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Résumé

L'examen de la méthode de l'analyse positive en tant qu'intervention d'application des connaissances dans le traitement de la douleur

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Malgré les solides données probantes qui existent en matière de traitement de la douleur, dans la pratique, la douleur n'est pas toujours bien traitée. L'orientation des interventions d'application des données probantes doit être changée, pour passer des caractéristiques individuelles à des stratégies d'application des connaissances qui reposent sur la théorie et tiennent compte du contexte organisationnel et de la dimension sociale de l'application des données probantes à la pratique. Les auteures examinent la méthode de l'analyse positive en tant qu'intervention d'application des connaissances novatrice dans le domaine du traitement de la douleur en soins infirmiers. Elles ont pour objectifs d'améliorer la situation actuelle des interventions d'application des connaissances au traitement de la douleur et d'examiner l'utilité des interventions potentielles selon leur congruence avec la théorie. La théorie et la pratique de l'analyse positive sont comparées avec la notion d'application des connaissances et avec les éléments du cadre *Promoting Action on Research Implementation in Health Services* [encouragement à agir pour l'application de la recherche dans les services de santé]. L'analyse se fonde sur le traitement de la douleur en soins infirmiers.

Mots clés : données probantes, application des connaissances, douleur, méthode de l'analyse positive, intervention, théorie

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Examining Appreciative Inquiry as a Knowledge Translation Intervention in Pain Management

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Despite a solid evidence base for pain management, pain is not always well managed in practice. Interventions to implement pain management evidence need to be shifted from a focus on individual characteristics to knowledge translation strategies that are grounded in theory and attend to the organizational context and social dimension of translating evidence into practice. The authors examine Appreciative Inquiry (AI) as an innovative knowledge translation intervention in the area of pain management in nursing. Their aims are to advance the current state of knowledge translation interventions in pain management and to examine the usefulness of potential interventions based on their congruence with theory. The theory and practice of AI are compared to the concept of knowledge translation and the elements of the Promoting Action on Research Implementation in Health Services framework. Discussion is grounded in pain management in nursing.

Keywords: nursing practice, evidence-based; knowledge translation; pain; Appreciative Inquiry; intervention; theory

Despite a solid evidence base for pain management, pain is not always well managed in practice (Twycross, 2007). Although pain management is a multidisciplinary responsibility, nurses' play a pivotal role in pain management; therefore nursing practices are the focus of this article. Instead of taking the traditional view that the persistence of suboptimal pain management is a knowledge-deficiency problem on the part of nurses, we see the core issue as a failure to use available evidence in practice (Scott-Findlay & Estabrooks, 2004). The challenge is therefore one of knowledge translation, not knowledge building alone. Innovative interventions are needed to translate pain management evidence into practice. Grounding knowledge translation interventions in theory is integral to advancing knowledge translation in health care (Eccles, Grimshaw, Walker, Johnston, & Pitts, 2005; Estabrooks, Thompson, Lovely, & Hofmeyer, 2006). Currently there are no interventions for translating pain evidence into nursing practice that have been grounded in knowledge translation theory. The Promoting Action on Research Implementation in Health Services (PARIHS) framework identifies

evidence, context, and facilitation as critical factors in translating evidence into practice (Kitson, Harvey, & McCormack, 1998; Rycroft-Malone, 2004). The theoretical perspective of the PARIHS framework is congruent with the understanding of implementing evidence in practice as organizational change (Reay, Golden-Biddle, & Pablo, 2002).

Appreciative Inquiry (AI) is an approach to organizational change that appears to be consistent with the elements of the PARIHS framework. The uniqueness of AI lies in its focus on the strengths rather than the weaknesses of an organization and innovative ways to improve practices. Appreciative Inquiry has yet to be examined as a knowledge translation intervention or to be applied to clinical issues, such as pain, in inpatient settings. In this article we examine the use of AI as a knowledge translation intervention to implement pain management evidence in nursing practice. The aims are to (1) advance knowledge translation efforts in pain management by considering an innovative intervention, and (2) explore the usefulness of interventions based on their congruence with knowledge translation theory. The theory and process of AI are examined in relation to the concept of knowledge translation and the elements of the PARIHS framework. Discussion is grounded in the clinical example of pain management in nursing.

