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Clinical experience of the modified nurse-assisted screening and psychiatric referral program

KEN SHIMIZU, M.D., PH.D.,[1,2] NOBUYA AKIZUKI, M.D., PH.D.,[2,3] TATSUO AKECHI, M.D., PH.D.,[2,4] MASAKO OKAMURA, M.D., PH.D.,[5] AKIRA OBA, M.A.,[6] MASAYA SHIMAMOTO, M.D.,[1] MASATOSHI INAGAKI, M.D., PH.D.,[2,3] AND YOSUKE UCHITOMI, M.D., PH.D.[2,3]

[1]Psychiatry Division, National Cancer Center Hospital, Chuou-ku, Tokyo, Japan
[2]Psycho-Oncology Division, Research Center for Innovative Oncology, National Cancer Center Hospital East, Kashiwa, Chiba, Japan
[3]Psycho-Oncology Division, National Cancer Center Hospital East, Kashiwa, Chiba, Japan
[4]Department of Psychiatry and Cognitive-Behavioral Medicine, Nagoya City University Graduate School of Medical Sciences, Mizuho-cho, Mizuho-ku, Nagoya, Aichi, Japan
[5]Psycho-Oncology Division, Cancer Institute Hospital, Koto-ku, Tokyo, Japan
[6]Psycho-Oncology Division, Shizuoka Cancer Center Hospital, Nagaizumi, Shizuoka, Japan

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ABSTRACT

Objective: We previously reported that the nurse-assisted screening and psychiatric referral program (NASPRP) facilitated the psychiatric treatment of depressive patients, but the high refusal rate was a problem even though referral was recommended by the nurse to all positively screened patients. We modified the program so that the nurses could judge the final eligibility of referral using the result of the screening. This study assessed if the modified NASPRP led to more psychiatric referral of depressive patients.

Method: We retrospectively evaluated the annual change of the psychiatric referral proportion and compared the findings among the usual care term, the NASPRP term, and the modified NASPRP terms.

Results: The referral proportions of the modified NASPRP terms were 4.4% and 3.9%. These were not significantly higher than the usual care term (2.5%), and significantly lower than the NASPRP term (11.5%).

Significant of results: The modified NASPRP did not facilitate psychiatric treatment of depressive patients and another approach is needed.

KEYWORDS: Depressive disorder, Mass screening, Neoplasms, Psychiatry, Therapeutics

INTRODUCTION

Major depression and adjustment disorders are the most prevalent and burdensome psychiatric disorders in patients with cancer (Derogatis et al., 1983; Minagawa et al., 1996; Kugaya et al., 2000; Okamura et al., 2000; Akechi et al., 2001, 2004; Uchitomi et al., 2003). Although there are effective means of treating these disorders (Gill & Hatcher, 1999), these are often underrecognized by medical staff members (Fallowfield et al., 2001; McDonald et al., 1999; Passik et al., 1998), and National Comprehensive Cancer Network Clinical Practice Guideline recommends implementation of screening program.

We have developed and validated the Distress and Impact Thermometer (DIT) as a high-performance screening tool (Akizuki et al., 2005), and then the nurse-assisted screening and psychiatric referral program (NASPRP) was instituted, which was a clinical screening program combining implementation of DIT and recommendation for psychiatric

Address correspondence and reprint requests to: Yosuke Uchitomi, Psycho-Oncology Division, Research Center for Innovative Oncology, National Cancer Center Hospital East, 6-5-1 Kashiwanoha, Kashiwa, Chiba, 277-8577 Japan. E-mail: yuchitom@east.ncc.go.jp

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referral for all positively screened patients, by nurses. We previously showed that introduction of the NASPRP resulted in more distressed patients referred to psychiatric consultation than before, but we also noted the high refusal rate for psychiatric referral when nurses recommended psychiatric referral to all positively screened patients (Shimizu et al., 2005).

The recommendation of psychiatric referral for patients who are not willing to undergo consultation can be a burden to those patients, because the stigma still attached to psychiatric illnesses makes many patients reluctant to acknowledge to themselves or their physicians that they are experiencing emotional distress (Goldman et al., 1999). It is also time-consuming for nurses in a busy clinical setting. We determined that the continuation of the original NASPRP was not reasonable and decided to modify the terms of NASPRP. In the process of the original NASPRP, nurses had lectures about depression and also experienced assessment of psychological distress and recommendation for psychiatric referral (Shimizu et al., 2005). We assumed such an experience period gave nurses the ability to detect among their patients those who had psychological distress and were willing to consult mental health professionals. We therefore modified NASPRP to allow the nurses to judge the final eligible patients for psychiatric referral after screening.

The ability of the modified NASPRP to facilitate psychiatric referral for depressive patients was not clear, however, and the aim of this study was to clarify this point. We hypothesized that the use of the modified NASPRP would achieve a higher proportion of referral of cancer patients to the psychiatric service for treatment of major depression and adjustment disorders than usual care and would not be inferior to the original NASPRP.

METHOD

Study Sample

This study was conducted by means of a retrospective analysis, and charts of consecutive patients admitted to the Oncology/Hematology Unit of the National Cancer Center Hospital East (NCCH-E), Japan, were eligible for review during the usual care period before the original NASPRP was introduced (T1), the period during which the NASPRP was used (T2), and the period during which the modified NASPRP was used (T3 and T4). The T1 period was the 3-month period from August to October 2002, and the T2, T3 and T4 periods were same 3 months in 2003, 2004, and 2005, respectively. Patients with a noncancer diagnosis and who were under 18 years of age were excluded.

