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Centre Nurses for Callers Facing Values-Sensitive Health Decisions

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Design and Evaluation of an Implementation Intervention to Enhance
Decision Support by Call Centre Nurses for
Callers Facing Values-Sensitive Health Decisions

Dawn Stacey RN, MScN, PhD

Thesis submitted to the
Faculty of Graduate and Postdoctoral Studies
in partial fulfillment of the requirements for the
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*A mind once stretched by a new idea, never regains
its original dimensions.*

Oliver Wendell Holmes Jr.
American Jurist 1841-1935

Abstract

Purpose

To evaluate the process of implementing decision support by call centre nurses for callers facing values-sensitive health decisions.

Design

Exploratory case study guided by the Ottawa Model of Research Use with an embedded randomized controlled trial.

Setting

A Canadian province-wide call centre.

Intervention

Online autotutorial, skill-building workshop, decision support protocol, and performance feedback using simulated callers.

Methods

1. Barriers assessment using a survey, interviews, focus groups, and quality audit of baseline simulated calls.
2. Comparison of intervention and control groups using a knowledge test, quality audit of simulated calls, and acceptability surveys.
3. Assessment of the uptake and sustainability of decision support using a survey, interviews, and focus groups.

Results

1. Of 108 nurses, 57 responded to the barriers survey. Nurses had positive attitudes toward patient participation in decision making and their role in supporting callers. Main barriers included inadequate nurses' knowledge, skills, and confidence in providing decision support; lack of process to guide decision support calls; patient

decision aids not formatted for telephone use; low public awareness; pressure to minimize call length, and unclear program direction.

2. Compared to controls ($n=20$), nurses ($n=19$) who participated in the intervention had improved knowledge ($M = 74\%$ vs. 60% , $p=0.007$) and provided a higher quality of decision support particularly in the domains of discussing values and support ($M = 81.3\%$ vs. 45.8% , $p<0.0001$) without significantly increasing call duration ($M = 18.5$ vs. 16.7 min, $p= 0.73$). Nurses were satisfied with the multifaceted intervention.

Twelve control group nurses opted to complete the training after the trial concluded.

3. Within 3 months post-intervention, 25 of the 31 nurses ($n=19+12$) completed the decision support uptake survey. Of these, 44% had used the protocol with real callers and 88% intended to use it. Nurses spoke positively about their experiences with real callers. Suggestions to improve sustainability included integrating the protocol in the call centre database, reformatting the patient decision aids, clarifying the program direction, establishing call length guidelines tailored to call type, implementing decision support training for all staff, and publicizing the new decision support services.

Conclusions

The multifaceted intervention and process evaluation measures may provide a feasible approach to expanding call centre services to include values-sensitive decision support. However, to ensure sustainability, barriers within the practice environment need to be addressed and patient outcomes evaluated.

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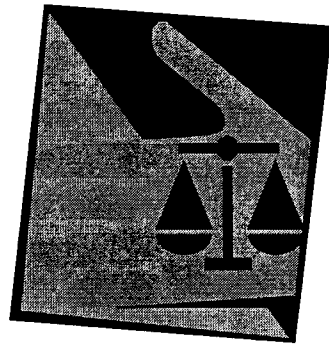
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List of Abbreviations

AB	Alberta
<i>ANCOVA</i>	Analysis of covariance
BC	British Columbia
BSc	Bachelor of Science
CIHR	Canadian Institutes of Health Research
<i>CI</i>	Confidence interval
<i>ICC</i>	Intraclass correlation coefficient
DSAT	Decision support analysis tool
FTE	Fulltime equivalent
<i>M</i>	Mean
NHS	National Health Service
NB	New Brunswick
n/a	Not assessed
<i>OR</i>	Odds ratio
OHRI	Ottawa Health Research Institute
<i>p</i>	Probability
RNABC	Registered Nurses Association of BC
<i>RR</i>	Relative risk
<i>SD</i>	Standard deviation
<i>SE</i>	Standard Error
US	United States
<i>WMD</i>	Weighted mean difference

Chapter 1

Introduction



Statement of the Problem

Over the last several years, there has been a shift from a paternalistic model of decision making to decisions shared between patients and their practitioners. In this newer model, physicians bring their expertise in diagnosing and treating illness, while patients share their personal experiences shaped by their social circumstances and preferences (Charles, Gafni, & Whelan, 1997; Coulter, 2002; Deber, 1994a; Deber, 1994b). Three recent national surveys indicated that most Canadians want to be actively involved in making health decisions (Martin, 2002; McGee, 2003; O'Connor et al., 2003b). The Canadian public's desire for increased participation in decision making is thought to be driven by improved education levels, enhanced access to health information, and less deference to authority figures. There have also been an increasing number of practice guidelines identifying options that are sensitive to patient values and a movement among governments to introduce informed consent legislation and encourage increased patient involvement in decision making as methods of improving population health. (Federal/Provincial /Territorial Advisory Committee on Health Info-structure, 2000; BC Ministry of Health and Ministry Responsible for Seniors, 1997; Evans, Edwards, & Elwyn, 2003; Harris et al., 2001; Kemper & Mettler, 2002; Kennedy, 2003b; NB Premier's Health Quality Council, 2003; O'Connor et al., 2003a; Pietroni, Winkler, & Graham, 2003; Sanmartin, Houle, Berthelot, & White, 2003).

For some health decisions, described by Wennberg (2002) as “effective-care” decisions, there is an obvious “best choice” with clear evidence that the expected harms are small compared to the benefits. For other decisions however, the best choice is unclear, either because of limited evidence on outcomes or the need to make trade-offs between known benefits and harms. These decisions are known as “values-sensitive” decisions because the best choice depends on how individual patients value benefits, harms, and scientific uncertainties (O'Connor, Légaré, & Stacey, 2003c; Wennberg, 2002). A national survey of 635 Canadians revealed that 65% had faced values-sensitive health decisions (O'Connor et al., 2003b), the most common of which were about surgery (e.g., hysterectomy for menorrhagia), followed by medications (e.g., hormone therapy), reproductive options (e.g., birth control, childbirth), and institutionalization of a family member. Of those faced with these types of decisions, 59% experienced decisional conflict (i.e., uncertainty) due to

deficits in their knowledge, values clarity, support, or skills in decision making. Other studies have shown that unresolved decisional conflict reduces decision quality (i.e., informed values-based choices) and leads to decision delay, failure to implement or sustain a chosen option, regret, and dissatisfaction (O'Connor, 1995; O'Connor et al., 2003a; O'Connor, Wells, Jacobsen, Elmslie, & Tugwell, 2001; Sun, 2004; Wennberg, 2002).

Compared to effective-care decisions, decision support for people facing values-sensitive health care is characterized by non-directive counseling or coaching, patient deliberation, more involved patient-practitioner interaction, and the need for interventions to address modifiable factors contributing to decisional conflict (O'Connor et al., 2003c). Patient decision aids and nurse coaching, as adjuncts to counseling, are effective interventions for improving the quality of values-sensitive decisions (Kennedy et al., 2002; O'Connor et al., 2003a). However, research is needed to determine effective strategies to implement these decision support interventions in the health system, the practitioner role in providing decision support, and broader population-based approaches for supporting individuals making values-sensitive decisions (Edwards, Evans, & Elwyn, 2003; Holmes-Rovner et al., 1999; O'Cathain, Walters, Nicholl, Thomas, & Kirkham, 2002; O'Connor et al., 2003a).

In Canada, health call centres are emerging to provide public access via telephone to nurses who triage symptoms, provide health information, and, in some call centres, coach callers in making health decisions (Stacey et al., 2003). Yet, little is known about the delivery of values-sensitive decision support via these telephone-based programs (Bunn, Byrne, & Kendall, 2004; Leibowitz, Day, & Dunt, 2003; Stacey, 2002; Stacey et al., 2003).

Purpose

The purpose of this dissertation was to conduct a prospective intervention study (see Table 1.1), guided by the Ottawa Model of Research Use (Graham & Logan, 2004). Specific objectives were to

1. Describe the process of implementing decision support by nurses at a provincial health call centre for callers facing values-sensitive health decisions.
2. Design and evaluate a multifaceted intervention to improve the quality of values-sensitive decision support.

Table 1.1

Overall Design of the Proposed Prospective Theory-Driven Intervention Study

Case Study Method		Randomized Controlled Trial	
		Intervention (Based on baseline barriers assessment)	Control Group (<i>n</i> =20)
I. Baseline assessment of barriers and facilitators to implementation of values-sensitive decision support			
- Interviews of a purposeful sample of 4 administrators - Focus group with a purposeful sample of 6-8 nurses - Barriers survey of total population of nurses (<i>N</i>=108)			
Taped call of nurses' decision support provided to simulated callers (<i>n</i>=41) [1]			X
II. Ongoing monitoring of organizational documents and process of implementing values-sensitive decision support		[2] Satisfaction with autotutorial	X
		[3] Knowledge test	X
			X
		B. Home practice using a decision support protocol	X
		C. Skill-building workshop - feedback on simulated call audit - example of quality decision support via telephone - role play using the decision support protocol	X
		D. Decision support protocol integrated in practice with real callers	X
III. Uptake of values-sensitive decision support, remaining barriers, and sustainability of practice changes		[6] Taped call of nurses' decision support provided to simulated callers	X
		Repeat 2 to 5	
		Repeat A, B, C, D	X

Conceptual Framework Explaining Uptake of Innovations

The Ottawa Model of Research Use is a planning, action-oriented, conceptual framework (Graham & Logan, 2004; Logan & Graham, 1998). According to this framework, the six key components central to the uptake of research-based innovations into practice are the innovation, potential adopters, practice environment, interventions, adoption, and outcomes (Figure 1.1). Given that the characteristics of each component depend on the clinical practice setting, the process involves

- (a) assessing barriers and facilitators at the level of the innovation, potential adopters, and practice environment
- (b) designing and implementing interventions to address barriers
- (c) monitoring the adoption of the innovation
- (d) evaluating the implementation process and outcomes

The primary assumption underlying the Ottawa Model of Research Use is that interventions tailored to overcome identified barriers and enhance existing facilitators will result in increased adoption of the innovation. This model was chosen for its action orientation, utility for a broader assessment of factors influencing uptake of innovations, and previous use in evaluating the implementation of clinical practice guidelines and patient decision aids (Graham et al., 2003; Graham & Logan, 2004; Graham, Logan, Davies, & Nimrod, 2004; Logan, Harrison, Graham, Dunn, & Bissonnette, 1999; Lorimer, 2004).

Literature Review

The literature review was guided by four key components in the Ottawa Model of Research Use (Graham & Logan, 2004): (a) The characteristics of the innovation itself (i.e., decision support); (b) the practice environment in which the innovation will be used (i.e., a call centre); (c) the potential adopters (i.e., nurses); and (d) the implementation strategies to manage barriers and facilitate adoption of quality decision support. The search strategy included electronic databases (MEDLINE, CINAHL, PubMed), table of contents of recently published journals, reference lists of included papers, and the Internet. The search also included two systematic reviews, one on patient decision aids for health decisions (O'Connor et al., 2003a) and the other on telephone triage and call centres services (Stacey et al., 2003).

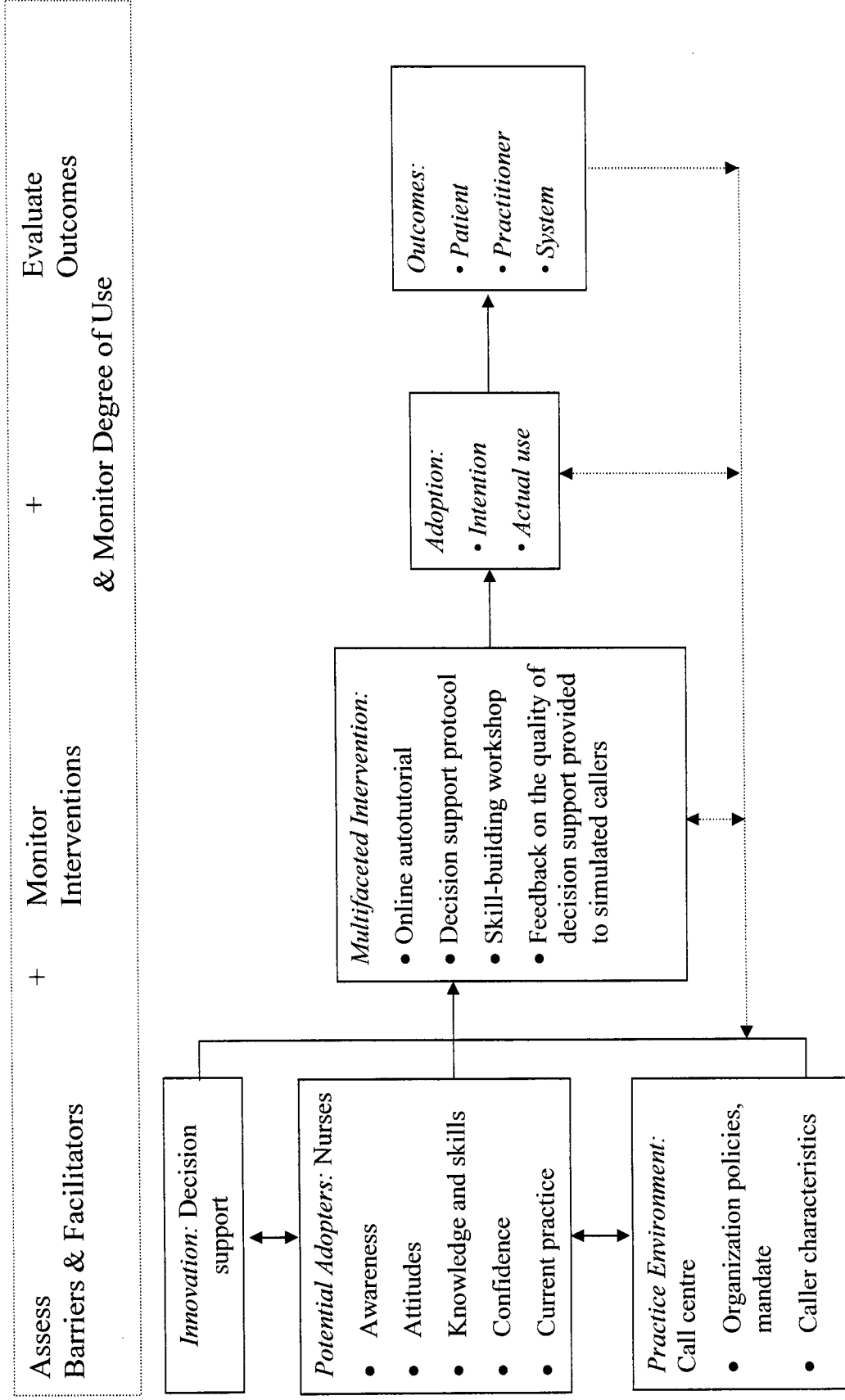


Figure 1.1 *Model of Implementation of Decision Support by Call Centre Nurses Adapted From the Ottawa Model of Research Use*
 Note. From "Translating research: Innovations in knowledge transfer and continuity of care," by I.D. Graham and J. Logan, 2004, *Canadian Journal of Nursing Research*, 36, p. 94. Copyright 2004 by Canadian Journal of Nursing Research. Adapted with permission.

The Innovation: Decision Support

An innovation is defined as “an idea, practice or object that is perceived as new by an individual or other unit of adoption” (Rogers, 1995; p.11). Innovations include new knowledge, clinical protocols, or practice guidelines that result in a change to current practice. In this study, the innovation was the provision of decision support to callers facing values-sensitive health decisions as an adjunct to consultation with their personal practitioners.

Decision support, according to the Ottawa Decision Support Framework (O'Connor et al., 1998a; O'Connor, Jacobsen, & Stacey, 2002), involves

- (a) assessing a person's decisional needs that includes the decision, timing, stage of decision making, preferred role in decision making, decisional conflict (i.e., uncertainty), and related deficits in knowledge, values clarity, and support
- (b) supporting decisional needs by providing evidence-based information, realigning expectations, clarifying values, and coaching to develop an individual's skills in deliberation, communication, and handling pressure from others
- (c) evaluating the progress in resolving decisional needs and the quality of decisions

The Ottawa Decision Support Framework is based on theoretical constructs from prospect theory, decision analysis, decisional conflict, and social support (Ajzen, 1991; Bandura, 2005; Fischhoff, Slovic, & Lichtenstein, 1980; Janis & Mann, 1977; Keeney, 1982; Norbeck, 1988; O'Connor, 1995; Tversky & Kahneman, 1981).

In practice, implementation of decision support is facilitated by access to patient resources and having an interdisciplinary, collaborative approach (see Figure 1.2). For example, the physician may provide brief patient counseling to diagnose the problem, discuss options and outcomes, and screen for patients experiencing decisional conflict and needing further support. Patients can then be directed to access decision aids and coaching by nurses, pharmacists, or other appropriate practitioners (e.g., publicly accessible information services and call centres). A core assumption of the Ottawa Decision Support Framework (O'Connor et al., 2002) is that supporting patients making decisions will result in quality decisions.

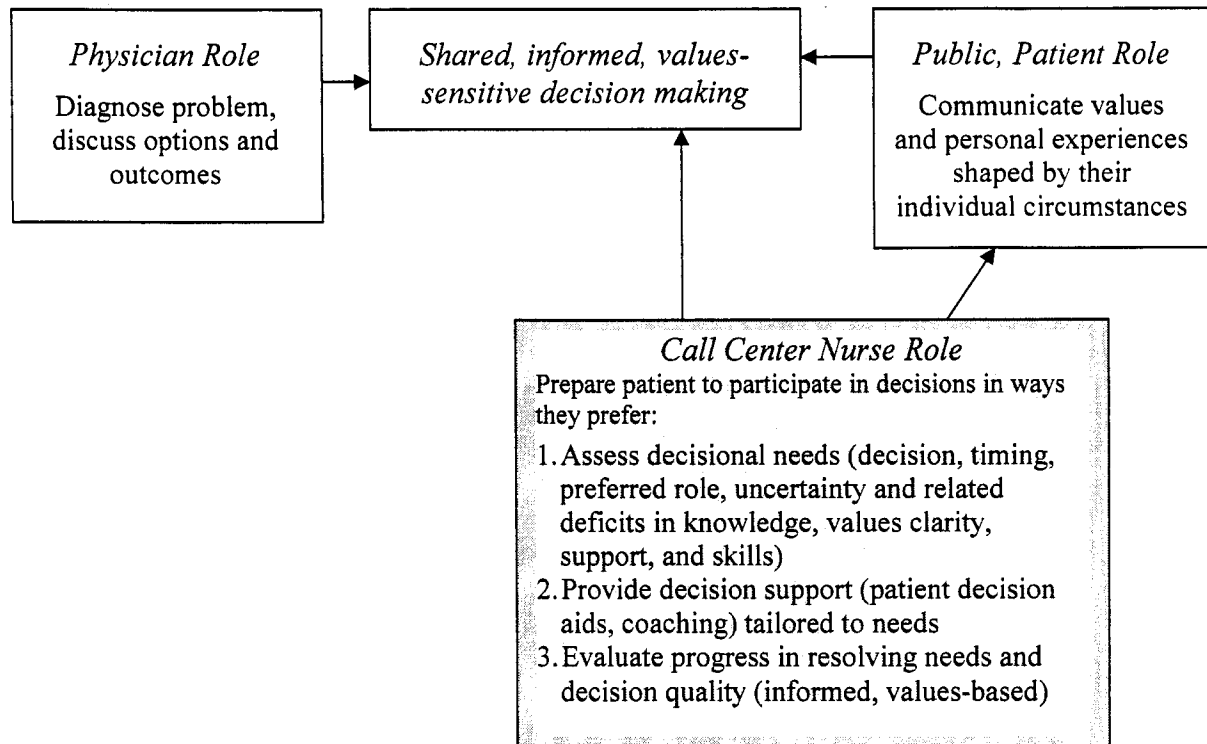


Figure 1.2 *Model of Shared Informed Values-Sensitive Decision Making*

Note: Based on the Shared Treatment Decision Model (Charles et al., 1997), the Autonomous Patient (Coulter, 2002) and the Ottawa Decision Support Framework (O'Connor et al., 1998a).

Decision quality. Defining decision quality is a challenge when outcomes are uncertain or when choices depend on personal values. Several researchers and practitioners (Briss et al., 2004; Kennedy, 2003a; O'Connor, 1995; Ratliff et al., 1999; Sepucha, Fowler, & Mulley, 2004) define good decisions as “informed” (i.e., based on adequate knowledge of options, realistic perceptions of the probabilities of benefits and harms) and “congruent with personal values”. Previous studies have shown that decision quality is improved by patient decision aids (O'Connor et al., 2003a) and nurse coaching (Kennedy et al., 2002).

Condition-specific decision support interventions. Evidence-based patient decision aids were developed as adjuncts to counseling because the complexity of values-sensitive decisions requires more detailed information about options, benefits, harms, probabilities, and scientific uncertainties. Over 500 patient decision aids from around the world have been registered and described in an inventory (O'Connor et al., 2004). These decision aids include information on the health condition stimulating the need for a decision, options and outcomes, probabilities of outcomes tailored to the patient's health profile, values

clarification exercises, balanced examples of others' experiences with decision making, and guidance or coaching in the steps of decision making and communicating using tools such as personal worksheets. The medium for delivery of decision aids varies and includes booklets, display boards, videos, audio-guided workbooks, and more recently, web-based applications (O'Connor et al., 2004).

The Cochrane Collaboration systematic review of patient decision aids for treatment and screening decisions identified 34 published randomized controlled trials of decision aids (19 with coaching tools) and 30 trials in progress (O'Connor et al., 2003a). Of the 34 published trials, 24 compared patient decision aids to usual care, 9 compared more detailed to less detailed decision aids, and 1 compared the effect of nurse coaching combined with patient decision aids to usual care or decision aid alone. Compared to usual care, patients who used decision aids had statistically significantly

- (a) improved knowledge of options, benefits, and harms (*WMD* 19 out of 100, 95% *CI* = 13 to 24)
- (b) more realistic expectations of benefits and harms (*RR* = 1.4, 95% *CI* = 1.1 to 1.9)
- (c) reduced decisional conflict related to feeling informed (*WMD* = -9.1 out of 100, 95% *CI* = -12 to -6)
- (d) smaller proportion of patients passive in decision making (*RR* = 0.7, 95% *CI* = 0.5 to 0.9)
- (e) fewer patients remaining undecided (*RR* = 0.4, 95% *CI* = 0.3 to 0.7).

After using decision aids, patients were 23% less likely to choose elective invasive surgical procedures (e.g., hysterectomy, prostate surgery, breast cancer surgery) in favour of more conservative options (*RR* = 0.8, 95% *CI* = 0.7 to 0.9). The effects on other decisions varied by decision type and depended on baseline rates. Decision aids with more detailed description of outcomes had superior effects over less detailed ones for

- (a) knowledge (*WMD* = 4 out of 100, 95% *CI* = 3 to 6)
- (b) realistic expectations (*RR* = 1.5, 95% *CI* = 1.3 to 1.7)
- (c) agreement between the option chosen and the values associated with the benefits and harms of the options.

Decision aid participants were comparable to controls on measures of satisfaction, anxiety, and health outcomes.

The one large trial of 894 women considering treatment for benign abnormal uterine bleeding evaluated a patient decision aid with nurse coaching, the decision aid alone, and usual care (Kennedy et al., 2002). Nurses were trained in using a structured decision support protocol focused on determining the women's desired role in decision making, clarifying their values for potential outcomes, eliciting their preferred treatment, and coaching them to communicate their values with others. Compared to usual care, women who received the decision aid and subsequent nurse coaching were more satisfied with their participation in decision making ($OR = 1.49$, 95% $CI = 1.11$ to 2.01) and treatment results ($OR = 1.44$, 95% $CI = 1.03$ to 2.01). Moreover, in the decision aid plus nurse coaching arm of the study, hysterectomy rates were the lowest ($RR = 0.78$, 95% $CI = 0.62$ to 0.99), as were the mean costs of care per patient (US\$1566) compared to the arm that received the decision aid alone (US\$2026) or usual care (US\$2751).

A generic decision support intervention. Based on the Ottawa Decision Support Framework (O'Connor et al., 2002), the Ottawa Decision Support Guide (Figure 1.3) is used to guide patients in their health related decision making. It has been evaluated in the form of a patient-administered worksheet accompanying several evidence-based patient decision aids (Comeau, 2001; Dales et al., 1999; Drake, Engler-Todd, O'Connor, Surh, & Hunter, 1999; Fiset et al., 2000; Goel, Sawka, Thiel, Hort, & O'Connor, 2001; Grant, Laupacis, O'Connor, Rubens, & Robblee, 2001; Man-Son-Hing et al., 1999; Mitchell, Tetroe, & O'Connor, 2001; O'Connor et al., 1998b; Stacey, O'Connor, DeGrasse, & Verma, 2003). Using either pretest-posttest methods or randomized controlled trials, these studies demonstrated similar findings to those reported in the Cochrane Collaboration systematic review of patient decision aids described earlier. In one study, of 16 women considering osteoporosis treatment options, 12 women reported that using a worksheet based on the Ottawa Decision Support Guide in conjunction with the decision aid facilitated their decision making (Cranney et al., 2002).

The structured approach of the Ottawa Decision Support Guide can also be used in the clinical setting by practitioners to assess patients' decisional needs, plan tailored interventions to address identified needs, and evaluate the patients' progress in decision making. The first set of questions clarifies the decision, stage of decision making, and preferred role in decision making (Figure 1.3). Questions based on the Decisional Conflict Scale (O'Connor, 1995) assess uncertainty and modifiable factors contributing to decisional

Figure 1.3

Ottawa Decision Support Guide- Practitioner Worksheet

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Patient's Decisional Needs	Date:	Changes Date:
Decision: <i>What decision do you face?</i>		
<i>When do you need to make a choice?</i>		
<i>How far along are you with making a choice?</i> not thought about options thinking about options close to making a choice already made a choice		
<i>Are you leaning toward one option?</i> No Yes, specify _____		No Yes
Certainty: <i>Do you feel sure about the best choice for you?</i> ☐ No ☐ Yes		☐ No ☐ Yes
Knowledge: <i>Do you know which options you have?</i> No Yes		No Yes
<i>Do you know both the good and bad points of each option?</i> No Yes <i>[Verify knowledge: in the table below, fill in options with reasons for and against]</i>		No Yes
Values <i>Are you clear about which good and bad points matter most to you?</i> No Yes		No Yes
Clarity: <i>[Clarify values: show values using stars: 5 stars means very important; 1 star a little important]</i>		
Options	Reasons to choose (benefits)	How much it matters
Option 1		***** ***** ***** *****
Option 2		***** ***** ***** *****
Option 3		***** ***** ***** *****
Support: <i>What role would you prefer in making your choice?</i> Shared with _____ Patient chooses after hearing the views of others _____ chooses for the patient _____		
<i>Do you have enough support and advice from others to make a choice?</i> No Yes No Yes		
<i>Are you choosing without pressure from others?</i> No Yes No Yes		
[probe as needed]	<i>Who else is involved?</i> _____	
	<i>Which option do they favour?</i> _____	
	<i>Are they pressuring you?</i> No Yes No Yes	☐ No ☐ Yes
	<i>How can they support you?</i> _____	
Comments for Next Steps		
☐ get more information ☐ re-align expectations ☐ check deadline for making decision ☐ clarify values ☐ share values with others ☐ manage pressure from others ☐ obtain opinions of others ☐ find out if resources are available to support choice ☐ other: _____		

conflict such as deficits in knowledge, values clarity, and support. A table, formatted as a balance sheet (see Figure 1.3), is completed as the practitioner explores a patient's knowledge of the options, benefits, and harms, and clarifies their values for these outcomes. The involvement of others in the decision can also be probed. Then, interventions can be planned based on the patient's identified needs. The column on the right provides space to document patient progress and change in decisional needs. This evaluation can be done at the end of a consultation or in a follow-up discussion.

The Ottawa Decision Support Guide has been used by over 350 nurses either enrolled in a University of Ottawa graduate course in decision making or working in an American call centre (Health Dialog, 2004). Of 29 students given a survey to evaluate the acceptability of the Decision Support Guide, 17 responded. All 17 nurses indicated that the guide was acceptable in length, clear in terms of the process used to guide decision making, and easy to use. Nurses described it as comprehensive, explicit, linear, and helpful in structuring their discussion with individuals making health decisions.

Health Dialog is an American nurse call centre that has provided services, including decision support for values-sensitive decisions, to health plans and employers since 1997 (Health Dialog, 2004). The company currently serves a population of approximately 10 million. Registered nurses are hired as health coaches to provide guidance and evidence-based health information via telephone and Internet for three types of decisions:

- (a) Triage to the appropriate level of care, including self-care (e.g., bee stings, fever, and sore throat)
- (b) Chronic condition management (e.g., diabetes, asthma, congestive heart failure)
- (c) Values-sensitive health care options (e.g., treatment options for chronic back pain, menorrhagia, breast and prostate cancer, benign prostatic hyperplasia).

Health Dialog's goal includes helping callers to understand the outcomes of available treatment options, recognize and express their preferences for treatment, and acquire decision making skills. The decision tools used by nurses at this company include triage protocols, chronic condition guides, patient decision aids, and the Ottawa Decision Support Guide, adapted for telephone use. There are no known publicly available research studies or program evaluation reports related to their services. An evaluation of nurses' use of the Ottawa Decision Support Guide is in progress.

Decision support delivery models. Although the effectiveness of patient decision aids and nurse coaching have been established, there is a need to evaluate models to implement decision support in health systems to ensure broader population-based access (Edwards et al., 2003; O'Cathain et al., 2002; O'Connor et al., 2003a). Three delivery models for implementing decision support are

- (a) practice-centred decision support by individual practitioners or interdisciplinary teams (Holmes-Rovner et al., 1999)
- (b) direct patient access to decision support through health resource centres and the Internet (Dartmouth-Hitchcock Medical Centre, 2002; Holmes-Rovner et al., 1999; NHS, 2004; O'Connor et al., 2004; Stacey & Penn, 2001)
- (c) health call centres mandated to support callers making decisions (Health Dialog, 2004; Holmes-Rovner et al., 1999; NHS, 2004; Stacey et al., 2003)

Only two studies have evaluated factors influencing the implementation of decision support in practice. A qualitative study was conducted to understand Canadian physicians' perception of barriers and facilitators influencing the use of patient decision aids in their clinical practice (Graham et al., 2003). Of the 67 physicians in this study, most (82%) were willing to consider providing decision aids to their patients. Factors positively influencing uptake of decision aids were (a) characteristics of the decision aid such as easy to understand, well organized, evidence-based, able to try it, stepwise approach to decision making, improves processes, and balanced; and (b) physicians' perception of their patients' readiness for decision making such as literate, motivated, and healthier. Barriers to using decision aids included (a) content that was too complex or too simple, (b) inclusion of an audiotape, (c) amount of time required to make it available to patients, (d) outdated evidence, (e) cost, and (f) limited accessibility.

The second study evaluated the implementation of two patient decision aids (breast cancer surgery and treatment of ischemic heart disease) into group practices at three American hospitals (Holmes-Rovner et al., 1999). Responses to a survey returned by 34 of the 35 practitioners (e.g., physicians, nurses, social workers) indicated that the patient decision aids were acceptable and that respondents felt they should be used for informing patients about the decision. However, over a five-month study period, the use of these aids in practice was much lower than expected with only 14 patients directed to use them across the

three sites. The barriers identified as hindering the use of the decision aids included (a) practitioner perception of low readiness for patients to participate in treatment decision making, (b) centralized distribution removed from the clinical setting, (c) lack of time in the clinical setting to make the referrals, and (d) forgetting to offer patients the decision aids. To facilitate the use of patient decision aids, respondents suggested integrating them in the consent process, creating a quality care indicator for their routine use, providing direct patient access, and offering financial incentives to practitioners for their use.

Practice Environment – BCNurseLine

The nursing practice environment has a strong influence on the success or failure of evidence transfer (Estabrooks, 2003; Graham & Logan, 2004). According to the Ottawa Model of Research Use (Graham & Logan, 2004), potential environmental barriers and facilitators influencing the use of evidence in practice include structural factors (e.g., the process of organizational decision making, policies, workload, access to resources, and incentives); social factors (e.g., personalities, local opinion leaders, culture); and patient factors (e.g., requests for information, desired role in health decisions). In this study, the practice environment was a large population-based call centre, serving the province of British Columbia [BC] in western Canada.

Health call centres in Canada. Over the last five years in Canada, health call centres have been rapidly emerging as a means of providing prompt access to registered nurses for triaging symptoms and obtaining health information. Over 95% of Canadians have access to province-wide call centres in seven provinces (British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, and New Brunswick) (Stacey et al., 2003). In a survey of Canadian call centres, the BC and AB provincial programs identified that their mandate included enabling callers to make health decisions (Stacey et al., 2003). The BC program also provides public access to evidence-based patient decision aids on their website.

There have been four systematic reviews conducted of telephone consultation for health issues (Bunn, Byrne, & Kendall, 2004; Leibowitz et al., 2003; Stacey, 2002; Stacey et al., 2003). Findings from these reviews suggest that nurse telephone consultation for symptom triage reduces immediate physician workload, encourages self-management of illnesses, and decreases healthcare costs for telephone consultation offered out-of-regular

office hours, without increasing adverse outcomes. When telephone consultation was combined with self-care resources, individuals were more likely to use self-care resources and less likely to contact their physician (Stacey, 2002). There were no studies found that evaluated the quality or effectiveness of decision support provided for values-sensitive decisions through any Canadian call centres or elsewhere.

BCNurseLine call centre program. The BCNurseLine call centre is one of four components of the BCHealthGuide program that also includes a handbook, First Nations companion handbook, and Internet-based health information. This program was initiated province-wide in April 2001 to serve a population of about 4.2 million (Stacey et al., 2003). It is based on the Healthwise Knowledgebase (BC Ministry of Health [BC MOH], 2002) purchased from Healthwise, a nonprofit US organization providing health information since 1975 to promote self-care, facilitate shared decision making, and empower patients to be partners with their practitioners (Healthwise, 2003). The BCHealthGuide program fits within the broader provincial health goals of patient-centered, high quality, and sustainable health care and includes providing opportunities for individuals to make choices to improve their health (BC Government, 2003; BC Ministry of Health and Ministry Responsible for Seniors, 1997).

The BCNurseLine is a service contracted out by the provincial government to an independent company, TCM TeleCare Management Inc. (Philip, 2003). The objectives of the BCNurseLine are to promote self-care activities, help callers triage symptoms to the appropriate level of healthcare (including self-care), decrease pressures on emergency departments, minimize health care costs, and enable people to make wise health decisions (Stacey et al., 2003). No statistical information is collected on calls about values-sensitive health decisions and there has not been any evaluation of the quality of decision support provided for these calls (Mullett, 2000).

Potential Adopters - Nurses

Characteristics of potential adopters likely to influence their uptake of innovations in clinical practice are their awareness of the innovation, attitudes, knowledge, skills, and current practice (Graham & Logan, 2004). Nurses working at the BCNurseLine were the potential adopters of interest in this study. All nurses at the BCNurseLine are registered

nurses, members of the BC Nurses Union, and licensed by the Registered Nurses Association of BC (RNABC). Minimum preparation for licensure is college diploma although nurses may hold bachelor's degrees and graduate degrees. As part of the yearly licensure renewal (RNABC, 2002), nurses are expected to

- (a) self-assess their learning needs and identify areas to enhance their practice
- (b) obtain peer feedback on their performance
- (c) participate in learning activities to address their identified needs
- (d) reflect on the impact of enhanced competencies on their practice

Intervention Strategy

For smooth adoption of innovations into clinical practice, strategies are designed to minimize the barriers and build upon the facilitators (Graham & Logan, 2004). Table 1.2 summarizes the barriers and facilitators influencing uptake of innovations based on Roger's theory of diffusion of innovation (1995) and the Ottawa Model of Research Use (Graham & Logan, 2004), as well as findings from the implementation of practice guidelines (Espeland & Baerheim, 2003) and decision support into clinical practice (Graham et al., 2003; Holmes-Rovner et al., 1999). As reported in numerous systematic reviews, the most effective interventions for implementing practice guidelines, primarily in physicians' practices, were reminders, dissemination of educational materials, audit and feedback, and multiple interventions with educational outreach (Grimshaw et al., 2001; Grimshaw et al., 2004; Oxman, Thomson, Davis, & Haynes, 1995; Wensing, van der Weijden, & Grol, 1998). Absolute improvement in practitioner behaviours ranged from 14% with reminders to 6% with multiple interventions (Grimshaw et al., 2004). No relationship was observed between the number of interventions and improvement in practitioner behaviours. One systematic review of 18 studies, primarily intended to change nursing practice, concluded that educational interventions were more effective than passive approaches (Thomas, McColl, Cullum, Rousseau, & Soutter, 1999). However, most studies have focused on the effectiveness of implementation strategies to change medical practice and none of the studies evaluated implementation of decision support by nurses.

Table 1.2

Barriers and Facilitators Influencing Uptake of Innovations in Clinical Practice

	Innovation	Potential Adopters	Practice Environment
Facilitators	• easy to understand • well-organized • evidence-based • relative advantage over and compatible with current practice • simple to discontinue use if not effective • observable effect on practice outcomes • modifiable • credible development process	• positive attitude toward the innovation • knowledge & skills for using the innovation • personal expectations (e.g., able to try it, usefulness, improve process of care) • perception of patients readiness to use decision aids (e.g., literate, motivated, healthier)	• integration of innovation within usual practice • creating a quality care indicator for routine use of the innovation • having a procedure for using the innovation that is seamless and effortless • direct to patient access to innovations • reimbursement incentives • linking the use of decision aids with informed consent procedures
Barriers	• content that is too complex or too simple • confusing information • outdated evidence • limited accessibility • time consuming • costly	• lack of awareness of the innovation • low expectancy that using the innovation will improve patient outcomes • concerns about using the innovation • lack of motivation and/or self-efficacy to make the practice change • forgetting to use the innovation	• lack of time • patient expectations that are different from innovation • lack of resources including human resources • increased malpractice liability • lack of access to alternative health care services • negative pressure from colleagues or organization • poor communication of initiatives • culture not receptive to change

Summary of Literature Review

There is currently a shift from paternalistic to shared decision making in which patients are more involved in making health related decisions together with their practitioner. However, Canadians faced with values-sensitive decisions are likely to experience decisional conflict and need guidance in developing their personal capacity and skills in decision making. Effective decision support interventions exist as patient administered decision aids or protocols to guide practitioners coaching patients. However, there has been no wide-spread implementation of these interventions and very limited evaluation of models for delivering population-based decision support services.

The BCNurseLine call centre provided an ideal setting to conduct the first implementation study of decision support for values-sensitive health decisions for several reasons. First, this Canadian call centre has an advantage over American centres in that it is population-based with toll-free telephone access for all residents of BC. Second, it provides public access to a database of health information that includes over 95 patient decision aids. Third, providing values-sensitive decision support is within its mandate but the call centre has not yet fully implemented or evaluated this part of the program. And finally, call centres are expanding across Canada and their nursing services via telephone are evolving. Therefore, research in one Canadian call centre is likely to benefit similar programs in Canada and elsewhere.

General Methodology

The main research methods employed in this theory-driven prospective study were a case study for an in-depth examination of the process of enhancing the provision of decision support by call centre nurses and embedded in the case study was a randomized controlled trial to evaluate the effectiveness of the multifaceted intervention (see Table 1.1). The combination of methods facilitated a more comprehensive investigation of both the outcomes and the implementation process at various stages of the Ottawa Model of Research Use (Contandriopoulos, Champagne, Denis, & Avargues, 2000; Sidani & Braden, 1998). Furthermore, the randomized controlled trial minimized the threats to internal validity (Burns

& Grove, 2001), while the case study enhanced the external validity by providing a rich description of the factors influencing the process and the nursing practice environment (Creswell, 1998; O'Connor, Llewellyn-Thomas, & Flood, 2004). The BC Ministry of Health Services and TCM TeleCare Management Inc agreed to participate in the study as evidenced by their letters of support (Appendix A). Health Sciences and Sciences Research Ethics Board at the University of Ottawa certified that this research project met ethical standards as outlined in the Tri-Council Policy Statement and in the procedures of the University of Ottawa Research Ethics Boards (Appendix B).

This study is presented in the three papers comprising Chapters 2, 3 and 4 of this dissertation. The paper in Chapter 2 is a descriptive study, using mixed qualitative and quantitative measures, that explores the factors influencing the provision of decision support by call centre nurses. There were two specific research objectives in Chapter 2:

- To elicit the barriers and facilitators, at the level of the innovation, potential adopters, and practice environment, influencing the provision of decision support by call centre nurses for callers facing values-sensitive health decisions
- To explore the magnitude of these barriers and facilitators as perceived by the nurses

This needs assessment established the baseline attitudes, perceived nurses' knowledge, and current decision support practices in view of the environmental influences on call centre nursing practice. Findings were then used to tailor a multifaceted intervention to address some of the barriers hindering nurses providing values-sensitive decision support.

The second paper, in Chapter 3, presents the randomized controlled trial conducted to evaluate the effectiveness of the multifaceted intervention on nurses' knowledge, the quality of decision support provided to simulated callers facing values-sensitive decisions, and the call length. The four components of the multifaceted intervention were an online autotutorial, decision support protocol, skill-building workshop, and performance feedback on the quality of decision support provided to simulated callers. The specific research hypotheses and questions addressed in Chapter 3 are as follows:

- The decision support intervention will improve nurses' knowledge of decision support for values-sensitive health decisions

- The decision support intervention will enhance the quality of decision support call centre nurses provide to simulated callers presenting with difficulty making values-sensitive health decisions
- What effect did the intervention have on call length?
- Were the intervention components acceptable to the nurses?