Appreciative Inquiry

Appreciative Inquiry is an effective approach to organizational change in the business literature. A meta-analysis of cases that applied AI found that all 20 cases achieved change in social processes and seven cases achieved change in "how people thought" and "what people do" (Bushe & Kassam, 2005). However, results may be biased because those writing the cases were also consultants to the organizations. Randomized controlled trials have been conducted to evaluate the effect of AI on restaurant management retention (Jones, 1998) and student team development (Bushe & Coetzer, 1995). Although significant favourable effects of AI on outcomes were indicated, results should be viewed with caution due to the methodological limitations of the studies (e.g., methods of randomization were not elaborated and sample size calculations were not performed). Also, it was suggested that AI might be more suited to generating positive group dynamics than promoting simple task performance (Bushe & Coetzer, 1995). Change efforts using AI are emerging in health-care research addressing administrative issues (e.g., Farrell, Douglas, & Siltanen, 2003; Keefe & Pesut, 2004). Although AI has been applied to develop clinical practices (Carter, Cummings, & Cooper, 2007; Reed, Pearson, Douglas, Windburne, & Wilding, 2002), its effectiveness has not yet been well established.

Theoretical Principles

Appreciative Inquiry is an approach to change where the strengths and achievements (positive factors) in an organization are used to promote and sustain change. It is a way of being with and directly participating in an organization. Its purposes are to generate knowledge (or ideas) within social systems and to use this knowledge to promote dialogue that leads to congruence between values and practices. Collective action and vision are considered critical to the evolution of group behaviour. Appreciative Inquiry is rooted in action research and is therefore a participatory, collaborative process. However, in contrast to action research, it is focused more on knowledge generation than on action; ideas are assumed to be the most powerful vehicles for inspiring and effecting change in social systems. Appreciative Inquiry also contrasts with the traditional problem-based perspective of action research (and typical organizational change initiatives) through its positive, strengths-oriented focus. A focus on successes and achievements is fundamental to AI and is hypothesized to result in effective and sustained change efforts (Cooperrider & Srivastva, 1987; Cooperrider, Whitney, & Stavros, 2005).

Appreciative Inquiry is based on the paradigm of sociorationalism, in which all patterns of social action are considered amenable to change. Thus, it is premised on the social constructionist notion that social reality is a product of shared meanings within a social system. Alterations in conceptual practices are thought to have great potential for guiding changes in the social order. Social constructionism underlies the five core principles of AI: (1) what is known about an organization is inseparable from its future; (2) inquiry and intervention are one and the same; (3) members of an organization are constantly co-authoring its story; (4) the image of the future guides the behaviour of individuals and organizations; and (5) momentum for change requires positive affect, social interaction, and inspiration (Cooperrider & Srivastva, 1987; Cooperrider et al., 2005).

Intervention Model

The AI process is captured in the 4D cycle: Discovery (positive elements of practice are illuminated), Dream (an ideal practice environment is envisaged), Design (processes that support the articulated ideal are created), and Destiny (strategies to strive towards the ideal are implemented) (Cooperrider et al., 2005). The Affirmative Topic is at the core of the 4D cycle and provides a positive rather than problem-based focus for inquiry (Cooperrider et al., 2005). Using the AI process to implement pain management evidence in nursing practice would involve a facilitator leading the nursing staff in a series of workshops addressing the question

