whether this aspect of

patient navigation is associated with other patient navigation outcomes such as timely receipt of care, patient adherence, or improvements in health status. Further studies for assessment of caregiver's satisfaction as to the logistic aspects as well as how to measure benefits and improved outcomes with the program is suggested.

The Filipino version of the satisfaction with interpersonal relationship with navigator (SN-I-Ph) measure among caregivers is recommended for application with other institutions that have the patient navigation program for childhood cancer to establish satisfaction with their own navigation program across the cancer care continuum.

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