Chapter 4 presents a case study of call centre nurses' uptake of the decision support protocol following a multifaceted implementation intervention and identifies factors influencing sustainability of nursing practice changes within the call centre environment. There were three main research questions in Chapter 4.

- Was the decision support protocol adopted into clinical practice?
- What effect did the intervention have on nurses' approach to supporting real callers making values-sensitive decisions?
- What factors are likely to influence the sustainability of values-sensitive decision support by call centre nurses?

The fifth chapter provides a global discussion and conclusion integrating the findings from all three papers and discussing their contribution to the field of population health. Chapter 6 contains the discussion of the contributions of collaborators. The references for Chapters 1, 5, and 6 and relevant appendixes appear in Chapter 7.

Chapter 2

Barriers and Facilitators Influencing Call Centre Nurses' Decision Support for Callers Facing Values-Sensitive Decisions: A Mixed Methods Study

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Note: Formatted for the journal Worldviews on Evidence-Based Nursing.

What is already known on this topic?

- Call centre nurses triage symptoms and provide health information.
- Health information alone is not adequate for callers making values-sensitive health decisions.
- Patient decision aids and in-person nurse coaching using a structured protocol are effective interventions to prepare patients for making values-sensitive decisions.

What this study adds

- Call centre nurses prefer having a consistent approach to guide their decision support, efficient ways to find patient decision aids in their database, and decision support resources adapted for telephone use.
- Nurses need educational opportunities to develop their knowledge and skills in providing values-sensitive decision support.
- Organizational barriers interfering with nurses providing quality decision support include unclear program direction, pressure to minimize call length, and low caller awareness of services.

Abstract

Background

Call centre nurses triage symptoms and provide health information. However, information alone is not adequate for people facing values-sensitive health decisions. For these decisions, effective interventions are patient decision aids and in-person nurse coaching using a structured process. Little is known about the quality of decision support provided by call centre nurses.

Aims

To identify the barriers and facilitators influencing the provision of decision support by call centre nurses to callers facing values-sensitive health decisions.

Methods

Mixed qualitative and quantitative descriptive study from December 2003 to January 2004 using key informant interviews ($n=4$), 2 focus groups ($n=7$), a barriers assessment survey ($n=57$), and analysis of simulated patient calls ($n=38$). Triangulation of the data was conducted using a conceptual content analysis method.

Setting

A Canadian province-wide health call centre.

Results

Participants indicated positive attitudes toward call centre nurses preparing callers for making values-sensitive decisions. Facilitators included decision support resources, nurses' ability to recognize callers having difficulty, and having a supportive organizational infrastructure. The most frequently identified barriers were (a) limited usability of patient decision aids via telephone; (b) lack of a structured process to guide nurses during these types of calls; (c) nurses' inadequate knowledge, skills, and confidence in providing values-sensitive decision support; (d) unclear program direction; (e) organizational pressure to minimize call length; and (f) low public awareness of the services.

Discussion

Despite call centre nurses having positive attitudes, many barriers were identified that hindered provision of quality decision support to callers. Nurses wanted to further develop their decision support knowledge and skills and have decision support resources easier to use via telephone. As well, organizational barriers were identified that, if addressed, could facilitate provision of decision support.

Conclusions

Several barriers interfere with nurses' current approaches to supporting callers facing values-sensitive decisions. Many of these barriers are modifiable and thus, can be targeted with tailored interventions.

Background

Over the last five years, Canadian health call centres have emerged to offer 24-hour telephone consultation by registered nurses for triaging symptoms and providing health information (Stacey et al., 2003). However, for patients facing values-sensitive health decisions, information provision alone is insufficient to ensure quality decisions (O'Connor et al., 2003a). Quality decisions are defined as informed and congruent with personal values (O'Connor et al., 2003a; Ratliff et al., 1999; Sepucha, Fowler, & Mulley, 2004). Patients are more likely to achieve quality decisions and participate actively in decision making, after receiving evidence-based decision support interventions (O'Connor et al., 2003a). Supporting callers making health decisions is part of the mandate of some call centres but has not been fully implemented or evaluated (Bunn, Byrne, & Kendall, 2004; Health Dialog, 2004; Leibowitz, Day, & Dunt, 2003; National Health Service [NHS], 2004; Stacey, 2002; Stacey et al., 2003).

Values-sensitive health decisions are more complex and have no clear 'best choice' for everyone, as their outcomes are unknown or the decision involves trade-offs between known benefits and harms (Wennberg, 2002). For example, the decision about birth control involves multiple options, each with differing benefits and harms. As newer health interventions become available and give rise to more options with differing outcomes, the number of patients facing these types of decisions and the frequency with which they face them will increase. Patients faced with values-sensitive decisions are likely to experience decisional conflict or uncertainty about the best course of action (O'Connor, 1995; O'Connor et al., 2003b). Unresolved decisional conflict can lead to delay in making a decision, decision regret, non-adherence to a chosen option, and the over-use of major elective surgical procedures (O'Connor, 1995; O'Connor et al., 2003a; b; O'Connor, Wells, Jacobsen, Elmslie, & Tugwell, 2001; Sun, 2004; Wennberg, 2002). Hence, patients need support to minimize their decisional conflict and make quality health decisions.

Decision support, according to the Ottawa Decision Support Framework (O'Connor et al., 1998; O'Connor, Jacobsen, & Stacey, 2002), is a process of assessing individuals' decisional needs (e.g., uncertainty and related deficits in knowledge, values clarity and support), tailoring interventions to address those needs (e.g., providing information,

realigning expectations, clarifying values, managing pressures from others, enhancing decision making capacity), and evaluating the quality of decision making. Indicators of quality decision support include verifying the decision, using up-to-date evidence about the benefits and harms of the options, considering the patient as an equal partner, incorporating patient values and personal circumstances, and using a standardized decision making process (Ford, Scholfield, & Hope, 2003; Guimond et al., 2003). Interventions to facilitate patient participation in making quality decisions include using patient decision aids and providing nurse coaching (Kennedy et al., 2002; O'Connor et al., 2003a). Patient decision aids are evidence-based interventions designed to be used as adjuncts to practitioner consultation. They provide information on the options and their outcomes (e.g., benefits and harms), an opportunity to clarify values, and guidance in the process of deliberation and communication (O'Connor et al., 2003a). Decision coaching is one-to-one guidance through a stepped process by someone who is supportive but neutral with respect to the decision. When nurse coaching was combined with patient decision aids to prepare patients for discussing decisions with their physician, the intervention was more cost-effective than decision aids alone or usual care (Kennedy et al., 2002). Numerous studies have demonstrated the effectiveness of these decision support interventions with specific patient groups; however, there have been no large scale implementation studies conducted to date (Edwards, Evans, & Elwyn, 2003; Kennedy et al., 2002; O'Connor et al., 2003a; O'Connor, Légaré, & Stacey, 2003c).

Previous research on factors influencing implementation of innovations in clinical practice has been guided by the Ottawa Model of Research Use (Graham et al., 2003; Graham & Logan, 2004; Graham, Logan, Davies, & Nimrod, 2004; Logan & Graham, 1998; Logan, Harrison, Graham, Dunn, & Bissonnette, 1999; Lorimer, 2004). The model identifies influential factors affecting uptake of a new strategy at the level of the innovation (e.g., decision support), potential adopters (e.g., nurses' awareness, attitudes, knowledge, skills, and current practice), and practice environment (e.g., call centre, callers). Once these factors are known, interventions to overcome the barriers can be designed, implemented, and evaluated (Graham et al., 2004). Two previous studies identified factors influencing the implementation of patient decision aids in clinical practice (Graham et al., 2003; Holmes-Rovner et al., 1999). Patient decision aids were more likely to be used if they had positive

attributes (e.g., useful, compatible with clinical practice, stepwise approach to decision making), practitioners perceived that there were advantages to using decision aids over their usual approaches, and they were integrated within the process of care. Barriers hindering implementation of decision aids in clinical practice included (a) inadequate time or human resources, (b) limited accessibility (e.g., storage, distribution, proximity to clinical practice), (c) negative features (e.g., content too complex, outdated evidence, cost), and (d) practitioner perception of low patient desire to participate in decision making. Overall, most practitioners were willing to use patient decision aids (Graham et al., 2003; Holmes-Rovner et al., 1999).

Health call centres are population-based programs that have the potential to increase public access to evidence-based decision support. However, little is known about the factors influencing the implementation of patient decision aids or values-sensitive decision coaching by nurses through these newer health services (Bunn et al., 2004; Leibowitz et al., 2003; Stacey et al., 2003).

Aims

The purpose of this study was to elicit the barriers and facilitators influencing the provision of decision support by call centre nurses for callers facing values-sensitive health decisions and to explore the magnitude of these barriers and facilitators as perceived by the nurses.

Methods

Design

A descriptive study using mixed methods (qualitative and quantitative) with triangulation of data sources was guided by the Ottawa Model of Research Use (Graham & Logan, 2004; Logan & Graham, 1998) and the Ottawa Decision Support Framework (O'Connor et al., 2002). This approach was used to provide a comprehensive assessment of the factors influencing the provision of decision support by call centre nurses and to increase the validity of the findings (Burns & Grove, 2001; Morse & Field, 1995; Sidani & Braden, 1998).

Setting

The call centre purposefully selected for the study was one of seven province-wide programs in Canada (Stacey et al., 2003). It had been in operation for two and a half years serving a population of 4.2 million. Of the approximately 25,000 calls received by the centre every month, just over half are symptom-based, one-quarter are health condition-based, and the remainder are other calls (e.g., medication, way-finding). Statistics on values-sensitive decisions are not collected. Unique from other call centres in Canada, a goal of this program is to enable callers to make 'sound health decisions' and the service includes public access to over 95 online patient decision aids. A review of the call centre staff database revealed that the typical nurse working at the call centre was female, worked part-time hours, and had worked at the call centre for longer than one year (see Table 2.1).

Table 2.1
Characteristics of Participants by Data Source

Variables	Call centre nursing staff	Interviews & focus group	Barriers survey	Simulated patient calls
Frontline staff nurses	99 (91.7)	7 (63.6)	52 (91.2)	38 (100)
Nurse Supervisor or educator	9 (8.3)	2 (18.2)	5 (8.8)	0
Administrative non-nurse staff	n/a	2 (18.2)	0	0
Length employment				
≤ 6 months	12 (11.1)	0	8 (14.0)	5 (13.2)
7 to 12 months	34 (31.5)	3 (27.3)	19 (33.3)	13 (34.2)
>12 months	62 (57.4)	8 (72.7)	30 (52.6)	20 (52.6)
Employment status (FTE)	Mean 0.78	Mean 0.87	Mean 0.76	Mean 0.75
Not available	25 (23.1)	0	16 (28.1)	2 (5.3)
BSc or higher education	n/a	8 (72.7)	26 (45.6)	17 (44.7)
Not available or reported		0	1 (1.8)	0
Gender				
Female	103 (95.4)	9 (81.8)	55 (96.5)	37 (97.4)
Male	3 (2.8)	2 (18.2)	1 (1.8)	1 (2.6)
Not available	2 (1.9)	0	1 (1.8)	0
Years of nursing	n/a			
≤ 5 years		0	7 (12.3)	0
6 to 10 years		0	4 (7.0)	2 (5.3)
11 to 15 years		2 (18.2)	14 (24.6)	12 (31.6)
≥ 16 years		7 (63.6)	32 (56.1)	24 (63.2)
Not applicable		2 (18.2)	0	0
<i>n</i> ^a	108	11	57	38

Note. Data are numbers (%) unless otherwise specified.

^a Numbers of people in each group; n/a = not assessed; FTE = Fulltime equivalent

Data Collection

Data collection took place between December 2003 and January 2004 using key informant interviews, focus groups, a barriers assessment survey, and decision support analysis of simulated patient calls. The interview guide, focus group guide and barriers survey were designed for the study based on a survey of attitudes toward shared decision making (Holmes-Rovner et al., 1999), a literature review of factors influencing implementation of evidence-based innovations (Cabana et al., 1999; Graham et al., 2003; Holmes-Rovner et al., 1999; Rogers, 1995), the Tailored Design Method for Surveys (Dillman, 2000), the Ottawa Model of Research Use (Graham & Logan, 2004), and the Ottawa Decision Support Framework (O'Connor et al., 2002). The barriers survey was revised to reflect findings from the interviews and focus groups. Face validity of the interview guide and barriers survey was established by a review of the instruments by researchers and practitioners with expertise in patient decision making, organizational change, and implementing evidence-based innovations into practice. These instruments were pretested with nurses associated with another Canadian call centre. While Dillman (2000) recommends sending multiple reminders to survey participants, ethics approval from the University of Ottawa, Research Ethics Board was contingent upon sending only one reminder to nurses about completing the survey.

Interviews and focus groups. Key informant interviews and focus groups with nurses were conducted in December 2003 to explore the barriers and facilitators to nurses providing decision support (Appendix C - E). Using a purposeful sampling strategy, four administrators were invited to participate in the key informant interviews (e.g., a nurse educator, a nurse supervisor, an administrator responsible for strategic direction, and a provincial ministry of health official). Three frontline staff nurses volunteered to participate in the first focus group and four other nurses in the second one. After signing a consent form (Appendix F, G), participants completed a demographic questionnaire (Appendix H).

Barriers Survey. A survey was sent to all 108 registered nurses working at the call centre in January 2004: (a) To validate the barriers and facilitators influencing the provision of decision support identified within the literature, focus groups, and interviews; and (b) to determine their magnitude. This survey included 33 statements that measured nurses' attitudes toward patients' participation in decision making, nurses' perceived role in

supporting patient decision making, and factors influencing the provision of decision support by call centre nurses (Appendix I). Respondents rated each statement on a seven-point Likert scale ranging from *strongly agree* to *strongly disagree*. Open-ended questions asked participants to identify barriers to patients obtaining decision support for values-sensitive health decisions and barriers to call centre nurses providing this support. A call centre staff person distributed the survey, by placing a personalized copy in each nurses' mailbox. Two weeks later, the call center staff person sent all nurses one electronic reminder with the barriers survey attached (Appendix J).

Current decision support quality. Calls from simulated patients were conducted in December 2003 as an objective measure of the nurses' current practice with providing decision support and to obtain an estimate of call length. Thirty-eight of 99 frontline staff nurses, who were participating in an intervention study (Stacey, O'Connor, Graham, & Pomey, 2004b), received one call from a simulated patient. Simulated patients were given a clinical scenario to follow (e.g., decision about amniocentesis, Ritalin for attention deficit disorder, or back surgery for herniated disc; Appendix K) and received training to present with decisional conflict stemming from either being uninformed, having unclear values, or feeling pressure from others. Although simulated patients stayed in character throughout the calls, nurses were not blinded to the fact that they were simulated patients.

Analysis

Content analysis of the taped key informant interviews and focus groups was guided by the Ottawa Model of Research Use (Graham & Logan, 2004). Within each of the three levels of the theoretical framework (e.g., innovation, potential adopter, and practice environment), common themes that participants identified as barriers or facilitators of nurses providing decision support were inductively derived. Participants were sent the interpretation of the findings and asked to verify their accuracy.

The audio-taped simulated patient calls were analyzed by two independent raters using a revision of the previously validated Decision Support Analysis Tool (Guimond et al., 2003). For each call, raters identified the presence or absence of 12 key elements necessary for providing quality decision support (Appendix L) (Stacey et al., 2004). The quality of the decision support provided was calculated by taking the average of the two raters' scores.

The results of the barriers survey, calls from simulated patients, and participant demographics were analyzed descriptively using the SAS (version 8.01, SAS Institute Inc., Cary, NC, USA). Responses to the Likert scale in the barriers survey were re-classified into agree (*strongly agree, agree, or mildly agree*), disagree (*strongly disagree, disagree, or mildly disagree*), and neutral. The qualitative and quantitative findings from the multiple data sources were then triangulated using the conceptual content analysis described earlier and processed with NVivo (version 2.0.163, QRS International Pty. Ltd.).

Results

Of the 108 nurses sent the barriers survey, 57 returned it for a response rate of 52.8% (see Table 2.2). The demographic characteristics of those who participated in the interviews and focus groups, barriers survey, and simulated patient calls were similar to the entire nursing staff at the call centre (see Table 2.1).

Table 2.2
Representativeness of Data Collected by Source

Nature of data	Timing	Categories of people	Number expected	Number participated
Semi-structured interviews and focus groups	Dec 2003	Key informants: direct nursing supervisor, nurse educator, administrator who sets strategic direction for the organization, provincial ministry of health official	4	4
		Focus groups: frontline staff nurses	6 to 8	7
Calls from simulated patients	Dec 2003	Staff nurses participating in an intervention study prior to training	39	38
Barriers Survey	Jan 2004	All nurses working within the organization and provincial ministry of health	108	57

Nurses' Attitudes Toward Patient Decision Making

All 57 nurses, who responded to the survey, agreed that patient-physician discussion about health decisions is improved when patients are prepared (see Table 2.3). Forty-six

nurses agreed (81%) that patients want to make health decisions after seriously considering their physicians' opinion, rather than taking a passive role. Forty-nine nurses agreed (86%) that people should be referred to the call centre or related online resources when preparing for making values-sensitive health decisions. Over 98% of nurses agreed that if patients receive decision support, they are more likely to ask questions (56 of 57) and be actively involved in making the decision (55 of 56).

Commonly suggested barriers to patients receiving decision support included limited access to or time with physicians, lack of awareness of decision support resources, limited knowledge about the health situation, and patients' deferring to their physician when making health decisions.

Table 2.3
Nurses' Attitudes toward Patient Decision Making

Statements	<i>n</i>	Disagree	Neutral	Agree
Most patients prefer to make decisions on their own	55	63.6	5.5	30.9
Most patients prefer to make decisions after considering their physician's opinion	57	12.3	7.0	80.7
Most patients prefer their physician make the decisions	55	34.6	10.9	54.6
A patient-physician discussion about health decisions is improved when a patient comes prepared	57	0	0	100
Most patients should be referred to the call centre and/or related online resources for decision support	57	1.8	12.3	86.0
It is likely that I would tell someone about the call centre as a resource for decision support	57	10.9	0	89.5
Nurses supporting callers making health decisions will stimulate them to ask more questions	57	1.8	0	98.3
Nurses supporting callers facing health decisions will increase callers involvement in making these decisions	56	0	1.8	98.2

Note. Data are % of respondents; *n*=number respondents.

Characteristics of Decision Support Resources Influencing Their Use

Of 57 nurses, 43 agreed (75%) that they have access to good resources (e.g., easy to understand, evidence-based, accurate, non-biased, and up-to-date with balanced information on benefits and harms) to support callers facing values-sensitive health decisions and 34 nurses agreed (60%) that most nurses were familiar with the patient decision aids (see Table 2.4). In the 38 calls from simulated patients, 28 nurses (74%) used a patient decision aid at

some point during the call. The use of decision aids varied from simply referring callers to a decision aid to reading the decision aid verbatim to the caller.

Although patient decision aids are introduced in the orientation for new call centre staff, nurses in the focus groups described these resources as challenging to find, not easy to use via the telephone, and lacking specific questions to assess callers' decisional needs. As one nurse stated, there is "...no clear way to see if there is a decision aid within a topic... should be able to get to them within 1 click." Nurses in the focus groups also expressed concern that using decision aids would increase the length of their calls. In the survey, several nurses suggested that another barrier to providing decision support was not being aware of available health services within the caller's community.

Table 2.4
Nurses' Perceptions of the Call Centre's Decision Support Resources

Statements	<i>n</i>	Disagree	Neutral	Agree
Nurses have access to good resources to support callers making health decisions	57	19.3	5.3	75.4
Nurses are familiar with patient decision aids in database	57	33.3	7.0	59.6
Nurses would prefer to have a clear step by step approach for supporting callers facing health decisions	57	7.0	10.5	82.5

Note. Data are % of respondents; *n*=number respondents

Suggestions from the interviews and focus groups included making the decision aids easier to find in the database and having specific questions to assess callers' decisional needs. In the survey, 47 nurses agreed (83%) that they needed to have a clear approach for supporting callers facing values-sensitive decisions (see Table 2.4).

Nurses' Decision Support Knowledge, Skills, and Current Practice

Nurses experience prior to working in the call centre, their expertise in using the computerized health information database for managing symptom- and health condition-based calls, and their patient teaching skills were identified in the interviews and focus groups as facilitators to providing decision support. In the survey, few nurses agreed (21%) that they find it hard to recognize callers having difficulty with decisions (see Table 2.5).

Nurses verified the decision facing the simulated patients in 91% of the 38 calls (see Figure 2.1). Regardless of the decisional needs of the simulated patient (e.g., uninformed, unclear values, or pressure from others), 89% of nurses intervened by providing information on the condition, options, benefits, and harms.

Table 2.5

Nurses' Perceptions of the Influence of their Knowledge, Skills, and Current Practice on Providing Values-Sensitive Decision Support

Statements	<i>n</i>	Disagree	Neutral	Agree
Nurses need to enhance their knowledge about supporting callers making health decisions	56	5.4	1.8	92.9
Nurses need to enhance their ability to support callers in handling conflicting views about the decision	57	7.0	5.3	87.7
Nurses feel confident supporting callers making health decisions	57	24.6	21.1	54.4
Nurses validate callers' values associated with the health decision	56	10.7	16.1	73.2
Nurses find it hard to recognize callers having difficulty making health decisions	57	58.0	21.1	21.1

Note. Data are % of respondents; *n*=number respondents

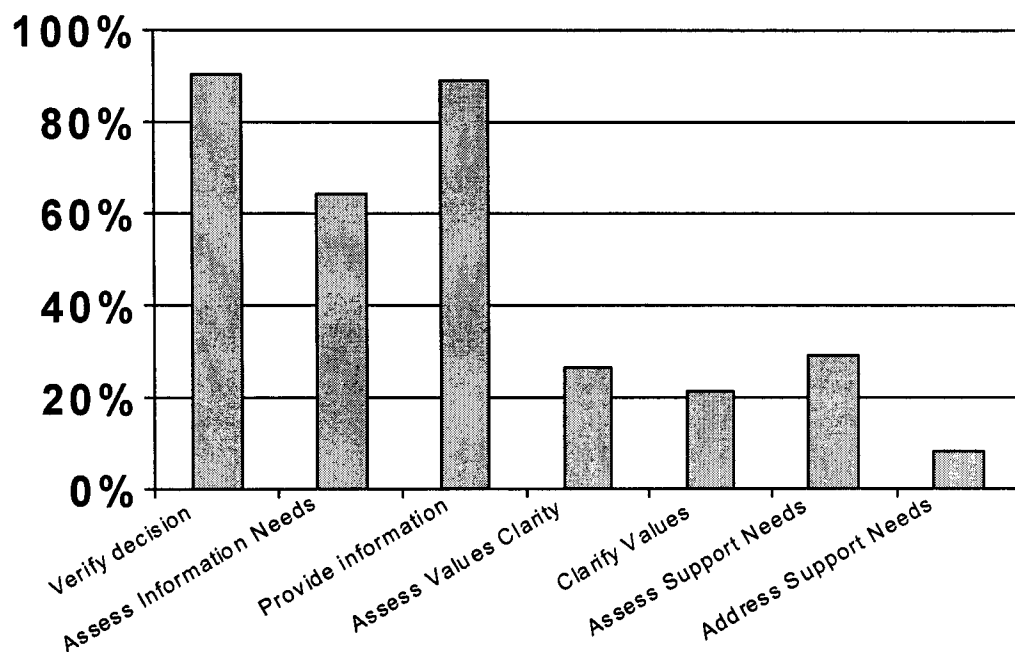


Figure 2.1 *Key Elements of Quality Decision Support Provided by Nurses to Simulated Callers*

Note: Data are presented as proportions of the total number of nurses (*n*=38)

The interviews, focus groups, and barriers survey identified nurses' limited knowledge, skills, and confidence hindered the provision of values-sensitive decision support (see Table 2.5). These findings were confirmed in the 38 calls with simulated patients. Some nurses assessed the decisional needs of the simulated patients related to information (64%), values clarity (26%), or support or pressure from others (29%). In the barriers survey, 88% of nurses were unsure how to coach callers in how to manage pressure from others and these findings were confirmed when only 8% of the nurses addressed the support needs of the simulated patients (see Figure 2.1; Table 2.5). In the barriers survey, 41 of the 56 nurses (73%) agreed that most nurses validate callers' values. In contrast, only 21% of the nurses clarified the simulated patients' values associated with the benefits and harms of their options.

Participants in the interviews and focus groups suggested the need for education sessions for nurses to learn about providing values-sensitive decision support. Nurses in the focus groups identified that they prefer to learn by hearing examples of efficient, effective decision support calls and having hands-on education sessions focused on developing the new skills.

Practice Environment Influences on Provision of Decision Support

Interview participants identified several factors that facilitate nurses providing decision support: (a) Having a call centre infrastructure capable of handling these types of calls, (b) a database of health information, (c) ongoing monitoring of some types of calls (e.g., medications, health condition, symptom, way-finding), and (d) resource staff (e.g., nurse educator, nurse supervisors) to support implementation of this type of initiative.

The interviews, focus groups, and barriers survey revealed that nurses felt their ability to provide quality decision support for values-sensitive options was impeded by the fact that the program had not made it clear that they should be providing this support and that they were under pressure to minimize call length. In the barriers survey (see Table 2.6), 15 nurses agreed (27%) that there was clear program direction to provide decision support to callers facing value-sensitive decisions and 55 (96%) agreed that nurses feel constant pressure to minimize the length of their calls. The calls from simulated patients were, on average, 17 minutes in duration (plus extra time collecting demographics and charting); in contrast, the guideline for nurses is a 12.5 minute call length including time spent charting.

Additional barriers identified in the focus groups and interviews included a lack of Canadian performance standards for call centres, little opportunity for nurses to share their experiences, and competing priorities limiting the availability of nursing supervisors.

There were several suggestions for improvements. As one nurse said “*we need to know if these calls will be acknowledged by administration as a legitimate use of our services.*” If so, nurses requested “*recognition and support of increased call length for these types of calls*” and an “*increased number of staff to decrease stimuli (e.g., flashing call waiting red light)*” when callers are holding for a nurse to become available. Of 57 nurses, 56 agreed (98%) that the call length guidelines should be tailored to the type of call (see Table 2.6). Another nurse suggested that by increasing the time it would “*... decrease the stress*”.

Table 2.6

Nurses' Perceptions of Practice Environment Factors Influencing their Provision of Values-Sensitive Decision Support

Statements	<i>n</i>	Disagree	Neutral	Agree
There is clear program direction to provide decision support to callers facing values-sensitive decisions	56	55.4	17.9	26.8
Nurses feel constant pressure to minimize call length	57	1.8	1.8	96.5
Call length performance indicator needs tailoring to type of calls	57	0	1.8	98.3
Nurses receive too few calls about health decisions to develop their skills	57	24.6	8.8	66.7
Patients or the public are aware of getting decision support by calling the call centre nurses	57	56.1	12.3	31.6

Note. Data are % of respondents; *n*=number respondents

Caller-related barriers influencing nurses providing decision support identified in the focus groups and interviews were low public awareness of decision support services at the call centre, low call volume, callers not self-identifying that they need help with a decision, and caller characteristics such as language, culture, and literacy. Of 57 nurses, 18 agreed (32%) that the public are aware of decision support services offered by the call centre (see Table 2.6). Participants in the interviews, focus groups, and the barriers survey suggested the need to market these services to the public and develop collaborations with physicians such that they “*could refer patients to our centre for further guidance or support.*”

Discussion

Although decision support for values-sensitive health decisions is within the mandate of this province-wide call centre, there were several factors influencing the quality of decision support nurses were providing. Call centre nurses were positive about their role in supporting patients facing values-sensitive health decisions and the need for decision support services within the health system. Modifiable barriers interfering with the provision of decision support were identified at the level of the innovation (e.g., limited usability of the available patient decision aids via telephone, lack of a structured process for coaching callers), the potential adopter (e.g., limited knowledge, skills, and confidence in providing decision support), and the practice environment (e.g., unclear program direction, pressure to minimize call length, low public awareness of decision support services). These findings highlight the novelty of decision support as a skill for nurses, the need to adapt face-to-face decision support interventions for telephone-based nursing practice, and the influence of practice environment factors on nurses' provision of decision support.

At this call centre, nursing practice for callers making values-sensitive decisions involves the traditional patient education approach of providing health information. However, information alone is not likely to result in decisions that match patients' values (O'Connor et al., 2003a). Similar to physicians supporting women considering hormone replacement therapy in an earlier study (Guimond et al., 2003), nurses in this study intervened by providing information, even when simulated callers were already informed but presenting with unclear values or pressure from significant others involved in the decision. Patient education, a core competency of nursing practice (RNABC, 2004), involves assessing patients' informational needs and providing information to address these needs. Patient education could include coaching patients to clarify their values associated with the options, communicate their values, handle pressure from others, and progress through the decision making process. However, developing these decision support skills requires explicit hands-on training and practice (Elwyn & Charles, 2001; O'Connor, Llewellyn-Thomas, & Flood, 2004; Towle & Godolphin, 2001). Nurses in this study identified the need for decision support education sessions, beyond the current orientation program, as well as a structured approach for supporting callers facing values-sensitive decisions.

The fact that nurses in the study found the patient decision aids challenging to find in the health information database and use via telephone was not surprising given that about 55% of their 25,000 calls per month are about triaging symptoms. These two types of calls differ in the urgency with which it is necessary to determine the best course of action and the format of their related database protocols. Symptom-based calls focus on safe, rapid assessments to determine urgency for action and the level of health care required (Stacey et al., 2003). The symptom-based protocols, found by typing the symptom in the database search engine, provide specific questions to assess the severity of the problem. After the nurse provides responses to the questions, the algorithm identifies the recommended level of health care services required. If necessary, nurses can provide tips for managing the symptoms with home-based remedies. In contrast, patient decision aids are not as easy to identify by searching the topic, do not have explicit questions with which to assess the callers' decisional needs, use a narrative rather than point format, and present no clear best choice for everyone. During the calls from simulated patients, some nurses relied on the general health information topics rather than the patient decision aid, few nurses assessed the callers' decisional needs, and some nurses read the decision aid verbatim with little dialogue. These approaches, that do not tailor the interventions to the callers' needs or engage the callers' in the process, are unlikely to lead to informed, values-based decisions (Kemper & Mettler, 2002; Knowles, 1984; O'Connor et al., 2003a). To facilitate providing values-sensitive decision support, nurses identified the need for resources formatted for use via telephone, an explicit process for supporting callers facing values-sensitive health decision, and the opportunity to develop their decision support skills.

The results of this study confirmed that call centre nursing practice is highly influenced by workplace factors (Estabrooks, 2003). The two most influential organizational factors at this call centre were the program direction and call length guidelines. While a goal of this call centre is to enable people to make sound health decisions, the nurses consistently reported organizational pressure to minimize call length. Further, the nurses identified that decision support calls require additional time beyond their 12.5-minute target (including both talk time and charting time). The simulated patient calls in our study indicated that nurses spent longer on these calls (17 minutes plus extra time for collecting demographics and charting), without providing the key elements of quality decision support. Another study

found that nurses providing in-person decision support took an average of 20 minutes (Kennedy et al., 2002). However, the mean 17 minute call length finding in this study also validates nurses' concerns that providing decision support would increase their call length and reaffirms the need for call length guidelines tailored to the type of call. Similar concerns about time pressure were identified as barriers to practitioners using patient decision aids in clinical practice (Graham et al., 2003; Holmes-Rovner et al., 1999) and nurses integrating evidence into their practice (Estabrooks, 2003).

Another barrier identified in the nurses' practice environment was the nurses' perception of low public awareness of decision support services available through the call centre and low number of decision support calls. However, without collecting data on the types of calls received, it is not possible to determine the number of decision support calls received by the service, the types of decisions being raised, or what influence marketing of the decision support services would have on call volume.

Limitations

Key limitations influencing the findings were the non-response bias, reporting bias, and generalizability beyond this single call centre. Our response rate of 53% is similar to another study in which surveys distributed internally at two call centres yielded response rates of 46% and 61% compared to direct mailing by researchers to nurses working at 15 other call centres which resulted in response rates of 75% and 92% (Knowles, O'Cathain, Morrell, Munro, & Nicholl, 2002). Although there was a low response rate, the demographic characteristics of the survey participants were comparable to the entire nursing workforce at the call centre (see Table 2.1). Furthermore, triangulation of the barriers survey results with the other data sources identified consistent themes for the barriers and facilitators influencing nurses providing values-sensitive decision support.

Reporting bias was evident in the differences between nurses' perception of their practice and their actual practice as observed in the calls from simulated patients. For example, 73% of nurses in the barriers survey agreed that they validate callers' values, however, in the analysis of calls with the simulated patients only 21% of nurses actually validated callers' values. Given their limited decision support knowledge and skills, nurses in the survey may not have been aware of ways to validate callers' values or the need to discuss values associated with both benefits and harms of options. Although their demographic

characteristics were similar (see Table 2.1), it was also possible that the group of nurses who took calls from simulated patients were different from those who responded to the barriers survey. As well, nurses who responded to the survey may have been more likely to provide responses that were perceived to be more socially acceptable. Our findings were consistent with a systematic review of studies on practice guideline adherence that found self-report bias in 8 of 10 studies (Adams, Soumerai, Lomas, & Ross-Degnan, 1999) and confirmed the need for using objective measures, such as simulated callers, to audit performance.

Finally, this study took place at a single Canadian call centre. Although the identified barriers and facilitators were unique to nurses participating in this study, they are likely to be relevant for the implementation of other innovations at this call centre and possibly relevant to other health call centres. For example, the nursing staff of the England-wide call centre that provides symptom triage has similar demographic characteristics to nurses within this study (Morrell, Munro, O'Cathain, Warren, & Nicholl, 2002).

Conclusions

Call centres provide a viable model for delivering accessible, quality decision support for people facing values-sensitive health decisions. This comprehensive barriers assessment provided the opportunity for nurses and the organization as a whole to become more sensitized to the factors influencing nurses' provision of decision support, many of which are modifiable and relevant to other call centre initiatives intended to change nursing practice. Nurses prefer to have decision support resources that can guide a rapid assessment of decisional needs and are formatted for delivery via the telephone. As well, the need for educational opportunities to enhance nurses' knowledge, skills, and confidence in providing decision support was identified. Within the practice environment, the most frequent suggestions to facilitate nurses' provision of decision support were to have clear program direction that quality decision support is an important component of the call centre services, call length guidelines that does not penalize for decision support calls, and marketing of decision support services to the public. The results from this study were used to enhance the ease of locating patient decision aids in the health information database and to develop a multifaceted intervention to address modifiable barriers. A randomized controlled trial is underway to determine the intervention's effectiveness in improving the quality of decision support provided by nurses.

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Chapter 3

Randomized Controlled Trial of a Multifaceted Intervention to Improve Skills of Call Centre Nurses Providing Decision Support to Callers Facing Values- Sensitive Health Decisions

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Note: Formatted for the Journal of the American Medical Association according to "The Consort statement: Revised recommendations for improving the quality of reports of parallel-group randomized trials," by D. Moher, K.F. Schulz, and D. Altman, for the CONSORT Group. 2001, *Journal of the America Medical Association*, 285, p.1989.

What is already known on this topic?

- Most patients prefer to participate in decision making when they face values-sensitive decisions in which the best choice depends on the value they place on the benefits of the options compared to the harms.
- Decision quality for values-sensitive options is improved when preparation of patients for shared decision making uses patient decision aids and coaching by nurses.
- While, nurses at health call centres provide health information, information alone is not adequate to improve decision quality when callers face values-sensitive decisions.

What this study adds

- A multifaceted decision support implementation intervention (i.e., online autotutorial, skill-building workshop, decision support protocol, performance feedback) increased nurses' decision support knowledge and skills, particularly in discussing values and the involvement of others.
- Providing quality decision support did not increase call length.
- The decision support implementation intervention was acceptable to the nurses and feasible for use within the call centre.

Abstract

Context

Recently, the role of call center nurses has expanded beyond triage and disease management to include preparing patients for making values-sensitive decisions. Nurses at these call centres can link callers to patient decision aids and coach them to address their unresolved needs for information, values clarification, and support. There are no rigorous evaluations of strategies to improve the quality of decision support by nurses' for patients facing multiple options that depend on their values.

Objective

To evaluate the effectiveness and acceptability of a multifaceted intervention to improve call centre nurses' decision support skills in coaching callers facing values-sensitive health decisions.

Design and Setting

Randomized controlled trial involving nurses working at a province-wide call centre.

Participants

41 registered nurses recruited between November and December 2003.

Intervention

A decision support protocol, online autotutorial, skill-building workshop, and performance feedback using simulated calls.

Outcome Measures

Knowledge test; decision support quality audit of simulated calls; length of calls; and acceptability of the autotutorial, workshop, and protocol.

Results

Compared to controls, the intervention group had significantly higher knowledge test scores ($M = 74.1$ versus 60.2 , $p=0.007$). The mean decision support quality scores increased in the intervention group from 52.8% at baseline to 81.3% at one month post-intervention and from 43.3% to 44.4% in the control group. Using the baseline quality scores as a covariate, there was a significant intervention versus control group difference of 34.3% ($ANCOVA$, $p<0.001$). There was no change in the call length between groups ($M=16.7$ vs. 18.5 minutes, $p =0.73$). Nurses were satisfied with the autotutorial and workshop. The protocol was rated as having clear steps, compatible with their views on patient decision making, and more advantageous compared to their usual practices.

Conclusions

The intervention enhanced nurses' knowledge and skills in providing decision support to simulated callers without affecting call length. The multifaceted intervention was acceptable to the nurses and feasible for implementing values-sensitive decision support in a call centre nursing practice.

Context

Many health care decisions have no obvious 'best choice', since there is more than one reasonable option with features that patients value differently (e.g., treatments for chronic back pain, menorrhagia, prostate disease, and breast cancer) (O'Connor, Légaré, & Stacey, 2003c; Wennberg, 2002). The goals of patient decision support are to facilitate patient participation in shared decision making and to improve decision quality. Quality decisions are defined as informed (i.e., adequate knowledge of options and realistic expectations of probabilities of benefits and harms) and consistent with personal values (Briss et al., 2004; Ratliff et al., 1999; Sepucha, Fowler, & Mulley, 2004). Effective decision support interventions are patient decision aids (O'Connor et al., 2003a) and coaching by nurses (Kennedy et al., 2002).

Patient decision aids provide evidence-based information about the options, outcomes, and probabilities; help individuals clarify the desirability of the potential benefits relative to the potential harms; guide patients in the process of making the decision; and may also provide examples of other patients' experiences (O'Connor et al., 2003a). A recent systematic review of 34 randomized controlled trials evaluating the effectiveness of patient decision aids found that after patients used decision aids they (a) were more likely to participate in decision making and make a decision, (b) had improved decision quality, and (c) had decreased rates of major elective surgical procedures in favour of more conservative options (O'Connor et al., 2003a). Combining a decision aid and in-person nurse coaching for women considering treatment of menorrhagia resulted in higher satisfaction with their level of participation in decision making and with their treatment results, decreased hysterectomy rates, and was a more cost-effective intervention compared to either usual care or a decision aid alone (Kennedy et al., 2002). Nurse coaching involves maintaining neutrality on the decision while guiding patients in a structured process of deliberating and communicating decision preferences with others.

Effective strategies for implementing decision support within the healthcare system remain elusive (Edwards, Evans, & Elwyn, 2003; O'Cathain, Walters, Nicholl, Thomas, & Kirkham, 2002; O'Connor et al., 2003a). Population-based health call centres are rapidly emerging and their services are evolving (Stacey et al., 2003). These call centres commonly

provide public access to registered nurses 24 hours a day for triaging symptoms and obtaining health information. Some call centres also provide chronic condition management and patient decision support but the degree to which they are doing this remains in question (National Health Service [NHS], 2004; O'Connor, Llewellyn-Thomas, & Flood, 2004; Stacey et al., 2003). There are no known studies evaluating strategies to implement decision support by call centre nurses for callers facing values-sensitive options (Bunn, Byrne, & Kendall, 2004; Leibowitz, Day, & Dunt, 2003; O'Connor et al., 2003a; Stacey, 2002; Stacey et al., 2003).

Implementation of evidence-based innovations into clinical practice does not happen automatically. According to the Ottawa Model of Research Use (Graham & Logan, 2004; Logan & Graham, 1998), the implementation of innovations requires deliberate interventions tailored to the setting that minimize identified barriers and take advantage of existing facilitators. Previously identified barriers to implementing patient decision aids in clinical practices include limited accessibility, inadequate time, insufficient human resources, practitioners' perception of patients' limited desire to participate in decision making, and specific features of the patient decision aids such as cost, complexity, and out-dated information (Graham et al., 2003; Holmes-Rovner et al., 1999). Eighteen studies, which focused on implementing clinical guidelines, found that interactive education sessions were more effective compared to more passive single interventions for changing nurses' and allied health professionals' practice (Thomas, McColl, Cullum, Rousseau, & Soutter, 1999). Passive approaches included lectures, opinions of local leaders, and education materials. Reminders, dissemination of educational materials, audit and feedback, and multiple interventions involving educational outreach are effective strategies for implementing clinical guidelines, primarily in medical practice (Grimshaw et al., 2004). However, studies are needed to determine effective implementation strategies for enhancing the quality of values-sensitive decision support provided by call centre nurses.

Hypotheses and Research Questions

This study sought to examine the hypotheses that nurses' knowledge of decision support and their skills in coaching callers facing values-sensitive health decisions will improve with the multifaceted intervention involving an online autotutorial, skill-building

workshop, performance feedback with simulated callers, and a decision support protocol. Additional research questions were: (a) What effect did the intervention have on call length? (b) Were the intervention components acceptable to the nurses?

