

En-tête : RÔLE MÉDIATEUR DE L'EFFICACITÉ PERSONNELLE FACE À LA
DOULEUR

L'efficacité personnelle en présence de douleur chronique comme médiateur de la relation entre
l'attachement amoureux non-sécurisant, le fonctionnement individuel et la satisfaction conjugale

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Résumé

L'efficacité personnelle face à la douleur a été examinée comme médiateur de la relation entre l'attachement amoureux non sécurisant d'une personne (anxiété face à l'abandon et évitement de l'intimité) et le fonctionnement individuel, ainsi que pour la relation entre l'attachement amoureux non sécurisant et la satisfaction conjugale. L'échantillon comprenait 45 adultes qui vivent quotidiennement avec de la douleur chronique et qui sont en relation de couple depuis au moins 6 mois. Les résultats indiquent que l'efficacité personnelle face à la douleur est un médiateur de la relation entre l'anxiété face à l'abandon et le fonctionnement individuel. Les résultats démontrent également des liens directs entre l'efficacité personnelle face à la douleur et le fonctionnement individuel, entre l'évitement de l'intimité et un faible fonctionnement individuel, et entre les deux dimensions de l'attachement non sécurisant (anxiété et évitement) et une faible satisfaction conjugale.

Mots clés: Douleur chronique; attachement amoureux, efficacité personnelle face à la douleur, fonctionnement individuel, satisfaction conjugale

Abstract

Pain self-efficacy was examined as a mediator of the relation between people's insecure romantic attachment (anxiety over abandonment and avoidance of intimacy) and individual functioning, as well as for the relation between insecure romantic attachment and couple satisfaction. The sample consisted of 45 adults who live daily with chronic pain and that have been in a couple relationship for at least 6 months. Results indicate that pain self-efficacy significantly mediates the relation between anxiety over abandonment and individual functioning. Results also demonstrate direct links between pain self-efficacy and individual functioning, high avoidance of intimacy and low individual functioning, as well as both dimensions of insecure attachment (anxiety and avoidance) and lower couple satisfaction.

Keywords: Chronic pain; romantic attachment, pain self-efficacy, individual functioning, couple satisfaction

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Préface

Cette thèse comprend une introduction générale, un article scientifique et une conclusion générale. L'introduction générale donne un aperçu du problème de recherche et présente le cadre conceptuel ainsi que les modèles théoriques sur lesquels cette étude prend appui. Ensuite, l'article scientifique est présenté sous forme de publication*, suivi d'une conclusion générale qui résume les résultats de recherche.

Marie-Eve Martel est l'auteure principale de cette thèse. Elle a écrit l'article scientifique, l'introduction générale ainsi que la conclusion générale, et ces sections ont été révisées par Dre Anne Thériault et Dre Marie-France Lafontaine, directrice et co-directrice de cette thèse. Les données utilisées pour cette étude proviennent du Laboratoire de recherche sur le couple de Dre Marie-France Lafontaine (Université d'Ottawa, École de Psychologie). Elles ont été recueillies dans le cadre d'un projet intitulé *Couple et Santé*, qui visait une meilleure compréhension d'un modèle systémique de la douleur chronique chez des individus en relation de couple. Ce projet a été approuvé par le comité d'éthique et d'intégrité de la recherche de l'Université d'Ottawa et il a été financé par le Programme de financement pour le développement de la recherche de l'Université d'Ottawa. Depuis l'été 2010, Marie-Eve a été impliquée dans le déroulement de ce projet, à l'aide de Dre Lafontaine. Plus précisément, Marie-Eve a aidé avec la soumission de la demande éthique, la révision et le formatage de questionnaires et documents ayant trait à l'étude, la traduction de documents, la création de documents de publicité, le recrutement, la correspondance avec les participants, ainsi que l'entrée et l'analyse des données.

* Veuillez noter que l'article inclus est en voie d'être soumis pour publication dans la revue « *Psychology & Health* » et il respecte les normes de cette revue alors le format est quelque peu différent du reste de la thèse.

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CHAPITRE I

Introduction générale

Aperçu du problème de recherche

Tel que sera expliqué dans les pages suivantes, la douleur chronique peut avoir des conséquences néfastes dans plusieurs domaines de la vie d'une personne et environ une personne sur cinq est atteinte de cette condition de santé au Canada (Schopflocher, Taenzer, & Jovey, 2011; Reitsma, Tranmer, Buchanan, & Vandenkerkhof, 2011). Selon Meredith, Ownsworth et Strong (2008), la théorie de l'attachement peut aider à mieux comprendre ce phénomène. Le modèle présenté par ces chercheurs suggère que l'attachement non sécurisant d'une personne est perçu comme un facteur de vulnérabilité qui prédit une faible adaptation psychologique et conjugale, de même qu'un vécu plus difficile chez les individus aux prises avec la douleur chronique.

Étant donné la sévérité potentielle de cette condition sur la personne et sur le couple, cette étude a pour objectif d'approfondir notre compréhension de pourquoi certaines personnes font l'expérience de la douleur de façon plus négative que d'autres. Plus précisément, cette étude examinera le rôle médiateur de la perception d'efficacité personnelle en présence de douleur sur la relation entre l'attachement amoureux non sécurisant et le fonctionnement individuel, ainsi que sur la relation entre l'attachement amoureux non sécurisant et la satisfaction conjugale. L'étude a été réalisée auprès d'adultes dans la communauté qui vivent avec de la douleur chronique et qui sont en relation de couple depuis au moins six mois. Les résultats pourraient

potentiellement avoir des implications cliniques intéressantes car ils pourraient aider à améliorer le développement d'interventions et ainsi améliorer la qualité de vie de ces personnes.

Dans les pages qui suivent, nous présenterons d'abord le contexte général du problème de recherche, une définition de la douleur, la prévalence de cette condition de santé ainsi que certaines conséquences qui en découlent. Nous présenterons aussi la pertinence d'étudier la douleur chronique dans les domaines de la psychologie et du counseling. Ensuite, nous présenterons brièvement la théorie de l'attachement sur laquelle cette étude prend appui, ainsi que le concept d'efficacité personnelle et la conceptualisation bidimensionnelle de l'attachement amoureux adulte. Enfin, nous présenterons le modèle *Attachement-diathèse de douleur chronique* (Meredith et al., 2008), sur lequel nous nous sommes appuyés pour la présente étude.

Contexte général

Les soins et le système des soins de santé sont parmi les préoccupations les plus importantes des Canadiens aujourd'hui (Ressources humaines et Développement des compétences Canada, 2008). Les gens peuvent avoir recours aux services de soins de santé pour diverses raisons, mais les maladies chroniques sont la raison la plus courante (Conseil canadien de la santé, 2007). Selon l'Organisation mondiale de la santé (OMS, 2014), les maladies chroniques sont « des affections qui en règle générale évoluent lentement ». Les gens qui vivent avec une maladie chronique en souffrent donc à long-terme et elles sont souvent incurables. Ainsi, elles entraînent fréquemment plusieurs répercussions sur le bien-être et la qualité de vie des individus, en plus de représenter un lourd fardeau économique pour la société (Conseil canadien de la santé, 2007). Il y a plusieurs conditions de santé chroniques et une en particulier a

attiré notre attention, soit la douleur chronique, car il y a un manque de recherche sur cette condition de santé aggravante au Canada (Lynch, Schopflocher, Taenzer, & Sinclair, 2009).

Définition, prévalence et conséquences de la douleur chronique

La douleur peut être définie comme « une expérience sensorielle et émotionnelle désagréable liée à des lésions tissulaires réelles ou potentielles ou décrite en des termes évoquant de telles lésions » (définition de *l'International Association for the Study of Pain*; Merskey & Bogduk, 1994, p. 211). La douleur est qualifiée de chronique lorsqu'elle persiste au-delà de trois à six mois ou de la durée habituelle de la guérison (Ospina & Harstall, 2002). Il y a de nombreux types de douleur chronique : elle peut être associée à une maladie ou une déficience, elle peut survenir suite à une blessure ou un accident, ou elle peut commencer graduellement. Dans certains cas, la cause est connue tandis que dans d'autres cas elle ne l'est pas (Société Canadienne de Psychologie, 2009).

Il est estimé qu'environ 19% des Canadiens rapportent de la douleur chronique, soit une personne sur cinq. La prévalence est plus courante chez les femmes que chez les hommes et elle augmente avec l'âge (Schopflocher et al., 2011; Reitsma et al., 2011; Moulin, Clark, Speechley, & Morley-Foster, 2002). La douleur chronique est un phénomène qui existe partout dans le monde mais sa prévalence est différente d'un pays à l'autre. Une recherche estime que les taux varient entre 10,1% et 55,2% pour des pays en Amérique du Nord, au Nord-Ouest de l'Europe et en Australie (Harstall & Ospina, 2003). Cette variabilité entre pays pourrait être expliquée par des différences quant au choix de la définition de la douleur chronique (durée, sévérité, fréquence et type) et quant aux méthodes de collecte de données. Il est à noter aussi que la

sensibilisation et l'expression de la douleur peuvent être différentes d'une culture à une autre. Pour les fins de la présente étude, nous utiliserons des données relatives au Canada, plus spécifiquement dans les provinces de l'Ontario et du Québec.