Table 1 *AI Intervention Activities Applied to Evidence-Based Pain Management*

Phase	Activities	Application to Evidence-Based Pain Management
Discovery	Introduce the Affirmative Topic; conduct Appreciative Interviews	Facilitators present an overview of AI, evidence-based pain management, and the affirmative topic by posing a question: *What is working well for practising evidence-based pain management on your unit?* Dyads discuss an instance when they or a colleague managed pain based on evidence and the factors that made this possible; facilitators help the group to uncover themes or circumstances that enabled them to practise evidence-based pain management.
Dream	Consider a Miracle Question	Dyads discuss the contextual factors that would exist on their unit if they were able to practise evidence-based pain management all the time; facilitators guide participants to select key factors that would enable them to practise evidence-based pain management.
Design	Make a Provocative Proposition	Facilitators guide participants to apply key factors from the Dream phase and write a realistic, affirmative, present-tense statement that indicates a clear vision for using pain management evidence on their unit, specific to a particular practice of interest.
Destiny	Develop an action plan	Facilitators guide participants to develop a plan that can be realistically achieved, within a given period, to implement the evidence-based pain management practice on the unit.

What is working well for practising evidence-based pain management on your unit? Based on the action research nature of the intervention, participants would select an area of evidence-based pain management to develop on their unit and the strategies for doing so. The activities of each AI phase applied to evidence-based pain management are shown in Table 1.

Appreciative Inquiry: A Knowledge Translation Intervention?

Appreciative Inquiry is an innovative possibility for an intervention to implement pain management evidence in nursing that addresses organizational rather than individual factors. The positive focus of AI makes it an attractive alternative to deficit-based ways of implementing pain management evidence in practice. However, before AI can be used as a knowledge translation intervention, its congruence with knowledge translation theory must be examined. In the following discussion, the theory and process of AI are explored in relation to the concept of knowledge translation and the elements of the PARIHS framework.

Appreciative Inquiry and Knowledge Translation

Knowledge translation is broadly defined as "the exchange, synthesis and ethically-sound application of knowledge — within a complex system of interactions among researchers and users — to accelerate the capture of the benefits of research for Canadians through improved health, more effective services and products and a strengthened health care system" (Canadian Institutes of Health Research [CIHR], 2005). The concept of knowledge translation is distinct from that of the earlier and more traditional knowledge transfer. Although in some fields knowledge transfer is implicitly considered a two-way process (Graham et al., 2006), in health care it typically refers to the unidirectional flow of knowledge from researcher to user (CIHR, 2005; Graham et al., 2006). Supplier push models (Davis et al., 2003; Dickinson, 2004) are examples of knowledge transfer. In these models, knowledge is viewed as a product created by researchers and pushed out for use by practitioners, stressing the linear and unidirectional sequence of research supply to research use (Landry, Lamari, & Amara, 2003). Many knowledge transfer interventions can be characterized as passive dissemination. Passive dissemination involves neither personal contact nor engagement with participants in the implementation process, and it includes traditional methods such as publication, guideline implementation, and didactic education (Bero et al., 1998). The majority of interventions to implement pain management evidence in practice are methods of knowledge transfer focused on providing education to increase nurses' knowledge and challenge misconceptions. In general, knowledge transfer interventions have had limited

success in increasing the clinical application of evidence (Bero et al., 1996; CIHR, 2005). Researchers have frequently attributed this failure to the distinct and irreconcilable natures of the research and practice communities (CIHR, 2005).

Knowledge translation interventions take a relatively comprehensive approach to implementing evidence in practice. For example, they are not limited to education because their focus extends beyond building individual knowledge to changing behaviour and overcoming barriers to change. Neither are they limited to individual persuasion, because they are meant to be contextually relevant by virtue of their location in the clinical, social, organizational, and policy contexts of practice. Lastly, the objectives of knowledge translation go beyond identifying evidence to facilitating its use in practice (Davis et al., 2003).

The theory and practice of AI appear to be aligned with the concept of knowledge translation. Due to its roots in action research, AI is compatible with the concept of knowledge translation as a dialogic and interactive process that unites individuals from the research and practice communities for the common purpose of using current, relevant research (CIHR, 2005). The action research orientation of AI makes it compatible with interactive models of knowledge translation, such as pragmatistic models. These models are premised on the need for cooperation between researchers and clinicians to promote the use of evidence in practice (Dickinson, 2004). The distinction between knowledge translation and knowledge transfer is that the former, instead of appreciating knowledge as a product, considers knowledge generation and use as social processes. Similarly, the purpose of AI is to generate knowledge and foster learning by promoting democratic dialogue within a social system (Cooperrider & Srivastva, 1987; Cooperrider et al., 2005). Knowledge is valued not as an outcome but as collective construction through inquiry. Knowledge within both interactive models of knowledge translation and AI theory is viewed as socially constructed through communicative processes of learning that occur in contexts with established meaning systems, role structures, and values (Cooperrider & Srivastva, 1987; Dickinson, 2004).

