www.myjointreplacement.ca

Patient education as a strategy for provider education on best practices

Submission to the
Ted Freedman Award
for Innovation in Education

Submission on behalf of the GTA Rehab Network
and its partners the Arthritis Society and the Total Joint Network

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myJointReplacement.ca

What could make a patient education website, innovative? One innovation is to use the development process as a means of promoting best practices and supporting the introduction of a new model of care. In this submission, we describe www.myjointreplacement.ca, the process through which it was developed; the outcome evaluation indicators substantiating both the achievement of the intended outcomes and the rationale for which it is an innovation in education using appropriate technology.

Project Overview

www.myJointReplacement.ca is a patient education website for patients undergoing hip and knee replacement surgery. It is characterized by text, audio, and visual components; an interactive virtual forum for patients; a contact number for patients to ask questions; and monitoring and evaluation software. It is also characterized by a development process intended to facilitate knowledge transfer and to support practice changes.

Myjointreplacement.ca was motivated by a documented lack of information available to inform the expectations and reduce the burden of care for this procedure and concern that unique practice patterns in the GTA would compromise the sustainability of resources. The objectives of this project were therefore to develop a patient education website, in order to bring the professional community together to discuss evidence and practice.

How was myJointReplacement.ca developed?

1. Using trends in consumerism and demand management, a group of stakeholders from across the GTA decided to focus on how we could use the patient education process to influence demand. A successful funding proposal was made in 2003 to the Change Foundation.
2. A research study was conducted to help inform the content of the website using as a conceptual framework an adaptation of the classic clinical decision making model (Figure 1). It included a review of the literature, interviews with patients to determine their information needs, and provider (surgeons, physiatrists, nursing and allied health) consultations. The research study was published in a report (Best Practices in Total Joint Replacement Care available: www.gtarehabnetwork.ca/publications.asp) and widely distributed with summary guides.
3. The research was synthesized into an outline for patient education and presented in multiple professional forums including a breakfast session with surgeons and physiatrists. Each session was preceded by a discussion of the research.
4. Soon after the research was completed, the Total Joint Network (TJN) was funded by the Government of Ontario to introduce a new model of care for total joint replacement patients. The leadership of the patient education initiative interlocked the leadership of the TJN and the literature review was used in the model development. It was also used to explain choices made for the model of care to providers.

Figure 1: Framework for identification of what material would be selected for the website.

5. The Arthritis Society, one of Canada's leaders in the field of patient education, oversaw the website construction and evaluation. They set up several public and provider feedback sessions throughout.

6. Electronic evaluation surveys for providers and patient/family use were built onto the site as well as software which could be used to track the number of visits, the number of sessions, the length of time an individual stayed on the website, and the keywords that an individual used in order to access the site. A patient education expert was brought in to evaluate the quality, usability and sufficiency of the website using focus groups and survey results. With patients and providers. Recommendations for changes were made based on the evaluation.

7. A communication strategy was developed and implemented. Each publicly funded organization involved in the provision of joint replacement care was provided with material to promote use of the site with patients. Over 200 professionals were provided the opportunity to learn about the project in free forums and provided with a feedback opportunity.

Evidence of Innovation and Outcomes
In this section, we provide data and evaluation results which substantiate the success of www.myjointreplacement.ca in terms of both its objectives and as an innovation in education for providers. We begin by discussing the conceptual frameworks used.

**Innovations in Education**

Innovations in education can often be characterized by the extent to which they bring novelty, significance, transferability, and effectiveness to the healthcare education process (O'Connell et al, 2003). Where education is targeted at producing a change in healthcare practice, research has shown that techniques which are didactic tend not to translate into actual practice or improved healthcare outcomes (O'Connell et al, 2003; Heffner, 2001; Blum 1956). Traditional clinical practice change initiatives often involve forums and care pathways.

