Université de Montréal

Prédicteurs cognitivo-affectifs de la douleur et de l'ajustement de couples dont la femme souffre de douleur génito-pelvienne

Par

Marie Santerre-Baillargeon

Département de psychologie

Faculté des arts et sciences

Thèse présentée à la Faculté des études supérieures
en vue de l'obtention du grade de
Philosophiæ Doctor (Ph.D.)
en psychologie (recherche et intervention)
option psychologie clinique

4 Mai 2020

Résumé

Les problèmes de douleur durant les relations sexuelles, maintenant désignés par le terme « douleur génito-pelvienne » dans le Manuel diagnostique et statistique des troubles mentaux (DSM-5), toucheraient jusqu'à 34% des jeunes femmes et 45% des femmes plus âgées. La cause la plus fréquente de douleur génito-pelvienne serait la vestibulodynie provoquée (VP). Les études contrôlées indiquent que la VP a des conséquences négatives multiples, physiques, psychologiques, sexuelles et relationnelles, et hypothèque donc grandement la qualité de vie des femmes qui en souffrent, ainsi que celle de leurs partenaires. Une particularité de ce problème de douleur chronique est le contexte dans lequel il survient, soit celui des relations intimes. Dans ce contexte, l'image que les femmes souffrant de VP ont d'elles-mêmes en tant que partenaires sexuelles serait affectée. De plus, la recherche a démontré l'influence des facteurs interpersonnels sur l'intensité de la douleur et les conséquences psychologiques et sexuelles associées. Considérant l'efficacité documentée des thérapies cognitivo-comportementales (TCC) pour la douleur chronique, incluant la VP et l'importance du contexte relationnel de cette problématique, une nouvelle TCC de gestion de la douleur a été développée pour les couples. Ce traitement vient combler une lacune importante du domaine puisqu'aucun autre traitement à ce jour ne tient compte de l'influence des facteurs interpersonnels. Par ailleurs, le manque de connaissance des mécanismes de changement sous-tendant l'efficacité des traitements psychologiques pour la VP ainsi que le peu d'études sur les facteurs psychologiques qui joueraient un rôle protecteur chez les femmes souffrant de VP sont d'autres limites du domaine. Afin de pallier ces lacunes, l'objectif de la thèse était d'examiner dans une perspective dyadique le rôle de l'auto-compassion dans l'ajustement de couples faisant face à la VP, de même que

le rôle du catastrophisme et l'auto-efficacité comme médiateurs de changement dans le cadre d'un essai clinique randomisé évaluant l'efficacité de la thérapie cognitive-comportementale de couple (TCCC). Le premier article de la thèse visait à examiner les liens entre l'auto-compassion et l'ajustement psychologique et sexuel des femmes souffrant de VP et de leurs partenaires. Quarante-huit couples ont complété des questionnaires auto-rapportés. Les analyses ont montré que plus d'auto-compassion chez les femmes souffrant de VP était associée à moins de symptômes dépressifs et anxieux chez celles-ci. Plus d'auto-compassion chez les partenaires était aussi associée à moins de symptômes dépressifs et anxieux de même que plus de satisfaction relationnelle chez ceux-ci. De plus, des niveaux plus élevés d'auto-compassion chez les partenaires étaient aussi associés à moins de détresse sexuelle pour eux et pour l'autre membre du couple, soit la femme souffrant de VP. Aucune association avec l'intensité de la douleur n'était significative. Dans le deuxième article de la thèse, l'auto-efficacité et le catastrophisme ont été examinés en tant que médiateurs de changement thérapeutique au cours de la TCCC, comparée à un traitement médical, la lidocaïne topique. Puisque la TCCC n'améliorait pas l'auto-efficacité significativement plus que le traitement de lidocaïne, cette variable n'a pas été incluse dans les modèles de médiation. La TCCC, en comparaison avec le groupe contrôle de lidocaïne, diminuait significativement la douleur, la détresse sexuelle et la fonction sexuelle des femmes via la plus grande diminution de leurs propres niveaux de catastrophisme, en comparaison au groupe contrôle de lidocaïne. La plus grande diminution du catastrophisme chez les partenaires, en comparaison au groupe contrôle, expliquait également les améliorations quant à leur propre détresse et fonction sexuelle. Enfin, la plus grande diminution du catastrophisme chez les partenaires expliquait la

diminution de la détresse sexuelle des femmes dans le groupe TCCC, en comparaison au groupe contrôle. Les implications de ces résultats et les contributions théoriques, cliniques et méthodologiques de la thèse sont discutées.

Mots-Clés: Trouble de la douleur génito-pelvienne et/ou trouble de la pénétration, vestibulodynie provoquée, auto-compassion, méthodologie dyadique, essai clinique randomisé, thérapie de couple, thérapie cognitive-comportementale, médiateur de changement

Abstract

Pain during sexual intercourse, now classified under the single term of genito-pelvic pain/penetration disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), would affect up to 34% of young women and 45% of older women. Provoked vestibulodynia, a chronic pain elicited via pressure to the vulvar vestibule or attempted vaginal penetration, is the most common form of pain during intercourse. Controlled studies have shown that provoked vestibulodynia has multiple deleterious physical, psychological, sexual and relational impacts and thus greatly affects women's quality of life, as well as their partners'. Provoked vestibulodynia occurs in the very intimate context of sexual intercourse. In that context, women's self-concept could be negatively affected. Moreover, research among couples with provoked vestibulodynia has demonstrated the role of interpersonal factors in the modulation of women's pain and associated consequences for both partners. Considering the documented efficacy of cognitive-behavioural therapy for chronic pain, including provoked vestibulodynia, and the importance of the relational context for this condition, a new cognitive-behavioural couple therapy has been developed by our team. It is the first treatment to take into account the interpersonal context of provoked vestibulodynia. Furthermore, we lack empirical evidence on mediators of change of cognitive-behavioural therapy for provoked vestibulodynia and on positive psychological factors that could foster better adjustment for women and their partners. The objective of this thesis was to use a dyadic perspective to examine the role of self-compassion in the adjustment of couples coping with provoked vestibulodynia, as well as the roles of both partners' pain self-efficacy and pain catastrophizing as mediators of change in cognitive-behavioural couple therapy. The first

study examined the associations between self-compassion of women with provoked vestibulodynia and their partners and their depression, anxiety, sexual distress and relational satisfaction as well as women's pain intensity during intercourse. Forty-eight couples with provoked vestibulodynia completed self-report questionnaires. For both women and their partners, higher levels of self-compassion were associated with their own lower anxiety and depression. When partners reported higher levels of self-compassion, they were more satisfied with their relationship, and both partners and women reported lower sexual distress. No significant association was found for pain during intercourse. The second article examined pain self-efficacy and catastrophizing as mediators of therapeutic change regarding pain, sexual distress and sexual function in cognitive-behavioural couple therapy for provoked vestibulodynia. Because cognitive-behavioural couple therapy did not improve significantly more pain self-efficacy relative to lidocaine treatment, this variable was not included in subsequent mediation models. In women with provoked vestibulodynia, greater decreases in pain catastrophizing in cognitive-behavioural couple therapy, as compared to the lidocaine control condition, mediated reductions in pain intensity and sexual distress as well as improvement of sexual function. In partners, greater decreases in pain catastrophizing in cognitive-behavioural couple therapy, as compared to the lidocaine control condition, mediated reductions in sexual distress and improvement of sexual function. Partners' pain catastrophizing reductions also mediated women's decrease in sexual distress. Implications of results, as well as theoretical, methodological and clinical contributions of the thesis are discussed.

Keywords: Genito-pelvic pain/penetration disorder, provoked vestibulodynia, self-compassion, dyadic methodology, cognitive-behavioural therapy, couple therapy, randomized clinical trial, mediators of change

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ARTICLE 2

Liste des abréviations

ACT: Acceptance and commitment therapy

APIM: Actor partner interdependence model

BDI-II: Beck depression inventory-II

CBT: Cognitive-behavioural therapy

CBCT: Cognitive-behavioural couple therapy

CFI: Comparative fit index

CSI: Couple Satisfaction Index

DAS: Dyadic adjustment scale

DSM-5: Diagnostic and statistical manual of mental disorders, fifth edition

FIML: Full information maximum likelihood method

FSFI: Female Sexual Function Index

GPPPD: Genito-pelvic pain/penetration disorder

IIEF: International Index of Erectile Function

PCS: Pain Catastrophizing Scale

PISES: Painful intercourse self-efficacy scale

PVD: Provoked vestibulodynia

RCT: Randomized clinical trial

RMSEA: Root mean square error of approximation

SCS: Self-compassion scale

SDS: Sexual distress scale

SRMR: Standardised root mean square residual

STAI: State-trait anxiety inventory

TCC : Thérapie cognitive-comportementale

TCCC: Thérapie cognitive-comportementale de couple

VP : Vestibulodynie provoquée

Remerciements

Les six dernières années ont été marquées par de nombreux défis et apprentissages, mais aussi par des rencontres avec des personnes inspirantes qui m'ont permis de m'épanouir et de mieux me connaitre. Le doctorat aura été pour moi un voyage transformateur.

À Sophie Bergeron, un immense merci pour ton soutien constant et incomparable. Je suis remplie de gratitude d'avoir eu la chance de t'avoir comme directrice de thèse. Merci pour ta disponibilité, ta compréhension, ta bienveillance, ta sensibilité et ton ouverture à mes idées de recherche. Sophie, sans toi ces années auraient été beaucoup moins douces. Tu m'as permis de tirer le maximum de cette expérience en me donnant confiance en mes capacités et en me transmettant avec générosité tes connaissances. Tu resteras toujours pour moi un modèle marquant de femme brillante, humaine et généreuse.

J'ai aussi beaucoup de gratitude d'avoir pu travailler avec Mylène Desrosiers. Merci Mylène pour ta patience, ta disponibilité, ton efficacité, ta générosité et ta gentillesse. Tu as été une présence importante et rassurante dans mon parcours doctoral et dans ce grand défi qu'était la collecte de données.

Merci à mes collègues de laboratoire pour leur soutien ; Myriam Pâquet, Laurence de Montigny Gauthier, Véronique Charbonneau-Lefebvre, Jean-François Jodouin, et Myriam Bosisio. Votre présence, nos discussions et vos encouragements ont été un soutien important dans la réalisation de ma thèse, et ont rendu cette expérience plus agréable.

Thanks a lot Natalie Rosen for your helpful feedback and support in the writing of the papers.

Merci Pierre McDuff de m'avoir transmis avec humour et patience tes connaissances en statistiques. Merci de ton calme qui m'a si souvent fait du bien dans des moments où les statistiques me rendaient anxieuse.

Merci à Marie-Pier Vaillancourt-Morel. J'ai énormément de gratitude pour l'aide inestimable que tu m'as apportée dans la réalisation des statistiques de mon deuxième article. Merci pour ta rigueur intellectuelle, pour la grande générosité avec laquelle tu vulgarisais pour moi tes nombreuses connaissances statistiques, pour ta patience et pour ta détermination qui m'ont permis de ne pas me décourager.

Je remercie du fond du cœur les participantes et participants de l'essai clinique randomisé. Merci pour votre temps et votre confiance. Un merci spécial aux couples que j'ai eu la chance de suivre en thérapie. Chacun à votre façon, vous m'avez touché et vous m'avez permis de devenir une meilleure thérapeute.

Je remercie également Serena Corsini-Munt, par qui j'ai eu la chance d'être supervisée dans le cadre de l'essai clinique randomisé. Serena, je n'aurais pas pu être mieux accompagnée pour faire de la thérapie sexuelle et de couple pour la première fois. Ta sensibilité, ton intuition clinique aiguisée, ta générosité à transmettre tes connaissances

cliniques et ta capacité à me mettre à l'aise et en confiance m'ont permis de tirer le maximum de cette expérience. Ce que tu m'as appris continue à m'inspirer dans ma pratique clinique. Merci aussi pour ton accueil chaleureux à mon entrée au doctorat et pour ton rôle de mentor, non seulement en clinique, mais aussi en recherche.

Je remercie les Fonds de recherche du Québec - Santé (FRQ-S) et ma directrice de thèse Sophie Bergeon pour leur appui financier qui m'a permis de me consacrer entièrement à ma thèse tout en préservant un équilibre de vie. Merci du fond du coeur à mes grands-parents, Raymond Baillargeon et Madeleine Lachaîne, et à ma tante Linda Santerre et mon oncle Daniel du Plessis, pour les bourses d'études que vous avez mises de côté pour moi. Elles m'ont rendu la vie beaucoup plus douce aussi, merci de votre immense générosité.

À mes superviseures cliniques, Marie-Hélène Pennestri, Ann Claude Simoneau, Monique Dubé, Christine Chalfoun, Jessica Le et Marie-Anne Sergerie, un immense merci pour votre accompagnement dans mon apprentissage du rôle de psychologue clinicienne. Vous m'avez permis d'apprendre une si belle profession, et ce dans une atmosphère sécuritaire et chaleureuse. Vous m'avez inspirée et aidée à trouver ma propre manière d'être thérapeute.

Les mots me manquent pour remercier mes parents, Chantal Santerre et Normand Baillargeon, pour votre amour inconditionnel et votre confiance en ma capacité à relever tous les défis. Comme toujours, vous avez tout fait pour me rendre ces années plus agréables et faciles. Merci de votre générosité. Merci de votre intérêt pour chaque étape de mon parcours universitaire, que vous avez toujours soulignée avec enthousiasme et fierté.

Merci à ma merveilleuse petite sœur, Camille Santerre-Baillargeon, pour ton écoute, ta capacité à me faire voir les choses moins gravement quand il le faut, et pour ta confiance en moi. Notre complicité et nos fous rires sont toujours une bouffée d'air frais. Merci aussi à son amoureux Antoine Beaugrand Champagne, pour son humour, sa gentillesse et ses encouragements.

Merci à mes tantes, Sylvie Santerre, Joanne Santerre et Linda Santerre, à mes oncles Michel Bouchard, Jean-Normand Cournoyer et Daniel du Plessis, et à ma grand-mère Carmelle Santerre. Votre présence, votre amour et votre générosité m'ont comme toujours portée tout au long de ces années. Nos moments ensemble m'ont permis de me ressourcer. Merci à ma douce grand-mère, Madeleine Lachaîne, qui est partie à la toute fin de ce parcours et dont la présence a été tout aussi importante. Je remercie aussi mes grands-pères, Raymond Baillargeon et Fernand Santerre. Même si vous n'êtes plus avec nous, votre regard fier et aimant m'a suivi tout au long de ce parcours.

Merci à mes si brillantes et aimantes amies : Pascale Vézina Gagnon, Lysa-Marie Hontoy, Virginie Arpin et Laurence Morin. Vous rencontrer durant ce parcours a été un cadeau infiniment précieux.

Pascale, nous nous suivons de près depuis le début du doctorat, et je ne peux imaginer ce qu'auraient été ces années si tu n'avais pas été là. Partager cette expérience avec toi a été un moment de complicité et de solidarité inoubliable.

Merci à mes amies de toujours, Charlotte Beaudin, Annabel Gagnon, Alissandre Huneault, Émilie-Jade Fredette et Catherine Gendron. Vous êtes des piliers dans ma vie. Merci d'être là à chaque étape importante et pour tous les moments de rires et de confidences.

Camille Fréchette-Talbot, depuis la garderie que notre complicité me réchauffe le cœur ; ton écoute, ton humour et ta présence ont su m'apaiser dans les moments plus difficiles tout au long des six dernières années. Merci mille fois.

Merci à ma magnifique belle-famille, Geneviève Bouchard, Mario Poulin, Flavie Poulin et Rosalie Poulin, pour votre accueil toujours chaleureux et généreux. Passer du temps avec vous m'a aidée à revenir dans le moment présent.

Enfin, merci Émile Poulin, pour ta présence si apaisante et aimante tout au long de ces six dernières années. Revenir à nous a été un refuge précieux, qui m'a énergisée, motivée, rassurée. Merci pour ton écoute, ton infinie douceur envers moi et tes mille et une attentions pour me faire plaisir. Je t'aime et je suis choyée de t'avoir comme partenaire de vie.

Introduction

Afin de situer le lecteur quant au contexte théorique dans lequel s'inscrit la thèse et de mettre en lumière les limites de l'état des connaissances actuel, le présent chapitre comprend des sections sur la description, la classification et les conséquences de la douleur génito-pelvienne, plus particulièrement de la vestibulodynie provoquée (VP), de même que son étiologie et les traitements disponibles. Les différents facteurs affectifs, cognitifs, interpersonnels et comportementaux pouvant moduler la douleur et les conséquences associées sont également discutés.

Description et classification

Les problèmes de douleur génito-pelvienne sont fréquents chez les femmes adultes et adolescentes et toucheraient jusqu'à 34% des jeunes femmes et 45% des femmes plus âgées (Van Lankveld et al., 2010). Selon la plus récente classification du DSM-5, la douleur génito-pelvienne regroupe ce que l'on appelait autrefois la dyspareunie et le vaginisme, et fait partie de la catégorie diagnostique des dysfonctions sexuelles. Le premier critère diagnostique pour ce trouble est une difficulté persistante ou récurrente incluant au moins une des dimensions suivantes : 1) Pénétration vaginale durant les relations sexuelles ; 2) Douleur vulvo-vaginale ou pelvienne marquée durant les rapports sexuels vaginaux ou les tentatives de pénétration ; 3) Anxiété ou peur marquée à propos de la douleur vulvo-vaginale ou pelvienne en anticipation, durant ou suite à la pénétration vaginale ; 4) Tension ou serrement des muscles du plancher pelvien durant les tentatives de pénétration vaginale. Sa cause la plus fréquente serait la VP, avec une prévalence de 8 % chez les femmes de moins de 40 ans de la population générale (Harlow et al., 2014). La VP est caractérisée par des douleurs au vestibule, région située à l'entrée du vagin, et ressentie lorsqu'une pression

y est exercée (Bornstein et al., 2016; Goldstein et al., 2016). Ainsi, bien que la douleur se présente principalement lors des relations sexuelles, elle peut aussi être provoquée par des stimuli non sexuels, tels qu'un tampon ou le siège d'un vélo. La VP est une forme de vulvodynie, que l'*International Society for the Study of Vulvovaginal Disease* définit comme une forme récurrente de douleur vulvaire survenant depuis au moins trois mois, et ce sans qu'il n'y ait de cause identifiable (Bornstein et al., 2016). Cette douleur inexpliquée est décrite comme une sensation de brûlure ou de coupure (Moyal-Barracco & Lynch, 2004). Il n'est donc pas surprenant qu'elle porte lourdement atteinte au bien-être sexuel et psychologique des femmes qui en souffrent et de leurs partenaires.

Conséquences multidimensionnelles

Conséquences sur les femmes : Plusieurs études démontrent que la VP a des effets délétères sur le fonctionnement et la satisfaction sexuels des femmes (Bergeron et al., 2015; Desrochers et al., 2008; Meana et al., 1997). Des études contrôlées montrent qu'elles rapportent moins de désir, d'excitation et de satisfaction, ainsi que des fréquences moins élevées d'orgasmes et de relations sexuelles (Gates & Galask, 2001; Pazmany et al., 2014; Reed et al., 2003). Elles seraient aussi plus nombreuses à avoir des attitudes négatives face à la sexualité et ressentiraient plus souvent de l'anxiété dans cette sphère de leur vie (Brauer et al., 2008; Meana et al., 1997; Sackett et al., 2001). De plus, elles auraient tendance à percevoir négativement les stimuli sexuels (Brauer et al., 2008). Les études ont aussi documenté de nombreux effets délétères de la douleur génito-pelvienne sur le fonctionnement psychologique des femmes. En effet, la VP a été associée à des indicateurs de détresse psychologique dans plusieurs études contrôlées. Tout d'abord, ces femmes rapportent plus de symptômes d'anxiété et de dépression, en comparaison avec des femmes

qui ne ressentent pas ces douleurs (Gates & Galask, 2001; Khandker et al., 2011; Nylanderlundqvist & Bergdahl, 2003). Ensuite, beaucoup d'études s'attardant au profil psychologique de ces femmes suggèrent la présence d'une atteinte à l'image de soi. L'image que les femmes souffrant de douleur génito-pelvienne ont d'elles-mêmes en tant que partenaires sexuelles (leur schéma de soi sexuel, ou estime de soi sexuelle) serait négativement affectée, en comparaison avec un groupe contrôle de femmes sans douleur (Gates & Galask, 2001; Reed et al., 2003). Auprès des femmes souffrant de VP, avoir un schéma sexuel de soi négatif – incluant les pensées référant à soi concernant la pénétration vaginale, l'image corporelle et les émotions et croyances face aux organes génitaux – a été associé à plus de douleur et de détresse sexuelle, ainsi qu'à un niveau plus élevé de dysfonction sexuelle, tout en contrôlant pour l'anxiété et le catastrophisme (Pazmany et al., 2013). Par ailleurs, dans des études qualitatives, ces femmes décrivent se sentir brisées, anormales et inutiles dans un contexte sexuel (Ayling & Ussher, 2008; Sutherland, 2012). Les études qualitatives révèlent aussi que beaucoup d'entre elles se sentent inadéquates vis-à-vis leur partenaire et vivent de la culpabilité et de la honte, des émotions douloureuses liées à la conscience de soi (Ayling & Ussher, 2008; Elmerstig et al., 2008; Sheppard et al., 2008).

Conséquences sur le couple et le partenaire: Survenant dans un contexte relationnel, la douleur a aussi des impacts négatifs sur le couple. La VP aurait notamment un effet négatif sur le degré de proximité affective dans la relation (Ponte et al., 2009). La peur de perdre la relation serait aussi un des enjeux importants rapportés par ces femmes (Gordon et al., 2003; Sheppard et al., 2008), ce qui pourrait expliquer pourquoi la majorité d'entre elles continuent à avoir des rapports sexuels douloureux et insatisfaisants (Hallam-

Jones et al., 2001). De plus, bien que plusieurs de ces couples rapportent être globalement satisfaits de leur relation amoureuse, certaines études ont révélé une satisfaction relationnelle plus faible chez les couples faisant face à la douleur génito-pelvienne, en comparaison avec des couples contrôles (Brauer et al., 2008; Hallam-Jones et al., 2001; Masheb et al., 2002). Des conséquences négatives chez le partenaire ont aussi été documentées. En comparaison avec des hommes ne vivant pas cette problématique, les partenaires de femmes souffrant de VP rapportent plus de détresse psychologique, moins de satisfaction sexuelle, une moins bonne communication sexuelle et un moins bon fonctionnement sexuel (Jodoin et al., 2008; Pazmany et al., 2014; Smith & Pukall, 2014). Une étude qualitative récente s'est penchée sur l'expérience d'hommes en relation de couple avec des femmes ayant un diagnostic de VP (Sadownik et al., 2017). Lorsqu'ils étaient questionnés sur les impacts de la VP sur leur vie, les thèmes principaux identifiés révélaient comment la douleur peut affecter la santé psychologique, sexuelle et relationnelle des partenaires. Ils rapportaient que la douleur engendrait chez eux des sentiments d'anxiété, de culpabilité, de honte et de frustration, tout comme les femmes dans les études qualitatives précédentes (Sadownik et al., 2012; Sutherland, 2012). Ils rapportaient aussi vivre de la peur de faire mal à leur partenaire, un manque d'intimité physique et une diminution de la qualité et de la quantité des expériences sexuelles. Plusieurs hommes ont également rapporté que la douleur amenait des tensions dans la relation de couple et des défis au niveau de la communication. Ainsi, cette étude soutient l'importance de se pencher sur l'expérience des partenaires dans l'étude de la douleur génito-pelvienne, et suggère que la VP puisse aussi amener les partenaires à se sentir inadéquats dans leur rôle de partenaire sexuel.

Soins de santé

Bien que les effets délétères de la douleur génito-pelvienne aient été bien documentés, plusieurs études montrent que sa prise en charge par le système de santé est inadéquate et que plusieurs femmes sont laissées à elles-mêmes pour y faire face. Des résultats épidémiologiques suggèrent que seulement 57% des femmes rapportant de la douleur vulvo-vaginale chronique iraient chercher un traitement et que seulement 48% de ces femmes recevraient un diagnostic formel (Harlow et al., 2014). Selon les résultats d'une enquête menée auprès de près de 5 000 femmes américaines issues de la population générale, trois médecins ou plus doivent être consultés pour obtenir un diagnostic adéquat (Harlow & Stewart, 2003) ; une étude plus récente auprès d'un échantillon représentatif de près de 2 000 femmes estime même ce chiffre à cinq (Nguyen et al., 2012). En outre, dans une étude auprès de 12 834 femmes de la population générale, 1 651 d'entre elles rapportaient souffrir de douleur génito-pelvienne et parmi celles qui avaient consulté pour leur douleur, soit la moitié de ces femmes, 40% percevaient être stigmatisées par leur médecin (Nguyen et al., 2013). Une telle perception pourrait donc contribuer aux sentiments d'isolement et d'invalidation qui seraient souvent vécus par ces femmes (Ayling & Ussher, 2008; Nguyen et al., 2012; Nguyen et al., 2013), tout comme le fait que l'on ne comprenne pas encore bien l'étiologie de ce problème complexe.

Étiologie multifactorielle

Longtemps, le domaine d'étude de la douleur génito-pelvienne s'est développé dans deux directions, en conceptualisant le problème de douleur soit comme une dysfonction sexuelle ayant une origine psychologique, soit comme un problème de douleur chronique de nature physique (Pukall et al., 2016). Cependant, au fil des ans, les études tendent plutôt à

converger vers l'idée que, tout comme dans le domaine plus large de la douleur chronique, un cadre conceptuel biopsychosocial permet de mieux comprendre l'étiologie, le traitement et l'évolution de la VP.

Facteurs biomédicaux. Au niveau du vestibule, les femmes souffrant de VP ont un seuil de douleur plus bas que des femmes sans douleur (allodynie) et rapportent des intensités de douleur plus élevées passé ce seuil (hyperalgésie) (Pukall et al., 2002; Sutton et al., 2009). En outre, les biopsies de vestibules de ces femmes, comparées à celles d'un groupe contrôle, révèlent une prolifération des nocicepteurs (Bohm-Starke, 2001; Chadha et al., 1998; Tympanidis et al., 2004; Weström & Willén, 1998). Plusieurs facteurs de risque biomédicaux pourraient expliquer ces changements au niveau des tissus. La présence d'infections vaginales répétées (Bohm-Starke, 2001) serait un facteur de risque : l'incapacité de guérir complètement de l'infection amènerait une réponse inflammatoire des tissus du vestibule menant à la sensibilisation des récepteurs de douleur dans cette région (Foster et al., 2014; Gerber et al., 2002). De plus, des changements hormonaux dus à l'utilisation précoce et prolongée de contraceptifs oraux pourraient être un autre facteur de risque (Bouchard et al., 2002; Harlow et al., 2008). Des études suggèrent que cette utilisation entraine des changements morphologiques au niveau des muqueuses du vagin et une augmentation de leur sensibilité (Bohm-Starke et al., 1998; Bohm-Starke et al., 2004). Néanmoins, une étude épidémiologique récente contredit les résultats de ces études en concluant que l'utilisation des contraceptifs ne constitue pas un facteur de risque. Ces résultats contradictoires pourraient être dus au fait que toutes les femmes n'ont pas une vulnérabilité génétique aux effets délétères des contraceptifs hormonaux (Goldstein et al., 2014).

Un dysfonctionnement des muscles du plancher pelvien pourrait aussi être impliqué dans la chronicité de la douleur dans la VP (Morin et al., 2014; Morin et al., 2017; Reissing et al., 2005). Une étude récente a démontré que ces femmes présentent non seulement une hypertonicité au niveau des muscles du plancher pelvien, mais aussi des altérations au niveau de la force et la rapidité de contraction de ces muscles, de même que moins de flexibilité (Morin et al., 2017). Cependant, les devis corrélationnels des études ne permettent pas de conclure quant à un rôle prédisposant de la musculature pelvienne. Les anomalies observées pourraient également résulter d'une expérience de douleur vulvo-vaginale prolongée.

Par ailleurs, des auteurs suggèrent que des mécanismes neuropathiques menant à une sensibilisation centrale pourraient être impliqués dans la VP (Meana et al., 1997; Sutton et al., 2009; Weijmar Schultz et al., 2005). Il est vrai que plusieurs études démontrent que le seuil de douleur des femmes souffrant de VP est non seulement moins élevé dans la région du vestibule vulvaire, mais aussi dans d'autres régions corporelles, comme le deltoïde, le pouce et le tibia (Giesecke et al., 2004; Granot et al., 2002; Sutton et al., 2009). De plus, dans un échantillon de près de 2 000 femmes souffrant de vulvodynie, 45 % avaient un problème de douleur chronique co-morbide (Nguyen et al., 2012). Une étude d'imagerie cérébrale suggère même que les mécanismes sous-jacents à la douleur présente dans la VP soient similaires à ceux retrouvés dans d'autres types de douleur chronique (Pukall et al., 2005). Dans cette étude contrôlée, l'allodynie et l'hyperalgésie étaient présentes chez les femmes souffrant de VP, et les zones du cerveau alors activées étaient similaires à celles observées auprès d'autres populations souffrant de douleur chronique, telle que la fibromyalgie et le syndrome du côlon irritable, deux types de

douleur chronique associés à la VP (Arnold et al., 2006; Reed et al., 2012). Ainsi, les études suggèrent que des mécanismes neurologiques communs pourraient sous-tendre la VP et d'autres formes de douleur chronique.

Facteurs psychologiques : La littérature montre également que des facteurs psychologiques peuvent augmenter le risque de développer de la douleur génito-pelvienne, bien que son étiologie ne soit pas uniquement psychologique. De nombreuses études contrôlées ont démontré que les femmes qui souffrent de douleur génito-pelvienne rapportent plus de symptômes anxieux et dépressifs (Brauer et al., 2008; Granot & Lavee, 2005; Payne et al., 2005; Pazmany et al., 2014; Sackett et al., 2001). Dans une étude épidémiologique de Khandker et al. (2011), la dépression et l'anxiété, telles que diagnostiquées selon le DSM, étaient plus fréquentes à la fois comme antécédents et conséquences de la douleur. Après avoir contrôlé pour l'éducation, l'origine ethnique, l'âge des premières règles, l'âge de la première utilisation de tampon et l'âge de la première relation sexuelle, les femmes ayant un antécédent de trouble anxieux ou de l'humeur étaient quatre fois plus à risque de développer la vulvodynie (Khandker et al., 2011). En ce qui concerne l'abus sexuel et physique, les études populationnelles rigoureuses appuient l'hypothèse qu'il s'agisse d'un facteur de risque pouvant contribuer au développement de la VP (Khandker et al., 2014; Landry & Bergeron, 2011).