An objective of knowledge translation is mutual understanding between researchers and clinicians, which is achieved by considering individuals' needs, interests, values, beliefs, and responsibilities as types of knowledge to be translated (Dickinson, 2004). This objective resembles the focus of AI on eliciting group values and interests through social interaction to achieve collective vision and action (Cooperrider & Srivastva, 1987). The AI focus on interaction and dialogue complements evidence that nurses prefer interpersonal and interactive sources of knowledge (e.g., dialogue with colleagues) over traditional modes of

dissemination (e.g., printed materials) (Estabrooks et al., 2005). Participatory interventions such as AI may therefore be a sound alternative to traditional knowledge transfer as a means of changing pain management practices in nursing.

Appreciative Inquiry and the PARIHS Framework

The theory and process of AI seem to be congruent with the concept of knowledge translation. We will now examine AI using the elements of the PARIHS framework, considering complementary knowledge translation theory where relevant to more thoroughly examine its use as a knowledge translation intervention.

Evidence, in the PARIHS framework, is defined as "knowledge derived from a variety of sources that has been subjected to testing and has been found to be credible" (Higgs & Jones, 2000, p. 311). As opposed to evidence, the term knowledge more aptly reflects the many sources that clinicians rely on to make clinical decisions (Rycroft-Malone et al., 2004). The PARIHS framework incorporates four sources of evidence from which knowledge is generated in clinical practice: research, clinical experience, patient experience, and local contextual information (Rycroft-Malone, 2004).

Although AI theory does not contain the word evidence, it is replete with the word knowledge. The concept of knowledge as a social construction co-produced by members of a social system is central to AI theory and practice, the implications being that knowledge depends on the values and beliefs of a social system and the locus of knowledge is the relationship between individuals rather than an isolated individual (Cooperrider & Srivastva, 1987; Cooperrider et al., 2005). In the PARIHS framework, similarly, knowledge and evidence are viewed as socially constructed and dynamic (Rycroft-Malone et al., 2004). Even research is seen as a derivative of social processes and is therefore not value-free. Furthermore, evidence is amenable to different interpretations (Rycroft-Malone et al., 2004). This is consistent with the understanding of knowledge in AI as open to any interpretation, filtered through the prevailing values and beliefs of a culture (Cooperrider & Srivtasva, 1987).

Internal knowledge generated by and applicable to group members is valued in AI. The PARIHS framework includes clinical experience, patient experience, and local contextual data as types of evidence from which nurses derive meaningful and useful knowledge for their practice. Through a focus on interactive knowledge generation, AI may be a means to discuss these sources of internal knowledge. The articulation of nurses' clinical knowledge is an important first step in making it credible evidence through critique and reflection (Rycroft-Malone et al., 2002). However, according to the definition of evidence in the PARIHS

framework, the AI process must also incorporate research (or external knowledge) to be a knowledge translation intervention. Pain management research could be introduced to nurses in the Discovery phase of AI and further incorporated into the intervention based on their interests and needs. For example, pain assessment or management research could be given to nurses based on the evidence-based practice they choose to implement on their unit.

Modifying the AI process to include research appears to contradict the focus of AI on generating internal knowledge as opposed to implementing externally validated knowledge (Bushe & Kassam, 2005). However, this may not be the case, as the emphasis in AI on creating applicable, contextually relevant knowledge suggests that it is an intervention capable of negotiating with the "soft periphery" of research. Innovations are suggested to have a hard core that is fixed and a soft periphery that is amenable to manipulation by the adopting system (Lewis & Seibold, 1993). The soft periphery refers to the ways in which evidence can be implemented (Denis, Hebert, Langley, Lozeau, & Trottier, 2002). For example, the soft periphery of pain management evidence could include organizational arrangements to facilitate use of the evidence on a unit and defining when and how to apply it, as well as which particular elements of the evidence would be implemented.

