Patient Education and Counseling 76 (2009) 120–125

Contents lists available at ScienceDirect

Patient Education and Counseling

journal homepage: www.elsevier.com/locate/pateducou

Provider Perspectives

Implementing patient decision support tools: Moving beyond academia?

James D. Harrison [a,*], Lindy Masya [a], Phyllis Butow [a,b], Michael Solomon [a,c], Jane Young [a], Glenn Salkeld [a], Tim Whelan [d]

[a] Surgical Outcomes Research Centre (SOuRCe), Sydney South West Area Health Service & School of Public Health, University of Sydney, Sydney, NSW, Australia
[b] School of Psychology, University of Sydney, Sydney, NSW, Australia
[c] Discipline of Surgery, University of Sydney, Sydney, NSW, Australia
[d] Department of Radiation Oncology, Hamilton Regional Cancer Centre, Hamilton, Canada

ARTICLE INFO

Article history:
Received 27 June 2008
Received in revised form 2 October 2008
Accepted 12 December 2008

Keywords:
Decision support tools
Decision-making
Patient choice
Surgery
Rectal cancer

ABSTRACT

Objective: To ascertain the feasibility of implementing three decision support tools (DSTs) for people with rectal cancer *within* the surgical consultation.
Methods: Twenty colorectal surgeons participated in a focus group or individual interviews. Colorectal surgeons were also asked to complete a self-administered questionnaire.
Results: All surgeons responded encouragingly to the concept of DSTs. However, for every positive statement an accompanying caveat was made and these were either a criticism of each tool or a barrier to their implementation. Surgeons stated DSTs should be used by patients and surgeons together (80%). The majority (70–75%) thought each tool was 'useful' or 'extremely useful'. However, there were strong views that in their current form the DSTs would not feasible to be used within the surgical consultation. Time restraints, personal and clinical characteristics of the patient, the content of each tool, the potential negative impact on the doctor–patient relationship were noted as real barriers to their implementation.
Conclusion: Surgeons have identified a number of barriers that may limit implementation of DSTs into routine clinical practice.
Practice implications: Feasibility and implementation studies have the potential to provide important information to help guide development, evaluation and implementation of DSTs.

1. Introduction

In 1983 the first formal evaluations of interventions designed to improve decision-making for surgery were undertaken in a randomised controlled trial (RCT) [1,2]. This, combined with social and political changes, has led to a growing expectation that patients should be involved in the decision-making process about their health care. Over the past 20 years, there has been a proliferation in the development and evaluation of interventions, collectively known as decision support tools (DSTs) in a variety of settings. The formats of these tools include booklets, decision boards, computer programs, videotapes and audio materials. DSTs lead patients through a process of clarifying their personal values in relation to a particular clinical decision and weighing up the potential benefits and risks of treatment options during decision-making [3]. DSTs provide a structure to decision-making which is achieved through the presentation of evidence-based information and are supplementary to practitioner counselling [3]. Some tools can be used within the patient–practitioner consultation whereas others are designed for patients to use on their own or with their support network.

Evidence from RCTs and systematic reviews demonstrate that DSTs increase patients' desire to participate meaningfully in decision-making, encourage question asking, promote information seeking behaviours and improve knowledge about available treatment options. In addition DSTs have been reported to reduce decisional conflict without increasing anxiety [3,4]. DSTs have been shown to be particularly useful in oncology in situations where the potential benefits of treatment are unclear (clinical equipoise) [5] and the side effects of treatment are substantial.

However, there is limited information about actual use overall, and of different types and formats of DSTs, outside the academic research setting. The progression in using DSTs from innovation to routine clinical use is complex and there is some evidence that following positive evaluation in clinical trials, DSTs are *not* being widely used in clinical practice [6–9]. For example, an investigation into 270 Canadian physicians' views of three different DSTs found a disparity between intentions to use and actual use [9]. When

* Corresponding author at: Surgical Outcomes Research Centre (SOuRCe), Royal Prince Alfred Hospital, PO Box M157, Missenden Road, NSW, 2050, Australia
Tel.: +61 2 9515 3203; fax: +61 2 9515 3222.
E-mail address: james.harrison@email.cs.nsw.gov.au (J.D. Harrison).

0738-3991/$ – see front matter © 2008 Elsevier Ireland Ltd. All rights reserved.
doi:10.1016/j.pec.2008.12.013

reviewing the tools, 54% of physicians' indicated that they would use the tools in their practice setting, however, only 32% had followed through with this intention 3 months later. This is problematic given the substantial research that is undertaken in this area to develop and evaluate DSTs. To our knowledge there are no studies that have assessed the feasibility of using and implementing DSTs *within* the surgical consultation, where most treatment decisions for cancer occur and most referrals for adjuvant therapy are made [10].