For some time however, the literature has been foreshadowing the potential use of patient education development processes to promote changes in provider behaviour. Allusions to the potential role of patients and families in influencing demand are documented in several prominent reports (Naismith et al, 2006; Hospital Report Card 2005; Change Foundation 2002). Since the development of patient education involves an idealized purpose, it brings with it unique incentives to participate in discussions, reviewing the evidence and challenging practice.

In this submission, we argue that the development of patient education in the manner used in this process, is an innovation in the education of providers on best practices as discussed in the literature and on patient preferences because it brings a novel, significant, transferable and effective process for educating providers about best practices in the literature. Novelty is demonstrated in the application of the process and objectives onto the development of patient education. The significance is in the number of patients, providers, and organizations this project affected in a positive manner. The transferability is demonstrated by the possible application of this project across different population groups and jurisdictions. Finally, the effectiveness of the project is discussed in the next section through the logic model and overall indicators.

**Project Logic Model**

The logic model for this project is shown in Figure 2. The long term objectives are to influence demand for and utilization of inpatient rehabilitation after a joint replacement, by influencing expectations, choice, evidence, support for choices, and available information. Our objective is to manipulate these factors by targeting patients, surgeons, physiatrists, and allied health professionals. We used a patient education website, a dedicated research study to inform the development of the patient education material, and a series of forums. The short term objectives were to provide information and support for patients, gain
consensus from providers on what information should be provided to patients based on the evidence, and communicate evidence from the literature and research.

**Evaluation Indicators**

Our evaluation approach followed the plan-do-check-act cycle in which evaluation was built into each step. A series of process and outcome indicators answer the following questions:

1. **One objective was to promote discussion on evidence based practice. Did our efforts have a make a difference?**

As described in the methods section, we had three forums designed deliberately to come to consensus on the outline and information for the website. Once the site was constructed we developed an online survey in which we asked providers if they felt the information on the website was based on best practices, if anything on the site made them uncomfortable, and if they would use the site for patient education (evaluation results in next section). We also hosted an information session in which 150 providers were invited. Quick reference guides (summaries) of the literature review were distributed. After the presentation, a survey was administered from which we learned that nearly 90% of respondents (n=45) felt that as a result of hearing the literature review results they could align their practices to reflect the evidence.

**Figure 2: Logic Model Depicting the Issues to be Addressed, Factors influencing Demand, Target Groups, Activities, Outputs, Outcomes and Impact on initial Issues (Diagram reads from bottom up)**
2. **What is the quality, usability, and sufficiency of information on the website?**

Through the online survey, we asked patients (n=70) if as a result of the site they knew more about each phase of joint replacement care. Figure 3 shows the results. Also, 94% of respondents indicated they had no difficulty finding things on the site. Finally we asked patients if reading the site would make them change any behaviours, for the individual who answered the question (n=50), 50% indicated that reading the site would cause them to do something differently.

Some of the comments made by patients about how the information has affected them include:

- "It gives me insight in terms what to expect and advice on what to do and what I should avoid".
- "Keep on exercising (wasn't sure whether I should) and keep trying to lose weight".
- "Site is well laid out and easy to get around....I wish someone had told me about it before my surgery".

**Figure 3: % of patients that replied yes to question: “Do you know more about... surgery, preparing, or recovery”**

In the online provider survey (n=50), 90% indicated that they felt the site was based on best practices and 94% of respondents indicated that nothing on the site caused them discomfort; and 96% of respondents said that they would refer their patients to the site. Some of the verbatims we have received include the following:
• "Your website is a comprehensive way of delivering educational matters of content and manner appropriate for many of our patient. I like how the patient is able to determine the depth of information they wish to access."
• "I will be recommending it to my patients."

3. What is the level of utilization?

As can be seen by the monthly averages, the number of sessions per month (where a session is a series of hits on different pages within the website in a given period of time) often exceeded 2000 (Figure 4). The sessions average between 45 minutes and 1 hour.

Figure 4: Number of sessions (series of hits/user) per month determined by URCHIN monitoring software on www.myjointreplacement.ca

![Bar chart showing number of sessions per month]

Appropriate use of Technology

In considering the appropriateness of the use of technology we have conceptualized the notion of technology as both an enabler and as an end product and discuss three forms of appropriateness.