Par ailleurs, l'anxiété est implicite au modèle explicatif le plus validé empiriquement dans le domaine de la douleur chronique (Leeuw et al., 2007) et ayant plus récemment été étudié dans le domaine de la VP (Desrochers et al., 2009). Ce modèle, le « *Fear-Avoidance Model* » ou modèle peur-évitement, intègre un ensemble de facteurs psychologiques afin d'expliquer comment la douleur aiguë devient chronique (Vlaeyen &

Linton, 2000). Plus précisément, différents niveaux de peur de la douleur, de catastrophisme et d'hypervigilance (rester attentif au moindre inconfort corporel d'une manière anxieuse) mèneraient à deux réponses comportementales différentes suite à une expérience initiale de douleur, soit l'affrontement ou l'évitement. Le catastrophisme renvoie à un ensemble de cognitions négatives et exagérées durant des expériences douloureuses, réelles ou anticipées. La conceptualisation la plus reconnue regroupe ces cognitions en trois catégories : 1) amplification du danger que représente la douleur 2) rumination à propos de la douleur et 3) désespoir. Par conséquent, une personne ayant un niveau élevé de catastrophisme aura tendance à avoir peur de la douleur et à développer la croyance que certains comportements sont à éviter afin de ne pas l'aggraver. Par la suite, l'évitement des comportements suscitant la douleur, soit les relations sexuelles dans le cas de la VP, augmenterait la peur, l'hypervigilance et le catastrophisme, ce qui augmenterait l'évitement. Cette spirale où pensées, émotions et comportements inadaptés s'alimentent mutuellement mènerait au maintien et même à l'augmentation de la douleur. Au contraire, l'affrontement de la douleur permettrait de briser cette spirale en confrontant les croyances négatives entretenues, ce qui aurait des conséquences positives sur la douleur et l'invalidité associée. Ce modèle permet non seulement d'expliquer comment les facteurs psychologiques peuvent contribuer au développement de la douleur chronique, mais aussi d'identifier des facteurs de maintien sur lesquels il est possible d'intervenir, comme le catastrophisme et l'évitement. D'autres facteurs pouvant moduler et maintenir la douleur ont été identifiés dans la littérature. Ces facteurs peuvent être classés comme étant cognitifs, affectifs ou comportementaux.

Facteurs de maintien et de modulation

Facteurs cognitifs. La douleur est une expérience subjective influencée par la manière dont elle est perçue et évaluée. Les facteurs cognitifs jouent ainsi un rôle important quant à l'intensité de douleur perçue, son maintien et les conséquences associées. Le catastrophisme est une variable cognitive pouvant contribuer au maintien et à l'exacerbation de la douleur. Auprès de différentes populations souffrant de douleur chronique, de nombreuses études, transversales et longitudinales, ont démontré que des scores plus élevés de catastrophisme sont associés à des niveaux plus élevés de douleur et d'invalidité associée (Edwards et al., 2011; Edwards et al., 2016; Quartana et al., 2009). Des items comme, « *Quand j'ai de la douleur vulvo-vaginal, c'est terrible et je pense que ça ne s'améliorera jamais* » et « *Quand j'ai de la douleur vulvo-vaginal, je ne fais que penser à quel point ça fait mal* », permettent d'évaluer le catastrophisme chez les femmes souffrant de douleur génito-pelvienne. Le *Communal Coping Model* postule que le catastrophisme ait comme fonction, pour la personne souffrant de douleur chronique, de communiquer à ses proches ses besoins de soutien et d'empathie (Sullivan et al., 2006), ce qui pointe vers la pertinence d'étudier cette variable cognitive en tenant compte du contexte relationnel de la douleur. Par ailleurs, l'auto-efficacité face à la douleur, c'est-à-dire la perception qu'une personne a des capacités en matière de gestion de la douleur, est une autre variable cognitive plus récemment intégrée au modèle peur-évitement. Un sentiment plus faible d'auto-efficacité mènerait à plus d'évitement, qui en retour alimenterait la croyance de ne pas avoir la capacité de diminuer la douleur (Leeuw et al., 2007). Au contraire, avoir davantage d'auto-efficacité permettrait de trouver des manières adaptées de faire face à la douleur. Les résultats d'une méta-analyse révèlent que l'auto-efficacité

est fortement associée, de manière transversale et longitudinale, à des niveaux moins élevés de douleur et d'invalidité, et ce pour différents types de douleur chronique (Jackson et al., 2014). Les études menées dans le domaine de la VP vont dans le même sens. Dans une première étude transversale examinant le modèle peur-évitement auprès de femmes souffrant de VP, le catastrophisme et l'hypervigilance ont été associés à une plus grande intensité de douleur et l'auto-efficacité à une plus faible intensité de douleur (Desrochers et al., 2009). L'auto-efficacité était également associée à un meilleur fonctionnement sexuel. Les résultats d'une étude plus récente examinant ce modèle de manière longitudinale démontrent par ailleurs que l'hypervigilance, la peur de la douleur et le catastrophisme n'étaient pas significativement associés à l'intensité de la douleur et l'ajustement sexuel: seule l'auto-efficacité mesurée au temps 1 était associée à une diminution de l'intensité de la douleur et une amélioration sur le plan de l'ajustement sexuel deux ans plus tard (Davis et al., 2015). De plus, dans cette étude, l'augmentation des niveaux d'auto-efficacité et la diminution de la douleur entre le temps 1 et le temps 2 étaient significativement associées. Cette étude suggère donc l'importance de ne pas se limiter à diminuer les pensées négatives face à la douleur dans les TCCs pour les femmes souffrant de douleur génito-pelvienne, mais aussi les croyances en leurs capacités de gestion de la douleur. Elle souligne ainsi la pertinence d'examiner le rôle de l'auto-efficacité dans le traitement de la VP.

En outre, étant donné le contexte interpersonnel dans lequel survient principalement la douleur chez les femmes ayant la VP, un nombre grandissant d'études se sont penchées sur le rôle des facteurs interpersonnels pouvant moduler et maintenir cette forme de douleur et les difficultés associées. Ainsi, le rôle des cognitions des partenaires a également été

étudié. Dans une étude transversale auprès de couples dont la femme présente de la douleur génito-pelvienne, le catastrophisme du partenaire était associé positivement à l'intensité de douleur rapportée par les femmes (Lemieux et al., 2013). En outre, l'auto-efficacité mesurée chez le partenaire, qui réfère à sa perception du niveau d'auto-efficacité de la femme, était associée négativement à l'intensité de douleur rapportée par les femmes. Cependant, le catastrophisme et l'auto-efficacité, mesurés chez le partenaire, n'étaient pas associés à la fonction et la satisfaction sexuelles des femmes. Les associations entre le catastrophisme et l'auto-efficacité des partenaires et leur propre sexualité n'ont pas été examinées dans cette étude. Aucune autre étude n'a mesuré ces deux variables cognitives auprès de couples dont la femme présente de la VP. Néanmoins, les cognitions qu'ont les partenaires à propos de la douleur ont aussi été examinées dans une étude se penchant sur le type d'attribution; dans cette étude, des attributions qui étaient internes (croire que la douleur est la faute de la femme), globales (croire que la douleur a des répercussions sur les différentes sphères de la vie) et stables (croire que la douleur va persister dans le temps) étaient associées, chez les partenaires, à plus de détresse psychologique et à des niveaux de satisfaction relationnelle et sexuelle moins élevés (Jodoin et al., 2008). Par ailleurs, auprès des femmes souffrant de VP et leurs partenaires, plus d'acceptation de la douleur chez les femmes a été associée à des niveaux plus faibles de douleur lors des rapports sexuels, d'anxiété et de dépression et à un meilleur fonctionnement sexuel et à une plus grande satisfaction sexuelle pour les deux membres du couple (Boerner & Rosen, 2015). Aussi, lorsqu'ils rapportaient accepter davantage la douleur, les partenaires rapportaient des niveaux plus faibles de dépression (Boerner & Rosen, 2015). Ainsi, ces études dyadiques se penchant sur les cognitions suggèrent que ces facteurs constituent une

composante importante du contexte interpersonnel dans lequel s'inscrit la douleur génito-pelvienne.

Facteurs comportementaux. Les études s'étant penchées sur l'implication de variables relationnelles suggèrent que les réponses comportementales des partenaires à la douleur ont une influence sur l'intensité et le maintien de celle-ci (Rosen et al., 2012; Rosen et al., 2015). On classifie généralement ces réponses en trois catégories : les réponses de sollicitude (démontrer de la sympathie), négatives (démontrer de la colère) et facilitantes (encourager des comportements permettant de s'adapter à la douleur). Des études transversales et à journaux quotidiens ont montré que contrairement aux réponses négatives et de sollicitude, les réponses facilitantes permettraient une diminution de l'intensité de la douleur et une augmentation de la satisfaction sexuelle des deux membres du couple (Rosen et al., 2010; Rosen et al., 2012; Rosen et al., 2015). De plus, les réponses facilitantes chez le partenaire étaient associées à une meilleure fonction sexuelle chez la femme dans une autre étude à journaux quotidiens (Rosen et al., 2014). Au contraire, les réponses négatives et de sollicitude étaient associées à une moins bonne fonction sexuelle chez les femmes souffrant de VP (Rosen et al., 2014). Le catastrophisme jouerait un rôle de médiateur dans la relation entre plus de réponses de sollicitude et des intensités plus grandes de douleur, suggérant que via leur réponse à la douleur, les partenaires influenceraient les pensées et émotions entretenues par les femmes au sujet de la douleur (Rosen et al., 2013). Ainsi, en répondant avec sollicitude, les partenaires pourraient nourrir les pensées catastrophiques de la femme avec la VP, par exemple que la douleur est incontrôlable, ce qui augmenterait l'intensité de la douleur perçue. En outre, les auteurs suggèrent que les partenaires ayant des réponses de sollicitude pourraient avoir tendance à

éviter davantage les relations sexuelles, ce qui pourrait nourrir les pensées catastrophiques des femmes avec la VP. Par ailleurs, une étude de journaux quotidiens auprès de femmes présentant de la VP a trouvé des associations positives entre les démonstrations d'affection - le fait de se faire des caresses et de s'embrasser - et la satisfaction relationnelle, la satisfaction sexuelle et le fonctionnement sexuel (Vannier et al., 2017). Ces associations étaient significatives les jours où il y avait et où il n'y avait pas de relation sexuelle. Ainsi, bien que cette étude ne soit pas auprès de couples, il semblerait que de préserver les contacts physiques affectueux soit une manière de diminuer les conséquences négatives de la VP sur la sexualité et la relation de couple.

Facteurs affectifs. Des aspects plus émotionnels de la relation amoureuse ont aussi fait l'objet de quelques études auprès de couples dont la femme souffre de VP. Il a été montré de manière transversale et observationnelle que l'intimité favoriserait l'ajustement sexuel et relationnel des couples faisant face à la VP, de même qu'une meilleure qualité de vie chez les femmes (Bois et al., 2016; Bois et al., 2013; Rosen et al., 2016). Dans les études observationnelles, l'intimité était divisée en deux composantes, soit le dévoilement émotionnel et les réponses empathiques, qui étaient évaluées par les participants tout de suite après une conversation filmée sur l'impact de la VP sur leur vie et par des observateurs indépendants (Bois et al., 2016; Rosen et al., 2016). Contrairement aux réponses empathiques, le dévoilement émotionnel de soi observé n'était pas associé à la satisfaction relationnelle et sexuelle, tant chez les femmes que chez leurs partenaires (Bois et al., 2016; Rosen et al., 2016). Afin de mieux comprendre cette absence de résultats significatifs, une étude observationnelle récente a réexaminé ces associations, et ce avec un nouveau système de cotations ayant de bonnes qualités psychométriques (Gauvin et al., 2019). Les résultats

ont montré que plus de dévoilement de soi était associé à une moins grande satisfaction sexuelle. Les liens entre le dévoilement de soi observé et la satisfaction relationnelle n'étaient pas significatifs, ce qui réplique les résultats de obtenus dans l'étude de Rosen et al. (2016). Il est possible que certains dévoilements à valence émotionnelle négative et n'abordant pas les difficultés du couple de manière constructive aient des effets délétères sur l'ajustement sexuel. En effet, le système de cotation utilisé, malgré qu'il soit bien validé empiriquement, ne distinguait pas les dévoilements à valence positive (par exemple : j'aime lorsque nous passons du temps ensemble) des dévoilements à valence négative (par exemple : l'entretien de la maison me rend anxieux). Ainsi, il serait important de mesurer de manière plus nuancée les différentes formes que peuvent prendre le dévoilement émotionnel dans les prochains systèmes de cotations afin de mieux comprendre les associations entre le dévoilement et l'ajustement des couples faisant face à la VP. Néanmoins, l'ensemble des études actuelles pointe vers l'hypothèse selon laquelle la capacité à préserver une bonne intimité malgré la douleur serait un facteur qui pourrait permettre aux couples de limiter l'impact de la douleur sur leur bien-être sexuel et relationnel. Par ailleurs, une autre étude suggère que plus les partenaires sont à l'aise avec la manière dont ils expriment leurs émotions (moins d'ambivalence émotionnelle), plus grand serait leur bien-être psychologique, sexuel et relationnel (Awada et al., 2014). Cette étude suggère donc que l'ambivalence émotionnelle soit une caractéristique spécifique du dévoilement émotionnel pouvant moduler son impact sur l'ajustement à la douleur. Les études portant sur les aspects affectifs de la VP sont moins nombreuses que celles sur les facteurs cognitifs et comportementaux, bien qu'il s'agisse d'une expérience suscitant de nombreuses émotions douloureuses, tant chez les femmes que leurs partenaires (Ayling &

Ussher, 2008; Nylanderlundqvist & Bergdahl, 2003; Sheppard et al., 2008; Sutherland, 2012). Enfin, l'ensemble des études disponibles sur le contexte relationnel de la VP démontre le rôle important du partenaire et par conséquent la pertinence d'inclure cet acteur clé dans le traitement.

Traitements

Les traitements disponibles pour la VP sont nombreux. Cependant, peu d'études contrôlées et randomisées ont testé leur efficacité de manière rigoureuse, et par conséquent une partie substantielle des connaissances que nous avons sur le traitement de la VP est basée sur l'expérience clinique, des études descriptives et des rapports de comités d'experts sur le sujet (Mandal et al., 2010; Stockdale & Lawson, 2014). En effet, les études disponibles comportent plusieurs limites, notamment un manque de rigueur dans la sélection des participants, par exemple lorsque le diagnostic de douleur n'est pas confirmé par un examen gynécologique, l'absence de suivi suite au traitement et des échantillons ne permettant pas d'avoir une puissance statistique suffisante (Bergeron et al., In press; Landry et al., 2008; Mandal et al., 2010).

Traitements médicaux. Il existe plusieurs traitements médicaux agissant sur la douleur de manière locale : crèmes topiques d'estrogène et de testostérone pour les cas qui surviennent à la suite de changements hormonaux (Goldstein et al., 2010), lidocaïne topique (Haefner et al., 2005; Zolnoun et al., 2003), injections de toxine botulinique A (Petersen et al., 2009) et vestibulectomie (chirurgie) (Bergeron et al., 2008). Il est aussi possible d'intervenir de manière systémique avec des antidépresseurs tricycliques (Reed et al., 2006). Des anticonvulsivants, par exemple la gabapentine et la prégabaline, peuvent

également être prescrits pour diminuer la douleur (Harris et al., 2007). Jusqu'à présent, la vestibulectomie est le traitement ayant démontré les plus hauts taux de succès, allant de 60% à 90%, en comparaison aux autres options de traitement dont le succès varie entre 40% et 80% (Landry et al., 2008). Ici, notons que la variance des taux de succès trouvés s'explique par les importantes limites méthodologiques des études, notamment que la majorité d'entre elles ne sont pas des essais cliniques randomisés. Un essai clinique randomisé a démontré que les améliorations sur le plan de la douleur étaient maintenues jusqu'à 2.5 années après la chirurgie (Bergeron et al., 2008). Il s'agit toutefois d'un traitement invasif pour lequel nous ne connaissons pas encore la fréquence des complications. D'autres options de traitement seront donc essayées avant d'envisager celui-ci (Stockdale & Lawson, 2014). Parmi ces traitements médicaux, la lidocaïne topique, une crème anesthésiante, a été identifiée dans deux sondages auprès de médecins comme étant le traitement de première ligne le plus prescrit (Reed et al., 2008; Updike & Wiesenfeld, 2005). Ce traitement est recommandé comme étant efficace par des groupes d'experts (Mandal et al., 2010; Ventolini, 2011), bien que peu d'études rigoureuses aient évalué son efficacité. La lidocaïne agirait localement en réduisant la sensibilisation des nocicepteurs. Une étude prospective a démontré que d'appliquer tous les soirs la lidocaïne diminuait significativement l'intensité de la douleur entre le pré et le post-traitement, et que la fréquence des relations sexuelles augmentait aussi significativement (Zolnoun et al., 2003).

Traitements de physiothérapie. Un autre traitement fréquemment prescrit pour la VP est la physiothérapie pour les muscles du plancher pelvien. Ce traitement inclut généralement de l'éducation sur la VP, du biofeedback, des exercices de dilatation et des

techniques d'étirement et myofasciale (Danielsson et al., 2006; Goldfinger et al., 2009). Ces interventions ont pour objectifs d'apprendre aux femmes à relaxer et contrôler leurs muscles du plancher pelvien, en augmenter la flexibilité, améliorer la circulation sanguine dans cette région et augmenter l'ouverture du vagin afin de faciliter la pénétration (FitzGerald & Kotarinos, 2003; Morin et al., 2017). Un essai clinique randomisé a comparé l'efficacité de la lidocaïne topique au biofeedback (Danielsson et al., 2006). Au post-traitement, les participantes dans les deux groupes démontraient des améliorations significatives sur le plan de la douleur et de l'ajustement sexuel et psychologique. Il n'y avait cependant pas de différence entre les deux groupes. Le biofeedback a également été comparé à la vestibulectomie et à une TCC de groupe dans le premier essai clinique randomisé conduit auprès d'une population de femmes ayant la VP (Bergeron et al., 2001). Au suivi six mois, la vestibulectomie démontrait des diminutions significativement plus importantes sur le plan de la douleur, mais les résultats du suivi deux ans et demi après le traitement suggèrent que les trois traitements soient aussi efficaces pour diminuer la douleur (Bergeron et al., 2008). Toutefois, les participants de la condition TCC rapportaient être plus satisfaits du traitement reçu. Ainsi, cette étude suggère qu'à long terme, la vestibulectomie n'est pas plus efficace que la TCC ou le biofeedback. Plus récemment, un essai clinique randomisé a comparé l'efficacité de la lidocaïne topique à un traitement de physiothérapie auprès de 212 femmes souffrant de VP. La physiothérapie était significativement plus efficace que la lidocaïne au post-traitement et au suivi 6 mois plus tard pour diminuer la douleur rapportée durant les relations sexuelles, améliorer la fonction sexuelle et diminuer la détresse sexuelle (Morin, 2020).

Traitement psychologique. Les thérapies cognitives-comportementales (Bergeron et al., 2001) ciblent les aspects psychologiques de la douleur, tels que l'évitement et les réponses cognitives et affectives inadaptées à la douleur. Il s'agit du traitement psychologique pour la douleur génito-pelvienne ayant reçu le plus de validation empirique (Goldstein et al., 2016). Les interventions des traitements psychologiques ciblent non seulement la douleur, mais aussi ses conséquences psychologiques et sexuelles, et ce, sans les effets secondaires possibles des traitements médicaux : il s'agit donc d'une avenue prometteuse afin de développer des traitements plus efficaces (Landry et al., 2008). La TCC de groupe ayant été développée par Bergeron et al. (2001) a récemment été comparée à un corticostéroïde topique dans un essai clinique randomisé. Au suivi six mois de cette étude, les améliorations sur le plan de la douleur, du catastrophisme et du fonctionnement sexuel étaient significativement plus importantes chez les participantes réparties aléatoirement à la TCC de groupe (Bergeron et al., 2016). Un autre essai clinique randomisé a démontré que la TCC, en format individuel, est plus efficace que la psychothérapie de soutien pour diminuer la douleur et améliorer le fonctionnement sexuel (Masheb et al., 2009). De plus, ces gains étaient maintenus au suivi un an après le traitement. Se basant sur des connaissances empiriques de plus en plus grandes démontrant l'importance des aspects interpersonnels de la VP, ainsi que sur l'efficacité démontrée de la TCC dans son traitement, une thérapie cognitive-comportementale de couple (TCCC) a été développée récemment par notre équipe de recherche. Dans une étude pilote prospective, la douleur et le fonctionnement sexuel des femmes s'amélioraient de manière significative, de même que la satisfaction sexuelle des deux membres du couple (Corsini-Munt et al., 2014). L'essai clinique randomisé dans lequel s'inscrit la thèse a montré que

cette thérapie était aussi efficace que la lidocaïne à diminuer l'intensité de la douleur et plus efficace pour diminuer l'aspect désagréable (*pain unpleasantness*) de la douleur (Bergeron et al., 2021). De plus, les femmes assignées à la thérapie rapportaient moins de détresse sexuelle au post-traitement que celles assignées à la lidocaïne. Les femmes ayant la VP et leurs partenaires dans la condition TCCC rapportaient aussi être plus satisfaits du traitement reçu et ils rapportaient une plus grande amélioration globale de leur sexualité. Ainsi, la TCCC semble plus efficace que la lidocaïne sur plusieurs dimensions de la VP. Ce qui rend cette TCCC novatrice est aussi son intégration d'éléments de la thérapie d'acceptation et d'engagement (*Acceptance and commitment therapy* : ACT), une TCC de troisième vague (Hayes & Lillis, 2012). La première vague de TCC inclut des interventions visant les comportements observables, basées sur les théories de l'apprentissage des années 50-80 (ex : exposition graduée). La deuxième vague inclut des interventions visant principalement les cognitions, qui sont basées sur les théories cognitives des années 80-90 (ex. : restructuration cognitive). La troisième vague, dite émotionnelle ou contextuelle, est un terme ayant émergé dans la littérature au début des années 2000 pour qualifier la famille grandissante de thérapies caractérisées par des interventions visant à changer la relation avec les expériences internes inconfortables, tout en s'engageant dans des comportements basés sur les valeurs (Dimidjian et al., 2016). Par exemple, au lieu de changer le contenu des pensées inadaptées, c'est plutôt la relation avec celles-ci qui est travaillée. Cette troisième vague de thérapies s'est avérée efficace auprès de personnes souffrant de diverses formes de douleur chronique, notamment le syndrome du côlon irritable et la fibromyalgie (Gaylord et al., 2011; Grossman et al., 2007; Hayes et al., 2006). Contrairement aux TCCs de deuxième vague testées dans les essais cliniques précédents, une telle approche est basée

sur l'acceptation et non le changement des pensées et émotions associées à la douleur et aux difficultés sexuelles. À ce jour, deux essais cliniques ont testé l'efficacité de thérapies de troisième vague basée sur la pleine conscience auprès de femmes souffrant de VP. Brotto et al. (2014) ont développé une thérapie basée sur la pleine conscience composée de quatre séances de deux heures, incluant notamment de la méditation pleine conscience, mais aussi quelques interventions issues des TCC de deuxième vague. Dans cet essai clinique, les femmes assignées à ce traitement, en comparaison à un groupe contrôle de type liste d'attente, s'amélioraient significativement sur divers plans : douleur au test du coton-tige, auto-efficacité, catastrophisme, hypervigilance et détresse sexuelle. Il n'y avait pas d'amélioration significative sur le plan de la douleur durant la pénétration. Cependant, beaucoup de femmes n'ont pas eu de relations sexuelles au cours de l'étude, ce qui pourrait en partie expliquer l'absence de résultats sur le plan de la douleur durant la pénétration. Une autre limite importante de cette étude est que les femmes n'étaient pas randomisées à un traitement ou l'autre. Plus récemment, Brotto et al. (2020) ont comparé les effets à long terme de deux TCCs, une de deuxième vague et une de troisième vague. Dans cette étude, 130 femmes ayant un diagnostic de VP étaient assignées à une thérapie de groupe de TCC deuxième vague ou une thérapie de groupe basée sur la pleine conscience, toutes deux d'une durée de huit semaines. Des mesures auto-rapportées étaient complétées au pré-traitement, au post-traitement, au suivi de 6 mois et au suivi de 12 mois. Les résultats indiquaient que les améliorations quant à la douleur (l'intensité durant la pénétration vaginale et au vulvagésiomètre) et la détresse sexuelle mesurées au post-traitement et au suivi 6 mois étaient maintenues au suivi 12 mois, et ce avec aucune différence d'efficacité entre les traitements. Cependant, les femmes n'étaient pas toutes assignées de manière

aléatoire à chacun des deux traitements, ce qui limite la portée de ses conclusions. Dans une étude subséquente sur les modérateurs de changement de cet essai clinique, les analyses ont révélé que les femmes étant dans des relations de couple depuis moins longtemps et ayant une VP secondaire (ayant débuté plus tard, après une période sans douleur) bénéficiaient davantage de la TCC basée sur la pleine conscience, alors que celles étant en dans des relations de couple de plus longue durée et ayant une VP primaire (douleur présente depuis toujours) bénéficiaient davantage de la TCC de deuxième vague. Ainsi, les résultats de cette étude suggèrent que les thérapies de troisième vague pourraient être plus efficaces que celles de deuxième vague pour certaines femmes souffrant de VP, ce qui appuie la pertinence de continuer à les étudier. En outre, ces thérapies mettent davantage l'accent sur l'acceptation et la bienveillance, ce qui est particulièrement adapté à cette population clinique en raison de l'impact de la VP sur l'image de soi documentée par plusieurs études (Gates & Galask, 2001; Reed et al., 2003).

Limites des études effectuées à ce jour

Une lacune importante dans le domaine de la VP, de même que dans le contexte plus large de la douleur chronique, est le manque de connaissances concernant les processus sous-tendant les changements mesurés dans les essais cliniques, puisque peu d'études se sont penchées sur l'identification de médiateurs d'efficacité thérapeutique. Bien que l'auto-efficacité et le catastrophisme soient des variables psychologiques centrales dans les théories expliquant le maintien de la douleur chronique, incluant la VP, et qu'elles soient souvent des cibles de changements dans les thérapies cognitives-comportementales, elles n'ont pas été étudiées comme médiateurs de changement dans le domaine de la VP. La connaissance de tels processus est importante, puisqu'elle permet

d'améliorer les traitements offerts. En effet, bien que les études disponibles démontrent que les traitements aident certaines femmes sur les plans physique et psychologique, ce ne sont pas toutes les femmes qui voient des améliorations et les taux de succès varient beaucoup selon les études, allant de 13 à 83% (Landry et al., 2008) : une seconde limite serait donc que l'efficacité des traitements est restreinte.

De plus, la recherche dans le domaine de la VP demeure principalement biomédicale, avec peu d'études sur les facteurs psychosociaux qui joueraient un rôle dans le développement et le maintien de la douleur (Landry et al., 2008). Par ailleurs, dans le domaine de la douleur chronique, des variables s'inscrivant dans le nouveau courant de psychologie positive et issues des thérapies de troisième vague, telles que l'acceptation et la pleine conscience, reçoivent de plus en plus d'attention empirique. Dans le domaine de la VP, les études portent principalement sur les facteurs pouvant maintenir ou aggraver la douleur, par exemple le catastrophisme ou l'hypervigilance; à l'inverse, les facteurs pouvant avoir des impacts positifs chez les femmes, par exemple l'auto-efficacité, ont été moins étudiés. Dans ce contexte où beaucoup de femmes souffrant de VP rapportent une attitude négative envers elles-mêmes dans leur sexualité, l'auto-compassion - un concept s'inscrivant dans le courant de la psychologie positive et des TCC de troisième vague - pourrait être un facteur permettant aux femmes de réguler efficacement les émotions douloureuses engendrées par la VP comme la honte et la culpabilité, et favoriser le bien-être psychologique et sexuel de ces femmes et de leurs partenaires. Issue de traditions orientales et récemment théorisée par des psychologues occidentaux, l'auto-compassion est une façon d'être en contact avec soi-même dans une attitude bienveillante, permettant de réguler efficacement les émotions douloureuses. Bien que cette variable ait commencé

à être étudiée dans le domaine de la douleur chronique (Costa & Pinto-Gouveia, 2011, 2013; Wren et al., 2012), aucune étude jusqu'à présent n'a mesuré l'auto-compassion auprès de femmes souffrant de douleur génito-pelvienne.

Ainsi, considérant les limites relevées dans le domaine, la présente thèse porte sur des facteurs cognitivo-affectifs prédisant la douleur et les conséquences associées auprès de couples faisant face à la VP, et ce dans un contexte d'intervention. Plus spécifiquement, le premier article porte sur le lien entre l'auto-compassion et l'ajustement psychologique et sexuel de femmes ayant un diagnostic de VP et leurs partenaires, et ce, de manière transversale (données pré-traitement) dans le cadre d'un essai clinique randomisé testant l'efficacité de la TCCC (Corsini-Munt et al., 2014). Le second article porte sur le rôle de l'auto-efficacité et du catastrophisme comme médiateurs de changement dans la TCCC.

Définition de l'auto-compassion

L'auto-compassion, telle que définie par K. Neff (2003), comporte trois composantes, chacune étant divisée en deux pôles opposés. Cette conceptualisation est sous-jacente au questionnaire d'auto-compassion le plus communément utilisé et développé par cette auteure (K. D. Neff, 2003).

Bienveillance envers soi et autocritique. La bienveillance envers soi-même implique d'être en relation avec soi avec chaleur, compréhension et sensibilité, et ce, de manière inconditionnelle. Au contraire, l'autocritique, son pôle opposé, implique d'être critique et exigeant envers soi.

Pleine conscience et suridentification. Le terme pleine conscience désigne une certaine qualité d'attention au moment présent où l'ensemble de l'expérience subjective

est accueilli avec un intérêt bienveillant, sans s'agripper à ce qui est agréable, ni rejeter ce qui est désagréable. Au contraire, la suridentification désigne une manière de vivre l'instant présent en s'identifiant de manière exagérée à un aspect de l'expérience, par exemple une émotion ou une pensée.

Humanité partagée et isolement. L'humanité commune implique la reconnaissance que tous les êtres humains sont imparfaits, avec leurs fragilités, défauts et échecs, ce qui permet de vivre les expériences difficiles avec un sentiment de connexion aux autres. Cette composante de l'auto-compassion est utile pour la distinguer du concept d'acceptation de soi, puisqu'elle base la compassion sur une acceptation plus large, qui est celle de l'imperfection humaine. L'isolement est plutôt la perception d'être seul et coupé du monde dans les moments difficiles.

À ce jour, la recherche sur l'auto-compassion s'est faite majoritairement chez des populations non cliniques et a démontré que les individus ayant plus d'auto-compassion ont moins d'affects négatifs et plus d'affects positifs, ainsi que des niveaux moins élevés de dépression et d'anxiété (Barnard & Curry, 2011). En outre, une méta-analyse a trouvé une grande taille d'effet pour la relation entre plus d'auto-compassion et des niveaux moins élevés de plusieurs expressions communes de la psychopathologie, telles que l'anxiété et la dépression (MacBeth & Gumley, 2012). Une autre méta-analyse s'est penchée sur la relation entre l'auto-compassion et le bien-être, et a trouvé une grande taille d'effet ($r = .47$) pour la relation entre plus d'auto-compassion et des niveaux plus élevés de bien-être psychologique (Zessin et al., 2015). Les mécanismes d'action par lesquelles l'auto-compassion favoriserait une meilleure santé mentale commencent à être étudiés. Notamment, plusieurs études auprès de populations clinique et non clinique ont examiné

de manière transversale, avec des analyses de médiation, le rôle de la régulation émotionnelle pour expliquer le lien entre plus d'auto-compassion et une meilleure santé mentale (Inwood et al., 2018). Les résultats suggèrent que l'auto-compassion pourrait favoriser une meilleure santé psychologique en permettant à la personne de faire face à ses émotions désagréables avec des stratégies plus adaptées.