La société canadienne est grandement touchée par la douleur chronique, car celle-ci engendre des coûts sociétaux directs et indirects considérables. Selon l'Association canadienne de douleur chronique (2010), le coût de cette problématique de santé est estimé comme étant supérieur à 10 milliards de dollars annuellement en raison des frais médicaux, des pertes de revenu et des pertes de productivité associées (cité par Reitsma et al., 2011). Autrement dit, les gens aux prises avec cette condition auraient plus souvent recours aux services de soins de santé que les gens sans douleur. De plus, la douleur chronique serait associée à des taux plus élevés de chômage, même lorsque les gens ont un diplôme d'éducation post-secondaire (Mailis-Gagnon et al., 2007).

La douleur chronique a non seulement des effets négatifs sur la société, elle peut également avoir des effets néfastes dans tous les domaines de la vie d'une personne (physique, économique, psychologique, relationnel, familial et social). Par exemple, entre 11,4 et 13,3% des gens qui vivent avec la douleur chronique rapportent que celle-ci interfère avec leurs activités quotidiennes (Reitsma et al., 2011) et la douleur a fréquemment été associée au développement de troubles psychologiques tels que l'anxiété et la dépression (Currie & Wang, 2004; Gerrits, van Oppen, van Marwijk, Penninx, & van der Horst, 2014). De plus, il semblerait qu'une personne atteinte de douleur chronique serait deux fois plus à risque de se suicider qu'une personne sans douleur (Tang & Crane, 2006).

Psychologie et douleur chronique

La douleur est un phénomène biopsychosocial complexe qui inclut des composantes sensorielles, affectives, cognitives et sociales. Plus la douleur devient chronique, plus les composantes affectives, cognitives et sociales prennent de l'importance (Bruns, 2008).

L'expérience de la douleur est de nature subjective alors il existe des différences individuelles dans son expérience et dans les stratégies utilisées pour gérer la douleur (Green & McPhail-Pruitt, 2004). Ainsi, il est pertinent pour les domaines de la psychologie et du counseling de s'intéresser aux rôles de divers facteurs psychologiques dans l'expérience de la douleur chronique afin de mieux comprendre pourquoi certaines personnes en font l'expérience plus difficilement que d'autres et développer de meilleures interventions pour améliorer le bien-être de ces personnes.

Théorie de l'attachement

Au cours des dernières années, on remarque un intérêt grandissant pour étudier le phénomène de la douleur chronique à partir de la théorie de l'attachement de John Bowlby (1969/1982, 1988). Selon cette théorie, l'enfant naît avec un besoin de survie qui l'amène à développer un lien émotionnel envers sa *figure d'attachement*, c'est-à-dire la personne dont il reçoit les soins. En réponse à des stressseurs (p. ex., la douleur, la peur, la fatigue, etc.), l'enfant utilise des comportements spécifiques nommés *comportements d'attachement* (p. ex., pleurer, suivre, etc.) afin d'obtenir de la protection, du réconfort et du soutien de la part de sa figure d'attachement, et ultimement ressentir un sentiment de sécurité. Lors de moments où la figure d'attachement ne serait pas présente physiquement en raison du contexte, des pensées à propos

de la proximité envers la figure d'attachement pourraient tout de même être actives et influencer le comportement de l'enfant de manière positive (Bowlby, 1982).

À travers des interactions répétées avec sa figure d'attachement, l'enfant développe des représentations cognitives (*internal working models*) concernant le soi et les autres. D'une part, les *représentations cognitives de soi* réfèrent aux croyances de l'enfant vis-à-vis son mérite à recevoir de l'aide et du réconfort des autres. D'autre part, les *représentations cognitives des autres* renvoient à la perception de l'enfant quant à la disponibilité de sa figure d'attachement à lui fournir de la protection et du réconfort en cas de besoin. Lorsque la figure d'attachement répond de manière adéquate et est sensible aux besoins de l'enfant, ce dernier développe un attachement nommé sécurisant et il est en mesure de continuer à explorer son environnement de façon efficace (Bowlby, 1973). Au contraire, lorsque la figure parentale est peu disponible, néglige ses besoins ou offre un soutien inconsistant, l'enfant développe un attachement appelé non sécurisant (Bowlby, 1969/1982).

La disponibilité et la réceptivité de la figure d'attachement sont importantes pour le développement de l'enfant car elles forment une base de sécurité (*a secure base*) qui donne à l'enfant la confiance et le courage d'explorer son environnement, de s'engager dans une variété d'activités et d'accepter de nouveaux défis. La figure d'attachement encouragerait l'autonomie de l'enfant tout en demeurant disponible pour du soutien en cas de besoin. L'enfant qui perçoit une base sécuritaire peut alors s'aventurer dans le monde externe tout en sachant qu'à son retour il sera accueilli, nourri physiquement et émotionnellement, en plus d'être réconforté s'il est en détresse ou rassuré s'il a peur (Bowlby, 1988). Cette base de sécurité mènerait donc à une

augmentation de comportements exploratoires et de poursuite d'objectifs, ainsi qu'à une augmentation des apprentissages et découvertes. À travers ces expériences, l'enfant développerait, entre autres, un plus grand sentiment d'efficacité personnelle (Feeney, 2004).

Perception d'efficacité personnelle

L'efficacité personnelle est un concept introduit par le psychologue Albert Bandura et peut être définie comme la perception d'un individu envers sa capacité à utiliser ses ressources personnelles pour accomplir une tâche spécifique (Gist & Gist, 2013). Le sentiment d'efficacité personnelle diffère de l'estime de soi car il réfère à la capacité personnelle plutôt qu'à la valeur personnelle, quoiqu'il est probable que ces concepts soient corrélés positivement lorsqu'il est question d'activités valorisées pour l'individu (Carré, 2004). Toutefois, ce sont des concepts bien différents et l'un peut être présent sans l'autre.

Selon Bandura, l'efficacité personnelle est construite à travers les expériences de maîtrise personnelle, les apprentissages vicariants, la persuasion verbale par autrui et les états physiologiques et émotionnels. Les expériences de maîtrise personnelle seraient la source la plus influente car l'individu apprend par des expériences de succès authentiques. Effectivement, les expériences de succès personnels contribuent grandement à la formation de l'efficacité personnelle tandis que les échecs peuvent l'affaiblir, surtout si ceux-ci ont lieu avant que l'individu ait développé une efficacité personnelle stable. De plus, il importe que les succès résultent d'expérience avec des obstacles qui représentent des défis que l'individu affronte avec persévérance, car s'il vit seulement des succès faciles, il s'attendra à des résultats rapides et se découragera rapidement face à des échecs futurs (Bandura, 1977; 1997).

Les apprentissages vicariants sont une autre façon par laquelle les gens développent un sentiment d'efficacité personnelle. L'observation de réussites des autres sans conséquences aversives peut donner à l'individu l'attente qu'il ou elle peut aussi réussir, ou au moins s'améliorer, s'il consacre un effort soutenu envers une activité. D'autant plus, étant donné que plusieurs activités n'ont pas de mesures claires de succès, les gens évaluent souvent leurs propres capacités en comparant leur performance à celles de leurs pairs dans des situations semblables. Ainsi, surpasser la performance de ses pairs améliore l'efficacité personnelle tandis qu'être surpassé par les autres réduit l'efficacité personnelle (Bandura, 1977; 1997).

Les personnes dans l'environnement de l'individu sont non seulement importantes à travers les apprentissages vicariants, elles peuvent également aider à nourrir l'efficacité personnelle à l'aide de la persuasion verbale, c'est-à-dire des encouragements et l'expression de la confiance envers les capacités de l'individu (plutôt que l'expression de doute). Les gens qui sont persuadés verbalement qu'ils ont la capacité à accomplir une tâche spécifique seront davantage portés à y consacrer plus d'effort et de maintenir ceux-ci que s'ils entretiennent des doutes et s'attardent sur leurs difficultés personnelles (Bandura, 1977; 1997).

Enfin, en évaluant leurs capacités personnelles, les gens se fient, entre autres, à l'information somatique de leurs états physiologiques et émotionnels. Ceux-ci sont particulièrement importants pour les accomplissements physiques, le fonctionnement lié à la santé et le *coping* (stratégies d'adaptation) avec les stressseurs. Les gens ont souvent tendance à interpréter leur activation physiologique et émotionnelle lors de situations stressantes comme

signe de vulnérabilité ou dysfonction (Bandura, 1997) et puisqu'un éveil physiologique et émotionnel élevé a tendance à affaiblir la performance, il va de soi que les gens s'attendent à réussir lorsqu'ils ne sont pas dérangés par des signaux physiologiques et émotionnels (p. ex., être tendu ou agité; Bandura, 1977).

À la lumière de ce qui précède, les gens avec un attachement sécurisant auraient plutôt des interactions positives avec leur figure d'attachement et celle-ci serait perçue comme une base sécuritaire qui leur permettrait d'adopter des comportements exploratoires. De plus, à travers ces interactions, ils développeraient des représentations cognitives positives concernant le soi et les autres et ils développeraient également des stratégies de régulation des émotions plus efficaces que les gens avec un attachement non sécurisant. Bref, un attachement sécurisant contribuerait au développement des ressources personnelles et à l'épanouissement des capacités, des habiletés et des perspectives d'un individu (Mikulincer, Shaver, & Pereg, 2003).