Design and Methods

Participants and Setting

Registered nurses who had been working for a minimum of three months at a Canadian provincial health call centre were eligible to participate in the study. Nurses were excluded if they did not regularly respond to calls from the public. Established in April 2001, this call centre serves the entire provincial population and has a goal to enable callers to make 'sound health decisions'. The public also has access to a handbook with over 200 health information topics and a password-secured website with over 5,500 topics which includes information about symptom triage, health conditions, medical tests, surgeries, and medications (Healthwise Inc., 2004; Kemper & Mettler, 2002). There are approximately 95 evidence-based patient decision aids available on the program's website. This health information, available to the call centre nurses and public, is based on a Canadian version of the evidence-based Healthwise Knowledgebase (Healthwise Inc., 2004).

A baseline barriers assessment revealed that the typical nurse working at this call centre was female, with over 20 years of nursing experience, worked part-time hours, and had worked at the call centre for longer than one year (B. Findlay, personal communication, December 22, 2004; Stacey, Graham, O'Connor, & Pomey, 2004a). The most frequently identified barriers influencing the provision of decision support to callers facing values-sensitive decisions were the nurses' inadequate knowledge, skills, and confidence in providing decision support; limited usability of the patient decision aids via telephone; lack of a structured process to guide the consultation; unclear program direction; low public awareness of the service; and organizational pressure to minimize call length.

Randomization

Once informed written consent was obtained (Appendix M), nurses were randomly assigned to the intervention ($n=21$) or control group ($n=20$) (see Table 3.1). The allocation

schedule was computer generated centrally by a statistician. To balance the distribution of nurses between groups, nurses were stratified by full-time equivalent status (≥ 0.7 versus < 0.7 FTE). Allocation was concealed until after nurses completed their baseline simulated call. There was no blinding of nurses completing the self-administered questionnaires or the study staff organizing the interventions.

Table 3.1
Progress of Participants Through the Trial

Timing	Measures	Intervention	Random Assignment	
			Intervention Group <i>n</i>	Control Group <i>n</i>
Baseline	Demographic data		21	20
	Tape of nurses' decision support provided to simulated caller		20*	20
Post-autotutorial		Decision support protocol - introduced	19**	
		Online autotutorial		
	Knowledge test		19	20
	Satisfaction with autotutorial		15 ⁺	
Post-workshop		Decision support protocol home practice	19	
		Skill-building workshop	19	
		Feedback on performance with simulated calls		
	Satisfaction with workshop		17 ⁺	
	Usability of clinical decision support protocol		19	
		Decision support protocol – use with real callers	19	
1 month post-intervention	Tape of nurses' decision support provided to simulated caller		19	20

* one of the calls was not taped due to technical errors; ** 2 participants dropped out due to competing demands on their time; ⁺surveys were not completed

Procedures

Data were collected from both groups at baseline, the end of the autotutorial, the end of the workshop, and one month post-intervention (see Table 3.1). Following the baseline call from a simulated patient, the nurses assigned to the intervention group were invited to (a) complete the autotutorial on their own time (or between calls at work), (b) use the decision support protocol at home, (c) attend the skill-building workshop on paid work-time,

and (d) integrate the protocol into their call centre nursing practice. Knowledge of decision support and satisfaction with the autotutorial were measured at the end of the autotutorial; control group nurses completed the knowledge test at a similar point in time. Satisfaction with the workshop and usability of the decision support protocol were measured in the intervention group at the end of the workshop. Nurses in both groups received a second call from a simulated patient, one month post-intervention. The University of Ottawa's Research Ethics Board approved the study protocol.

Intervention

The multifaceted decision support implementation intervention was designed according to the Ottawa Model of Research Use (Graham & Logan, 2004) and the Ottawa Decision Support Framework (O'Connor, Jacobsen, & Stacey, 2002), to address call centre nurses' identified barriers to providing values-sensitive decision support (Stacey et al., 2004) and was based on evidence of effective implementation strategies (Grimshaw et al., 2001; Grimshaw et al., 2004; Thomas et al., 1999). The intervention involved (a) a structured decision support protocol (Appendix N), (b) online autotutorial (O'Connor & Jacobsen, 2003) (Appendix O), (c) skill-building workshop facilitated by a nurse with expertise in teaching practitioners decision support skills (Appendix P), and (d) performance feedback from calls with simulated patients (see Table 3.2). The structured protocol, based on the key constructs in the Ottawa Decision Support Framework (O'Connor et al., 2002), was introduced in the autotutorial, used in the workshop, and made available for use in clinical practice.

Outcome Measures

Demographics of participants. Demographic data were collected from the nurses using a questionnaire (Appendix H).

Nurses' knowledge of decision support. Knowledge was assessed using a 10-item multiple choice questionnaire of content covered in the autotutorial and considered essential for providing decision support (Appendix Q). Content validity was established with an expert panel. The questionnaire was subsequently pilot-tested with 10 nurses at another call centre and found to be acceptable.

Table 3.2
Description of the Multifaceted Implementation Intervention

Component	Description
Decision support protocol	A structured approach to - Assess caller's decisional conflict and related deficits in knowledge, values clarity, and support; - Tailor strategies to address callers' decisional needs such as providing information, clarifying values, developing skills in deliberation and communication, accessing support, and handling pressure; - Evaluate progress in decision making, resolution of modifiable factors contributing to decisional conflict, and quality of decisions.
Online autotutorial	A 3-hour self-directed educational program to help nurses to - Identify types of decisions; - Recognize signs of decisional conflict; - Understand the key concepts of the Ottawa Decision Support Framework; - Use tools to prepare callers for shared decision making (e.g., patient decision aids, structured decision support protocols).
Skill-building workshop	A 3-hour interactive session to enhance decision support skills through - Use of the decision support protocol in role playing; - Auditing the quality of decision support in a prerecorded telephone call using an audit tool; - Discussion of strategies to integrate decision support within their nursing practice.
Feedback on nursing performance	Provided by - Responding to individual answers on the 11 autotutorial mini-quizzes; - Discussing, in the workshop, the quality of decision support provided to simulated callers; - Encouraging nurses to use the decision quality audit tool to self-appraise subsequent decision support calls.

Call length and decision support quality. Call length and quality of decision support were measured using audio-tapes of the simulated patients' calls. Call length was measured from the point after the simulated caller's demographics were collected to the end of the call. The decision support quality score was calculated by listening to calls and using a 12-item audit tool based on the Decision Support Analysis Tool [DSAT] (Appendix L). In a previous study, the DSAT was validated, found to discriminate between different decision support interventions, and was correlated to measures of patient and physician satisfaction (Guimond et al., 2003). Five raters were trained in the use of the audit tool and pretesting was conducted with all five raters by evaluating three nurse-simulated caller interactions from another call centre. Then, two of five raters, blinded to group assignment, independently assessed each of the audio-taped calls using the 12-item DSAT.

Simulated patients were used to facilitate a standardized experience across the study participants. The use of simulated patients, compared to self-report or chart audit, is a more accurate measure of current practice (Hoppe, Farquhar, Henry, & Stoffelmayr, 1990; Luck & Peabody, 2002; Rethans, Martin, & Metsemakers, 1994) but requires credible scenarios and training to ensure realistic performance (Glassman, Luck, O'Gara, & Peabody, 2000; O'Connor, Albert, & Thomas, 1999; Tamblyn, Klass, & Schnabl, 1991). The clinical scenarios developed for this study explained the reason for the call and provided background information about the caller's health history, social situation, and current health decision. A set of three scenarios was used at baseline (i.e., decision about amniocentesis, Ritalin for attention deficit disorder, or surgery for herniated disc; Appendix K) and another set of scenarios was employed post-intervention (i.e., decision about allergy shots, gall bladder surgery, cholesterol lowering medication; Appendix R). For each set, the scenarios stated the caller had uncertainty about the course of action (decisional conflict) for one of three reasons: Inadequate information, unclear values, or support problems due to unwanted pressure to choose one of the options. To ensure the case scenarios reflected current medical knowledge, the scenarios were developed using the Healthwise Knowledgebase (Healthwise Inc., 2004) and reviewed by a panel of physicians and nurses. Patient decision aids were available in the call centre information database for each of the six scenarios that nurses could use themselves or direct callers to use. Simulated patient callers were taught how to use the scenarios and each made a practice call to an experienced nurse at another call centre as part of their training (Appendix S).

Acceptability of the interventions. The acceptability of each intervention was measured by monitoring nurses' progress through the autotutorial, measuring their satisfaction with the autotutorial and workshop, and evaluating the usability of the decision support protocol. To measure nurses' progress through the autotutorial, we monitored completion of the 11 quizzes within the autotutorial sections. Satisfaction with the autotutorial and workshop was assessed with questionnaires (Appendix T, U). Usability of the decision support protocol was measured using eight acceptability questions based on a previously published tool (Barry, Cherkin, Chang, Fowler, & Skates, 1997) and 26 statements focused on nurses' perceptions of factors influencing the use of the protocol within their practice (Appendix V). These 26 statements were based on a previous survey

evaluating factors influencing the use of patient decision aids in physicians' practices (Graham et al., 2003) and were rated on a five-point Likert scale ranging from *strongly agree* to *strongly disagree*.

Sample Size

The knowledge scores of the nurses in the two groups were compared using the *t*-test for independent samples. Pilot testing of the knowledge questionnaire with 13 individuals indicated a mean score of 7.63 out of 10 (*SD* = 1.3) after completing the autotutorial. Therefore, the trial was designed to enroll 32 to 40 nurses to detect a difference in knowledge scores between the groups of 1.28 to 1.38 points out of 10 (*SD* = 1.3) with a two-sided alpha error of 0.05 and a power of 80%. The sample size was chosen in order to detect an important difference between a 'bare pass' score (6.0/10 = C minus grade) in the control group and a 'good' score (7.38/10 = B grade) in the intervention group.

Statistical Methods

Data on 39 nurses were analyzed using an 'intention to treat' strategy. Descriptive statistics were used to summarize the usability of the protocol, satisfaction questionnaires, and demographics. Responses to the Likert scale in the usability survey were re-classified as agree (i.e., *strongly agree or agree*), disagree (i.e., *strongly disagree or disagree*), and neutral. An independent samples *t*-test was used to detect differences between the intervention and control groups for nurses' knowledge scores. The quality of decision support provided by each nurse was calculated as the average score of the two raters, blinded to group assignment. After adjusting for baseline measures, differences in decision support quality scores and length of simulated calls between intervention and control groups one month post-intervention were assessed using analysis of covariance (*ANCOVA*) (Vickers & Altman, 2001). Reliability of the decision support quality scores between raters was assessed using the intraclass correlation coefficient (*ICC*) (Streiner & Norman, 1995). All statistical tests were two-sided, calculated using the Statistical Package for Social Sciences software (version 12.01, SPSS, Chicago, Illinois, USA) and verified by a statistician.

Results

Between November and December 2003, 41 nurses consented to participate. During the autotutorial, two nurses in the intervention group dropped out of the study citing too many competing demands both at work and home as their reason. The demographic characteristics of those in the intervention and control groups were similar (see Table 3.3). There were no statistically significant differences between groups in the quality or length of their baseline calls with simulated patients.

Table 3.3
Characteristics of Nurses by Group

	Intervention <i>n</i> =19	Control <i>n</i> =20
Employed as staff nurses	19 (100)	20 (100)
Female gender	19 (100)	19 (95)
Undergraduate nursing degree or higher	9 (47)	8 (40)
Nursing experience > 5 years	19 (100)	20 (100)
Length of employment at health line > 12 months	11 (58)	10 (50)
	Mean (<i>SD</i>)	Mean (<i>SD</i>)
FTE employment status	0.74 (0.15)	0.76 (0.16)
Total decision support quality score out of 12	6.33 (2.21)*	5.20 (2.00)
Length of call in minutes	17.77 (4.47)*	16.67 (7.71)

Note. Data are numbers (%) unless otherwise specified; FTE = full time equivalent; *based on 18 taped calls

Nurses' Knowledge and Progress through the Autotutorial

Intervention group nurses had a mean knowledge score of 74.1% (*SD*= 15.8), whereas the control group score was 60.2% (*SD*= 14.6) ($t=2.86$, $p=0.007$). Of the 19 intervention nurses, 12 nurses progressed through 100% of the autotutorial, 2 nurses through >50%, and 4 nurses through <50%. One nurse read a printout of the online materials only.

Decision Support Quality and Call Length

The mean decision support quality score for nurses in the intervention group improved from 6.33 out of 12 at baseline to 9.75 one month post-intervention (see Table 3.4; Figure 3.1). The mean scores for the control group were 5.2 out of 12 and 5.3 at the same time points. After adjusting for baseline scores, there was a statistically significant

intervention versus control group difference of 4.11 out of 12 ($p < 0.001$). Overall, inter-rater reliability for the quality of decision support scores was moderate ($ICC = 0.66$, 95% $CI = 0.51$ to 0.77).

Table 3.4

Difference in Mean Quality of Decision Support Provided Between Intervention and Control Groups at Baseline and 1 Month Post-Intervention

	Intervention $n=18$ mean (SD)	Control $n=20$ mean (SD)	Difference between means (95% CI)	p value
Baseline quality of decision support out of 12	6.33 (2.21)	5.20 (2.00)		
1 month later quality of decision support out of 12	9.75 (2.05)	5.33 (2.14)		
Change Score	3.42 (2.70)	0.13 (2.37)	3.29 (1.62 to 4.96)	$t = 4.00$ $p < 0.0001$
ANCOVA			4.11 (2.71 to 5.51)	$t = -5.97$ $p < 0.0001$

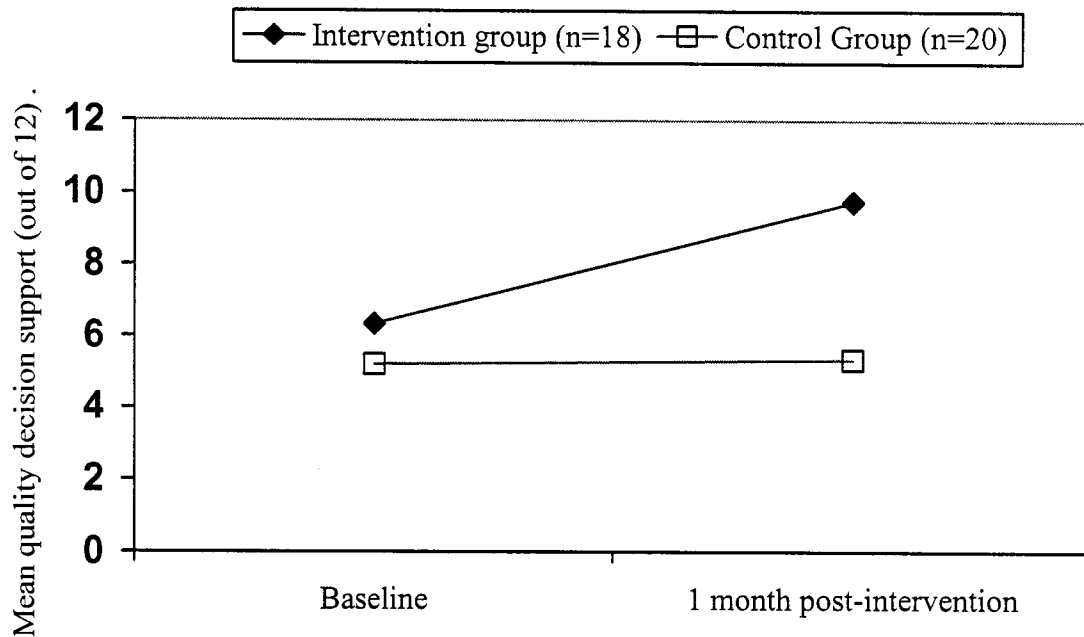


Figure 3.1 *Change in Mean Decision Support Quality Scores for the Intervention and Control Groups from Baseline to 1 Month Post-Intervention*

One month post-intervention, over 94% of the nurses in both groups verified the decision being made and provided information on the condition, options, benefits, and harms (see Figure 3.2). Compared to the control group, the nurses in the intervention group were

more likely to assess callers' needs related to information (94% vs. 69%), clarity of values (78% vs. 31%), and support from others involved in the decision (78% vs. 6%). A higher proportion of nurses in the intervention group verified the timing of the decision (89% vs. 44%) and the caller's stage of decision making (100% vs. 44%). Nurses in the intervention group were more likely to tailor their dialog to the caller's needs (72% vs. 39%) by helping them clarify their values associated with the benefits and harms of the options (67% vs. 42%) and discussing ways to address support needs (58% vs. 6%). Overall, a higher proportion of nurses in the intervention group used their time efficiently (61% vs. 39%) with a balance between providing guidance and linking callers to resources, and no excess time in any one area. Total decision support quality scores of 75% or greater were achieved by 14 (78%) of the nurses in the intervention group and 2 (10%) in the control group (see Figure 3.3).

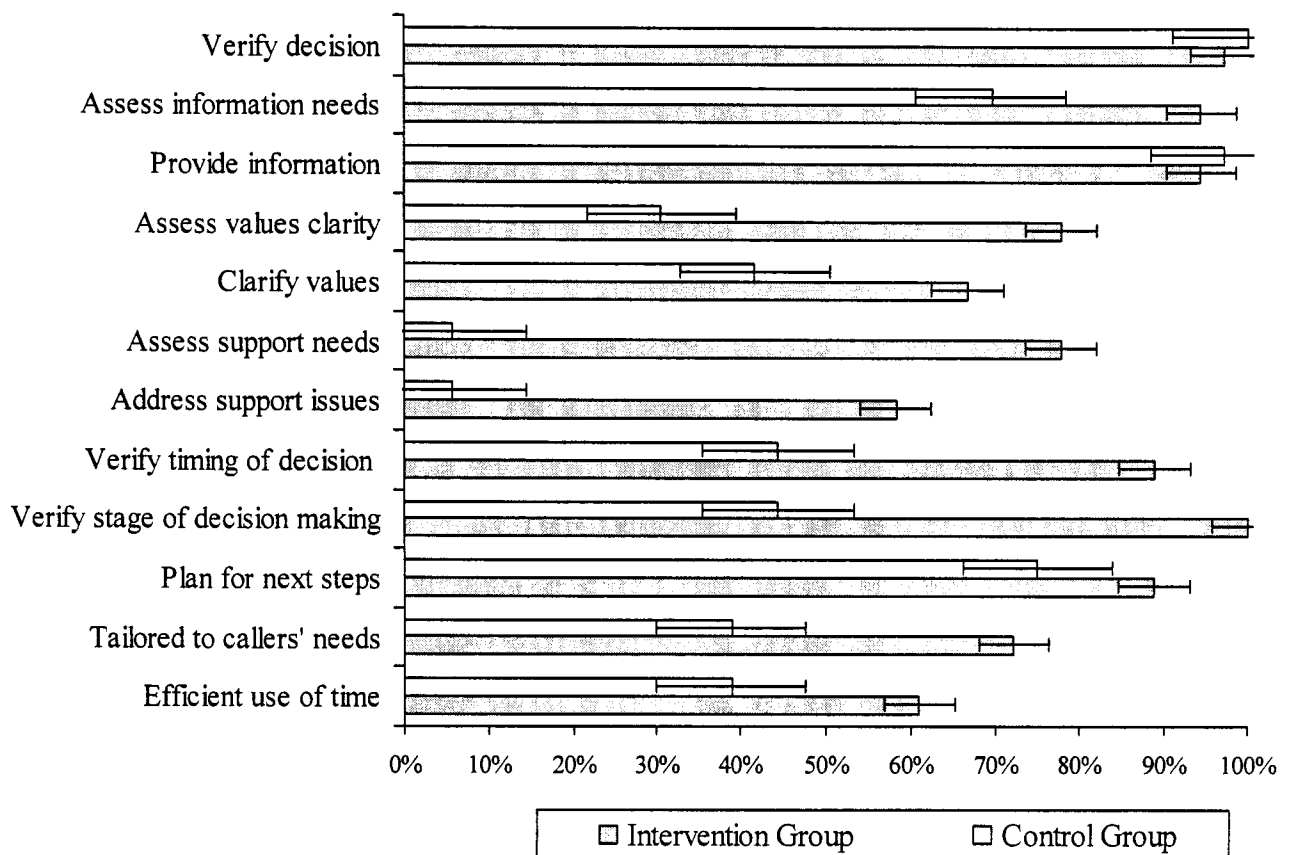


Figure 3.2 Mean Proportion ($\pm SE$) of Nurses Providing Elements of Quality Decision Support by Group

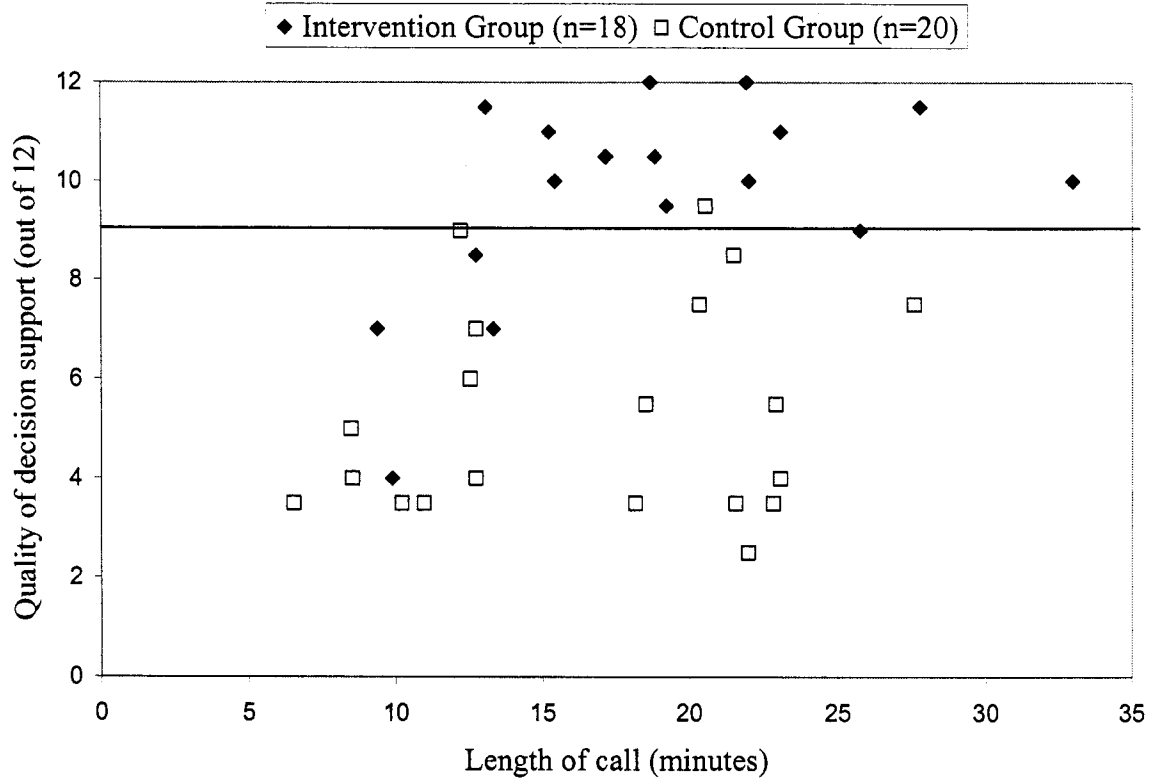


Figure 3.3 *Differences in Decision Support Quality by Length of Call Between the Control and Intervention Groups after Decision Support Training*

There was no statistically significant difference between groups on the mean length of the calls at baseline and one month post-intervention (see Table 3.5). When post-intervention quality of decision support was plotted against call length for nurses in the intervention group, there did not appear to be a relationship (see Figure 3.3).

Table 3.5

Difference in Mean Length of Calls between the Intervention and Control Groups at Baseline and 1 Month Post-Intervention

	Intervention <i>n</i> =18 mean (<i>SD</i>)	Control <i>n</i> =20 mean (<i>SD</i>)	Difference between means (95% <i>CI</i>)	<i>p</i> value
Baseline length of call in minutes	17.77 (4.47) 95% <i>CI</i> 14.1 – 20.7	16.67 (7.71) 95% <i>CI</i> 13.9 – 19.5		
1 month later length of call in minutes	18.54 (6.25) 95% <i>CI</i> 15.6 – 21.5	16.69 (6.49) 95% <i>CI</i> 13.9 – 19.5		
Change Score	0.762 (7.36)	0.027 (5.56)	0.735 (-3.53 to 5.00)	<i>t</i> = 0.35 <i>p</i> = 0.73
ANCOVA			1.335 (-2.38 to 5.05)	<i>t</i> = -0.73 <i>p</i> = 0.47

Acceptability of the Multifaceted Intervention

The intervention group was satisfied with the autotutorial and the skill-building workshop (see Table 3.6). Most nurses rated them as generally acceptable, easy to understand, comprehensive, and providing new information. For the autotutorial, more than 80% of the nurses identified the 'General Tools for Assessing, Providing, and Evaluating Decision Support' as the most useful section.

Suggestions to improve the autotutorial content included simpler non-theoretical language, additional case studies, and more bulleted information. As one nurse said, "*The autotutorial was a fair amount of information that I wasn't entirely certain I would use but the workshop brought it very nicely together.*" Nurses also identified the need for protected time to complete the autotutorial rather than trying to squeeze it in-between calls. In the workshop, the nurses appreciated having the chance to hear a taped decision support call (e.g., "*Once I heard a call, it started to be tangible*") and perform role playing (e.g., "*Acting as the interviewer really helped my understanding of the process*"). Evaluation results indicated that future workshops should include more realistic role playing that includes using the telephone and the computer database. All participants recommended the workshop to other call centre nurses.

At the end of the workshop, over 94% of the nurses in the intervention group rated the decision support protocol as having clear steps and being helpful (see Table 3.6). Ninety-five percent of nurses expressed a willingness to recommend the protocol to colleagues. Nurses agreed that the protocol (a) was compatible with their practice (78.9%), (b) provided a logical approach (89.5%), (c) was easy to try out (78.9%), and (d) helped with exploring the benefits and harms of options available to callers (84.2%). Another advantage of using the protocol, as reported by a nurse, was "*...increases focus on caller's needs rather than just giving information*". Nurses also appreciated the shift from ensuring callers arrived at a decision to providing guidance in the process of making the decision (e.g., "*...knowing I am not required to find the answer*"). Seventeen of the 19 nurses in the intervention group (94%) were comfortable using the decision support protocol and reported that they were likely to use it within the next three months. Potential barriers to using the protocol in practice included concerns about increasing call length, lack of integration with the current electronic charting system, and desire to have more practice using the protocol.

Table 3.6
Acceptability of the Multifaceted Intervention by the Intervention Group (n=19)

Questionnaire items	Online Autotutorial (n=15)	Skill-building Workshop (n=17)	Decision Support Protocol (n=19)
Overall impression	Very favourable Somewhat favourable Somewhat unfavourable Very unfavourable	4 (26.7) 10 (66.7) 1 (6.7) 0	Excellent Good Fair Poor No response
		10 (58.8) 6 (35.3) 0 0 1 (5.9)	n/a
Clear or easy to understand	Very easy... Somewhat easy... Not very easy... Not at all easy...	3 (20.0) 9 (60.0) 3 (20.0) 0	Very easy... Somewhat easy... Somewhat complex... Complex...
		12 (70.6) 5 (29.4) 0 0	Everything was clear Most things were clear Some things were clear Many things were unclear
Comprehensive	Very... Somewhat... Not very... Not at all...	12 (80.0) 3 (20.0) 0 0	Too much Just right Not enough No response
		1 (5.9) 15 (88.2) 0 1 (5.9)	n/a
Provided new information	Yes No Unsure	15 (100) 0 0	Yes No Unsure No response
		16 (94.1) 0 0 1 (5.9)	n/a
Helpful in supporting callers	Yes No Unsure	13 (86.7) 0 2 (13.3)	n/a Very helpful Moderately helpful Somewhat helpful Not helpful
		11 (57.9) 8 (42.1) 0 0	
Willingness to recommend to others	n/a	14 (82.4) 0 0 3 (17.6)	Definitely... Probably... Probably not... Definitely not...
		12 (63.2) 6 (31.6) 1 (5.2) 0	

Note. Data are number (%); n/a = not assessed.

Comment

The multifaceted intervention, designed to address identified barriers experienced by call centre nurses supporting callers facing values-sensitive health decisions, improved nurses' decision support knowledge and performance of skills, particularly in discussing values and the involvement of others. The mean knowledge score of 74% (grade B) in the intervention group who used the autotutorial was similar to the pilot test results of 13 nurses (76%). As hypothesized, control group nurses received only a passing grade of C minus (60%). In the calls from simulated patients, the intervention group nurses were more likely to have assessed the callers' decisional needs (i.e., uninformed, unclear values, and pressure from others) and tailored their coaching appropriately. The success of the multifaceted intervention was consistent with previous research indicating that interactive education sessions are effective for implementing innovations in nursing and medical practice (Cauffman et al., 2002; Grimshaw et al., 2004; Thomas et al., 1999). In contrast, the control group nurses continued to primarily focus on assessing and providing information, regardless of the presenting caller's needs.

While 96% of nurses provided callers with information on the condition, options, and associated benefits and harms, the information provision was not necessarily based on the assessed needs of these simulated callers. For example, two of the three scenarios were designed to simulate situations where the patient had unclear values or was experiencing pressure from others involved in the decision. However, in the calls by simulated patients using these scenarios, nurses who had not participated in the intervention failed to assess client needs adequately; moving quickly to information provision rather than values clarification or addressing support needs as required. The fact that these nurses primarily intervened by providing information was not surprising given that discussing values and handling support issues are not included within their standards of nursing practice (RNABC, 2004). However, previous research on patient decision aids with or without nurse coaching has demonstrated that information alone is inadequate in order for patients to make quality decisions when callers are facing multiple options with benefits and harms that they may value differently (O'Connor et al., 2003a). Achieving informed choices congruent with personal values often requires coaching callers to weigh the outcomes of their options and communicate their values with others (Briss et al., 2004; O'Connor, 1995; Ratliff et al., 1999;

Sepucha et al., 2004). Quality decision coaching, particularly with regard to assisting clients with values clarification and communication of their values with others, requires explicit education and skill development opportunities (Elwyn & Charles, 2001; Guimond et al., 2003; O'Connor et al., 2004; Towle & Godolphin, 2001). Furthermore, such opportunities are generally not offered in basic health professional programs.

The improvement in nurses' knowledge and skills in discussing callers' values demonstrated the effectiveness of providing professional development sessions within the practice setting. One month after nurses participated in the multifaceted intervention, the majority of the trained nurses intervened by clarifying simulated patient callers' values and guiding them in handling opinions from others involved in the decision, compared to less than 42% of the nurses in the control group. Nurses' skill development could be further facilitated through practice using the decision support protocol with simulated patients in routine education sessions (Towle & Godolphin, 1999) and by encouraging nurses to self-assess the quality of decision support provided to real callers using the 12-item DSAT used in this study. Self-assessment of performance is a form of reflective practice which is an expectation of practicing nurses (Liepins, 2004; RNABC, 2002).

The provision of quality decision support did not have a negative impact on call length which was reassuring, given nurses' concerns about time spent on calls and organizational pressure to minimize call length. Rather than increasing the length of the call by having nurses discuss values and support issues, it appears that nurses used their time more wisely to address those needs presented by the simulated patient callers. Our study is the first to published call length for values-sensitive decision support calls. The mean call length of 18 minutes ($SD= 6.5$) in this study was longer than the 12.5 minute guideline for calls at the participating call centre, but was in accordance with the guidelines provided by the supplier of the call centre information database. Healthwise Incorporated suggests that symptom triage calls take 8 to 12 minutes and that health information calls take 15 to 20 minutes (J Dundas, personal communication, May 10, 2004). Our results are similar to another study that found that in-person nurse coaching (to clarify patients' values and discuss preferred decision making role) prior to discussion with a surgeon took an average of 20 minutes ($SD= 6.2$) (Kennedy et al., 2002). According to the study participants, call length

might be shortened if the decision support protocol were to be integrated within the electronic charting system, rather than being a separate document.

One challenge, when offering nurses continuing education opportunities during work hours, is maintaining service delivery. This study found that the four components of the multifaceted intervention (e.g., autotutorial, workshop, performance feedback, decision support protocol) were acceptable to the nurses and feasible for use in a busy nursing workplace. While the evidence from this study suggests that the call centre services would not be negatively affected, further evaluation is required to verify this finding. The online autotutorial provided a self-paced approach for independent learning and was completed by most of the nurses. However, the nurses indicated the need for protected time to complete the autotutorial rather than trying to use it between telephone calls. The decision support protocol offered nurses a practical tool to reinforce new knowledge, operationalize the elements of decision support in their practice, and provide a structured approach for guiding and documenting their calls. Although the workshop required nurses to be pulled away from their regular call centre nursing responsibilities, it proved successful in developing nurses' decision support skills and enhancing their comfort in using them.

Limitations

Limitations are discussed as they related to the potential for contamination, Hawthorne effect, and generalizability of the findings. Although the trial took place at a single centre, contamination of the control group was unlikely for several reasons: (a) The intervention group nurses were asked not to discuss the intervention with their colleagues, (b) nurses work at individual workstations with little opportunity to discuss calls (Stacey et al., 2004), and (c) developing values clarification skills is not likely to occur by over-hearing other nurses as it requires explicit educational training (Elwyn & Charles, 2001; O'Connor et al., 2004; Towle et al., 2001). Furthermore, if there had been contamination, one would have expected improved quality decision support scores for the control group, which remained relatively unchanged from baseline.

Given that nurses were not blinded to the simulated calls and were aware that their performance was being audited, the study results may have been biased by the Hawthorne effect. For example, more nurses may have used the patient decision aids for the simulated calls compared to their usual practice.

A third limitation is generalizability of the findings. Nurses in the study were voluntary participants and may have been more motivated than non-participants to enhance their nursing practice. Although, demographic characteristics of participants were comparable to the entire call centre nursing staff (Stacey et al., 2004). Given that values-sensitive decision support is novel for nurses, it is likely that the current intervention would be appropriate for the other nurses within this call centre and nurses providing patient education in other practice environments.

Finally, given the short follow-up period for the evaluation and the fact that there are some unaddressed organizational level barriers influencing their practice (e.g., pressure to minimize call length, unclear program direction to provide values-sensitive decision support, limited public awareness of decision support services, lack of integration of decision support protocol in the information database), it is unclear whether or not these improvements in their performance will be transferred to real callers and sustained over time.

Conclusions

This is the first study evaluating the implementation of decision support by call centre nurses to coach callers facing values-sensitive health decisions. Although limited to one call centre, this study showed the hypothesized benefits of the multifaceted intervention on nurses' knowledge and decision support skills without adversely affecting the length of the calls. Nurses were able to build upon their patient teaching experiences and begin coaching simulated callers through a process of decision making that included exploring values and support issues. The feasibility and acceptability of the multifaceted intervention was evident in nurses' active participation and expressed satisfaction.

Future research should evaluate the effect of implementing values-sensitive decision support on patient, practitioner, and system outcomes. Relevant patient outcomes include level of participation in decision making, decisional conflict, patient and practitioner perception of patient preparation for decision making, and decision quality (Degner, 1992; O'Connor, 1995; Ottawa Health Research Institute [OHRI], 2004). System level outcomes should focus on the volume and length of calls requiring values-sensitive decision support, impact on staffing patterns, actual patient decisions, and resulting cost implications for the call centre and health system.

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Chapter 4

Uptake and Sustainability of Decision Support by Call Centre Nurses for Coaching Callers Making Values-Sensitive Health Decisions

Stacey, D., Pomey, M.P., O'Connor, A.M., Graham I.D.

Abstract

Background

Evidence-based decision support interventions to prepare patients for making values-sensitive health decisions have not been widely implemented. Nurse decision support coaching combined with patient decision aids is more cost-effective than either decision aids alone or usual care. Little is known about effective strategies to implement decision support.

Objectives

To describe call center nurses' uptake of a decision support protocol following a multifaceted implementation intervention and the factors influencing sustainable nursing practice changes within a call centre environment.

Methods

Multiphase exploratory case study, over seven months at a Canadian province-wide call centre, guided by the Ottawa Model of Research Use. Multiple sources of data to monitor uptake and elicit factors influencing sustainability included a survey ($n=31$ nurses), 2 focus groups with a total of 8 nurses, interviews with 4 administrators, and document review. The nurse participants were exposed to a multifaceted intervention that involved an online autotutorial, decision support protocol, skill-building workshop, and performance feedback from simulated calls.

Results

Of 31 nurses who participated in the intervention, 25 nurses responded to the uptake survey. Eleven of the 25 nurses had used the decision support protocol within one month of the intervention when providing values-sensitive decision support to callers and 22 intended to use it within the following month. Although some nurses found it challenging to begin using the protocol, most nurses reported that they (a) were more likely to recognize callers needing decision support, (b) changed their approach to handling these calls, and (c) were positive about this enhancement to their practice. Strategies to address unresolved barriers and promote sustainability included integration of the decision support protocol in the call centre database, streamlining the patient decision aids using a more point form approach,

clarifying the direction of the call centre's program, tailoring call length guidelines to different types of calls, incorporating decision support training in the staff development plan, and informing the public of this new service.

Discussion

The multifaceted intervention successfully increased nurses' uptake of the decision support protocol for coaching callers facing values-sensitive decisions. For sustainability, interventions are required to manage barriers in the practice environment and integrate decision support into the organization's policies, resources, and routine activities.

Background

I was very excited about my pregnancy until I saw the doctor. She suggested that because I am 37, I need to consider whether or not to have an amniocentesis and then gave me some information. Now it seems my life is turned upside down; one day I think I should have the amnio but the next day I don't want to risk losing the baby. I feel that I know the facts but I'm torn! 'Simulated caller' Sam, age 37

Over the last several years, there has been a shift from a paternalistic to a shared model of decision making in which patients, like Sam, are more involved in the process of making health decisions (Charles, Gafni, & Whelan, 1997; Coulter, 2002; Deber, 1994a; Deber, 1994b). For shared values-sensitive decisions, physicians diagnose and discuss options, while patients share personal preferences shaped by their social situation (Figure 4.1). However, many patients making health decisions experience uncertainty and require guidance in understanding the information about their available options and clarifying their associated values (O'Connor et al., 2003b). Evidence-based patient decision aids, used as adjuncts to practitioner consultation, increase patient participation in decision making and improve decision quality (O'Connor et al., 2003a). When nurse coaching of patients in preparation for discussing decisions with their practitioner was combined with patient decision aids, the cost-effectiveness of the intervention was greater than with either decision aids alone or usual care (Kennedy et al., 2002). Nevertheless, decision support interventions have not been widely implemented and delivery models for decision support services need to be evaluated (Edwards, Evans, & Elwyn, 2003; O'Cathain, Walters, Nicholl, Thomas, & Kirkham, 2002; O'Connor et al., 2003a).

Health call centres with 24-hour public access to telephone consultation by nurses are becoming more common. These centres offer symptom triage, health information, and, in some cases, values-sensitive decision support (Health Dialog, 2004; National Health Service [NHS], 2004; Stacey et al., 2003). Quality decision support for callers facing values-sensitive health decisions involves assessing callers' decisional needs, providing interventions tailored to these needs, and evaluating the decision making process (Figure 4.1) (O'Connor et al., 1998). There is little evidence on the impact of nurse telephone consultation on patient, practitioner, or system outcomes.

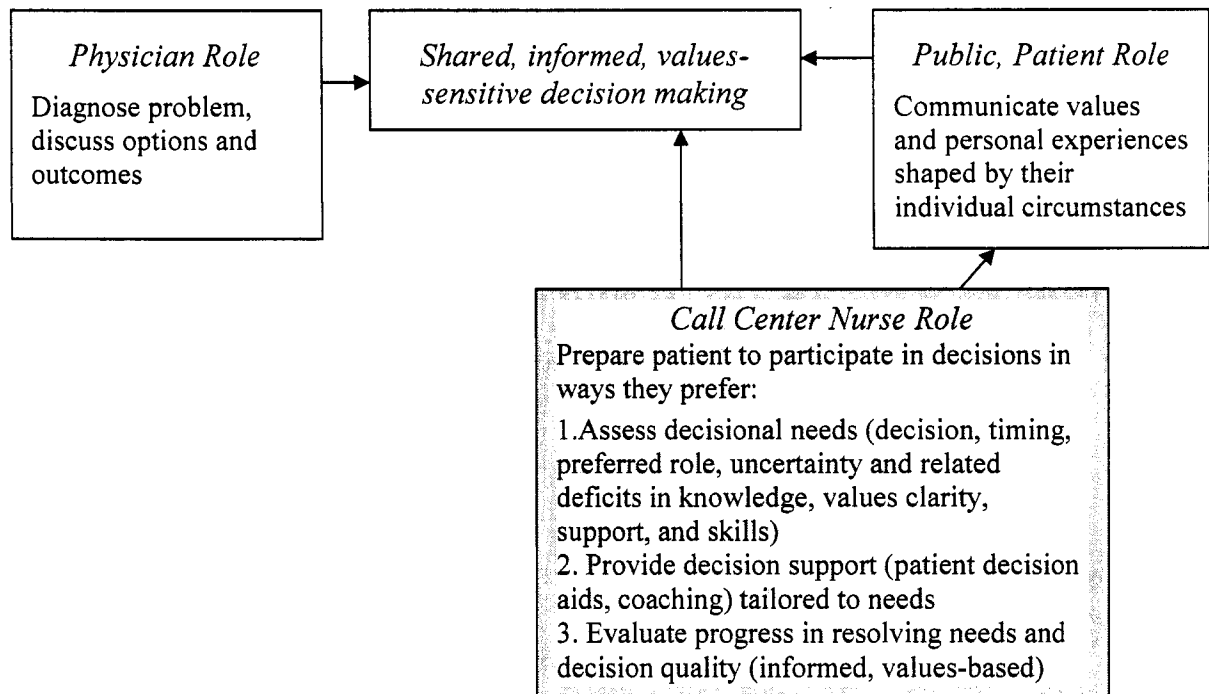


Figure 4.1 Model of shared informed values-sensitive decision making Based on the Shared Treatment Decision Model (Charles et al., 1997), the Autonomous Patient (Coulter, 2002) and the Ottawa Decision Support Framework (O'Connor et al., 1998).