Auto-compassion et douleur chronique

Dans une étude menée auprès de personnes souffrant de douleur chronique, soit l'arthrite ou le syndrome du côlon irritable, l'auto-compassion a été négativement associée à l'évitement et à la tendance à se blâmer. Les gens ayant plus d'auto-compassion avaient aussi un style d'adaptation plus centré sur la résolution du problème, ce qui était expliqué par une plus grande acceptation de leur situation (Sirois et al., 2015). Une autre étude auprès de patients ayant divers problèmes de douleur chronique a trouvé un lien positif entre l'auto-compassion et l'acceptation de la douleur (Costa & Pinto-Gouveia, 2011). Toujours auprès de personnes souffrant de douleur chronique, plus d'auto-compassion était associée à moins d'évitement expérientiel, d'anxiété, de dépression et de stress (Costa & Pinto-Gouveia, 2013). Par ailleurs, dans une étude auprès de personnes obèses souffrant de douleurs musculo-squelettiques (Wren et al., 2012), plus d'auto-compassion était associée à moins de catastrophisme, d'affects négatifs et d'invalidité due à la douleur, et à plus à d'auto-efficacité et d'affects positifs.

Plus récemment, une étude corrélationnelle auprès d'individus souffrant de divers types de douleur chronique a montré des associations entre l'auto-compassion et moins de peur de la douleur, de dépression et d'invalidité, de même que plus d'acceptation de la douleur et d'utilisation de stratégies adaptées pour faire face à la douleur (Edwards et al., 2019).

De plus, le lien entre l'auto-compassion et l'adaptation psychologique à la douleur chronique a récemment été examiné pour la première fois de manière longitudinale. Tout en contrôlant pour les niveaux au temps 1 des symptômes dépressifs, d'intensité de la douleur, d'invalidité et de pleine conscience, plus d'auto-compassion au temps 1 prédisait moins de symptômes dépressifs six mois plus tard (temps 2) et 12 mois plus tard (temps 3) (Carvalho et al., 2019).

Auto-compassion et relations interpersonnelles

La recherche sur l'auto-compassion suggère que cette manière d'être en relation avec soi pourrait être bénéfique dans les relations interpersonnelles, et soutient donc la pertinence d'examiner cette variable auprès de couples. Tout d'abord, des études transversales montrent que des niveaux plus élevés d'auto-compassion sont associés à des issues positives dans des relations parentales (Psychogiou et al., 2016), amicales (Crocker & Canevello, 2008) et amoureuses (Baker & McNulty, 2011; Neff & Beretvas, 2013; Pinto-Gouveia et al., 2012; Tandler & Petersen, 2018; Yarnell & Neff, 2013). Parmi ces études s'étant penchées sur le rôle de l'auto-compassion dans les relations amoureuses, trois étaient auprès de couples (Neff & Beretvas, 2013; Pinto-Gouveia et al., 2012; Schellekens et al., 2017). La première était auprès de 104 couples de la population générale et a montré que l'auto-compassion était un meilleur prédicteur de comportement positif dans la relation que l'estime de soi ou le style d'attachement (Neff & Beretvas, 2013). Plus spécifiquement, les participants rapportant des niveaux d'auto-compassion plus élevés étaient décrits par leur partenaire comme étant significativement plus affectueux, attentionnés et chaleureux.

Les partenaires de ces personnes ayant plus d'auto-compassion rapportaient aussi se sentir plus acceptés. Au contraire, de faibles niveaux d'auto-compassion étaient associés à plus de verbalisations agressives, de détachement et moins d'acceptation de son partenaire, tels que rapportés par celui-ci. En outre, l'auto-compassion chez une personne était associée à une plus grande satisfaction relationnelle chez le partenaire. Par conséquent, ces résultats suggèrent que le fait d'être compatissant envers soi-même est associé à des relations amoureuses plus positives. La seconde étude était auprès de couples faisant face à l'infertilité (Pinto-Gouveia et al., 2012). Des niveaux plus élevés d'auto-compassion étaient associés à un meilleur ajustement psychologique à l'infertilité, un problème de santé qui, tout comme la VP, a des conséquences sur la relation et la sexualité du couple. La troisième étude s'est penchée sur l'ajustement des couples dont un des partenaires est atteint du cancer du poumon. Dans cette étude transversale auprès de 88 couples, l'auto-compassion était associée à des niveaux plus faibles de détresse psychologique chez les deux partenaires, de même qu'à une meilleure communication concernant le cancer (Schellekens et al., 2017). Ainsi, ces deux études suggèrent que face à des difficultés de santé, les couples dont les partenaires ont davantage d'auto-compassion ont un meilleur ajustement psychologique et relationnel (Pinto-Gouveia et al., 2012; Schellekens et al., 2017). Cependant, bien que ces deux problématiques peuvent affecter la sexualité des couples, des variables sexuelles n'ont pas été examinées dans ces études. Bien qu'il n'y ait pas d'étude sur les mécanismes permettant d'expliquer les associations entre l'auto-compassion et des issues relationnelles plus positives, il est possible que le fait que les personnes ayant plus d'auto-compassion utilisent des stratégies de régulations émotionnelles plus efficaces expliquent ce lien. En effet, la manière dont une personne

régule ses émotions a été associé à la qualité de ses relations, notamment la tendance à supprimer l'expression de ses émotions a été associé à des relations interpersonnelles moins intimes et positives (English et al., 2013).

Auto-efficacité et catastrophisme comme médiateurs de changement

Une autre lacune du domaine de la VP est le manque d'étude sur les médiateurs de changements dans les études de traitement. Le catastrophisme et l'auto-efficacité sont deux facteurs cognitifs ciblés dans les TCCs pour la douleur chronique, incluant la VP, mais il manque d'études appuyant empiriquement qu'il s'agisse de médiateurs de changements thérapeutiques spécifiques à la TCC. Dans l'étude de Brotto et al. (2014) testant l'efficacité d'une TCC basée sur la pleine conscience pour la première fois, la réduction de la douleur au test du coton-tige mesurée au suivi 6 mois était prédite par l'augmentation de l'auto-efficacité entre le pré et le post-traitement, mais pas la diminution du catastrophisme (Brotto et al., 2014). Il s'agit de la première étude ayant examiné le rôle des changements de catastrophisme et d'auto-efficacité dans les améliorations mesurées suite à une TCC pour 85 femmes souffrant de douleur génito-pelvienne. Cependant, cette étude comporte des limites méthodologiques importantes : les participantes n'étaient pas randomisées à l'une ou l'autre des deux conditions (TCC ou liste d'attente), la condition contrôle n'était pas un traitement actif, l'échantillon était trop petit pour avoir une puissance statistique suffisante et uniquement les participantes ayant complété au moins 75% du traitement étaient incluses dans les analyses, ce qui limite la généralisation des résultats. De plus, l'étude n'inclut aucune analyse de médiation formelle. Dans l'étude de Brotto et al. (2020) comparant une TCC de groupe basée sur la pleine conscience à une TCC de deuxième vague, le catastrophisme a été identifié comme médiateur de l'amélioration quant à la

douleur au vulvagésiomètre commun aux deux thérapies. Le sentiment d'auto-efficacité n'était pas examiné dans cette étude. Tel que mentionné, une limite importante de cette dernière est qu'elle n'avait pas un devis complétement contrôlé et randomisé ; seulement 1/3 des participantes étaient randomisées, la majorité (2/3) étant assignée. Il faut donc se tourner vers le domaine plus large de la douleur chronique afin de trouver des études contrôlées et randomisées sur le rôle de médiateur de changements thérapeutiques de l'auto-efficacité et du catastrophisme dans une TCC.

Deux essais cliniques randomisés ont examiné le catastrophisme comme médiateur des changements mesurés suite à une TCC, auprès de patients souffrant de douleur temporomandibulaire (Turner et al., 2007) et de douleur chronique au bas du dos (Smeets et al., 2006). Dans l'étude de Smeets et al. (2006), la diminution du catastrophisme a été identifiée comme médiateur des changements mesurés sur le plan de l'intensité de la douleur et de l'invalidité, et ce dans les trois groupes de traitement – TCC, un traitement physique actif (*active physical treatment*) et une combinaison de ces deux traitements – qui étaient comparés à un groupe contrôle de type liste d'attente. Ainsi, cette étude suggère que la diminution du catastrophisme soit un médiateur de changement thérapeutique commun aux traitements psychologique et physique. Toutefois, bien que plusieurs types de traitement étaient examinés, l'effet d'un traitement actif n'était pas contrôlé, ce qui est un élément méthodologique important afin d'évaluer l'effet spécifique du catastrophisme dans les TCCs (Burns et al., 2012). En effet, dans les analyses statistiques, chacun des trois traitements était comparé au groupe contrôle de type liste d'attente ; les groupes de traitement actif n'étaient donc pas utilisés comme groupe de comparaison. Dans l'étude de Turner et al. (2007), la TCC pour la douleur chronique était comparée à un traitement

d'éducation sur la douleur, et l'auto-efficacité était, en plus du catastrophisme, examinée comme médiateur de changement. Les changements sur le plan du catastrophisme et de l'auto-efficacité entre le pré-traitement et le suivi 6 mois étaient des médiateurs significatifs de l'effet de la TCC sur la douleur et l'invalidité au suivi d'un an. Cependant, lorsque toutes les variables médiatrices étaient incluses dans le même modèle, uniquement l'auto-efficacité restait un médiateur significatif. Une limite de cette étude est que seuls les participants ayant complété au moins trois séances de traitement étaient inclus dans les analyses, ce qui limite la généralisation des résultats obtenus. Burns et al. (2012) ont également examiné les effets de la réduction du catastrophisme sur les améliorations mesurées suite à une TCC dans le contexte d'un essai clinique randomisé auprès de 61 patients souffrant de formes diverses de douleur chronique. La TCC était comparée à une condition où les patients recevaient de l'éducation concernant la douleur. Les résultats suggèrent que le catastrophisme ne soit pas un mécanisme spécifique à la TCC puisque les diminutions de catastrophisme n'étaient pas significativement plus grandes dans le groupe TCC. Toutefois, les caractéristiques de l'échantillon pourraient expliquer ces résultats. En effet, l'échantillon était formé de participants ayant un faible niveau socio-économique et d'alphabétisation. Il est probable que les participants de cette étude avaient moins d'informations sur la douleur chronique, en comparaison avec la moyenne de la population, ce qui a pu faire en sorte que le traitement fournissant de l'information valide sur la douleur ait été particulièrement efficace pour modifier leurs perceptions catastrophiques de la douleur. En outre, les caractéristiques de l'échantillon, le manque de puissance statistique et l'absence d'analyses de médiation limitent la généralisation des résultats obtenus dans cette étude.

Dans la dernière décennie, un nombre grandissant d'études a porté sur les thérapies cognitivo-comportementales de troisième vague pour la douleur chronique, qui incluent de nouvelles cibles d'intervention de même que de nouvelles manières d'intervenir sur les facteurs cognitifs associés à la douleur. Ainsi, plus récemment, le catastrophisme a été examiné comme médiateur des changements thérapeutiques mesurés suite à une thérapie d'acceptation et d'engagement dans un essai clinique randomisé auprès de 60 patients souffrant de formes de douleur chronique diverses. Cette thérapie, dans laquelle le catastrophisme n'était pas une cible de changement, était comparée à un traitement de relaxation appliquée, et des mesures auto-rapportées des variables d'intérêts étaient prises toutes les semaines (Kemani et al., 2016). Les analyses de médiation de cette étude révèlent que la réduction du catastrophisme n'était pas un mécanisme expliquant l'amélioration sur le plan de l'interférence de la douleur au cours de la thérapie d'acceptation et d'engagement. La flexibilité psychologique était un médiateur significatif. Les conclusions sont cependant limitées par la petite taille de l'échantillon et le haut pourcentage de données manquantes (37%) des évaluation hebdomadaires. Aucun autre essai clinique randomisé testant l'efficacité d'une thérapie d'acceptation et d'engagement n'a examiné le rôle médiateur du catastrophisme, et aucun n'a examiné celui de l'auto-efficacité. Nous en savons donc très peu sur le rôle médiateur de l'auto-efficacité et du catastrophisme dans ce type de TCC.

En résumé, les essais cliniques randomisés ayant porté sur le rôle médiateur de l'auto-efficacité et du catastrophisme sont peu nombreux. Plus précisément, trois ont porté sur le rôle médiateur du catastrophisme (Kemani et al., 2016; Smeets et al., 2006; Turner et al., 2007) et une de ces deux études a également examiné l'auto-efficacité (Turner et al.,

2007). Elles ont aussi une faible validité externe, et une seule d'entre elles a comparé une TCC à un traitement actif. Par ailleurs, une limite importante de l'ensemble de ces études est qu'aucune étude n'a pris en compte le contexte relationnel de la douleur en incluant les partenaires des patients, ce qui est important considérant que les partenaires influencent et sont influencés par la douleur et les difficultés associées. De plus, les niveaux de catastrophisme et d'auto-efficacité des partenaires ont été associés à l'intensité de la douleur chez les femmes souffrant de VP (Lemieux et al., 2013).

Objectifs et hypothèses

L'objectif général de la thèse vise à pallier aux lacunes des études menées à ce jour dans le domaine de la VP en 1) portant un intérêt à la fois aux femmes et à leurs partenaires; 2) mesurant l'auto-compassion pour la première fois auprès de femmes souffrant de douleur génito-pelvienne ; 3) examinant des mécanismes de changements thérapeutiques dans une nouvelle TCC de couple avec une méthodologie rigoureuse, soit un essai clinique randomisé.

Plus spécifiquement, le premier article de thèse s'attarde aux associations entre l'auto-compassion et l'ajustement psychologique, sexuel et relationnel de couples dont la femme souffre de VP. L'inclusion des partenaires permet d'examiner les associations entre l'auto-compassion de chacun des membres du couple et son propre ajustement de même que celui de l'autre membre du couple. Il était attendu que les femmes avec la VP ayant plus d'auto-compassion rapporteraient moins de détresse psychologique et sexuelle et une plus grande satisfaction relationnelle. Il était attendu que les partenaires ayant plus d'auto-compassion rapporteraient moins de détresse psychologique et sexuelle, et une plus grande satisfaction relationnelle. De plus, il était attendu que plus d'auto-compassion chez un des

membres du couple serait associée à moins de détresse psychologique et sexuelle pour l'autre membre du couple, de même qu'une plus grande satisfaction relationnelle. Enfin, aucune association significative entre l'auto-compassion et la douleur n'était attendue. Cet article est publié dans *The Clinical Journal of Pain*. Le deuxième article de thèse porte sur le rôle de médiateurs de changements thérapeutiques de l'auto-efficacité et du catastrophisme dans la TCCC pour les couples dont la femme présente une VP, et ce dans le cadre d'un essai clinique randomisé où la TCCC était comparée à un traitement médical de lidocaïne topique. Étant donné que notre objectif était de comprendre les mécanismes de changement de la thérapie, la condition lidocaïne était utilisée comme un groupe contrôle actif. Ainsi, il était attendu que comparée à la lidocaïne, la TCCC soit significativement plus efficace à diminuer le catastrophisme et à augmenter l'auto-efficacité. Il était attendu que la diminution du catastrophisme et l'augmentation de l'auto-efficacité des femmes avec la VP expliquent l'efficacité de la TCCC à diminuer leur propre douleur et détresse sexuelle et à améliorer leur fonction sexuelle. Il était également attendu que la diminution du catastrophisme et l'augmentation de l'auto-efficacité chez les partenaires expliquent l'efficacité de la TCCC à diminuer la douleur des femmes. Aucune hypothèse n'a été émise concernant la fonction et la détresse sexuelles des partenaires, étant donné qu'aucune étude à ce jour dans le domaine de la douleur génito-pelvienne n'a porté sur les associations entre ces issues et l'auto-efficacité et le catastrophisme. Ce second article sera soumis cet été au périodique *Behaviour Research and Therapy*, après que l'article d'efficacité de cet essai clinique randomisé ait été publié.

Article 1

Does Self-compassion Benefit Couples Coping With Vulvodynia? Associations With Psychological, Sexual, and Relationship Adjustment

Santerre-Baillargeon, M., Rosen, N.O., Steben, M., Pâquet, M., Macabena Perez, R., Bergeron, S. (2018). Does self-compassion benefit couples coping with vulvodynia? Associations with psychological, sexual and relationship adjustment. *The Clinical Journal of Pain*. doi: 10.1097/AJP.0000000000000579

Running head : SELF-COMPASSION AMONG COUPLES COPING WITH VULVODYNIA

TITLE :

Does Self-Compassion Benefit Couples Coping with Vulvodynia? Associations with Psychological, Sexual, and Relationship Adjustment

AUTHORS :

Marie Santerre-Baillargeon, BA, PhD Candidate, University of Montreal, Department of Psychology, Montreal, Canada
Natalie O. Rosen, PhD, Dalhousie University, Department of Psychology and Neuroscience, Department of Obstetrics and Gynecology, Halifax, Canada
Marc Steben, MD., Groupe de médecine familiale La Cité du Parc Lafontaine, Montréal, Canada
Myriam Pâquet, BA, PhD Candidate, University of Montreal, Department of Psychology, Montreal, Canada
Rocio Macabena Perez , BA, University of Montreal, Department of psychology, Montreal, Canada
Sophie Bergeron PhD, University of Montreal, Department of Psychology, Montreal, Canada

ACKNOWLEDGEMENTS :

The authors thank the members of the Sexual Health Laboratory and the participants for their help in conducting this study. This research was supported by Fonds de recherche du Québec – Santé (FRQS) Fellowship awarded to the first author and by a grant from the Canadian Institutes of Health Research (CHIR) awarded to the last author.

Abstract

Objectives. Vulvodynia, a chronic vulvovaginal pain condition, has deleterious consequences for the psychological, relational, and sexual well-being of affected women and their partners. Protective factors, which can reduce these negative effects, are increasingly studied in the field of chronic pain. One of these, self-compassion, entails qualities such as kindness toward oneself, and has been associated with better adjustment in individuals with chronic pain. Because many women with vulvodynia have a negative image of themselves in the context of sexuality, self-compassion may be especially relevant for this population. This study aimed to investigate self-compassion among couples coping with vulvodynia and its associations with psychological, sexual, and relationship adjust ment, as well as pain during sexual intercourse.

Materials and Methods. Data were gathered from 48 women diagnosed with provoked vestibulodynia—a subtype of vulvodynia— and their partners, using self-report questionnaires pertaining to anxiety, depression, sexual distress, relationship satisfaction, and pain intensity during sexual intercourse.

Results: For both women and their partners, higher levels of self-compassion were associated with their own lower anxiety and depression. When partners reported higher levels of self-compassion, they were more satisfied with their relationship, and both partners and women reported lower sexual distress. No significant association was found

for pain during intercourse.

Discussion: Findings suggest that self-compassion is a promising protective factor in the experience of vulvodynia and associated distress. Interventions aimed at increasing self-compassion could enhance the efficacy of psychological treatments for these women and their partners. Further studies are needed to better understand the correlates of self-compassion among this population.

Key Words: vulvodynia, provoked vestibulodynia, chronic pain, couples, self-compassion, sexual distress, relationship satisfaction

Introduction

Vulvodynia, a chronic vulvovaginal pain condition, is a common complaint among women. Its population prevalence ranges between 8% and 20% in adolescent girls and adult women [1, 2]. In premenopausal women, the most common form of vulvodynia is provoked vestibulodynia (PVD) [1]. PVD is characterized by a burning pain at the vestibule at the entrance of the vagina, when pressure is applied, mainly during intercourse, but also in non-sexual situations (e.g., tampon insertion, riding a bike) [3].

Controlled studies indicate that PVD has multiple deleterious consequences in affected women and their partners, hence greatly affecting their quality of life [4]. Women with PVD report significantly more sexual distress, less sexual satisfaction and poorer sexual functioning, in comparison to women without PVD [5-7]. These women also report more psychological distress, namely anxiety and depression [5, 8, 9]. Several studies also suggest the presence of an altered self-image in women with PVD. Controlled research shows that they report a more negative image of themselves as a sexual partner (i.e. sexual self-schema) [5, 7] and that this negative self-image is associated with increased pain, sexual distress and sexual dysfunction [10]. In qualitative studies, these women describe feeling inadequate in a sexual context and they report feelings of shame and guilt for experiencing pain during intercourse [11-14]. In addition, women with vulvovaginal pain often report feelings of isolation and invalidation [15]. Taken together, findings suggest that women with PVD tend to be self-critical in relation to their PVD. Because of its relational context, this type of chronic pain has consequences not only for women, but also for their partners and the relationship [16]. Partners of women with PVD report significantly more psychological distress, less sexual satisfaction, and poorer sexual

functioning, compared to partners of women without PVD [17-19].

Protective factors, which can reduce these deleterious effects and improve quality of life, are increasingly studied in the field of chronic pain. One of these, self-compassion, entails qualities such as kindness and understanding toward oneself in instances of pain or failure, and has been associated with better adjustment in individuals with chronic pain [20-23]. Self-compassion may be particularly important for women with PVD, as they often report a negative self-image in the context of sexuality and feelings of inadequacy and isolation.

An increasing body of literature suggests that self-compassion promotes better mental health [24]. A meta-analysis including studies with clinical and non-clinical populations found a large effect size for the association between greater self-compassion and lower levels of several common expressions of distress, such as anxiety and depression [25]. Still, only a handful of studies have examined how self-compassion relates to psychological adjustment to chronic pain. In four cross-sectional studies and one vignettes study conducted among individuals with various types of chronic pain, self-compassion was associated with reduced negative outcomes such as less stress, anxiety, depression, negative affect, catastrophizing, rumination and experiential avoidance [20-23, 26], and was also linked with more pain acceptance [21, 26]. In all those studies among chronic pain populations—specifically, samples of individuals with various forms of chronic pain [21, 22], persistent musculoskeletal pain [20] and inflammatory bowel disease or arthritis [26]—self-compassion was not associated with pain [23].

Recent biopsychosocial models have emphasized the relationnal context of pain, but to date, studies on self-compassion among chronic pain populations have not

considered its relational context [20-23, 26]. In women with PVD, pain mainly occurs in a particularly intimate context in which the partner is intricately involved in the pain experience. Indeed, a growing number of studies on PVD have been conducted among couples [27]. Cross-sectional, prospective, and daily diary studies have demonstrated that one partner's individual experience of PVD is associated with the psychological and sexual adjustment to pain of the other partner, and that the healthy partners' pain appraisals are associated with women's pain intensity and sexual impairment [28]. The relevance of including partners in studies of women with PVD is thus well established [6].

In parallel, research on self-compassion points toward the importance of studying this way of relating to oneself in the context of interpersonal relationships. In studies with non-clinical samples of individuals, self-compassion was associated with more positive interpersonal outcomes in friendship [29], parenting [30], relationships in general [31], as well as in romantic relationships [32-35]. Still, self-compassion has been measured among couples in very few studies [34, 35]. In a first one, involving couples from the community, self-compassion was a stronger predictor of positive behaviour in the relationship (e.g., being more affectionate, attentive and friendly) than self-esteem and attachment style [34]. Moreover, when one person reported higher self-compassion, not only were they more satisfied with their relationship, but their partners were more satisfied as well. In a second study, conducted among couples struggling with infertility, self-compassion was related, for both men and women, to better psychological adjustment to infertility [35], a medical condition that puts a strain on the couple's relationship and sexuality [36], similar to PVD. Nevertheless, this study did not examine sexual and relational outcomes.

In summary, no study to date has examined self-compassion among a chronic pain

population by taking into account the relationnal context of pain, which is particularly relevant for women with PVD, since their pain occurs during partnered sexual activities. Studying self-compassion among this population is also important because of the impact of pain on women's self-image as a sexual partner and the feelings of isolation and inadequacy that they report. Having a caring and kind attitude toward themselves could serve to decrease their psychological, sexual and relational distress. Further, self-compassion could decrease distress in partners, for whom PVD also generates negative psychological, sexual and relational repercussions.

The aim of the present study was to investigate self-compassion among women with PVD and their partners, and its associations with psychological distress (anxiety and depression), sexual distress, relationship satisfaction and pain. Because both members of the couple were included, we examined the influence of each partners' self-compassion on their own and their partner's outcomes. We hypothesized that women's and partners' greater self-compassion would be associated with both their own and their partner's lower psychological (anxiety and depression) and sexual distress. Moreover, we hypothesized that greater self-compassion in both partners would be associated with their own higher relationship satisfaction, as well as their partner's higher reported relationship satisfaction. Given prior findings, we hypothesized no significant association between self-compassion and pain.

Materials and Methods

Participants

The present study was conducted in two North American cities among couples participating in a randomized clinical trial comparing the efficacy of cognitive behavioral

couple therapy to topical lidocaine for the treatment of PVD. Data were gathered at the pre-treatment baseline assessment from 48 women diagnosed with PVD and their partners. Several recruitment strategies were used. First, women with PVD who had participated in previous studies and consented to being contacted for future projects were invited to take part in the current study. Women and their partners were also recruited in centers specialized in vulvovaginal pain, as well as through ads in newspapers, universities and online sites such as Facebook, Craigslist, and Kijiji.

To confirm couples' eligibility, a member of the research team first conducted a brief telephone screening interview. Moreover, all women took part in a gynecological examination to confirm their PVD diagnosis. This diagnostic gynecological examination included the standardized cotton-swab test, involving the use of a dry cotton swab to palpate the 3-, 6-, and 9-o'clock positions of the vulvar vestibule, while the woman rated her pain intensity for each location on a numerical rating scale of 0 to 10 [3]. Inclusion criteria were 1) women experiencing pain during sexual intercourse that occurred on at least 80% of vaginal penetration attempts in the last six months; 2) women's pain limited to sexual intercourse or other activities involving pressure to the vulvar vestibule (e.g., during tampon insertion); 3) women experiencing medium to severe pain intensity in one or more places in the vulvar vestibule during the gynecological examination, operationalized as a minimum of 4, as assessed by the participant on a scale of 0 to 10; 4) sexual activity at least once a month during the last three months (penetration or attempted penetration); 5) couples had been together for at least six months and were cohabitating or had at least four in-person contacts per week; 6) women were aged between 18-45 years, and partners were at least 18 years of age.

Exclusion criteria were: 1) vulvovaginal pain not clearly related to sexual intercourse or pressure exerted on the vestibule (i.e., continuous, unprovoked pain); 2) actively receiving treatment for PVD; 3) presence of one of the following factors: a) untreated self-reported medical or psychiatric condition in either partner (e.g., untreated psychotic disorder or unipolar depression), b) active infection n (e.g., candida), c) dermatological lesions, d) pregnancy or planning to become pregnant in the coming months (duration of the clinical trial), e) having started menopause.

A telephone screening interview was conducted with 187 women, but 129 were not eligible to participate. Reasons for ineligibility were the following: 16 (8%) were not in a relationship, 21 (11%) had time commitment and distance difficulties, 9 (5%) had partners who declined participation, 14 (7%) were outside of the age range (17-45), 8 (4%) did not attend the gynecological examination, 2 (1%) did not have a PVD diagnosis, as confirmed by a physician , and 59 (31%) were ineligible for other reasons (i.e. menopause, pregnancy, other infections, pain location, frequency of the pain, relationship and pain duration, pursuing other treatments). In addition, 10 couples declined participation before the pre-treatment baseline assessment. Thus, this study included a final sample of 48 couples (46 heterosexual couples and two same-sex couples).

Procedure

Data were obtained at the pre-treatment baseline assessment of the randomized clinical trial in which this study took place. During this assessment, conducted by a research assistant at one of the two research sites, couples completed a structured interview together and online self-report questionnaires separately in the laboratory. The structured interview covered demographic information, relationship history, gynecological history,

pain history as well as current pain and sexual activity. The self-report questionnaires were completed independently by the partners, on separate tablet computers using Qualtrics Research Suite online software. Since data were obtained for a larger study, self-report questionnaires pertained to many other variables in addition to those included in the present study. All couples provided free and informed consent prior to participation and received a compensation of $30 for the time and travel related to the assessment. Women were invited to a gynecological examination to confirm the diagnosis of PVD before or after this assessment. This study was approved by the health centers and the two universities institutional review boards where the research took place.

Measures

Demographic Variables. The structured interview gathered demographic information of the participating couples, including their age, education level, couples' annual income, relationship duration and pain duration.

Self-compassion. Both partners completed the Self-Compassion Scale [37], a 26-item self-report inventory that assesses the three different aspects of self-compassion, each divided in two opposite poles, for a total of six subscales: 1) self-kindness versus self-judgment; 2) common humanity versus isolation; 3) mindfulness versus over-identification. Self-kindness implies being kind and understanding toward oneself rather than self-critical. Common humanity implies the recognition that all human beings are imperfect, with their weaknesses and failures, such that difficult experiences can be processed with a sense of connection to others rather than isolation. Mindfulness involves holding painful thoughts and feelings in mindful awareness rather than overidentifying with them. Items are all rated on a scale of 1 (almost never) to 5 (almost always). Negative items (self-judgment, isolation

and over-identification) are reverse coded and mean scores on the six subscales are averaged to produce an overall self-compassion score. Higher scores indicate more self-compassion and total scores can range from 1 to 5. This self-compassion scale has an original Cronbach's alpha of 0.92 [37], with good reliability and validity. The total score has been used with chronic pain patients [20, 22] and couples [34]. The factor structure was stable across those studies [20, 22, 34] and for this sample. Cronbach's alpha was .91 for women and .90 for partners in this sample. A factorial analysis with direct oblimin rotation was performed, and six factors were obtained, explaining 73.02% of the variance. Cronbach's alphas of the six subscales ranged between 0.73 to 0.85 for women and from 0.69 to 0.81 for partners.

Main outcome measures

Trait anxiety. Both partners completed the Trait Anxiety scale (20 items) of the Spielberger State-Trait Anxiety Inventory (STAI) [38]. The psychometric properties of this well-known and frequently used scale have been demonstrated in clinical and non-clinical populations, including those suffering from chronic pain [39-41]. Participants answered on a 4-point Likert-type scale ranging from 1 (almost never) to 4 (almost always). Total scores can range from 20 to 80. Higher scores indicate a higher general tendency to experience anxiety symptoms. For this sample, Cronbach's alpha was .90 for women and .92 for partners.

Depression. Depressive symptomatology was measured by the Beck Depression Inventory-II (BDI-II) [42]. On this 21-item measure, participants answered on a Likert-type scale ranging from 0 (low intensity) to 3 (high intensity). Total scores can range from 0 to 63. This popular measure of depressive symptoms is validated and used with many

individuals with chronic pain [43]. Cronbach's alpha was .82 for women and .89 for partners in the present sample.

Sexual distress. Both partners completed the Female Sexual Distress Scale (FSDS) assessing sexuality-related personal distress. On this 13-item measure, participants answered on a 5-point Likert-type scale ranging from 0 (never) to 4 (always). Initially designed for women, this measure can be used for both women and men because all items are gender non-specific [44]. Therefore, no adaptation was needed for use with male partners. Good psychometric properties have been demonstrated for this scale, including high internal consistency, test-retest reliability, discriminant validity, and construct validity [45]. Total scores range from 0 to 52. Cronbach's alpha was .90 for women and .90 for partners in the present sample.

Pain. A visual analog scale (VAS) ranging from 0 (no pain at all) to 10 (worst pain ever) was used to assess women's pain intensity during sexual intercourse. Women were asked to rate their average pain intensity in the last six months. This method for measuring pain is recommended by the "Initiative on Methods, Measurement, and Pain Assessment in Clinical Trials" guidelines for chronic pain clinical trials [46] and the recent "Recommendations for Self-report Outcome Measures in Vulvodynia Clinical Trials" [47]. It has a significant positive correlation with other measures of pain intensity [48].

