



Do multimedia based information services increase knowledge and satisfaction in head and neck cancer patients?



V. D'Souza^{a,*}, E. Blouin^b, A. Zeitouni^b, K. Muller^a, P.J. Allison^a

^a Faculty of Dentistry, McGill University, 3550 University St, Montreal, QC H3A 2B2, Canada

^b Dept. of Otolaryngology-Head and Neck Surgery, McGill University Hospital Center, 687 Pin Ave, West Suite E4-41, Montreal, QC H3A 1A1, Canada

ARTICLE INFO

Article history:

Received 6 February 2013

Received in revised form 6 June 2013

Accepted 11 June 2013

Available online 16 July 2013

Keywords:

Head neck cancer

Information intervention

Multimedia

Satisfaction

Cancer knowledge

SUMMARY

Objectives: To investigate the impact of a Multimode Comprehensive Tailored Information Package (MCTIP) on Head and Neck (H&N) cancer patients' knowledge and satisfaction.

Methods: A non-randomized controlled trial was conducted at two participating hospitals. One hospital delivered the MCTIP and the second hospital provided normal care. The study was approved by local ethical committees. Patients with Stage III and IV cancer in the H&N region were recruited between their diagnosis and treatment. All participants were evaluated at baseline, 3 and 6 months later using the Satisfaction with Cancer Information Profile (SCIP) and a Cancer Knowledge questionnaire. Data were analyzed using descriptive statistics, *T* tests, chi square tests and finally linear mixed model analyses to test the potential impact of the intervention.

Results: A total of 103 participants participated in this study and complete data at all time points were collected for 96. The Test group reported higher levels of Cancer Knowledge and Satisfaction at all time points ($p < 0.001$ with all comparisons) compared to the Control group.

Conclusion: Our study demonstrated an association between receiving the multimedia based tailored information and higher levels of satisfaction and cancer knowledge compared to those who receive information in ad hoc manner. Implications: Exploring patients' informational needs is necessary before planning information services to them.

© 2013 Elsevier Ltd. All rights reserved.

Introduction

Head and Neck (H&N) cancers are the 8th most common cancers in the world affecting over 500,000 individuals annually [1] and 30–50% of them experience psychiatric morbidity [2,3].

Cancer patients experience an enormous need for information [4] and providing them with necessary information is important [5,6]. Unmet informational needs are common among cancer patients [7]. It has been reported that often health care providers underestimate the informational needs of cancer patients, and give information only to those who actively seek it [8,9]. Information seems to prepare patients towards their treatment, improve treatment adherence and coping abilities and increase satisfaction with care [10–14]. Those patients who are satisfied with information they receive, have a better quality of life and lower levels of anxiety and depression [15]. On the other hand lack of information is associated with psychological distress [16,17].

Health literacy is a big barrier in health care settings. A considerable amount of discrepancy exists between the average patients'

reading and comprehension abilities and the literacy levels needed to understand the information provided to them [18–20]. In Canada, more than half of the working age adults have less than adequate health literacy [20].

Often patients receive information verbally or through information pamphlets [21]. Information can be forgotten when given verbally and written information is not tailored to individuals' needs [22,23]. Cancer patients prefer to receive information in different formats (e.g. information booklets, DVDs and internet) that can be accessible from home [7,24]. Various approaches to provide information to cancer patients have been tried and multimedia approaches are one among them [25,26]. Multimedia can enhance understanding and information retention and improve patients' satisfaction [27,28]. However, this approach has not been used in delivering information to H&N cancer patients. Given these observations, we aimed to investigate if multimodal, tailored information reduces levels of anxiety and depression and increases knowledge and satisfaction in H&N cancer patients when it is given soon after their diagnosis. This paper focuses on the knowledge and satisfaction outcomes. We hypothesized that multi-modal tailored information increases knowledge and satisfaction in H&N cancer patients when compared with H&N patients who receive

* Corresponding author. Tel.: +1 250 885 6974; fax: +1 514 398 7220.

E-mail address: violet.dsouza@mail.mcgill.ca (V. D'Souza).

usual care. In a previous paper, we reported anxiety and depression rating outcomes among the study subjects [29]. In these analyses, we found that the test group had reduced anxiety ratings compared to the control group and that depression ratings were also lower in the test group although the difference was not necessarily significant [29].

Methods

This study was conducted at two academic hospitals in Montreal. The test intervention, the Multimode Comprehensive Tailored Information Package (MCTIP) was delivered at one hospital site, and the second hospital delivered normal care. The test intervention was available to all stage III and IV H&N cancer patients at the test hospital before this research project was initiated. In such a situation, it would have been unethical to use a randomized approach, leading to some participants at the test site not receiving the existing service (the test intervention). To be in accordance with the Belmont principle of beneficence, we chose a non-randomised experimental design. This study was approved by the IRB and the Local Ethics Offices of the participating hospitals.