Previous research has focused primarily on the effectiveness and economic impact of telephone triage provided through physician group practices and call centres (Bunn, Byrne, & Kendall, 2004; Hanlon et al., 2004; Leibowitz, Day, & Dunt, 2003; Stacey, 2002; Stacey et al., 2003). No known evaluation has been conducted of the quality of values-sensitive decision support provided through these services (O'Connor et al., 2003a). Two studies evaluated the influence of the call centre environment on nursing outcomes, both with NHS Direct in England (Hanlon et al., 2004; Knowles, O'Cathain, Morrell, Munro, & Nicholl, 2002). NHS Direct is a country-wide toll-free 24-hour call centre with nurses who triage symptom-based calls, non-nurse call handlers who provide health information, and Internet-based health resources that include access to patient decision aids (NHS, 2004). The studies found that, although most nurses at NHS Direct were satisfied with their work, some were concerned about the repetitiveness of responding to similar calls, the limited opportunities for continuing education, a perceived loss of practical nursing skills, high workload pressure,

and a lack of feedback on patient outcomes. (Hanlon et al., 2004; Knowles et al., 2002).

Unlike NHS Direct, health call centres in Canada provide services in addition to triaging symptoms and many are exploring opportunities to expand their nursing activities into areas such as chronic disease management (Stacey et al., 2003). Another UK study, of 1,141 call centre employees working within 36 health and commercial call centres, suggested that in order to encourage healthier workplace environments, call handlers should manage their own workload, use their skills to their full potential, be more autonomous and accountable for their performance, and have some variety in their work activities (Sprigg, Smith, & Jackson, 2003).

There is no ideal approach to ensuring successful and sustained implementation of innovations, such as values-sensitive decision support, in nursing practice (Estabrooks, 2003; Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004; Grimshaw et al., 2004; Shediac-Rizkallah & Bone, 1998; Thomas, McColl, Cullum, Rousseau, & Soutter, 1999). An innovation in nursing is something novel that is introduced into practice which can involve new knowledge, skills, or materials (Rogers, 1995). Implementation, according to Greenhalgh and colleagues (2004), involves “active and planned efforts to mainstream an innovation within an organization” (p. 581). The Ottawa Model of Research Use is a planning, action-oriented framework that has been used to guide implementation of practice guidelines (Graham et al., 2003; Graham & Logan, 2004; Graham, Logan, Davies, & Nimrod, 2004; Logan & Graham, 1998; Logan, Harrison, Graham, Dunn, & Bissonnette, 1999; Lorimer, 2004). The implementation process involves four stages: (a) Assessment of barriers and facilitators at the level of the innovation (e.g., complexity, compatibility, advantageous), potential adopters (e.g., awareness, knowledge, skills, current practice), and practice environment (e.g., organization, patients); (b) design and implementation of interventions based on the known barriers and facilitators; (c) measurement of the adoption of the innovation; and (d) evaluation of the patient, practitioner, and system outcomes. According to this model, the adoption of an innovation is more likely if interventions are tailored to overcome identified barriers and build upon existing facilitators (Graham & Logan, 2004). Previous systematic reviews identified that the most effective intervention to change nursing practice was educational activities (Thomas et al., 1999). The most effective interventions to implement practice guidelines, mostly in medical practice, were reminders,

dissemination of educational materials, audit and feedback, and multiple interventions with educational outreach (Grimshaw et al., 2004).

Guided by the Ottawa Model of Research Use (Graham & Logan, 2004), we developed a multiphase implementation study to enhance the quality of decision support provided by call centre nurses to callers facing values-sensitive health decisions. Data were collected from December 2003 to June 2004 at a Canadian province-wide call centre in three main phases: Phase I at baseline, phase II during the intervention, and phase III one to three months post-intervention. In phase I, we evaluated the barriers and facilitators influencing nurses' provision of decision support to callers facing values-sensitive health decisions (Stacey, Graham, O'Connor, & Pomey, 2004a). Through focus groups, interviews, a survey, and audit of baseline simulated patient calls, the most common barriers were identified at the level of the innovation (i.e., limited usability of patient decision aids via telephone and a lack of a structured approach to guide nurses discussing decisional needs), the level of the potential adopters (i.e., nurses' limited knowledge, skills, and confidence in providing decision support), and at the level of the practice environment (i.e., unclear program direction, pressure to minimize call length, and low public awareness of decision support services). Overall, nurses had positive attitudes about patients' participation in decision making and their role in supporting these patients.

In phase II, we designed a multifaceted intervention (i.e., online autotutorial, skill-building workshop, decision support protocol, and performance feedback on calls with simulated patients) to address some of the identified barriers and evaluated the effectiveness of the intervention in a randomized controlled trial (Stacey, O'Connor, Graham, & Pomey, 2004b). Compared to controls (n=20), nurses exposed to the intervention (n=19) had statistically significant improvements in their knowledge and quality of decision support provided to simulated patient callers, without increasing call length. Of the 20 nurses in the control group, 12 subsequently participated in the multifaceted intervention. An additional four call centre nurses (one staff nurse, three nurse supervisors and educators) participated in the intervention, one of whom, facilitated one skill-building workshop for the control group nurses.

In this paper, describing the last of the three phases, we report on the adoption of the decision support protocol and factors influencing sustainability of changes to nursing

practice within the call centre environment. Adoption, according to the Ottawa Model of Research Use (Graham & Logan, 2004), is the extent to which potential adopters' intend to use and actually use the innovation in practice. Sustainability beyond the intervention depends on achieving positive outcomes at each of the patient, practitioner, and system levels, and the degree to which innovations are integrated into routine practices and organizational structures (Greenhalgh et al., 2004; Shediach-Rizkallah et al., 1998).

Objectives

- To describe call center nurses' uptake of a decision support protocol following a multifaceted implementation intervention.
- To identify the factors influencing sustainable nursing practice changes within the call centre workplace environment.

Setting Description

Call Centre Services

The study took place at a Canadian province-wide health call centre serving a population of 4.2 million. The program provides toll-free 24-hour telephone consultation by registered nurses to help residents manage their health and participate actively in making health decisions. All calls go directly to a nurse or wait on hold until either a nurse is available or the caller leaves a voice mail message. Nurses are located at workstations with computer terminals, wearing telephone headsets, and within view of an electronic display board that indicates the number of callers waiting and availability of nurses. Unique from other call centres in Canada (Stacey et al., 2003), the call centre in this study is part of an integrated self-care program that also provides the public with access to a handbook and Internet health information resources that includes over 95 patient decision aids. Marketing of the services to the public has included a notice on the back of the self-care handbook, the program's website, and through occasional direct mailing by the provincial ministry of health to provincial residents. Despite minimal marketing of the program, a slow but steady increase in the monthly volume of calls from 7,173 in April 2001 to 22,631 in April 2004 has been reported.

Monthly reports, from December 2003 to June 2004, indicated that about 55% of the calls were about triaging symptoms, 25% were health condition-specific, and 20% were other calls (e.g., drug information, finding health services). Given that values-sensitive decision support calls are not routinely identified, it was difficult to determine the volume of calls, type of topics, or call length. Data extracted from the computerized health information database indicated that in 2003 the nurses accessed 80 different patient decision aids at least once, for a total of 803 times. The most commonly accessed patient decision aids are identified in Table 4.1.

Table 4.1
Top 20 Patient Decision Aids Accessed by Nurses in 2003 (N=803)

Category	Decision	<i>n</i>
Pregnancy-related	• breast or bottle feeding	150
	• birth control methods	76
	• amniocentesis*	30
	• circumcision	20
	• maternal serum triple screen	14
Medication-related	• acute bronchitis	26
	• asymptomatic HIV	21
	• Hepatitis C	20
	• ear infections in child	17
	• attention deficit disorder*	13
Treatment-related	• miscarriage	71
	• wisdom teeth removal	32
	• herniated disc*	26
	• gallstone attacks	23
	• plantar warts	20
	• hemorrhoids	19
	• uterine fibroids	18
	• kidney stones with lithotripsy	16
	• cataracts	14
	• breast cancer surgery	13

* topics of simulated patient calls in December 2003

Call Center Organizational Structure

In April 2001, the provincial ministry of health awarded a three-year contract to a private, not-for-profit management company to host and operate the call centre. Currently, the company has approximately 115 staff (108 nurses and 7 non-nurses) (Stacey et al., 2003).

The typical call centre nurse was female with over 20 years of nursing experience, working part-time hours, who had worked at the call centre for one year or longer (B. Findlay, personal communication, December 22, 2004; Stacey et al., 2004a). All nurses were members of a nurse's union, governed by a provincial collective agreement.

Staff nurses are grouped into three teams each led by a nursing supervisor. Nursing supervisors report directly to a non-nurse operations manager and indirectly to a nursing practice leader. The operations manager and nursing practice leader report directly to a director of operations who reports to the provincial ministry of health. Professional practice issues are reported directly to the ministry of health's medical director and indirectly to the ministry's nursing consultant.

Call Centre Quality Assurance Activities

To ensure program quality and minimize the risk of litigation (Canadian Nurses Association, 2000; Coleman, 1997), the call centre provides new staff with an orientation session, protocols to guide telephone consultations, audio-taping and documentation of calls, and ongoing monitoring of the organization's performance indicators. On hiring, nurses receive 105 hours of orientation and three months of mentoring. The orientation is focused mainly on triaging symptoms, with about 0.75 hours devoted to introducing the patient decision aids. The computerized health information database was purchased by the provincial ministry of health from Healthwise Inc. and adapted for Canadian use. It includes triage protocols, health information, patient decision aids, and a link to the call documentation system. The public also has access to this health information in the form of a handbook that explains triage decisions (i.e., how to care for oneself, when to seek professional care for common health problems), and a database of health topics and decision aids available on the program website.

Call centre activities are monitored and reported to the provincial ministry of health monthly using a set of performance indicators (e.g., respond to 80% of calls within 20 seconds) based on the Health Call Center Accreditation Standards of the Utilization Review Accreditation Commission Inc. (American Accreditation Health Care Commission, 2004). The monthly report provides statistics on call volume, call response time, call abandonment, length of calls, proportion of first time callers, call disposition (e.g., emergency, physician

visit, self-care), pre- and post-call intent of the caller, and results of a quality audit on a random sample of 100 taped nurse-patient calls.

Concurrent Call Centre Initiatives

Over the study period, there were several concurrent activities that were likely to have influenced our study of the process of implementing the intervention to enhance the quality of values-sensitive decision support. In January 2004, there were major changes to the roles and responsibilities of nursing supervisors and a new full-time nursing professional practice leader was hired. These changes resulted in the creation of a master staff development plan, major change in staffing patterns, and further exploration of the call centre's role in health care redesign (e.g., palliative care, chronic disease management, and follow-up post hospital discharge). In March 2004, nurses started verifying caller demographics by linking to the provincial ministry of health's confidential database that contains demographic data on all individuals who have used one or more ministry funded health services. Implementation of this practice change involved classroom training of all staff and subsequent performance review by nursing supervisors on real calls prior to autonomous practice. Over the study period, nurse absenteeism and inadequate staffing resulted in an unusual number of calls in the hold queue and as a result, higher pressure for nurses to respond quickly to calls and shorten their call length. Finally, the contract for the call centre services was due for renewal in the summer of 2004, which caused concern about job security among the nurses, increased organizational pressure to meet performance indicators, and re-directed administrative priorities to preparing a response to the imminently expected request for proposals.

Methods

The research design was a theory-driven exploratory case study. The Ottawa Model of Research Use (Graham & Logan, 2004) guided the collection of qualitative and quantitative data and facilitated the triangulation of evidence (Greenhalgh et al., 2004; Sidani & Braden, 1998; Yin, 2003). Ethics approval was obtained from the Research Ethics Board at the University of Ottawa.

Participants and Data Sources

Table 4.2 summarizes the number and nature of the participants and data sources in the study. Data collection methods included key informant interviews, focus groups, and a survey. Throughout the study, organizational documents such as monthly reports, minutes of meetings, organizational charts, newsletters, job descriptions, and advertisements informing the public of the program were collected.

Table 4.2
Representativeness of Data Collected by Source

Categories of participants	Nature of data sources	Number expected	Number participated
Purposeful sample of key informants: administrator setting strategic direction at the call centre, a nursing supervisor, a nurse educator, and a provincial ministry of health official	Individual interviews	4	4
Convenience sample of staff nurses exposed to the intervention	Focus groups	6 to 8	8
	Uptake of decision support protocol survey	31	25

Data Collection Tools

The interview and focus group guides (Appendix W, X) and uptake survey (Appendix Y) were designed for the study to collect data on the adoption of the decision support protocol, factors influencing the use of the protocol, and sustainable changes. These tools were based on (a) the Ottawa Model of Research Use (Graham & Logan, 2004), (b) the data collection tools used in phase I and II of the multiphase study (Stacey et al., 2004a; 2004b), and (c) evidence that emerged throughout the earlier phases of the study. Adoption of the decision support protocol was measured using a self-administered uptake survey that included questions about whether or not the nurses had used the protocol and their intentions to use it. Statements about factors influencing the use of the protocol were rated on a five-point Likert scale that ranged from *strongly agree* to *strongly disagree*. Researchers and practitioners with expertise in patient decision making, organizational change, and implementation of innovations into practice reviewed the interview and focus group guides,

and uptake survey to confirm their face validity. These data collection tools were subsequently pretested with nurses associated with another Canadian call centre and minor changes to their design were made.

Analysis

The analysis, guided by the Ottawa Model of Research Use (Graham & Logan, 2004), focused on exploring answers to three main questions:

1. Was the decision support protocol adopted into clinical practice?
2. What effect did the intervention have on nurses' approach to supporting real callers making values-sensitive decisions?
3. What factors are likely to influence the sustainability of values-sensitive decision support by call centre nurses?

Content analysis of the transcripts of the key informant interviews and focus groups was conducted to identify actual use of the decision support protocol in practice and factors influencing sustainability of nurses providing values-sensitive decision support. Within each of the key components of the Ottawa Model of Research Use, common themes that participants identified were inductively derived. Analysis of the transcripts was facilitated using NVivo (version 2.0.163, QRS International Pty. Ltd.). Participants were sent a document summarizing the interpretation of the interviews and focus groups in which they participated and were asked to verify its accuracy.

Quantitative data were coded numerically and analyzed descriptively using SAS (version 8.01, SAS Institute Inc., Cary, NC, USA). Responses to the Likert scale in the uptake survey were re-classified as agree (*strongly agree* or *agree*), disagree (*strongly disagree* or *disagree*), and neutral. To explore responses to each of the three main questions above, the qualitative and quantitative findings from the multiple data sources were triangulated and processed using NVivo.

Results

Characteristics of Participants

Of the 31 nurses who participated in the multifaceted intervention, 25 nurses (80.6%) responded to the uptake survey and 8 participated in the focus groups in June 2004 (see Table 4.2). Nurses in the survey had similar demographics when compared to all the nurses who participated in the intervention (see Table 4.3). Four administrators participated in the interviews.

Table 4.3
Characteristics of the Participants by Data Source

	Interviews & focus groups	Uptake survey	Multifaceted intervention
Frontline staff nurses	8 (66.7)	25 (100)	31 (100)
Nurse supervisor or educator	2 (16.7)	0	0
Non-nurse administrators	2 (16.7)	0	0
Length of employment			
≤ 6 months	1 (8.3)	4 (16.0)	5 (16.1)
7 to 12 months	3 (25.0)	8 (32.0)	9 (29.0)
>12 months	8 (66.7)	13 (52.0)	17 (54.8)
Employment status (full-time equivalent)	Mean 0.77	Mean 0.75	Mean 0.74
not reported (casual status)	1 (8.3)	2 (8.0)	2 (6.5)
BSc or higher education	7 (58.3)	10 (40.0)	13 (41.9)
Gender			
Female	10 (83.3)	25 (100)	30 (96.8)
Male	2 (16.7)	0	1 (3.2)
Years of nursing			
≤ 5 years	0	0	0
6 to 10 years	0	1 (4.0)	2 (6.5)
11 to 15 years	1 (8.3)	7 (28.0)	7 (22.6)
≥ 16 years	9 (75.0)	17 (68.0)	22 (71.0)
not reported	2 (16.7)	0	0
<i>N</i>	12	25	31

Note: Data are numbers (%) unless otherwise specified.

Was the Decision Support Protocol Adopted into Clinical Practice?

Eleven of the 25 nurses (44%) had used the decision support protocol within the month following the intervention and 14 nurses (56%) reported that they had not received

calls requiring values-sensitive decision support. Twenty-one nurses (84%) agreed that they were comfortable using the decision support protocol. Most nurses (92%) indicated that they intended to use the protocol within the next 3 months. Nurses in the focus groups shared their experiences using the decision support protocol with real callers. One nurse spoke of the challenges of getting started and learning through her early experiences.

It was just plunge in, see what you do the first time. So the first few I did, I did all in one day. And I may not have been right on all of them but I could see where I missed. The next one I thought was better.

What Effect did the Intervention have on Nurses' Approach to Supporting Real Callers Making Values-Sensitive Decisions?

Recognize need for decision support. After participating in the intervention, nurses reported being more likely to recognize callers experiencing decisional conflict (uncertainty), to identify when these calls were occurring, and to highlight the difficulty of classifying these calls in the database. One nurse shared, *"Whereas before I might have asked a series of questions before I came to a realization that they were in a complex decision making process. Now I can identify much more readily."* Nurses mentioned that values-sensitive decision support calls were more probable during the daytime hours compared to evenings or nights. As well, nurses identified that decision support calls would be difficult to identify in the database because they would usually be classified as a health condition-specific or medication-related call.

Improved decision support. Many nurses shared examples of how they thought their approach to providing decision support had improved. To exemplify, one nurse described how the protocol facilitated a more specific assessment: *"I'm more likely to ask questions about the decision and where they are on it instead of just making assumptions; which is a lot of what I did earlier."* Of the 25 nurses who completed the uptake survey, over 90% agreed that the decision support protocol was logical ($n=23$), helped prepare callers for discussing decisions with their practitioners ($n=24$), complemented the nurses' usual approach ($n=23$), and helped them to more fully explore the issues of importance to the callers ($n=24$).

Some nurses spoke about implicit use of the protocol as demonstrated by the following statement,

I am aware of those steps and listening while they're talking; get a sense that they've looked at both the pros and cons. And I might put in one or two questions to clarify, is there only one [person] making the decision. But I may not go through the whole protocol out loud or in documentation because it's already been revealed.

All 25 nurses (100%) who completed the uptake survey agreed that the protocol facilitated caller empowerment. This was further supported by focus group nurses' description of callers being more engaged in the discussion, "...and it's a dialogue and they really feel part of the dialogue." Another nurse shared, "...especially when you ask them the pros and the cons. You know suddenly the light goes on; like, I guess I could write them down."

One nurse who participated in a focus group suggested that callers will be better able to make future decisions because call centre nurses are now using a more consistent approach. Of the 25 nurses, 24 (96%) agreed that using the protocol provided a more consistent approach to supporting the callers. Several nurses described the new approach for handling these decision support calls as more efficient, streamlined, and shorter (e.g., "...with the specific tool to ask, I find the call goes quicker").

Positive perceptions about their enhanced practice. Nurses reflected on how they perceived their nursing practice after having provided decision support. One nurse validated the importance of the nursing role in providing the telephone consultation when she said, "Anybody can read the information... the value of nursing in my philosophy is that you're helping counsel, guide. Provide information, yes, but not just a telephone operator." Nurses appreciated having a structured process for approaching these types of calls which took the pressure off having to find the 'right decision'. For example, "I used to feel quite nervous that...I felt like I should know the answer. So this has given me a lot of power that you can help them, that you don't have to sort it out for them." Many nurses expressed their general satisfaction with their enhanced decision support role (e.g., "For me, this is the most enjoyable part"; "I came out knowing I made a difference"; "That's the job I want to do, help people making any decisions").

What Factors are Likely to Influence the Sustainability of Values-Sensitive Decision Support by Call Centre Nurses?

Opportunities to enhance sustainability were identified by participants in the focus groups, interviews, and uptake survey. Suggestions focused primarily on integrating values-sensitive decision support into the organization's policies and procedures, providing follow-up interventions to reinforce nurses' applying these novel skills in practice, and addressing the remaining barriers in the practice environment. These data are presented in context with the baseline barriers identified and addressed with varying levels of success in the Phase I and II studies (see Table 4.4) (Stacey et al., 2004a; 2004b).

Decision support tools. To facilitate easy access to and use of the decision support protocol and patient decision aids, nurses identified the need to have these decision support tools readily available for use over the telephone. In the uptake survey, 18 nurses (72%) agreed that the protocol, in its current format, takes extra time and effort to navigate, transfer into the documentation system, and use for documenting. By including the protocol on a screen within the health information database, one nurse in the focus group suggested, "...as soon as you recognize that somebody is in one of these situations and you can push a button on your screen and have it pop in your call manager. How easy would that be! That would be swell." Nurses suggested that patient decision aids in the database needed to be easier to locate and revised for use over the telephone. For example, one nurse stated,

And setting it up with pro's, con's, not big sentences to explain each point. I mean if we're supposed to know it, we're supposed to know it. So you know, you might want to have preambles for all this stuff, if you have to. But it is cut and dry. Get it short.

Point form.

As well, nurses wanted the protocol and the patient decision aids linked into the charting system such that nurses' documentation of callers' responses to questions would be automatically transferred into the electronic health record; similar to the way in which auto-charting occurs within the database symptom triage protocols.

Ongoing enhancement of decision support skills. Nurses in the focus groups requested opportunities to further develop their decision support skills and integrate their enhanced skills in practice. For example, "it would be great just to have more of those simulated calls...just to be able to do them") and routine inservices focused on sharing

Table 4.4
Barriers to Nurses Providing Values-Sensitive Decision Support over Time with Suggestions to Enhance Sustainability

	Identified in Phase I baseline study	Addressed by multifaceted intervention in Phase II	Outcomes in Phase II Randomized Trial	Phase III Suggestions to enhance sustainability
<i>Innovation: Decision Support</i>				
Patient decision aids are hard to locate in the database and use with patients over telephone	Identified	Not applicable	Remains	- Improve sensitivity of search engine - Revise with more point form and auto-charting
No structured process for preparing callers for shared decision making	Identified	Decision support protocol	Resolved	- Ongoing use of protocol was viewed positively by the nurses
Decision support protocol is not integrated with charting	Not yet identified	Not applicable	Identified	- Integrate protocol in computer database with auto-charting ability
<i>Potential Adopters: Nurses</i>				
Inadequate decision support knowledge	Identified	Autotutorial	Resolved	- Not applicable
Inadequate skills in providing decision support	Identified	Workshop with feedback on current practice	Partially resolved	- Mentoring from supervisors to further develop nurses' skills - Revise call audit tool to include key decision support elements - Continuing education to reinforce learning - Encourage nurses to self-assess their performance
Low confidence in ability to provide decision support	Identified	Workshop role play	Partially resolved	- Nurse supervisors to give positive feedback on quality of decision support provided
<i>Practice Environment: Call Centre</i>				
Unclear program direction to provide decision support	Identified	Not applicable	Remains	- Determine impact of decision support calls on program services - Establish clear direction
Limited orientation of new staff to decision support resources	Identified	Not applicable	Remains	- Use feedback to revise multifaceted intervention - Extend training to all nurses including nurse supervisors
Pressures to minimize call length	Identified	Not applicable	Remains	- Revise call classification to collect decision support calls statistics - Establish call length guidelines tailored to types of calls - Revise patient decision aids for easier use by telephone - Integrate decision support protocol into the database
Low caller awareness that call centre nurses provide decision support	Identified	Not applicable	Remains	- Market decision support services to public & other health services

experiences with decision support calls to offer a “*feeling of connection with other people who are doing them*”. The nursing supervisors were identified as those best positioned to mentor the nurses, given their current responsibilities include providing feedback from call audits and coaching nurses to improve call handling. One nurse shared, “*If there is a problem with your times, what she [nursing supervisor] does is goes over that with you and tries to coach you and pulls calls that are long to see, you know, where you need shortening.*” Although nursing supervisors were invited to participate in the intervention as non-study participants, none of them chose to do so.

Monthly audit of decision support calls. Nurses expressed concern about a call involving decision support being randomly selected for the monthly call quality audit. “*I don’t think that they [nursing supervisors] would know how to acknowledge what was done well and try to coach to what other things could be done better.*” To facilitate audits of decision support calls, another nurse suggested that the call centre’s current audit tool be adapted to include the key elements from the Decision Support Analysis Tool (Stacey et al., 2004b).

Fit of decision support with program direction. Nurses suggested the need for clear program direction indicating that providing decision support for callers facing values-sensitive decisions is an expectation of their role. To that end, appropriate changes would need to be made to organizational policies and procedures. Nine of 25 nurses (36%) in the uptake survey thought that they had clear direction from the organization that they should be providing values-sensitive decision support. One administrator appeared undecided regarding the need for an explicitly stated call centre directive that nurses provide decision support as evidenced by the following statement, “*To communicate the value that this is a positive change for nursing practice as it takes the [call centre] in a new direction, in a direction I think we want to go in*”. Several key informants identified that prior to an organizational commitment to having call centre nurses provide values-sensitive decision support, there was a need to determine the impact on call centre staffing, performance monitoring, the nursing education plan, and budget. Of the 25 nurses responding to the uptake survey, 22 (88%) agreed that call centre nurses should provide values-sensitive decision support guided by the decision support protocol, 20 (80%) thought that all call

nurses should use the protocol in their practice, and 2 (8%) thought that only a sub-group of specialized nurses should be using the protocol.

Decision support training for other nurses. There is a need to expand the current orientation program to include developing nurses' knowledge and skills in decision support. In the uptake survey, 22 nurses agreed (88%) that nurses needed specific education sessions, beyond that which is provided in their orientation, to develop their knowledge and skills in values-sensitive decision support. One nurse suggested, "*We need to embed it in our continuing education program*". The current multifaceted intervention (i.e., decision support protocol, autotutorial, workshop, and performance feedback on simulated calls) was acceptable to over 90% of participants (Stacey et al, 2004b) and after making the suggested revisions could be used for ongoing decision support training. Nurses described the simulated patients as useful for performance evaluation and several offered to be simulated patients for other staff developing these skills. The nurses didn't agree on the timing of this training. One nurse suggested three to six months after starting to work at the call centre, while another said "*in their orientation week or the week after their orientation week so that they start out doing this when they're taking decision making type calls.*"

Call length guidelines. Additional changes proposed for sustainability included the development of call length guidelines specific to decision support calls and the establishment of mechanisms for identifying these calls (e.g., type of decisions, volume of calls, call quality and length). Throughout the study nurses were concerned about the decision support calls taking longer than the 12.5 minute call length guideline and identified organizational pressures to minimize calls. In the interviews and focus groups post-intervention, participants described how the actual call length guidelines for symptom based calls (less than 10 minutes) and health condition-based calls (less than 15 minutes) were combined, soon after the call centre was established, into a 12.5 minute guideline that could facilitate monthly auditing of call length. Despite this frequently identified barrier, one nurse in the focus group shared how she rationalizes longer calls,

...so I personally don't worry about it. And I find it all balances out...If you don't deal with it now then it sort of goes down the line. It's going to take more time and money and everything else.

Marketing of decision support services. Finally, nurses and administrators advocated that, for sustainability, there was a need to inform the public and health care providers about the decision support services available through the call centre. For example, one nurse suggested that the public could be notified that “*nurses can really help you to try to find out what’s important and really help you to make this decision.*” These suggestions were supported by findings in the uptake survey where only 4 of 25 nurses (16%) agreed that the public was aware that it could receive support from call centre nurses when faced with values-sensitive health decisions.

Discussion

This is the first known study of the implementation of values-sensitive decision support by call centre nurses. The selected call centre is unique in Canada because of its access to patient decision aids to support values-sensitive decisions. Yet the provision of decision support, using patient decision aids and nurse coaching, had not been fully implemented or evaluated. Our study demonstrated that the multifaceted intervention was successful in overcoming some barriers interfering with nurses’ ability to provide quality values-sensitive decision support. The autotutorial and workshop facilitated nurses developing their knowledge and skills in providing decision support, the decision support protocol provided nurses with a structured process to follow, and role play in the workshop built their confidence in providing decision support. Unaddressed barriers, particularly in the practice environment (e.g., pressure to minimize call length, protocol not integrated with the database, unclear program direction, low public awareness), continue to interfere with nurses integrating changes in their clinical practice. These barriers, if not managed, are likely to limit the sustainability of values-sensitive decision support services (Estabrooks, 2004; Graham & Logan, 2004; Greenhalgh et al., 2004; Shediach-Rizkallah et al., 1998). Moreover, without fully implementing these decision support services (a) call centre nurses are likely to continue intervening by providing information only; (b) callers are likely to continue experiencing decisional conflict without making quality decisions; and as a consequence, (c) there may be deleterious effects on patient, practitioner, and health service outcomes (Briss et al., 2004; O’Connor et al., 2003a; Ratliff et al., 1999; Sepucha, Fowler, & Mulley, 2004).

The organizational changes that are needed to facilitate implementation and sustainability of values-sensitive decision support are discussed below.

Tailoring Call Length Guidelines

Time pressures have been found to have a negative influence on the implementation of decision support innovations in this and other studies (Estabrooks, 2003; Graham et al., 2003; Holmes-Rovner et al., 1999; Knowles et al., 2002). In previous studies, the time pressures were mostly due to self-imposed time limits in an attempt to limit waiting times for other patients. However in this study, nurses experienced external organizational pressure to minimize call length resulting from call length guidelines, nurses' monthly feedback on their average call length, and inadequate staffing; combined with organizational pressure to meet performance indicators and the organization's contract being due for renewal. Nurses were reminded that other calls were waiting in the queue by way of the electronic call board and the flashing light on their telephones. The call centre's performance indicators were based on American standards (American Accreditation Health Care Commission, 2004) as there are no Canadian standards. However, funding for healthcare in the US is organized differently than that in Canada. Unlike the Canadian system of health service delivery, in many US health plans, members must contact call centres prior to using any health services (including emergency departments), otherwise the members may need to pay 'out-of-pocket' for healthcare expenses incurred (Stacey et al., 2003). Therefore, there is a need to develop Canadian accreditation standards that are congruent with the mandate of call centres within the Canadian health care context.

Current pressure to minimize call length is likely to have a negative influence on quality of nursing worklife, recruitment of nurses to work at the call centre, absenteeism, and retention. Previous research on the psychosocial impact of call centre work found that call handlers reported poorer well-being and less work satisfaction when their performance was constantly monitored and when their workload was higher (Sprigg et al., 2003). Evidence suggests that nurses who are less satisfied with their work have higher levels of absenteeism and are more likely to leave their place of employment (Borda & Norman, 1997). To facilitate nurses providing values-sensitive decision support without placing increasing work

pressure, call centres providing consulting services beyond symptom triage should have call length guidelines appropriately tailored for a variety of call types.

Recent evidence from values-sensitive decision support provided to patients in-person (Kennedy et al., 2002) and to simulated patients via telephone in our study (Stacey et al., 2004b), indicates that 18 to 20 minutes (plus time for collecting demographics and charting) may be a more reasonable time target for these types of calls. There is the potential for more efficient use of time if the decision support protocol were integrated into the computer database, the patient decision aids were revised for easier delivery via the telephone, and both of these tools were formatted for auto-charting.

Including Decision Support in the Program Direction

Another important unresolved barrier is the lack of clarity in the call centre program direction. Policy changes at the level of the provincial ministry of health that would encourage the provision of values-sensitive decision support by nurses in call centres are unlikely without evidence to demonstrate the benefits of this service on patient and system outcomes. This is consistent with a recent movement towards evidence-based policy development (Dobbins, 2004; Muir-Gray, 1997; National Forum on Health, 1997). Prior to our study, evidence existed regarding the effectiveness of patient decision aids (O'Connor et al., 2003a) and nurse decision support coaching (Kennedy et al., 2002). However, there was no evidence to indicate whether call centres were a feasible or effective health service model for delivering values-sensitive decision support. Our study has described current practices regarding the management of this type of call, demonstrated the effectiveness of an implementation strategy to improve the quality of decision support provided by call centre nurses, and provided estimates for call length (Stacey et al., 2004b). Administrators who participated in the key informant interviews suggested that for new initiatives to be approved, a business case is usually required. A business case should include (a) a problem statement; (b) proposed plan to address the problem including objectives, rationale, expected benefits, potential risks and ways to address them, timeline, human resource implications, and cost estimates; (c) measures for monitoring progress toward the objectives; and (d) the alternatives considered and rationale for their exclusion (Cresswell et al., 2000).

The proposed business plan should focus on expanding the decision support multifaceted intervention to all nurses at the call centre and draw on findings from the literature as well as this study. Based on feedback from nurses in the study, the three nursing supervisors and nurses whose work schedule includes day shifts should be among the first to participate in the expanded training. There was less agreement among the study participants on the 'best' timing for implementing the training. Suggestions on the timing of the training were either during the new staff orientation program or six months later, after nurses have developed their competencies in triaging symptoms and using the computer-based resources. The best timing could be determined by training a cohort of nurses within each of these two time frames and evaluating the outcomes.

Given the current call centre system for classifying and documenting decision support calls, it would be challenging to monitor the volume of calls and the outcomes related to decision support quality. Currently, data pertaining to decision support calls are buried within health condition-specific and medication call data. The only available quantitative indicators being the topics and frequency with which nurses accessed the patient decision aids (Table 4.1). One solution is to add a values-sensitive decision support call classification category to the database. Alternatively, integrating the decision support protocol within the database would facilitate tracking its use and help monitor individual callers' outcomes, such as changes in their progress through the stages of decision making, their decisional conflict, the factors contributing to their decisional conflict, and their preferred option (O'Connor, 1995; O'Connor, Jacobsen, & Stacey, 2002).

Informing the Public about Decision Support Services

Decision support for people facing values-sensitive health decisions is not yet part of routine healthcare services and thus the public is not aware of how to get help with making these complex health decisions. Therefore, although the call centre in our study has undertaken minimal marketing of their services, it is likely that they will need to increase their efforts in order to inform the public and health professionals that this additional service exists. Current strategies to inform the public about the call centre's services could be revised to be more explicit about the availability of values-sensitive decision support and patient decision aids within the programs' Internet-based resources. Another approach might be to

target client groups with unmet decisional needs (see Table 4.1) either directly or by aligning more closely with other healthcare services. An American call centre has been successful in marketing decision support as a key component of their program (Health Dialog, 2004) and another Canadian call centre is recognized for its close alliances with primary healthcare services (Stewart, 2004).

Positive Nursing Experiences

Nurses in the study were satisfied with the multifaceted intervention and positive about their enhanced nursing practice after having used the decision support protocol. The study intervention helped nurses learn a generic process-driven approach to handling decision support calls. Although the process is generic, callers' values associated with options and the influence of others' opinions on their situation make most situations unique. As well, their responses confirmed that they believe decision support to be an important and personally valued part of their role. By providing values-sensitive decision support in their repertoire, nurses (a) increase the diversity in their calls, (b) apply nursing expertise in a novel way, (c) use more of their nursing skills, and (d) receive feedback on individual caller outcomes such as progress in decision making and decisional conflict. These workplace activity characteristics have been shown to improve the quality of work-life and increase call centre nurses' satisfaction (Hanlon et al., 2004; Knowles et al., 2002; RNABC, 2002; Sprigg et al., 2003).

Limitations

The strategies used to increase validity of the findings (Lincoln & Guba, 1985; Morse & Field, 1995; Sidani et al., 1998) in this study included theory guided analysis, triangulation of data sources, and participant verification of the interpretation of transcripts from interviews and focus groups. Despite these data collection and analysis strengths, the study has limitations. There was a potential for non-response bias and self-report bias in the uptake survey. Although not all nurses who participated in the intervention responded to the uptake survey, the demographic characteristics of the 25 nurses (80.6%) who responded were similar to those who had participated in the intervention ($n=31$), those who were eligible to participate ($n=39$), and to the entire nursing staff at the call centre ($N=108$) (Stacey, 2004a).

There is also the potential that those who responded to the survey or participated in the focus groups or interviews may have been more likely to provide responses that were perceived to be more socially acceptable. Nevertheless, triangulation across data sources revealed consistent findings.

Another limitation was not having evaluated the effect of nurses providing decision support on real callers' outcomes and their subsequent use of health services. At this call centre, there were concerns expressed that recruiting real callers for a research study might negatively influence the caller's subsequent use of the service. Future research should consider recruiting, in community-based settings, known groups of patients with higher decisional needs (e.g., wisdom teeth removal, birth control methods) that could potentially benefit from decision support provided by call centre nurses. As well, longer-term evaluation of the adoption of the decision support protocol in nursing practice is warranted, with further exploration of how using these novel skills influences nurses' well-being.

To facilitate transferability of the findings to similar nursing practice environments (Creswell, 1998) detailed descriptions of the call centre and the characteristics of the study participants were provided. The use of volunteer nurses is likely to have resulted in an over-representation of those who were more motivated to learn about decision support. Yet, the demographic characteristics of the participants were similar when compared to all nurses working in the call centre (Stacey et al., 2004a) and to nurses at an England-wide call centre (Morrell, Munro, O'Cathain, Warren, & Nicholl, 2002).

Conclusions

Call centre nurses in our study continue to receive calls from people facing values-sensitive health decisions but several factors are hindering the nurses from providing quality decision support. We were able to demonstrate the feasibility of an implementation strategy to overcome some barriers by enhancing nurses' decision support knowledge and skills in exploring callers' values and addressing their support issues. Furthermore, nurses appreciated the shift from a content-driven to a process-driven approach to providing decision support, and had improved self-perception of their experiences with real callers. Nurses discussed using the protocol to guide these calls and better tailor their interventions to

the assessed needs of callers. At the same time, the call centre organization became more sensitized to nurses' current practices for managing values-sensitive decision support calls, the effectiveness of the multifaceted intervention, and organizational factors influencing implementation of innovations.

However, unresolved barriers in the practice environment continued to interfere with implementing values-sensitive decision support and are likely to limit sustainability of nursing practice changes. For sustainability, nurses identified the need for clear program direction, the decision support protocol integrated in their database, patient decision aids revised for easier use over the telephone, call length guidelines tailored to types of calls, decision support training provided for all staff, and marketing of these new services to the public.

When I assessed Sam's decisional needs, it was obvious that she did not need any further information. She understood the potential benefits and harms of having an amniocentesis. The problem was she was not clear about what she valued more. So, I coached Sam to rate the importance of each of the benefits and harms, asked what was her overall leaning, and suggested ways she could share her values with the people who matter most.

A proposed resolution by a call centre nurse

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Chapter 5

Integrated Discussion

Integrated Discussion

This section of the dissertation provides an integrated discussion of the study findings related to the decision support implementation strategy, the potential for building decision making capacity to improve population health, and future research opportunities. At the end of the chapter, Table 5.1 summarizes the implications for nursing practice, education of nurses, organizational policies, and research.

Decision Support Implementation Strategy

The findings from this comprehensive theory-driven study indicate that the multifaceted decision support implementation intervention (i.e. online autotutorial, skill-building workshop, decision support protocol, performance feedback on simulated calls) and evaluation of the implementation process could establish a benchmark for expanding health call centre programs to include nurses' provision of decision support to callers facing values-sensitive health decisions. Benchmarking aims to identify best practices for achieving intended results and establish a point of reference for measuring performance (Ontario Public Health Benchmarking Partnership, 2005). This multifaceted decision support intervention was feasible to implement as planned and acceptable to the nurses. As well, the primary process outcome measures (i.e., knowledge test, decision support quality score) discriminated between nurses who participated in the intervention and those who did not, and the multiple surveys (at baseline, post workshop, post multifaceted intervention) provided ongoing monitoring of the factors influencing nurses' provision of decision support.

The baseline assessment revealed that, although nurses working at a Canadian province-wide call centre had positive attitudes about their role in supporting callers facing values-sensitive health decisions and a goal of the program was to help callers make "sound health decisions", nurses had insufficient opportunities to develop their knowledge, skills, and confidence in doing so. The provision of health information was the main nursing intervention used with simulated patient callers who presented with decisional conflict. These findings are consistent with (a) the nursing role in providing patient education as described in the standards of nursing practice (RNABC, 2004) and (b) the orientation for call centre nurses that focused on symptom triage and providing health information. However,

the provision of information alone is not sufficient to improve the quality of values-sensitive health decisions (O'Connor et al., 2003a). Effective decision support involves (a) assessing decisional needs related to uncertainty about the best option and deficits in knowledge, values clarity, and support (O'Connor et al., 2002); (b) providing access to evidence-based patient decision aids (O'Connor et al., 2003a); and (c) coaching patients to clarify their values and communicate with their health practitioners (Kennedy et al., 2002).

The multifaceted intervention used in this study successfully overcame some of the identified barriers by improving nurses' knowledge, skills, and confidence in providing values-sensitive decision support (Stacey, O'Connor, Graham, & Pomey, 2004b). As well, the decision support protocol facilitated a structured approach to using decision support skills in practice. The intervention was implemented as planned, in that the autotutorial and protocol were the same for all nurses and the workshop, provided on several occasions, used a consistent presentation format and handouts. The autotutorial provided the nurses with a self-paced approach to learning the key concepts of decision support. Unlike knowledge development approaches that involved written materials or didactic lectures, the autotutorial offered instant individualized feedback on nurses' progress in learning the key elements of quality decision support by using a series of 11 sets of questions. The majority of nurses (20 of 26) who accessed the autotutorial completed it, but recommended that (a) the organization provide paid time off the telephone to complete the autotutorial; (b) the content be more applicable to their practice, rather than theory-based; and (c) extra case studies be used to demonstrate the application of the concepts in practice. The workshop enabled nurses to apply their new knowledge and build their skills in using the decision support protocol through role play situations and listening to a nurse-simulated patient call. Nurses suggested that future workshops should involve role playing using the telephone and computer software in addition to in-person role play. To facilitate ongoing teaching of values-sensitive decision support within the call centre, a nurse who attended one of the skill-building workshops presented the same workshop to some of the nurses in the control group at the end of the study. Nurses' satisfaction with the workshop, as indicated on the survey, was consistent with the satisfaction of nurses' who had participated in the original workshops.