Negotiation with the soft periphery may give meaning to an innovation and render feasible practices that might otherwise be destined for failure (Denis et al., 2002). Reinvention, defined as modification of an innovation by users during the implementation process (Rogers, 2003), is a critical step in knowledge use (Donaldson, Rutledge, & Ashley, 2004; Rogers, 2003) and may have great value for implementing evidence-based pain management practices in nursing; typically, pain management research has been considered user-friendly and applicable across settings without the need for contextualization. Attending to the soft periphery of pain management research may lead to the production of "situated knowledges," which promote knowledge translation and use by making remote evidence contextually relevant (Lave & Wenger, 1991). Practitioners do not simply apply abstract, disembodied research; they actively interpret and reconstruct its local validity and usefulness (Wood, Ferlie, & Fitzgerald, 1998).

Context is the setting in which the proposed change is to be implemented (McCormack et al., 2002; Rycroft-Malone, 2004). It is dynamic and complex and implies an understanding of the forces that give an environment its particular character and atmosphere (McCormack et al., 2002). The characteristics of context include organizational culture, leadership, and evaluation (Rycroft-Malone, 2004).

The theory of AI resonates with the conceptualization of context as dynamic and complex in the PARIHS framework, while the practice of AI aims to address the complexity of context in effecting change. The roots of AI in organizational change and action research make it an intervention specific to the environment in which change is to be initiated. Of the three context sub-elements of the PARIHS framework, culture has particular relevance for AI. Appreciative Inquiry aims not only to generate applicable, context-specific knowledge but also to create a culture that will support the application of generated knowledge (Cooperrider & Srivastva, 1987). According to the PARIHS framework, culture must be understood if meaningful and lasting change is to be achieved (McCormack et al., 2002). Appreciative Inquiry seeks to understand the local culture by determining the values, beliefs, and needs of individuals within the social system. Its theory and practice are also congruent with the PARIHS tenet that staff as a resource is central to the transformation of organizational culture (McCormack et al., 2002).

People provide the context of practice in AI, with organizations defined as "living, human constructions" (Cooperrider & Avital, 2004, p. 2). The focus on the human component of context in AI contrasts with the emphasis on physical setting and organizational infrastructures in the PARIHS framework. However, it is this focus that gives AI particular value as a knowledge translation intervention in pain management: It addresses the importance of staff as agent of change and the social process of knowledge translation, in contrast with traditional knowledge transfer interventions in pain management, which focus on changing isolated individual characteristics of nurses, such as knowledge.

The understanding of context within the theory and practice of AI is aligned with the theory of communities of practice. Communities of practice are groups of interdependent individuals that provide a work context where members generate a shared perspective (Brown & Duguid, 2001). They acknowledge the importance of people and their interactions in practice and assume that they do not learn in isolation (Wenger, 2000). Applied to nursing, the theory of communities of practice suggests that nurses interact with their colleagues and employ the resources that are available, instead of acting in prescribed and predictable ways (Estabrooks, 2003). Appreciative Inquiry is compatible with this theory because it promotes collaborative learning and is responsive to the interests and needs of participants (Coghlan, Preskill, & Tazavaras Catsambus, 2003; Cooperrider et al., 2005). Nurses can collaboratively generate strategies for using pain management evidence in practice that capitalize on the organizational strengths of their unit, their preferred ways of practising, and the resources available to them.

The literature on communities of practice highlights the importance of social networks in the acceptance of ideas and knowledge (Dopson, Fitzgerald, Ferlie, Gabbay, & Locock, 2002). The objective of AI is to create not only context-specific knowledge but also an environment that will support its everyday application (Cooperrider & Srivastva, 1987). Rogers (2003) points out the importance of restructuring when diffusing innovations within organizations. Diffusion is optimal not only when an innovation is reinvented to accommodate the needs of the social system, but also when the structure of an organization is modified to fit the innovation. An AI intervention may go beyond enabling nurses to define evidence-based pain management practices that would suit their practice community, to encourage dialogue around organizational modifications that would support evidence-based pain practices in the local context.