Relationship satisfaction. Both partners completed the Couple Satisfaction Index (CSI) [49]. This self-report measure of relationship satisfaction has 32 items. Good psychometric properties have been demonstrated for this measure with participants having different relationship status (e.g., dating, engaged, married), and a strong convergent validity with other well-known relationship satisfaction measures has been established [49]. Total scores

range from 0 to 161. Higher scores indicate higher satisfaction with one's relationship. For the present sample, Cronbach's alpha was .96 for women and .97 for partners.

Data Analytic Strategy

The associations between outcomes (anxiety, depression, sexual distress, relationship satisfaction and pain) and socio-demographic variables (pain duration, relationship duration, age, income and education level) were examined to assess the need to include covariates in subsequent analyses. Differences on outcomes between research sites were also examined. Correlation analyses between self-compassion (independent variable) and outcome variables were conducted.

The associations between self-compassion and psychological, sexual and relational outcomes were examined with the Actor-Partner Interdependence Model (APIM) [50]. This statistical approach was adopted because it accounts for the interdependence (i.e. the non-independence) of the partners' data. In the APIM analysis, the interdependence of the data can be estimated because data of both partners are modeled concurrently. Thus, the residual variance of their dependent variables can correlate and the associations between the independent variable of each partner with their own outcomes (actor effect) and the outcomes of the other member of the couple (partner effect) can be estimated.

Four APIM models were examined. Anxiety, depression, sexual distress and relationship satisfaction of both partners were entered as dependent variables in distinct models. Self-compassion of both partners was entered as the independent variable in all models. The associations between women and partners' self-compassion and their own outcomes (actor effects) were examined. The associations between each partner's self-compassion and the outcomes of the other member of the couple (partner effects) were

examined as well. Amos (Version 19.0.0) was used to estimate those four models. Finally, a linear regression was conducted to assess the association between both partners' self-compassion and women's pain.

Results

Sample Characteristics

Table 1 displays descriptive statistics for the sample and the mean (M) and standard deviation (SD) for independent and dependent variables. On average, women had had their pain condition for six years, which reflects the chronicity of vulvodynia.

Of this final sample of 48 couples, 20 (41.67 %) were recruited through advertisements in newspapers, websites, universities, hospitals and medical clinics, 19 (39.58 %) through their participation in a previous study conducted by the authors, 7 (14.58 %) were referred by a physician and 2 (4.17 %) by a friend. Research Site A recruited 27 couples and Research Site B recruited 21 couples.

Differences between research sites across dependent variables were found for women's sexual distress ($F(1,46)=4.35, P<.05$) and women's pain intensity ($F(1,46)=4.21, P<.05$). Thus, research site was included as a covariate in related analyses.

Correlations

A set of preliminary analyses was conducted to examine correlations between participants' outcomes and their age, education level, couples' annual income, relationship duration and pain duration.

Women's pain duration was negatively associated with partners' relationship satisfaction ($r=-0.45, P<.01$). Furthermore, income was negatively associated with women's

relationship satisfaction (r=-0.51,P<.001). We thus controlled for income and pain duration in subsequent analyses with relationship satisfaction. No other significant associations between sociodemographic data and outcomes were found.

Pearson product-moment correlations were computed to examine zero-order associations among the study variables. Those associations are displayed in Table 2.

Because self-compassion was highly correlated with both depression and anxiety within each member of the couple, we controlled for depression of both partners in our models with sexual distress and relationship satisfaction as outcomes. We controlled for depression because compared with anxiety, its associations with relationship satisfaction and sexual distress are better documented in the literature [51, 52]. Controlling for depression did not change the statistical significance and the strength of the associations between variables. Thus, the more parsimonious models, without depression as a covariate, are presented.

Associations Between Self-Compassion and Anxiety

Both partners' self-compassion accounted for 41% and 42.3% of the variance in women's and partners' anxiety, respectively. As shown in Table 3, women's higher self-compassion was associated with their own lower anxiety and partners' higher self-compassion was associated with their own lower anxiety. There were no partner effects, indicating that women's and partners' self-compassion was not associated with the level of anxiety of the other (Table 3).

Associations Between Self-Compassion and Depression

Self-compassion of both partners accounted for 23.8% of the variance in women's depressive symptoms and 47.4% in partners' depression. As shown in Table 3, women's

greater self-compassion was associated with their own lower depressive symptoms. Partners' greater self-compassion was also associated with their own lower depressive symptoms. There were no partner effects, showing that self-compassion of one partner was not associated with the depressive symptoms of the other (Table 3).

Associations Between Self-Compassion and Sexual Distress

Self-compassion of both partners accounted for 18.6% of the variance in women's sexual distress and 22.7% in partners' sexual distress. As shown in Table 3, after controlling for research sites, partners' greater self-compassion was associated with their own lower sexual distress. Moreover, partners' greater self-compassion was associated with women's lower sexual distress. Women's self-compassion was not associated with their own sexual distress or their partner's sexual distress (Table 3).

Associations Between Self-Compassion and Relationship Satisfaction

Self-compassion accounted for 27.9% and 30.8% of the variance in relationship satisfaction for women and partners, respectively. As shown in Table 3, after controlling for pain duration and income, partners' greater self-compassion was associated with their own higher relationship satisfaction, but women's self-compassion was not associated with their own relationship satisfaction. There were no partner effects, showing that self-compassion of one partner was not associated with the relationship satisfaction of the other (Table 3).

Associations Between Self-Compassion and Pain

Self-compassion of both partners accounted for 8.7% of the variance in women's pain intensity during sexual intercourse. As shown in Table 3, after controlling for research

sites, women's self-compassion was not related to their pain intensity in the regression analysis. The cross-partner path was not significant, indicating that partners' self-compassion was not associated with women's pain (Table 3).

Discussion

This dyadic study aimed to investigate self-compassion among women with PVD and their partners, and its associations with anxiety, depression, sexual distress, relationship satisfaction, as well as women's pain intensity during sexual intercourse. Hypotheses were partially confirmed. Women's and partners' higher self-compassion was significantly related to their respective lower anxiety and depressive symptoms. When partners reported higher levels of self-compassion, they were more satisfied with their relationship, and both partners and women reported lower sexual distress. Finally, both women and partners' self-compassion were not associated with women's pain during sexual intercourse. This study contributes to a growing literature examining the role of self-compassion in chronic pain, and suggests that being compassionate toward oneself is associated with better psychological, sexual and relational adjustment to pain in couples coping with PVD.

Consistent with our expectations, women's and partners' higher levels of self-compassion were associated with their own lower levels of depression and anxiety. This result is consistent with those of previous studies, in non-clinical and chronic pain populations, as well as in infertile couples, showing negative correlations between self-compassion and indicators of psychological distress [20, 22, 23, 25, 35]. Indeed, as with other forms of chronic pain, a compassionate attitude toward oneself was associated with less psychological distress in both members of couples coping with PVD. This is an

important result because anxiety and depression are highly prevalent among women with PVD and both have been identified as precursors and consequences of this pain condition [8]. Psychological distress is also shown to be more prevalent among partners of women with PVD, in comparison to partners of women without PVD [17, 18].

Many psychological mechanisms could explain the negative associations between self-compassion and psychological distress in our sample. One of them could be that self-compassion entails a reduced likelihood of engaging in coping responses that are associated with poorer psychological health [23, 53-55]. Self-compassion has been associated with less catastrophizing, rumination, and avoidance in response to diverse negative events among non-clinical and chronic pain samples [23, 53]. Thus, the negative associations between self-compassion and psychological distress in women with PVD and their partners could be explained by a reduced likelihood of engaging in non-adaptive strategies to cope with the pain. Moreover, qualitative studies have shown that women with PVD tend to feel inadequate as romantic partner [11-14]. A caring and understanding attitude toward themselves might protects them from this negative self-image, and therefore be associated with lower levels of psychological distress. Nevertheless, it is possible that more anxious or depressed people have a negative cognitive bias such that they find it difficult to be compassionate toward themselves. However, longitudinal studies have shown that interventions increasing self-compassion can significantly improve mental health, which suggests that self-compassion enhances well-being and reduces distress [24, 56-58].

Self-compassion of both women and partners was not associated with the level of anxiety or depression of the other member of the couple, contrary to our hypothesis. It is possible that variance in depression and anxiety symptoms is better explained by more

interpersonal factors, for example partner responses to pain [59]. Also, self-compassion in one partner might be associated with distress in the significant other that is related to a more interpersonal context, such as their shared sexuality, as suggested by the partner effect found for sexual distress.

Surprisingly, we did not find a significant association between women's self-compassion and their own sexual distress but, as expected, partners' higher self-compassion was associated with their own lower sexual distress as well as lower sexual distress in women with PVD. Even if previous research suggests that being compassionate toward oneself could be a protective factor for individuals with chronic pain, as self-compassion has been associated with lower levels of psychological distress and disability in this population [20-23], no study to date has investigated self-compassion in relation to sexual adjustment. The absence of an actor effect for women's sexual distress may be due to the fact that our measure of self-compassion was too distal, not being directly related to the specific context of sexuality. Consistent with this idea, having a negative sexual self-schema has been associated with more sexual distress in women with PVD [10]. Lastly, women's levels of self-compassion were lower than that of men, and their levels of sexual distress, higher, which could also explain the lack of actor effect.

In partners, being compassionate toward themselves could be linked to fewer negative self-related emotions in the sexual context, such as guilty feelings from causing pain to the woman, allowing them to be more attentive to the pleasure of being sexually intimate with her, despite the pain, which could benefit the shared sexuality of the couple and thus be related to lower sexual distress in partners and women. Inversely, being self-critical, feeling isolated and overidentifying with negative self-related emotions may be

associated with a type of self-absorption that blocks intimacy and connection in the context of sexuality. Further, in a study on self-compassion among couples from the general population, individuals reporting more self-compassion were described by their romantic partner as being significantly more accepting of them and less verbally aggressive [34]. Therefore, women with more self-compassionate partners may feel more accepted and validated, despite the impact their pain has on the couple's sexuality, which could be related to less concerned and worried about their sexual relationship. Also, partners with more self-compassion may be less emotionally reactive when they experience frustration related to sexual difficulties, which could also be associated with less sexual distress in women. These hypotheses are congruent with the literature on PVD showing that partner responses to women's pain are associated with women's sexual adjustment and more specifically, that partners' negative responses (expressions of hostility and frustration) are associated with poorer sexual adjustment in women [60].

Contrary to our hypotheses, only partners' self-compassion was significantly associated with their own higher levels of relationship satisfaction. In a previous study on self-compassion among couples, greater self-compassion of each partner was associated with their own higher relationship satisfaction as well as that of the other member of the couple [34]. One explanation could be that more self-compassionate partners evaluate the quality of their relationship more positively because they can cope with PVD in an adaptive manner that limits its negative consequences on their relationship in general. However, in women with PVD, self-compassion was not related to their own relationship satisfaction and no partner effects were found. These unexpected findings could be due to the low variance in relationship satisfaction among this sample, especially in women (Table 1).

Indeed, levels of relationship satisfaction were high in the present sample, in comparison with studies of couples seeking therapy for relationship distress. It is possible that couples seeking treatment have better relationship satisfaction than couples who are more avoidant and not willing to participate in this type of study. Additionally, the study of Neff KD and Beretvas SN [34], on which our hypotheses were based, was among community couples. In our clinical sample, it is possible that other factors, more specific to PVD, are more likely to play a role in women's relationship satisfaction. For example, important concerns raised by women with PVD are the fear of losing their partner because of the pain and the feeling of being an inadequate partner [11, 14, 61]. Therefore, women's relationship satisfaction may tend to be more associated with interpersonal variables, which capture these issues, than intrapersonal variables such as self-compassion. Further, it is possible that partner effects for relationship satisfaction are more likely to be found when examining pain-related factors. For example, a daily diary study among couples coping with PVD showed that on days when women perceived higher facilitative and lower negative partner responses, their relationship satisfaction was higher [60]. Future research should replicate our findings regarding relationship satisfaction in couples coping with PVD, using a broader sample in which there is more variance in relationship satisfaction.

Consistent with our hypothesis, self-compassion of both women with PVD and their partners was not associated with women's pain intensity during sexual intercourse. This result is in line with those of previous studies on self-compassion among chronic pain populations, showing no significant association with pain [20-23]. It is possible that even if self-compassion is associated with pain adjustment, it may be too distal from pain to be related to its intensity. In the literature on vulvodynia, psychological variables associated

with pain intensity are generally more proximal to women's pain experience, such as pain acceptance, painful intercourse self-efficacy and pain catastrophizing [62, 63].

Findings should be interpreted in light of the study limitations. First, we measured how women and partners have compassion for themselves in general, not specifically in the context of PVD. A measure of self-compassion adapted to the context of painful intercourse might have been more relevant, as we wanted to investigate the potential protective role of self-compassion in this specific context. Therefore, our general measure of self-compassion represents a conceptual limitation of this study. Second, the cross-sectional design does not allow for any causal inferences to be formulated. Thus, alternative explanations for our results are possible. Third, all variables were assessed by self-reported questionnaires, on a single occasion.

Despite these limitations, this study has numerous strengths. It is the first investigation of self-compassion among women with PVD and their partners, and the first study to investigate self-compassion in the relationnal context of pain by including couples. The use of a dyadic design and analytic approach are important strengths of the present study. In research on chronic pain, a growing number of studies incorporate a dyadic perspective to better understand the onset and course of chronic pain, which improves knowledge concerning the social component of the biopsychosocial model of pain [64]. This dyadic perspective is especially relevant considering that vulvodynia primarily occurs in the intimate context of sexual intercourse. Lastly, another strength of this study is that all women received a clinical diagnosis of PVD, resulting in a homogeneous sample.

In a context where research on self-compassion in chronic pain is sparse, this study suggests that self-compassion is a promising protective factor in the experience of

vulvodynia and associated distress. These findings highlight the importance of examining the role of positive factors such as self-compassion in the adjustment to chronic pain, as well as the relevance of adopting a dyadic perspective. Moreover, results of the present study may have clinical applications. Interventions aimed at increasing self-compassion could enhance the efficacy of psychological treatments for women with vulvodynia and their partners. Self-compassion captures an important aspect of the experience of women with PVD, namely their feelings of inadequacy, isolation and shame, that may be addressed more directly and effectively in treatment for PVD by integrating interventions to enhance compassionate attitudes towards oneself. Furthermore, being more self-compassionate could also help partners to cope with the negative consequences of this pain. To date, one study suggests that loving-kindness meditation, aimed at increasing compassion for oneself and others, could be an effective intervention to decrease pain and distress in individuals with chronic pain [65].

Further research is needed to better understand the correlates of self-compassion among women with vulvodynia. Longitudinal studies could provide information on the directionality of the associations found in the present study, and thus greatly improve our knowledge concerning the role of self-compassion in the experience of PVD and other chronic pain conditions. Finally, the development of a measure of self-compassion adapted to the context of pain could be a fruitful avenue for future research.

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Table 1

Descriptive Statistics of Sample Demographics and Key Variables for Women with PVD and their Partners

Variables	Women with PVD N= 48	Partners N= 48
Age (years)	26.83 (5.98)	28.71 (7.93)
Pain duration (months)	73.85 (57.59)	
Cultural background		
English Canadian	14 (29.17%)	19 (39.58%)
French Canadian	19 (39.58%)	18 (37.50%)
Other	15 (31.25%)	11 (22.92%)
Education level (years)	16.89 (2.24)	15.86 (2.93)
Marital status		
Not living together	12 (25%)	
Cohabiting	28 (58.33%)	
Married	8 (16.67%)	
Relationship length (months)	59.05 (47.95)	
Couple's annual income		
$0-$19,999	8 (16.67%)	
$20,000-$39,999	9 (18.75%)	
$40,000-$59,999	9 (18.75%)	
$60,000 and over	21 (43.75%)	
Does not wish to disclose	1 (2.08%)	
Self-compassion (SCS)	2.81 (0.61)	3.42 (0.62)
Anxiety (STAI)	43.92 (9.60)	36.13 (10.38)
Depression (BDI)	10.69 (6.25)	7.06 (6.62)
Sexual distress (FSDS)	33.48 (9.83)	16.65 (9.23)
Relationship satisfaction (CSI)	131.19 (18.83)	127.56 (22.26)
Pain intensity (VAS)	6.86 (1.83)	

Note. Percentage values are % of the total sample; other values are mean (SD). SCS = Self-Compassion Scale; STAI = Spielberger Trait Anxiety Inventory; BDI = Beck Depression Inventory II; FSDS = Female Sexual Distress Scale; CSI = Couple Satisfaction Index; Pain during intercourse = Visual Analog Scale.

Table 2

Correlations Between Self-Compassion and Outcomes Variables for Women with PVD and their Partners

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Self-compassion (W)	-	−.20	−.64**	.25	−.48**	.04	−.01	.09	−.25	−.21	−.10
2. Self-compassion (P)		-	.17	−.65**	.03	−.68**	.35*	−.48**	−.06	.31*	−.03
3. Anxiety (W)			-	.00	.66**	−.06	.16	.05	.06	.04	−.00
4. Anxiety (P)				-	.14	.68**	.12	.40**	.33*	−.30*	−.01
5. Depression (W)					-	.05	.17	.20	.29	.08	−.17
6. Depression (P)						-	.20	.44**	.27	−.20	.07
7. Sexual distress (W)							-	.33*	−.03	−.20	.17
8. Sexual distress (P)								-	.16	−.42**	−.02
9. Relationship satisfaction (W)									-	.19	.19
10. Relationship satisfaction (P)										-	.07
11. Pain											-

Note. $* P < .05, ** P < .01$; W = women's reports; P = partners' reports.

Table 3

Actor-Partner Interdependence Model with Self-compassion as the Independent Variable and Anxiety, Depression, Sexual Distress and Relationship Satisfaction, as Outcome Variables

	Self-compassion				
	b	*β*	SE	*CR*	*P*
Anxiety					
Actor effects					
Women	**−0.38**	**−0.63**	**0.07**	**−5.50**	**<.001**
Partner	**−0.43**	**−0.66**	**0.07**	**−5.85**	**<.001**
Partner effects					
Women	−0.03	0.05	0.07	0.43	.66
Partner	−0.05	−0.08	0.07	−0.71	.48
Depression					
Actor effects					
Women	**−0.20**	**−0.50**	**0.05**	**−3.83**	**<.001**
Partner	**−0.29**	**−0.70**	**0.05**	**−6.50**	**<.001**
Partner effects					
Women	−0.03	−0.07	0.05	−0.55	.58
Partner	−0.04	−0.10	0.05	−0.93	.35
Sexual distress					
Covariate					
Site	−4.74	−0.24	2.59	−1.83	0.07
Actor effects					
Women	−0.68	−0.04	2.21	−0.31	.76
Partner	**−7.16**	**−0.48**	**1.96**	**−3.65**	**<.001**
Partner effects					
Women	**−5.21**	**−0.33**	**2.17**	**−2.40**	**<.05**
Partner	−0.10	−0.01	1.99	−0.05	.96

Relationship satisfaction					
Covariates					
Pain duration	**−0.17**	**−0.44**	**0.05**	**−3.50**	**<.001**
Income	**−2.59**	**−0.47**	**0.72**	**−3.59**	**<.001**
Actor effects					
Women	−0.22	−0.18	0.15	−1.39	.16
Partner	**0.42**	**0.30**	**0.17**	**2.41**	**<.05**
Partner effects					
Women	−0.05	−0.04	0.15	−0.32	.750
Partner	−0.09	−0.07	0.18	−0.51	.61

Note. b = Unstandardized Betas; β = Standardized Betas; SE = Standard Error; CR = Critical Ratio. Significant effects are bolded.

Article 2

Mediators of Change in a Cognitive-Behavioral Couple Therapy for Couple Coping with Genito-Pelvic Pain

Santerre-Baillargeon, M., Rosen, N.O, Vaillancourt-Morel, M-P., Corsini-Munt, S., Steben, M., Mayrand, M-H., & Bergeron, S. *Behaviour Research and Therapy.*

Running head : MEDIATORS OF CHANGE IN COUPLE THERAPY FOR GENITO-PELVIC PAIN

TITLE :

Mediators of Change in a Cognitive-Behavioral Couple Therapy for Couple Coping with Genito-Pelvic Pain

AUTHORS :

Marie Santerre-Baillargeon, BA, PhD Candidate, University of Montreal, Department of Psychology, Montreal, Canada
Natalie O. Rosen, PhD, Dalhousie University, Department of Psychology and Neuroscience, Department of Obstetrics and Gynecology, Halifax, Canada
Marie-Pier Vaillancourt-Morel, PhD, University of Québec at Trois-Rivières, Department of Psychology, Trois-Rivières, Canada
Serena Corsini-Munt, PhD, University of Ottawa, School of Psychology, Ottawa, Canada
Marc Steben, MD., Groupe de médecine familiale La Cité du Parc Lafontaine, Montréal, Canada
Marie-Hélène Mayrand, PhD, University of Montréal, Department of Obstetrics & Gynecology, Montréal, Canada
Sophie Bergeron PhD, University of Montreal, Department of Psychology, Montreal, Canada

ACKNOWLEDGEMENTS :

The authors thank the members of the Sexual Health Laboratory and the participants for their help in conducting this study. This research was supported by Fonds de recherche du Québec – Santé (FRQS) Fellowship awarded to the first author and by a grant from the Canadian Institutes of Health Research (CHIR) awarded to the last author.

Abstract

Objective*:** A novel cognitive-behavioral couple therapy (CBCT) has shown efficacy for treating provoked vestibulodynia (PVD), the most common type of genito-pelvic pain, in comparison to topical lidocaine. However, mechanisms of therapeutic change have not been determined. We examined women's and partners' pain self-efficacy and pain catastrophizing as mediators of change in CBCT, using topical lidocaine as a control group. ***Method: 108 couples coping with PVD were randomized to 12-week CBCT or topical lidocaine and assessed at pre-treatment, post-treatment, and six-month follow-up. Dyadic mediation analyses were conducted. ***Results:*** CBCT was not more effective in increasing pain self-efficacy than topical lidocaine, so this mediator was discarded from subsequent models. In women, decreases in pain catastrophizing at post-treatment mediated improvement in pain intensity, sexual distress and sexual function from pre- to post-treatment and from post-treatment to six-month follow-up. In partners, decreases in pain catastrophizing at post-treatment mediated improvement in sexual function from pre- to post-treatment and in sexual distress from pre- to post-treatment and from post-treatment to six-month follow-up. Partners' decreases in pain catastrophizing also mediated reductions in women's sexual distress from pre- to post-treatment. ***Conclusions:*** Pain catastrophizing may be a mediator specific to CBCT for PVD, explaining improvements in pain and sexuality.

Keyword: randomized clinical trial, genito-pelvic pain, provoked vestibulodynia, couple therapy, cognitive-behavioral therapy, mediator of change, pain catastrophizing, pain self-efficacy.

Introduction

Genito-pelvic pain/penetration disorder (GPPPD), classified as a female sexual dysfunction in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders, is a common and distressing condition characterized by pain upon penetration (American Psychiatric Association, 2013). Its population prevalence ranges between 8% in adult women and 20% in adolescent girls (Harlow et al., 2014; Landry & Bergeron, 2011). The most common form of GPPPD is provoked vestibulodynia (PVD; (Harlow et al., 2014), characterized by a burning pain at the vulvar vestibule (i.e., the entrance of the vagina) when pressure is applied, in sexual and non-sexual situations (Bornstein et al., 2016). As in other chronic pain conditions, research supports a biopsychosocial framework to understand PVD's etiology, course and management (Bergeron et al., In press). Because the symptoms of PVD mainly occur in the intimate context of sexual penetration or attempted sexual penetration, afflicted women report poorer sexual function, less sexual satisfaction and more sexual and psychological distress, as compared to women without PVD (Gates & Galask, 2001; Khandker et al., 2011; Nylanderlundqvist & Bergdahl, 2003; Pazmany et al., 2014). Controlled studies indicate that partners of women with PVD also report significantly less sexual satisfaction and higher rates of erectile difficulties (Jodoin et al., 2008; Pazmany et al., 2014; Smith & Pukall, 2014). In order to manage pain and associated psychological and sexual symptoms, there are a wide range of medical and psychological treatments for PVD, although few are empirically validated.

Mediators of change in cognitive-behavioral therapy for PVD and chronic pain

Cognitive-behavioral therapy (CBT) has been shown to be an efficacious treatment for chronic pain and PVD based on randomized clinical trials (Bergeron et al., 2016; Ehde et al., 2014; Williams et al., 2012), but the mechanisms underlying its efficacy are not well understood (Ehde

et al., 2014). Elucidating psychotherapeutic processes is critical to improving the efficacy of CBT, as well as to refining theoretical models of chronic pain (Ehde et al., 2014; A. E. Kazdin, 2009; Kazdin, 2016; Williams et al., 2012). To date, only a handful of studies have focused on the identification of process variables that mediate the efficacy of CBT for chronic pain (Ehde et al., 2014) and PVD (Brotto et al., 2020). Changes in pain-related cognitions, including pain self-efficacy and pain catastrophizing, are key hypothesized mechanisms. However, the few RCTs examining their role as mediators of change in second and third wave CBT for chronic pain yielded mixed results and were characterized by small sample sizes, high percentage of missing data and the exclusion of less compliant patients (Kemani et al., 2016; Turner et al., 2007). Importantly, studies to date have not taken into account the interpersonal context of pain by including couples (Cano & Williams, 2010). Thus, there is a need for more clinical trials controlling for active treatment and including third wave interventions to understand the specific roles of pain self-efficacy and pain catastrophizing as mechanisms of change in a couple intervention. To address these gaps in the literature, the present study aimed to examine the role of pain self-efficacy and pain catastrophizing as mediators of the efficacy of a third wave cognitive-behavioral couple therapy (CBCT), as compared to a medical treatment, for couples coping with PVD.

Interpersonal factors in the experience of chronic pain

In line with a biopsychosocial conceptual framework of chronic pain, interpersonal factors may modulate the experience of pain (Corley et al., 2016) and the ability to effectively cope with chronic pain (Cano & Goubert, 2017; Sullivan & Davila, 2010). Studies have also demonstrated that individuals experiencing interpersonal distress are less likely to benefit from individual psychological interventions for chronic pain (Edwards et al., 2007; Turk, 2005). In the context of PVD, dyadic research, including cross-sectional, prospective and daily diary studies, has shown

robust associations between interpersonal factors and women's pain intensity as well as both members of the couple's psychological and sexual adjustment to pain (Rosen & Bergeron, 2019).

CBT is the most empirically validated psychological treatment for GPPPD (Goldstein et al., 2016). In group or individual formats, CBT has been shown, in three randomized clinical trials (RCTs) among women with PVD, to significantly reduce women's pain intensity and improve their psychological and sexual adjustment, in comparison to other psychological or medical treatments (Bergeron, Binik, Khalifé, Pagidas, Glazer, et al., 2001; Bergeron et al., 2016; Bergeron et al., 2008; Masheb et al., 2009). Considering the importance of the relational context of PVD and the documented efficacy of CBT, a third wave cognitive-behavioral couple therapy (CBCT) for the treatment of PVD was developed by our team (Corsini-Munt et al. (2014). In the RCT examining the efficacy of this novel intervention, as compared to topical lidocaine (an anesthetic ointment), findings showed that CBCT yielded significant improvements in women's pain and both partners' sexuality as well as their pain catastrophizing, pain self-efficacy and treatment satisfaction at post-treatment and six-month follow-up (Bergeron et al., 2020). The present study uses data from this RCT.

Pain self-efficacy and pain catastrophizing

CBT is believed to improve chronic pain problems by increasing pain self-efficacy and decreasing pain catastrophizing (Turner et al., 2007). These cognitive variables are part of the Fear-Avoidance Model of chronic pain, suggesting that the way people interpret their pain is a strong determinant of their future pain experience, and that maladaptive pain cognitions, for example pain catastrophizing, are associated with emotional and behavioral responses (e.g., fear and avoidance) that contribute to maintain pain and associated disability and distress (Vlaeyen & Linton, 2012). Pain catastrophizing is characterized by magnification of the threat of pain,

rumination about pain and hopelessness, and has been found in cross-sectional and prospective studies to be associated with greater pain and disability in various chronic pain populations, even when controlling for pain and depression levels (Edwards et al., 2011; Edwards et al., 2016; Quartana et al., 2009). Pain self-efficacy refers to an individual's beliefs regarding their pain management abilities (Bandura, 1977; Turner et al., 2005). This variable has been more recently added to the Fear-Avoidance Model; greater self-efficacy would promote adaptive pain coping strategies and decrease avoidance of pain-related behavior (Leeuw et al., 2007). A meta-analysis concluded that greater pain self-efficacy was strongly associated with lower reported pain and functional impairment across different forms of chronic pain (Jackson et al., 2014). Another theoretical model of pain catastrophizing is the Communal Coping Model. This model proposes that pain catastrophizing represents a way of coping with pain by enacting pain behaviors in order to elicit support and empathy from one's social environment, pointing to the relevance of studying this variable in a relational context (Sullivan et al., 2006).

Pain self-efficacy and pain catastrophizing in PVD pain

Among women with PVD, greater pain catastrophizing was associated with greater pain during penetration, and greater pain self-efficacy with lower pain and better sexual function (Desrochers et al., 2009), whereas partners' greater pain self-efficacy and lower pain catastrophizing were associated with women's lower pain, although not with women's sexual function and satisfaction (Lemieux et al., 2013). A prospective study among women with PVD found no significant associations between changes in pain catastrophizing and changes in pain intensity and sexual function; only changes in pain self-efficacy were associated with reductions in pain intensity and improvement in sexual function two years later (Davis et al., 2015). Nevertheless, taken together, these findings suggest that women's and partners' pain self-efficacy

and pain catastrophizing significantly contribute to PVD pain and associated sexual impairment, and thereby point toward the relevance of those variables as potential therapeutic targets in CBT for PVD.

In a RCT comparing the efficacy of group CBT and a topical steroid treatment for women with PVD, pain self-efficacy and pain catastrophizing predicted therapeutic success regarding pain intensity, but not sexual function, at six-months follow-up in the CBT group only (Desrochers et al., 2010). In contrast, in an open trial examining the efficacy of a mindfulness-based group therapy, as compared to a wait-list control, changes in pain self-efficacy – but not in pain catastrophizing – between pre-and post-treatment predicted six-month follow-up improvements in cotton-swab provoked pain during a gynecologic examination (Brotto et al., 2014). Pain self-efficacy might be a more robust prospective predictor of pain and sexual outcomes among women with PVD, although studies that examine the unique variance predicted by each of those variables are needed. In a recent treatment study among women with PVD comparing an eight-week group CBT to an eight-week mindfulness-based cognitive therapy, pain catastrophizing was identified as a mediator of improvement – in vulvalgesiometer pain (an instrument that exerts a standardized amount of pressure for measuring pain) and sexual distress – common to both mindfulness-based cognitive-therapy and CBT. Pain self-efficacy was not examined (Brotto et al., 2020). An important limitation of this study is that even if some women were randomized (1/3), the majority were assigned (2/3). Furthermore, this study did not use a control group for its mediation analyses, and did not take into account the interpersonal context of PVD pain.