Although the purpose of the calls with simulated patients was to evaluate the quality of decision support, nurses appreciated the opportunity to practice their new skills during

these calls, requested to have additional practice opportunities using simulated patient, and offered to be simulated callers for other staff developing their decision support skills (Stacey, Pomey, O'Connor, & Graham, 2004c). For example, one nurse in a focus group stated,

I liked the mock patient calls. I thought they were a great opportunity to... go through it thoroughly. It was great that there was a pre and a post so that ... somebody has some idea of whether or not you've made any gains.

To facilitate the sustainability of call centre nurses providing values-sensitive decision support, strategies are required to overcome barriers identified in the practice environment (Stacey et al., 2004c). In the baseline barriers assessment, the factors in the practice environment identified as hindering the provision of decision support by nurses included (a) a lack of clarity in the program direction that did not explicitly recognize the importance of the nurses' role in providing decision support, (b) organizational pressure to minimize call length, and (c) low public awareness that the call centre offered decision support services (Stacey et al., 2004a). Other barriers emerged as the study progressed and included a lack of integration of the decision support protocol with the call centre's computerized database and absence of mentoring from nursing supervisors to improve nurses' skills in providing decision support to real callers (Stacey et al., 2004c). Targeted interventions are required to make appropriate changes in organizational policies and procedures to overcome these modifiable barriers in the practice environment and facilitate nurses' provision of values-sensitive decision support. These interventions might include (a) instituting call length guidelines tailored to call type, (b) providing funding for educational opportunities to enhance nurses' decision support skills, (c) ensuring adequate staffing to decrease pressure to respond to calls in the wait queue, and (d) monitoring the quality of decision support provided to callers with mentoring to improve their quality.

Building Decision Making Capacity to Improve Population Health

The provision of decision support by call centre nurses for callers facing values-sensitive health decisions has the potential to improve population health by building callers' skills and capacity for making quality health decisions. Population health interventions are designed to improve the health and well-being of populations by focusing on the interrelated factors that influence health over the life course (Health Canada, 2001). These interrelated

factors constitute the determinants of health; one of which is “individual capacity and coping skills”. In addition to addressing the determinants of health, other key elements in designing strategies to improve population health involve the use of multiple interventions, an upstream focus, collaboration across sectors, public involvement, evidence-based decision making, and accountability for health outcomes (Health Canada; Smedley & Syme, 2000).

Individual capacity and coping skills, as a determinant of health, is described as influencing health through “social environments that enable and support healthy choices and lifestyles, as well as people’s knowledge, intentions, behaviours, and coping skills for dealing with life in healthy ways” (Health Canada, 2001; p.13). Decision making capacity is the ability to use specific knowledge and skills to make decisions. The process of decision making includes (a) becoming informed about the options and their outcomes (i.e., benefits and harms), (b) clarifying personal values associated with each of the potential outcomes, (c) considering the opinions of others’ who matter most, and (d) communicating preferences to others. However, many Canadians have limited capacity for making values-sensitive health decisions which can negatively influence the quality of those decisions (O'Connor et al., 2003b).

Currently, over 97% of Canadians are covered by seven province-wide call centres (Stacey et al., 2003). Most of these programs were introduced after 2001 with the goal of decreasing inappropriate use of costly emergency health services. These programs are estimated to cost between 0.8 and 45 million dollars annually (e.g., C\$840 per 1,000 served in Manitoba; C\$1,658 per 1,000 served in BC; C\$3,750 per 1,000 served in Ontario) (Stacey et al., 2003). However, there has been little attention paid to the potential of call centre services to improve population health by enhancing individual capacity to make health decisions (Bunn et al., 2004; Leibowitz et al., 2003; Stacey, 2002; Stacey et al., 2003). This study has contributed to the science of population health by

- (a) examining the implementation of evidence-based interventions (i.e., patient decision aids and nurse coaching) in a new setting
- (b) introducing an upstream approach to service delivery by the use of a structured generic process that can guide deliberation on any health decisions and has the potential to build individual capacity for subsequent decision making

- (c) using a context sensitive methodology for testing a multiple intervention strategy to implement values-sensitive decision support in call centre services
- (d) creating knowledge needed to improve the quality of decision support by call centre nurses.

Evaluation of the effectiveness of interventions is another important element of population health (Health Canada, 2001). Although caller outcomes were not evaluated in this study, previous studies have found that decision support using evidence-based patient decision aids improves patients' knowledge, reduces decisional conflict, increases patient participation in decision making, and enhances the agreement between patients' values and the choices they make (O'Connor et al., 2003a). In a previous study when nurses coached patients who had used a decision aid, patients were more satisfied, and less likely to choose a major elective surgical procedure (Kennedy et al., 2002). In addition, multiple interventions proved to be more cost-effective compared to either the use of a decision aid alone or usual care. Future research is necessary to evaluate the effect of call centre nurses' provision of decision support to real callers, including callers' capacity for making future health decisions and the health system.

Future Research

Our study has provided a solid foundation for larger scale evaluations of values-sensitive decision support within and across health call centres. According to the Ottawa Model of Research Use (Graham & Logan, 2004), evaluation of outcomes related to implementation of evidence-based innovations should involve measures at the level of the patient, the practitioner, and the health system.

The following proposes several outcomes that could be monitored for program evaluation and used in future research studies. First, the decision support protocol includes specific questions that measure a patient's progress in decision making and the resolution of modifiable factors contributing to decisional conflict (e.g., being uninformed, having unclear values, lacking support from others) (O'Connor, 1995). Change in caller responses to these questions could be monitored over the course of a single call or in a follow-up call. Second, valid and reliable health measurement tools are available to measure callers' level of participation in decision making (Degner, 1992), patient decisional conflict and its

contributing factors (O'Connor, 1995), patient and practitioner perceptions of patient preparation for decision making (OHRI, 2004), patient self-efficacy in decision making (OHRI), patient satisfaction with decision making (Barry, Cherkin, Chang, Fowler, & Skates, 1997), and decision quality (i.e. patient knowledge, realistic expectations of outcomes, and the agreement between their choice and values). Longer-term measures of the impact of decision support include persistence with choice, decision regret, and use of health services. Additional tools are required to measure individual decision making capacity.

Future research to determine the effectiveness of decision support provided through call centres could target high-need patient groups (e.g., vaginal births after cesarean) or ways to improve efficiencies with health services (e.g., ensuring patients on surgical waiting lists for elective surgeries have made informed decisions consistent with their values). Earlier studies have found that patients exposed to decision aids had 24% fewer surgical procedures than those who received standard care (O'Connor et al., 2003a). The effects of decision support on wait lists, surgical rates, and patient outcomes could be explored. To evaluate the effect of call centre nurses providing decision support on building individual capacity and skills in making health decisions, a cohort of patients who are likely to experience a series of values-sensitive health decisions (e.g., women newly diagnosed with breast cancer) could be followed over the course of their treatment.

More research is required to evaluate the impact of call centre nurses providing values-sensitive decision support on nurses' own satisfaction and wellbeing. In Phase III of our study (Stacey et al., 2004c), focus group nurses who had been exposed to the multifaceted intervention described their early experiences of providing decision support to real callers and their positive perceptions of the change in their practice. With an anticipated nursing shortage in the near future (Canadian Nursing Advisory Committee, 2002), call centres organizations are challenged to create quality workplace environments to attract experienced nurses, enhance their satisfaction, and minimize turnover.

Conclusions

An increasing number of decisions are values-sensitive due to multiple options with benefit/harm profiles that individuals value differently; therefore resulting in more patients experiencing decisional conflict. Unresolved decisional conflict can lead to sub-optimal

decision quality, regret, discontinuance of chosen treatments, and overuse of health services that informed patients do not value (O'Connor, 1995; O'Connor et al., 2003a; O'Connor et al., 2001; Sun, 2004; Wennberg, 2002). Overuse of health services can further increase wait times and health care costs. Concurrently, rising health care costs and limited access to and time with physicians are challenging the Canadian health care system to thus consider new ways to address the health needs of the public and population as a whole (Romanow, 2002). Call centres can provide timely public access to decision support interventions, such as patient decision aids and nurse coaching, that enable Canadians to make quality health decisions and have the potential to develop their personal capacity and skills in making future decisions.

Table 5.1
Implications for Practice, Education, Organizational Policies, and Research

Category	Implications
Nursing practice	❑ Enhance nursing confidence in the provision of values-sensitive decision support ❑ Provide public access to decision support for values-sensitive decisions by call centers nurses ❑ Adapt decision support resources for interactive use via the telephone ❑ Facilitate tailoring of interventions to callers' decisional needs using a structured process ❑ Guide nurses in overcoming barriers to providing decision support
Education of nurses	❑ Enhance nurses' knowledge and skills in providing decision support - recognizing uncertainty, assessing needs, tailoring interventions, evaluating decision making ❑ Integrate decision support in basic nursing programs, continuing education, call centre orientation, and workplace-based professional development ❑ Use simulated patient calls to enhance and evaluate decision support skills
Organizational policies	❑ Create policies to facilitate and reduce barriers to nurses' provision of decision support ❑ Clearly communicate the program direction for nurses to provide quality decision support ❑ Provide a supportive environment for nurses to develop decision support skills and provide decision support ❑ Tailor call length guidelines to types of calls ❑ Monitor types of calls for volume, types of decisions, and call length ❑ Re-assess human resource requirements based on workload ❑ Ensure adequate funding for providing decision support education and auditing the quality of decision support calls
Research and program evaluation	❑ Determine the best timing of decision support training in relation to call centre orientation ❑ Evaluate the effect of call centre nurses providing decision support on caller outcomes, including capacity for making future health decisions; call centre outcomes, and health services ❑ Measure, over a longer period of time, the quality of decision support provided by call centre nurses and sustainability of practice changes ❑ Explore barriers and facilitators to nurses preparing callers for shared decision making through other call centres ❑ Replicate this study in other call centres

Chapter 6

Contributions of Collaborators

Contributions of Collaborators

This section of the dissertation provides a statement of the contributions of collaborators and was written in accordance with the guidelines of the Faculty of Graduate and Postdoctoral Studies at the University of Ottawa (2004). Contributions are discussed as they relate to those who were involved as part of the research team as well as the co-authors on the manuscripts.

Research Team Collaborators

Dawn Stacey RN, MScN, PhD(c) (DS) conceived of, participated in, and led all aspects of the research study as part of the fulfillment of the requirements of the degree of Doctorate in Philosophy at the University of Ottawa. Collaborators were selected in order to gain a transdisciplinary perspective on the development of new knowledge in values-sensitive decision support by call centre nurses preparing callers for shared decision making. Transdisciplinarity is defined as a process whereby fields of knowledge from several disciplines with multiple perspectives are integrated and transformed to enhance understanding of complex issues (Albrecht, Freeman, & Higginbotham, 1998).

DS is a nurse with expertise in population health, decision support, continuing education for nurses, patient education, and development and evaluation of patient decision aids. In addition to completing doctoral studies in the Population Health Program at the University of Ottawa, she is a research associate at the Ottawa Health Research Institute. DS received a three-year doctoral research award from the Ontario Ministry of Health and Long-term Care and Canadian Institutes of Health Research (CIHR), and a Scholarship of Excellence from the University of Ottawa.

Thesis committee members, Professors Annette M. O'Connor RN, PhD (AMO), Ian D. Graham PhD (IDG), and Marie-Pascale Pomey MD, PhD (MPP), collaborated in the development of the proposal, provided consultation throughout the research process, participated in the analysis and interpretation of the findings, and contributed to the intellectual content of the drafted and final manuscripts (see Table 6.1).

Table 6.1
Summary of Author Contributions

	Chapter 1 Introduction	Chapter 2 Baseline barriers assessment	Chapter 3 Randomized controlled trial	Chapter 4 Uptake and sustainability study	Chapter 5 Integrated discussion
Envisage and design	DS	DS IDG AMO MPP	DS AMO IDG MPP	DS MPP AMO IDG	DS
Collect data	DS	DS	DS	DS	DS
Analyze and interpret data	DS	DS IDG	DS AMO	DS MPP	DS
Draft manuscript	DS	DS	DS	DS	DS
Revise manuscripts for important intellectual content	DS AMO IDG MPP	DS IDG AMO MPP	DS AMO IDG MPP	DS MPP AMO IDG	DS AMO IDG
Approve final version to be published	DS AMO	DS IDG AMO MPP	DS AMO IDG MPP	DS MPP AMO IDG	DS AMO
Responsible for overall content	DS	DS	DS	DS	DS

AMO, a nurse with a doctorate in medical decision making, holds a Canada Research Chair in Health Care Consumer Decision Making and has expertise in decision support frameworks, clinical protocols, and evaluation measures. She is a professor at the University of Ottawa in the Faculty of Health Sciences (School of Nursing) and Faculty of Medicine (Department of Epidemiology and Community Medicine), a Scientist at the Institute of Population Health, and a Senior Scientist at the Ottawa Health Research Institute.

IDG, a health sociologist, holds a CIHR New Investigator award, developed the Ottawa Model of Research Use knowledge transfer framework, and has research expertise in evaluating the uptake of patient decision aids, research utilization, physician's attitudes toward patient-practitioner decision making, and implementation of clinical practice guidelines. He is an associate professor at the University of Ottawa in the Faculty of Health Sciences (School of Nursing) and Faculty of Medicine (Departments of Medicine,

Epidemiology and Community Medicine), Scientist at the Institute of Population Health, and Senior Social Scientist at the Ottawa Health Research Institute.

MPP is a physician with significant experience conducting qualitative and quantitative research involving healthcare quality and organizational change. She is an assistant professor in the School of Management, Master of Health Administration program, at the University of Ottawa and involved in the Master of Quality of Care, Quéops-i, Département d'Administration de la Santé at the Université de Montréal.

Additional research staff and consultants included a nurse educator, statisticians, and researchers with experience in inductive qualitative analysis and content analysis. MJ Jacobsen RN, MEd coordinated access to the online autotutorial and provided the skill-building workshop as part of the decision support multifaceted intervention. She is a research coordinator at the Ottawa Health Research Institute. She shared her expertise in the provision of decision support education for health practitioners. Keith O'Rourke MBA and Jim Jaffey MSc provided statistical advice on the research design, sample size calculations, and statistical analyses. Keith O'Rourke is an adjunct professor in the Faculty of Medicine (Department of Epidemiology and Community Medicine) at the University of Ottawa and Scientist in the Clinical Epidemiology Program at the Ottawa Health Research Institute. Jim Jaffey is a statistician at the Ottawa Health Research Institute. Wendy Lodge, the nurse educator at the BCNurseLine, provided assistance with recruitment of nurses to participate in the study, distribution of the barriers assessment survey, coordination of the simulated patient calls, and liaison between researchers and participants. Research assistants, Laura Rapp, Stephen Kearing, Andrea Powers, Sara Khangura, and Liz Drake, participated in the content analysis.

Manuscript Co-authors

The identification of co-authors for the manuscripts within the dissertation was based on the authorship guidelines at the Ottawa Health Research Institute (2003) in accordance with the recommendations of the International Committee of Medical Journal Editors (2004). All members of the research team participated in the three key components necessary to qualify as authors:

- 1) *Substantial contribution to the*
 - *conception and design or*
 - *acquisition of data or*
 - *analysis and interpretation of data*
- 2) *Drafting the article or revising it critically for important intellectual content*
- 3) *Final approval of the version to be published* (OHRI, 2003; p.1)

Overall, DS conceived the study, developed the protocol in collaboration with co-authors (AMO, IDG, MPP), recruited participants, collected the data, managed the data, carried out the statistical and qualitative analysis in collaboration with co-authors, drafted the manuscripts, re-drafted the manuscripts in collaboration with co-authors (AMO, IDG, MPP), and was responsible for the overall management of the study. Co-authors approved the final manuscripts. Specific contributions are outlined in Table 6.1. Others team members, identified above, did not fulfill all three key elements necessary for authorship.

Chapter 7

Common References and Appendixes

Common References

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Letters of Support

1. BC Ministry of Health Services
2. TCM TeleCare Management Inc.

Letter of Agreement

July 18, 2003

To whom it may concern:

Re: Research Proposal entitled The design and evaluation of an implementation strategy to enhance decision support by call centre nurses for callers facing preference-sensitive health decisions

On behalf of the British Columbia Ministry of Health Planning, I am please to offer this letter of support in principal for Dawn Stacey's University of Ottawa, Population Health Doctoral program research proposal titled **The design and evaluation of an implementation strategy to enhance decision support by call centre nurses for callers facing preference-sensitive health decisions.**

Empowering people to enhance self-care and participate in making health decisions is the fundamental philosophy underlying the BCHealthGuide program, of which the BCNurseLine is one component. An area, we would like expanded and evaluated is the provision of decision support by nurses for preference-sensitive decisions at the BCNurseLine. As well, we are particularly interested in learning about the factors influencing the process of change as the nurses enhance their role. This information will be relevant for future developments at the BCNurseLine.

Subject to approval of the thesis proposal examiners and ethics clearance by the University of Ottawa, the BC Ministry of Health Planning will support the conduct of this study within the BCNurseLine program. We will facilitate entry into the system; provide access to the necessary documents; authorize staff time to participate in the survey and interviews; and facilitate the use of simulated callers for evaluation.

We encourage you to seriously consider this research proposal and look forward to applying the results of this work in our effort to improve the quality of support for preference-sensitive decision at the BCNurseLine. Please do not hesitate to contact me if further information is required.

Sincerely,

Lori Halls
 Director, Innovation & Sustainability
 BC Ministry of Health Planning
 4-2 1515 Blanshard St.
 Victoria, BC, V8W 3C8
Lori.Halls@gems2.gov.bc.ca
 250-952-3207



July 16, 2003

To whom it may concern:

On behalf of TCM TeleCare Management, I am pleased to offer this letter of support in principal for Dawn Stacey's University of Ottawa, Population Health Doctoral program research proposal titled **The design and evaluation of an implementation strategy to enhance decision support by call centre nurses for callers facing preference-sensitive health decisions.**

At the BCNurseLine, we are continually looking for opportunities to improve the quality of service provided to callers. Guiding callers making preference-sensitive health decisions will improve the quality of service to our callers, therefore, we welcome the opportunity to work with Dawn Stacey in further developing and evaluating this component of our service.

Subject to approval of the thesis proposal examiners and ethics clearance by the University of Ottawa, TCM TeleCare Management will support the conduct of this study within the BCNurseLine program. We will:

- ☐ facilitate entry into the system
- ☐ provide access to the necessary documents
- ☐ facilitate staff to participate in the survey, interviews, focus groups, and training
- ☐ facilitate the use of simulated callers for evaluation

We look forward to collaborating on this research proposal to enhance the quality of nursing guidance for preference-sensitive health decision at the BCNurseLine. If you require additional information, please contact me directly.

Sincerely,

Cynthia Currie
Director of Operations, BCNurseLine
TCM TeleCare Management Inc.
250 - 4170 Still Creek Drive
Burnaby, BC
V5C 6C6
Telephone : 604-215-5103
ccurrie@tcmtelecare.ca



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Cabinet du vice-recteur
à la recherche

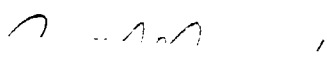
Office of the Vice-Rector,
Research

Appendix B

HEALTH SCIENCES AND SCIENCES RESEARCH ETHICS BOARD

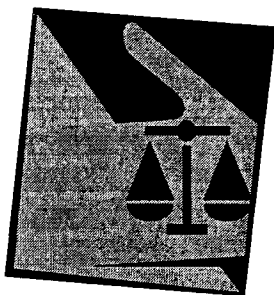
CERTIFICATE OF ETHICAL APPROVAL

This is to certify that the University of Ottawa Health Sciences and Sciences Research Ethics Board has examined the application for ethical approval for the research project **Design and Evaluation of an Implementation Strategy to Enhance Decision Support by Call Centre Nurses for Callers Facing Preference-Sensitive Health Decisions: Thesis Proposal (our file: H 11-03-03)** submitted by Dawn Stacy, of the Population Health PhD Program, Faculty of Graduate Studies, and supervised by Dr. Annette O'Connor, of the School of Nursing, Faculty of Health Sciences, by Ian Graham, of the School of Nursing, Faculty of Health Sciences, and by Dr. Marie-Pascale Pomey, School of Management. The Board found that this research project met appropriate ethical standards as outlined in the Tri-Council Policy Statement and in the Procedures of the University of Ottawa Research Ethics Boards, and accordingly gave it a Category 1a (approval). This certification is valid for one year from the date indicated below.



Rita D'Alessandro
Protocol Officer for Ethics in Research,
For the Chairperson of the Health
Sciences and Sciences REB
Daniel Lagarec

November 27, 2003
Date



You are invited to participate in...

A research study to enhance decision support by BCNurseLine nurses for callers having difficulty making preference-sensitive health decisions

Three Projects

- i. Focus groups: to identify factors influencing nurses providing decision support for callers facing preference-sensitive health decisions. We are looking for 8 nurses (full-time or part-time) to participate in two 90 minute focus groups, one at the beginning and one at the end of the study.
- ii. Survey of barriers: to rate the degree of influence that barriers and supports have on nurses providing decision support for callers facing preference-sensitive health decisions. We will be inviting all staff to participate in this survey near the beginning of the study. It will take about 15 to 20 minutes to complete.
- iii. Education program: to enhance knowledge and skills in providing decision support. We are looking for 40 nurses working, on average, 26 hours or more a week, to participate in the evaluation of an education program. It will involve participating in 6 hours of education, completing 4 questionnaires that will require 10 to 15 minutes each to complete, and responding to 2 calls from simulated callers that will require 15 to 30 minutes each to complete.

By participating, you will have a chance to...

- Enhance your knowledge and skills
- Meet the RNABC requirements for continued learning
- Discuss these types of calls with other nurses
- Be a leader in expanding the way the BCNurseLine supports and empowers callers to be involved in their health

As a research study...

TCM TeleCARE and the BC Ministry of Health Planning provided approval for this study to take place at the BCNurseLine.

Joining this study is your choice and you may withdraw from the study at any time without negatively affecting your position at the BCNurseLine.

Confidentiality will be maintained using code numbers; no personal identifying information will appear on any publications.

To find out more about these projects, please contact
Wendy Lodge at BCNurseLine or Dawn Stacey at dawnstacey@rogers.com

When is this happening? December 2003 to June 2004

Decision Support Study Personal Learning Plan: December 2003 to June 2004

Learning Goal	Learning Objectives	Success Indicators	Resources/Strategies	Target date
To further enhance my knowledge and skills in coaching callers making complex preference-sensitive (p-s) health decisions. (related to RNABC standard #2)	To recognize common types of complex p-s decisions	Certificate of success from on-line tutorial.	3 hour on-line decision support tutorial	December 2003 to June 2004
	To understand ways of providing decision support that are based on evidence and theory.	Certificate of participation from the decision support workshop.	3 hour Decision Support Workshop	
	To discuss factors influencing the provision of decision support in my practice.	Use of the decision support protocol	Decision support protocol	
	To demonstrate skills in decision support	Complete surveys on barriers to and facilitators for providing decision support	Handbook/resources from tutorial and workshop	
	To develop self-appraisal skills in evaluating decision support provided	Feedback on quality of decision support provided to simulated callers before and after education.	Checklist for self-appraisal	
		Personal comfort in providing decision support.	Access to additional resources in binder	
		Complete checklist for appraising quality of decision support interaction with a caller		

Learning Goal	Learning Objectives	Success Indicators	Resources/Strategies	Target date
To enhance the decision support I provide to callers facing complex p-s health decisions. (related to RNABC standard #3)	To assess callers decision making needs. To plan interventions to assist callers in addressing their needs. To re-assess/evaluate caller response to decision support interventions and determine if needs were addressed. To accurately document the decision support assessment and plan.	Documentation of decision support needs. Plan to address needs	Decision support protocol Tool to self-audit completeness of documentation of decision support	December 2003 to June 2004
To learn more about developing nursing knowledge through research. (related to RNABC standard #6)	To participate in nursing research within the BCNurseLine. To identify barriers to and facilitators for providing decision support. To recognize the way changes to nursing practice are made.	Complete the survey(s). Participate in focus groups to discuss barriers and facilitators; and the process for making and sustaining changes at the BCNurseLine Review and approve results of analysis of the focus group	In-service on research plan. In-service on results of the study Survey Focus groups	December 2003 to June 2004

Individual Interview Guide at Baseline

Set-up

- ☐ Arrange meeting for 60 minutes
- ☐ Bring juice, coffee/tea, muffin etc.
- ☐ Connect audio-recording device
- ☐ Arrange chairs around table or desk to improved visibility and discussion
- ☐ Create a non-judgmental, supportive environment that encourages participant to share their views.

Introduction:

1. The purpose of this interview is to identify factors influencing nurses providing decision support for callers facing more complex, preference-sensitive health decisions.

Preference sensitive decisions are those decisions in which the best choice for an individual is unclear because of inadequate evidence or the benefit/harm ratio is close. Therefore the best choice for these decisions depends on how the individual values the known benefits, harms and lack of evidence. For example, women going through menopause may consider hormone replacement therapy or men considering whether or not to have PSA blood test to screen for prostate cancer. However, these decisions require carefully weighing the associated pros and cons. We want to identify what would be the barriers and supports to nurses at the BCNurseLine providing decision support for situations similar to these examples.

2. Assurance of confidentiality – Participants will be assured anonymity and although some information that they provide will be published, their name will not be associated with the specific published information. Participants will be informed that they may stop the interview at any time or refrain from answering any questions, and there would be no negative consequences.
 3. Ground rules – there are no right or wrong answers we are just trying to determine the supports and barriers to nurses providing decision support.
 4. Role of interviewer – facilitate progress through the questions and to take notes
- ☐ Informed Consent at baseline- Obtained
 - ☐ Sign-in sheet with their email address to be able to send the results for their review.
 - ☐ Demographic Questionnaire at baseline-completed

Debriefing at end:

- ☐ Ask if there are any other comments the participant would like to share.
- ☐ Remind participants that they will have a chance to see the results in early January to verify the accuracy of the findings. GET email addresses (see attached sheet).

Write field notes

- ☐ Field notes written

Interview Guide: Key Questions December 2003

Element of OMRU	Baseline	Notes
Current situation (innovation, potential adopters)	What are some <u>examples</u> of calls for which a caller is facing a preference-sensitive or more complex health decisions? (give definition prn) Part of the goal of the BCNurseLine is to help people make “sound health decisions”. - What does that mean to you? - Tell me about the services nurses provide to callers making preference-sensitive health decisions What decision support <u>resources</u> are available for nurses and the callers?	
Barriers/ supports:	What factors make it <u>easier</u> for nurses to support callers making these decisions? What things make it more <u>difficult</u> (or stand in your way of) nurses supporting callers’ making these decisions? What else <u>would help</u> nurses enhance the support they provide to callers making p-s decisions? (Nurses – awareness, attitudes, knowledge/ skill; Environment – structure, social, public, economic)	
Organization Structure	Tell me about a situation in which there was a change or new initiative that impacted on the nurses at the BCNurseLine? E.g. link to registry Who made that decision? Is ____ the person/group that usually makes the decisions for changes within your program? If not who usually makes these decisions? How are <u>these new initiatives communicated</u> within the organization? Who is usually leads the process of change? (who do nurses usually take direction for change from?)	
Transfer strategy	If there was a new clinical protocol or resource for nurses, how would you go about implementing it at the BCNurseLine? Transfer strategies – diffusion, dissemination, implementation	

Focus Group Moderator Guide at Baseline

Set-up

- ☐ Book room for 2 hours (include 90 minute focus group, set up, clean up)
- ☐ Pizza, cold drinks (pop, juice boxes), cookies available in room
- ☐ Connect audio-recording device
- ☐ Arrange chairs around table or in circle to enable improved visibility and discussion
- ☐ Create a non-judgmental, supportive environment that encourages participants to share their views.

Introduction

1. The purpose of this group discussion is to explore the barriers and supports to nurses providing decision support to callers facing preference-sensitive decisions.

Preference sensitive decisions are those decisions in which the best choice for an individual is unclear because of inadequate evidence or the benefit/harm ratio is close. Therefore the best choice for these decisions depends on how the individual values the known benefits, harms and lack of evidence. For example, women going through menopause may consider hormone replacement therapy or men considering whether or not to have PSA blood test to screen for prostate cancer. However, these decisions require carefully weighing the associated pros and cons. We want to identify what would be the barriers and supports to nurses at the BCNurseLine providing decision support for situations similar to these examples.

2. Assurance of confidentiality – Participants will be assured anonymity and although some information that they provide will be published, their name will not be associated with the publication.
3. Introduction of participants – name, length of time with BCNurseLine
4. Setting ground rules – important to hear everyone’s opinion and there are no right or wrong answers we are just trying to determine the supports and barriers.
5. Role of moderator – facilitate group discussion and progress through the questions. Take notes.

- ☐ Informed Consent at baseline- Obtained
- ☐ Sign-in sheet with their email address to be able to send the results for their review.
- ☐ Demographic Questionnaire at baseline-Completed

Debriefing at end

- ☐ To discuss participants’ reaction to the group session and any other comments they would like to share.
- ☐ Remind participants that they will have a chance to see the results in early January to verify the accuracy of the findings. GET email addresses (see attached sheet).

Write field notes

- ☐ Field notes written

Focus Group Moderator Guide: Key Questions December 2003

Element of OMRU	Baseline	Notes
Current situation (innovation, potential adopters)	What are some <u>examples</u> of calls for which a caller is facing a preference-sensitive or more complex health decisions? (give definition prm) Part of the goal of the BCNurseLine is to help people make “sound health decisions”. - What does that mean to you? - Tell me about the services you as nurses provide to callers making preference-sensitive health decisions What decision support <u>resources</u> are available for you and the callers?	
Barriers/ supports:	What factors make it <u>easier</u> for you to support callers making these decisions? What things make it more <u>difficult</u> (or stand in your way of) when supporting callers’ making these decisions? What else <u>would help</u> you enhance the support you provide to callers making p-s decisions? (Nurses – awareness, attitudes, knowledge/ skill; Environment – structure, social, public, economic)	
Organization Structure	Tell me about a situation in which there was a change or new initiative that impacted on the nurses at the BCNurseLine? E.g. link to registry Who made that decision? Is ____ the person/group that usually makes the decisions for changes within your program? If not who usually makes these decisions? How are <u>these new initiatives communicated</u> within the organization? Who is usually leads the process of change? (who do you usually take direction for change from?)	
Transfer strategy	If there was a new clinical protocol or resource for nurses, how would you go about implementing it at the BCNurseLine? Transfer strategies – diffusion, dissemination, implementation	

Consent Form for Individual Interviews

Consent Form – Individual Interviews
Barriers and facilitators to BCNurseLine nurses providing decision support for callers facing preference-sensitive health decisions

Research Team:

Dawn Stacey RN, MScN, Annette O'Connor RN, PhD, Ian Graham PhD, and Marie-Pascale Pomey MD, PhD at the University of Ottawa.

Introduction:

Canadians are more involved in decisions about their health. Some decisions are straightforward with clear benefits that outweigh harms (e.g. antibiotics for bacterial infection, routine eye examinations, and some triaging of symptoms). Other decisions are more complex with no "best choice" for everyone. The benefits and harms are either unknown due to a lack of research or there is a need to weigh the benefits and harms. Therefore, the best choice depends on the individual's values related to the benefits, harms, and uncertainty. These are called preference-sensitive decisions (e.g. hysterectomy, prostate cancer screening, and hormone replacement therapy).

Research shows that people making preference sensitive decisions often have difficulty and need help. Interventions that help people with preference-sensitive decisions include:

- a) Patient decision aids that provide information on options, benefits, and harms; clarify personal values; and use examples of others experiences with the decision; and
- b) Coaching by nurses to help prepare people for making decision with their doctor.

However, these have been used with small groups of people. We are trying to find better ways to help a larger proportion of Canadians who need support making preference-sensitive decisions.

Purpose:

The goal of this research project is to identify factors (barriers and facilitators) influencing BCNurseLine nurses' ability to help callers making preference-sensitive decisions.

We are asking for your participation!

Procedure:

1. You will be asked to participate in a one-to-one interview. The purpose is to discuss barriers and facilitators to BCNurseLine nurses' providing decision support for callers facing preference-sensitive decisions. As well, you will be asked to identify strategies that could be used to address these barriers and enhance the facilitators. This interview will last about 45 minutes and will be audio-taped.
2. A summary of the results of the interviews with administrators and a focus group with nurses will be sent to you. You will be asked to verify the accuracy of the results and identify any concerns or errors that occurred with the interpretation.
3. These findings will be used in developing a survey. This survey will be sent to all staff at the BCNurseLine and some people associated with the program, to verify the identified factors and rate the strength of their influence.
4. A strategy to enhance decision support provided by BCNurseLine nurses will be designed and evaluated based on the identified barriers and facilitators.
5. Near the end of the project (about 6 months later), you will be asked to participate in a repeat interview. The purpose is to identify the factors influencing: nurses using a decision support protocol to guide decision support; the expansion of the decision support strategy; and the going provision of decision support (sustainability). The interview will last about 45 minutes and will be audio-taped.

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Procedure Continued

6. A summary of the results will be sent to you for you to verify the accuracy of the interpretation and any error or concerns.

Risks and Benefits:

There are no known risks of taking part in this study. A potential inconvenience is the time participating in the interviews (45 minutes each) and reviewing the results (15 minutes each). Possible benefits of participating in the study are that the discussions may give you more insight into: a) how nurses provide decision support for preference sensitive decisions; b) the process of implementing changes to nursing practice; c) factors influencing uptake of these changes; and d) barriers to sustainability of the change.

Confidentiality:

The information collected during this study will be kept confidential. A code number will be used to identify the information so your name will not appear on any publications. All relevant information obtained while you are on this study will only be made available to the research team and, if requested, to the Research Ethics Committee at the University of Ottawa. If the results of the study are published, your name will not be associated with the data.

Voluntary Participation:

Joining this study is your choice. You are under no obligation to take part in the study and you may request that the recording equipment be turned off and/or withdraw from the study at any time.

Consent:

I have read the above information and understand this consent form. I have also had the chance to ask questions and they have been answered to my satisfaction. I am aware that I am to keep one of the two copies of this consent form.

I agree to take part in this study.

Name _____

Date _____

Researcher _____

For questions about this study, please contact:

Dawn Stacey RN, MScN, PhD Candidate (613) 837-5356; Annette O'Connor RN, PhD (613) 798-5555 ext. 17582; Ian Graham PhD (613) 798-5555 ext. 18273; Marie-Pascale Pomey MD, PhD (613) 562-5800 ext. 4734, at the University of Ottawa.

Local contact: Pauline James, Nurse Consultant, Innovation & Sustainability, Ministry of Health Planning (250) 952-2473

For questions about ethics please contact: Protocol Officer for Ethics in Research at the University of Ottawa, Room 159, 550 Cumberland Street, Ottawa, Ontario, K1N 6N5, ethics@uottawa.ca (613) 562-5318.

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Consent Form for Focus Groups

Consent Form – Focus Group
Barriers and Supports to BCNurseLine nurses providing Decision
Support for Preference Sensitive Decisions

Research Team:

Dawn Stacey RN, MScN, Annette O'Connor RN, PhD, Ian Graham PhD, and Marie-Pascale Pomey MD, PhD at the University of Ottawa.

Introduction:

Canadians are more involved in decisions about their health. Some decisions are straightforward with clear benefits that outweigh harms (e.g. antibiotics for bacterial infection, routine eye examinations, and some triaging of symptoms). Other decisions are more complex with no "best choice" for everyone. The benefits and harms are either unknown due to a lack of research or there is a need to weigh the benefits and harms. Therefore, the best choice depends on the individual's values related to the benefits, harms, and uncertainty. These are called preference-sensitive decisions (e.g. hysterectomy, prostate cancer screening, and hormone replacement therapy).

Research shows that people making preference sensitive decisions often have difficulty and need help. Interventions that help people with preference-sensitive decisions include:

- a) Patient decision aids that provide information on options, benefits, and harms; clarify personal values; and use examples of others experiences with the decision; and
- b) Coaching by nurses to help prepare people for making decision with their doctor.

However, these have been used with small groups of people. We are trying to find better ways to help a larger proportion of Canadians who need support making preference-sensitive decisions.

Purpose:

The goal of this research project is to identify factors (barriers and facilitators) influencing BCNurseLine nurses' ability to help callers making preference-sensitive decisions.

We are asking for your participation!

Procedure:

1. You will be asked to participate in a focus group. The purpose is to discuss barriers and facilitators to BCNurseLine nurses' providing decision support for callers facing preference-sensitive decisions. As well, you will be asked to identify strategies that could be used to address these barriers and enhance the facilitators. This focus group will last about 90 minutes and will be audio-taped.
2. A summary of the results of the focus group with nurses and interviews with administrators will be sent to you. You will be asked to verify the accuracy of the results and identify any concerns or errors that occurred with the interpretation.
3. These findings will be used in developing a survey. This survey will be sent to all staff at the BCNurseLine and some people associated with the program, to verify the identified factors and rate the strength of their influence.
4. A strategy to enhance decision support provided by BCNurseLine nurses will be designed and evaluated based on the identified barriers and facilitators.

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Procedure Continued

5. Near the end of the project (about 6 months later), you will be asked to participate in a repeat focus group. The purpose is to identify the factors influencing: nurses using a decision support protocol to guide decision support; the expansion of the decision support strategy; and the going provision of decision support (sustainability). The focus group will last about 90 minutes and will be audio-taped.
6. A summary of the results will be sent to you for you to verify the accuracy of the interpretation and any error or concerns.

Risks and Benefits:

There are no known risks of taking part in this study. A potential inconvenience is the time participating in the focus groups (90 minutes each) and reviewing the results (15 minutes each). Possible benefits of participating in the study are that the discussions may give you more insight into: a) how nurses provide decision support for preference sensitive decisions; b) the process of implementing changes to nursing practice; c) factors influencing uptake of these changes; and d) barriers to sustainability of the change.

Confidentiality:

The information collected during this study will be kept confidential. A code number will be used to identify the information so your name will not appear on any publications. All relevant information obtained while you are on this study will only be made available to the research team and, if requested, to the Research Ethics Committee at the University of Ottawa. If the results of the study are published, your name will not be associated with the data.

Voluntary Participation:

Joining this study is your choice. You are under no obligation to take part in the study and you may request that the recording equipment be turned off and/or withdraw from the study at any time without negatively affecting your position at the BCNurseLine.

Consent:

I have read the above information and understand this consent form. I have also had the chance to ask questions and they have been answered to my satisfaction. I am aware that I am to keep one of the two copies of this consent form.

I agree to take part in this study.

Name _____

Date _____

Researcher _____

For questions about this study, please contact:

Dawn Stacey RN, MScN, PhD Candidate (613) 837-5356; Annette O'Connor RN, PhD (613) 798-5555 ext. 17582; Ian Graham PhD (613) 798-5555 ext. 18273; Marie-Pascale Pomey MD, PhD (613) 562-5800 ext. 4734, at the University of Ottawa.

Local contact: Pauline James, Nurse Consultant, Innovation & Sustainability, Ministry of Health Planning (250) 952-2473

For questions about ethics please contact: Protocol Officer for Ethics in Research at the University of Ottawa, Room 159, 550 Cumberland Street, Ottawa, Ontario, K1N 6N5, ethics@uottawa.ca (613) 562-5318.

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Participant ID: _____

Appendix H

Date: _____

Participant Demographic Questionnaire

Please tell us a little about yourself...

1. Are you a staff member of the BCNurseLine?

☐ Yes

☐ No

If yes, what is your position within the program:

☐ Staff Nurse

☐ Nurse supervisor/ administrator

☐ Non-nurse supervisor/ administrator

☐ Other: _____

If no, what is your connection to the program:

☐ Physician

☐ Ministry of Health official

☐ Other: _____

2. How long have you been working within or associated with the BCNurseLine?

☐ 3 or fewer months

☐ 12 to 18 months

☐ 4 to 6 months

☐ 18 months to 2 years

☐ 7 to 12 months

☐ more than 2 years

3. Are you currently working: ☐ Full-time ☐ Regular part-time ☐ Casual

FTE (full-time equivalent) status: _____

4. Your age range?

☐ Under 29

☐ 40 to 49

☐ 60 and older

☐ 30 to 39

☐ 50 to 59

5. Your gender

☐ Female

☐ Male

6. Your highest grade or level of education completed:

☐ Some high school

☐ College diploma

☐ High school diploma

☐ Undergraduate university degree

☐ Trade certificate / diploma

☐ Graduate university degree

☐ Other _____

7. How well do you approach change in the workplace?

☐ I am usually first in my group to find and try new ways of doing things.

☐ Before I make a decision to change my approach, I like to have a chance to try it out

☐ I prefer to wait until changes are pre-tested by others

☐ I usually wait until most of the "bugs" are worked out.

☐ I don't really like making changes, unless I absolutely have to.

8. How long have you been working within nursing?

☐ Less than 2 years

☐ 11 to 15 years

☐ 26 to 30 years

☐ 2 to 5 years

☐ 16 to 20 years

☐ more than 30 years

☐ 6 to 10 years

☐ 20 to 25 years

9. What was your nursing experience/background prior to working at the BCNurseLine?

☐ Emergency nursing

☐ Adult medical nursing

☐ Pediatric nursing

☐ Adult surgical nursing

☐ Intensive care

☐ Other specialty _____

☐ Primary care

☐ Other _____

Factors Influencing Nurses Providing Support for Callers
Preparing to Make Health Decisions: A survey

We are conducting a survey of all employees at the BCNurseLine and associated health professionals. The purpose of the survey is to find out what makes it easier or harder for BCNurseLine nurses to support callers/patients making more complex, preference-sensitive health decisions in preparation for discussion with their personal physician. The survey results will be used to consider ways to enhance the decision support provided.