La base de sécurité associée au développement d'un attachement sécurisant semblerait être particulièrement importante, car avoir une base de sécurité (à court et à long terme) permettrait à l'individu, entre autres, d'avoir une meilleure perception de son efficacité personnelle. En effet, une étude a démontré que plus une base de sécurité était considérée sécuritaire, plus les gens recevant du soutien étaient disposés à s'engager dans des activités exploratoires, plus ils rapportaient d'efficacité personnelle face à accomplir des objectifs et plus ils percevaient leurs objectifs comme étant réalistes (Feeney, 2004). Puis, les gens avec un sentiment d'efficacité personnelle abordent les menaces ou les stressseurs potentiels avec la

confiance qu'ils peuvent les gérer, ce qui a pour effet de réduire leur stress et diminuer leur vulnérabilité à la dépression (Walker, 2001).

Le concept d'efficacité personnelle a largement été appliqué aux comportements organisationnels et dans le contexte d'apprentissages (par exemple en milieu scolaire; Carré, 2004). Toutefois, il est aussi pertinent dans l'expérience de la douleur chronique car on peut estimer que les gens qui croient avoir la capacité à utiliser leurs ressources personnelles pour gérer la douleur auraient possiblement une meilleure adaptation face à celle-ci. Cette étude s'intéressera donc à l'efficacité personnelle face à la douleur, c'est-à-dire la confiance d'un individu en sa capacité de profiter de la vie et de participer à diverses activités malgré sa douleur (Nicholas, 2007).

Attachement amoureux adulte

Le système comportemental d'attachement et les représentations cognitives développés durant l'enfance se maintiendraient au cours de la vie (Bowlby, 1980). Habituellement, la figure d'attachement adulte serait plutôt le partenaire amoureux (Hazan & Shaver, 1987) malgré qu'une personne puisse avoir plus d'une figure d'attachement (p. ex., les parents et les amis).

L'attachement amoureux adulte influencerait alors les attentes, les perceptions et les comportements des individus dans leur relation amoureuse ainsi que leur satisfaction conjugale (Mikulincer & Shaver, 2007).

Inspiré de la théorie de l'attachement en enfance, des mesures d'attachement adulte ont été créées. Le premier instrument de mesure de l'attachement adulte étaient catégoriel, c'est-à-

dire que trois catégories ou types d'attachement adulte étaient mesurés: sécurisant (*secure*), anxieux (*preoccupied*) et évitant (*avoidant*). L'attachement sécurisant se caractérise par une facilité à faire confiance et à entrer en relation avec les autres, l'attachement anxieux se définit par un désir de se rapprocher des autres combiné avec une peur de ne pas être suffisamment aimé, et l'attachement évitant réfère à un inconfort avec l'intimité émotionnelle (Hazan & Shaver, 1987). Par la suite, l'attachement évitant fut séparé en deux catégories : l'attachement craintif (*fearful*) qui se caractérise par un désir conscient pour un contact social mais qui est contré par la peur des conséquences d'un attachement aux autres, et l'attachement détaché (*dismissive*) qui est défini par le déni d'un besoin ou d'un désir envers des relations d'attachement (Bartholomew, 1990; Bartholomew & Horowitz, 1991).

En référence aux représentations cognitives développées durant l'enfance, l'attachement sécurisant se caractérise par des modèles internes positifs concernant le soi et les autres tandis que les trois types d'attachement non sécurisant renvoient à des représentations cognitives négatives de soi et/ou des autres. Plus précisément, l'attachement anxieux se définit par un modèle interne négatif de soi et positif des autres, l'attachement détaché par un modèle positif de soi mais négatif des autres, et l'attachement craintif par un modèle négatif de soi et des autres (voir Figure 3; Bartholomew, 1990; Bartholomew & Horowitz, 1991).

Plus récemment, d'autres chercheurs ont démontré que l'attachement adulte peut être mesuré selon deux dimensions continues, soit *l'anxiété face à l'abandon* et *l'évitement de l'intimité* (Brennan, Clark, & Shaver, 1998). L'anxiété face à l'abandon réfère au degré auquel un individu rumine au sujet d'être rejeté ou abandonné par son partenaire amoureux tandis que

l'évitement de l'intimité a trait au degré auquel un individu est inconfortable avec la proximité et l'intimité émotionnelle. Un individu avec un attachement non sécurisant aurait un score élevé sur une de ces dimensions tandis qu'une personne avec un attachement sécurisant aurait un score faible sur ces deux dimensions. La plupart des recherches aujourd'hui utilisent ce modèle bidimensionnel de l'attachement adulte car il est mieux appuyé empiriquement (Mikulincer & Goodman, 2006; Fraley & Waller, 1998).

Modèle Attachement-diathèse de douleur chronique

Au cours des dernières années, quelques auteurs ont proposé d'appliquer la théorie de l'attachement à l'expérience de la douleur chronique (Anderson & Hines, 1994; Kolb, 1982; Mikail, Henderson, & Tasca, 1994; cité par Meredith et al. 2008) et plusieurs avantages en ressortent. Notamment, les comportements, les émotions et les croyances non adaptées associées à un attachement non sécurisant pourraient expliquer pourquoi certaines personnes peuvent être plus vulnérables à faire l'expérience de la douleur de manière négative. De plus, cette théorie pourrait aider à identifier des sous-groupes d'individus en douleur et expliquer les réponses différentielles au traitement, ce qui pourrait ensuite nous éclairer sur le développement d'interventions ciblées et ainsi améliorer le bien-être de ces individus (Meredith et al., 2008).

Plus récemment, les différentes perspectives des premiers auteurs à appliquer la théorie de l'attachement à la douleur chronique ont été intégrées dans un modèle heuristique de l'attachement amoureux, soit le modèle Attachement-diathèse de douleur chronique (Meredith et al., 2008). Ce modèle a pour but d'aider à guider les recherches futures sur le sujet en intégrant

divers facteurs psychosociaux d'une manière plus significative et en aidant à développer et tester certaines prédictions.

Selon le modèle Attachement-diathèse de douleur chronique, la douleur activerait les mécanismes du système d'attachement et l'attachement amoureux non sécurisant serait une vulnérabilité qui déclencherait des évaluations cognitives (envers la douleur, le soi et le soutien social) ainsi que les réponses de la personne (le choix de stratégie d'adaptation, la recherche de soutien et les états émotionnels). Puis, les évaluations et les réponses influencées par l'insécurité d'attachement auraient un effet sur l'adaptation psychologique et conjugale de la personne face à la douleur (voir Figure 4; Meredith et al., 2008). Bien entendu, en s'intéressant aux évaluations cognitives, aux réponses de la personne et à l'ajustement à la douleur, plusieurs composantes peuvent être étudiées et ce, à l'aide de diverses mesures. La présente étude s'intéressera à l'évaluation cognitive de soi en examinant les liens directs et indirects (médiation) entre l'attachement amoureux non sécurisant, la perception d'efficacité personnelle en présence de douleur, le fonctionnement individuel et la satisfaction conjugale.

RESEARCH ARTICLE

**Chronic Pain Self-Efficacy as a mediator of the link between Romantic Attachment
Insecurity, Individual Functioning, and Couple Satisfaction**

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Abstract

Pain self-efficacy was examined as a mediator of the relation between people's insecure romantic attachment (anxiety over abandonment and avoidance of intimacy) and individual functioning, as well as for the relation between insecure romantic attachment and couple satisfaction. The sample consisted of 45 adults who live daily with chronic pain and that have been in a couple relationship for at least 6 months. Results indicate that pain self-efficacy significantly mediates the relation between anxiety over abandonment and individual functioning. Results also demonstrate direct links between pain self-efficacy and individual functioning, high avoidance of intimacy, and low individual functioning, as well as both dimensions of insecure attachment (anxiety and avoidance) and lower couple satisfaction.

Keywords: Chronic pain; romantic attachment, pain self-efficacy, individual functioning; couple satisfaction

Chronic Pain Self-Efficacy as a mediator of the link between Romantic Attachment Insecurity,
Individual Functioning, and Couple Satisfaction

Introduction

Pain can be defined as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage” (Merskey & Bogduk, 1994, p. 210) and it becomes chronic when it persists beyond 3 to 6 months or normal healing time (Ospina & Harstall, 2002). The experience of pain is subjective, and research has recognized that pain is indeed a complex biopsychosocial phenomenon that includes sensory, affective, cognitive, and social components. As pain becomes chronic, its affective, cognitive, and social components become increasingly important (Bruns, 2008). The current study contributes to the literature on affective, cognitive, and social components related to the experience of pain, by examining the direct and indirect links between insecure romantic attachment, pain self-efficacy, individual functioning, and couple satisfaction among people who live with chronic pain and are in couple relationships.

Self-efficacy is a concept introduced by Bandura (1977) that refers to an individual’s belief toward his or her capacity to use personal resources to accomplish a specific task (Gist & Gist, 2013). Self-efficacy would be developed through enactive mastery experiences, vicarious experiences, verbal persuasion, and physiological and emotional states (Bandura, 1997). Notably, pain self-efficacy can be defined as an individual’s confidence in his or her abilities to enjoy life and participate in various activities despite pain (Nicholas, 2007), and research has demonstrated that pain self-efficacy is important for a successful adaptation to chronic pain

(Arnstein, 2000; Turk & Okifuji, 2002; Lewandowski, 2004; Meredith, Strong & Feeney, 2006; Keefe, Rumble, Scipio, Giordano, & Perri, 2004).