Pain self-efficacy and pain catastrophizing as mediators of change in CBT for chronic pain

Smeets (2006) examined the role of pain catastrophizing as a mediator of change in CBT, active physical treatment and treatment combining the active physical treatment and CBT among

individuals with chronic lower back pain. Each active treatment was compared to a waiting list in the analyses. In this study, pain catastrophizing was a significant mechanism of change in the three active treatments. The authors suggested that physical and psychological treatments may share common mechanisms of change. However, only the effect of a wait list condition, and not an active treatment, was controlled for, which limits the conclusions that can be drawn regarding the specific effect of pain catastrophizing in CBT. In a RCT involving temporomandibular pain patients (Turner et al., 2007), CBT was compared to an education/attention control condition. Baseline to six-month changes in pain self-efficacy and pain catastrophizing mediated the effects of CBT on pain and disability at one year, which suggests that changes in pain self-efficacy and pain catastrophizing may be specific therapeutic mediators of CBT. However, an intent-to-treat strategy was not adopted in this study; only participants who completed at least three treatment sessions and all follow-ups were included in the analyses. Thus, results may not generalize to less compliant patients. In the only study examining the mediating effect of pain catastrophizing – but not pain self-efficacy – in acceptance and commitment therapy (ACT) among adults with chronic pain (Kemani et al., 2016), as compared to applied relaxation, changes in pain catastrophizing did not mediate improvements in pain interference during ACT, even if ACT had a significantly stronger effect on catastrophizing than applied relaxation.

In summary, CBT interventions are commonly recommended for chronic pain, including PVD, but we still know little about their mediators of change, especially in treatment with interventions derived from third wave CBT (Brotto et al., 2020; Kemani et al., 2016). Including the study examining an ACT intervention, only three RCTs investigated the mediating effect of pain catastrophizing in CBT for chronic pain (Kemani et al., 2016; Smeets et al., 2006; Turner et al., 2007), and only one focused on the mediating effect of pain self-efficacy (Turner et al., 2007).

This is surprising considering the importance of these psychological variables in the chronic pain literature (Jackson et al., 2014). Moreover, methodological shortcomings of the studies conducted to date, such as the absence of an active treatment and the exclusion of patients who adhere less to the treatment, limit our understanding of their mixed results regarding the specific mediating effect of pain catastrophizing. Hence, further research is needed to understand these conflicting results, and also to test the generalizability of the findings to individuals with other pain syndromes and to other forms of CBT. Another limitation of RCTs conducted to date is that they have not considered the experience of the partner, which is important given how the relational context of pain may modulate pain intensity, pain adjustment and treatment responsiveness, especially in PVD (Rosen & Bergeron, 2019).

Objectives and hypotheses

The goal of the current study was to examine the mediating effect of changes in pain self-efficacy and pain catastrophizing in CBCT for PVD, as compared to overnight topical lidocaine, in a RCT using an intent-to-treat analytic strategy. Given the aim was to understand mechanisms of change as they relate to psychotherapy, we controlled for the effects of topical lidocaine on the mediators, to test whether CBCT would be significantly better than lidocaine in improving pain self-efficacy and pain catastrophizing, and thus whether those mediators would be specific to CBCT. More specifically, we examined whether changes in pain self-efficacy and pain catastrophizing during CBCT in both women with PVD and their partners mediated the effects of CBCT, as compared to lidocaine, on women's pain intensity during penetration as well as both partners' sexual function and sexual distress. Because both members of the couple were included in the analyses, we examined how changes in pain self-efficacy and pain catastrophizing in each partner mediated the efficacy of CBCT, relative to lidocaine, on their own and their partner's

outcomes. It was hypothesized that women's increase in pain self-efficacy and decrease in pain catastrophizing would mediate the effects of CBCT on their own pain, sexual function and sexual distress. It was also hypothesized that partners' increase in pain self-efficacy and decrease in pain catastrophizing would mediate the effects of the CBCT on women's pain, but not women's sexual function and distress. Regarding partners' sexual function and sexual distress, no hypotheses were formulated because no study to date in the domain of PVD has examined partner's sexual impairment in relation to pain self-efficacy and pain catastrophizing.

Method

The present study was part of a randomized clinical trial comparing the efficacy of CBCT to topical lidocaine – an anesthetic ointment – for the treatment of PVD in two North American cities (Bergeron et al., 2020; Corsini-Munt et al., 2014). The research protocol was the same across the two sites. All procedures were approved by the institutional review boards of health centres and universities where the research took place.

Participants

Couples were recruited between May 2014 and March 2018, using several recruitment strategies. Women with pain during penetration who had participated in previous nontreatment studies and consented to being contacted for future projects were invited to take part in the current study. Couples were also recruited through ads in newspapers, universities and online sites such as Facebook, Craigslist, and Kijiji, as well as in centres specialized in GPPPD. In the final sample of 108 couples, 45 (41.67 %) were recruited through advertisements in newspapers, websites, universities, hospitals and medical clinics, 37 (34.26 %) through their participation in a previous study conducted by the authors, 25 (23.15 %) were referred by a physician and 1 (0.92 %) by a friend. Research Site A recruited 61 couples and Research Site B recruited 47 couples.

Inclusion criteria for couples were : 1) being at least 18 years of age; 2) women experiencing pain during sexual penetration that occurred on at least 80% of vaginal penetration attempts in the last six months; 3) women's pain limited to sexual penetration or other activities involving pressure to the vulvar vestibule (e.g., during tampon insertion); 4) women having a diagnosis of provoked vestibulodynia confirmed by a collaborating physician; 5) penetration or attempted penetration at least once a month during the last three months, given our main outcome was pain during penetration ; 6) being in a couple relationship for at least six months 7) cohabiting and/or having at least four in-person contacts per week in the last six months.

Exclusion criteria for couples were: 1) women with pain being over 45 years of age and/or having started menopause, because of the genital changes associated with perimenopause and menopause (Mitchell et al., 2013); 2) actively receiving treatment for PVD and not wanting or being able to discontinue for the study; 3) women with pain having an active infection (e.g., candida) or dermatological condition, as diagnosed by a physician; 4) severe untreated self-reported medical or psychiatric condition in either partner (e.g. psychotic disorder) ; 5) being pregnant or planning to become pregnant in the coming months (duration of the clinical trial); 6) currently being in couple therapy; 7) clinical levels of relational distress, as indicated by the cut-off score of the widely used and well-validated Couple Satisfaction Index (Funk & Rogge, 2007); 8) self-reported intimate partner violence. From an ethical standpoint, violence and distress within the couple have to be addressed before starting targeted sex therapy, especially in the context of a manualized treatment focusing on genito-pelvic pain (Cobia et al., 2008).

The recruitment and flow of participants throughout the study appears in Figure 1. One hundred and eight couples were randomized, with 53 assigned to the CBCT condition and 55 assigned to the lidocaine condition.

Procedure

Data were gathered at the pre-treatment, post-treatment and six-month follow-up assessments of the randomized clinical trial (Bergeron et al., 2020; Corsini-Munt et al., 2014). To assess couples' eligibility, a brief telephone screening interview was conducted by a research assistant with the woman having pain. Eligible couples were invited to a laboratory-based appointment conducted by a research assistant or a PhD student in clinical psychology. This pre-treatment evaluation allowed further assessment of the eligibility of the couple. During this appointment, free and informed consent was obtained. A structured interview was conducted with both partners, together, and after, they both completed online self-report questionnaires independently, on separate tablet computers using Qualtrics Research Suite online software. All couples received a compensation of $30 for the time and travel related to this pre-treatment assessment. Eligibility was then determined by reviewing their interview and questionnaire responses. Furthermore, all still women eligible after the pre-treatment evaluation took part in a gynecological examination including the standardized cotton-swab test to confirm their PVD diagnosis. This test involves the use of a dry cotton swab to palpate the 3-, 6-, and 9-o'clock positions of the vulvar vestibule, while the woman rated her pain intensity for each location on a numerical rating scale of 0 to 10 (Bergeron, Binik, Khalifé, Pagidas, & Glazer, 2001).

Eligible couples were randomized to one of the two treatment arms, CBCT or lidocaine, according to the independent stratified randomization method provided by Dacima Software (Dacima Software Inc., Montreal, QC, Canada). Only each site's research coordinator and the CBCT therapists were aware of treatment randomization. All other research personnel and investigators, including the principal investigators, were kept blind for the entire duration of the study. This procedure ensured that the number of participants in each group was equivalent across

the two sites of the study, and that the researchers could not influence treatment assignment. A post-treatment laboratory-based assessment, including a structured interview and the completion of self-report questionnaires, followed the twelve weeks of treatment. Six months after the post-treatment assessment, a last laboratory-based assessment was conducted following this same procedure. The research assistant or PhD student conducting those two assessments was blind to the treatment condition of the couple. All couples were compensated $30 for each assessment.

Measures

Demographic variables. Sociodemographic information was gathered during the structured interview. Participating couples were asked about their age, education level, couples' annual income, relationship duration, and women's pain duration.

Pain catastrophizing. Pain catastrophizing was measured using the Pain Catastrophizing Scale (Sullivan et al., 1995). This scale has twelve items, to which participants respond on a 5-point Likert scale from 0 (not at all) to 4 (all the time), and assesses women's experience of rumination, magnification, and helplessness in relation to their pain during penetration. It has good psychometric properties and the factor structure has been demonstrated to be stable across both clinical and non-clinical populations (Osman et al., 2000; Sullivan et al., 1995). Total scores range from 0 to 52, with higher scores indicating higher catastrophizing. Partners completed an adapted version of this questionnaire measuring their own level of catastrophizing about the woman's pain. This adapted version is also validated (Cano et al., 2005). In the present sample, Cronbach's alphas were .88 for women and .91 for partners at pre-treatment, and .93 for women and .93 for partners at post-treatment.

Pain self-efficacy. Both partners completed the Painful Intercourse Self-Efficacy Scale, a 20-item self-report measure divided in three subscales regarding self-efficacy for controlling: 1)

pain during intercourse, 2) impact of pain on sexual function, 3) other symptoms such as frustration due to the pain. Women indicated how they perceived their ability to carry out sexual activities or to achieve particular outcomes in pain management, responding on a scale from 10 (very uncertain) to 100 (very certain). This measure has demonstrated good validity and reliability in previous studies (Desrochers et al., 2009; Lorig et al., 1989). Partners completed an adapted version of this scale that assessed their perception of the woman's pain self-efficacy. This version has also demonstrated good psychometric properties (Desrochers et al., 2008; Lemieux et al., 2013).Items are averaged, so scores range from 10 to 100. Higher scores indicate greater self-efficacy. In the present sample, Cronbach's alphas were .86 for women and .91 for partners at pre-treatment, and .94 for women and .94 for partners at post-treatment.

Pain. Women's pain intensity during sexual intercourse was assessed using a visual analog scale (VAS) ranging from 0 (no pain at all) to 10 (worst pain ever). This method is recommended by the "Initiative on Methods, Measurement, and Pain Assessment in Clinical Trials" guidelines for chronic pain clinical trials (Dworkin et al., 2005) as well as the recent "Recommendations for Self-report Outcome Measures in Vulvodynia Clinical Trials" (Pukall et al., 2017). This measure of pain demonstrates a significant positive correlation with other measures of pain intensity (Turk & Melzack, 2011).

Sexual function. The Female Sexual Function Index (FSFI) was used to measure women's sexual function (Rosen et al., 2000). This 19-item measure assesses sexual desire, arousal, orgasm, sexual satisfaction and pain/discomfort experienced during sexual activity and intercourse. This measure demonstrated high internal consistency and validity across several samples of women with sexual difficulties (Meston, 2003; Wiegel et al., 2005). To avoid overlap with the pain outcome, the three items on pain were removed from the total FSFI score for women diagnosed

with PVD, thus their total score included 16 items. Scores obtained in these sexual domains were summed and multiplied by a respective factor that homogenizes the influence of each dimension. Total scores ranged from 2 to 30. Higher scores indicate higher sexual function Men's sexual function was measured using the International Index of Erectile Function (IIEF) (Rosen et al., 1997). This 15-item self-report questionnaire assesses erectile function, orgasm, sexual desire, intercourse satisfaction and overall sexual satisfaction. This measure is well validated and widely used. Items were summed to provide a total score ranging from 5 to 75. Higher scores indicate higher sexual function. Given that the FSFI and IIEF have different score ranges, a transformation was performed to allow for analyses with same-sex partners. The total FSFI scores of same-sex partners were scaled to match the total IIEF scores of the male partners through an algebraic multiplication [(*x*-2)*(75/34)]. For both the FSFI and the IIEF, items for which participants reported no sexual activity (which included caressing, foreplay and masturbation) or did not attempt intercourse in the last four weeks were coded as missing values instead of zero to avoid biasing the score towards dysfunction (Meyer-Bahlburg & Dolezal, 2007). In the present sample, Cronbach's alphas were .92 for women and .78 for partners at pre-treatment, and .94 for women and .76 for partners at post-treatment. At the six-month follow-up, Cronbach's alphas were .93 for women and .81 for partners.

Sexual distress. The Female Sexual Distress Scale (FSDS) was used to assess sexuality-related personal distress of both partners. On this 13-item measure, participants answered on a 5-point Likert-type scale ranging from 0 (never) to 4 (always). This measure was initially designed for women, but has been validated with men (Santos-Iglesias et al., 2018). This scale has demonstrated good psychometric properties, including high internal consistency, test-retest reliability, discriminant validity, and construct validity (Derogatis et al., 2002). Total scores range

from 0 to 52. At pre-treatment, Cronbach's alpha was .91 for women and .91 for partners, and .96 for women and .94 for partners at post-treatment. At six-month follow-up, Cronbach's alphas were .97 for women and .93 for partners.

Treatment Conditions

Cognitive-behavioral couple therapy (CBCT). CBCT consisted of 12 weekly face-to-face sessions. The first session was 90-minutes long and subsequent sessions were all 75-minutes long. A treatment manual detailing the outline of each session, indicating material to cover, homework to be assigned at each session and points to emphasize, was followed by all the therapists. This manual can be obtained by writing to the last author. Adherence to the treatment manual was ensured by video recording all sessions of therapy on DVD. The therapists were clinical psychology PhD-level students (N = 8) or junior clinicians (PsyD or PhD, N = 2; MA in clinical sexology, N = 1) and all of them received training on delivering the CBCT manual interventions, literature on PVD pain and principles of sex and couple therapy. All therapists had weekly supervision with a registered clinical psychologist specialized in sex and couple therapy, including CBCT for couples coping with GPPPD. Couples attended, on average, 10.64 out of 12 (SD = 3.53; 88.7%) therapy sessions. Participant treatment adherence was assessed via frequency ratings of weekly home practice of exercises, completed by each partner. Homework completion rates were determined based on homework completed during the week it was assigned; homework completed at a later time was not coded as completed, except for the articles given at week one. Those articles could be read at weeks 2 and 3. Women completed 67.7% of their homework exercises, and partners 58.6%.

The goals of the CBCT were as follows: a) provide psychoeducation about PVD and re-conceptualization as a multidimensional pain condition, influenced by biomedical, psychological

and dyadic factors; b) develop a couple perspective on PVD, seeing pain as affecting and being affected by both partners; c) increase adaptive coping strategies by addressing pain-related thoughts, feelings, behaviors and couple interactions, namely by increasing self-efficacy and decreasing catastrophizing; d) improve couples' adaptive communication regarding pain and sexuality; and e) facilitate shared pleasurable sexual experiences. Examples of the CBCT interventions include psychoeducation about pain and sexuality, identifying pain maintenance factors, communication skills training, discussion and expansion on the couple's sexual narratives, mindfulness and cognitive defusion exercises, value clarification exercises, and pain journaling. Interventions also aimed to engage both partners and to identify relational patterns of the couple contributing to pain and associated sexual difficulties. A session by session outlined of the interventions and homework is presented in Table 1. Moreover, interventions were rooted in third-generation cognitive-behavioral approaches, including ACT. For example, interventions included mindfulness and cognitive defusion exercises. More information regarding the CBCT is detailed elsewhere (Bergeron et al., 2020).

Medical treatment – topical lidocaine. Participants assigned to the medical treatment performed nightly applications of a lidocaine ointment (50mg/g, Lidocaine ointment 5% USP Lidodan,Odan, tubes of 35g) during 12 weeks, as described by Zolnoun et al. (2003). The ointment was applied directly at the vulvar vestibule and on a cotton gauze maintained at the vulvar vestibule by the participant's underwear overnight, in order to keep the ointment in contact with the vulvar vestibule for about 8 hours. A pamphlet with figures detailing how to apply the ointment was given to participants, in addition to a calibrated measurement tool to ensure that all participants applied the same quantity every night. To monitor potential adverse events and facilitate compliance, a research assistant conducted standardized phone calls once a week, and participants were

instructed to inform this research assistant if they experienced any bothersome symptoms. Participants also completed a daily log to monitor treatment application. Women applied the ointment 79.4% of the time during the 12-week treatment period.

Statistical Analyses

The associations between outcomes (pain intensity, sexual functioning and sexual distress) and socio-demographic variables (pain duration, relationship duration, age, income and, education level and the site where the treatment occurred) were examined to assess the need to include covariates in the mediation models. Correlation analyses between pain self-efficacy, pain catastrophizing, and outcome variables were also conducted. We also performed linear regressions to test for differences between the two treatment conditions with respect to the potential mediating variables, pain self-efficacy and pain catastrophizing. Only the mediators showing statistically significant treatment effects were included as a mediating variable in the models. As there is a growing consensus that a significant total effect of X on Y should not be required for searching for evidence of indirect effects (Zhao et al., 2010), all outcomes were examined regardless of the significance of the direct effect of treatment condition. Indeed, the total influence of X on Y is composed of different pathways that may be in different directions. Thus, a non-significant total effect can obscure a significant indirect effect (Hayes, 2009). Descriptive and preliminary statistics were computed using SPSS 25.

Mediation analyses were conducted using Mplus, version 8.3 (Muthén & Muthén, 2012) to examine the effects of the treatment condition (X) on the outcome variables (Y's) at post-treatment and six-month follow-up through the putative treatment mediator (M's) at post-treatment. Analyses with the outcomes at post-treatment are of concurrent associations between mediators and outcomes (concurrent models), whereas analyses at follow-up allow an examination of

temporal associations (temporal models). All analyses used an analysis of covariance approach that controlled for study entry values of each mediator and outcome variables.

The actor–partner interdependence framework was adopted because it accounts for the interdependence of the partners' data (Kenny et al., 2006). When individuals are involved in a relationship, their outcomes depend not only on their own characteristics but also on their partner's characteristics. With this statistical framework, the interdependence of the data can be estimated because data of both partners are modelled concurrently. Thus, the residual variance of their variables can correlate and the associations between the independent variable of each partner with their own outcomes (actor effect) and the outcomes of the other member of the couple (partner effect) can be estimated. This framework can be used to assess mediation in dyadic data (Ledermann et al., 2011).

The actor-partner interdependence mediation model is presented in Figure 2. Women's pain, as well as women's and partners' sexual function and sexual distress (post-treatment levels for the concurrent models and six-month follow-up levels for the temporal model) were entered as dependent variables in distinct models. Women's and partners' significant mediator variables (post-treatment levels) were entered in each model. As potential confounders of the mediator-outcome relationship, the baseline values of the mediator and outcomes were included as covariates in all mediation models. The effects of treatment condition (X) on women's (Y_1) and partners' (Y_2) outcomes were the direct effects (paths c'_{AW} and c'_{AP}). The direct effects quantified the estimated difference in outcomes between participants in the CBCT and lidocaine conditions at post-treatment (concurrent model) or six-month follow-up (temporal model) independent of the mediating variables. The effects of treatment condition (X) on outcome variables (Y_W and Y_P) through the mediators (M_W and M_P) are the indirect effects. The indirect effect quantified how

much participants in the CBCT and lidocaine conditions differed on the outcome variables at post-treatment (concurrent model) or six-month follow-up (temporal model) as a result of the influence of the treatment conditions on the mediator (paths a_{AW} and a_{AP}), which in turn influenced the outcome variables (paths b_{AW}, b_{AP}, b_{PW}, b_{PP}). The indirect effect is the product of the path *a* and the path *b* and is calculated using a bootstrap approach. The sum of the direct and the indirect effects is the total effect. In our dyadic mediation model, there are four possible indirect effects; two *actor* indirect effects and two *partner* indirect effects. The effects of the treatment condition (X) on the women's outcome (Y_W) through women's mediator (M_W) and on the partners' outcome (Y_P) through partners' mediator (M_P) are the *actor* indirect effects ($a_{AW}b_{AW}$ and $a_{AP}b_{AP}$). The effects of the treatment condition (X) on the women's outcome (Y_W) through partners' mediator (M_P) and on the partners' outcome (Y_P) through women's mediators (M_W) are the *partner* indirect effects ($a_{AP}b_{PW}$ and $a_{AW}b_{PP}$).

In accordance with the intent-to-treat design, all randomized couples were included in the analyses. The intent-to-treat approach is more conservative, and it preserves the presumed equivalency of groups allowed by randomization (Gupta, 2011). Missing data were accounted for using the full information maximum likelihood method (FIML) (Enders & Bandalos, 2001). The chi-square statistic, the comparative fit index (CFI), the root mean square error of approximation (RMSEA) and the standardized root mean square residual (SRMR) were used to evaluate the fit of each model (Hooper et al., 2008; McDonald & Ho, 2002). A non-statistically significant chi-square value, a SRMR value of .08 or less, a CFI value of .90 or higher, and a RMSEA value below .06 indicate a good fit to the data (Hooper et al., 2008). The indirect effects were tested using a nonparametric bootstrap approach with 10,000 data sets that are created by resampling subjects from the original data set. The indirect effects were considered statistically significant when 0 was

excluded from the confidence intervals (95% CI).

Results

Sample Characteristics

Table 2 displays sample demographics by treatment received for the total sample of 108 couples. On average, women had their pain condition for six years, which reflects the chronicity of PVD.

Preliminary Analyses

Table 3 displays means and standard deviations for the mediators and outcomes. Pearson's product-moment correlations were computed to examine zero-order associations among the study variables. Those associations are displayed in Table 4.

A set of preliminary analyses was conducted to examine correlations between the study variables and women's and partners' age and education level, couples' annual income, relationship duration and pain duration as well as site. Relationship duration was negatively associated with women's pain intensity at post-treatment (r = - .32, p = .001) and positively with partners' sexual distress at post-treatment (r = .21, p = .041). Relationship duration was also associated negatively with women's pain catastrophizing at post-treatment (r = - .22, p = .027). Pain duration was positively associated with partners' catastrophizing at post-treatment (r = .22, p = .034). Pain duration was positively associated with partners' sexual function at post-treatment (r = - .23, p = .031). Research site was negatively associated with women's sexual distress at post-treatment (r = - .26, p = .011) and partners' sexual distress at post-treatment (r = - .22, p = .032) and follow-up (r = - .21, p = .046). Research site was also negatively associated with women's catastrophizing at post-treatment (r = - .25, p = .014). Partners' age was negatively correlated with women's sexual distress at post-treatment (r = - .26, p = .012). Partners' age was also negatively correlated with

partners' sexual function at post-treatment (r = - .27, p = .012) and at follow-up (r = - .26, p = .023). Women's age was negatively correlated with partners' sexual function at post-treatment (r = - .25, p = .019) and at follow-up (r = - .25, p = .028). No other significant associations between sociodemographic data and study variables were found. Because partner's age and relationship duration were strongly correlated (r = .59, p < .001), and women's age and relationship duration were strongly correlated (r = .66, p < .001), only relationship duration was included as a covariate in subsequent models. Thus, research site, pain duration and relationship duration were included as covariates in the mediation models.

Linear regression showed that, controlling for site, pain duration and relationship duration, women in the CBCT condition had significantly lower levels of pain catastrophizing at post-treatment than those in the lidocaine condition, b = -7.37 (SE = 1.78), p < .001, β = -.31. Partners in the CBCT condition also had significantly lower levels of pain catastrophizing at post-treatment than participants in the lidocaine condition, b = -4.37 (SE=1.79), p = .015, β = -.19. Women's pain self-efficacy did not show a statistically significant treatment condition effect, b = 3.28 (SE = 3.20), p = .305, β = .09. Further, partners' pain self-efficacy did not show a statistically significant treatment effect, b = 6.22 (SE = 3.31), p = .060, β = .15. Therefore, only pain catastrophizing was included in the mediation analyses.

Mediation Models

Results of the dyadic mediation models, concurrent and temporal, are provided in Table 5 and Table 6 respectively.

Indirect effects on pain. The concurrent dyadic mediation model with women's pain intensity during intercourse at post-treatment as the outcome showed a satisfactory fit to the data, $\chi 2(12) = 12.44$, p = .411; CFI = 1.00; RMSEA = .02, 90%CI [.00 to .10]; SRMR = .05.

Controlling for site, pain duration and relationship duration, this model revealed a statistically significant indirect actor effect of CBCT, relative to the control active-treatment condition of topical lidocaine, on women's pain via women's pain catastrophizing (Table 5). This result indicated that a proportion of the effect of CBCT on pain intensity was explained by a reduction in women's pain catastrophizing at post-treatment. The percentage of variance in women's pain at post-treatment explained by the model was 34.2%.

The temporal mediation model with women's pain intensity during penetration at six-month follow-up as the outcome showed a satisfactory fit to the data, $\chi 2(12) = 12.48$, $p = .408$; CFI = 1.00; RMSEA = .02, 90%CI [.00 to .10]; SRMR = .05. Controlling for site, pain duration and relationship duration, this model revealed a statistically significant indirect actor effect of CBCT, relative to the control active-treatment condition of topical lidocaine, on women's pain reduction at follow-up via women's pain catastrophizing (Table 6). This result indicated that a proportion of the effect of CBCT on pain intensity at follow-up was explained by a reduction in women's pain catastrophizing at post-treatment. The indirect partner effects of CBCT on women's pain was not significant. The percentage of variance in women's pain at follow-up explained by the model was 33.2%.

Indirect effects on sexual function. The concurrent dyadic mediation model with women and partners' sexual function at post-treatment as outcomes showed a satisfactory fit to the data, $\chi 2(17) = 15.84$, $p = .536$; CFI = 1.00; RMSEA = .00, 90%CI [.00 to .08]; SRMR = .06. Controlling for site, pain duration and relationship duration, this model revealed a statistically significant indirect actor effect of CBCT, relative to the control active-treatment condition of topical lidocaine, on women's sexual function via their own pain catastrophizing (Table 5). This model revealed another significant indirect actor effect of CBCT on partners' sexual function

through their own pain catastrophizing (Table 5). Both indirect partner effects of CBCT on women's and partners' sexual function were not significant. The percentage of variance explained by the model was 51.8% for women's sexual function at post-treatment and 71.1% for partners' sexual function at post-treatment.

The temporal dyadic mediation model with women and partner's sexual function at six-month follow-up as outcomes showed a satisfactory fit to the data, $\chi 2(17) = 15.29$, $p = .574$; CFI = 1.00; RMSEA = .00, 90%CI [.00 to .08]; SRMR = .05. Controlling for site, pain duration and relationship duration, this model revealed a statistically significant indirect actor effect of CBCT, relative to the control active-treatment condition of topical lidocaine, on women's sexual function via their own pain catastrophizing (Table 6). No other significant indirect effects were found for this model (i.e., no partner effects). The percentage of variance explained by the model was 38.3 % for women's sexual function at follow-up and 44.2% for partners' sexual function at follow-up.

Indirect effects on sexual distress. The concurrent dyadic mediation model with women and partners' sexual distress at post-treatment as outcomes showed a satisfactory fit to the data, $\chi 2(17) = 23.09$, $p = .147$; CFI = 0.98; RMSEA = .06, 90%CI [.00 to .11]; SRMR = .05. Controlling for site, pain duration and relationship duration, this model revealed a statistically significant indirect actor effect of CBCT, relative to the control active-treatment condition of topical lidocaine, on women's sexual distress via their own pain catastrophizing (Table 5). This model revealed another significant indirect actor effect of CBCT on partners' sexual distress through their own pain catastrophizing (Table 5). A significant indirect partner effect of CBCT on women's sexual distress through partners' pain catastrophizing was also found. The indirect partner effect of CBCT on partners' sexual distress was not significant. The percentage of variance explained

by the model was 58.0% for women's sexual distress at post-treatment and 64.4% for partners' sexual distress at post-treatment.

The temporal dyadic mediation model with women and partners' sexual distress at six-month follow-up as outcomes showed a satisfactory fit to the data, $\chi 2(17) = 23.87$, $p = .123$; CFI = 0.97; RMSEA = .06, 90%CI [.00 to .11]; SRMR = .05. Controlling for site, pain duration and relationship duration, this model revealed a statistically significant indirect actor effect of CBCT, relative to the control active-treatment condition of topical lidocaine, on women's sexual distress via their own pain catastrophizing (Table 6). This model revealed another significant indirect actor effect of CBCT on partners' sexual distress through their own pain catastrophizing (Table 6). There were no partner effects for this model. The percentage of variance explained by the model was 34.2% for women's sexual distress at follow-up and 47.5% for partners' sexual distress at follow-up.

Discussion

This study aimed to examine the roles of pain self-efficacy and pain catastrophizing as therapeutic mediators of CBCT, relative to the topical lidocaine condition, for couples coping with PVD, using pre-treatment, post-treatment and six-month follow-up assessments from a randomized clinical trial. Hypotheses were partially confirmed by results at post-treatment and six-month follow-up. First, women in the CBCT condition reported a steeper decrease in their pain intensity at post-treatment through a steeper reduction in their pain catastrophizing, compared with women in the lidocaine condition, and this reduction in pain catastrophizing predicted sustained improvement in their pain at six-month follow-up. Second, women and partners in the CBCT condition reported a steeper decrease in their sexual function's difficulties at post-treatment, each through a steeper reduction in their pain catastrophizing, as compared with women and partners in

the lidocaine condition, and women's pain catastrophizing reduction predicted sustained improvements in their sexual function at six-month follow-up. Third, women in the CBCT condition reported a steeper decrease in their sexual distress at post-treatment through a steeper reduction in their own and their partners' pain catastrophizing, as compared with the lidocaine condition, and this reduction in women's pain catastrophizing predicted sustained improvements in their sexual distress at six-month follow-up. Further, partners in the CBCT condition reported a steeper decrease in their sexual distress at post-treatment through a steeper reduction in their pain catastrophizing, compared with partners in the lidocaine condition, and this reduction in pain catastrophizing predicted sustained improvements in their sexual distress at six-month follow-up. Finally, CBCT did not improve pain self-efficacy at post-treatment significantly more than the lidocaine. In summary, this study contributes to the literature examining the role of pain self-efficacy and pain catastrophizing as mediators of change in CBT for chronic pain, and results suggest that women and partners' pain catastrophizing reductions may be a specific therapeutic mechanism underlying both partners' improvements following treatment of PVD with CBCT.

Women's pain catastrophizing as a mediator of their improvement

Consistent with our expectations, findings showed that CBCT improved women's pain, sexual function and sexual distress through a steeper reduction in their own levels of pain catastrophizing, as compared to the topical lidocaine treatment. These results build on previous evidence supporting a prospective link between pain catastrophizing and PVD in terms of predicting treatment outcome (Desrochers et al., 2010). Showing in a RCT that reduction of catastrophizing is an active ingredient in a psychological treatment for chronic pain relative to a medical one, lidocaine, also provides further support for the Fear-Avoidance Model of pain and its relevance for PVD pain. This model suggests that ruminating, amplifying and feeling helpless

about the pain are important psychological factors maintaining chronic pain because they would contribute to maladaptive avoidance patterns (Vlaeyen & Linton, 2012). Hence, it is possible that reduction in pain catastrophizing promotes more adaptive behaviors, which in the context of PVD could be a reduced avoidance of sexual intimacy and an increased engagement in other sexual activities than penetration. This result is also in line with that of Brotto et al. (2020), whereby pain catastrophizing was a significant mediator of change in both group mindfulness-based cognitive therapy and group cognitive-behavioral therapy, suggesting that pain catastrophizing is an important target in second and third wave CBT, even if the therapeutic strategies differ from one another. Furthermore, Smeets et al. (2006) suggested that pain catastrophizing may be a common mechanism underlying improvement in physical and psychological treatment for chronic pain, but a waiting list was used as the control group. In the present study, we controlled for an active treatment, which can explain our different results indicating that CBCT has a specific effect on pain catastrophizing relative to a medical treatment.