At your earliest convenience, please plan to take about 15 minutes (for associated health professionals) and about 25 minutes (for BCNurseLine staff) to complete the attached survey and return it by January 28, 2004. The survey has ethics approval and all information collected will be kept confidential. If you have any questions, please do not hesitate to contact Dawn Stacey at dawnstacey@rogers.com or (613) 837-5356.

Please return survey by January 28, 2004:

At the BCNurseLine to Wendy Lodge's office; or

Via Email: dawnstacey@rogers.com; or

Via Fax: Dawn Stacey at (613) 761-5492; or

Via Mail: Dawn Stacey, 1407 Chartrand Ave, Orleans Ontario, K1E 1H9

Additional Information about the Survey

The BCNurseLine is one of seven provincially-based call centres in Canada. A mandate of the BCNurseLine is to help callers/patients make "sound health decisions". Some decisions are straightforward with clear benefits that outweigh harms (e.g. antibiotics for bacterial infection, routine eye examinations, and some triaging of symptoms). Other decisions are more complex with no "best choice" for everyone. The benefits and harms are either unknown due to a lack of research evidence or there is a need to weigh the benefits and harms. Therefore, the best choice depends on the individual's values related to the benefits, harms, and uncertainty. These are called preference-sensitive decisions (e.g. hysterectomy, prostate cancer screening, and hormone replacement therapy). Research shows that people making these more complex decisions often have difficulty and need help.

Contacts for this study are

- ☐ Research team members: Dawn Stacey RN, MScN, PhD Candidate (613) 837-5356; Annette O'Connor RN, PhD (613) 798-5555 ext. 17582; Ian Graham PhD (613) 798-5555 ext. 18273; Marie-Pascale Pomey MD, PhD (613) 562-5800 ext. 4734, at the University of Ottawa.
- ☐ Local resource people: Wendy Lodge BCNurseLine (604) 215-5107 or Pauline James, Nurse Consultant, Innovation & Sustainability, Ministry of Health Planning (250) 952-2473.
- ☐ Ethics resource person: Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland Street, Tabaret Hall, Room 159, Ottawa, Ontario, K1N 6N5, ethics@uottawa.ca (613) 562-5387.

Participant Initials: _____

**Factors Influencing Nurses Providing Support for Callers
Preparing to Make Health Decisions: A survey**

The purpose of this survey is to find out what factors make it easier or harder for BCNurseLine nurses to support callers/patients making more complex, preference-sensitive (p-s) health decisions in preparation for discussion with their personal physician. P-S decisions are ones in which there is no "best choice" for everyone; the best choice depends on the individual's values related to the benefits, harms, and uncertainty (e.g. hysterectomy, hormone replacement therapy, prostate cancer screening). The survey will take about 15 to 25 minutes to complete.

Please return the survey by January 28, 2004

1. Please tell us how much to you agree or disagree with the following statements.

Statements	Strongly Disagree	Disagree	Mildly Disagree	Neutral	Mildly Agree	Agree	Strongly Agree
Most callers/patients prefer:							
1.1 to make health decisions on their own	☐	☐	☐	☐	☐	☐	☐
1.2 to make health decisions after seriously considering their physician's opinion	☐	☐	☐	☐	☐	☐	☐
1.3 to share the responsibility for making health decisions with their physician	☐	☐	☐	☐	☐	☐	☐
1.4 their physician make the health decisions, after seriously considering their opinion	☐	☐	☐	☐	☐	☐	☐
1.5 their physician to make their health decisions for them	☐	☐	☐	☐	☐	☐	☐
(Strull, Lo, Charles, 1984)							
1.6 Nurses supporting callers/patients facing more complex p-s health decisions will increase callers/patients involvement in making these decisions	☐	☐	☐	☐	☐	☐	☐
1.7 A patient-physician discussion about more complex p-s health decisions is improved when a patient comes prepared	☐	☐	☐	☐	☐	☐	☐
1.8 Nurses supporting callers/patients making more complex p-s health decisions will stimulate them to ask more questions than they would otherwise have asked.	☐	☐	☐	☐	☐	☐	☐
Most callers/patients are aware that they can get support to prepare for making more complex p-s health decisions by:							
1.9 contacting the BCNurseLine	☐	☐	☐	☐	☐	☐	☐
1.10 visiting the BCHealthGuide online resources	☐	☐	☐	☐	☐	☐	☐
1.11 Most callers/patients should be referred to the BCNurseLine and/or BCHealthGuide online resources in preparation for making more complex health decisions	☐	☐	☐	☐	☐	☐	☐
1.12 Most nurses are able to support callers/patients facing more complex p-s health decisions most of the time (> 66% of the time).	☐	☐	☐	☐	☐	☐	☐

2. What are three barriers that make it more difficult for callers/patients in BC to obtain support in preparing for making more complex p-s health decisions (please list them from first priority to third highest priority)?

1st priority _____

2nd highest priority _____

3rd highest priority _____

3. How likely are you to tell someone about the BCNurseLine as a resource to support callers/patients in preparing to make more complex p-s health decisions?

☐ Very unlikely	☐ Unlikely	☐ Somewhat Unlikely	☐ Somewhat Likely	☐ Likely	☐ Very likely
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4. Please tell us much to you agree or disagree with the following statements:

<i>Factors influencing nurses providing decision support to callers/patients facing more complex p-s health decisions</i>	Strongly disagree	Disagree	Mildly Disagree	Neutral	Mildly agree	Agree	Strongly Agree
4.1 Most nurses need to enhance their knowledge about supporting callers/patients making more complex p-s health decisions.	☐	☐	☐	☐	☐	☐	☐
4.2 Most nurses' are confident in their ability to support callers/patients making more complex p-s health decisions	☐	☐	☐	☐	☐	☐	☐
4.3 Nurses have access to good* resources to support callers/patients making more complex p-s health decisions (* understandable, evidence-based, accurate, up-to-date, balanced information on benefits and harms, non-biased)	☐	☐	☐	☐	☐	☐	☐
4.4 For callers/patients making more complex p-s health decisions, most nurses are confident in guiding callers/patients in the steps for making a decision	☐	☐	☐	☐	☐	☐	☐
4.5 There are too few calls about more complex p-s health decisions for most nurses to develop their decision support skills	☐	☐	☐	☐	☐	☐	☐
4.6 Most nurses find it difficult to recognize callers/patients having difficulty making more complex p-s health decisions.	☐	☐	☐	☐	☐	☐	☐
4.7 Most nurses are familiar with the Healthwise KnowledgeBase decision points	☐	☐	☐	☐	☐	☐	☐
4.8 Most nurses are sensitive to the influence that their personal preferences can have on callers'/patients' decisions	☐	☐	☐	☐	☐	☐	☐

<i>Factors influencing nurses providing decision support to callers/patients facing more complex p-s health decisions</i>	Strongly disagree	Disagree	Mildly Disagree	Neutral	Mildly agree	Agree	Strongly Agree
4.9 Most nurses receive enough training in orientation to feel prepared for supporting callers/patients facing more complex p-s health decisions	☐	☐	☐	☐	☐	☐	☐
4.10 Most nurses would identify a need to participate in continuing education about supporting callers/patients to prepare for making more complex p-s health decisions	☐	☐	☐	☐	☐	☐	☐
4.11 Most nurses feel constant pressure to minimize call length	☐	☐	☐	☐	☐	☐	☐
4.12 Most nurses feel confident in their ability to manage differences between what the nurse or physician thinks is a “good” decision and what the caller/patient prefers	☐	☐	☐	☐	☐	☐	☐
4.13 Most nurses need to enhance their ability to support callers/patients in handling conflicting views about the decision from significant others.	☐	☐	☐	☐	☐	☐	☐
4.14 Most nurses would prefer to have a clear step by step approach to use for supporting callers/patients facing more complex p-s health decisions	☐	☐	☐	☐	☐	☐	☐
4.15 Most nurses think the call length performance indicator should be more tailored to the type of calls	☐	☐	☐	☐	☐	☐	☐
4.16 The flashing call waiting light interferes with nurses’ interaction with the caller.	☐	☐	☐	☐	☐	☐	☐
4.17 There is clear direction within the program that nurses need to provide decision support for callers/patients facing more complex p-s health decisions.	☐	☐	☐	☐	☐	☐	☐
4.18 Sending written information to callers/patients would enhance the decision support provided by nurses.	☐	☐	☐	☐	☐	☐	☐
4.19 Most nurses validate callers’/patients’ views/values associated with more complex p-s health decisions.	☐	☐	☐	☐	☐	☐	☐
4.20 Most nurses feel their clinical judgment is too constrained by protocols.	☐	☐	☐	☐	☐	☐	☐
4.21 Other:	☐	☐	☐	☐	☐	☐	☐
4.22 Other:	☐	☐	☐	☐	☐	☐	☐

5. If you were to pick only 3 barriers, what would be the priorities to be addressed before being able to enhance the decision support currently provided by nurses at the BC NurseLine to callers/patients facing more complex p-s decisions (please list them from first priority to third highest priority)?

1st priority _____

2nd highest priority _____

3rd highest priority _____

6. What are two to three factors that make it easier for nurses to provide support to callers/patients who are preparing to make a more complex p-s health decision (please list them in order of importance, starting with the most important)?

Most important _____

2nd highest _____

3rd highest _____

7. Do you have any further comments, questions or suggestions?

Please tell us a little about yourself...

I. Are you a staff member of the BCNurseLine?

☐ Yes

If yes, what is your position within the program:

☐ Staff Nurse

☐ Nurse shift supervisor/ charge nurse

☐ Program coordinators / Educator/ Nursing practice leader

☐ Non-RN supervisor/ administrator

☐ Other: _____

☐ No

If no, what is your connection to the program:

☐ Physician

☐ Ministry of Health Official

☐ Other: _____

II. How long have you been working within or associated with the BCNurseLine?

☐ 3 or fewer months

☐ 7 to 12 months

☐ 18 months to 2 years

☐ 4 to 6 months

☐ 12 to 18 months

☐ more than 2 years

III. Are you currently working: ☐ Full-time ☐ Regular part-time (___ FTE) ☐ Casual

IV. Your age range?

☐ Under 29

☐ 40 to 49

☐ 60 and older

☐ 30 to 39

☐ 50 to 59

V. Your gender ☐ Female ☐ Male

VI. Your highest grade or level of education completed:

☐ Some high school

☐ College diploma

☐ High school diploma

☐ Undergraduate university degree

☐ Trade certificate / diploma

☐ Graduate university degree

☐ Other _____

VII. How long have you been working within nursing?

☐ Less than 2 years

☐ 11 to 15 years

☐ 26 to 30 years

☐ 2 to 5 years

☐ 16 to 20 years

☐ more than 30 years

☐ 6 to 10 years

☐ 20 to 25 years

VIII. What was your nursing experience/background prior to working at the BCNurseLine (check 1 or more)?

☐ Emergency nursing

☐ Adult medical nursing

☐ Pediatric nursing

☐ Adult surgical nursing

☐ Intensive care

☐ Other specialty _____

☐ Primary Care

☐ Other _____

Thank you for completing the survey. Please return the survey by January 28, 2004:

BCNurseLine: Wendy Lodge's office; or

Email: dawnstacey@rogers.com; or

Fax: Dawn Stacey at (613) 761-5492 or

and Ave,

Survey Reminder – Deadline coming soon

Survey Response Rate: 28 / 108 (26%)

About 2 weeks ago, a survey was sent to you seeking your opinion about factors influencing BCNurseLine nurses providing decision support for callers making preference-sensitive decisions. You were chosen to participate because of your involvement with the BCNurseLine. To ensure that the results accurately represent the opinions of people like you, it is important that your views be included.

If you have already completed and returned the survey, please accept our sincere thanks. If by chance, you did not receive the survey or if it was misplaced please complete the attached survey. According to the ethics guidelines and given that the surveys are anonymous, this reminder is being sent to all people invited to participate.

Please return completed surveys by Friday, January 30, 2004:

At the BCNurseLine to Wendy Lodge's office; or

Via Email: dawnstacey@rogers.com; or

Via Fax: Dawn Stacey at (613) 761-5492; or

Via Mail: Dawn Stacey, 1

H9

Sincerely,
Dawn

For the research team: Dawn Stacey RN, MScN, PhD Candidate (613) 837-5356; Annette O'Connor RN, PhD (613) 798-5555 ext. 17582; Ian Graham PhD (613) 798-5555 ext. 18273; Marie-Pascale Pomey MD, PhD (613) 562-5800 ext. 4734, at the University of Ottawa.

For questions about this study, please contact:

- Research team member: Dawn Stacey RN, MScN, PhD Candidate (613) 837-5356;
- Local resource people: Wendy Lodge BCNurseLine (604) 215-5107 or Pauline James Ministry of Health Planning (250) 952-2473;
- Ethics resource person: Protocol Officer for Ethics in Research, University of Ottawa, ethics@uottawa.ca (613) 562-5387.

Note: this reminder was send via email with a copy of the survey attached

Baseline Simulated Caller Scenarios

Scenario: Ritalin for a Child age 7

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Primary decision support need: Information

You are Mrs. Linda Small. You are a 35 year old woman calling about your 7 year old son, Bobby (Robert) Small who is in Grade 2 and was diagnosed with ADHD (attention deficit hyperactivity disorder) last year. You live in Smithers, British Columbia.

Your son's date of birth: July 17, 1996 [current year – 7 (e.g. 2003 – 7 = 1996)]

Setting the stage for the telephone call

Two days ago, at a parent-teacher meeting, your son's teacher talked to you about her concerns about Bobby's difficulties paying attending during lessons and group work, his talkativeness, and trouble staying seated in class. Your son's teacher knows that Bobby has ADHD and suggested that you think about starting him on some medication to help him, such as Ritalin. She also has tried to keep Bobby's attention by placing his desk in the front row but it does not seem to help.

In the spring of last year at 6 years of age, your son Bobby was diagnosed with ADHD by a psychologist. At that time, his behaviour was more impulsive and active compared to the other children his age at school and at Beavers. The psychologist told you that medication can be used to control the ADHD. However, you were not keen on using medicines. As well, the school year was coming to an end and you were hopeful that over the summer as your son matured he would grow out of it. The problem would go away.

Now you need to think again about using Ritalin and you don't know what to do. So you telephone the BCNurseLine for help with making your decision.

Beginning the interview

"I need to talk to someone about Ritalin. A couple days ago, my son's teacher asked if I have thought about Ritalin as a treatment for my son Bobby's ADHD. I don't like the idea of Bobby having to take a pill everyday but I also don't like the fact that he is not doing well in school. I am not sure what to do."

Your attitude during the call:

- ☐ You are concerned about your son's behaviour interfering with: a) his learning at school, b) having fun at Beavers, and c) making friends.
- ☐ You do not like the thought of your son having to take a medication.
- ☐ You are concerned about the side effects but don't know what they are.
- ☐ You are not sure what would be best for your son.

Background information only if the nurse asks

More Information about your son's medical history and family situation:

(a) Medical history:

- ☐ Your pregnancy with Bobby was normal. He was born vaginally.
- ☐ Your son is not circumcised
- ☐ You breast fed for 3 months
- ☐ Bobby has had a normal growth – his height is 4'2" and he is 50 lbs (a little thin)
- ☐ Diagnosed with ADHD by a psychologist
- ☐ Overall, Bobby is a healthy child with no obvious medical reasons that would interfere with the decision to take Ritalin

(b) Family History:

- ☐ There is no one else in the family or known through friends who is diagnosed with ADHD.

(d) Current lifestyle activities:

- ☐ You live with your husband John, son Bobby age 7 and a daughter Sara age 9 years
- ☐ Your husband works at the airport as one of two full-time employees responsible for ground maintenance (the third employee is responsible for administrative activities). Your husband completed high school and smokes about ½ pack a day.
- ☐ You are a nursing assistant with a college diploma and work at the local hospital primarily with older hospitalized patients.
- ☐ You smoke about 5 cigarettes a day.
- ☐ Your son, Bobby, eats sporadically – hard to get him to stay at table long enough to eat properly
- ☐ Your son goes to Beavers (Scouting for boys 6 and 7)
- ☐ As a family, you participate in community events

(e) Information access:

- ☐ You have Internet access at work but you are not very good (or comfortable) using it

(f) Previous experiences with making decisions: None

More information about how you see the decision

1. About the decision:

Decision: whether or not to give my child Ritalin for ADHD.

Deadline for making decision: about 4 weeks; after Christmas

Stage of decision making: starting to think about the Ritalin as a treatment for ADHD for my son

2. Your desired role in making the decision

Preferred role: to make the decision with my husband and family doctor

3. Information: You feel you don't really have enough information about Ritalin to make the decisions. You want to know more about the side effects and whether or not it works.

4. Values/importance: You are not ready to discuss how important the pros and cons are to you because you do not know the pros and cons yet.
5. Other people:
 - Your husband thinks your son is being a normal boy. He does not think he needs medication. He also does not know much about Ritalin.
 - You don't know what your family doctor would say.
 - It feels like your son's teacher is putting a little pressure on you to start Bobby on Ritalin.
 - You always have trouble getting your son to take medications. It will be difficult to convince him to take it.
6. Your choice: You are feeling unsure about your decision to give your son Ritalin – but willing to get more information.
7. Plan: Once you get some more information, you want to speak with your family doctor about the situation.

If the nurse asks you these questions before she provides you with information on the pros and cons (more at the beginning of the call), you can answer...

Are you clear about the best choice for you?	No	
Are you sure what to choose?	No	
Do you know the options?	No	
<i>(You only know about Ritalin and not other options)</i>		
Do you know the pros of the options?	No	
Do you know the cons of the options?	No	
Are you clear about which pros are most important to you?	No	
Are you clear about which cons are most important to you?	No	
Do you have enough support to make a choice?	No	
Are you choosing without pressure from others?		Unsure
<i>(Your son's teacher seems to be pro Ritalin)</i>		
Do you have enough advice to make a choice?	No	

If the nurse asks you what information you know, you can tell her the following

PROS	CONS
You think that Ritalin will probably improve your son's behaviour and help him focus better in school	You don't like having to give your son medication everyday.
You may hear more positive comments about your son's behaviour around town.	You are concerned about the side effects (including the long term effect) but don't know what they are.
	You always have trouble getting your son to take medications. It will be difficult to convince him to take it.

If the nurse gives you or directs you to more information about Ritalin and then asks what you will do next:

- You are going to get the information and review it.
- You will make an appointment to discuss the decision with your doctor.

If the nurse asks you what is most important to you by rating the pros and cons, you share the following that is in brackets:

PROS	CONS
You think that Ritalin will probably improve your son's behaviour and help him focus better in school (**** 4 stars rating because this is important to you)	You don't like having to give your son medication everyday (** 3 star rating because this is also important to you)
You may hear more positive comments about your son's behaviour around town (** 2 star rating)	You are concerned about the side effects (including the long term effect) but don't know what they are (you do not have enough information to assign a rating to the side effects)
	You always have trouble getting your son to take medications. It will be difficult to convince him to take it (** 2 star rating)

If the nurse asks you about others opinions, you can share with her that:

Other people	What are their opinions?	Are you feeling pressure?	Are you feeling support?
Your husband	NOT medication; my son is being a normal boy	No	Not really, he does not know much about Ritalin
Your family doctor	Not sure	No	Not yet; he would be good if I spoke to him
Your son's teacher	YES medication	Yes, some	No
Your son	Not sure; probably no because he does not like taking medications	No	No

A few additional cues for the telephone call

- ☐ Possible questions:
 - What are the side effects of Ritalin?
 - Does it really work?
 - Are there any longer term problems with being on Ritalin?
- ☐ Other information to share:

You have access to internet at work. The BCNurseLine is part of the BCHealthGuide program with BCONline internet information accessed using a password and BCHealthGuide handbook mailed to all houses.

You have called the BCNurseLine before:

- Your daughter had sore throat last winter.

Beaver leaders last year and this year are reporting that your son has difficulty sitting quietly when they are doing more serious activities. Sometimes they need to "give him a time out" or separate him from the main group until he settles down.

Scenario: Amniocentesis for a Woman age 37

© Stacey, November 2003

Primary decision support need: Values clarification

You are Mrs. Mary Coombes. You are a 37-year old healthy woman who lives in Surrey, British Columbia.

Your date of birth is March 3, 1966 [current year – 37 (e.g. 2003 – 37 = 1966)]

Setting the stage for the telephone call

You recently found out that you are pregnant. This is your first pregnancy and you are very happy with the good news. Last week, you and your husband, Rob, met with your family practitioner. She reviewed your medical information and confirmed that you are about 8 weeks pregnant. Given that you are over 35 years of age, she suggested that you consider having an amniocentesis. Women over 35 are at higher risk for having a baby with problems such as Down syndrome.

Your family practitioner went on to tell you that:

An amniocentesis is when a sample of fluid is taken from the amniotic sac around the baby and sent to a laboratory for evaluation. The test involves inserting a thin needle through your abdomen into your uterus (womb) to withdraw a small amount of fluid while having an ultrasound. This test is done by an obstetrician.

The reasons women choose to have an amniocentesis include:

- To find out if the baby has Down syndrome or other genetic abnormalities. This is the most common problem for women who are 35 or older. About 5 to 7 out of every 1000 women age 37 will have a baby with Down syndrome. It may also detect neural tube defects such as spina bifida and anencephaly.
- With this information other decisions can be made such as: a) whether or not to terminate the pregnancy by having an abortion; and b) where to deliver the baby.
- It gives parents the chance to prepare for raising a child with special needs.

The reasons women do NOT choose to have it include:

- They will not consider ending the pregnancy even if the baby had a serious problem.
- There is a chance of having a miscarriage from the procedure. About 5 out of every 1000 amniocentesis will result in a miscarriage.
- Small chance of injury to the mother or baby from the needle (less than 1 chance in 1,000 amniocenteses) or infection in the amniotic sac.

Your doctor told you that you should think about the decision. She gave you an information sheet summarizing the reasons to have an amniocentesis (pros) and reasons NOT to have an amniocentesis (cons), suggested that you think about your decision, and let her know what you prefer. You have a return appointment next week and you don't know what to do – you are very worried about having a miscarriage.

You telephone the BCNurseLine for help with deciding what to do.

Beginning the interview

"I just found out that I am pregnant. We were very excited and happy about the pregnancy until we saw my family doctor last week. She told us that we need to consider whether or not to have an amniocentesis, because I am 37. She suggested that we review some information that she gave us and think about it. Now it seems my life is turned upside down: one day I think I should have the amniocentesis but the next day I don't want to risk losing the baby. I feel that I know the facts but I am still torn about whether or not to have the amniocentesis."

Your attitude during the call

- ☐ You feel excited about being pregnant but have not told anyone yet other than your husband and family doctor.
- ☐ You are unsure what to do about having an amniocentesis.
- ☐ You are wavering between choices – one day you think you should just get it done so you can find out if there are any problems but the next day you think that you should not bother because you are very concerned about having a miscarriage
- ☐ You are a little worried about having a baby with Down syndrome but there is no family history of Down syndrome.

Extra background information, only if the nurse asks

More information about your medical history and lifestyle

(a) Medical history:

- ☐ No previous pregnancies
- ☐ Last menstrual period was 9 weeks ago
- ☐ PAP test last year was normal
- ☐ You are Rh-positive which is the same as your husband.
- ☐ Your blood pressure last week was normal [about 110 over 70 (110/70)]
- ☐ Surgery: tonsils removed as a child

(b) Family History:

- ☐ No Down syndrome in the family;
- ☐ Mother, age 69, with diabetes controlled by diet; Father, age 72, well
- ☐ One brother, age 41, healthy.
- ☐ Husband's family is healthy.

(c) Current lifestyle activities:

- ☐ You live with your husband, Rob who works for an insurance company.
- ☐ You work in a law office full-time as a clerk. You completed college in a legal assistant diploma program
- ☐ You do not smoke; never smoked
- ☐ You have a healthy body weight (height 5'5"; weight 140 lbs)
- ☐ You walk ~20 minutes to work every day
- ☐ You drink alcohol socially but have stopped since you found out you are pregnant.
- ☐ You do not know anyone who has made the decision about amniocentesis. You do not know anyone who has a child with special needs.

(d) Information access:

- ☐ You have access to the Internet at work.

(e) Previous experiences with making decisions:

In your 20's, you decided to take the birth control pill to prevent pregnancies. At that time, all your friends were taking it so you just decided to do what they were doing and did not really think too much about it.

More information about how you see the decision

About the decision

Decision: whether or not to have an amniocentesis.

Deadline for making decision: ~1 week when you see your family doctor

Stage of decision making: thinking about whether or not to have an amniocentesis

Your desired role in making the decision

Preferred role: to share the decision with my husband and family doctor

Information: You feel you understand the information you need to make the decision – see below

Values/importance: You are not sure about what is more important in the pros and cons for the decision.

Other people:

- Your family doctor has clearly expressed that there are pros and cons to doing an amniocentesis.
- Your husband is feeling as unsure as you are.
- You do not want to speak with other family members yet.

Your choice: At the beginning of the interview you are unsure; if the nurse asks you to think about how important the pros and cons are (or asks you to rate them with stars), you will decide NOT to have the amniocentesis, but still want to confirm this with your obstetrician.

Plan: You are booked to see your family doctor next Monday so you want to know your decision by then.

If the nurse asks you these questions before she asks you to rate how important the pros and cons are (more at the beginning of the call), you can answer...

Are you clear about the best choice for you?	No
Are you sure what to choose?	No
Do you know the options?	Yes
Do you know the pros of the options?	Yes
Do you know the cons of the options?	Yes
Are you clear about which pros are most important to you?	No
Are you clear about which cons are most important to you?	No
Do you have enough support to make a choice?	Yes
Are you choosing without pressure from others?	Yes
Do you have enough advice to make a choice?	Unsure

If the nurse asks you what you know,

- you can give her the list of pros and cons from the information sheet that the family doctor gave you (see below). Underlines indicate items more common to occur.

If the nurse asks you to rate how important the pros and cons are,

- you can provide the number of stars give in some of the boxes.

PROS	CONS
I could find out if the baby has Down syndrome or another serious problem (** 2 STAR RATING)	There is a possibility that the amniocentesis could cause a miscarriage and I would lose the baby (*****5 STAR RATING)
If the baby has a serious problem, I could end the pregnancy (* 1 STAR RATING)	If there was a serious problem, I probably would not have an abortion (***3 STAR RATING)
<u>Amniocentesis result is very accurate</u> (** 2 STAR RATING)	The needle could cause an infection or injure the baby (** 2 STAR RATING)
<u>I could find out if I am having twins and the sex of the baby (boy or girl).</u> (* STAR RATING)	I think my risk is low given that there are no others in the family with Down syndrome. (** 2 STAR RATING)
If the baby has a serious problem, I could prepare myself for raising a child with special needs (** STAR RATING)	

Preferred Choice: You are leaning toward NOT having an amniocentesis

If you rate the pros and cons and if the nurse asks what you will do next:

- you can say that you plan to tell your family doctor that you don't want an amniocentesis because you are concerned about losing the baby and you would probably not have an abortion or terminate the pregnancy if there was a problem.

If you rated the pros and cons and the nurse asks these questions, you can tell her (closer to the end of the call)...

Are you clear about the best choice for you?	Yes, I think so
Are you sure what to choose?	Yes, I think so
Do you know the options?	Yes
Do you know the pros of the options?	Yes
Do you know the cons of the options?	Yes
Are you clear about which pros are most important to you?	Yes
Are you clear about which cons are most important to you?	Yes
Do you have enough support to make a choice?	Yes
Are you choosing without pressure from others?	Yes
Do you have enough advice to make a choice?	Unsure, I want to ask my family doctor a question

If the nurse asks you about others opinions, you can share with her that:

Other people	What are their opinions?	Are you feeling pressure?	Are you feeling support?
Your husband	Unsure	No	Yes
Your family doctor	Need to review pros and cons	No	Yes

Note: You do not want to speak to family members yet.

A few additional cues for telephone calls

- ☐ Possible questions:
 - If I don't have an amniocentesis is there any other test that can be done?
- ☐ Other information to share:
 - If the nurse asks if you have access to the internet, you should answer that you do. The BCNurseLine is part of the BCHealthGuide program with BCONline internet information accessed using a password and BCHealthGuide handbook mailed to all houses.
 - If the nurse asks if you have called the service before, you should answer NO. You heard about the BCNurseLine from a friend who has used the service several times when her children were sick.

Scenario: Back Surgery for Man age 60
© Stacey, November 2003

Primary decision support need: Handling pressure from others

You are Mr. Raymond McWither. You are 60 years old and live in Nanaimo, British Columbia.

Your date of birth is September 27, 1943 [current year – 60 (e.g. 2003 – 60 = 1943)]

Setting the stage for the telephone call

You have had back pain on and off over the last 12 years. Usually it involves spasms in your back that send shooting pains down your left leg. It usually goes away in a few hours. When it happens, you have difficulty getting dressed and doing your job at the pulp and paper mill.

About 3 months ago, the pain became so severe that you could not go to work. The pain was like a knife in your back and forced you to stay in bed all day. You tried pain medication – Robaxacet. Your doctor had an MRI done and told you that it was a herniated disc causing the pain (uncomplicated and occurring between L4 and L5 in the spine). He also gave you some stronger pain medication – Tylenol #3 and sent you for physiotherapy. After several weeks, he saw you again and you were in about the same situation.

Your doctor referred you to see a back surgeon in Victoria. Your back surgeon told you that he could do back surgery to fix the problem and relieve the pain faster; but in the long run, back surgery is not necessarily better than continuing with physiotherapy. He gave you some information to review on the surgery.

You are supposed to think about what you want and let your back surgeon know within the next month. You want to have the surgery to get back on your feet sooner but your wife, Pauline, doesn't want you to. She told you to call the BCNurseLine for more information about back surgery.

You telephone the BCNurseLine when she is not home.

Beginning the interview

"A couple weeks ago, I saw a back surgeon about a back problem that I have had for years. He did a great job carefully explaining the options. He told me that he could fix my herniated disc by doing surgery or I can continue with the physiotherapy. I think it would be better if I have the surgery but my wife doesn't think I should have it. I don't know what to do."

Your attitude during the call

- ☐ You are frustrated with your wife, Pauline, because she is being fairly firm about not wanting you to have the surgery. She thinks that she knows best. Although, you know that she means well.
- ☐ You would like to get back to work and keeping busy around the house. You don't like having to sit around all the time and having to take strong pain medications.
- ☐ The pressure from your wife makes you wonder if you are making the right choice.
- ☐ You are unsure what to do

Extra background information, only if the nurse asks

More information about your medical history and lifestyle

(a) Medical history including physical exam and MRI results:

- ☐ You were told you have an uncomplicated herniated disc
- ☐ You have had no surgery in the past
- ☐ You are in good health with normal blood pressure (last time was ~132/83) and your cholesterol is a little higher than normal
- ☐ You have no major medical risks interfering with your ability to have surgery other than you smoke ½ pack a day.

(b) Back pain questions on scale of 1 (not at all) to 5 (extremely)

not at all	1	2	3	4	5	extremely
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You are disabled by the herniated disc. Yes, 5 out of 5

You have moderate to severe leg pain that has been making daily life difficult for at least a month. Yes, 5 out of 5

You have been consistently doing the exercises prescribed by your physiotherapist for at least a month. Yes, 4 out of 5

You are comfortable with the idea of having back surgery. Yes, 4 out of 5

You have a herniated disc that has caused pain, weakness, and numbness for longer than 6 months. Yes, 4 out of 5. It has been 12 months.

(c) Family History:

- ☐ Your father, passed away of heart attack at 73 yrs old – about 15 years ago
- ☐ Your mother, age 83, sometimes feels her heart racing (atrial fibrillation) and would have to go to the emergency – now she is on a medication and it has not happened.
- ☐ You have 1 sister, age 64, who had breast cancer a few years ago – she is fine now.
- ☐ Your other sister and 2 brothers are probably healthy - nothing major.

(d) Current lifestyle activities:

- ☐ You live with your wife, Pauline, who is a homemaker with high school education
- ☐ You have two children; son, Pat, age 36 is single; and daughter, Shelley, age 31 has one child age 4 (boy); your daughter is a dental assistant and completed diploma at the college in Nanaimo
- ☐ You have been off work for about 3 months since the pain hit more severely; you had been working fulltime at the pulp and paper mill as a receiver – you receive and send raw lumber to the 'chipper'. Your position requires standing and some lifting.
- ☐ You are not keen about taking medicine for a long period of time and especially not codeine that makes you sleepy and interferes with your concentrating.
- ☐ You finished grade 10 in high school and went to work at the pulp and paper mill.
- ☐ You smoke ½ pack a day
- ☐ You are slightly overweight (6'2"; 215 lbs); eat well and enjoy a beer before dinner

(e) Information access:

- ☐ You are not sure if you have a copy of the BCHealthGuide Handbook – your wife would know and she is not home right now;
- ☐ You can get your daughter to get information off the Internet. She also lives in Nanaimo.

More information about how you see the decision

About the Decision

Decision: whether or not to have back surgery.

Deadline for making decision: ~2 more weeks. You are expected to call the surgeon with your decision. If you decide to have surgery, your name will be placed on the surgery list – 4 to 6 month wait but you could get called sooner if there is a cancellation

Stage of decision making: you are close to making your choice about having back surgery

Your desired role in making the decision

Preferred role: you want to make the decision with the back surgery but also would like your wife to agree

Information: You think you understand the information you need to make the decision (see below)

Values/Importance: You feel it is more important for you to do whatever you can to have the pain relieved as fast as possible without pills. So you think the surgery would be better.

Other people

- Your wife does NOT want you to have surgery. She says: “of course the surgeon thinks you should have surgery because that is how he makes his money”.
- Your back surgeon is suggesting the surgery.
- You have not asked your daughter – but are sure your wife has convinced her that you should not have surgery.
- Your family doctor is “sitting on the fence”; with no opinion

Your choice: You want to have the back surgery but need to figure out how to convince your wife

Plan: Need to tell surgeon what you want within about 2 weeks.

If the nurse asks you these questions (more at the beginning of the call), you can answer...

Are you clear about the best choice for you?	Yes
Are you sure what to choose?	No (<i>because of your wife</i>)
Do you know the options?	Yes
Do you know the pros of the options?	Yes
Do you know the cons of the options?	Yes
Are you clear about which pros are most important to you?	Yes
Are you clear about which cons are most important to you?	Yes
Do you have enough support to make a choice?	Yes
Are you choosing without pressure from others?	No (<i>pressure from your wife</i>)
Do you have enough advice to make a choice?	Unsure

If the nurse asks you what you know,

- you can give her the list of pros and cons in your words from the information sheet that the doctor gave you (see below). Underline indicates what you think is more common to occur.

If the nurse asks you to rate how important the pros and cons are,

- you can provide the number of stars give in some of the boxes.

Pros	Cons
Your pain will be less and you will be able to move better. You are hopeful that you can get back to work. (**** 4 STAR RATING that is very important to you)	You could still have back pain; it's not a 100% guarantee that it will work. (* 1 STAR RATING)
<u>The pain shooting down your leg should be gone when you get out of surgery.</u> (** 2 STAR RATING)	You may have problems from the surgery like bleeding, infection, chance of injury to the nerves or just being put to sleep with those medications. But the surgeon said these don't usually happen (0 STAR RATING)
<u>The pain will decrease faster than waiting for the physiotherapy to work.</u> (** 3 STAR RATING)	You may have to have more surgery in the future (0 STAR RATING)
Your surgeon has done this before. (** 2 STAR RATING)	<u>If you wait long enough, the back problem should get better with physiotherapy</u> (0 STAR RATING)

Preferred Choice: You want to have the surgery

If the nurse asks you about others opinions, you can share with her that:

Other people	What are their opinions?	Are you feeling pressure?	Are you feeling support?
Your wife	NOT surgery	Yes	Not really
Your back surgeon	He is suggesting the surgery	No	Yes
Your daughter	Not sure	No	No
Your family doctor	No opinion, sitting on the fence – leaving it up to the surgeon	No	Yes, he is helping me when I need some medication for pain

A few additional cues for the telephone call:

- ☐ Possible questions:

What is the recovery period after having back surgery?

How soon I will be able to get back to work?

- ☐ Other information to share:

If the nurse asks:

- You have not called this service before; your wife has and she encouraged you to call them for more information about back surgery.

DSAT: Decision Support Analysis Tool

Purpose: A tool for evaluating the quality of decision support provided by call centre nurses to callers facing tough health decisions.

Transcript number:

Date:

Participant ID:

Analyzed by:

Length of call time:

Procedure:

1. Listen to each tape twice.
2. Check the boxes if the items were present and adequately addressed within the taped call (turn page over for descriptions of each criterion). Not applicable (n/a) is used in rare circumstances when it was not necessary to have assessed or intervened for that specific item (e.g. if clearly the caller does not know enough about options then the nurse does not need to explore benefits and harms; if the caller is the only one that is making the decision and has no pressure or need for support then the nurse does not need to intervene in this area).
3. Identify examples from practitioner dialog to support that the criterion was met.

Element	Assessment Criteria	Hear and acknowledge or assess in interaction	Intervened	Comments/ Notes / Examples
Decision making status	Identify actual decision being made; be able to specify	☐		
	Timing for when decision needs to be made is discussed/ acknowledged	☐		
	Stage of decision making: assessed	☐		
Knowledge of	Health/clinical condition	☐	☐	
	Options	☐	☐	
	Potential benefits of options	☐	☐	
	Potential harms of options	☐	☐	
Values /preference associated with	Importance of benefits	☐	☐	
	Importance of harms	☐	☐	
Others' involvement in the decision	Discuss preferred role in decision making, others involvement and their opinions	☐	☐	
	Discuss pressure or support from others	☐	☐	
Next Steps	Near end of the call, there is a summary of the next steps to address caller's decision making needs	☐		
Overall	The dialogue was tailored to the needs of the caller	☐		
	Appropriate use of time (adequate depth, no "over kill", or does not only refer to resources without any coaching)	☐		
TOTAL SCORE		0 / 12		

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Element	Assessment Criteria	Definitions
Decision making status	Identify actual decision	Clarifies/verifies the decision being made.
	Timing for when decision needs to be made is discussed/acknowledged	Discusses or acknowledges when the decision has to be made according to the caller/ timing of next MD visit. May also suggest changes to that time frame, if needed and as appropriate.
	Stage of decision making: verified or assessed	The nurse needs to have verified or clarified the state of decision making e.g. if they are considering options, their leaning, whether or not the caller has made a decision, or what steps are being taken to carry out the decision.
Knowledge of	Health/clinical condition	Assess: Asks questions or acknowledges caller's knowledge of their clinical condition, options, potential benefits/harms associated with the options, and their likelihood.
	Options	Intervene: Discusses/provides/facilitates access to sources of factual information about the clinical condition, options, outcomes, probabilities of outcomes. Information provided in a balanced, factual way without obvious bias.
	Potential benefits of options	Fact words: know, rationale, reasons for doing it, chances, what happens, why it happens, health risks.
	Potential harms of options	
Values /preference associated with	Importance of benefits	Assess: Asks caller what is most important or acknowledges callers' comments indicating the importance of benefits/harms. Intervene: Assists to clarify importance of benefits/harms by discussing or suggesting/referring to balance-scales, shading/weighing exercises, or other tools to clarify values.
	Importance of harms	Feeling/value words: important, worried, concerned about, tolerate, comfortable, unacceptable, bothersome, outweigh, tradeoffs, worth it, number one thing, put up with, happy if, jeopardize, too costly
Others' involvement in the decision	Discuss preferred role in decision making, others involvement & opinions	Assess: Asks or acknowledges patients preferred role in decision making and who else is involved in making the decision, their opinion, any pressure to choose one option. Intervene: Discusses strategies to involve others who are supportive/important, handle social pressures, communicate values with others (e.g. review information, ask questions, share list of pros and cons, share what is important).
	Discuss pressure or support from others	
Next Steps	Near end of the call, there is a summary of the next steps to address caller's decision making needs	Near the end of the call, obtain agreement or commitment to take steps to address identified decision making needs. Either asks patient what they are going to do at this point or summarizes for the patient what needs to be done. For example: a) if not enough information, identify where to get it or offers to send materials or refers to website; b) if unclear values, give suggestions to clarify values; c) if issues with others, provide ways to manage opinions of others; and/or d) offers for the patient to call back.
Overall	The dialogue was tailored to the needs of the caller	Decision support needs <u>must</u> have been assessed to be able to tailor the interventions to their needs.
	Appropriate use of time (adequate depth, no "over kill", does not only refer to resources without coaching)	No or minimal repeating of information provided and a balance between providing some guidance and referring caller to resources. No excess time in any one area.
SCORING (total possible score 12 points with no points lost if n/a used)		Points are allocated as follows: 1 each for the 3 Decision Making Status criteria; 1 for Assessment and 1 for Intervention for at least 3 of 4 knowledge areas addressed; 1 for Assessment and 1 for Intervention if both benefits & harms addressed; 1 for Assessment and 1 for Intervention if both others' opinions and their support addressed; 1 each for Next Steps, Tailored, and Use of time

Consent Form for Evaluation of an Education Program to
Enhance Decision Support

Evaluation of an Education Program to Enhance Decision Support

Research Team:

Dawn Stacey RN, MScN, Annette O'Connor RN, PhD, Ian Graham PhD, and Marie-Pascale Pomey MD, PhD at the University of Ottawa.