Educational medium: Use of the internet for educational purposes is both an enabler and a limitation. The internet being ubiquitous, enabling multi-media, feedback, interaction, and choice for the reader in terms of how much and when to take information was a definite asset. The availability of the virtual forum where patients can speak with each other also provides unique learning opportunities. We acknowledge that not everyone has internet access. To address this problem, the Arthritis Society and the Total Joint Network are exploring alternate media such as print and DVD to make the information more widely available. We felt however that the internet was a good place to start because Canada is a world leader in the use of internet for health information and Canadians have an exceptionally high rate of internet access in the home (Statistics Canada, 2002).

Potential for monitoring and evaluation: One of the strengths of the choice of technology for the education is the level of feedback and monitoring data that we
get without significant data collection efforts. Not only can we monitor utilization and length of each session, we can also monitor what keywords patients are using to arrive at the site and see the online patient discussion forums, which tell us which are the hot topics from a patient perspective. The software also allows us to conduct ongoing online surveys where volunteer respondents can put in provider or patient perspectives.

**Inspiring collaboration:** Although we do not have measures to substantiate this assertion, it is reasonable to believe that the financial and public commitment behind developing an educational website for patients provided the community with the incentive to review the literature, consider practice, and come to consensus on key messages. Perhaps if the medium required no commitment, there would have been less incentive to romanticize and achieve a vision of a standardized patient education product for all joint replacement patients and families which is based on best practices, consensus and consultations and which resulted in a unique educational experience for providers.

**References**

Nomination of the Coalition on Physical Punishment of Children and Youth

The Coalition on Physical Punishment of Children and Youth is a partnership of Canadian organizations concerned with the well being of children and families. The Coalition members—Children’s Hospital of Eastern Ontario (CHEO), Child Welfare League of Canada, Family Service Canada, Canadian Child Care Federation, Canadian Institute of Child Health, Canadian Public Health Association, and Canadian Association for Young Children—are committed to “moving the yardsticks” on physical punishment of children and youth in Canada through professional and public education.

The vehicle for this education is the Joint Statement on Physical Punishment of Children and Youth, a comprehensive review of published research on the long-debated issue of corporal punishment of children. The document also examines physical punishment in Canada from legal and human rights perspectives, makes recommendations for action, and provides examples of recognized resources on effective parenting. The origin of the now four-year initiative, and its secretariat, is the Children’s Hospital of Eastern Ontario. Its vision is shared and driven by the commitment and passion of all the Coalition partners.

It is because of the Coalition’s dedication to professional and public education about physical punishment, its innovative means of achieving this ambitious degree of knowledge transfer, and its substantial success to date, that we nominate it for the Ted Freedman Award for Innovation in Education.

The Joint Statement on Physical Punishment of Children and Youth

The heart of the Joint Statement on Physical Punishment of Children and Youth is its comprehensive review of research. It provides an overview of the developmental outcomes associated with the use of physical punishment on children and youth. The research evidence is now clear—physical punishment of children and youth is both ineffective as discipline and is harmful. There is no clear evidence of any benefit from the use of physical punishment on children; there is, in fact, strong evidence that physical punishment places children at risk for a variety of negative physical, emotional, and mental health outcomes. Research also reveals that most parents and caregivers believe physical punishment is unnecessary and harmful.