Research over the past few years has also demonstrated that a secure attachment is associated to a better adjustment to chronic pain (see Meredith et al., 2008 for a literature review). According to John Bowlby's attachment theory (1969/1982, 1988), children are born with a need to survive which leads them to develop an emotional link toward their *attachment figure*, that is their caregiver (e.g., a parent or guardian). In response to stressors (e.g., pain), children use specific behaviours named *attachment behaviours* (e.g., crying, following, etc.) in order to obtain protection, comfort, and support from their attachment figure, and ultimately achieve a feeling of security. Through repeated interactions with the attachment figure, children develop *internal working models* (or mental models) of the self (i.e., representation of the self as worthy or unworthy of love and support) and of others (i.e., representation of the probability that others will be available and helpful when called upon for support). When the attachment figure responds adequately, consistently, and is sensitive to the child's needs, the child will develop a secure attachment and will be able to continue to explore his or her environment effectively (Bowlby, 1973). Conversely, when a parental figure is often unavailable, neglects the child's needs, or offers inconsistent support, the child will develop an insecure attachment (Bowlby, 1969/1982).

The availability and responsiveness of the attachment figure are important for the child's development because they form a secure base that gives the child the confidence and the courage to explore the environment, engage in a variety of activities, and accept new challenges (Bowlby,

1988). The attachment figure would encourage the child's autonomy while still remaining available in case of need. This secure base would thus lead to an increase in exploratory behaviour and pursuit of goals, as well as an increase in learning experiences and discoveries. Through these experiences, an individual would develop a feeling of self-efficacy. In fact, a recent study has shown that the more a secure base was perceived as being secure, the more individuals were willing to engage in exploratory activities, the more self-efficacy they reported in accomplishing goals, and the more they perceived their goals as being achievable (Feeney, 2004).

The behavioural attachment system and the internal working models developed during childhood would be maintained throughout the lifespan (Bowlby, 1980) and usually, the adult attachment figure is the romantic partner (Hazan & Shaver, 1987). Thus, adult romantic attachment would influence expectations, perceptions, and behaviours of individuals in their personal and romantic functioning (Mikulincer & Shaver, 2007). Many researchers conceptualize adult romantic attachment as a two-dimensional model: *anxiety over abandonment* (i.e., worries or fears about being rejected or abandoned by one's partner) and *avoidance of intimacy* (i.e., discomfort with closeness and emotional intimacy; Mikulincer & Goodman, 2006). An individual with an insecure attachment would have a high score on one or both of these dimensions whereas an individual with a secure attachment would obtain a low score on both dimensions.

According to the *Attachment-Diathesis Model of Chronic Pain* (Meredith et al., 2008), pain (as a stressor) would activate attachment-related cognitive appraisals (toward pain, the self,

and support) as well as responses to these appraisals (coping strategies, support seeking behaviour, emotional states), which would in turn impact one's adaptation to chronic pain. The current study was inspired by this model and examined the mediating role of pain self-efficacy (a self-appraisal) on the relation between insecure romantic attachment and individual functioning, and on the relation between insecure romantic attachment and couple satisfaction, as well as direct links between these variables.

Romantic attachment and pain self-efficacy

The relation between romantic attachment and perceived self-efficacy has been studied in various contexts. For example, secure attachment has been linked to greater social self-efficacy (Wei, Russell, & Zakalik, 2005; Wright & Perrone, 2010), whereas insecure attachment has been linked to lower social self-efficacy (Wei et al., 2005; Mallinckrodt & Wei, 2005). Secure attachment has also been linked to better career decision-making self-efficacy (Wolfe & Betz, 2004; Wright & Perrone, 2010) and insecure attachment has been associated to lower parenting self-efficacy (Kohlhoff & Barnett, 2013). Nevertheless, to our knowledge, only one study has examined links between romantic attachment and pain self-efficacy. Results indicated that pain self-efficacy scores were higher for individuals with secure or dismissing attachment styles (positive model of self) compared to those with preoccupied or fearful attachment styles (negative model of self). Results also demonstrated that comfort with intimacy was positively associated to pain self-efficacy (Meredith et al., 2006).

Pain self-efficacy and individual functioning

Over the past few years, numerous researchers have taken interest in the relation between pain self-efficacy and the personal functioning of people who have chronic pain. A recent literature review, which includes cross-sectional and longitudinal studies, reported that individuals who have high scores of pain self-efficacy had lower levels of psychological distress and pain intensity (Keefe et al., 2004). Results of studies conducted since have also shown that a low level of pain self-efficacy was associated to psychological distress (Taylor, Dean, & Siegert, 2006), depression (Chan, Hadjistavropoulos, Carleton, & Hadjistavropoulos, 2012; Marks, 2007; Sánchez, Martínez, Miró, & Medina, 2011; Miró, Martínez, Sánchez, Prados, & Medina, 2011), anxiety (Sánchez et al., 2011; Miró et al., 2011), fear of pain (Sánchez et al., 2011), pain catastrophizing (Sánchez et al., 2011), pain intensity (Meredith et al., 2006; Shipton, Ponnampereuma, Wells, & Trewin, 2013; Woby, Roach, Urmston, & Watson, 2007; Marks, 2007; Sánchez et al., 2011; Miró et al., 2011), disability (Barry, Guo, Kerns, Duong, & Reid, 2003; Meredith et al., 2006; Sardá, Nicholas, Asghari, & Pimenta, 2009; Shipton et al. 2013; Taylor et al., 2006; Woby et al., 2007), pain interference with daily activities (Chan et al., 2012; Miró et al., 2011), as well as longer sick leaves from work (de Vries, Reneman, Groothoff, Geertzen, & Brouwer, 2012). Furthermore, other studies have demonstrated that pain self-efficacy was associated to different components of quality of life (Motl, McAuley, Snook, & Gliottoni, 2009; Yazdi-Ravandi et al., 2013), as well as better physical and psychological health statuses in patients living with multiple sclerosis (Riazi, Thompson, & Hobart, 2004), fibromyalgia (Lledó-Boyer et al., 2010), and arthritis (see Marks, 2001 for a literature review).

It is worth noting that some of these studies have used a general measure of self-efficacy (Taylor et al., 2006), or a measure specific to functional self-efficacy (relating to physical

function; Woby et al., 2007; Barry et al., 2003) rather than a measure specific to pain self-efficacy. The concept of self-efficacy is “most useful when defined, operationalized and measured specific to a behaviour set or set of behaviours in a specified context” (Maddux, 1995, p. 8) so the current study specifically measured pain self-efficacy, in order to be more adapted to the phenomenon of chronic pain. Also, the majority of these studies have been conducted in other countries (e.g., Spain, United Kingdom, Iran, Netherlands, Brazil, Australia, and New Zealand; Sánchez et al., 2011; Miró et al., 2011; Lledó-Boyer et al., 2010; Woby et al., 2007; Riazi et al., 2004; Yazdi-Ravandi et al., 2013; de Vries et al., 2012; Sardá et al., 2009; Meredith et al., 2006; Shipton et al., 2013; Taylor et al., 2006) and the experience of pain can vary from one culture to another. Therefore, this study contributes to the existing literature because it was conducted in Canada. Finally, many of these studies have recruited individuals with a specific type of pain or samples consisting solely of individuals from specialized pain clinics. Because characteristics of people who live with pain in the community could be different, the current study recruited people within the community with different types of chronic pain.

Pain self-efficacy and couple satisfaction

Researchers have taken a recent interest in the impact of chronic pain on the couple (see Romano, Cano, & Schmaling, 2011; Lafontaine, Greenman, Péloquin, Bélanger & Nouwen, accepted, for literature reviews). Although different aspects of relationship functioning can be measured, couple satisfaction has often been studied because it has repeatedly been shown to be a predictor of relationship stability (see Karney & Bradbury, 1995, for a literature review)².

Recently, a few dimensions related to the experience of pain, such as severity/intensity,

² We would like to specify that the current study has examined couple satisfaction but when mentioning results of previous studies, we may refer to similar constructs.

disability, functional limitations, activity levels, and pain behaviour, have been empirically tested with couple satisfaction and the links have been sometimes positive, sometimes negative, or even inexistent (see Leonard, Cano, & Johansen, 2006 for a literature review). More research is needed to determine if other variables linked to the experience of pain could be associated to lower couple satisfaction within couples with one partner who reports chronic pain.

To our knowledge, only one study has examined the links between pain self-efficacy and sexual satisfaction. The study was conducted with women reporting provoked vestibulodynia (sexual pain) and the results demonstrated that pain self-efficacy during intercourse was positively correlated to sexual and relational intimacy, as well as sexual satisfaction and sexual function (Bois, Bergeron, Rosen, McDuff, & Gregoire, 2013). Since pain self-efficacy refers to an individual's confidence in his or her ability to engage in activities despite pain, and that this could very well have an impact on both partners, it would be interesting to examine whether or not this dimension of the pain experience is in fact related to general couple satisfaction among people who report different types of chronic pain.

Romantic attachment and individual functioning

The results of many studies confirm that secure attachment is associated to a better adjustment to chronic pain (see Meredith et al., 2008 for a literature review). Two recent literature reviews demonstrated that compared to securely attached individuals, individuals who were insecurely attached reported more pain-related distress, more physical symptoms, higher levels of pain-related stress, anxiety, depression, and pain catastrophizing, as well as higher levels of pain intensity and disability (Meredith et al., 2008; Porter, Davis, & Keefe, 2007).

Furthermore, insecurely attached individuals used more opiates compared to securely attached individuals (Andersen, 2012). Thus, results suggest that insecure attachment is associated to lower levels of functioning, but the mechanisms that activate this relation have yet to be identified.