The decision whether or not to have adjuvant treatment for rectal cancer is a good setting for DST evaluation, since it requires the assimilation of complex information relating to survival, the risk of recurrence and quality of life implications. Furthermore, the decisions about treatment are controversial due to varying clinical opinion and the quality of life implications of treatment [11–13]. Thus the current study was conducted to explore three formats of one DST and to ascertain the feasibility of implementing any of these *within* the surgical consultation for people with rectal cancer.

2. Methods

2.1. Decision support tool development

A decision aid (DA) booklet focusing on the decision whether or not to have adjuvant therapy before and/or after surgery was developed for use by people with rectal cancer and their surgeon during the clinical consultation. The format of the DA was based on the Ottawa Decision Support Framework [14] and followed the C.R.E.D.I.B.L.E. criteria, developed by the Cochrane Systematic Review of Patient Decision Aids [15]. The DA presented for each treatment option, the treatment process, risk of recurrence and side effects in numerical and graphical format, a summary of the pros and cons of each option, and a values clarification exercise in which patients rated the importance of these pros and cons. The DA was piloted in focus groups with people who had been treated for rectal cancer and a sample of elderly people who had participated in a bowel screening program, and was found to be acceptable, useful and unbiased [16]. Following feedback from surgeons that the booklet was too long to be used in standard consultations, the DA was translated into three different formats:

2.1.1. Computer decision aid (DA)

This computer DST, based on a similar DA developed by Whelen and co-workers [17] in the context of breast cancer, is comprised of a series of screens that can be navigated through to provide increasingly detailed evidence-based information. The surgeon and patient may move through the screens in any order and to the level of detail requested by the individual patient. The analogy here is the tool is like a tree with the main levels of information and voluntary branches for extensions for more information when desired. A summary of the data viewed is presented on the final screen. Values clarification exercises are not included in this DST.

2.1.2. Decision board

An A3 size paper based decision board was produced based on a decision board developed for women with breast cancer [17]. The type of data presented is exactly the same as the computer DA however, with less detail. Similarly, consideration of patient values is not incorporated into the DST.

2.1.3. Annalisa©

An Annalisa© template for people with rectal cancer was developed. Annalisa© is an interactive decision support and communication package grounded in decision analysis [18]. It is a software package that calculates the "best decision" for the individual patient. The decision is based on patient preferences for treatment outcomes, both in terns of survival and quality of life, which are weighed against a core set of evidence data. Patient values and preferences for each treatment outcome drive the decision-making process.

2.2. Surgeon sample, study design and procedure

Ethical approval for the study was granted by the University of Sydney and Sydney South West Area Health Service (RPAH Zone). Colorectal surgeons who were members of the Colorectal Surgical Society of Australia and New Zealand (CSSANZ) NSW Branch attending continuing medical education (CME) sessions were approached to participate in a focus group. Colorectal surgeons or fellows based in the Sydney and Newcastle metropolitan area who could not attend the CME session were also approached to participate in a face-to-face interview. Surgeons attending a CME session and those interviewed were shown each DST during a 20 minute presentation. Each of the three DSTs was demonstrated. Information about the aim of each tool, the development process and evidence base of the data used in each tool, and how to use and navigate them, was provided. Surgeons were then given the opportunity to ask questions and a discussion was encouraged to debate the relative merits of each DST, their usefulness and application to clinical practice. Responses to the group discussion were recorded. Surgeons then completed a confidential, de-identified questionnaire to provide quantitative and qualitative feedback on the DSTs.

2.3. Questionnaire development

The questionnaire developed to ascertain surgeons' views regarding the DSTs comprised several sections.

2.3.1. Views and current approaches to shared decision-making and DSTs

A measure adapted from previous studies was used to determine views of shared decision-making [19]. Surgeons were asked via open-ended questions to provide details of the format of information they currently provided to their patients and whether there were specific groups of patients who should have access to DSTs *within* consultation. Participants were then asked in what context should DSTs be used with 'patients individually or with family/friends', 'patients and surgeon together' or 'patients and their oncologist together'.

2.3.2. Views and likely use of DSTs for rectal cancer

Participants were presented with a visual analogue scale to rate the usefulness of each tool (0 (not all useful)–10 (extremely useful)). A free text section was provided for surgeons to provide reasons for their response and views on any potential issues with implementation. Likely use of each DST in clinical practice and reasons were determined in open-ended questions. Thirteen statements were presented to elicit perceptions of the characteristic of each tool [9]. Participants were asked if they agreed with each statement. The statements related to the impact of each DST on the surgeons' clinical practice (eight items), the DST meeting patients' needs (three items) and DST content/format (two items). Surgeons were also asked to rate their preference for each DST (1 = most preferred and 3 = least preferred).

2.3.3. RCT participation, personal and professional characteristics

Finally, surgeons' willingness to participate in a RCT for each DST ('yes', 'no') was determined, along with a record of personal and professional (age, gender and caseload) information.