The concepts of leadership and evaluation in the PARIHS framework are less a focus in AI but are addressed indirectly. Appreciative Inquiry promotes the informal, internal evaluation of unit practices by encouraging nurses to focus on and develop pain management practices. With respect to leadership, the AI process is aligned with the concept of transformational leadership in the PARIHS framework; it seeks to generate a shared vision for evidence-based practices in nursing, and it challenges and enables group members to realize that vision (McCormack et al., 2002). The objective is to build a network of local transformational leaders (i.e., participating nurses) who will together create a unit that is more conducive to the use of pain management evidence in practice.

However, an AI intervention cannot rely only on the creation of leaders; it also needs supportive leadership. The participatory nature of AI requires that nurses be supported by local leaders to engage in the intervention and implement the action plan. In the PARIHS framework, leaders are critical to creating contexts that are receptive to change (Rycroft-Malone, 2004). The AI process calls for representation from various levels within an organization (Cooperrider et al., 2005). Local nurse leaders (e.g., advanced practice nurses, nurse educators, and nurse managers) should therefore be included in an AI intervention. Gaining the support of leaders, however, may depend on the relevance and organizational fit of evidence-based pain management with respect to the unit and the organization (Rycroft-Malone et al., 2004).

Facilitation is the process of enabling the use of evidence in practice (Harvey et al., 2002; Rycroft-Malone, 2004). Effective facilitation is the result of matching the purpose of facilitation, the role of the facilitator, and the skills of the facilitator to the situation. The purpose of task-oriented facilitation is to support the achievement of a concrete task, while that of enabling facilitation is to enable others to change their attitudes and behaviours (Rycroft-Malone et al., 2002).

Appreciative Inquiry can be characterized as an enabling method of facilitation because the focus is on guiding nurses to challenge their attitudes and behaviours by evoking participation, rather than dictating the outcome in a one-way transfer of information (Kitson et al., 1998; Rycroft-Malone et al., 2002). An internal-external facilitator partnership is a model of enabling facilitation (Rycroft-Malone et al., 2002). An AI intervention to implement pain management evidence in practice could use this model with facilitators in high-intensity roles employing interactive learning strategies (Rycroft-Malone et al., 2002). The external AI facilitator could be a researcher familiar with the AI process who would guide group members towards innovations in organizational processes and support participants in generating momentum for effective change (Cooperrider & Srivastva, 1987; Cooperrider et al., 2005). The internal facilitator could be local to the unit (e.g., an advanced practice nurse) who assumes a task-based role by demonstrating pain management skills and presenting pain management research to the group according to the chosen area of practice change. This task-based role is critical to the implementation of pain evidence because of the complex nature of pain and the abundance of pain management research (Kavanagh, Watt-Watson, & Stevens, 2006). During the AI intervention, the internal facilitator could keep the focus of discussion on evidence-based pain management and ensure that current, relevant research is incorporated into the practice change of interest. The use of a dedicated facilitator would prevent the group from basing discussion on anecdote rather than evidence.

A potential problem with using an external facilitator (i.e., researcher) in an AI intervention is that AI is not meant to address organizational processes that have been identified by an outside expert (Bushe & Kassam, 2005). This implies that AI should not be used for the predetermined purpose of implementing pain management evidence in practice. In health care, however, AI has been used to reframe researcher-identified issues or practices that might benefit from change (e.g., Carter et al., 2007; Reed et al., 2002). Though these approaches strive towards predefined objectives, the change process is loyal to the principles of AI in that a positive perspective is maintained and group participation is used to generate applicable knowledge.