It is worth noting that none of these studies have reported using samples consisting exclusively of individuals in couple relationships. Despite their findings, the attachment system activation could be different for people who are single, so the current study required participants to be involved in couple relationships for at least 6 months. Furthermore, many of the studies previously mentioned (including studies on pain self-efficacy and individual functioning) have used the *Hospital Anxiety And Depression Scale* (Zigmond & Snaith, 1983; Woby et al., 2007; Sánchez et al., 2011; Miró et al., 2011), the *Center for Epidemiologic Studies – depression scale* (Radloff, 1977; Ciechanowski, Sullivan, Jensen, Romano & Summers, 2003, cited in Meredith et al., 2008; Barry et al., 2003; Shipton et al., 2013; Marks 2007) and the *Depression Anxiety Stress Scale* (Lovibond & Lovibond, 1995; Meredith et al., 2005; Meredith, Strong, & Feeney, 2007, cited in Meredith et al., 2008; Sardá et al., 2009; Meredith et al., 2006). Although the use of the same questionnaire can assure consistency across findings, these questionnaires relate specifically and solely to anxiety and depressive symptoms, and as described by Romano et al. (2011), “any attempt to understand the patient suffering from chronic pain must include an assessment of the psychosocial context in which the patient functions” (p. 98). Indeed, chronic pain could impact an individual’s interpersonal relations and social role, and researchers have demonstrated that these are central components to an individual’s well-being and life satisfaction (see Umphress, Lambert, Smart, Barlow, & Clouse, 1997). Therefore, the current adds to the

existing literature by using a questionnaire that not only measured a person's functioning by assessing distress symptoms related to anxiety and depression, but that also took into account an individual's interpersonal functioning and performance in social roles (*Outcome Questionnaire*; Lambert et al., 1996). It was particularly relevant to include the interpersonal and social aspects of a person's functioning given the chosen theoretical framework.

Romantic attachment and couple satisfaction

Research among the general population has shown that insecure attachment is associated to lower levels of couple satisfaction compared to secure attachment (Feeney, 2008; see Mikulincer & Shaver, 2007, for a literature review). To our knowledge, only one study has examined romantic attachment and sexual satisfaction in a sample of women with provoked vestibulodynia (sexual pain) and the results were similar: both anxiety over abandonment and avoidance of intimacy were associated to lower sexual satisfaction (Leclerc et al., 2014).

Couple dissatisfaction has often been reported among people who live with chronic pain (see Romano et al., 2011; Lafontaine et al., accepted, for literature reviews). However, other studies have shown that patients with migraines and pelvic/prostatic pain have couple satisfaction rates similar to those of couples from a control group (Basolo-Kunzer, Diamond, Maliszewski, Weyerman, & Reed, 1991; Smith, Pukall, Tripp, & Nickel, 2007) and other studies reported couple satisfaction rates within the norm (see Romano et al., 2011).

Since there is contradictory evidence regarding couple satisfaction among couples with one partner who reports chronic pain, it would be interesting to examine whether insecure attachment

is linked to lower couple satisfaction within this population. Attachment theory could provide a useful framework and could potentially explain why some of the past results have been incoherent. If there were in fact a relation between insecure attachment and lower couple satisfaction within this population, it would be valuable to examine which variables associated to the experience of pain contribute to lower couple satisfaction.

Objective and hypothesis

Pain self-efficacy was examined as a mediator of the relation between insecure romantic attachment and individual functioning, and of the relation between insecure romantic attachment and couple satisfaction, within a community sample of individuals who reported chronic pain and were in couple relationships. We hypothesized that romantic attachment insecurity (anxiety over abandonment and avoidance of intimacy) would predict lower pain self-efficacy, and that pain self-efficacy would be positively associated to individual functioning and couple satisfaction. We also hypothesized that romantic attachment insecurity (anxiety and avoidance) would predict lower scores of individual functioning and couple satisfaction. Finally, we hypothesized that pain self-efficacy would mediate the relation between insecure romantic attachment (anxiety and avoidance) and individual functioning, as well as the relation between insecure romantic attachment and couple satisfaction. Additionally, given that past research has identified gender differences between some of the studied variables, the effect of gender on these mediation models was also examined. For example, chronic pain has been shown to be more prevalent in women than in men (Schopflocher, Taenzer, & Jovey, 2011) and within the general population, depression (Kessler, 2003), anxiety (McLean, Asnaani, Litz, & Hofmann, 2011), and

dyadic distress (Jacobson & Christensen, 1996; cited in Sabourin et al., 2005) have been reported more often in women than in men.

Method

Participants

Eligibility criteria for the study included: a) being at least 18 years of age, b) having a good understanding of French or English, c) living in the provinces of Ontario or Québec (Canada), d) being in a relationship for at least 6 months, and d) reporting pain every day or almost every day for at least 3 months within one or more particular areas of the body.

Participants were recruited with the use of posters and pamphlets in various clinics (medical, pain, and physiotherapy) in the Ottawa region and with the help of associations for people who report chronic pain that sent e-mails to their members and posted study information on their website.

A total of 54 participants participated in the present study, however the scores of 9 individuals were excluded because 6 people did not answer a questionnaire and 3 people had a partner that had also participated in the study. Thus, in order to prevent the dependence of data, only one of the two partners was randomly chosen. The final sample consisted of 45 participants, namely 11 men (24.4%) and 34 women (75.6%). The mean age of participants was 41 years old (range = 19.5 to 71.6; $SD = 14.22$) and they had been in a relationship for an average of 13.63 years (range = 8 months to 51.16; $SD = 13.04$). Most individuals were married (60%) or common law (22.2%) and the majority did not have children (55.6%). Their average annual income was of \$27 538.44 (range = 0 to 90 000; $SD = 23 625.58$). The majority of participants (81.8%) had

received a diagnosis of chronic pain (e.g., back pain, neuropathic pain, fibromyalgia, among others).

Procedures

Participants completed a paper-pencil version of the questionnaire or an online version on the secure website Survey Monkey. Before accessing the questionnaires, they received an information letter including a list of community resources. Following their participation, they received a compensation of 20\$ by mail. The information was kept confidential and anonymous. A Research Ethics and Integrity Committee have approved this study.

Measures

Socio-demographic Information. Participants answered questions related to socio-demographic information such as age, duration of couple relationship, place of residency, daily occupation, and annual revenue. They also answered a series of questions related to pain, such as the diagnosis of chronic pain and the usage of pain relief medication.

Experiences in Close Relationships (Brennan et al., 1998; Lafontaine & Lussier, 2003). The ECR is a 36-item questionnaire that measures romantic attachment. It is comprised of two scales: anxiety over abandonment (e.g. “I need a lot of reassurance that I am loved by my partner”) and avoidance of intimacy (e.g. “I try to avoid getting too close to my partner”). Each scale includes 18 items that are rated on a Likert scale (from 1 = *disagree strongly* to 7= *agree strongly*). Total mean scores for each subscale were calculated and the means obtained were used as indexes for anxiety over abandonment and avoidance of intimacy. Acceptable reliability

coefficients were previously reported for both scales and a comparison study concluded that the ECR demonstrated superior psychometric data compared to three other well-known attachment questionnaires (Fraley, Waller, & Brennan, 2000). Alpha coefficients yielded for the present study were .93 for the anxiety scale and .82 for the avoidance scale, in comparison to .91 and .94 respectively for the English version (Brennan et al., 1998) and .88 for both subscales for the French version (Lafontaine & Lussier, 2003).

Pain Self-Efficacy Questionnaire (Nicholas, 2007; Lafontaine, 2008³). The PSEQ is a 10-item questionnaire measures the confidence people with ongoing pain have in performing activities despite pain. It includes a variety of functions (household chores, socialization, work, and coping without medication) and includes items such as: “I can still do many of the things I enjoy doing, such as hobbies or leisure activity, despite pain”. Items are rated on a Likert scale (from 0 = *not at all confident* to 7= *completely confident*). A mean score was calculated and a high score represented a high level of pain self-efficacy. This questionnaire has excellent internal consistency and its reliability over a 3-month period is high (Asghari & Nicholas, 2001). The internal consistency coefficient obtained for the present study was .95 compared to .92 for the original version.

Outcome Questionnaire (Lambert et al., 1996; Flynn et al., 2002). The OQ is a 45-item questionnaire that measures functioning in 3 domains: distress symptoms (heavily loaded for depression and anxiety), interpersonal relationships, and social roles. It included items such as “I feel irritated”, “I am concerned about family troubles”, and “I feel I am not doing well at

³ In order to achieve a French version that is conceptually equivalent, a forward-translation and an expert panel were used.

work/school”. Responses are recorded on a Likert scale (from 0 = *never* to 4 = *almost always*). The higher the score, the more the person had distress symptoms, difficulties with interpersonal relationships and social roles so the more his/her quality of life was diminished. A total score above 63 is considered clinically significant. For the current study, a total mean score was privileged. This questionnaire has excellent psychometric properties, for example 3-week reliability has shown to be adequate ($r = .84$). The current study obtained an alpha of .94 compared to .93 for the original version.