Partners' pain catastrophizing as a mediator of their improvement

In addition, results showed that CBCT had a positive indirect effect on partners' sexual function and distress at post-treatment and on their sexual distress at six-month follow-up, through decreases in their own pain catastrophizing. This is an important finding, as controlled studies have shown that partners' sexuality is also significantly impaired in couples coping with PVD (Jodoin et al., 2008; Pazmany et al., 2014; Smith & Pukall, 2014). These findings suggest that targeting pain catastrophizing in CBCT may be beneficial not only for women's sexuality, but also for their partners'. In the lidocaine condition, partners are not actively involved in the treatment, as they are in CBCT, which could explain its greater impact on partners' pain catastrophizing. Because no study to date has examined the association between partners' pain catastrophizing and their own

sexual adjustment to PVD, no hypotheses were made regarding these outcomes. Nevertheless, the impact of CBCT on partners' pain catastrophizing is consistent with results of a pilot study testing CBCT for couples coping with PVD, in which exploratory analyses showed a large decrease in pain catastrophizing at post-treatment for both members of the couple (Corsini-Munt et al., 2014). Thus, findings provide further evidence that CBCT can significantly change partners' view of the pain, from more threatening to more manageable. In a study on partners' pain attributions among couples coping with PVD, partners' global and stable pain attributions were related to their own lower sexual satisfaction (Jodoin et al., 2008), which also suggests that partners' cognitions about the woman's pain has an impact on their own sexual adjustment. In addition, negative partner attributions were not significantly associated with their own sexual function, which is consistent with the absence of significant results regarding partners' sexual function improvement at six-month follow-up found in the present study. It is possible that negative cognitions may influence partners' sexual functioning only when these are related to their own sexual performance (Jodoin et al., 2008).

Partners' pain catastrophizing as a mediator of women's improvement

Regarding partner indirect effects, our hypotheses were partially confirmed. Decreases in partners' pain catastrophizing were a significant indirect path by which CBCT had a positive effect on women's sexual distress at post-treatment and follow-up, but not their levels of pain intensity or sexual function. The only study examining the cross-sectional associations between partners' pain catastrophizing and women's pain and sexual adjustment found that lower levels of partners' pain catastrophizing were associated with lower levels of women's pain, but the associations with sexual outcomes were not significant (Lemieux et al., 2013). In the context of treatment, changes in women's pain catastrophizing following CBCT may be more central to their process of

improvements in pain and sexual function than changes in partners' pain catastrophizing, which may have a more distal influence. Because the affective and relational dimensions of sexual difficulties are integral parts of sexual distress, more variance in this outcome may be explained by changes in the partner, beyond the effects of the therapy on women's pain catastrophizing.

Pain catastrophizing and interpersonal factors

Furthermore, it is possible that including the partner of women with PVD in CBCT has an additional effect on pain catastrophizing. By facilitating disclosure of feelings and empathic understanding of each other's experience of the pain, CBCT may decrease both partners' rumination, magnification, and feelings of helplessness about the pain (i.e., catastrophizing). According to the Communal Coping Model of pain (Sullivan et al., 2006), pain catastrophizing may serve to elicit support and empathy from the social environment. Thus, a couple intervention may help women find more adaptive ways of communicating their support needs to their partner, which can decrease their use of pain catastrophizing as a way of seeking proximity from their partner and ultimately have positive consequences for their pain and sexuality. Targeting preoccupying thoughts via cognitive defusion could also be a component of the CBCT that decreased pain catastrophizing. Indeed, a third-wave CBT approach was used, focusing on reframing the context in which one has the thought, as opposed to the content of the thought itself. However, our study did not allow the identification of specific components of the CBT that may have led to a reduction in pain catastrophizing.

Pain self-efficacy increase following CBCT

Surprisingly, CBCT did not increase pain self-efficacy significantly more than the lidocaine treatment. This result is consistent with that of a previous RCT comparing group CBT to a topical steroid in the treatment of PVD, whereby participants in the group CBT condition

demonstrated significantly better improvement in pain catastrophizing from pre-treatment to post-treatment than the topical steroid participants, but there was no significant treatment effect for pain self-efficacy as both treatments were as effective in reducing pain self-efficacy (Bergeron et al., 2016). To date, only one RCT examined the role of pain self-efficacy as a mediator of change in CBT for chronic pain (Turner et al., 2007). Participants in the CBT condition, as compared with an education/attention control condition, showed significantly greater improvement from baseline to post-treatment in both pain self-efficacy and pain catastrophizing. It is possible that the effect of CBT on pain self-efficacy may depend on patient characteristics and treatment components. Notably, our CBT addressed pain-related cognitions using ACT interventions, in which the goal is not to reduce or banish maladaptive thoughts but rather to change how the person relates with them in a way that thoughts are accepted rather than fought.

Study limitations

Results should be interpreted in light of the study limitations. First, even if variables were assessed at pre– and post-treatment and six-month follow-up, which allowed for testing of the temporal precedence of the mediators, this design is not optimal to examine mechanisms of change (Alan E Kazdin, 2009). Frequent assessments (e.g., weekly) of putative mediators during treatment allow for the examination of more fine-grained patterns of change of mediator during treatment and outcomes after treatment as well as of individual differences in the course of these changes (Laurenceau et al., 2007; Thorn & Burns, 2011). Secondly, all outcomes were assessed by self-report questionnaires, which can be influenced by many biases such as poor recall and social desirability. Although this applies to most studies on mediators of change, other methods of assessment should be explored, such as observational designs (Hesser et al., 2009; Kramer et al., 2017).

Study strengths and implications

Despite these limitations, the present study boasts several strengths. The sample size was adequate and included all randomized couples, as per an intent-to-treat strategy, which increased the external validity of the findings, as compared to other similar studies (Burns et al., 2012; Turner et al., 2007). This is the first RCT examining PC and pain self-efficacy as mediators of change embedded in the relational context of pain (i.e., including couples). Thus, the use of a dyadic design and analytic approach is an important strength of the present study. In research on chronic pain, a growing number of studies incorporate a dyadic perspective to better understand the social component of the biopsychosocial model of pain (Craig, 2014), but the role of the relational context of pain in the treatment process has been neglected. This dyadic perspective is also especially relevant considering that PVD principally occurs in the very intimate context of sexuality. Additionally, all women received a clinical diagnosis of PVD, leading to a homogeneous sample. Another strength of this study was the quality of the treatment and its delivery (Yates et al., 2005). The CBCT was manualized and based on empirically tested cognitive–behavioral group therapy (Bergeron, Binik, Khalifé, Pagidas, Glazer, et al., 2001), with pertinent interventions added to reflect recent research regarding the relational components of PVD.

In a context where research on mediators of change in CBT is equally sparse in chronic pain and sex and couple therapy, this study adds to the body of literature by suggesting that pain catastrophizing may be a specific mechanism by which CBCT improves women's pain as well as both partners' sexual well-being. Findings support the theoretical assumption that changes in preoccupying pain-related cognitions is central to CBT for chronic pain (Jensen, 2011). These findings also highlight the relevance of studying chronic pain from a dyadic perspective. Furthermore, the results suggest that third-wave CBT interventions could be another way (relative

to cognitive restructuring) to decrease catastrophic thoughts, which highlights the need to further study CBT for chronic pain including new ways of addressing pain-related cognitions.

Moreover, results of the present study have substantial clinical applications. They support the relevance of targeting not only women's pain catastrophizing in CBT treatment, but also partners' pain catastrophizing in order to decrease sexual impairment of both members of the couple. Findings may be of use for developing clinical interventions focused on both partners' cognitions about the pain. Also, understanding how treatment leads to change is crucial for generalizing treatment effects from research to practice. Indeed, practitioners need to know what facets of treatment are critical. Thus, findings suggest catastrophizing is an important therapeutic target in CBCT.

Further research is needed to demonstrate that CBT for chronic pain not only produces desirable outcomes, but also how it does so, in order to invest time and energy in evidence-based therapeutic interventions. Studies with multiple assessments of mediators and outcomes, not only after but also during the treatment, could provide more knowledge regarding the associations found in the present study and thus greatly improve our understanding of the role of pain self-efficacy and pain catastrophizing in the treatment of PVD and other chronic pain conditions.

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Table 1

Session-by-Session Outline

Assessment
Introduction of the clinician to the couple Introduction of the couple to the clinician: Telling their story

Treatment (Sessions 1-12)	
1	Explanation of the treatment plan Opening the dialogue regarding treatment expectations Setting a schedule Homework: *PVD readings* *Pain and sex journaling*
2	Review of homework Information about PVD Psychoeducation: Dispelling myths about pain ACT Value Clarification Exercise: Card Sorting Discussion: Treatment expectations and goals Homework: *Mindfulness breathing* *Tantric breathing for two*
3	Review of homework Intervention: Facilitating emotional disclosure and subsequent validating responses Intervention: Communication exercise for both partners Homework: *"I" statements and continuation of disclosure and validation exercises* *Continuation of pain journaling* *Continuation of breathing exercises*
4	Review of homework Re-conceptualizing pain and PVD as multifactorial (Gate-control theory of pain) In-session exercise: Start identifying biopsychosocial factors that can influence pain specific to the couplet Psychoeducation regarding sexuality and models of sexual response Understanding how pain can impact upon sexuality and the relationship for both members of the couple and encouraging their self-disclosure to one another about this issue Homework: *Pain localization and 'discomfort desensitization'* *Body-scan relaxation / meditation*
5	Review of homework The role of anxiety/anticipation in pain and sex Discussion: Attitudes towards genitals for him and her and ways to approach

	Homework: *Kegel exercises (discuss with partner)*
6	Review of homework Discussion and psychoeducation: Role of the partner and partner responses in women's pain experience and sexual satisfaction Discussion: Partner and woman responses in relation to sexual satisfaction Continuing communication and facilitating the quality of the relationship (e.g., brief communication skills training) Homework: *Giving and receiving (Step 1 – Relaxing together and non-sexual massage)* *Disclosing favourite intimate moments (sexual intimacy)*
7	Review of homework Psychoeducation and discussion: Sexual communication Discussion: Defining/redefining the sexual narrative in the context of pain, and "Outercourse" Homework: *Relaxation breathing with visualization and dilatation* *Involving the partner in dilatation exercises*
8	Review of homework Discussion: Problem solving – what's working and what's not working Psychoeducation and discussion: Facilitating sexual desire and arousal Introduction: Cognitive defusion Homework: *Facilitating sexual desire and arousal* *Continuation of giving and receiving (Step 2 – Relaxing together and non-sexual massage)* *Continuation of pain and sex journaling*
9	Review of homework Following up: Sexual desire and arousal Cognitive defusion intervention: Defusing negative thoughts, beliefs and cognitive distortions related to pain (catastrophizing, hypervigilance, attributions, self-efficacy, etc.), the relationship and sex. Psychoeducation and discussion: Attributions about pain Follow-up: Pain and sex journaling check in – Any revelations to share? Homework: *Practice cognitive defusion*
10	Review of homework Intervention and follow-up: Cognitive defusion revisited Homework: *Continue practicing cognitive defusion* *Continuation of giving and receiving (Step 3 – Sexual touching and potential to focus on orgasm)*
11	Review of homework Discussion: Asserting oneself with one's partner

	Psychoeducation and discussion: Avoidance of sexual activities Homework: *Homework exercises revisited*
12	Review of homework Discussion: Progress and setbacks Discussion: Summarizing information learned Psychoeducation and discussion: Tools for the future

Table 2

Sample Demographics for Women with PVD and their Partner

	Total N = 108 couples		CBCT Condition N = 53 couples		Lidocaine Condition N = 55 couples	
	Women	Partners	Women	Partners	Women	Partners
Sex of the partners						
Men		105 (97.22%)		52 (98.11%)		53 (96.36%)
Women		3 (2.78%)		1 (1.89%)		2 (3.64%)
Age (years)	27.06 (6.26)	29.04 (7.76)	26.51 (5.51)	28.40 (7.20)	27.60 (6.91)	29.65 (8.29)
Pain duration (months)	78.22 (62.44)		67.21 (52.30)		88.83 (69.70)	
Cultural background						
English Canadian	39 (36.10%)	46 (42.60%)	19 (35.8%)	25 (47.17%)	20 (36.36%)	21 (38.18%)
French Canadian	43 (40.20%)	34 (31.50%)	18 (34%)	12 (22.64%)	25 (45.45%)	22 (40%)
Other	25 (23.15%)	28 (25.93%)	15 (28.30%)	16 (30.19%)	10 (18.18%)	12 (21.81%)
Missing	1 (0.93%)	0	1 (1.9%)	0	0	0
Education level (years)	17.06 (2.24)	16.14 (2.93)	16.84 (2.27)	15.78 (2.37)	17.27 (2.31)	16.48 (2.71)
Marital status						
Not living together	22 (20.40%)		13 (24.53%)		9 (16.36%)	
Cohabiting	56 (51.90%)		27 (50.94%)		29 (52.73%)	
Married	30 (27.80%)		13 (24.53%)		17 (30.91%)	
Relationship length (months)	65.20 (49.67)		61.13 (47.46)		69.14 (51.84)	
Couple's annual income						
$0-$19,999	20 (18.52%)		9 (16.98%)		11 (20%)	
$20,000-$39,999	22 (20.38%)		15 (28.30%)		7 (12.73%)	
$40,000-$59,999	15 (13.89%)		5 (9.43%)		10 (18.18%)	
$60,000-$79,999	16 (14.81%)		7 (13.21%)		9 (16.36%)	
$79,999 and over	34 (31.48%)		16 (30.19)		18 (32.73%)	
Does not wish to disclose	1 (0.93%)		1 (1.89%)		0	
Treatment site (1=Halifax)	43.5% (47)		43.4% (23)		43.6% (24)	

Note. Values are *n* (%) or mean (SD).

Table 3

Descriptive Statistics of Key Variables for Women with PVD and their Partners

Variables	Total N = 108 couples		CBCT Condition N = 53 couples		Lidocaine Condition N = 55 couples	
	Women	Partners	Women	Partners	Women	Partners
Mediators variables						
Pain catastrophizing (PCS)–Pre-treatment	26.79 (10.30)	24.42 (11.39)	28.04 (9.96)	22.99 (9.96)	25.58 (10.57)	25.80 (12.55)
Pain catastrophizing (PCS)–Post-treatment	15.84 (11.42)	18.40 (11.50)	13.15 (8.42)	15.16 (9.66)	18.25 (13.19)	21.19 (12.29)
Pain self-efficacy (PISES)–Pre-treatment	58.11 (14.92)	59.59 (16.02)	57.99 (15.57)	60.46 (16.60)	58.23 (14.40)	58.76 (15.56)
Pain self-efficacy (PISES)–Post-treatment	72.66 (17.98)	68.09 (20.27)	74.28 (17.28)	71.37 (19.31)	71.20 (18.65)	65.25 (20.83)
Outcomes variables						
Pain intensity (VAS)–Pre-treatment	6.66 (1.80)		6.81 (1.77)		6.51 (1.82)	
Pain intensity (VAS)–Post-treatment	4.69 (2.24)		4.70 (2.21)		4.67 (2.29)	
Pain intensity (VAS)–Follow-up	4.58 (2.54)		4.45 (2.51)		4.70 (2.58)	
Sexual function (FSFI, IIEF)–Pre-treatment	17.12 (4.75)	58.38 (7.70)	17.30 (5.02)	57.29 (8.08)	16.96 (4.53)	59.43 (7.24)
Sexual function (FSFI, IIEF)–Post-treatment	19.09 (5.35)	61.41 (6.72)	19.37 (5.27)	60.54(6.21)	18.84 (5.47)	62.13 (7.10)
Sexual function (FSFI, IIEF)–Follow-up	19.37 (5.28)	60.32 (7.73)	19.09 (5.16)	59.08 (7.69)	19.61 (5.42)	61.30 (7.71)
Sexual distress (SDS)–Pre-treatment	34.09 (9.76)	16.85 (9.83)	34.64 (9.40)	16.25 (8.33)	33.56 (10.15)	17.44 (11.13)
Sexual distress (SDS)–Post-treatment	25.18 (14.14)	15.08 (10.91)	21.63 (12.90)	14.41 (9.02)	28.37 (14.56)	15.65 (12.35)
Sexual distress (SDS)–Follow-up	24.02 (14.58)	15.19 (10.61)	23.69 (14.47)	16.25 (9.93)	24.32 (14.82)	14.29 (11.18)

Note. PCS = Pain Catastrophizing Scale; PISES = Painful Intercourse Self-Efficacy Scale; VAS = Visual Analog Scale; FSFI = Female Sexual Function Index; IIEF = International Index of Erectile Function; SDS = Sexual Distress Scale.

Table 4

Correlations Between Pain Catastrophizing, Pain Self-efficacy and Outcomes Variables for Women with PVD and their Partners at Post-treatment and Follow-up

	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Pain catastrophizing–Post (W)	.30**	-.73**	-.40**	.43**	.36**	-.41**	-.35**	-.14	-.08	.63**	.44**	.03	.02
2. Pain catastrophizing–Post (P)	-	-.24*	-.44**	.20	.20*	-.19	-.15	-.18	-.11	.40**	.34**	.64**	.46**
3. Pain Self-efficacy–Post (W)		-	.60**	-.48*	-.47**	.61**	.45**	.46**	.34**	-.73**	-.62**	-.11	-.15
4. Pain Self-efficacy–Post (P)			-	-.35**	-.52**	.44**	.33**	.54**	.37**	-.52**	-.51**	-.34**	-.34**
5. Pain (W)–Post				-	.69**	-.23*	-.18	-.21	-.19	.35**	.40**	-.08	-.09
6. Pain (W)–FU					-	-.28**	-.30**	-.34**	-.47**	.33**	.56**	.01	.08
7. Sexual function–Post (W)						-	.69**	.36**	.33**	-.69**	-.55**	-.24*	-.20
8. Sexual function–FU (W)							-	.33**	.37**	-.51**	-.66**	-.19	-.30**
9. Sexual function–Post (P)								-	.62**	-.37**	-.37**	-.40**	-.37**
10. Sexual function–FU (P)									-	-.21	-.41**	-.27*	-.45**
11. Sexual distress–Post (W)										-	.71**	.36**	.32**
12. Sexual distress–FU (W)											-	.30**	.40**
13. Sexual distress–Post (P)												-	.77**
14. Sexual distress–FU (P)								-					-

Note. W = Women; P = Partners. Post = post-treatment; FU = Follow-up. * $p < .05$. ** $p < .01$.

Table 5

The Total Effects, Direct Effects, Actor Indirect Effects and Partner Indirect Effects for Concurrent Models

	Total Effects	Direct Effects	Indirect Actor Effects	Indirect Partner Effects
Outcomes	b (95%CI)	b (95%CI)	b (95%CI)	b (95%CI)
Model 1				
Pain intensity–Post-treatment (W)	-0.41 (-1.21, 0.43)	0.00 (-0.90, 0.84)	-0.44 (-0.99, -0.04)*	0.03 (-0.21, 0.37)
Model 2				
Sexual function–Post-treatment (W)	0.66 (-1.20, 2.50)	-1.27 (-3.12, 0.47)	1.67 (0.78, 2.91)*	0.26 (-0.18, 1.07)
Sexual function–Post-treatment (P)	-0.21 (-2.25, 1.79)	-1.92 (-3.76, -0.17)*	0.97 (0.22, 2.32)*	0.73 (-0.09, 1.85)
Model 3				
Sexual distress–Post-treatment (W)	-8.53 (-13.01, -3.61)*	-3.09 (-7.72, 1.68)	-4.36 (-7.22, -2.16)*	-1.09 (-3.26, -0.09)*
Sexual distress post (P)	-0.44 (-3.62, 2.92)	1.07 (-1.71, 3.97)	-1.92 (-4.21, -0.42)*	0.42 (-0.91, 2.34)

Note. W = Women. P = Partners. CI = Confidence interval. Bootstrap sample size = 10 000. * = Evidence of an effect as 95% bias corrected bootstrap confidence interval did not include zero

Table 6

The Total Effects, Direct Effects, Actor Indirect Effects and Partner Indirect Effects for Temporal Models

	Total Effects	Direct Effects	Indirect Actor Effects	Indirect Partner Effects
Outcomes	b (95%CI)	b (95%CI)	b (95%CI)	b (95%CI)
Model 1				
Pain intensity–Follow-up (W)	-0.36 (-1.30, 0.65)	0.32 (-0.68, 1.36)	-0.49 (-1.06, -0.11)*	- 0.19 (-0.66, 0.03)
Model 2				
Sexual function–Follow-up (W)	0.63 (-2.50, 1.21)	- 2.06 (-4.09, -0.15)*	1.10 (0.29, 2.39)*	0.34 (-0.09, 1.35)
Sexual function–Follow-up (P)	-2.10 (-5.20, 1.08)	-3.43 (-6.89, 0.21)	0.39 (-0.60, 1.96)	0.94 (-0.01, 2.18)
Model 3				
Sexual distress–Follow-up (W)	-1.55 (-6.73, 3.92)	2.92 (-2.42, 8.77)	-3.39 (-6.49, -1.21)*	-1.09 (-3.95, 0.12)
Sexual distress–Follow-up (P)	2.92 (-0.58, 6.98)	4.21 (0.44, 8.54)*	-1.22 (-3.41, -0.13)*	-0.06 (-1.74, 1.64)

Note. W = Women. P = Partners. CI = Confidence interval. Bootstrap sample size = 10 000. * = Evidence of an effect as 95% bias corrected bootstrap confidence interval did not include zero.

Figure 1

Flow of participants

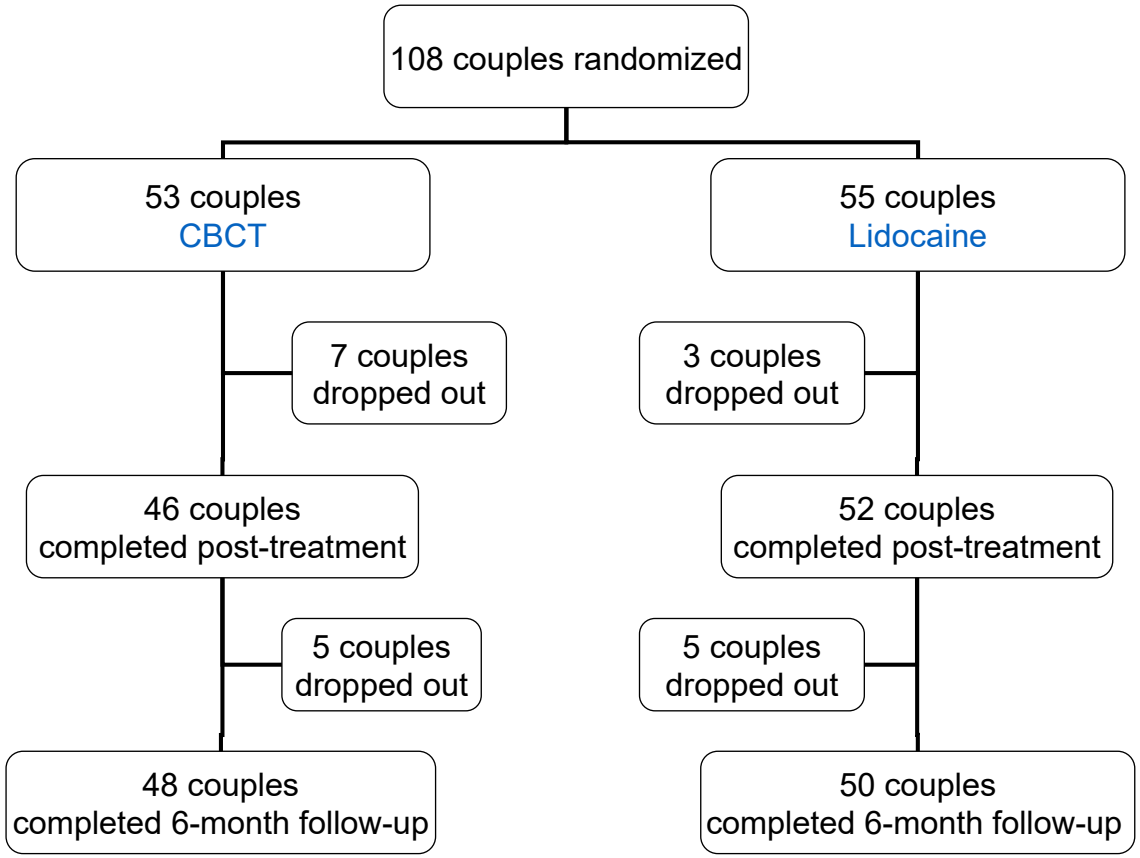
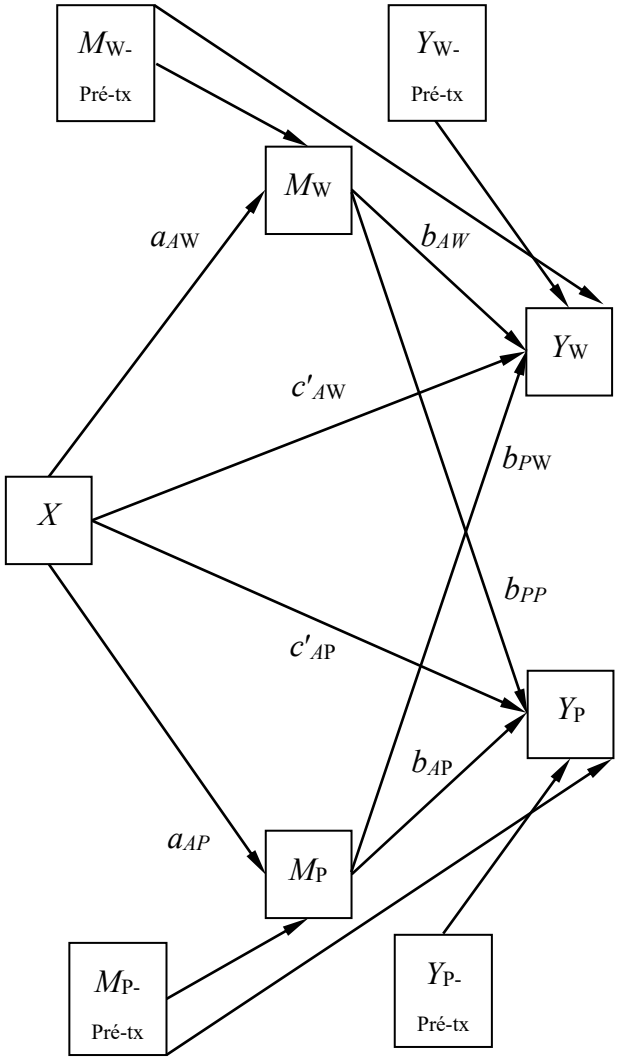


Figure 2

The Actor-Partner Interdependence Mediation Model



Note. The *X* variables represent the treatment condition (0 = topical lidocaine, 1 = cognitive-behavioral couple therapy) the *M* variables represent the mediators, and the *Y* variables the outcomes. The two members of the couple are designated W = women and P = partner. Actor and partner effects are indexed by A = actor effect and P = partner effect, respectively. Covariances between partners and between variables at the same time point were included but not shown for the sake of clarity. Pre-tx refers to the pre-treatment assessment. In concurrent models, the outcome variables are at post-treatment whereas in temporal models, the outcome variables are at six-month follow-up.

Discussion générale

Résumé des objectifs de thèse

L'objectif général de la thèse, incluant deux articles empiriques, était d'examiner le rôle des facteurs psychologiques dans l'ajustement à la douleur et son traitement chez les femmes présentant une douleur génito-pelvienne et leurs partenaires. La douleur était conceptualisée dans le cadre du modèle biopsychosocial. Selon ce modèle, un ensemble de facteurs biologiques, psychologiques et sociaux contribue au développement et au maintien de la douleur chronique. Ainsi, les traitements développés selon cette conceptualisation ciblent ces trois différentes catégories de facteurs. Plus précisément, la thèse visait à contribuer à ce modèle en examinant pour la première fois le rôle de l'auto-compassion auprès de cette population clinique de même qu'en étudiant des mécanismes de changement dans le cadre d'une thérapie cognitivo-comportementale de couple novatrice pour la VP. De plus, une méthodologie dyadique permettait d'étudier la douleur dans son contexte relationnel dans les deux articles de la thèse.

Premier article

Le premier article examinait de manière transversale les associations entre l'auto-compassion de chacun des partenaires et l'intensité de la douleur chez la femme de même que l'anxiété, la dépression, la satisfaction relationnelle et la détresse sexuelle chez les deux partenaires. Les deux membres du couple ont été inclus afin de mieux comprendre le rôle de l'auto-compassion chez les partenaires, pour qui la douleur entraîne de nombreuses conséquences négatives sur le plan psychologique, relationnel et sexuel. L'inclusion des deux membres du couple permettait également d'examiner comment le niveau d'auto-compassion de chacun pouvait avoir une influence sur l'ajustement à la douleur de l'autre

membre du couple. Pour cet article, il était attendu que des niveaux plus élevés d'auto-compassion chez les femmes et leurs partenaires seraient associés négativement à leur propre détresse psychologique (anxiété et dépression) et sexuelle, de même qu'à celle de l'autre membre du couple. De plus, il était attendu que des niveaux plus élevés d'auto-compassion chez chaque partenaire seraient associés positivement à leur propre satisfaction relationnelle et à la satisfaction relationnelle de l'autre membre du couple. Aucune association entre l'auto-compassion et l'intensité de la douleur n'était attendue.

Les résultats ont montré que les femmes avec la VP qui avaient plus d'auto-compassion avaient aussi des niveaux plus faibles d'anxiété et de dépression. Les mêmes associations ont été trouvées chez les partenaires. Cependant, les niveaux d'auto-compassion de chacun des membres du couple n'étaient pas associés à l'anxiété et la dépression mesurées chez l'autre membre du couple. Par ailleurs, des niveaux plus élevés d'auto-compassion chez les partenaires étaient associés à leur propre plus grande satisfaction relationnelle, et à moins de détresse sexuelle pour eux et la femme souffrant de VP. Tel qu'attendu, pour ce qui est de l'intensité douleur, aucune association avec l'auto-compassion n'a été trouvée. Les résultats obtenus de ce premier article sont cohérents avec ceux d'études précédentes ayant examiné l'auto-compassion auprès de personne aux prises avec d'autres formes de douleur chronique. Ces résultats suggèrent qu'une attitude plus bienveillante envers soi-même pourrait favoriser un meilleur ajustement à la douleur pour les femmes souffrant de VP et leurs partenaires. Cet article permet donc d'intégrer un nouveau facteur psychologique au modèle biopsychosocial de la douleur génito-pelvienne, et suggère la pertinence de développer des interventions ciblant l'auto-compassion des couples faisant face à cette forme de douleur chronique.