Implications and Conclusions

The complexity of interactions between clinicians and the practice context means that there is no magic formula for translating evidence into practice (Dopson et al., 2002). Theoretically, AI is useful as a knowledge translation intervention for pain management. This use

initiates a shift from the assumption that the underlying problem of suboptimal pain management practices in nursing is a lack of knowledge. Rather, AI engages group members and approaches the implementation of pain management evidence in practice as organizational change. The theory and practice of AI incorporate characteristics of knowledge translation, including (a) an understanding of knowledge generation and translation as social processes; (b) a valuing of and ability to access knowledge related to clinicians' values, needs, beliefs, and responsibilities; (c) a specificity to the context of practice; and (d) a focus on the process of facilitating the clinical use of evidence.

The PARIHS framework is useful for critiquing potential knowledge translation interventions because it addresses the complexity of implementing evidence in practice. Facilitation may be a key variable in the PARIHS framework, as the production and use of evidence are social processes and little organizational change is possible without key drivers (Kitson et al., 1998; Rycroft-Malone et al., 2002). Appreciative Inquiry can be characterized as an enabling approach to facilitation, with the potential to address the nature of the evidence and the context of the practice where it is to be implemented. Knowledge derived from clinical and patient experience, as well as the local context, can be elicited from participants, challenged when appropriate, and incorporated into the AI intervention. Appreciative Inquiry is also contextually specific, with a focus on the human element of context and the culture of an organization.

Using AI as a knowledge translation intervention requires supportive leadership, which likely depends on the relevance and organizational fit of evidence-based pain management in the clinical setting (Rycroft-Malone et al., 2004). The process must be modified to include pain management research. However, this contingency does not contradict the focus of AI on creating internally generated knowledge. Appreciative Inquiry has the capacity to negotiate with the soft periphery of research, which enhances the opportunity to reinvent (Rogers, 2003) research to create "situated knowledges" (Lave & Wenger, 1991) internal to the unit of practice. It is an opportunity for researchers and clinicians to unite for a common purpose and to co-construct knowledge that will be shared by the two communities. Social interaction between members of research and practice communities that has a positive focus may lead to compelling exchange and the creation of knowledge that is based in research yet is contextually meaningful.

The strengths-oriented nature of AI may make it an appealing intervention for nurses, as traditional problem-oriented approaches to change can serve to demoralize, limit inquiry, and breed apathy and resistance to change (Coghlan et al., 2003). This positive focus may be particularly

relevant in the area of pain management, where researchers have tended to focus on nurse deficits as the root of the problem instead of capitalizing on strengths and supportive organizational modifications. A potential limitation of using AI as a knowledge translation intervention in pain management is that participants feel they have little to contribute in terms of examples. According to AI theory, though, every social system has positive elements, however small, and the primary task of research is to discover and describe them (Cooperrider & Srivastva, 1987). Examples can therefore be small and few and come from a nurse's own practice or that of a colleague. Because language is fundamental to shaping reality, positive language (e.g., competency, learning, positive outcomes, visionary ideas) is used to maintain a positive focus (Cooperrider et al., 2005).

Although using AI as a knowledge translation intervention for pain management implies that the impetus for the intervention is problem-based, a distinction can be made between a problem-based catalyst for an AI intervention and the problem-based delivery of an AI intervention. In both the business and the health-care literature, problems and issues drive implementation of AI interventions. Also, AI theory states that members of an organization can choose which aspects of their organizational life, including problems and issues, they wish to study (Cooperrider et al., 2005). The critical feature of AI practice appears to be how the issue of interest is framed. It is essential that the topic of evidence-based pain management be framed in affirmative terms and that affirmative language be used during the intervention (Cooperrider et al., 2005). For example, facilitators should avoid using words such as suboptimal to describe the state of pain management in nursing.

In conclusion, AI appears to be an innovative theory-based approach to knowledge translation in pain management. Although some modifications are necessary, to make the AI process congruent with the elements of the PARIHS framework, the changes seem to be compatible with the theory and process of AI. Researchers should engage in a similar exercise when selecting knowledge translation interventions, to ensure that they are theory-based. Implementation of this intervention could contribute to knowledge translation theory by providing evidence on the construct validity of the PARIHS framework. Further work is needed to explore methodological issues in the use of AI as a knowledge translation intervention.

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