Dyadic Adjustment Scale (Spanier, 1976; Baillargeon, Dubois, & Marineau, 1986; adapted by Sabourin et al., 2005). The DAS-4 is a briefer version of the original 32-item DAS (Spanier, 1976), a widely used and psychometrically validated self-report measure of dyadic adjustment for individuals who are in a romantic relationship. The briefer 4-item version includes items such as “How often do you discuss or have considered divorce, separation, or terminating your relationship?” Varying Likert scales are used (from 0 = *always* to 5 = *never* and from 0 = *extremely unhappy* to 6 = *perfectly happy*). Total mean scores were calculated and higher scores reflect higher couple satisfaction. The DAS-4 has acceptable classification rates of distressed and non-distressed couples (.84 and .92) in comparison to the original DAS-32, and has better predictive validity (couple dissolution over a 2-year period) than the original DAS-32. Additionally, the DAS-4 has been demonstrated to be significantly less biased by respondent-based social desirability than the original DAS-32 (Sabourin et al., 2005). The alpha coefficient obtained for the current study was .85 compared to .84 for the original version.

Results

Preliminary Analysis

An evaluation of missing data using Little's MCAR test revealed that the data may be assumed missing completely at random ($\chi^2(1444) = .000, p > .05$) and that there were no variables with more than five percent missing data. We used the Expectation Maximization (EM) method in order to estimate missing values. Mahalanobis distance was carried out, and no multivariate outliers were identified.

Descriptive Statistics

The final sample consisted of 45 participants, no data were deleted and the full dataset was used. Means and standard deviations obtained for each questionnaire are presented in Table 1 along with Pearson correlations. Participants' total mean score of insecure romantic attachment were below the cut-off points for both dimensions (Brassard et al., 2012), suggesting that in general, they had a rather secure romantic attachment. The total mean score obtained for pain self-efficacy was relatively low, so it seems participants had low levels of confidence in their abilities to enjoy life and participate in various activities despite pain. Apart from means presented in Table 1, total scores for the *Outcome Questionnaire* allow us to compare to normative data, and scores falling at or higher than 63 are considered to reflect problematic functioning (range = 0 to 180; Lambert et al., 1996). For the current study, the total score mean for the *Outcome Questionnaire* was 58 ($SD = 25$), which is below the cut-off score but still relatively high, suggesting the presence of distress symptoms and difficulties with interpersonal relationships and social roles. Total scores for the *Dyadic Adjustment Scale* allow us to discriminate between distressed and nondistressed couples. Scores below 13 are considered to reflect distress in couple relationships (range = 0 to 21; Sabourin et al., 2005). The total score

mean obtained for the current sample was 16 ($SD = 3.8$), indicating that most individuals did not report distress in their couple relationship, and participants were generally satisfied with their romantic relationship.

Results indicate that a high level of insecure attachment, both anxiety over abandonment and avoidance of intimacy, were linked to low pain self-efficacy ($r = -.32, p < .05$; $r = -.26, p > .05$), lower functioning ($r = .61, p < .01$; $r = .39, p < .01$) and lower couple satisfaction ($r = -.41, p < .01$; $r = -.67, p < .01$). Both dimensions of insecure attachment (anxiety and avoidance) were also positively correlated ($r = .62, p < .01$)⁴. Furthermore, results indicated that pain self-efficacy was negatively linked with individual functioning ($r = -.51, p < .01$) and positively linked to couple satisfaction ($r = .24, p > .05$). Finally, lower functioning was associated to lower couple satisfaction ($r = -.40, p < .01$).

Mediation Analysis

Two models examining the degree to which pain self-efficacy mediated the relation between romantic attachment and individual functioning were tested (Table 2), as well as two models examining the mediating role of pain self-efficacy on the relation between romantic attachment and couple satisfaction (Table 3). As recommended by Preacher and Hayes (2008), bias corrected (BC) confidence intervals were used with the bootstrapping (5000 samples) method in order to obtain indirect effects. This is a nonparametric resampling procedure that estimates properties of estimators based on samples drawn from the original observations, even when the underlying distribution is unknown and may not be normally distributed (Bollen &

⁴ It is worth noting that the attachment anxiety dimension and the attachment avoidance dimension have been shown to be correlated in previous research (Cameron, Finnegan, & Morry, 2012).

Stine, 1990). The SPSS macro PROCESS (version 2.10, Hayes, 2014) was used to conduct the mediation analyses.

As can be seen in Figure 1 and Table 2, anxiety over abandonment predicted lower pain self-efficacy ($a = -.378$) and lower levels of pain self-efficacy predicted lower individual functioning ($b = -.125$). CIs were entirely above zero (CI = .006 to .124) for the indirect effect ($ab = .047$). There was also evidence of a significant relation between anxiety over abandonment and lower functioning ($c' = .206$). Therefore, pain self-efficacy significantly mediated the relation between anxiety over abandonment and individual functioning.

Conversely, avoidance of intimacy did not predict pain self-efficacy ($a = -.457$), although lower levels of pain self-efficacy did predict lower individual functioning for this model ($b = -.157$). There was evidence of a significant relation between avoidance of intimacy and lower functioning ($c' = .171$). CIs included zero (CI = $-.003$ to $.194$) for the indirect effect ($ab = .072$), indicating that pain self-efficacy did not significantly mediate the relation between avoidance of intimacy and individual functioning.

As shown in Figure 2 and Table 3, anxiety over abandonment predicted lower pain self-efficacy ($a = -.378$) but pain self-efficacy did not predict couple satisfaction ($b = .074$). The direct effect, that is the relation between anxiety over abandonment and couple satisfaction, was significant ($c' = -.264$). CIs included zero (CI = $-.107$ to $.025$) for the indirect effect ($ab = -.028$), indicating that pain self-efficacy did not significantly mediate the relation between anxiety over abandonment and couple satisfaction.

Finally, in the fourth model, avoidance of intimacy did not predict pain self-efficacy ($a = -.457$) and pain self-efficacy did not predict couple satisfaction ($b = .045$). Nevertheless, a significant relation was obtained between avoidance of intimacy and couple satisfaction ($c' = -.697$). CIs included zero (CI = $-.108$ to $.015$) for the indirect effect ($ab = -.021$), indicating that pain self-efficacy did not significantly mediate the relationship between avoidance of intimacy and couple satisfaction.

When accounting for sex as a covariate, results showed that at average levels of avoidance of intimacy and pain self-efficacy, men had higher scores of couple satisfaction compared to women ($coeff. = -.56, p = .02$). Independent t-test results showed that there was no significant difference between means obtained for men and women's couple satisfaction ($p = .129$), so it is possible that couple satisfaction could differ in the presence of pain self-efficacy and avoidance of intimacy. However, this covariate did not significantly change the results of the mediation model.

Discussion

Inspired by the *Attachment-Diathesis Model of Chronic Pain* (Meredith et al., 2008), we examined the mediating role of pain self-efficacy on the relation between romantic attachment insecurity (anxiety over abandonment and avoidance of intimacy) and individual functioning, and on the relation between romantic attachment insecurity and couple satisfaction, as well as direct links between these variables.

First, the results partly confirmed our hypothesis that insecure romantic attachment would predict lower pain self-efficacy. As expected, anxiety over abandonment was associated to lower pain self-efficacy. That is, individuals worried about being rejected or abandoned their romantic partner also have less confidence in their capacity to pursue activities despite pain. This finding is consistent theoretically (Bowlby, 1988; Meredith et al., 2008) and empirically (Meredith et al., 2006). However, avoidance of intimacy did not significantly predict lower pain self-efficacy, although the relation between the two variables was negative, as expected. Both anxiety and avoidance were expected to be linked to lower pain self-efficacy because individuals with an insecure attachment would not perceive a secure base in their attachment figure and this would negatively affect their engagement in exploratory activities. One possible explanation for the weaker relation obtained between avoidance and pain self-efficacy compared to the relation between anxiety and pain self-efficacy is that avoidant individuals have a positive internal working model of self (Bowlby, 1973) and are emotionally self-sufficient (Bowlby, 1980). The 4-group model of attachment styles distinguishes between two types of avoidant individuals: dismissing individuals (positive internal working model of self and negative internal working model of others) who would be autonomous, and fearful individuals (negative internal working models of self and others) who would have difficulties with autonomy (Bartholomew, 1990). Indeed, past research has obtained higher pain self-efficacy scores for individuals with a dismissing attachment style compared to those with a fearful attachment style (Meredith et al., 2006), so it may be possible that our sample consisted of individuals with a dismissing attachment style.

Second, our hypothesis regarding pain self-efficacy, individual functioning, and couple satisfaction were partly confirmed. On one hand, our results showed that high pain self-efficacy was associated to greater individual functioning, which is consistent with past research findings (see Keefe et al., 2004, for a literature review). So it seems that individuals who are confident in their ability to pursue activities despite pain also report less distress symptoms and less difficulties with interpersonal relationships and social roles. On the other hand, higher pain self-efficacy was not linked to higher couple satisfaction. Chronic pain can impact the couple in different ways and the person who experiences pain may need to rely more on their partner, so perhaps variables related to the appraisal of the partner (e.g. perception of partner's support, perception of partner's reactions towards pain behaviour) could better predict couple satisfaction. Given that past research studies have often reported couple dissatisfaction among people who live with chronic pain (see Romano et al., 2011; Lafontaine et al., accepted, for literature reviews), it would be interesting for future research to examine if variables related to the appraisal of the partner are linked to couple satisfaction. Furthermore, since chronic pain can affect both partners in the relationship (Romano et al., 2011), it would be interesting for future research to conduct dyadic data analysis in order to consider how both partners in the couple mutually influence each other. The use of this type of statistical analyses allows to examine actor-partner effects ("the impact an actor's independent variable score has on his or her dependant variable score, controlling for his or her partner's independent variable [and] the impact of the partner's independent variable score on the actor's dependant variable score, controlling for the actor's independent variable"; Kenny, Kashy, & Cook, 2006, p. viii).