Deuxième article

Le deuxième article examinait deux médiateurs de changement thérapeutique - le sentiment d'auto-efficacité face à la douleur et le catastrophisme face à la douleur - dans le cadre d'un essai clinique randomisé testant une nouvelle thérapie cognitivo-comportementale de couple pour les femmes souffrant de VP et leurs partenaires. Les médiateurs étaient mesurés au pré-traitement et au post-traitement, et les variables dépendantes au pré-traitement, au post-traitement et au suivi six mois plus tard. Comme pour le premier article de thèse, les deux membres du couple étaient inclus afin de mieux comprendre l'expérience des partenaires et pour tenir compte de l'interdépendance entre chacun des membres du couple. Ainsi, nous avons pu examiner comment les changements dans l'auto-efficacité et le catastrophisme de chacun des partenaires pouvaient être médiateurs de l'efficacité thérapeutique mesurée chez l'autre membre du couple. Pour cet article, il était attendu que la diminution du catastrophisme et l'augmentation de l'auto-efficacité chez les femmes seraient médiateurs de l'efficacité thérapeutique de la TCCC sur leur propre douleur, fonction sexuelle et détresse sexuelle, et ce en comparaison à la condition lidocaïne. Ainsi, la condition lidocaïne était utilisée comme un groupe contrôle permettant d'examiner le rôle spécifique du catastrophisme et de l'auto-efficacité dans la thérapie. Il était également attendu que la diminution du catastrophisme et l'augmentation de l'auto-efficacité chez les partenaires seraient médiateurs de l'efficacité du traitement sur l'intensité de la douleur des femmes, mais pas sur leur fonction sexuelle et leur détresse sexuelle. En ce qui concerne les médiateurs de l'efficacité du traitement sur la détresse et la fonction sexuelles des partenaires, aucune hypothèse n'a été formulée puisqu'aucune

étude dans le domaine de la douleur génito-pelvienne à ce jour n'a porté sur les relations entre l'ajustement sexuel des partenaires et les variables médiatrices étudiées.

Tout d'abord, les résultats au post-traitement confirmaient partiellement ces hypothèses. Les résultats ont montré que la TCCC diminuait l'intensité de la douleur des femmes via la diminution de leur propre niveau de catastrophisme. La TCCC améliorait également la fonction sexuelle des femmes souffrant de VP et leurs partenaires, chacun via leur propre diminution du catastrophisme. De plus, la thérapie diminuait la détresse sexuelle des femmes via leur propre diminution du catastrophisme de même que via la diminution du catastrophisme des partenaires. La TCCC diminuait la détresse sexuelle des partenaires via leur propre diminution du catastrophisme. Finalement, la TCCC n'augmentait pas significativement plus l'auto-efficacité que le traitement de lidocaïne au post-traitement. Pour cette raison, cette variable n'a pas été incluse dans les analyses de médiation. Pour ce qui est des analyses incluant les données du suivi six-mois, les résultats démontraient d'abord que la diminution du catastrophisme chez les femmes au cours de la thérapie était médiatrice de l'efficacité thérapeutique quant à l'intensité de leur douleur et leur fonction sexuelle, telle que mesurée entre le post-traitement et le suivi six-mois. Aussi, la réduction du catastrophisme chez chacun des partenaires était médiatrice de la diminution de leur propre détresse sexuelle au suivi six mois. Cet article contribue à l'ensemble des études ayant porté sur le rôle de l'auto-efficacité et du catastrophisme comme médiateurs d'efficacité thérapeutique de la TCC pour la douleur chronique. Puisque l'effet d'un autre traitement pour la douleur était contrôlé dans la présente étude, les résultats suggèrent que la diminution du catastrophisme soit un médiateur thérapeutique *spécifique* de l'efficacité de la TCC pour la douleur génito-pelvienne. De plus, ces résultats

contribuent à notre compréhension des médiateurs d'efficacité thérapeutique des TCCs de troisième vague pour la douleur, limitée par le peu d'études publiées jusqu'à présent.

Implications des résultats et avenues de recherche

De plus en plus d'études sur la douleur génito-pelvienne démontrent l'importance d'étudier le contexte relationnel dans lequel celle-ci survient. Ainsi, le fait d'inclure les partenaires des femmes souffrant de VP dans les deux articles de la thèse est en continuité avec ces études. Un devis dyadique contribue à raffiner notre compréhension des composantes sociales du modèle biopsychosocial de la douleur. Le premier article a permis d'examiner l'auto-compassion pour une première fois auprès de femmes souffrant de VP. Les résultats de cet article démontrent que cette variable psychologique est associée non seulement à l'ajustement des femmes à la douleur, mais aussi à l'ajustement de leurs partenaires. Le deuxième article montre comment le catastrophisme permet d'expliquer l'amélioration mesurée chez les femmes souffrant de VP et leur partenaire suite à une TCC novatrice de couple. Cette étude est la première à examiner les médiateurs d'efficacité d'une TCC pour la douleur qui tienne compte du contexte relationnel, et la première à examiner les médiateurs d'efficacité d'une intervention de couple pour une dysfonction sexuelle ; elle a donc des implications importantes quant à notre compréhension du rôle des facteurs dyadiques dans le traitement de la douleur et des problèmes sexuels. De surcroit, les deux articles démontrent des associations entre l'expérience d'un partenaire et l'expérience de l'autre membre du couple, ce qui appuie l'importance d'inclure les partenaires dans nos études sur la douleur génito-pelvienne et dans le traitement de cette dernière, et plus globalement, dans les études sur l'ensemble des dysfonctions sexuelles chez les femmes et les hommes.

Auto-compassion et détresse sexuelle. Dans le premier article de la thèse, l'auto-compassion des partenaires était associée négativement à leur propre détresse sexuelle de même qu'à la détresse sexuelle de la femme souffrant de VP. Cependant, l'auto-compassion des femmes souffrant de VP n'était pas significativement associée à leur propre détresse sexuelle ni à celle de leurs partenaires. Des études auprès d'individus souffrant de diverses formes de douleur chronique avaient démontré que plus d'auto-compassion était associée à moins d'issues négatives comme l'anxiété, la dépression, le catastrophisme et l'évitement expérientiel (Carvalho et al., 2019; Costa & Pinto-Gouveia, 2011, 2013; Edwards et al., 2019; Purdie & Morley, 2015; Wren et al., 2012). Toutefois, il s'agissait dans la présente thèse de la première étude examinant l'auto-compassion chez les femmes souffrant de douleur génito-pelvienne et leurs partenaires. Depuis la publication de ce premier article, une étude transversale a comparé les niveaux d'auto-compassion de femmes souffrant de douleur pendant les relations sexuelles à ceux de femmes ne présentant pas de difficultés sexuelles (Vasconcelos et al., 2019). Les résultats montraient que les femmes souffrant de douleur durant les relations sexuelles avaient moins d'auto-compassion que les femmes du groupe contrôle. Cette étude suggère donc que les femmes souffrant de VP auraient tendance à être plus dures envers elles-mêmes que les femmes de la population générale. Par contre, les femmes dans cette étude n'avaient pas à rencontrer un médecin afin de confirmer leur diagnostic de douleur, qui était plutôt auto-rapporté dans un questionnaire en ligne. De plus, les groupes comparés n'étaient pas de taille égale, le groupe contrôle étant plus grand, ce qui limite la puissance des analyses. Malgré ces limites, les résultats de cette étude, jumelés aux résultats de la nôtre, appuient la pertinence d'examiner les associations entre l'auto-compassion et l'ajustement à la

douleur auprès de cette population clinique, pour éventuellement en faire une cible d'intervention dans les traitements cognitivo-comportementaux pour la douleur génito-pelvienne.

La détresse sexuelle est une conséquence bien documentée de la douleur génito-pelvienne chez les femmes qui en souffrent, mais aussi chez leurs partenaires. De nombreux couples auraient donc de la difficulté à adapter leur sexualité à la douleur, ce qui serait la source d'une détresse significative dans cette sphère importante de la vie amoureuse. À ce jour, aucune étude n'a porté sur la relation entre l'auto-compassion et la détresse sexuelle, tant auprès des femmes souffrant de VP, que celles d'autres populations cliniques ou de la population générale. Notre compréhension de l'absence de relation significative entre l'auto-compassion des femmes et leur propre détresse sexuelle est donc limitée par ce manque d'études empiriques sur lesquelles s'appuyer. Il est néanmoins possible que la mesure d'auto-compassion utilisée ne soit pas assez spécifique au domaine de la sexualité. En effet, il est possible que des femmes aient un certain niveau d'auto-compassion dans plusieurs sphères de leur vie, mais que la honte entourant la douleur et la sexualité vienne rendre difficile pour elle d'être bienveillantes envers elle-mêmes dans ce contexte spécifique. De façon similaire, le concept de *sexual self-consciousness – la* tendance à porter son attention sur des aspects négatifs de soi – mesuré de manière spécifique au contexte de la sexualité, prédirait mieux les dysfonctions sexuelles que le concept général de *self-consciousness*, non spécifique au contexte de la sexualité (van Lankveld et al., 2008; van Lankveld et al., 2004). Notons ici que nous avons néanmoins trouvé des associations entre l'auto-compassion des partenaires et leur propre détresse sexuelle et celle des femmes avec la VP. Il est possible qu'il soit plus facile pour les

partenaires ayant plus d'auto-compassion de manière générale de continuer à être bienveillants envers soi dans le contexte de la douleur. Les études qualitatives nous apprennent comment un sentiment de honte face à sa vie sexuelle est une expérience partagée par beaucoup de femmes souffrant de douleur génito-pelvienne (Ayling & Ussher, 2008; Sutherland, 2012), ce qui pourrait les amener à vivre une détresse sexuelle plus intense et rendre plus difficile pour elles d'avoir de l'auto-compassion dans cette sphère spécifique de leur vie. Elles rapportent en effet des niveaux significativement plus élevés de détresse sexuelle que les partenaires dans notre échantillon, ce qui avait été trouvé dans un autre échantillon de couples dont la femme souffre de VP (Bois et al., 2016). De plus, avoir un schéma sexuel négatif de soi a été associé à plus de détresse sexuelle chez les femmes (Pazmany et al., 2013), ce qui suggère que l'auto-compassion spécifique au contexte sexuel pourrait également y être associée. Ainsi, il serait important dans les études futures de développer une mesure d'auto-compassion qui soit spécifique à la sexualité afin que les résultats reflètent de manière plus juste l'expérience des femmes avec de la douleur génito-pelvienne. Cette mesure pourrait également contribuer à une compréhension accrue des autres dysfonctions sexuelles.

Par ailleurs, le fait que l'auto-compassion des partenaires soit associée négativement à leur propre détresse sexuelle et à la détresse sexuelle des femmes avec la VP suggère que l'auto-compassion pourrait être bénéfique pour la sexualité des deux membres du couple. Il est possible que les partenaires ayant plus de compassion envers eux-mêmes ressentent moins d'émotions négatives reliées à soi dans le contexte de la sexualité, par exemple de la culpabilité de causer de la douleur, ce qui leur permettrait d'être plus présent au plaisir d'être intime sexuellement avec l'autre, et ce malgré la

douleur. Dans une étude qualitative récente s'étant penchée sur l'expérience d'hommes en relation de couple avec des femmes ayant un diagnostic de VP, ces derniers rapportaient en effet que la douleur engendrait chez eux des sentiments de culpabilité et de frustration (Sadownik et al., 2017). Une plus grande disponibilité affective favorisée par l'auto-compassion pourrait bénéficier à la sexualité partagée du couple. À l'inverse, avoir moins d'auto-compassion pourrait amener les partenaires à être absorbés dans des émotions négatives liés à soi, ce qui pourrait faire obstacle à l'intimité et la connexion et engendrer plus de détresse. En effet, plusieurs études démontrent comment l'attention tournée vers soi (*self-focus* ou *spectatoring*), par exemple sur sa performance sexuelle ou des émotions désagréables, peut engendrer des difficultés sexuelles puisque l'attention est détournée des stimuli sexuels positifs (van Lankveld et al., 2008; van Lankveld et al., 2004). En outre, la recherche auprès de la population générale démontre que les individus ayant plus d'auto-compassion sont décrits par leur partenaire amoureux comme étant plus dans l'acceptation de l'autre et moins agressifs verbalement (Neff & Beretvas, 2013). Ainsi, les femmes ayant des partenaires qui ont des niveaux plus élevés d'auto-compassion pourraient se sentir plus acceptées, malgré l'impact que leur douleur a sur la sexualité du couple, ce qui pourrait être lié à moins de soucis concernant leur sexualité partagée avec leur partenaire. Ces partenaires pourraient aussi être moins prompts à réagir avec agressivité lorsqu'ils ressentent de la frustration en raison de leurs difficultés sexuelles, ce qui pourrait aussi contribuer à réduire la détresse sexuelle des femmes. Ces hypothèses vont dans le sens des études chez les couples dont la femme souffre de VP, transversales et à journaux quotidiens, qui démontrent comment la manière dont les partenaires répondent à la douleur de la femme est associée à l'ajustement sexuel des femmes, et plus spécifiquement que les

réponses négatives (expression d'hostilité et de frustration) sont associées à un moins bon ajustement sexuel (Rosen et al., 2014; Rosen et al., 2012; Rosen et al., 2015). Il serait intéressant dans les études futures d'examiner le lien entre l'auto-compassion des partenaires et leurs réponses à la douleur afin de mieux comprendre les mécanismes expliquant l'association trouvée entre l'auto-compassion des partenaires et la détresse sexuelle des femmes. En ce qui concerne l'absence de résultats entre l'auto-compassion des femmes souffrant de VP et leur propre détresse sexuelle, il est aussi possible que leur détresse soit davantage reliée à des composantes relationnelles. En effet, les études démontrent que les femmes s'adonnent surtout aux activités sexuelles pour établir une proximité émotionnelle ; leurs motivations seraient donc davantage d'ordre relationnel (Basson, 2000), et ce surtout chez les femmes souffrant de douleur génito-pelvienne (Sand & Fisher, 2007). Ainsi, leur propre auto-compassion, étant une variable intra-individuelle, pourrait être moins importante pour prédire leur détresse sexuelle que des variables du contexte relationnel. Le fait que l'auto-compassion des partenaires était associée à la détresse sexuelle des femmes va dans le sens de cette hypothèse.

Auto-compassion et détresse psychologique. Dans le premier article de thèse, l'auto-compassion des femmes et de leurs partenaires était associée à leurs propres symptômes dépressifs et anxieux ; lorsqu'ils avaient plus de compassion envers eux-mêmes, les deux membres du couple rapportaient moins de symptômes d'anxiété et de dépression. Ces résultats corroborent ceux rapportés dans la population générale et en douleur chronique, où des corrélations négatives entre l'auto-compassion et la détresse psychologique ont été trouvées (Barnard & Curry, 2011; Edwards et al., 2019; Purdie & Morley, 2016). Ils sont aussi cohérents avec les résultats trouvés auprès de couples faisant

face à l'infertilité, où des niveaux plus élevés d'auto-compassion chez les deux membres du couple étaient associés à leur propre meilleur ajustement psychologique (Pinto-Gouveia et al., 2012). Ces résultats sont importants étant donné que l'anxiété et la dépression sont très fréquentes chez les femmes souffrant de VP, et ont toutes deux été identifiées comme étant à la fois prédicteurs et conséquences de cette forme de douleur chronique (Khandker et al., 2011). De surcroit, en comparaison avec un groupe contrôle, les partenaires de femmes souffrant de VP rapportaient plus de détresse psychologique (Pazmany et al., 2014). Il est possible que l'utilisation de stratégies d'adaptation pour faire face à la douleur explique le meilleur ajustement psychologique des femmes souffrant de VP et de leurs partenaires ayant plus d'auto-compassion. En effet, plusieurs études menées tant auprès de populations non-cliniques et que de populations souffrant de douleur chronique ont montré que l'auto-compassion est associée à un risque réduit de s'engager dans des stratégies de coping inadaptées en réponse à divers événements négatifs, notamment le catastrophisme, la rumination et l'évitement (Leary et al., 2007; Purdie & Morley, 2015). Une étude récente menée auprès de personnes souffrant de diverses formes de douleur chronique a aussi trouvé une association positive entre l'auto-compassion et l'utilisation de stratégies de coping plus adaptées (Edwards et al., 2019). La mesure utilisée pour les stratégies de coping était divisée en deux échelles, l'une mesurant des stratégies plus traditionnelles, ce qui incluait des tentatives de contrôle de la douleur via l'exercice, la relaxation, la distraction et le travail sur le contenu des pensées, et l'autre des stratégies visant à augmenter la flexibilité psychologique, ce qui incluait l'acceptation de la douleur, la pleine conscience et l'engagement dans des activités basées sur les valeurs. L'auto-compassion était positivement associée à l'utilisation de ces deux types de stratégies. Les études

qualitatives révèlent aussi comment les femmes souffrant de VP et leurs partenaires ressentent de la honte et de la culpabilité face à la douleur (Sadownik et al., 2012; Sadownik et al., 2017) ; dans ce contexte, il est possible qu'une attitude bienveillante vis-à-vis leurs difficultés et une tendance à voir qu'ils et elles ne sont pas seul.e.s dans cette expérience puisse les amener à vivre moins de honte, et donc être associée à moins de symptômes dépressifs et anxieux. Il est aussi possible que l'auto-compassion soit associée à un meilleur ajustement à la douleur puisque cette attitude de non-jugement et de bienveillance envers soi-même aiderait à réduire l'impact des rôles sociaux irréalistes pouvant rendre plus difficile d'accepter la douleur et de s'y ajuster (Purdie & Morley, 2016). En effet, dans le contexte de la douleur génito-pelvienne, il est possible que les femmes ayant davantage d'auto-compassion jugent moins leur sexualité en comparaison avec ce à quoi elle devrait ressembler, selon les normes sociales, puisque l'auto-compassion favorise une acceptation inconditionnelle de soi, avec ses imperfections et fragilités.

Néanmoins, tant pour les femmes souffrant de VP que leurs partenaires, la relation inverse demeure possible. En effet, les femmes et les partenaires plus anxieux ou déprimés pourraient avoir des biais cognitifs négatifs qui pourraient rendre difficile pour eux d'avoir de la compassion envers soi. Néanmoins, des études longitudinales ont montré que les interventions augmentant l'auto-compassion pouvait diminuer significativement la détresse psychologique, ce qui suggère que l'auto-compassion puisse augmenter le bien-être et réduit la détresse (Barnard & Curry, 2011; Gilbert, 2010). Récemment, dans un essai clinique contrôlé et randomisé évaluant l'efficacité d'une thérapie visant à augmenter l'auto-compassion et la pleine conscience de personnes souffrant de fibromyalgie, l'auto-compassion, plus précisément la composante d'humanité partagée (voir sa propre

souffrance comme quelque chose qui nous relie aux autres plutôt que quelque chose qui nous isole), était un médiateur de changement pour la réduction de l'anxiété et de la dépression (Montero-Marin et al., 2020). De plus, le lien entre l'auto-compassion et l'adaptation psychologique à la douleur chronique a récemment été examiné pour la première fois de manière longitudinale (Carvalho et al., 2019). Tout en contrôlant pour les niveaux au temps 1 des symptômes dépressifs, d'intensité de la douleur, d'invalidité et de pleine conscience, l'auto-compassion au temps 1 prédisait les symptômes dépressifs six mois plus tard (temps 2) et 12 mois plus tard (temps 3) (Carvalho et al., 2019). Enfin, contrairement aux hypothèses, l'auto-compassion de chacun des partenaires n'était pas associée aux niveaux d'anxiété et de dépression de l'autre membre du couple. Ainsi, bien que l'auto-compassion des partenaires était associée à la détresse sexuelle des femmes ayant la VP, elle n'était pas associée leur détresse psychologique. Il est possible que la détresse reliée à un contexte interpersonnel comme la sexualité partagée soit davantage influencée par l'autre membre du couple. Comme mentionné précédemment, les femmes s'adonneraient surtout aux activités sexuelles pour établir une proximité émotionnelle ; leurs motivations seraient donc davantage d'ordre relationnel (Basson, 2000), et ce surtout chez les femmes souffrant de douleur génito-pelvienne (Sand & Fisher, 2007). Ainsi, leur propre auto-compassion, étant une variable intra-individuelle, pourrait être moins importante pour prédire leur détresse sexuelle que des variables du contexte relationnel. Cependant, la variance de leur détresse psychologique pourrait être mieux expliquée par des variables intra-individuelles comme leur propre niveau d'auto-compassion. De futures études longitudinales sont requises pour mieux comprendre la direction des associations trouvées, de même que des études de traitement testant des interventions visant

spécifiquement l'augmentation de l'auto-compassion auprès de cette population et examinant l'auto-compassion en tant que mécanisme thérapeutique potentiel.

Auto-compassion et intensité de la douleur. Toujours dans le premier article, l'auto-compassion des femmes souffrant de VP et leurs partenaires n'était pas associée significativement à l'intensité de la douleur des femmes durant les relations sexuelles. Ces résultats vont dans le même sens que ceux des études précédentes sur l'auto-compassion auprès de personnes souffrant de diverses formes de douleur chroniques. En effet, ces études transversales ont également trouvé une absence d'association significative entre l'intensité de la douleur et l'auto-compassion (Costa & Pinto-Gouveia, 2013; Edwards et al., 2019; Wren et al., 2012). Dans les études sur la VP, des variables psychologiques associées à l'intensité de la douleur sont généralement plus proximales à l'expérience de douleur des femmes, comme l'acceptation de la douleur, l'auto-efficacité face à la douleur et le catastrophisme face à la douleur (Desrochers et al., 2009). Ainsi, il est possible que l'auto-compassion soit trop distale à la douleur pour être associée à son intensité, bien qu'elle soit associée à l'ajustement à la douleur. Encore une fois, une mesure d'auto-compassion spécifique au contexte dans lequel la douleur survient, soit celui de la sexualité, pourrait être associée à l'intensité de la douleur. Par ailleurs, l'auto-compassion pourrait non pas diminuer la souffrance primaire (la douleur physique), mais plutôt diminuer la souffrance secondaire, ce qui inclut l'ensemble des réponses inadaptées à la douleur qui contribuent à augmenter la souffrance associée, par exemple se critiquer pour la douleur ou ruminer à son sujet (Scott & McCracken, 2015). Cette hypothèse est en cohérence avec l'ensemble des études démontrant que l'auto-compassion favorise de meilleures stratégies d'adaptation en situation de douleur, notamment une étude

expérimentale auprès de personnes souffrant de douleur chronique où l'auto-compassion était associée à un risque diminué d'évitement, de catastrophisme et de rumination en réponse à des événements désagréables (Purdie & Morley, 2015). Il serait intéressant que des études futures sur l'auto-compassion chez les femmes souffrant de douleur génito-pelvienne incluent des mesures des stratégies d'adaptation afin de tester empiriquement cette hypothèse.

Le rôle de médiateur de changement thérapeutique du catastrophisme face à la douleur. Les résultats ont montré que la TCCC diminuait la douleur des femmes via un plus grande réduction de leur propre niveau de catastrophisme, en comparaison au groupe contrôle de lidocaïne. Ces résultats sont en continuité avec ceux des études précédentes ayant montré que le catastrophisme prédisait l'efficacité d'une TCC sur l'intensité de la douleur de femmes souffrant de VP (Desrochers et al., 2010) et était un médiateur de l'amélioration quant à la douleur mesurée au vulvagésiomètre chez les femmes souffrant de VP, et ce dans une TCC de troisième vague et une TCC de deuxième vague (Brotto et al., 2020). L'étude de Brotto et al. (2020) n'avait cependant pas un devis contrôlé et randomisé, ce qui limite la portée de ses conclusions. Ainsi, nos résultats dyadiques permettent de répliquer ces résultats intra-individuels, cette fois-ci avec un devis méthodologique plus rigoureux. Ces résultats sont aussi cohérents avec ceux de l'étude de Brotto et al. (2020) puisque celle-ci suggère que le catastrophisme soit aussi une cible d'intervention importante dans les thérapies de troisième vague, et ce même si les stratégies thérapeutiques utilisées ne sont pas les mêmes. En effet, dans les thérapies de troisième vague comme notre TCCC, le contenu des pensées catastrophiques n'est pas abordé par la restructuration cognitive. C'est plutôt la relation à ces pensées, et non leur contenu, qui est

travaillée, notamment avec des stratégies de défusion cognitive visant à prendre une distance vis-à-vis de ces pensées. Par ailleurs, en démontrant dans le cadre d'une étude clinique contrôlée et randomisée que la réduction du catastrophisme est un ingrédient actif dans le traitement de la douleur génito-pelvienne, ces résultats appuient le modèle peur-évitement et sa pertinence pour comprendre cette forme spécifique de douleur chronique. Ce modèle suggère que le catastrophisme soit un facteur psychologique maintenant la douleur chronique en engendrant des comportements d'évitement qui en retour augmenteraient le catastrophisme (Vlaeyen & Linton, 2012), et que de diminuer le catastrophisme permettrait de briser ce cycle contribuant au maintien la douleur. Un autre essai clinique randomisé appuyant ce modèle suggère que le catastrophisme soit un mécanisme commun de changement dans les traitements physiques et psychologiques (Smeets et al., 2006). Cependant, dans cette étude, les trois groupes de traitement – TCC, un traitement physique actif (*active physical treatment*) et une combinaison de ces deux traitements – étaient comparés à un groupe contrôle de type liste d'attente. Ainsi, le fait de contrôler pour un traitement actif, la lidocaïne, pourrait expliquer les différents résultats obtenus dans notre article. Il est possible que tant les traitements médicaux que psychologiques diminuent significativement le catastrophisme si on compare à l'effet d'attendre un traitement, mais qu'un traitement psychologique, une TCC soit plus efficace que les traitements médicaux pour diminuer le catastrophisme. Nos résultats suggèrent donc que la TCCC ait un effet spécifique sur le catastrophisme, allant au-delà de l'effet d'un traitement médical.

En plus de l'intensité de la douleur, les résultats ont montré que la TCCC améliorait la fonction sexuelle et diminuait la détresse sexuelle des femmes et de leurs partenaires au

post-traitement, via une plus grande diminution de leurs propres niveaux de catastrophisme, en comparaison au groupe contrôle de lidocaïne. Au suivi six mois, la TCCC diminuait la détresse sexuelle des femmes et de leurs partenaires et la fonction sexuelle des femmes via la réduction de leurs propres niveaux de catastrophisme. Il s'agit de résultats importants compte tenu des effets délétères bien documentés de la VP sur la sexualité des femmes et de leurs partenaires (Jodoin et al., 2008; Pazmany et al., 2014; Smith & Pukall, 2014). En tenant compte pour la première fois du contexte relationnel de la douleur chronique dans un essai clinique randomisé, ces résultats suggèrent que de cibler le catastrophisme dans les TCCs pour la VP soit bénéfique non seulement pour la sexualité des femmes, mais aussi pour celle de leurs partenaires. De plus, aucune étude n'avait encore examiné les associations entre le catastrophisme des partenaires et leur propre ajustement sexuel à la VP, c'est pourquoi aucune hypothèse n'avait été émise en ce qui concerne ces variables. Néanmoins, l'impact de la TCCC sur le catastrophisme des partenaires va dans le même sens que les résultats obtenus dans l'étude pilote testant la TCCC, où des analyses exploratoires montraient une diminution importante du catastrophisme des femmes souffrant de VP et de leurs partenaires au post-traitement (Corsini-Munt et al., 2014). Ainsi, les résultats obtenus donnent un appui empirique supplémentaire à l'hypothèse selon laquelle la TCCC peut avoir un impact significatif sur la manière dont les partenaires perçoivent la douleur. La thérapie semble donc leur permettre de la percevoir de manière moins amplifiée, de vivre moins de désespoir face à celle-ci et de moins ruminer à son sujet. Dans une étude sur les attributions concernant la douleur auprès de couples faisant face à la VP, les attributions stables (percevoir la douleur comme allant perdurer dans le temps) et globales (percevoir la douleur comme ayant des

répercussions sur plusieurs sphères de vie) de la douleur des partenaires étaient associées à leur propre plus faible satisfaction sexuelle (Jodoin et al., 2008). Cette étude suggère donc que les croyances des partenaires concernant la douleur soient associées à leur propre ajustement sexuel, ce qui est cohérent avec nos résultats concernant la détresse sexuelle des partenaires. De plus, les attributions négatives n'étaient pas corrélées à leur fonction sexuelle, ce qui va dans le même sens que l'absence de résultats significatifs pour la fonction sexuelle des partenaires au suivi six mois. Il est possible que les cognitions influencent la fonction sexuelle des partenaires seulement lorsque ces pensées concernent leur propre performance sexuelle, et non celle de leur partenaire sexuelle, étant donné qu'ici la mesure administrée concernait le catastrophisme vis-à-vis la douleur de la femme (Jodoin et al., 2008). Ces résultats suggèrent donc que les déterminants de la fonction sexuelle des partenaires ne sont pas les mêmes que les déterminants de leur détresse sexuelle, et que des mécanismes différents permettent l'amélioration de chacune de ces facettes de la sexualité. Par ailleurs, il est à noter que les partenaires n'avaient pas des degrés élevés de dysfonction sexuelle, cotant en moyenne sous le seuil clinique, ce qui peut également expliquer en partie les résultats obtenus.

La TCCC diminuait également la détresse sexuelle des femmes au post-traitement via la diminution du catastrophisme des partenaires. La seule étude ayant porté sur les liens entre le catastrophisme des partenaires et l'intensité de la douleur et l'ajustement sexuel des femmes souffrant de VP avait montré que des niveaux plus bas de catastrophisme chez les partenaires étaient associés à moins de douleur chez les femmes, mais les associations avec l'ajustement sexuel n'étaient pas significatives (Lemieux et al., 2013). Dans le contexte différent qu'est celui du traitement de la VP, il est possible que les changements

dans la perception de la douleur des femmes suivant la thérapie soient plus importants dans leur processus de gains thérapeutiques en ce qui concerne la douleur et la fonction sexuelle que les changements chez leur partenaire, dont l'influence pourrait être plus distale. Néanmoins, nos résultats indiquent un effet indirect significatif de la TCCC sur la détresse sexuelle des femmes via le catastrophisme des partenaires. Puisque les dimensions affective et relationnelle des difficultés sexuelles sont une partie intégrante de la détresse sexuelle, il est possible que plus de variance de cette issue soit expliquée par des changements chez le partenaire, au-delà des effets de la thérapie sur le catastrophisme des femmes.

En outre, inclure les partenaires dans la thérapie a pu avoir un effet additionnel sur le catastrophisme. En facilitant le dévoilement émotionnel et l'empathie, la TCCC a pu diminuer chez les deux partenaires la tendance à ressentir du désespoir, à amplifier le danger que représente la douleur et à ruminer à propos de la douleur. Selon le *Communal Coping Model*, le catastrophisme aurait comme fonction, pour la personne souffrant de douleur chronique, de communiquer à ses proches ses besoins de soutien et d'empathie (Sullivan et al., 2006). Ainsi, une thérapie de couple pourrait aider les femmes présentant une VP à trouver des manières plus adaptées de communiquer ces besoins à leur partenaire, diminuant ainsi le catastrophisme. Cependant, notre étude ne nous permet pas d'identifier des composantes spécifiques de la thérapie qui ont pu mener à une réduction du catastrophisme.