Introduction:

Canadians are more involved in decisions about their health. Some decisions are straightforward with clear benefits that outweigh harms (e.g. antibiotics for bacterial infection, routine eye examinations, and some triaging of symptoms). Other decisions are more complex with no "best choice" for everyone. The benefits and harms are either unknown due to a lack of research or there is a need to weigh the benefits and harms. Therefore, the best choice depends on the individual's values related to the benefits, harms, and uncertainty. These are called preference-sensitive decisions (e.g. hysterectomy, prostate cancer screening, and hormone replacement therapy). Research shows that people making preference sensitive decisions often have difficulty and need help. We are trying to find better ways to help a larger proportion of Canadians who need guidance making preference-sensitive decisions.

Purpose:

The aim of this study is to evaluate the effect of an education program to enhance decision support provided by nurses for callers facing preference-sensitive decisions.

We are asking for your participation!

Procedure:

Throughout the study, you will have access to an on-site resource person for trouble-shooting problems, answering questions, and, if necessary, linking you to the research team.

1. Within your regular BCNurseLine duties, you will be asked to respond to one call from a simulated caller, according to your usual practice. A simulated caller is a person who has been coached to ask you for help about a preference-sensitive health decision he/she is facing. As part of the ongoing quality assurance processes at the BCNurseLine, these calls will be audio-taped.
2. You will be randomly assigned to either participate in the decision support education program immediately or two months later.

	Early Group	2-Months Later Group
3.	You will be scheduled to participate in the decision support education program that includes: a) Using an Internet-based auto-tutorial that will take about 3 hours for you to complete. At the end of the tutorial, there is a multiple choice knowledge test and questionnaire about your satisfaction with the program. A certificate will be issued on completion. b) Trying the clinical decision support protocol with someone, in person, making a preference-sensitive decision. c) Participating in a 3-hour skill building workshop. Near the end of the workshop, you will be asked to fill in a survey to give us feedback on the usability of the clinical decision support protocol. A certificate will be issued on completion of the workshop.	You will be scheduled to complete the knowledge test. The knowledge test will take about 10-15 minutes to complete.

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 Ottawa, ON

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	Early Group	2-Months Later Group
	Using the clinical decision support protocol within your practice for callers making p-s decisions. You will also be asked to log the date and time of these calls on a special form.	
4.	There will be a repeat of simulated calls to the BCNurseLine. Within your regular duties, you will be asked to respond to one call that will require about 15 to 30 minutes. As part of the ongoing quality assurance processes at the BCNurseLine, these calls will be audio-taped.	
5.		You will be scheduled to participate in the decision support education program as outlined above in #3.
6.	At the end of the study, you will be asked to complete a survey about whether or not the decision support protocol is being used and factors that are influencing its use. This will take about 10 to 15 minutes to complete.	

Risks and Benefits:

There are no known risks of taking part in this study. A potential inconvenience is the time participating in the tutorial and skill building workshop (3 hours each), responding to calls from simulated callers, and completing a survey (15 minutes). The possible benefits of the study include: gaining new knowledge and skills in providing decision support for callers having difficulty making preference-sensitive decisions, demonstrating continued professional development for your RNABC yearly license renewal, and improving the quality of decisions made by callers.

Confidentiality:

The information collected during this study will be kept confidential. A code number will be used to identify the information so your name will not appear on any publications. All relevant information obtained while you are on this study will only be made available to the research team and, if requested, to the Research Ethics Committee at the University of Ottawa. If the results of the study are published, your name will not be associated with the data.

Voluntary Participation:

Joining this study is your choice. You are under no obligation to take part in the study and you may withdraw from the study at any time without negatively affecting your position at the BCNurseLine.

Consent:

I have read the above information and understand this consent form. I have also had the chance to ask questions and they have been answered to my satisfaction. I am aware that I am to keep one of the two copies of this consent form. I agree to take part in this study.

Name _____ Date _____

Researcher _____

For questions about this study, please contact: Dawn Stacey RN, MScN, PhD Candidate (613) 837-5356; Annette O'Connor RN, PhD (613) 798-5555 ext. 17582; Ian Graham PhD (613) 798-5555 ext. 18273; Marie-Pascale Pomey MD, PhD (613) 562-5800 ext. 4734, at the University of Ottawa.

Local contact: Pauline James, Nurse Consultant, Innovation & Sustainability, Ministry of Health Planning (250) 952-2473.

For questions about ethics, please contact: Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland Street, Tabaret Hall, Room 159, Ottawa, Ontario, K1N 6N5, ethics@uottawa.ca (613) 562-5387.

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Decision Support Protocol for Telephone Use
(based on the Ottawa Decision Support Guide for Telephone Consultation
© 2004 O'Connor, Jacobsen, Stacey, University of Ottawa)

Call Notes

H.

Decision

Timing of the decision

Pre-call stage in decision making

---not thought about options

---considering options

---close to choosing an option

---already made a choice

Pre-call leaning in choice

---no

---yes, specify

Pre-call certain about choice

---no

---yes

Primary cause(s) of difficulty

---Not enough information

---Unclear values

---Pressure to choose

---Not enough support from others

---Other, specify

Preferred role in decision making

---caller alone

---caller shared with someone, specify

---someone else, specify

I.

Decision support provided:

P.

End-call leaning in choice

---no

---yes, specify

End-call certain about choice

---no

---yes

End-call stage in decision making

---not thought about options

---considering options

---close to choosing an option

---already made a choice

Specify next steps

Learning to use the Ottawa Decision Support Guide for Telephone Consultation
© 2004 O'Connor, Jacobsen, Stacey, University of Ottawa

1. What decision can I help you with today?

Categories	Directive Questions	Hear/Acknowledge (non-directive)
2. Decision ---specify	What is the decision you face?	It sounds like you are trying to decide whether to ____ or do ____.
3. Stage in decision making ---not though about options; ---considering options ---close to choosing an option ---already made a choice Leaning in choice ---no ---yes, specify Certain about choice ---no ---yes	How far along are you with your decision? At this point, are you leaning toward a specific option? If yes, which option are you leaning toward? Do you feel sure about the best choice for you?	It appears as though you are “considering the options”. It sounds like you are not sure of what is the best choice for you.
4. Timing of the decision ---specify	When does the decision need to be made?	So, you need to make this decision when you see your doctor again?
5. Know options, pros and cons ---No, provide information &resources: ---Yes, verify knowledge (suggest caller list side-by-side) ----Option 1: -----Pros Option 1: -----Cons Option 1: ----Option 2: -----Pros Option 2: -----Cons Option 2:	Do you know the options you have and the pros and cons of each option? If yes, What options do you have? What are the pros (good points) and cons (bad points) of each option?	Tell me what you know about your options. Now taking Option 1, tell me about the pros and cons of this option.
6. Clear about importance of pros/cons ----Yes, verify which are most important ----No, -----if caller does not know pros/cons, provide information -----if caller knows, ask caller to assign stars to pros/cons (1* least to 5* most important)	Are you clear about which pros and cons are most important to you?	It sounds like you think X is really important to you. What other pros or cons are important to you in this option? Tell me which of these pros and cons are most important to you?
7. Role in decision making ---caller alone ---caller shared with someone, specify	What role do you prefer in making the decision?	So your partner is also involved in this decision.

Categories	Directive Questions	Hear/Acknowledge (non-directive)
---someone else, specify Support without pressure ---Verify support or pressure from people who matter most to caller ----Person 1: -----Opinion of person 1: -----Support/pressure person 1: ----Person 2: -----Opinion of person 2: -----Support/pressure person 2:	Do you have enough support and advice to make a choice? Are you choosing without pressure from others?	What does he/she think you should do? Are you feeling support or pressure from them? Who do you prefer makes the final decision?
8. Progress in decision making Leaning in choice ---no ---yes, specify Certain about choice ---no ---yes Stage ---not though about options; ---considering options ---close to choosing an option ---already made a choice	How far along are you with your decision? Now are you leaning toward a specific option? If yes, which option are you leaning toward? Do you feel sure about the best choice for you?	Tell me where you are leaning now that we have discussed the decision. It sounds like you are feeling a little surer of what is the best choice for you. It appears as though you are “closer to making a choice”.
9. Next steps --- specify,	What steps do you need to take now? [in making this decision]	

Desktop Worksheet for Documenting Decision Support Calls
 (Based on the Ottawa Decision Support Guide for Telephone Consultation
 © 2004 O'Connor, Jacobsen, Stacey, University of Ottawa)

Call Notes

H.

Decision

Timing of the decision

Pre-call stage in decision making

- not though about options
- considering options
- close to choosing an option
- already made a choice

Pre-call leaning in choice

- no
- yes, specify

Pre-call certain about choice

- no
- yes

Primary cause(s) of difficulty

- Not enough information
- Unclear values
- Pressure to choose
- Not enough support from others
- Other, specify

Preferred role in decision making

- caller alone
- caller shared with someone, specify
- someone else, specify

Option 1 :		Option 2 :	
Reasons to choose option (Pros)	Reasons to avoid option (Cons)	Reasons to choose option (Pros)	Reasons to avoid option (Cons)

I.

Decision support provided:

P.

End-call leaning in choice

- no
- yes, specify

End-call certain about choice

- no
- yes

End-call stage in decision making

- not though about options
- considering options
- close to choosing an option
- already made a choice

People whose opinion matters	Their opinion of best option for you	Pressuring you? [Yes, No]	Ways they can help you in decision making

Specify next steps

Autotutorial: Training Practitioners in Decision Support

A self-directed learning module with ten sections provides information and examples of the key concepts relevant to providing decision support for people making health or social decisions. Eleven quizzes within the sections give learners immediate feedback on their understanding and application of the key concepts. Participants achieving 80% or greater on the final knowledge test receive a 'Certificate of Completion'. The learning module is located on a password protected website at the University of Ottawa and takes about three hours to complete.

Learning Module Sections

1. The concept of decisional conflict
2. Defining characteristics or manifestations of decisional conflict
3. Factors contributing to decisional conflict
4. Distinguishing between decisional conflict and other similar problems
5. Examples of decision that may create decisional conflict
6. A framework-based process of decision support for patients experiencing decisional conflict
7. How decision support differs for 'values-sensitive' options and 'effective-care' options
8. General tools for assessing, providing, and evaluating decision support
9. Condition-specific patient decision aids or shared decision-making programs
10. Example of decision support using the Ottawa Decision Support Guide and a decision aid

Appendixes

- I. Example of using the Ottawa Decision Support Guide: Practitioner version
- II. Ottawa Personal Decision Guide

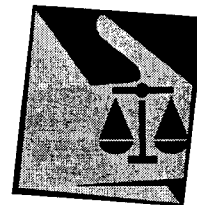
Learning Objectives

Upon completing the autotutorial, participants should know how to:

- Recognize clients experiencing decisional conflict.
- Identify modifiable factors that contribute to decisional conflict.
- Identify difficult decisions in your practice that create decisional conflict.
- Select strategies to tailor decision support to a client's needs.
- Differentiate between educational materials and materials useful to support client decision making.
- Describe a framework for supporting client decision making.
- Distinguish between patient counseling and coaching approaches required for recommended care versus those useful for health care options with different strengths of evidence or magnitudes of benefit/harm ratios.
- Use tools for assessing client's decision making needs, providing decision support and evaluating impact.

Group 1 Decision Support Study Nurses (Feb/Mar 2004)

The Decision Support Training Workshops are scheduled for the end of February and early March for nurses in Group 1 of the Decision Support Study, as well as Team Managers, educator(s) and the nursing professional practice leader.



A. In Preparation for the Workshop:

1. Autotutorial*: Starting *early February*, please complete the Internet-based autotutorial designed to help you learn more about decision support. It is expected to take about 3 hours. The autotutorial should be done when call volumes allow (e.g. when you are in the call wait position). It can be stopped and restarted at any time.

As you progress through the autotutorial, you can either read the material online or use the printed copy. Your printed copy of the autotutorial 'reading' is in a sealed envelop in Wendy's office and should be placed in your blue Study Folder for personal use only.

At the end of each autotutorial section, there are self-assessment questions to give you feedback on your learning. Once you have completed the autotutorial you will be instructed to complete the 'final quiz' and be asked to fill in the satisfaction with the autotutorial survey. You will have a maximum of 2 attempts to complete the quiz. All information collected will be kept confidential.

To access the autotutorial: visit <http://virtualcampus.uottawa.ca> and log-in as a 'Professor'. Your username is your full name (first and last name – lowercase with NO spaces) and your password is your study ID (e.g. BCDS15[†]).

2. Clinical Protocol: Try using the Ottawa Decision Support Guide paper-based tool with someone in-person, such as a family member or friend, who is having difficulty making a decision. This decision could be about relocating, buying a car, going back to school, or a health issue.

B. Skill-Building Workshop*:

The workshop builds on what you have learned in the autotutorial and focuses on the skills of providing decision support. The instructor for the workshop is MJ (Mary Jane) Jacobsen RN, MEd. She has taught decision support techniques to nurses over the last 8 years.

Note: Please do not share what you are learning or the clinical protocol with nurses in Group 2. This is a research study and we are trying to evaluate the effect of the education program on decision support provided by nurses. Group 2 nurses will participate in the education program at the end of April.

* Six (6) nursing education contact hours will be awarded at the end of the autotutorial and workshop; as per the collective agreement, nurses will be paid straight time for participating.

[†] Please ask Dawn Stacey for your individual study ID (dawnstacey@rogers.com).

Ottawa Health Research Institute, University of Ottawa

Continuing Education Certificate

is hereby granted to:

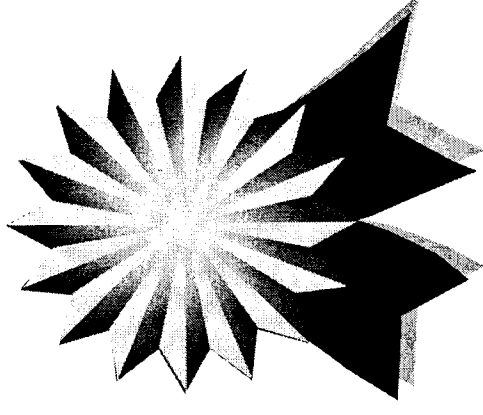
to certify the successful completion of the

*Autotutorial: Training Practitioners in
Decision Support [3-credit hours]*

Granted: February 24, 2004

Dr. Annette O'Connor

Canada Research Chair – Consumer Health Decision Support



Skill-Building Workshop Materials



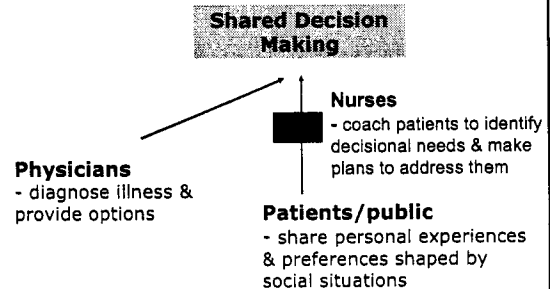
Decision Support Skill Building Workshop



M.J. Jacobsen RN MEd
Ottawa Health Research
Institute

1

Model of Shared Decision Making with Preference-sensitive Decision Support



2

Decision Support Study



By the end of the education program, the
nurse should be able to:

- Identify preference-sensitive (p-s) decisions
- Discuss key elements of decision support
- Demonstrate skills in decision support guided by a clinical decision support protocol
- Discuss integrating the protocol in clinical practice
- Develop self-appraisal skills in evaluating decision support provided to callers for p-s decisions

3

Decision Support Study: Education Program



- Online auto-tutorial to enhance knowledge
- Feedback of decision support provided to simulated callers
- Skill development: workshop, audit a taped call, tailoring of clinical protocol for their practice
- Tools for self-appraisal
- Access to onsite resource person
- Other: depending on barriers identified

4

Workshop Outline



- Review activities to date
- Feedback of results:
 - Barriers & Facilitators Survey
 - Simulated Patient calls
 - Use of Ottawa Decision Support Guide with a friend
- Practice:
 - Using Decision Support and Analysis Tools
 - Ottawa Decision Support Guide for Telephone Consultation
 - mDSAT (Mini Decision Support Analysis Tool)
- Implementation issues
 - Discuss integrating decision support
 - Usability of Ottawa DS Guide for Telephone Consultation

5

Where are we? Activities to date

- ✓ Call from SP making a treatment decision
- ✓ Survey: Barriers & Facilitators to Providing Decision Support
- ✓ Autotutorial – introduction to process and tools used in providing decision support for 'tough decisions'
- ✓ Practice with Ottawa Decision Support Guide (ODSG)

6

Difficult Decisions

What are difficult decisions?



7

Broad Classes of Decisions

Effective care

- Benefits are large compared to harms
- Goal is usually to increase uptake
- e.g. Taking an antibiotic for an infection; having a pap smear

Preference-sensitive

- Benefit/harm ratios are either uncertain or depend on patient values
- Patient participation
 - improves decision quality;
 - Prevents overuse of options patients do not value
- e.g. PSA screening; tamoxifen for higher risk women; laser eye correction

(Wennberg, *BMJ*, 2002;325:961-4
O'Connor, Legare, Stacey *BMJ*; in press)

8

Canadian Task Force on Preventive Health Care / US Task Force

Recommendation of routine provision	Quality of evidence	Magnitude of benefit over harm
A' Strong recommend	Good	Substantial
B' Recommend	Good → Fair →	Moderate Substantial
'C' Close call	conflicting	Small or sensitive to patient values
D' Recommend against	Fair	Zero or negative
E' Strong recommend against	Good	Zero or negative
'I' No recommendation	Insufficient quantity/quality	sensitive to patient values

(*CMAJ* 2003; 169: 207-8; Harris et al., *Am J Prev Med*, 2001; 20:21-35)

9

Factors Influencing Decision Support for Caller/Public: Preliminary survey results January 2004 (n=59*)

- Participants had a very positive view about
 - Patients/public being actively involved in decision making
 - Importance of helping patients prepare for consultation with their MD about health decisions
- Barriers to patients/public:
 - Lack of awareness of where to get support for decision making
 - Minimal awareness of BCNL
 - Inadequate access to or time with physicians
 - Limited access to health care services
 - Lack of knowledge of health issue or information for DM
 - Patients don't take responsibility for their health

10

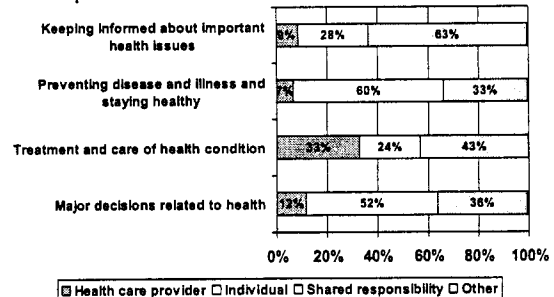
*primarily BCNL nurses

Factors Influencing Decision Support for Caller/Public: Preliminary survey results January 2004 (n=59*)

- Barriers to nurses providing decision support:
 - Call length performance indicator
 - Limited knowledge and skills in decision support
 - Unsure how to help caller whose decision conflicts with significant other
 - Limited usability of knowledgebase
 - Need for clear process
- Facilitators to nurses providing decision support:
 - Already validate callers' values
 - Sensitive to influence of their values on the situation
 - Access to good information resources
 - Feel confident helping patients managed differences with MD

*primarily BCNL nurses

Canadians' views on who should be mainly responsible for health services & wellness

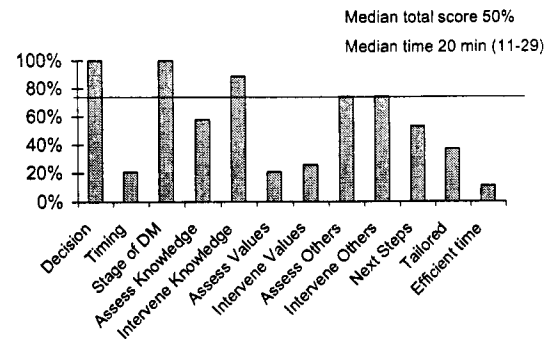


(Martin, *CMAJ*, 2002;167:295)

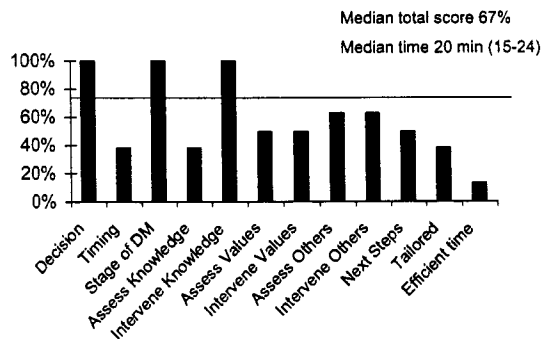
Decision Support Analysis Tool (mDSAT) for Analysis of SP Calls

Element	Assessment Criteria	Acknowledge or assess	Intervene
DM Status	Decision		
	Timing		
	Stage		
Knowledge of	Health condition; Options; Benefits ; Harms		
Values / preferences	Importance of benefits		
	Importance of risks		
Others' involvement	Who else is involved in decision Suggestions for including others		
Next Steps	Make plan to address dm needs		
Overall	Tailored to caller's needs		13
	Appropriate use of time		

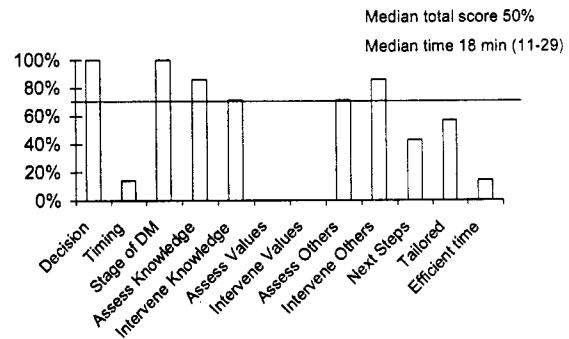
Analysis of Simulated Patient Calls mDSAT Results: All Scenarios to Grp 1



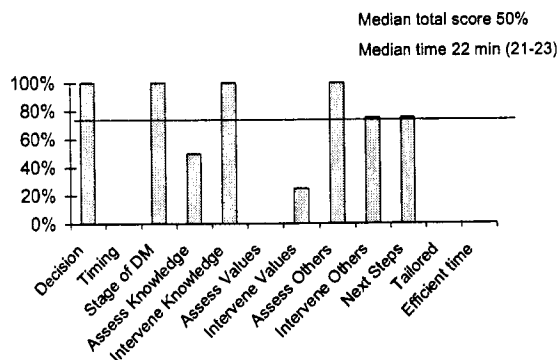
mDSAT Results: Amniocentesis



mDSAT Results: ADHD



mDSAT Results: Back Surgery



Analysis of Simulated Patient Calls Summary of mDSAT* for Group 1

- Highest frequency of decision support:
 - Identifying the decision
 - Providing information
- Intermediate frequency of decision support:
 - Assessing and intervening on others in the decision
 - Assessing knowledge
 - Establishing the next steps
- Lowest frequency of decision support:
 - Assessing and clarifying values
 - Timing of the decision
- Overall items
 - Need more tailoring of support to decision needs of caller
 - Use of time will be more efficient with practice and tailoring to needs of the callers (assessment and intervention)



(*Based on: Guimond P, Bunn H, O'Connor AM, Jacobsen MJ, Tait VK, Drake E, et al. Validation of a tool to assess health practitioners' decision support and communication skills. *Patient Education and Counseling* 2003; 50: 235-245.)

"Ottawa Decision Support Guide"

Ottawa Decision Support Guide: Practitioner Worksheet

Date: _____
Client Info: _____

1. What difficulties are you having making the decision?

2. How for long are you with your decision?

3. What are your feelings about the decision?

4. What are your feelings about the decision?

5. What are your feelings about the decision?

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100. What are your feelings about the decision?

Ottawa Decision Support Guide for Telephone Consultation

- 1) Decision; Timing; Stage of Decision Making; Leaning
- 2) Assess DM needs – Factors making decision difficult (using modified *Decisional Conflict Scale*)
 - Information
 - Values clarity
 - Support (Pressure)
- 3) Tailored Interventions
 - Information
 - Values clarification
 - Support (Pressure)
- 4) Role in DM
- 5) Next Steps – to address decisional needs



20

Decisional Conflict: Manifestations Signs of difficulty

- unsure what to do
- unclear about best choice for them
- concern about bad results
- waver between choices
- delay decision
- question what is important
- distress, tense
- preoccupied with decision
- other



21



Ottawa Decision Support Framework (DSF)

- Assess the determinants of decisions to identify needs
- Provide Decision Support
- Evaluate the decision making process and outcomes

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Decision Making Status (Assess) ✓

- Decision: NB to clarify exact decision
 - May be "to do or not do" something ; often need to ask options being considered to clarify decision client faces
- Timing: When does the decision have to be made?
 - Time pressure increases decisional difficulty
 - Time frame for decision support
- Stage: Readiness to make a decision, or reconsider the options (see next slide)
- Leaning: Choice predisposition
 - May prefer to select or avoid a specific option, even if they know little about the options, pros and cons

23

Stage of Decision Making

- Not thinking about the options
- Considering the options
- Close to choosing an option
- (Taking steps in implementing)
- Already made (carried out) a choice



24

Factors Contributing to Decisional Conflict

- Lack knowledge
- Unrealistic expectations
- Unclear values
- Unclear about others' opinions
- Social pressure
- Lack of support or resources
- Lack skill or self-confidence



25

Knowledge / Information ? (Assess & Intervene)

Assess:

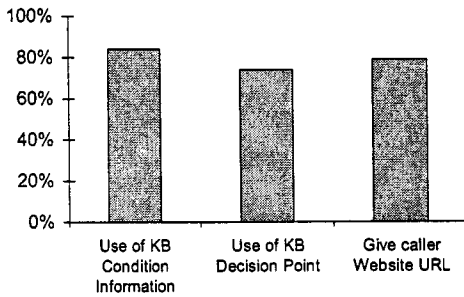
- Options (available) – What options are they aware of?
- Benefits (pros) of options -are they aware of?
– Reasons to choose
- Harms (cons) of options - -are they aware of?
– Reasons NOT to chose

Intervene (Info from Knowledgebase, etc)

- Provide info
- Direct to source of info

26

Results: All Scenarios to Group 1



Values/Preferences

Personal importance of the Pros and Cons (Assess & Intervene)

- Importance of benefits (pros)
- Importance of harms (cons)



Ritalin for ADHD

Pros	Importance	Cons	Importance
More focus in school	*****	Don't like medication	***
Less stressful for family	****	Slowed growth	**
Get along better with classmates	***	Sleep problems	*

28

Others' Involvement in the Decision (Assess & Intervene)

Assess

- Who else is involved?
- Pressure?
- Support?

Intervene

- Opinions of others
- Whose opinions matter?
- Ways they can help



29

Plan the Next Steps

What else needs to be done to address decisional needs?

- Ask patient what they plan to do now, and summarize this for them
- OR
- Suggest and summarize next steps for caller, including call back if you still have questions



30

Listen & Analyse Call using mDSAT

- Call centre nurse trained in decision support
- Topic - Amniocentesis



Using mDSAT

- Listen for use of the DS process
- Listen for assessment (or acknowledge) + intervention
- Check if items present and adequately addressed
- Record examples to support your analysis

31

Evaluate: Decision Support Analysis Tool (mDSAT)

Element	Assessment Criteria	Acknowledge or assess	Intervene
DM Status	Decision Timing Stage		
Knowledge of	Health condition; Options; Benefits ; Harms		
Values / preferences	Importance of benefits Importance of risks		
Others' involvement	Who else is involved in decision Suggestions for including others		
Next Steps	Make plan to address dm needs		
Overall	Tailored to caller's needs Appropriate use of time		32

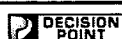
Practice using Ottawa Decision Support Guide for Telephone consultation

Any Decision

1. Form groups of two
 - 'Client' making a difficult decision
 - 'Practitioner' interview
2. 'Client' choose a real decision
(career, education, move, buy a car)
3. 'Practitioner' interviews patient & documents on the Ottawa Guide
4. Discussion



33



Healthwise Decision Points (Printer Friendly Version)

100 Decision Points in Healthwise Knowledgebase

Provide info re:

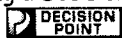
- Summary of 'Key Points'
- Health condition
- Options available & description [some evidence summaries]
 - Who it is appropriate or not appropriate for
- Reasons to choose & Reasons not to choose (Pros & Cons) [table could be used to rate importance]
- Wise Health Decision
 - What issues apply to you? [requires some interpretation]
- Learning
- References

(O'Connor et al., *Cochrane Library*, 2004; Issue 1: A Decision Aid: provides, at minimum, information on options and outcomes)

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Practice using Ottawa Decision Support Guide for Telephone Consultation

Using a Decision Point



1. Form groups of two
 - 'Client' making a decision about Placement of a family member with Alzheimer's
 - 'Practitioner' interviewer
2. 'Practitioner' interviews patient & documents on the Ottawa Guide for Telephone Consultation
3. Discussion



35

Integrating the ODSG for Telephone Consultation into your Practice

- Impressions?
- Questions?
- Log of actual Decision Support Calls
- Usability Questionnaire
- Satisfaction with the Workshop Survey



Thank you!

36

Decision Support Study Update
March 2003



Group 1 Nurses

Congratulations, you have completed the auto-tutorial and workshop focused on further developing your knowledge and skills in providing decision support for callers facing preference-sensitive health decisions. Please find your Continuing Education Certificate for your participation in the workshop attached.

Next Steps

1. Use the Ottawa Decision Support Guide for Telephone Consultation Tool. It is located in the public folders under Decision Support Study and only accessible to nurses in Group 1. It takes at least 5 tries before you will start to feel more comfortable with the process.
2. Print your documentation of decision support calls. There is a file folder in the bottom drawer of the Shift Leader workstation with Dawn Stacey's name on it. These documents will be reviewed in early May to determine the type and number of calls. As well, depending on its level of use, we will consider the need to integrate the tool directly within Call Manager.
3. Keep track of ways to further tailor the Ottawa Decision Support Guide to your practice at the BCNL.
4. Watch for your simulated call planned to take place in early April. Wendy will be scheduling them. Please print your documentation from this call, as well.

Resource People familiar with the process of coaching callers facing complex health decisions are Wendy Lodge, Barb Findlay, Diane McCormack, and Sharon Young.

Shhhhh... please don't share your new knowledge and resources with the nurses in Group 2. It could contaminate the study results.

Thanks for your participation,

Dawn

dawnstacey@rogers.com

P.S. Please contact me if you have any questions or concerns about the study.

Ottawa Health Research Institute, University of Ottawa

Continuing Education Certificate

is hereby granted to:

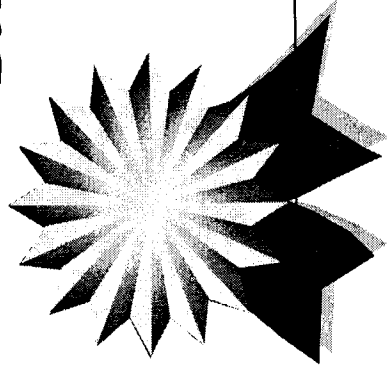
for actively participating in the

*Decision Support Skill Building Workshop for
Call Centre Nurses [3-credit hours]*

Granted: February 28, 2004

Dr. Annette O'Connor

Canada Research Chair – Consumer Health Decision Support



Study #: DS _____

Decision Support Autotutorial Knowledge Test

1. Which of the following people are demonstrating manifested behaviours indicating they are experiencing decisional conflict? (Choose all that apply)
 - a. Sara, who is putting off making a decision about which school to attend in the Fall.
 - b. Andrew who feels pressure from his wife to have a vasectomy.
 - c. Marie, with breast cancer, who says she isn't sure whether it is more important to her to have a mastectomy and make sure she is doing everything she can, or to have a lumpectomy and preserve most of her breast.
 - d. Karl, who thinks he will opt for PSA testing, then changes his mind about PSA testing 3 times over the next week.
2. Identify which of the following represent MODIFIABLE FACTORS contributing to decisional conflict, as opposed to the inherent difficulty of the choice. (Choose all that apply.)
 - a. Feeling unclear about the importance of pain control versus concerns about addiction.
 - b. Questioning how to work through a novel and difficult decision.
 - c. Both options in a decision have potential benefits and risks
3. Anna indicates that she is experiencing unwanted pressure from her husband to make a specific choice regarding amniocentesis. Which intervention would be most helpful? (Choose the BEST answer.)
 - a. Providing information on how others decide
 - b. Suggesting that she confront her partner and make the decision herself
 - c. Role playing ways she could communicate her values to her husband and elicit his values.
 - d. Directing her to ignore the pressure.
4. James is trying to decide between remaining in his present job or transferring to another city to take a job – because it would reduce the number of environmental triggers for his asthma. James indicates that he would look forward to fewer asthma attacks but would feel guilty because his family would be forced to leave their home and friends. The most appropriate decision support interventions for James would be to: (Choose those that apply.)
 - a. Clarify his personal values
 - b. Provide him with information about other possible job locations
 - c. Explore his expectations to see if they are realistic
 - d. Assess him for other personal support deficits
5. Mary is an active 59 year-old. However a recent bone density test reveals that she has osteoporosis, and her MD recommends she start taking a bisphosphonate. Mary says she gets lots of exercise, and has been taking calcium and vitamin D for years, so doesn't think she should need any medication. This shows that Mary has: (Choose the best answer).
 - a. Lack of support
 - b. Unclear values
 - c. Unclear perception of others
 - d. Unrealistic expectations

6. It is important to find out who else is involved in a decision making situation because: (Choose all that apply).
 - a. The client may wish to share the decision making with others
 - b. Others' opinions may influence the client positively or negatively
 - c. The best decisions are made when others are involved
 - d. Others may be able to provide the client with emotional and instrumental support
7. According to the Ottawa Decision Support Framework, what are the hallmarks of a "good" client decision?
 - a. Informed, made with certainty, shared equally with practitioner
 - b. Made with certainty, shared equally with practitioner, consistent with personal values
 - c. Informed, consistent with personal values, acted upon
 - d. None of the above
8. Which of the following is the best description of the Ottawa Decision Support Framework (ODSF)?
 - a. The ODSF identifies needs or determinants of decisions that are sub-optimal, suggests interventions to address these needs and guides evaluation of the decision making process.
 - b. The ODSF helps practitioners identify the best options for their clients
 - c. The ODSF elicits patient's values, guides implementation of decision support, and evaluates the impact of the decision making
 - d. The ODSF incorporates a three stage process, assessing needs, identifying client difficulties in making the decision, and implementing preferred options.
9. The Decisional Conflict Scale, as used in the Ottawa Guides, assesses a client's problems with
 - a. Certainty, norms, support
 - b. Values, knowledge, outcomes
 - c. Knowledge, values, support
 - d. Certainty, support, self-help skills
10. In 'effective care', practitioners routinely recommend options: (Choose the best answer)
 - a. Classed as likely beneficial, congruent with client's values
 - b. Where benefits are large and harms are minimal
 - c. Having benefits and harms, involving scientific uncertainties
 - d. Preferred by the patient, having no right or wrong answer

Thank you for completing the knowledge test. Please return completed tests to
Dawn Stacey or Wendy Lodge at the BCNurseLine.

Post-intervention Simulated Caller Scenarios

Scenario: Gall Bladder Surgery for a Woman age 33
© Stacey, March 2004

Primary Decision support need: Information

You are a 33-year-old woman calling about yourself. You live in Victoria, British Columbia.

Specifics about your name, address, phone number and date of birth change with each call and are on the attached summary page. e.g.

Caller	Care Card #	Date of Birth	Address & Phone Number
Mary Davies	Anonymous	September 3, 1970	Anonymous

Setting the stage for the telephone call

You have had 2 painful gall bladder attacks over the last 6 months, since having your 2nd child. When you have an attack, the pain in your abdomen is so severe that you have to stop and lie down for about 15 to 20 minute, until the attack passes. It makes you feel sweaty and nauseated. You are not able to do anything when the attack happens.

An ultrasound confirmed that you have gallstones and you need to think about whether or not to have surgery or wait to see if the attacks continue.

You telephone the BCNurseLine for help with deciding what to do.

Beginning the interview

Hi my name is Sharon one of the registered nurses, can you please tell me your name...

"Mary"

Are you calling on behalf of yourself or someone else? "Myself"

Do you happen to have your Care Card handy? "I prefer not to give you my card number"

How did you get our number today? "A friend suggested I call."

What can I help you with today?

"My doctor just called to tell me that my ultrasound showed gallstones. These were likely the cause of 2 attacks of severe stomach pain. She wants me to come in next week to discuss whether or not to refer me to a surgeon for gall bladder surgery. Before talking to my doctor about the surgery, I wanted to get some more information."

Your attitude during the call

- ☐ You are concerned about the painful attacks – they interfere with your ability to do anything and you are really worried about what you'd do if an attack happened when you were alone with your baby and toddler. The last 2 attacks occurred when your husband was home.
- ☐ There does not seem to be anything that relieves the pain – after about 15-20 minutes it goes away on its own but you feel kind of wiped out afterwards.

Extra background information, if the nurse asks

More information about your medical history and lifestyle

(a) Current Problem:

- ☐ During the 2 gallbladder attacks, the pain can get as high as 8 out of 10 and goes away after about 15 to 20 minutes.
- ☐ The pain is high in the stomach almost under your ribs.
- ☐ Ultrasound confirmed gall stones in your gall bladder.

(b) Medical history:

- ☐ 2 pregnancies – a girl Annie 2 ½ years old and a boy James 8 months old.
- ☐ Breast feeding your son, twice a day (at bedtime and early morning).
- ☐ Overweight by about 25 or so pounds (height 5'5"; weight 170 lbs)
- ☐ As far as you know your blood pressure and cholesterol are normal.
- ☐ You do not have diabetes or any other diseases.
- ☐ Surgery: tonsils removed when you were 6 years old.
- ☐ Overall, good health.

(b) Family History:

- ☐ Mother, age 69, with diabetes controlled by diet; no gallbladder surgery.
- ☐ Mother's sister had to have her gallbladder removed when she was much younger – your mother remembers that it was major surgery – she was in hospital a long time and your mother had to help care for her children
- ☐ Father, age 72, well
- ☐ One brother, age 41, healthy

(c) Current lifestyle activities:

- ☐ You live with your husband, Rob who works for an insurance company
- ☐ You have 2 children and are not planning on having any more.
- ☐ You are on maternity leave for 1 year. You usually work in a law office full-time as a clerk. You completed college in a legal assistant diploma program
- ☐ You try to eat well but you find with 2 young children that you frequently do not have time to make dinner so at least twice a week you buy foods that are prepared (lasagna) or order take-out (Pizza, Chinese food).
- ☐ You do not exercise regularly – no time with having 2 children
- ☐ You are not drinking alcohol because you are breast-feeding –otherwise you drink socially.

(d) Information access:

- ☐ Your husband has access to the Internet at work

More information about how you see the decision

About the decision

Decision: whether or not to have gall bladder surgery

Deadline for making decision: ~1 week; going to discuss treatment next week with family physician

Stage of decision making: starting to thinking about whether or not to have surgery

Information: You feel you don't really have enough information about the surgery to make the decision. You want to know more about whether or not it works and the risks involved.

If the nurse wants to know what your options are: you can have surgery to remove the gallbladder or wait to see if the gall bladder attacks stop.

Reasons to have Surgery	Reasons NOT to have Surgery
To prevent more painful attacks.	There must be some risk to having surgery.

Values/importance: Until you have more information, you do not think you can figure out whether the benefits of surgery would outweigh the risks, and decide what is most important for you.

Other people:

- You have not spoken to anyone else yet
- Your husband normally agrees with whatever you want – he wants you to find out what the problem is and get some relief from the pain.
- You don't know what your doctor would say – you are going next week to find out.

Your desired role in making the decision

Preferred role: to share the decision with your family doctor

Your choice/ Leaning: you are unsure about your decision to have surgery but are interested in getting more information. If information is provided and the nurse asks, you will be leaning toward surgery.

Next Steps: You will discuss the decision with your family doctor next week. You can also summarize what was suggested/ discussed in the call.

Preferred Choice: You are leaning toward having gallbladder surgery

A few additional cues for telephone calls

- ☐ Possible questions:
 - What are the risks associated with the surgery?
 - Does the surgery really work to prevent painful gallbladder attacks (100%)?
- ☐ Other information to share:
 - The BCNurseLine is part of the BCHealthGuide program with BCONline internet information accessed using a password and BCHealthGuide handbook mailed to all houses.
 - If the nurse asks if you have called the service before, you should answer NO.

References

- BCHealthGuide. Making the decision about having surgery to treat chronic gallstone attacks. Last updated: 12/31/2001.

Scenario: Allergy shots for a Child age 8

© Stacey, March 2004

Primary decision support need: Values clarification

You are a 33 year old woman calling about your 8 year old daughter who has environmental allergies (e.g. dust, pollen etc); not food allergies. You live in Peachland, British Columbia, which is near Kelowna.

For each call, you have a different name, daughter's name, and daughters' date of birth. The specifics are on the attached summary page. e.g.

Mother	Daughter	Daughter's Care Card #	Daughter's Date of Birth	Address & Phone Number
Jamie Smith	Katie	Anonymous	Oct 2, 1995	Anonymous (give your own phone number if nurse is concerned about getting cut off)

Setting the stage for the telephone call

Last week, you received the results of allergy testing from an allergy specialist (a physician). It confirmed that your daughter is allergic to many things in the environment (e.g. pollen, dust, and some types of grass). Your daughter gets runny nose and itchy eyes on and off throughout the year. The allergy specialist reviewed with you the options of continuing with anti-histamine medications to control symptoms or to have her start getting allergy shots to try to desensitize her to the allergens (things that make her react). You are torn between helping your daughter minimize her symptoms and being concerned about her having a reaction to the allergy shots.

You are a single mom with sole custody and decision making for your daughter. There are no other children in the family.

Now you need to think about whether or not to start these allergy shots and you don't know what to do. You telephone the BCNurseLine for help with making your decision.

Beginning the interview

Hello my name is Wendy, one of the registered nurses, can I get your name... "Jamie"
Are you calling on behalf of yourself or someone else? "My daughter Katie"
Do you happen to have her Care Card handy? "I prefer not to give you her card number"
How did you get our number today? "I saw it on the BCHealthGuide book."
What can I help you with today?