Third, our hypothesis regarding romantic attachment insecurity, individual functioning, and couple satisfaction were confirmed. Our results indicated that individuals who were either anxious about being rejected or abandoned by their romantic partner or were uncomfortable with closeness and emotional intimacy, had higher distress symptoms, more difficulties with interpersonal relationships and social roles, as well as lower couple satisfaction. This makes sense theoretically, because individuals with an insecure attachment have negative internal working models of the self and/or others, which influences their behaviours and relationships, and they do not perceive a secure base in their romantic partner, so they would engage in secondary attachment strategies⁵ and have less effective emotion regulation skills (Shaver & Mikulincer, 2002; Mikulincer, Shaver, & Pereg, 2003). These results are also consistent with results of past research on romantic attachment and psychological distress within the context of chronic pain (see Meredith et al., 2008; Porter, Davis, & Keefe, 2007 for literature reviews) as well as results on attachment and couple satisfaction within the general population (Feeney, 2008; see Mikulincer & Shaver, 2007, for literature review).

Finally, based on the *Attachment-Diathesis Model of Chronic Pain* (Meredith et al., 2008), we hypothesised that insecure romantic attachment would be linked to lower individual functioning, as well as lower couple satisfaction for people who report chronic pain, and that pain self-efficacy (an appraisal of the self) would mediate this relation. Our results demonstrated that pain self-efficacy was a mediator of the relation between romantic attachment insecurity and lower individual functioning, but only for attachment anxiety. This finding is consistent with the

⁵ *Hyperactivating* strategies refer to an exaggeration of the threat and a constant search from attention, protection and cooperation from the attachment figure, whereas *deactivating* strategies refer to an attempt to eliminate a threat by thought suppression and an inhibition of support seeking behaviour (Shaver & Mikulincer, 2002; Mikulincer, Shaver, & Pereg, 2003).

significant direct effects that we found between those variables, and pain self-efficacy explained 48% of variance. This supports the *Attachment-Diathesis Model of Chronic Pain* (Meredith et al., 2008), and suggests that an individual with chronic pain who worries about being rejected or abandoned by his or her romantic partner would report more distress symptoms and more difficulties with interpersonal relationships and social roles, because they would lack confidence in their ability to pursue activities and enjoy life despite pain. Contrary to expectations, pain self-efficacy did not mediate the relation between avoidance of intimacy and lower individual functioning or between either forms of romantic attachment insecurity (anxiety and avoidance) and couple satisfaction. Although our results were leaning in the predicted directions, a possible explanation for the absence of significant mediation is the small sample size and the weak statistical power. In order to have a statistical power of 0.8 with an alpha of 0.05 and a medium effect size with two predictors (anxiety and avoidance), a sample consisting of at least 68 participants would have been needed. Based on the *Attachment-Diathesis Model of Chronic Pain* (Meredith et al., 2008), other variables (e.g. appraisal of the partner's support) may better explain the relation between avoidance of intimacy and individual functioning, as well as the relation between both dimensions of insecure romantic attachment and couple satisfaction. According to attachment theory, anxiety over abandonment is associated to a negative model of self whereas avoidance of intimacy is associated to a negative model of others, so perhaps variables related to the appraisal of the partner would more significantly influence avoidant individuals. It would be particularly important and innovative for future researchers to try to identify other factors related to the experience of pain that may better predict lower couple satisfaction for individuals living with chronic pain. Past researchers have reported low couple satisfaction rates within this

population (see Romano et al., 2011; Lafontaine et al., accepted, for literature reviews) but to our knowledge, no underlying mechanisms have been studied within an attachment framework.

Limitations

Despite the significant direct and indirect links obtained, we would like to acknowledge the limitations of this study. Firstly, participants completed the questionnaires from home. Even though we asked them to complete them individually, it is possible that their partner could have been present and their presence could have influenced their honesty. Secondly, it is possible that responses were influenced by a social desirability bias, meaning that participants may have answered according to social norms. Thirdly, it is possible that the study suffered from a sampling bias, whereby a larger number of securely attached individuals agree to take part in our study and thus that insecurely attached individuals are unrepresented in our sample. Indeed, the mean scores obtained for both dimensions of insecure romantic attachment in the current study were below the cut-off points (Brassard et al., 2012). Likewise, it is possible that individuals with lower levels of pain intensity and for whom the consequences of chronic pain could be less severe agreed to take part in our study. Finally, the small sample size and the weak statistical power prevent us from generalizing results to the population. Our small sample of individuals was not homogenous and there appears to be much variability between participants, which biased study results. Also, the correlational research protocol used prevents us from inferring causality between the studied variables, despite the theoretical links proposed between insecure attachment, pain self-efficacy, individual functioning and couple satisfaction. It would be useful for longitudinal studies with larger samples to determine the temporal relations between these variables.

Conclusion

The current research demonstrated the importance of understanding the underlying mechanisms of the relation between insecure romantic attachment, individual functioning, and couple satisfaction among people who live with chronic pain. This study was the first to demonstrate that pain self-efficacy mediates the relation between anxiety over abandonment and individual functioning. Theoretical evidence supports the direct links between these variables, and thus this study contributed additional evidence by providing information on the indirect links between anxiety over abandonment and individual functioning. The direct links obtained between the other studied variables also provide more empirical support for the *Attachment-Diathesis Model of Chronic Pain* (Meredith et al., 2008), on which this study was based.

This study not only has important empirical implications, it also provides interesting leads for clinical implications because the results can help guide clinicians to develop more tailored interventions for individuals who live with chronic pain and who are in couple relationships. For example, our findings suggest that clients who score high on anxiety over abandonment and report low personal functioning may benefit from psychotherapeutic interventions aimed at increasing their pain self-efficacy. This can be done by different techniques based on Bandura's self-efficacy theory (for e.g., role playing with therapist feedback, applying learned skills to challenging situations; Bandura, 1997). Conversely, clients who have an insecure attachment (anxiety or avoidance) and report low couple satisfaction may benefit more from psychotherapeutic strategies aimed at increasing their attachment security rather than pain self-efficacy, because we do not have conclusive proof that pain self-efficacy

influences couple satisfaction. In this case, secure-based priming techniques (Mikulincer & Arad, 1999; Mikulincer & Shaver, 2001) and relationship-based or emotion-focused psychotherapeutic approaches (Greenberg, 1988; Goodwin, 2003) can help increase attachment security.

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Table 1

Descriptive Statistics and Intercorrelations between Pain Self-efficacy, Romantic Attachment, Individual functioning, and Couple satisfaction

	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Attachment anxiety	3.31	1.30	–	.62**	-.32*	.61**	-.41**
2. Attachment avoidance	2.37	.86		–	-.26	.39**	-.67**
3. Pain self-efficacy	2.65	1.53			–	-.51**	.24
4. Individual Functioning	1.34	.54				–	-.40**
5. Couple satisfaction	4.02	.93					–

Note. Mean scores were computed on a 7-point Likert scale for pain self-efficacy and romantic attachment, on a 5-point Likert scale for psychological distress, and on 6-point Likert scale for couple satisfaction with 1 item on a 7-point Likert scale.

* $p < .05$, two-tailed.

** $p < .01$, two-tailed.

Table 2

Results of Mediation Analysis for Insecure Romantic Attachment, Pain Self-efficacy, and the Outcome Questionnaire

Mediation 1

Antecedent		Consequent						
		M (PSEQ)			Y (OQ)			
		Coeff.	SE	<i>p</i>	Coeff.	SE	<i>p</i>	
X (ANX)	<i>a</i>	-.378	.169	<.05	<i>c'</i>	.206	.049	<.001
M (PSEQ)		_____	_____	_____	<i>b</i>	-.125	.042	<.05
Constant	<i>i₁</i>	3.900	.600	<.001	<i>i₂</i>	.991	.231	<.001
		R = .104				R = .482		
		$F(1,43) = 5.012, p = .030$				$F(2,42) = 19.5449, p <.001$		

Mediation 2

X (AVOID)	<i>a</i>	-.457	.261	.087	<i>c'</i>	.171	.082	<.05
M (PSEQ)		_____	_____	_____	<i>b</i>	-.157	.046	<.01
Constant	<i>i₁</i>	3.732	.656	<.001	<i>i₂</i>	1.350	.264	<.001
		R ² = .067				R ² = .331		
		$F(1,43) = 3.071, p = .087$				$F(2,42) = 10.4096, p <.001$		

Table 3

Results of Mediation Analysis for Insecure Romantic Attachment, Pain Self-efficacy, and the Dyadic Adjustment Scale

Mediation 3

Antecedent		Consequent						
		<i>M</i> (PSEQ)			<i>Y</i> (DAS)			
		Coeff.	<i>SE</i>	<i>p</i>	Coeff.	<i>SE</i>	<i>p</i>	
X (ANX)	<i>a</i>	-.378	.169	<.05	<i>c'</i>	-.264	.105	<.05
M (PSEQ)		_____	_____	_____	<i>b</i>	.074	.090	.416
Constant	<i>i₁</i>	3.900	.600	<.001	<i>i₂</i>	4.699	.498	<.001
$R^2 = .104$				$R^2 = .181$				
$F(1,43) = 5.012, p = .030$				$F(2,42) = 4.647, p < .05$				

Mediation 4

X (AVOID)	<i>a</i>	-.457	.261	.087	<i>c'</i>	-.697	.128	<.001
M (PSEQ)		_____	_____	_____	<i>b</i>	.045	.072	.535
Constant	<i>i₁</i>	3.732	.656	<.001	<i>i₂</i>	5.551	.412	<.001
$R^2 = .067$				$R^2 = .448$				
$F(1,43) = 3.071, p = .087$				$F(2,42) = 17.014, p < .001$				

Figure 1

Path analysis showing direct and indirect effects between insecure romantic attachment (anxiety and avoidance), pain self-efficacy, and individual functioning.