Because this study was a retrospective review for the purpose of comparing three clinical practices, written consent and institutional review board approval were not obtained.

Modified NASPRP

The original NASPRP was instituted from August until October, 2003, in the Oncology/Hematology Unit, a 42-bed unit of the NCCH-E (Shimizu et al., 2005). The modification of the NASPRP started gradually after the completion of the original NASPRP and reached its present form at the beginning of 2004. The details of the original NASPRP and modified NASPRP are described in Table 1.

Analysis

The ability of the modified NASPRP to facilitate psychiatric referral for depressive patients was evaluated by calculating the referral proportion, which is the proportion of patients referred to the psychiatric service and treated for a diagnosis of major depression or adjustment disorders among all patients admitted. Intergroup comparisons of the proportion referred were performed between groups by the chi-squared test, respectively. All tests were two-tailed.

Table 1. *Details of the original NASPRP and modified NASPRP*

	Original NASPRP	Modified NASPRP
Step 1	All patients admitted to the hematology/oncology ward were invited to fill out the Distress and Impact Thermometer.	Same as original NASPRP.
Step 2	All patients who scored above cutoff points of the DIT were eligible on this step and were recommended for psychiatric referral by nurses in charge.	Eligible patients on this step were determined by nurses' conference based on the result of the DIT, patient's background, and patient's statement and appearance on admission and recommended for psychiatric referrel by nurses in charge.
Step 3	With patients' agreement for referral, psychiatrists see patients and start treatments when patients were distressed with any psychiatric diagnoses.	Same as original NASPRP.

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All analyses were performed using SPSS 14.0 J for Windows statistical software (SPSS Japan Institute).

RESULTS

Patients' characteristics, number of patients referred to psychiatry, and referral proportion are shown in Table 2. The characteristics of the eligible patients in each period were comparable in terms of age and sex, but not about cancer sites. There existed significant differences concerning the proportion of primary unknown cancer patients.

During the T3 period, 7 patients were referred to the psychiatry division and diagnosed as having an adjustment disorder among 160 admitted patients, and during the T4 period, 5 patients were referred with an adjustment disorder among 129 admitted patients. The referral proportion during the T3 period was 3.9%, and this was not significantly different from that in T1 (3.0%, 4/134; $p = .53$) when usual care was provided and significantly lower than that in T2 (11.5%, 18/157; $p = .02$) when the original NASPRP was used. The referral proportion during T4 period was 4.4%, and this was also not significantly different from that in T1 ($p = .69$) and significantly lower than that in T2 ($p = .02$). With regard to the difference concerning cancer sites, we also analyzed this with the exception of the primary unknown cancer patients, and the results were the same.

DISCUSSION

The result of this study demonstrated that the modified NASPRP was not useful compared to usual care and inferior to the original NASPRP regarding detection of major depression and adjustment disorders in cancer patients. With the nurses' experience of concentrated psychological care in the original NASPRP term, we assumed nurses could be a primary assessment team to decide eligibility to recommend psychiatric consultation, but our assumption was incorrect.

In this study, there were many limitations due to the study design, and we could evaluate only referral proportion and not for the process of the modified NASPRP. Why this modified program was not useful is not clear, but previous study demonstrates nurses tend to underestimate patients' depression (McDonald et al., 1999), and this may have happened in this program also.

Empirical evidence showed that even though patients screened positively and were suggested as having severe psychological distress, many of them did not proceed to adequate treatment due to the refusal of the patients (Roth et al., 1998; McLachlan et al., 2001; Shimizu et al., 2005). Very few studies have elucidated why patients refuse to proceed to treatment (Curry et al., 2002), and we have no useful tactic to change their behavior so far. As it now stands, it is important to detect those patients who are distressed and willing to get consultation adequately and to treat them first. To compose an effective program, we should assess not only the patients' depressive symptoms but also the patients' need for consultation with a mental health professional. We expected the modified NASPRP could be such a strategy, but our assumption was not true, and we must pursue another way as the next

Table 2. *Characteristic of patients and number of referred patients in each term*

	No. of patients				
	T1 (usual care)	T2 (original NASPRP)	T3 (modified NASPRP)	T4 (modified NASPRP)	*p*
Total patients	134 (100)	157 (100)	160 (100)	129 (100)	
Age ($M \pm SD$)	57.4 ± 13.4	56.4 ± 13.0	58.4 ± 13.1	56.7 ± 13.8	.365
Male (%)	58 (43.3)	71 (45.2)	68 (42.5)	61 (47.2)	.855
Primary cancer site					
Hematopoietic and lymphatic tissue	40 (29.9)	56 (35.7)	62 (38.8)	45 (34.9)	.461
Head and neck	19 (14.2)	37 (23.6)	28 (17.5)	27 (20.9)	.198
Breast	42 (31.3)	30 (19.1)	45 (28.1)	30 (23.3)	.081
Primary unknown	15 (11.2)	12 (7.6)	5 (3.1)	1 (0.8)	.001
Other	18 (13.4)	22 (14.00)	20 (12.5)	26 (20.2)	.275
Referred patients					
Adjustment disorders	2	11	7	5	
Major depression	2	7	0	0	
Referral proportion (%)	3.0	11.5	4.4	3.9	

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step. In the primary care setting, adding a question regarding assistance to the questionnaire, which was, “Is this something with which you would like help?” improved the screening performance (Arroll et al., 2005). Such a questionnaire may also give information about patients’ needs, and adding a “help” question may be a clue to help us formulate our next step.

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