"The allergy specialist told me that my daughter has confirmed allergies to things in the environment like grasses and dust. Up to now I have been giving her anti-histamines (Claritin) when she needs it. Now the allergy specialist says that she could have allergy shots. He gave me some information and suggested that I think about it. I feel that I know the facts but I am really struggling with what to do."

Your attitude during the call

- ☐ You read the information and are concerned about her having a severe allergic reaction from the allergy shots and the long commitment.
- ☐ You are unsure about what would be best for your daughter – continue with anti-histamine as needed or start allergy shots.
- ☐ You are relatively comfortable with her taking anti-histamines for her allergies because you know what to expect – although you don't really like giving it to her.

Background information if the nurse asks

More Information about your daughter's medical history and family situation

(a) Diagnosis of Allergies:

- Diagnosed by a physician who is an allergy specialist
- Skin tests were done at a Respiratory and Allergy clinic to find out what your daughter is allergic to. It showed she is allergic to dust, pollen, and some grasses. This seems to make sense because after gymnastics, you notice that she seems to be worse with a sniffly nose and itchy eyes (probably due to the dust); and in the spring season she is worse – especially after playing soccer outdoors (from the pollen and grasses).
- Your daughter uses anti-histamines daily in the spring and on & off at other times of year.
- Your daughter does not seem to sleep as well and is more dragged out when her allergies are bad
- You have a house with hardwood floors in the bedrooms, flooring in the kitchen, and carpet in the common rooms.

(b) Medical history:

- ☐ Your pregnancy was normal.
- ☐ You breast fed your daughter for 3 months
- ☐ She has had a normal growth – her height is 4'4" and she is 55 lbs
- ☐ She does NOT have asthma
- ☐ She has never had an allergy attack that interfered with her breathing (anaphylaxis)
- ☐ Overall, your daughter is a healthy child with no obvious medical reasons that would interfere with the decision to start allergy shots

(c) Family History:

- ☐ You don't know anyone else (family or friends) that has had allergy shots.

(d) Current lifestyle activities:

- ☐ Your daughter goes to gymnastics year round and likes to play soccer in the spring/fall.
- ☐ You and your daughter live in a small house
- ☐ Her father is not in the picture.
- ☐ You are a teacher, teaching grade 5 with health insurance through the school board.
- ☐ You do not smoke.

(e) Information access:

- ☐ You have Internet access at home

(f) Previous experiences with making health decisions: None

More information about how you see the decision

About the decision:

Decision: whether or not to start my child on Allergy shots

Deadline for making decision: about 2 weeks when you return to see your family doctor

Stage of decision making: thinking about whether or not to start allergy shots

Information: You feel you understand the information you need to make the decision – see below

If the nurse asks what options are you considering – allergy shots or continuing the allergy medication anti-histamine (Claritin).

If the nurse asks you what information you know, you can tell her that you really feel that you know the facts about the procedure for getting the allergy shots and reasons for and against:

Allergy shots involve needles once a week at family physician's office for about 6 to 8 months and then once every two weeks and progressing to once a month for a total of 3 to 5 years. The needle has small amounts of allergens that are given to de-sensitize the patient.

Reasons to have Shots	Reasons not to have shots / continue with Anti-histamine
Less runny nose and less itchy eyes within 3 to 6 months of starting shots.	Reactions to the allergy shot - severe reaction with difficulty breathing within 20 minutes - red swollen itchy at place of shot
Can't really avoid things that make her allergies worse – she loves gymnastics and soccer	Allergy shots do not cover everything so she may still have some allergies and need to take anti-histamines for awhile
Less use of anti-histamines – you don't really like giving your daughter medications and it would save money	Inconvenience of time to get shots over 3 to 5 years – need to arrange for 30 minutes that includes time for needle and period of observation
Improved sleep	Cost is about \$80 to \$100 / year– it is covered on your health insurance plan

Values/importance: You are not sure about what is more important --- the reasons for having allergy shots or the reasons not to have allergy shots. If the nurse asks you what is most important to you or to rate with stars (5***** most important and 1* less important), you can say that you are not sure --- probably better if I can get her allergies under control but you are concerned about the severe allergic reaction.

Then if she asks you to go through the list then you can say...

Reasons to have Shots	Reasons not to have shots / continue with Anti-histamine
Less runny nose and less itchy eyes within 3 to 6 months of starting shots (5 stars *****).	Reactions to the allergy shot (5 stars *****) - severe reaction with difficulty breathing within 20 minutes - red swollen itchy at place of shot

Reasons to have Shots	Reasons not to have shots / continue with Anti-histamine
Can't really avoid things that make her allergies worse – she loves gymnastics and soccer (5 stars *****)	Allergy shots do not cover everything so she may still have some allergies and need to take anti-histamines (3 stars ***)
Less use of anti-histamines – you don't really like giving your daughter medications and it would save money (4 stars ****)	Inconvenience to get shots over 3 to 5 years (3 stars ***) – need to arrange for 30 minutes that includes time for needle& observation after
Improve her sleep (3 stars ***)	Cost is about \$80 to \$100 / year– most of it is covered on your health insurance plan (1 star *)

Other people: If the nurse asks:

- Your daughter's allergy specialist has clearly expressed that there are reasons for and reasons against starting the allergy shots. Because it is a big time commitment – he wants you to take your time to think about the options. He is non-committal and is not placing pressure on you.
- Your daughter did not like the allergy testing and is not too keen on more needles. But she is a reasonable child if you explain it to her – however, because you are not sure yourself, you did not want to talk to your daughter yet. You think your daughter would agree with your decision – but you want to be sure you understand it before you talk to her.
- No one else is involved in the decision

If the nurse asks, your desired role in making the decision

Preferred role: to make the decision with the allergy specialist and my daughter
--

Your choice/Leaning:

At the beginning of the interview you are unsure;

If the nurse asks you to tell her what is more important – the reasons for (pros) or against (cons) or asks you to rate them with stars, you will decide to start allergy shots, but still want to confirm this with the allergy specialist.

Next Steps: If the nurse asks you what are you going to do at the end of the call: You are booked to see the allergy specialist in about 2 weeks so you want to know your decision by then. Also you can say what was agreed on within the telephone call.

A few additional cues for the telephone call

- ☐ Possible questions:
 - I am really concerned about the allergy shot causing a severe allergic reaction –is that really true? (to minimize the reaction your daughter could take an anti-histamine prior to the needle)
- ☐ Other information to share: You have access to Internet at home. The BCNurseLine is part of the BCHealthGuide program with BConLine Internet information accessed using your postal code and BCHealthGuide handbook mailed to all houses.

References

- BCHealthGuide. Making the decision about allergy shots (immunotherapy) for allergic rhinitis and allergic asthma Last updated: 3/31/2003.

Scenario: Cholesterol Medication for Man age 60

© Stacey, March, 2004

Primary decision support need: Handling pressure from others

You are 60 years old and live in Prince George, British Columbia.

Specifics about your name, address, phone number and date of birth change with each call and are on the attached summary page. e.g.

Caller	Care Card #	Date of Birth	Address & Phone Number
Wayne Stevenson	Anonymous	September 19, 1943	Anonymous

Setting the stage for the telephone call:

Four months ago, you went to your family physician for a check-up and found out that your blood cholesterol level was higher than it should be. You have been working on improving your eating habits to reduce cholesterol intake. Now, you find out that your cholesterol level is only slightly improved and your physician is suggesting that you consider whether or not to take a medication to lower your blood cholesterol level.

You are a widower, live alone and cook for yourself. You think it would be best to continue improving what you eat but your daughter says that you need to take the medication. Your wife died of cancer about five years ago.

You telephone the BCNurseLine for help with the decision.

Beginning the interview:

Hi my name is Polly one of the registered nurses, can you please tell me your name “Wayne”

Are you calling on behalf of yourself or someone else? “Myself”

Do you happen to have your Care Card handy? “I prefer not to give it to you. I prefer to be anonymous”

How did you get our number today? “My daughter suggested I call.”

What can I help you with today?

“My family doctor told me my cholesterol level is higher than it should be and that I need to consider taking a medication called Lipitor. He gave me information on the medication and said it was a decision that depended on what was most important to me – both options are reasonable. I reviewed the information and decided not to take it because I don’t like the side effects or the idea of taking pills everyday. But my daughter thinks I should take it. Now, I am not sure if I am making the right choice.”

Your attitude during the call:

- ☐ You are frustrated with your daughter, Shelley, because she pushed you to go to the doctor for a check up and now she is being fairly firm about wanting you take a medication. She is worried about you living alone and is not very confident that you will change the way you eat.
- ☐ You are NOT worried about your cholesterol level or about having a heart attack – you don’t think about it much.
- ☐ The pressure from your daughter makes you question if you are making the right choice.

Extra background information, if the nurse asks

More information about your medical history and lifestyle:

(a) Current Problem with Cholesterol

- ☐ 4 months ago, you were told your cholesterol is higher than it should be but not really bad and you agreed to work on improving your diet (you were given very specific diet guidelines to follow):
 - Total Cholesterol level was high at 6.7 mmol/L
 - HDL (good cholesterol) was not bad at 1.2 mmol/L.
 - Based on age, blood pressure and cholesterol levels, your chance of heart disease in the next 10 years is 16%.
- ☐ On a return visit to the doctor last week he said that your Total cholesterol is only slightly improved at 6.5 mmol/L and he suggested that you make a decision about whether or not you would take Lipitor to lower your cholesterol level. He gave you lots of information about it.

	Desirable	Borderline high-risk (1 or more of the following)	Higher-risk (1 or more of the following)
Total Cholesterol	Below 5.2 mmol/L	5.2 to 6.2 mmol/L	Above 6.2 mmol/L
HDL (good) cholesterol	Above 0.9 mmol/L in men	Not reported	Below 0.9 mmol/L in men
LDL (bad) cholesterol	Below 3.4 mmol/L	3.4 to 4.1 mmol/L	Above 4.1 mmol/L

- ☐ You live alone
- ☐ You retired as a pilot from Air Canada a couple years ago.
- ☐ You got used to eating out in restaurants when you were flying.
- ☐ You are slightly overweight (6'2"; 215 lbs) and eat well.
- ☐ You have tried over the last 6 months to improve your eating by: limiting cheese and luncheon meats from the deli; limiting the butter you put on bread and vegetables; avoiding the afternoon cookies; and choosing the healthier menu items when you eat out. These changes have not been that hard to make.
- ☐ Since retiring you are less active, especially in the winter. You like golfing about 3 times a week during the warmer weather.
- ☐ You do not like taking medicine – you have never had to take any medications regularly.

(b) Medical history:

- ☐ You have had no major surgery in the past
- ☐ You are in good health with normal blood pressure (last time was ~132/83)
- ☐ You don't have diabetes or other health problems
- ☐ You quit smoking about 15 years ago.

(c) Family history:

- ☐ Your father, passed away following a heart attack at age 73 – about 15 years ago
- ☐ Your mother, age 83, sometimes feels her heart racing (atrial fibrillation) and would have to go to the emergency – now she is on a medication and it has not happened.
- ☐ You have 1 sister, age 64, who had breast cancer a few years ago – she is fine now.
- ☐ Your other sister and 2 brothers are probably healthy - nothing major.
- ☐ You have two children; son, Pat, age 36 is single; and daughter, Shelley, age 31 has one child age 4 (boy); your daughter is a dental assistant and completed diploma at the college in Prince George

(d) Information access:

- ☐ You think you have a copy of the BCHealthGuide Handbook
- ☐ You have a computer and can get information from the Internet.

More information about how you see the decision:
About the Decision

Decision: whether or not to take Lipitor, cholesterol lowering medication

Deadline for making decision: ~2 weeks when you return to your family doctor.

Stage of decision making: you are close to making your choice about not taking the medication

Information: You think you understand the information you need to make the decision

If the nurse asks you what you know,

- You know the cholesterol clogs your blood vessels and increases the chance of having a heart attack. You also know that there is good cholesterol and bad cholesterol and that your total cholesterol is too high and your good cholesterol too low.
- You can give her the list of reasons for or against taking the medication in your words from the information sheet that the doctor gave you (see below).
- Your health insurance plan would cover the cost of the prescription

Reasons to take medication	Reasons to NOT take medication
To reduce the bad cholesterol by as much as half (50%)	You don't want the side effects from medications that may include an upset stomach, gas, cramps, and constipation
To lower the chance of having a heart attack	You don't like taking medications
Don't want to disappoint my daughter.	You don't want to have to go back to the doctor for more blood work to check your liver

Values/Importance: You feel it is more important to avoid take pills that cause side effects.

If the nurse asks you to rate how important the pros and cons are, you can provide the number of stars give in some of the boxes.

Reasons to take medication	Reasons to NOT take medication
To reduce the bad cholesterol by as much as half (50%) (**** 4 STAR RATING)	You don't want the side effects from medications that include upset stomach, gas, cramps, and constipation (****4 STAR RATING)
To lower the chance of having a heart attack over next 10 years (** 2 STAR RATING)	You don't like taking medications (****4 STAR RATING)
Don't want to disappoint my daughter (** 2 STAR RATING)	You don't want to have to go back to the doctor for more blood work to check your liver (**2 STAR RATING)

Preferred Choice: You don't want to take the medication

Other people

- Your daughter wants you to take the medication; you are not sure why other than she is probably concerned that you will have a heart attack.
- The family doctor suggested that because your cholesterol level is middle of the road (not good, not really bad) that the use of medication is your choice.
- Your golfing buddy says not to bother with the medication because it makes you feel worse – it gave him gas and cramping.

If the nurse asks you about others who are involved in the decision, you can say:

Other people	What are their opinions?	Are you feeling pressure?	Are you feeling support?
Your daughter	Medication	Yes	Not really – she does not seem to listen to your views
Your family doctor	Don't know	No	Yes, he gave you info and talked about it – he does not want to give the prescription unless you want to take it
Your golfing friend	No medication	No	Yes

Your desired role in making the decision

Preferred role: you want to make the decision with your family doctor

Your choice/leaning: Not to take the medication and continue to improve your eating

Next Steps: You need to discuss it with your family doctor when you go back in 2 weeks.

A few additional cues for the telephone call:

- ☐ You have not called this service before; your daughter has used it
- ☐ You have a computer at home with the Internet

References:

- BCHealthGuide. Should I take Statins for High Cholesterol? Last updated: 12/19/2003.
- BC Ministry of Health. BCHealthGuide. Helping you and your family stay healthy. BC, Canada, 2000.
- Fodor JG, Frohlich JJ, Genest JJG, McPherson PR for working group on hypercholesterolemia and other dyslipidemias. Recommendations for the management and treatment of dyslipidemia. CMAJ: 162(10), 1441-7.

Simulated Caller Training Materials

Decision Support Simulated Caller (SC) Program Workshop



November 20, 2003
Ottawa Health Decision Centre

1

Objectives

At the end of the workshops, you should be able to:

- Describe your role as simulated callers
- Demonstrate your ability to play the role of a caller, according to the script provided, in a realistic and appropriate manner.
- Appreciate the background of the study
- Know the steps in placing the telephone call
- Use the recording equipment to tape telephone calls

2

Outline



1. The project
 - » complex decisions
 - » research study & setting
2. Making the simulated calls
 - » making the call
 - » using the recording equipment
 - » trouble shooting
 - » role as a simulated caller
3. Workshop Part II: specific to the scenario

3

About Decisions

What makes some
difficult?



4

Decision Making



- **Choosing** between 2 or more options
- People usually choose options that:
 - » are likely to have outcomes that people value
 - » avoid undesirable outcomes

5

Types of Decisions

Easier decisions

- Benefits are large and harms are minimal
e.g., calcium for weak brittle bones, insulin for diabetes, pap smear to detect cancer of the cervix

More complex decisions

- Two or more options have similar benefits, but side effects and inconveniences differ
- The benefits and harms have not yet been established clearly from research studies
- The option has both benefits and harms that people value differently
e.g., amniocentesis for women >35; Ritalin to treat ADHD; back surgery

Canadians need help to
make these more
complex decisions

6

Signs of Difficulty

- unsure what to do
- unclear about best choice for them
- concern about bad results
- waver between choices
- delay decision question what is important
- distress, tense
- preoccupied with decision
- other



7

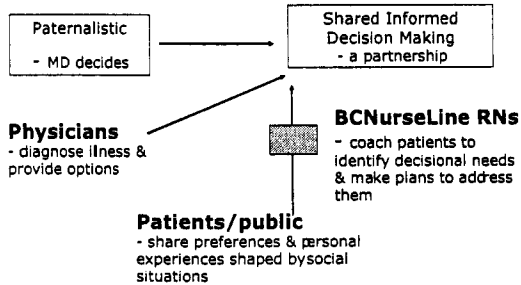
Steps in Decision Making

1. Clarify the decision
2. Identify the options, pros, cons
3. Weigh the options based on personal preferences (values)
4. Consider others' opinions / experiences
5. Identify desired role in decision making
6. Plan the next steps
 - More information, dealing with pressures, finding resources/support, explaining values to others

(Ottawa Personal Decision Guide© 2002 O'Connor, Jacobsen, Stacey)

8

Model of Shared Decision Making



(Charles, Gafni, Whelan, 1999; Coulter, 2002)

9



Setting: BCNurseLine in Vancouver

- 1 of 7 provincial call centre programs in Canada
- Toll-free health information and advice 24/7 by registered nurses (RNs)
- Goal: To help BC residents manage personal health issues and make sound health decisions
- Part of a comprehensive program that also includes: the BCHealthGuide handbook mailed to all households in BC and password accessed, Internet information with over 90 decision aids

10

Making the Calls

- 6 to 7 telephone calls
- About 15 to 30 minutes each
- Audio-tape all calls
- Minimal background noise
- Calls will be prescheduled within 2 hour blocks of time
- Try several times
- Use calling cards to cover cost of calls
- Repeat calls in April 2004



11



Expectations of Simulated Callers

- Accurately follow the case scenario
- Be as realistic as possible
- Be consistent across the 6 to 7 calls

12

Simulated Caller Role Play with Scenarios – Feedback Form

	Strongly agree		Neutral		Strongly disagree
Accurate representation of a case	☐	☐	☐	☐	☐
Comments (e.g. deviations from the case):					
Adequate amount of information provided	☐	☐	☐	☐	☐
Comments (e.g. missing information to be added):					
Realistic / authentic presentation	☐	☐	☐	☐	☐
Comments:					
Consistent presentation of the case throughout the call	☐	☐	☐	☐	☐
Comments:					
Use of layman terms	☐	☐	☐	☐	☐
Comments:					
Other:	☐	☐	☐	☐	☐
Comments:					

Note: This feedback will be used to refine the case scenarios and the training workshops as part of the Decision Support Simulated Caller Program at the Ottawa Health Decision Centre. Please send completed forms to Dawn Stacey (dawnstacey@rogers.com or Fax 613-761-5492).

Participant ID: _____

Date: _____

Satisfaction with Online Autotutorial Training

Before proceeding to the final quiz, please take a moment to answer the following survey questions about the autotutorial. Please do not complete the survey until after you have completed all of the autotutorial. Your response will help us refine the autotutorial to better meet the learning needs of people like you.

What is your overall impression of the autotutorial?

- ☐ Very favourable
- ☐ Somewhat favourable
- ☐ Somewhat unfavourable
- ☐ Very unfavourable

How easy is it to understand the information presented in the autotutorial?

- ☐ Very easy
- ☐ Somewhat easy
- ☐ Not very easy
- ☐ Not at all easy

How comprehensive is the information in the autotutorial?

- ☐ Very comprehensive
- ☐ Somewhat comprehensive
- ☐ Not very comprehensive
- ☐ Not at all comprehensive

Did the autotutorial provide you with new or additional information about decision support?

- ☐ Yes
- ☐ No
- ☐ Unsure

Do you think that the autotutorial will help you in supporting individuals making difficult decisions in your practice?

- ☐ Yes
- ☐ No
- ☐ Unsure
- ☐ Not applicable

Will you share this information with others or tell them about the autotutorial?

- ☐ Yes
- ☐ No
- ☐ Unsure
- ☐ Not applicable

Satisfaction with Autotutorial continued...

Which section(s) of the autotutorial was/were most helpful? Choose all that apply.

- ☐ The concept of decisional conflict
- ☐ Defining characteristics or manifestations of decisional conflict
- ☐ Factors contributing to decisional conflict
- ☐ Distinguishing between decisional conflict and other similar problems
- ☐ Examples of decisions that may create decisional conflict
- ☐ Framework-based process of decision support
- ☐ How decision support differs for 'values-sensitive' and effective-care options
- ☐ General tools for assessing, providing and evaluating decision support
- ☐ Condition-specific decision aids or shared decision making programs
- ☐ Example of decision support using the Ottawa Guide (case study)

What are your suggestions for improving the autotutorial?

Satisfaction with the Decision Support Skill-Building Workshop

Please take a moment to answer the following questions about the workshop. Your responses will help us refine the workshop to better meet the learning needs of nurses like you.

1. How easy was it to understand the information presented in the workshop?
 - ☐ Very easy
 - ☐ Somewhat easy
 - ☐ Somewhat complex
 - ☐ Too complex

2. Did the workshop meet the proposed learning objectives? (circle your response)

a) Discuss key elements of decision support	Yes	No	Not sure
b) Use tools to coach patients in making difficult decisions	Yes	No	Not sure
c) Discuss integrating decision support in clinical practice	Yes	No	Not sure
d) Recognize elements of decision support provided in a real call (skills for self-appraisal)	Yes	No	Not sure

3. How comprehensive is the information in the workshop?
 - ☐ Too much information
 - ☐ Just right
 - ☐ Not enough information

4. Did the workshop provide you with new or additional information about decision support?
 - ☐ Yes
 - ☐ No
 - ☐ Not sure

5. How helpful was it to listen and evaluate decision support provided in a real call?
 - ☐ Very helpful
 - ☐ Somewhat helpful
 - ☐ Not helpful

6. Was there enough time allocated to using and trying the decision support tools?
 - ☐ Too much time
 - ☐ Just right
 - ☐ Not enough time

***please turn over...*

7. Having participated in the workshop, how confident do you feel in providing support to individuals making preference-sensitive decisions?
- ☐ I already felt confident
 - ☐ I feel more confident
 - ☐ I do not feel confident
 - ☐ Not sure
8. What is your overall impression of the workshop?
- ☐ Excellent
 - ☐ Good
 - ☐ Fair
 - ☐ Poor
9. Would you recommend this workshop to other nurses?
- ☐ Yes
 - ☐ No
 - ☐ Not sure
10. What did you like most about the workshop?
11. What are your suggestions for improving the workshop?

Study #: DS _____ Usability of the
Ottawa Decision Support Guide – for Telephone Consultation

The purpose of this survey is to determine the usability of the Ottawa Decision Support Guide as a clinical protocol for use via telephone. As well, we are looking for your perception of possible factors influencing its use. The survey will take about 15 minutes to complete. Please give the completed survey to the workshop facilitator before you leave today.

1. How clear were the steps/questions in the Ottawa Guide?
 - ☐ Everything was clear
 - ☐ Most things were clear
 - ☐ Some things were clear
 - ☐ Many things were not clear
2. How easy is it to use the Ottawa Guide in helping someone making a preference-sensitive decision?
 - ☐ Very easy
 - ☐ Moderately easy
 - ☐ Somewhat difficult
 - ☐ Very difficult
3. How helpful is the Ottawa Guide in supporting callers making a preference-sensitive decision?
 - ☐ Very helpful
 - ☐ Moderately helpful
 - ☐ Somewhat helpful
 - ☐ Not helpful
4. How useful was the Ottawa Guide in helping you identify a plan to address the decision support needs? (e.g. information problem, unclear values, support problem)
 - ☐ Very useful
 - ☐ Moderately useful
 - ☐ Somewhat useful
 - ☐ Not very useful
5. How comfortable would you be using the Ottawa Guide with a caller?
 - ☐ Very comfortable
 - ☐ Comfortable
 - ☐ Uncomfortable
 - ☐ Very uncomfortable
6. Would you recommend the Ottawa Guide to colleagues at the BCNL?
 - ☐ Definitely recommend
 - ☐ Probably recommend
 - ☐ Probably not recommend
 - ☐ Definitely not recommend

Usability of the Ottawa Guide Survey Continued...

Please tell us how much you agree or disagree with the following statements. From my perspective, using the Ottawa Guide as a clinical decision support protocol with callers making preference-sensitive decisions will:

<i>Items</i>	<i>Strongly disagree</i>	<i>Neutral</i>	<i>Strongly agree</i>
7. Allow nurses to guide callers through decision making in a logical way	☐	☐	☐
8. Be acceptable to the BCNL nurses	☐	☐	☐
9. Help callers explore the benefits/harms of the options	☐	☐	☐
10. Help prepare callers for discussing the decision with their practitioner	☐	☐	☐
11. Be TOO complex	☐	☐	☐
12. Help callers participate as they wish in the decision making process	☐	☐	☐
13. Improve the chances that callers' decisions are informed.	☐	☐	☐
14. Improve the chances that callers' decisions are based on personal values or importance placed on potential benefits and harms.	☐	☐	☐
15. Produce greater good than harm	☐	☐	☐
16. Be easy to use	☐	☐	☐
17. Fit well with the Healthwise decision points	☐	☐	☐
18. Be usable with callers making preference-sensitive decisions most of the time (>66% of the time)	☐	☐	☐
19. Is compatible with how I think callers should make preference-sensitive decisions	☐	☐	☐
20. Be useful in my practice	☐	☐	☐
21. Complement my usual approach to these situations	☐	☐	☐
22. Require a major change to the way I currently handle these types of calls	☐	☐	☐
23. Help me to more fully explore issues of importance to callers facing a decision	☐	☐	☐
24. Increase the callers' satisfaction with the BCNL service	☐	☐	☐
25. Help me use my time more efficiently	☐	☐	☐
26. Improve my usual approach	☐	☐	☐
27. Help me tailor my approach to the callers' needs	☐	☐	☐
28. Be easy to try it out before deciding to use it regularly	☐	☐	☐
29. Most of my colleagues at the BCNL would want to use it	☐	☐	☐
30. Most nurses would need further education beyond current BCNL orientation to feel prepared to use it	☐	☐	☐

31. What are the top 3 barriers that are likely to interfere with using the Ottawa Guide as a protocol in your practice?

32. What are the advantages of using the Ottawa Guide compared to your usual approach for supporting callers with preference-sensitive decisions?

33. How likely are you to use the Ottawa Guide as a protocol within the next 3 months for a caller facing a preference-sensitive decision?

- ☐ Very likely
- ☐ Likely
- ☐ Somewhat likely
- ☐ Very unlikely
- ☐ Not at all

34. Do you think BCNL nurses should use the Ottawa Guide in their practice?

- ☐ Yes, If Yes, ___ All of the BCNL nurses
 ___ A select group of BCNL nurses
- ☐ No
- ☐ Undecided

35. On average in a three month period, how many calls would you receive from callers facing preference-sensitive decisions?

- ☐ 0
- ☐ 1-2
- ☐ 3-5
- ☐ 6-10
- ☐ 11-15
- ☐ 16+

Individual Interview Guide Post-Intervention June 2004

Set-up

- ☐ Arrange meeting for 60 minutes
- ☐ Bring food and drink (e.g. coffee/tea)
- ☐ Connect audio-recording device
- ☐ Arrange chairs around table or desk to improved visibility and discussion
- ☐ Create a non-judgmental, supportive environment that encourages participant to share their views.

Participants: a decision maker at level of Ministry of Health and another at the organizational level, nurse educator, and direct nursing supervisor

Introduction

The purpose of this interview is to explore the use of the decision support protocol, barriers and facilitators to expand the implementation strategy to all call centre nurses, and the factors influencing sustainability of decision support for p-s decisions within the BCNL program.

Preference sensitive decisions are those decisions in which the best choice for an individual is unclear because of inadequate evidence or the benefit/harm ratio is close. Therefore the best choice for these decisions depends on how the individual values the known benefits, harms and lack of evidence. For example, women going through menopause may consider hormone replacement therapy or men considering whether or not to have PSA blood test to screen for prostate cancer. However, these decisions require carefully weighing the associated pros and cons. We want to identify what would be the barriers and supports to nurses at the BCNurseLine providing decision support for situations similar to these examples.

- Assurance of confidentiality – Participants will be assured anonymity and although some information that they provide will be published, their name will not be associated with the specific published information. Participants will be informed that they may stop the interview at any time or refrain from answering any questions, and there would be no negative consequences.
 - Ground rules – there are no right or wrong answers we are just trying to determine the facilitators and barriers to nurses providing decision support.
 - Role of interviewer – facilitate progress through the questions and to take notes
- ☐ Verify informed consent obtained at baseline. If not, obtain consent
 - ☐ Sign-in sheet with their email address to be able to send the results for their review (member checking).
 - ☐ Verify that demographics were collected at baseline. If not, collect demographics

Interview – see interview guide

Debriefing at end

- ☐ Ask if there are any other comments the participant would like to share.
- ☐ Remind participants that they will have a chance to see the results in August-September to verify the accuracy of the findings.
- ☐ Write field notes

Interview Guide: Key Questions Post-intervention	
1	a) Over the last 7 months, what impact has the Decision Support Study /Ottawa Guide had on the way in which you (nurses) support callers facing p-s health decisions? b) Do you think you (nurses) are helping callers 'make sound health decisions'? c) After having participated in the study (study nurses only): - Is there anything different about how you are meeting the needs of these callers? - How do you feel after having helped someone making a p-s health decision?
2	a) What factors make it <u>easier</u> for you (nurses) to support callers making these decisions? b) What things make it more <u>difficult</u> (or stand in the way) when supporting callers' making these decisions? c) What else <u>would help</u> you (nurses) enhance the support provided to callers making p-s decisions?
3	a) To what extent are your colleagues supportive of you (nurses) providing help to callers facing p-s decisions? b) To what extent is the management team supportive of you (nurses) providing help to callers facing p-s decisions? c) To what extent is MOH supportive of you (nurses) providing help to callers facing p-s decisions? d) To what extent are callers appreciative of you (nurses) providing help when they are facing p-s decisions? e) Is there someone at BCNL who is making it happen and how are they doing it (e.g. local champion)? f) Is there anything else that would make it easier for providing and documenting decision support based on the Ottawa Decision Support Guide? g) Are there any other barriers interfering with its use?
4	a) What are the guidelines for timing of calls? b) How are these guidelines monitored?
5	Do you have any comments or suggestions about the approach used to enhance decision support - education sessions (auto-tutorial/workshops); - simulated patients with feedback on quality of decision support provided; - tools: Ottawa Decision Support Guide protocol & mDSAT for self-appraisal; - access to resource people – Wendy, Barb, Diane, Sharon, Others
6	What is needed for you to <u>continue providing</u> decision support for these callers (guided by the Ottawa Decision Support Guide)? - what might you (nurses) do? - your colleagues? - TCM? - Ministry of Health?
7	In summary, what are the <u>next steps related to enhancing</u> the way in which BCNL nurses provide decision support for callers facing tough p-s health decisions?

Focus Groups Moderator Guide Post-Intervention June 2004

Set-up

- ☐ Book room for 4 hours (include 2- 90 minute focus groups, set up, clean up)
- ☐ Food and drinks available in room
- ☐ Connect audio-recording device
- ☐ Arrange chairs around table or in circle to enable improved visibility and discussion
- ☐ Create a non-judgmental, supportive environment that encourages participants to share their views.

Participants: frontline staff nurses (n = 6-8)

Introduction

The purpose of this group discussion is to explore the use of the decision support protocol, barriers and supports to expand the implementation strategy to all call centre nurses, and the factors influencing the ongoing provision of decision support for p-s decisions within the BCNurseLine program.

Preference sensitive decisions are those decisions in which the best choice for an individual is unclear because of inadequate evidence or the benefit/harm ratio is close. Therefore the best choice for these decisions depends on how the individual values the known benefits, harms and lack of evidence. For example, women going through menopause may consider hormone replacement therapy or men considering whether or not to have PSA blood test to screen for prostate cancer. However, these decisions require carefully weighing the associated pros and cons. We want to identify what would be the barriers and supports to nurses at the BCNurseLine providing decision support for situations similar to these examples.

- Assurance of confidentiality – Participants will be assured anonymity and although some information that they provide will be published, their name will not be associated with the publication.
 - Introduction of participants – experience with the Ottawa Decision Support Guide
 - Setting ground rules – important to hear everyone's opinion and there are no right or wrong answers we are just trying to determine the facilitators and barriers.
 - Role of moderator – facilitate group discussion and progress through the questions. Take notes.
- ☐ Verify informed consent obtained at baseline; if not, ask nurse to sign consent
 - ☐ Sign-in sheet with their preferred email address to be able to send the results for their review (member checking).
 - ☐ Demographics already collected at baseline for Decision Support Study

Focus Group Discussion – see moderator guide

Debriefing at end

- ☐ To discuss participants' reaction to the group session and any other comments they would like to share.
- ☐ Remind participants that they will have a chance to see the results in August-September to verify the accuracy of the findings.
- ☐ Write field notes

Element of OMRU	Focus Group Moderator Guide: Key Questions Post-intervention
Use of the Innovation	Over the last 7 months, what impact has the Decision Support Study /Ottawa Guide had on the way in which you (nurses) support callers facing p-s health decisions? (tell me about a situation in which you used the Ottawa Guide) After having participated in the study: - Do you think you (nurses) are helping callers 'make sound health decisions' (e.g. information, unclear values, pressure)? - Is there anything different about the way you (nurses) are meeting the needs of these callers? - How do you feel after having helped someone making a p-s health decision?
Barriers/ facilitators: (RN- attitudes, awareness, knowledge, skill;)	What factors make it <u>easier</u> for you (nurses) to support callers making these decisions? What things make it more <u>difficult</u> (or stand in the way) when supporting callers' making these decisions? What else <u>would help</u> you (nurses) enhance the support provided to callers making p-s decisions?
Environment – structure, social, public, economic; innovation	Is there anything else that would make it easier for providing and documenting decision support based on the Ottawa Decision Support Guide? To what extent are your colleagues supportive of you (nurses) providing help to callers facing p-s decisions? To what extent is the management team supportive of you (nurses) providing help to callers facing p-s decisions? To what extent is MOH supportive of you (nurses) providing help to callers facing p-s decisions? To what extent are callers supportive of you (nurses) providing help when they are facing p-s decisions? Is there someone at BCNL who is making it happen and how are they doing it (e.g. local champion)? Are there any other barriers interfering with its use?
Timing	What are the guidelines for timing of calls? How are these guidelines monitored?
Implementation Strategy	Do you have any comments or suggestions about the approach used to enhance decision support a) education sessions (auto-tutorial/workshops); b) simulated patients with feedback on quality of decision support provided; c) Tools: Ottawa Decision Support Guide protocol & mDSAT for self-appraisal; d) Access to resource people – Wendy, Barb, Diane, Sharon, Others
Uptake / Sustainability	What is needed for you to <u>continue providing</u> decision support for these callers (guided by the Ottawa Decision Support Guide)? a) what might you (nurses) do? b) your colleagues? c) TCM? d) Ministry of Health? (issues: scaled down education program, integration of Ottawa Guide, clear program goal/direction, public awareness, call length guidelines, expansion to other nurses; subsequent research with patient outcomes; program champion)
Implications for research, practice, education	In summary, what are the <u>next steps related to enhancing</u> the way in which BCNL nurses provide decision support for callers facing tough p-s health decisions?



Survey: Uptake of the

Ottawa Decision Support Guide– for Telephone Consultation

The purpose of this survey is to find out if you are using the Ottawa Decision Support Guide (Ottawa Guide) in your practice at BCNL. As well, we would like you to identify factors influencing its use. The 3-page survey will take about 15 minutes.

1. Which of the following best describes you?

- ☐ I attended the decision support workshop (Go to question 2)
- ☐ I did **not** attend workshop but have used the Ottawa Guide (Go to question 2)
- ☐ I did **not** attend the workshop and have **never** used the Ottawa Guide (Thank you- no need to proceed. *Please return the completed survey to Wendy Lodge or Dawn Stacey- see page 3 for details*).

Reason for **not** attending the workshop _____

2. Over the last month, have you used the Ottawa Guide to guide how you help callers make preference-sensitive decisions?

- ☐ Yes; over the last month I used it for approximately:
 - ☐ 1-2 calls ☐ 6-10 calls ☐ 16+ calls
 - ☐ 3-5 calls ☐ 11-15 calls
- ☐ No; I did not receive any calls from callers facing preference-sensitive decisions
- ☐ No; the callers facing p-s decisions were not suitable
- ☐ No; please specify reason _____

3. What barrier(s) interfere with using the Ottawa Guide in your practice?

4. What are the advantages of using the Ottawa Guide compared to your usual approach for supporting callers with preference-sensitive decisions?

5. How likely are you to use the Ottawa Guide as a protocol within the next 3 months for a caller facing a preference-sensitive decision?

- ☐ Very likely
- ☐ Likely
- ☐ Somewhat likely
- ☐ Very unlikely
- ☐ Not at all. Please explain: _____

7. Please tell us how much you disagree or agree with the following statements.

General Statements		Strongly disagree		Neutral		Strongly agree	
7.1	Most nurses need to enhance their knowledge about supporting callers making more complex preference-sensitive health decisions	☐	☐	☐	☐	☐	☐
7.2	There is low public awareness of BCNL services	☐	☐	☐	☐	☐	☐
7.3	Helping callers prepare for discussing health decisions with their physician is important	☐	☐	☐	☐	☐	☐
7.4	Most nurses recognize callers having difficulty making more complex preference-sensitive health decisions.	☐	☐	☐	☐	☐	☐
7.5	Pressure to minimize call length interferes with using the Ottawa Guide	☐	☐	☐	☐	☐	☐
7.6	Most callers/patients should be referred to the BCNL in preparation for making more complex health decisions.	☐	☐	☐	☐	☐	☐
7.7	Nurses have access to good* resources to support callers making more complex preference-sensitive health decisions (* understandable, evidence-based, accurate, up-to-date, balanced information on benefits and harms, non-biased)	☐	☐	☐	☐	☐	☐
7.8	There are too few calls about more complex preference-sensitive health decisions for most nurses to develop their decision support skills	☐	☐	☐	☐	☐	☐
7.9	Most nurses validate callers' views/values associated with more complex preference-sensitive health decisions.	☐	☐	☐	☐	☐	☐
7.10	There is clear direction within the program that nurses need to provide decision support for callers facing more complex preference-sensitive health decisions	☐	☐	☐	☐	☐	☐

8. How helpful is the Ottawa Guide in supporting callers making a preference-sensitive decision?

- ☐ Very helpful
- ☐ Moderately helpful
- ☐ Somewhat helpful
- ☐ Not helpful

9. How useful is the Ottawa Guide in helping you identify a plan to address the caller's decision support needs? (e.g. information problem, unclear values, support problem)

- ☐ Very useful
- ☐ Moderately useful
- ☐ Somewhat useful
- ☐ Not very useful

10. How comfortable are you using the Ottawa Guide with a caller?

- ☐ Very comfortable
- ☐ Comfortable
- ☐ Uncomfortable
- ☐ Very uncomfortable

11. Have you told colleagues about the Ottawa Guide?

- ☐ Yes
- ☐ No. If no, please explain:

12. Do you think BCNL nurses should use the Ottawa Guide in their practice?

- ☐ Yes, all of the BCNL nurses
- ☐ Yes, only a select group of BCNL nurses
- ☐ No
- ☐ Undecided

13. Please tell us how much you disagree or agree with the following statements.

<i>Using the Ottawa Guide as a clinical decision support protocol with callers making health decisions will:</i>	Strongly disagree	Neutral	Strongly agree
13.1 Allow nurses to guide callers making decisions in a logical way	☐	☐	☐
13.2 Be acceptable to the BCNL nurses	☐	☐	☐
13.3 Help callers explore the benefits/harms of the options	☐	☐	☐
13.4 Help prepare callers for discussing the decision with their MD	☐	☐	☐
13.5 Be TOO complex	☐	☐	☐
13.6 Require extra effort to navigate the Guide and document the call.	☐	☐	☐
13.7 Improve the chances that callers' decisions are informed.	☐	☐	☐
13.8 Improve the chances that callers' decisions are based on personal values or importance of potential benefits/ harms.	☐	☐	☐
13.9 Produce greater good than harm	☐	☐	☐
13.10 Complement my usual approach to these situations	☐	☐	☐
13.11 Be easy to use	☐	☐	☐
13.12 Fit well with the Healthwise decision points	☐	☐	☐
13.13 Be usable with callers making preference-sensitive decisions most of the time (>66% of the time)	☐	☐	☐
13.14 Is compatible with how I think callers should make preference-sensitive decisions	☐	☐	☐
13.15 Be useful in my practice	☐	☐	☐
13.16 Require a major change to the way I currently handle these types of calls	☐	☐	☐
13.17 Provide a more consistent approach to supporting callers	☐	☐	☐
13.18 Help me to more fully explore issues of importance to callers facing a decision	☐	☐	☐
13.19 Be limited because it is not integrated with documentation	☐	☐	☐
13.20 Increase the callers' satisfaction with the BCNL services	☐	☐	☐
13.21 Empower callers	☐	☐	☐
13.22 Help me use my time more efficiently	☐	☐	☐
13.23 Improve my usual approach	☐	☐	☐
13.24 Help me tailor my approach to the callers' needs	☐	☐	☐
13.25 Be easy to try it out before deciding to use it regularly	☐	☐	☐
13.26 Take too much time	☐	☐	☐
13.27 Be challenging because it is not very accessible	☐	☐	☐
13.28 Help support callers in handling conflicting views about the decision from significant others	☐	☐	☐

Thank you for completing the survey. Please give the completed survey to Wendy Lodge or you can send the survey directly to Dawn Stacey by FAX (613) 761-5402 or mail 1407 Chartrand Ave, Orleans, Ont. K1E 1H9.