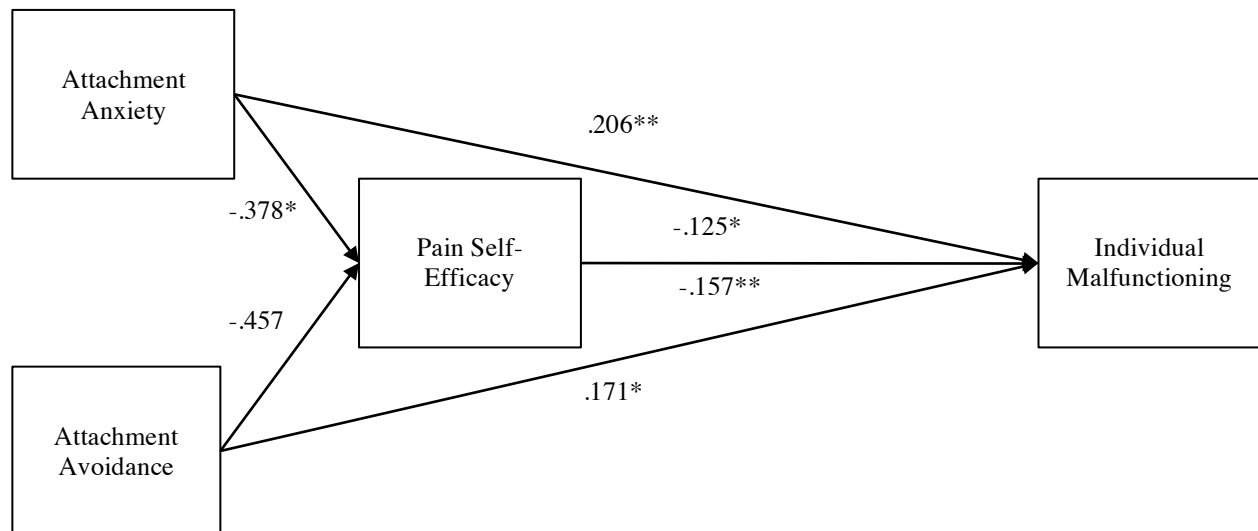
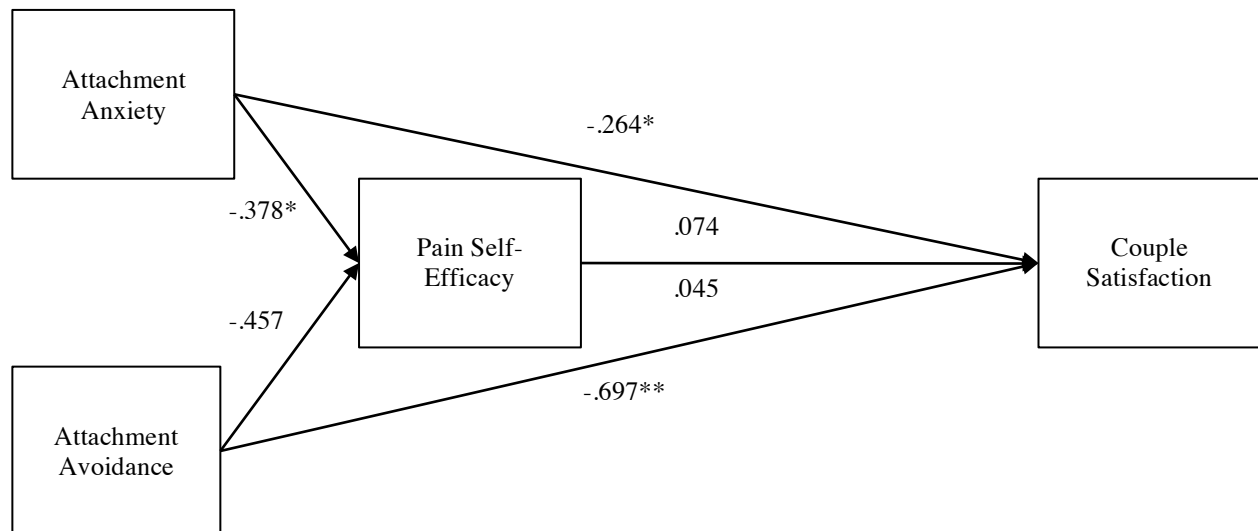


Figure 2

Path analysis showing direct and indirect effects between insecure romantic attachment (anxiety and avoidance), pain self-efficacy, and couple satisfaction.



CHAPITRE III

Conclusion générale

La présente étude a démontré l'importance d'examiner certains mécanismes explicatifs entre l'attachement non sécurisant d'une personne et son ajustement face à la douleur chronique. Plus précisément, cette étude a examiné le rôle médiateur de la perception d'efficacité personnelle face à la douleur sur la relation entre l'attachement amoureux non sécurisant et le fonctionnement individuel et sur la relation entre l'attachement amoureux non sécurisant et la satisfaction conjugale, ainsi que les liens directs entre ces variables.

Tel que présenté et discuté dans l'article scientifique qui précède, les résultats de cette étude ont démontré que l'efficacité personnelle face à la douleur est un médiateur de la relation entre l'anxiété face à l'abandon et le fonctionnement individuel. De plus, certains liens directs ont été obtenus entre d'autres variables étudiées, appuyant ainsi le modèle Attachement-diathèse de douleur chronique (Meredith et al., 2008).

Malgré l'obtention de ces résultats, certaines limites de la présente étude méritent d'être identifiées. D'abord, les participants ont complété les questionnaires de la maison. Bien que nous leur ayons demandé de les compléter individuellement, il est possible que leur partenaire ait été présent et que leur présence ait influencé leur honnêteté. Ensuite, il est possible que les réponses aient été influencées par un biais de désirabilité sociale, c'est-à-dire que certains participants auraient pu répondre en fonction des normes sociales. De plus, il est possible que nous ayons eu un biais d'échantillonnage, où plus de gens avec un attachement sécurisant accepteraient de participer à notre étude et les gens avec un attachement amoureux non sécurisant seraient alors

sous-représentés dans notre échantillon. Effectivement, les moyennes des scores obtenus pour chacune des dimensions de l'attachement amoureux non sécurisant étaient inférieures aux points de coupure (Brassard et al., 2012). De même, il est possible que des individus avec des niveaux plus faibles de douleur acceptent de participer à l'étude, et pour qui les conséquences de la douleur chronique seraient moins sévères. Enfin, la petite taille de l'échantillon et la faible puissance statistique nous préviennent de généraliser les résultats à la population. D'autant plus, l'échantillon n'était pas homogène et la grande variabilité entre participants pourrait biaiser les résultats. Aussi, la nature corrélationnelle des analyses statistiques nous prévient d'inférer des liens de causalité entre les variables étudiées, malgré la direction théoriquement proposée entre celles-ci. Il serait utile pour des études longitudinales avec des plus grands échantillons de déterminer les relations temporelles entre l'attachement amoureux non sécurisant, la perception d'efficacité personnelle face à la douleur, le fonctionnement individuel et la satisfaction conjugale.

Pour conclure, cette étude a contribué à l'avancement des connaissances scientifiques sur l'attachement amoureux et l'ajustement face à la douleur chronique en démontrant des liens directs entre plusieurs variables étudiées, ainsi que des liens indirects entre l'anxiété face à l'abandon, la perception d'efficacité personnelle face à la douleur et le fonctionnement individuel. Bien que les résultats soient préliminaires, ils offrent des pistes d'interventions cliniques intéressantes pour les individus aux prises avec la douleur chronique. Puisque cette condition de santé peut avoir un impact sévère sur divers aspects de la vie d'une personne, il est primordial d'étudier des modèles théoriques explicatifs du vécu de la douleur afin de mieux

comprendre pourquoi certaines personnes en font l'expérience plus difficilement, et ainsi offrir des pistes d'intervention visant le mieux-être de ces individus.

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Figure 3

Les catégories d'attachement adulte et les représentations cognitives du soi et des autres

(*Attachment styles and models of the self and other*), de Bartholomew, K., et Horowitz, L.

(1991), Attachment styles among young adults: A test of a four category model, *Journal of*

Personality and Social Psychology, 61, p. 227.

		MODEL OF SELF (Dependence)	
		Positive (Low)	Negative (High)
MODEL OF OTHER (Avoidance)	Positive (Low)	SECURE Comfortable with intimacy and autonomy	PREOCCUPIED Preoccupied with relationships
	Negative (High)	DISMISSING Dismissing of intimacy Counter-dependent	FEARFUL Fearful of intimacy Socially avoidant

Figure 4

Le modèle Attachement-diathèse de la douleur chronique (*the Attachment-Diathesis Model of Chronic Pain*), par Meredith, P., Ownsworth, T., et Strong, J. (2008), A review of the evidence linking adult attachment theory and chronic pain: Presenting a conceptual model, *Clinical Psychology Review*, 28, 407-429, p. 418.

