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Shared Decision Making in Vascular Surgery: An Exploratory Study☆

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WHAT THIS PAPER ADDS

Nowadays, ethical and social imperatives promote shared decision making (SDM) as a means of improving the quality of patient care. Patient involvement in treatment decision making is not yet common practice in the field of vascular surgery. This study shows that, although most surgeons and patients appear satisfied with the course of their consultation, the level of SDM is still low. Some particular aspects of the consultation can and should be improved. In general, SDM in vascular surgical consultations could be improved by increasing the surgeons' and patients' awareness and knowledge of the concept and conduct of SDM.

Objectives: Shared decision making (SDM) is a process in which patients and their doctors collaborate in choosing a suitable treatment option by incorporating patient values and preferences, as well as the best available evidence. Particularly in vascular surgery, several conditions seem suitable for SDM because there are multiple treatment options. The objective of this study was to assess the degree of SDM behaviour in vascular surgery.

Methods: Vascular surgeons of four Dutch hospitals selected consultations with patients who were facing a treatment decision. Immediately after the consultation, patients and surgeons completed the (subjective) SDM Q-9 and SDM Q-doc questionnaires respectively, to appreciate the perceived level of SDM behaviour. Two evaluators independently and objectively rated SDM behaviour in the audiotaped consultations, using the Observing Patient Involvement (OPTION-12) scale.

Results: Nine vascular surgeons and three vascular surgeons in training conducted 54 consultations. The patients' median SDM Q-9 score was high, 93% (IQR 79–100%), and 16/54 (29.6%) of them gave the maximum score. The surgeons' median score was also high, 84% (IQR 73–92%), while 4/54 (7.4%) gave the maximum score. In contrast, mean OPTION score was 31% (SD 11%). Surgeons hardly ever asked the patients for their preferred approach to receive information, whether they had understood the provided information, and how they would like to be involved in SDM.

Conclusions: Currently, objective SDM behaviour among vascular surgeons is limited, even though the presented disorders allow for SDM. Hence, SDM in vascular surgical consultations could be improved by increasing the patients' and surgeons' awareness and knowledge about the concept of SDM.

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INTRODUCTION

The aim of most surgical procedures is to cure the patient of a disease or to prevent sequelae by early intervention. However, invasive treatment options always carry the risk of developing complications that may lead to direct and sometimes even permanent injury to the patient. In weighting the benefits and risks of surgery it is essential to inform the patient about the pros and cons of all available treatment options and to invite them to express their personal preferences.[1]

Shared decision making (SDM) is a process in which patients and clinicians collaborate in choosing a suitable treatment option by incorporating patient preferences,

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patient values, and best evidence.[2] SDM is increasingly recognised as an ethical and moral standard in medical decision making as it is essential for respecting the patient's autonomy, especially when patients and clinicians are facing complex decisions.[3,4]

Previous studies have found that patients involved in the decision making process are more satisfied, less anxious, and have more knowledge about their disease and possible treatment options.[5–7] As SDM increases the likelihood that patients receive treatments consistent with their personal values, improved health outcomes and higher treatment adherence are reported.[8,9]

Particularly in vascular surgery, several conditions (e.g. abdominal aortic aneurysm (AAA), peripheral arterial disease (PAD), or carotid artery disease) seem particularly suitable for SDM, because multiple treatment options exist and clinicians often face a treatment dilemma. However, little is known to what extent SDM is currently applied in this field. The aim of our study was therefore to explore the extent in which SDM is applied in daily vascular surgical practice.

MATERIALS AND METHODS

To assess the level of SDM, vascular surgeons and vascular surgeons in training at three Dutch university hospitals and one large teaching hospital were invited to participate in the study. Vascular surgeons in training only participated if they were in their last year of training.

Between July 2014 and January 2015, participating surgeons were asked to select consecutive patient consultations in which a treatment decision was to be made. The aim was to obtain at least four audio recordings per surgeon to be able to appreciate intra-doctor variation and to reliably assess the individual surgeon's general performance.

None of the surgeons received any training in SDM before this study. Although surgeons were aware of the topic of the study, both surgeons and patients were not aware of the specific items that were to be measured during the consultation. Patients visited the vascular surgery outpatient clinic with a disorder for which multiple treatment options were available or for which the option not to treat (yet) was also a legitimate alternative.

The consultations were audiotaped after the patient had given written informed consent. Patients were excluded from study participation when they were not able to give informed consent or were unable to complete the questionnaire (e.g. due to cognitive impairment).

The duration of the consultation was recorded as the time the vascular surgeon spent with the patient, excluding the time spent reading the case records or documenting the consultation afterwards.

This study was conducted according to the principles of the Declaration of Helsinki.[10] The medical ethics review board of the Academic Medical Center approved the study but waived the need for ethico-legal adjudication as the study did not have a serious impact on the patients involved and did not interfere with the standard treatment process.

Questionnaires and SDM measures

Before the consultation started, basic demographic data were collected from the patient regarding age, gender, and diagnosis. Immediately after the consultation, patients completed the SDM-Q-9 questionnaire. This previously validated questionnaire appreciates subjectively the experienced level of SDM by assessing nine stages of the decision making process from the patients' perspective on a six-point Likert scale, ranging from 0 (completely disagree) to 5 (completely agree).[11] The surgeon also filled in the SDM-Q-Doc questionnaire directly after the consultation. This questionnaire was developed to measure the SDM behaviour from the perspective of the physician and addresses the same items as the SDM-Q-9 for patients.[12] The nine SDM items are shown in Table 1.

To assess the extent to which the surgeon involved the patients in the decision making process objectively, two evaluators (T.B.S., D.T.U.) independently rated the audiotaped consultations using the Observing Patient Involvement (OPTION) instrument and the accompanying interpretation guide. This instrument measures 12 SDM specific behaviours on a five point Likert scale, ranging from 0 (no SDM behaviour observed) to 4 (SDM behaviour exhibited at a high standard).[13] The 12 items of the OPTION instrument are presented in Table 2. When agreement between the two evaluators was good ($\leq$ 1 point difference in score for an individual item) the average OPTION scores of the two evaluators were calculated for each item separately, so scoring half points was possible. When there was moderate disagreement between the evaluators (i.e. $>$ 1 point difference in score for an individual item) consensus was reached by discussion. Non-verbal communication could obviously not be appreciated from the audio recordings, except for meaningful periods of silences.

SDM-Q-9, SDM-Q-Doc, and OPTION scores were transformed from the original score into percentages (SDM-Q-9 and Q-Doc original scores between 0 and 45, OPTION raw scores between 0 and 48) to simplify the interpretation of the scoring (0% = no SDM behaviour; 100% = ideal SDM behaviour). Transforming this score into percentages of the maximum score is in accordance with other research on this topic.[14–16]

Table 1. SDM-Q-9 and SDM-Q-Doc items.[11,12]

Item 1:	Clarifying a decision needs to be made
Item 2:	Eliciting the patients' preferred involvement
Item 3:	Stating there is more than one way to deal with the problem
Item 4:	Explaining pros and cons of treatment options
Item 5:	Investigating if the patient has understood all the information
Item 6:	Identifying the patients' preferred treatment option
Item 7:	Weighting the treatment options
Item 8:	Making a shared decision
Item 9:	Agreement on follow up arrangements