The sample size was estimated for our main study, based on data from the literature, with an assumption of 80% statistical power and a two-sided significance level of 5% [29]. According to this estimation, 47 subjects per arm were required to demonstrate a difference in 2 points in mean anxiety scores between the Test and Control groups at the primary outcomes point (6 months) following the cancer diagnosis. The satisfaction and knowledge change outcomes reported in this paper were the secondary outcomes in the main study.

Newly diagnosed patients with stage III or IV cancers in the H&N region, who were 18 years or older and who spoke either English or French were included in the study. Those patients who had already begun their cancer treatment and those who had a history or a diagnosis of any cognitive disorders were excluded. Participants were recruited between diagnosis and the initiation of their cancer treatment. All participants signed a written informed consent.

Recruitment

Potentially eligible participants were identified from outpatient clinic reviews and from tumor board discussions and were approached by phone and were informed of the study. If they agreed to participate, appointments were scheduled for interviews to collect baseline data at the hospitals or at their homes. A total of 144 eligible patients were identified at both hospitals, out of them 103 were recruited for the study.

Test intervention

A more detailed description of the test intervention is provided elsewhere [29]. Briefly, the test intervention was a Multimode Comprehensive Tailored Information Package (MCTIP). This is a multimedia based information tool including 5 parts and is available in English and French: a booklet; an interactive computer booth for information specific to certain cancer sites; an animation of treatment procedures; a take-home DVD for patients; and a computer database concerning each patient common to all health professionals so all were discussing the same issues.

The Nurse Pivot (NP) in the H&N cancer care department at the test center delivered the information using the MCTIP and all other resources available at the hospital. This initial information delivery session took about 1.5–2 h. In addition, patients' questions and

concerns were explored, distress levels were assessed and appropriate psychosocial referrals were made based on patients' needs.

Control intervention (normal care)

There were no specific information resources available for the H&N cancer patients at the control hospital other than the information pamphlets from the Canadian Cancer Society. The control intervention was delivered by a different NP at the control hospital in an ad hoc manner, with some patients meeting the NP and others not. Those meeting the NP spent from 15–45 min with her. The NP provided information verbally and this was often, although not always, complemented by pamphlets from the Canadian Cancer Society. Patients' concerns were explored and appropriate referrals were made.

Data collected

At both test and control hospitals, participants received their cancer diagnosis and then immediately started to receive information. Therefore, it was not feasible or appropriate to separate the diagnosis from the initiation of information provision. Therefore baseline data at both sites were collected following diagnosis and initiation of information provision and prior to their cancer treatment.

All participants at both centers were evaluated either in English or French using the Satisfaction with Cancer Information Profile (SCIP) [30] and an H&N Cancer Knowledge Questionnaire at three time points (Fig. 1). Additionally, patients' demographic characteristics, clinical diagnosis and staging and behavioral information such as smoking and alcohol histories were obtained at baseline.

Satisfaction with Cancer Information Profile (SCIP)

This instrument is validated to measure the level of satisfaction with information provision in H&N cancer patients [31]. The SCIP consists of 2 subscales: Subscale A: Satisfaction with the Amount and Content of Information; Subscale B: Satisfaction with the Form and Timing of the Information Received. With both subscales a higher score indicates better satisfaction levels. Since, the SCIP did not have a French version, it was translated into French using the classic forward–backward translation technique [32].

Cancer Knowledge questionnaire

This questionnaire (see Appendix) was developed to test patients' knowledge about their cancer and its management. It was developed in English and then translated into French using the classic forward–backward translation technique [32]. It has 20 multiple choice questions with some questions having the possibility of choosing more than one answer. Scores were generated by simply adding the total correct responses to a maximum score of 25.

Data analysis

Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 20. The significance level was set at $p < 0.05$ (two tailed). *T*-test and chi-square of Fisher's Exacts test were used to describe the demographic, clinical and behavioral characteristics of all the participants ($n = 103$). Data were analyzed using parametric tests as they were normally distributed. For all those followed up participants ($n = 96$), mean satisfaction and cancer knowledge were calculated and then, linear mixed model analysis were performed to investigate the potential impact of the intervention on Satisfaction and Cancer Knowledge ratings of the participants. In the linear mixed model, we used the variable Time (T0, T1 and T2) as a within-subject factor and the variable

Download English Version:

<https://daneshyari.com/en/article/6055074>

Download Persian Version:

<https://daneshyari.com/article/6055074>

[Daneshyari.com](https://daneshyari.com)