These research findings anchor the Joint Statement’s key recommendations: (1) delivery of public awareness messages to inform all Canadians that physical punishment is harmful to children’s development and is ineffective as discipline; (2) development of universal parenting education; and (3) provision of the same protection of children from physical assault as is given to Canadian adults and to children in a growing number of countries.
The value of the innovation as an agent of change

The value of the Coalition’s initiative as an agent of change is substantial. First and foremost, as a mechanism of knowledge exchange, it has demonstrated endless possibilities. Its scope is broad, it has connected with national, provincial/territorial and municipal levels of government, organizations of every stripe, education and advocacy groups, and individual professionals, parents and members of the public at large. These connections span most sectors of the Canadian community—child, youth and family services, health, education, child welfare, recreation, rehabilitation, legal and human rights, aboriginal, military, women, professional disciplines, faith, anti-violence, and business. Because knowledge transfer inevitably changes perception and behaviour, the broad dissemination of the Joint Statement and its compelling research evidence was expected to—and has—moved the yardsticks on physical punishment of children in Canada. It has become a seminal document, regularly cited and relied upon across Canada and internationally. It has influenced thinking and supported action in a number of domains: professional and parent education, advocacy, policy formulation, law, and case assistance.

Evidence to substantiate the innovation

The evidence of the impact of the initiative and the document is substantial. There have been over 62,000 pdf downloads of the Joint Statement, its executive summary, names of endorsers, poster, invited journal article, and related material, in English and French, from the CHEO website. From across the country and around the world, there have been more than 14,000 English and 2,000 French documents requested. The first edition of the English version has been re-printed twice. A second edition—updating research and developments regarding physical punishment of children in Canada and internationally—will be published next year. The Joint Statement is an “evergreen” document; it will remain current and its sponsoring initiative is ongoing. This gives the document and the Coalition’s work a high level of innovation; the 3 previous Joint Statements (Prevention of Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effects (FAE) in Canada, Reducing the Risk of Sudden Infant Death Syndrome in Canada, and Shaken Baby Syndrome) were “one-offs”. In contrast, the Coalition’s work on maintaining the ongoing sponsorship initiative ensures continued discussion, awareness building and, as a result, knowledge exchange.

Following its publication in September 2004, the Joint Statement was spontaneously endorsed by many Canadian groups. In order to further raise its profile, the Coalition also invited endorsements with the proviso that endorsement signifies an organization’s confidence in the document’s review of research and conclusions, and support of its recommendations. This process drives knowledge transfer by assuring that there is extensive review of the Joint Statement by organizations’ boards and staff, and sometimes members, clients
and volunteers. Currently, 234 organizations, representing most sectors of the Canadian community, have endorsed the Joint Statement, as have 19 invited distinguished Canadians. This alone is a clear demonstration of knowledge transfer and the associated knowledge exchange that has accompanied the extensive contact Coalition partners have with so many organizations and individuals.

Some examples illustrate this extensive knowledge exchange. The Joint Statement has been cited in numerous publications, including professional journals (Infant Mental Health Promotion), reports (BC Legislature's Hansard), and communications (Justice for Children and Youth, Canadian Health Network, Voices for Children). It has been used in course curricula for professional training (Child and Youth Worker programs) and secondary student education (in a French language school board). It has formed the basis for public education campaigns (Toronto Public Health) and been the subject of media attention in newspapers, television and radio (The Ottawa Citizen, Globe and Mail, CBC radio, 570 News Radio). Many websites cite, summarize and link to the Joint Statement on the CHEO website. The Joint Statement has been discussed and disseminated at professional conferences. It has shaped the debate of a Senate bill to change Canadian law. It inspired and is the model for a similar initiative in the USA. It was translated for distribution in Portugal. It has informed the pending UN Secretary General's Report on Violence Against Children.

Outcomes to substantiate the innovation

“One small pebble tossed into the water can create widening ripples of change.” (Child and Youth Health Network for Eastern Ontario). Due to the rippling nature of the Coalition’s work, it is difficult to measure just how far and wide its messages about the physical punishment of children have reached. An example of the varied courses of the Joint Statement’s dissemination and persuasion might be useful. The Coalition wanted to bring the information in the Joint Statement to the attention of the major faiths. Contact was made with representatives of many faiths. A member of the congregation of a United Church of Canada (UCC) in Winnipeg developed a proposal that the Church’s General Council (national body) endorse the Joint Statement. The congregation voted to support the proposal, and it went next to the Winnipeg Presbytery, which represents all congregations in Winnipeg, where the proposal was again supported. It went subsequently to the Church’s regional body—the Conference of Manitoba and Northwestern Ontario—where a member of the Coalition talked with youth participants who supported the endorsement and presented their comments to the Conference’s leadership. The proposal was again supported. Last month, it was presented to the national meeting of the General Council of the United Church of Canada. Once again, the Coalition’s representative met with the youth delegates. Their comments were heard by the General Council which adopted the proposal, commended it to all United Church congregations in
Canada for study, and announced its endorsement on the Church's website. Over this course a number of important forms of knowledge transfer took place. The Joint Statement brought research on physical punishment to the United Church of Canada (with close to 3 million members). Because the General Council not only endorsed the document but also commended it to United Church congregations for study, in addition to the Church's official position being declared to its members they will have direct access to the information in the Joint Statement and thus the opportunity to integrate it into their daily lives as parents, grandparents, and parents-to-be. Additionally, the process of review and endorsement provided an opportunity for youth engagement, participation and knowledge exchange on the subjects of physical punishment, parenting and faith with one of the document's authors and with leaders of their Church. This is one of 234 endorsements received to date. How far the knowledge transfer has penetrated every one of the other 233 organizations cannot be precisely measured, but feedback and tangible evidence suggests it is considerable.

The dissemination and power of the Coalition's Joint Statement has prompted the creation and revision of organizational policies, positions and guidelines. The Canadian Paediatric Society, for instance, revised its position on disciplinary spanking and developed new guidelines for the discipline of children and acknowledged the Joint Statement. The Canadian Psychological Association borrows heavily on the document in its position statement on corporal punishment. Prompted by the Joint Statement, the Canadian Academy of Child and Adolescent Psychiatry passed motions to recommend against the use of corporal punishment in the raising of children and support provision of assistance to families, care givers and their children related to corporal punishment. The Ontario Public Health Association wrote to every health unit in Ontario encouraging their endorsement of the Joint Statement and use of its information for health promotion and parenting education.

The Joint Statement has been a stimulus and support for the creation and amendment of provincial and federal legislation. It was cited by the Children's Advocate of Saskatchewan in recommending amendment (now enacted) of the Province’s Education Act, to prohibit physical punishment in provincial schools. As already mentioned, it is regularly cited by the Senator who has tabled legislation to repeal the section of the Criminal Code of Canada which provides a legal defence—state permission—for physical punishment/assault of children, and in the Parliamentary, media and public debates surrounding this proposed legislation.

A "ground level" benefit of this innovative initiative and seminal document has been its direct case assistance to professionals and parents. It has been used as an authoritative resource in assessing the suitability of candidates for adoption and for their parenting educating. It was used by a worried mother trying to protect her young daughter from physical punishment by the child's father during
lengthy access visits with him. A Quebec daycare cited the document in a court hearing regarding an employee dismissed for her use of physical punishment.

In conclusion

The Coalition on Physical Punishment of Children and Youth, through its innovative initiative and evidence-based seminal Joint Statement, has been an impetus and support for individual and organizational action to promote the well-being of children across Canada and beyond. It has reached professionals, legislators and parents; prompted organizations to begin advocacy; enabled new and ongoing education and advocacy activities; and supported individual Canadians struggling with the issue of physical punishment. It has changed minds and protected children. Its work continues. The Joint Statement is “green”—it will stay current. It will build on its considerable impact on the issue of physical punishment of children in Canada, and continue to provide others with an authoritative and persuasive resource for their own educational and advocacy initiatives.

The work of the Coalition on Physical Punishment of Children and Youth surely makes it an outstanding innovator and model of health promotion, and candidate for the Ted Freedman Award for Innovation in Education.

Attached Resources:

The Joint Statement on Physical Punishment of Children and Youth

Executive Summary

The Joint Statement on Physical Punishment of Children and Youth Poster

Endorsers List

Please see http://www.cheo.on.ca/english/4220.shtml (English) and http://www.cheo.on.ca/francais/4220.shtml for additional resources.