Des études futures incluant des mesures plus fréquentes au cours de la thérapie permettraient de faire des analyses plus fines des patrons de changements au fil des séances. De plus, de telles analyses permettraient d'étudier les différences individuelles dans les

patrons de changements. En effet, les médiateurs et les symptômes peuvent changer à différents moments selon les patients, et deux personnes pourraient répondre pour différentes raisons au même traitement. Il serait aussi important que les prochaines études se penchent sur les étapes précises entre les changements sur le catastrophisme, un changement cognitif, et des changements sur le plan de l'intensité de la douleur et la sexualité. En effet, Kazdin (2007) suggère une distinction entre les médiateurs de changements et les mécanismes de changements ; l'identification de *médiateurs* de changements thérapeutiques permettrait par la suite d'aller analyser les choses plus finement afin de comprendre les *mécanismes* de changement, c'est-à-dire la séquence d'événements entre les changements mesurés sur le médiateur et ceux mesurés sur les issues thérapeutiques. Par exemple, les changements sur le catastrophisme mènent peut-être à des améliorations sur le plan de la douleur et de la sexualité en raison de changements comportementaux, tels que proposés par le modèle peur-évitement. Les études futures pourraient donc inclure des mesures d'évitement pour tester cette hypothèse quant aux mécanismes thérapeutiques.

Le rôle de médiateur de changement du sentiment d'auto-efficacité dans le traitement de la VP. La TCCC ne diminuait pas de manière significative le sentiment d'auto-efficacité face à la douleur des femmes souffrant de VP et leurs partenaires, en comparaison au traitement de lidocaïne. Il semblerait donc que la thérapie n'ait pas un effet spécifique sur l'auto-efficacité. Ce résultat va dans le même sens que ce qui a été montré dans une étude clinique contrôlée et randomisée comparant une TCC de groupe à un traitement médical de corticostéroïdes topiques pour la VP (Bergeron et al., 2016). Dans cette étude, les participants de la TCC de groupe démontraient significativement plus

d'amélioration sur le plan du catastrophisme entre le pré-traitement et le post-traitement, en comparaison avec les participants suivant le traitement médical de corticostéroïdes ; il n'y avait toutefois pas de différence significative entre les traitements en ce qui concerne leur effet sur l'auto-efficacité. Le sentiment d'auto-efficacité face à la douleur est une autre variable cognitive plus récemment intégrée au modèle peur-évitement ; un sentiment plus faible d'auto-efficacité mènerait à plus d'évitement, qui en retour alimenterait la croyance de ne pas avoir la capacité de diminuer la douleur (Leeuw et al., 2007). Au contraire, avoir davantage d'auto-efficacité permettrait de trouver des manières adaptées de faire face à la douleur. À ce jour, seulement un essai clinique randomisé et contrôlé a porté sur le rôle de l'auto-efficacité face à la douleur comme médiateur de changement dans la TCC pour la douleur chronique (Turner et al., 2007). Dans cette étude, les participants dans la condition TCC, qui était comparée à une condition contrôle éducation/attention, s'amélioraient significativement plus entre le pré-traitement et le post-traitement tant sur le plan du catastrophisme que de l'auto-efficacité. Il est possible que l'effet de la TCC sur l'auto-efficacité dépende des caractéristiques des patients et de celles de la thérapie. Par exemple, notre TCC différait de celle évaluée dans l'étude de Turner et al. (2007) puisque les cognitions étaient abordées avec des stratégies de troisième vague de la thérapie d'acceptation et d'engagement. Une autre hypothèse pouvant expliquer ces résultats concernant l'auto-efficacité est qu'il s'agit d'un médiateur de changement commun aux traitements psychologiques et physiques. En effet, en contrôlant pour l'effet d'un traitement médical, les analyses permettent de contrôler pour les effets des médiateurs thérapeutiques communs aux deux traitements. En outre, une limite importante de l'étude de Turner est que seulement les participants ayant complété au moins trois séances de

thérapie et les deux suivis (6 mois et 12 mois plus tard) étaient inclus dans les analyses. Ainsi, notre échantillon est différent puisque l'approche *intent-to-treat* était appliquée ; tous les couples randomisés étaient inclus dans les analyses. Cette approche permet de préserver l'équité des deux groupes. En effet, le fait d'exclure les participants moins assidus induit des variables confondantes ; les groupes pourraient différer quant au médiateur non pas en raison des différents traitements reçus, mais en raison des caractéristiques des patients associées au fait d'avoir été ou non assidu dans l'étude. Il serait important de continuer à inclure l'auto-efficacité dans les études cliniques futures afin de mieux comprendre ces résultats contradictoires. Ces études pourraient inclure des variables modératrices potentielles afin d'identifier les caractéristiques pouvant influencer la réponse au traitement. Il serait également important d'utiliser une méthodologie *intent-to-treat,* considérée plus rigoureuse (Gupta, 2011). Enfin, il est à noter que très peu d'études rigoureuses – notamment avec un devis contrôlé et randomisé – ont examiné le rôle de médiateur de l'auto-efficacité dans les TCCs pour la douleur chronique, ce qui est étonnant puisqu'il s'agit d'une cible thérapeutique importante. Il est possible qu'un biais de publication explique ce peu de résultats publiés ; l'auto-efficacité pourrait ne pas être incluse dans les articles en raison de l'absence de résultat significatif concernant son rôle de médiateur de changements.

Contributions principales de la thèse

Contributions théoriques. Puisque la douleur génito-pelvienne comporte des dimensions physique, psychologique, sexuelle et relationnelle, les modèles théoriques et les études empiriques sur lesquels la thèse est fondée sont issus des domaines de la douleur chronique, de la sexualité et des relations interpersonnelles. Tout d'abord, les résultats de

la thèse appuient le modèle biopsychosocial de la douleur, qui postule l'interdépendance entre les facteurs biomédicaux, psychologiques et sociaux dans l'expérience de la douleur chronique, comme un cadre conceptuel s'appliquant à la douleur génito-pelvienne. De plus, la thèse permet d'intégrer un nouveau facteur psychologique à ce modèle de la douleur génito-pelvienne en examinant pour la première fois l'auto-compassion auprès de cette population clinique.

Le contexte relationnel de la douleur n'a été considéré dans aucune étude sur les mécanismes de changement des TCCs pour la douleur chronique, et cela est aussi vrai pour les études de traitement dans le domaine des dysfonctions sexuelles. Selon le modèle *Communal Coping Model*, le catastrophisme aurait la fonction interpersonnelle de communiquer des besoins de soutien et d'attention. En démontrant qu'il s'agit d'un mécanisme de changement spécifique à une thérapie de couple, les résultats de cet article de médiation vont donc dans le même sens que ce modèle. Cependant, bien qu'il soit possible que le catastrophisme soit davantage diminué en raison du format de couple de la thérapie, nos données ne nous permettent pas de soutenir empiriquement cette hypothèse.

Un autre modèle théorique important dans le domaine de la douleur chronique qui sous-tendait nos hypothèses est le modèle peur-évitement. Le deuxième article de la thèse appuie ce modèle en montrant que le catastrophisme est un médiateur de changement quant à la douleur et l'ajustement sexuel des deux membres du couple dans la TCCC. Cependant, les résultats ne permettent pas d'appuyer empiriquement le rôle de l'auto-efficacité dans le modèle peur-évitement. Cependant, il est possible que l'auto-efficacité soit un mécanisme thérapeutique commun aux traitements psychologique et médical. En effet, nos résultats

ne nous permettent que de tirer des conclusions quant au rôle de l'auto-efficacité comme médiateur de changement *spécifique* dans la TCCC.

Par ailleurs, une force de la thèse est qu'elle tienne compte à la fois des dimensions sexuelles et relationnelles de la douleur génito-pelvienne. En effet, les membres d'un couple sont interdépendants dans le développement d'une vie sexuelle qui soit épanouissante et satisfaisante pour chacun d'eux. Bien que la satisfaction sexuelle soit intimement liée à la satisfaction relationnelle, et que les associations bidirectionnelles entre les deux aient été documentées empiriquement (McNulty et al., 2016), la recherche dans ces domaines se fait encore souvent en vase clos. Ainsi, le contexte interpersonnel des dysfonctions sexuelles demeure peu étudié, bien que dans les dernières années, de plus en plus d'études empiriques sur les dysfonctions aient des devis dyadiques permettant de tenir compte de ce contexte, particulièrement dans le domaine de la douleur génito-pelvienne (Rosen & Bergeron, 2019). Il manque néanmoins de modèles théoriques intégratifs permettant de comprendre le rôle des facteurs interpersonnels dans le développement des dysfonctions sexuelles. Afin de pallier cette lacune importante, Rosen and Bergeron (2019) ont récemment développé un modèle interpersonnel de régulation émotionnelle des dysfonctions sexuelles, et l'ont appliqué à la douleur génito-pelvienne. Ce modèle permet d'intégrer des théories des domaines de la douleur chronique, des relations interpersonnelles et de la sexualité, et postule que la régulation émotionnelle du couple est un mécanisme-clé expliquant les associations entre les facteurs interpersonnels et les dysfonctions sexuelles. Des facteurs interpersonnels distaux – c'est-à-dire des expériences, contextes et styles qui précédent la douleur génito-pelvienne – et proximaux – des facteurs qui agissent juste avant, durant et immédiatement après une expérience de douleur –

viendraient influencer la manière dont le couple régulerait les émotions associées à la douleur, ce qui déterminerait ensuite l'intensité de la douleur et leur ajustement sexuel et relationnel. Dans ce modèle, le catastrophisme est proposé comme un facteur interpersonnel distal qui influencerait les stratégies de régulation émotionnelle utilisées par les couples dont la femme souffre de douleur génito-pelvienne. Le fait que le catastrophisme ait été identifié comme médiateur de changement pour les deux partenaires dans la thérapie de couple est cohérent avec ce modèle. En outre, le fait que la diminution du catastrophisme des partenaires était un facteur expliquant la diminution de la détresse sexuelle des femmes offre un soutien empirique supplémentaire quant au rôle des facteurs qui sous-tendent la régulation émotionnelle des partenaires, dans ce cas le catastrophisme, dans l'ajustement sexuel des femmes souffrant de douleur génito-pelvienne. Il pourrait être intéressant dans les études futures d'ajouter des mesures de régulation émotionnelle afin de tester plus finement le modèle interpersonnel de régulation émotionnelle des dysfonctions sexuelles en examinant s'il s'agit d'un mécanisme par lequel la diminution du catastrophisme est associée aux améliorations quant à la douleur et la sexualité. Par ailleurs, dans ce modèle, trois composantes de la régulation émotionnelle sont décrites ; la conscience émotionnelle, l'expression et l'expérience. L'expérience émotionnelle réfère à la manière dont les émotions sont ressenties, et est ciblée par les interventions de troisième vague comme la pleine conscience. Les interventions visant à augmenter l'auto-compassion visent cette composante de l'expérience émotionnelle en invitant la personne à prendre conscience de ses émotions désagréables avec bienveillance et en considérant ces émotions comme une expérience humaine universelle qui nous relie aux autres. En effet, l'auto-compassion peut être conceptualisée comme une stratégie de régulation

émotionnelle (Diedrich et al., 2014). Ainsi, le premier article de la thèse appui également le modèle interpersonnel de régulation émotionnelle de la douleur génito-pelvienne en montrant que plus d'auto-compassion chez les femmes souffrant de douleur et leurs partenaires est associée à un meilleur ajustement psychologique, sexuel et relationnel. Bien qu'un seul effet partenaire ait été trouvé – l'association entre l'auto-compassion des partenaires et la détresse sexuelle des femmes avec la VP – les résultats mettent néanmoins en lumière l'importance de la régulation émotionnelle de chacun des deux membres du couple pour déterminer leur ajustement sexuel, psychologique et relationnel. D'autres études permettront de mieux comprendre comment l'auto-compassion de chacun des partenaires est associée à la manière dont le couple régule les émotions associées à la douleur. Notons ici qu'il y a un chevauchement entre les concepts de régulation émotionnelle et de stratégies de coping puisque tous deux impliquent des processus de régulation chez l'individu (Compas et al., 2017). Cependant, les stratégies de coping sont sollicitées spécifiquement en réponse à un stresseur, et visent à modifier non seulement les émotions, mais aussi les réactions physiologiques, les pensées et les comportements. Les processus de régulation émotionnelle s'activent plutôt en réponse à des émotions, peu importe la présence et la nature d'une source de stress spécifique, ce qui est le cas de l'auto-compassion.

Contributions méthodologiques. Les deux articles permettent de mieux comprendre le rôle des facteurs interpersonnels dans le développement de la douleur chronique et des dysfonctions sexuelles en incluant les partenaires des femmes souffrant de douleur génito-pelvienne. En effet, des analyses dyadiques où le couple était l'unité d'analyses ont été utilisées. Chacun des partenaires influence et est influencé par l'autre

membre du couple, et cette interdépendance est considérée dans de telles analyses. Les études à ce jour sur l'auto-compassion auprès de personnes souffrant de douleur chronique n'avaient pas tenu compte du contexte relationnel de la douleur, et donc d'étudier ce facteur psychologique avec un devis dyadique est une contribution significative de la thèse. Il s'agit également d'une contribution méthodologique importante d'inclure pour la première fois les partenaires dans une étude sur les médiateurs de changement d'une TCC pour la douleur chronique. De plus, dans cet article, un devis longitudinal permettait d'examiner de manière temporale les liens entre les médiateurs de changement et les issues thérapeutiques. Les couples étaient aussi randomisés à l'un ou l'autre des deux traitements, ce qui permettait de s'assurer de l'équivalence des deux groupes. Les essais cliniques randomisés demeurent rares dans le domaine des dysfonctions sexuelles, pourtant des problématiques très fréquentes dans la population générale, avec des prévalences allant de 40% à 50% chez les femmes et de 20 à 30% chez les homme (DeRogatis & Burnett, 2008; Laumann et al., 1999; Lewis, 2004; McCabe et al., 2016; Nazareth et al., 2003). Ces devis sont nécessaires à la validation empirique des traitements utilisés et permettent aux cliniciens d'appuyer leurs interventions sur des données probantes. Enfin, le fait de comparer deux groupes actifs permettait également de contrôler pour les mécanismes de changement commun entre les deux, et de pouvoir isoler les médiateurs spécifiques à la TCCC.

Malgré le fait que les problèmes sexuels se vivent généralement dans un contexte relationnel, les aspects dyadiques de la sexualité demeurent peu étudiés, notamment auprès de populations cliniques présentant une dysfonction sexuelle. De plus, quoiqu'en pratique, les interventions de couple soient souvent utilisées pour traiter les problèmes sexuels, elles

ont été très peu étudiées, et aucune n'avait été validée empiriquement à ce jour. Ainsi, l'étude des médiateurs de changement d'une intervention de couple pour une problématique sexuelle chez la femme est une contribution de taille de la présente thèse.

Contributions cliniques. Sur le plan clinique, les articles soutiennent la pertinence d'une approche multidimensionnelle dans la conceptualisation, l'évaluation et le traitement de la douleur génito-pelvienne. En plus de soutenir une approche multidisciplinaire des soins offerts, les résultats du deuxième article de la thèse suggèrent qu'il pourrait être important de cibler non seulement le catastrophisme chez les femmes, mais aussi chez les partenaires, dans les traitements pour la douleur. Les résultats de cet article montrent aussi que la thérapie de couple diminue significativement plus le catastrophisme qu'un traitement médical, la lidocaïne, et qu'il s'agit d'un médiateur de changement spécifique à la TCCC. Il est donc possible que les couples où la femme souffrant de douleur et/ou le partenaire présentent des niveaux élevés de catastrophismes soient de bons candidats pour ce traitement. De plus, cette thérapie permettrait d'adresser le catastrophisme dans son contexte relationnel, et d'aider les membres du couple à communiquer leurs besoins de soutien et d'empathie de manière plus adaptée.

Les résultats du premier article proposent également que des interventions visant à augmenter l'auto-compassion des femmes et de leurs partenaires puissent être bénéfiques pour l'ajustement psychologique, sexuel et relationnel du couple. Il serait cohérent d'ajouter de telles interventions dans la thérapie de couple examinée dans le deuxième article de thèse, puisque celle-ci s'inscrit, tout comme le concept d'auto-compassion, dans la troisième vague des TCCs. En effet, en développement de l'auto-compassion, on vise à changer la relation avec les émotions et les pensées en amenant la personne à prendre

conscience de ses émotions avec bienveillance envers soi-même et dans une perceptive d'acceptation où les émotions douloureuses sont considérées comme une expérience humaine universelle. Les résultats suggèrent aussi la pertinence de cibler l'auto-compassion non seulement chez les femmes, mais aussi leurs partenaires, et que de cibler ce facteur chez les partenaires pourrait être bénéfique non seulement pour leur propre ajustement, mais aussi pour l'ajustement sexuel des femmes. Le contexte où beaucoup de femmes rapportent se sentir invalidées dans leur expérience de la douleur par les professionnels de la santé (Nguyen et al., 2012) pourrait rendre plus difficile pour les femmes d'avoir de la compassion envers elles-mêmes dans leur expérience de la douleur. De plus, le fait de ne pas inclure les partenaires dans l'évaluation et le traitement pourrait contribuer à ce qu'ils reçoivent aussi peu de validation de leur expérience de la douleur, rendant plus difficile pour eux aussi d'avoir de la compassion envers eux-mêmes. Au-delà des interventions faites dans un contexte de thérapie, la validation et la normalisation de l'expérience des femmes et de leurs partenaires par les différents professionnels de la santé qui les rencontrent, simplement en leur rappelant que cette problématique touche beaucoup de couples par exemple, pourrait les aider à avoir le sentiment qu'ils ne sont pas seuls à faire face à cette difficulté et donc augmenter leur auto-compassion, particulièrement le sentiment d'humanité partagée. Enfin, de manière générale, les résultats des deux articles de la thèse appuient la pertinence et l'importance d'inclure les partenaires dans l'évaluation et le traitement de la douleur génito-pelvienne lorsque c'est possible.

Limites de la thèse

Les deux articles de la thèse présentent des limites sur le plan méthodologique.

Tout d'abord, l'ensemble des mesures utilisées dans la thèse sont auto-rapportées. Il est ainsi possible que certains biais, par exemple de désirabilité sociale et de rappel, viennent diminuer la validité interne de nos résultats. De plus, toutes les participantes devaient être actives sexuellement et en couple, ce qui limite la généralisation des résultats à l'ensemble des femmes souffrant de douleur génito-pelvienne. Il est probable qu'il existe des différences sur le plan de la détresse sexuelle et psychologique entre les femmes incluses dans nos études et celles qui sont célibataires et/ou qui ne sont pas actives sexuellement. Aussi, les femmes participaient à nos études sur une base volontaire, ce qui constitue un biais de sélection. Il est possible que les femmes ayant moins tendance à demander l'aide médicale dont elles auraient besoin – ce qui représenterait 40% des femmes souffrant de douleur génito-pelvienne selon une étude populationnelle rigoureuse (Harlow et al., 2014) – fassent moins de démarches pour participer à une étude de traitement pour la douleur. Ainsi, il est fort probable qu'une partie des femmes souffrant de douleur génito-pelvienne ne soient pas représentées dans notre échantillon en raison du biais de sélection. En outre, les couples présentant de trop bas niveaux de satisfaction relationnelle et/ou qui rapportaient de la violence conjugale étaient exclus de l'étude. Encore une fois, ce critère de sélection réduit la généralisation des résultats à des couples vivant plus de détresse.

Par ailleurs, le devis corrélationnel du premier article de thèse ne permet pas de déterminer la direction des liens trouvés entre l'auto-compassion et les variables dépendantes, ce qui limite les inférences causales. Dans le deuxième article, une limite importante sur le plan méthodologique est l'absence de mesures des médiateurs de changement et des variables dépendantes au cours du traitement. Bien que le suivi de six mois permette de démontrer une relation temporelle entre le médiateur et les variables

dépendantes, c'est-à-dire que les changements sur le médiateur précèdent ceux mesurés sur les variables dépendantes, il demeure possible que durant le traitement, des changements quant aux symptômes précèdent les changements quant aux médiateurs. Dans les études futures, il serait important que les issues thérapeutiques soient mesurées tôt dans le traitement pour s'assurer que les médiateurs aient bien changé avant elles. Encore mieux, tel que mentionné plus haut, des mesures à plusieurs occasions durant le traitement permettraient d'examiner des patrons de changements plus précis dans le temps et les différences individuelles quant à ces changements (Laurenceau et al., 2007; Thorn & Burns, 2011). Les analyses de ces patrons nous permettraient possiblement d'observer des relations bidirectionnelles entre les médiateurs et les variables dépendantes.

Conclusion

La thèse a permis de mieux comprendre les facteurs psychologiques et interpersonnels impliqués dans la douleur génito-pelvienne. Les résultats soutiennent l'intégration d'un nouveau facteur psychologique au modèle biopsychosocial de la douleur en identifiant des associations entre l'auto-compassion et l'ajustement sexuel, relationnel et psychologique des couples faisant face à la douleur génito-pelvienne. De plus, l'ajout de l'auto-compassion permet de mieux comprendre les processus de régulation émotionnelle impliqués dans le maintien de la douleur, qui ont été moins étudiés. La thèse permet également de mieux cerner le rôle de deux variables importantes du modèle peur-évitement, le catastrophisme et l'auto-efficacité, dans le traitement de la douleur génito-pelvienne, en examinant leur contribution comme médiateurs de changement dans le cadre d'un essai clinique randomisé. Enfin, la thèse met en lumière l'importance de tenir compte

à la fois des dimensions relationnelles et sexuelles de la douleur génito-pelvienne, et d'intégrer les partenaires dans les études et les traitements.

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Annexe A

Cognitive-Behavioral Couple Therapy (CBCT)

Treatment Manual

Serena Corsini-Munt, M.A., Natalie O. Rosen, Ph.D., & Sophie Bergeron, Ph.D.

This manual was adapted from Bergeron and colleagues Cognitive-Behavioral Pain and Sex Therapy (CBPST) manual (Bergeron et al., 2001), a validated and widely used psychological treatment modality for women with provoked vestibulodynia (e.g., Bergeron, Rosen & Pukall, in press). Relevant elements from Trudel and colleagues' empirically-tested group couples-based intervention for HSDD (Trudel et al., 2001; Trudel et al., 1996) were considered to aid with this manual's structure. Recent research regarding interpersonal factors relevant for couples struggling with provoked vestibulodynia were utilized to develop intervention components. The past decade has seen an increase in research focusing on dyadic factors for couples experiencing pain during sexualty activity, and the interventions included in this manual take these findings into account. Moreover, reflecting recent successful research and practice with pain patients and couples, elements from Acceptance and Committment Therapy (ACT), a cognitive-behavioral approach, have also been incorporated into this manual.

The authors of the CBCT Treatment Manual would like to express their extreme gratitude to Sheila MacNeil, PhD, for the insights she has shared with us to help refine this treatment manual.

Introduction

Cognitive-Behavioral Couple Therapy (CBCT), which targets pain and sex for the couple, is comprised of two major therapeutic approaches: cognitive-behavioral pain management, and sex therapy for couples. This targeted intervention is unique in its intention to include the partner in treatment for provoked vestibulodynia (PVD). This treatment should be considered and implemented only after diagnosis of PVD by a trained gynecologist.

This treatment protocol involves 12 treatment sessions conducted over 12 weeks. The personnel required include a clinician with familiarity and expertise with Cognitive-Behavioral Therapy (CBT) for pain management and sexual difficulties specific to PVD. Each session will last approximately 50 minutes. CBT has been demonstrated as an effective individual and group therapy for women with PVD (Bergeron et al., 2001; Masheb, Kerns, Lozano, Minkin & Richman, 2009), and couple-focused CBT has been demonstrated as an effective treatment for couples with sexual dysfunctions (Trudel et al., 2001; Hurlbert, White, Powell & Apt, 1993). Moreover, aspects of Acceptance and Commitment Therapy (ACT) have been built into this treatment manual. ACT as a treatment for chronic pain patients has demonstrated significant improvements in pain, and social and physical functioning (McCracken, Vowles & Eccleston, 2005).

Clinicians working with couples experiencing sexual impairment must be comfortable broaching and discussing sexuality and related issues, particularly relational contexts and pain experienced during intercourse. Moreover, clinicians working with couples experiencing PVD should also be familiar with basic psychological pain management interventions (Landry, Bergeron, Dupuis & Desrochers, 2008). During the course of this treatment, the clinician will be supervised weekly with one of the study supervisors.

Therapeutic process

Given the intention to evaluate the efficacy of this treatment manual, it is important that the clinician adhere to the goals and 'session by session' instructions described below. Clinicians are encouraged, however, to use clinical judgment and flexibility in adapting to each couple, such that they tailor the treatment to the couple's experience (e.g., spending more, or less time on certain topics).

Each clinician will conduct her or himself ethically and professionally, as indicated by their professional guidelines. Moreover, each clinician will respect the following guidelines:

1) Engender rapport and a collaborative working relationship with both members of the couple.
2) Use targeted interventions that support each member of the couple, and the couple as a unit (e.g., praise adherence and progress, and validate after each partner reveals or discloses something).
3) Clarify misconceptions and misunderstandings regarding pain, sex and the relationship by highlighting and discussing them.
4) Use the couple's experiences as examples or illustrations of various concepts introduced in treatment (e.g., how thoughts can influence pain perception).
5) Validate and challenge both partners' perspectives on the woman's pain experience (e.g., "It is completely normal to feel that way, many others report feeling that way…" and "What would be another way of thinking or interpreting the problem?").

Therapeutic frameworks

- CBT, as used for managing chronic pain, aims at changing behaviors, thoughts and emotions with the overall goal of improving the patient's functioning. CBT serves to help lessen the impact pain can have in the person's life, and therefore can often result in reducing perceived pain (Thorn & Dixon, 2007).
- ACT shares many of the principles of CBT, but extends them to help the client to use acceptance as a form of coping with their difficulties, to determine their values, and to act in concordance with these values. ACT involves providing support to the client to help achieve this goal.

Working with couples

Working with couples can be challenging given the multiple relationships that the clinician must contend with during therapy. One must respect the relationship between the members of the couple, the relationship the clinician establishes with the couple, and with each member of the couple. Three preliminary principles have been proposed to help the clinician treating couples in distress (Meana, 2010):

1) The clinician should help the couple accept that there are things outside of their control and may not be changed during therapy. Finding points of accordance and promoting acceptance will help unite the couple.
2) The clinician should engender the notion that each partner take responsibility for their current distress. They share in the problem and its consequences.
3) The clinician can be an agent for positive change. By modeling validation, acceptance and empathy towards each member of the couple, the clinician can promote hope and help the couple develop the skills to change.

The overarching goal of couple sex therapy is to facilitate the development of a satisfying sexuality for both members of the couple. Moreover, this sexuality should be expressed and experienced in a climate of trust where each member can explore and develop their sexuality and intimacy with one another (Bergeron, Benazon, Jodoin & Brousseau, 2008). Challenges of working with couples experiencing sexual problems may include: establishing the role of sexuality within the couple's intimate exchanges, that sexual difficulties can be accompanied by other dissatisfactions with the romantic relationship, and couples often have difficulty, even with one another, discussing their sexual lives, although they are often relieved when a health professional takes the initiative to do so (Bergeron et al., 2008).

Therapeutic objectives include motivating and validating both partners, which is not always easy when one member of the couple is identified as the one with the problem, or as the "patient". The partner without the sexual dysfunction, or sexual difficulty, may not understand his or her role in therapy, or appreciate how therapy applies to him or her. An example of how to implicate and include the partner in therapy might be, "Neither one of you are responsible or the cause of the PVD, which contributes to the pain experienced during intercourse, but you both play a role in the decline or success of your sexual relationship through the way that you relate to the pain and to each other in this context. For example, avoiding the problem can make it worse, but incorporating other types of non-painful sexual activities can heighten your intimacy, sexual desires and satisfaction. This is not to lay blame or guilt, but to acknowledge what can make the pain worse and to highlight your capacity, both of you, to improve your intimate life together."

Assessment

An accurate assessment is crucial to knowing the presenting difficulties of the couple with whom the therapist is working. If the couple presents with significant relational distress, or is attempting to resolve ambivalence about the status of their romantic bond, it can add another layer of complexity to the administration of the outlined interventions in this manual. Knowing more about the couple's romantic context and interactions, and having access to their "story" will help the therapist in approaching CBCT interventions. To help the clinician with this task, an assessment session has been built into this therapy.

Tailoring interventions to each couple

In addition to the information gathered during the assessment session, the therapist will also have access to the information couples provided during their completion of self-report measures for the research portion of this project. For example, couples will have completed the Beck Depression Inventory (BDI-II), and other validated measures pertaining to couple satisfaction, sexual function, pain self-efficacy, childhood trauma, and select questions from measures that assess the presense of abuse in the current relationship. If the self-report measures indicate clinically significant levels of distress in certain areas, the therapist may have several actionable items. For example, if depression is reported as clinically significant, the therapist may speak with this member of the couple and suggest referal for individual consultation. Moreover, if partners report distress in relation to sexual function, the therapist should be mindful of this when discussing sexual response cycles with the couple in Session 4. Being aware of information from the self-report measures does not necessarily indicate that the therapist should confront the client(s) to confirm, but can use the knowledge and awareness of the information to tailor and navigate the CBCT interventions to each couple based on their history, and current levels of distress. This may change the way certain interventions are presented, or the time spent on each intervention.

Using homework (or, in-between-session exercises)

An important aspect of a cognitive-behavioral approach is the assignment of homework. Homework in the therapeutic context allows the client to be engaged in the therapeutic work, to implement techniques or concepts learned during therapy, and to work in between and following the therapy sessions. The specific goals of the homework that are recommended to the clients are:

1) To identify, modify and/or accept thoughts, emotions, and behaviors related to pain and sexual function for the couple, as well as the intimate relationship and how these aspects influence and are influenced by the pain problem. This may also include determining physical/muscular aspects of the woman's pain and sexual function.
2) To allow clients to identify and examine typical psychosocial and biological responses to pain, as well as the responses of their significant others.
3) To increase awareness of factors that can exacerbate or alleviate pain and sexual problems.
4) To identify maladaptive responses (both the woman's and her partner's) to painful intercourse, and help the couple develop more emotional attunement during this frustrating experience.
5) To practice and consolidate adaptive coping strategies discussed during therapy sessions.
6) To record progress in pain management and sexual exploration.

7) To reinforce self-efficacy and empowerment on the part of the clients (both members of the couple) in achieving treatment goals.

The clinician will provide a rationale and explanation (oral and written to take home) for each homework exercise. With each exercise, the clinician will inquire if the clients have any questions and address any potential challenges or difficulties related to the homework. When reviewing homework, the clinician should emphasize the importance of continued effort, consider with the clients what may have contributed to a lack of success, and reinforce their efforts, as well as success. Clients will be asked to complete homework diary sheets throughout therapy to assess homework compliance.

Expected Treatment Outcomes

When working with couples experiencing PVD, it is important for the clinician to have realistic expectations regarding treatment outcomes, as well as to help establish realistic expectations for the couple. The clinician or therapist should work with couples while considering the following treatment outcomes:

- Treatment gains continue to occur even after treatment ceases.
- Sexual function may improve, but remain in the clinical range (i.e., may still be categorized as problematic).
- Treatment gains may be more pronounced in areas such as increased sexual satisfaction, reductions in sexual distress, expansion of sexual repertoire, lower distress, increased connection with core values relating to the couple's sexuality and relationship, improvement in communication and intimacy, and acceptance of pain (e.g., working towards the goal of finding and improving sexual intimacy rather than pain-free intercourse).
- There may be a rollercoaster of treatment gains and losses: Initial gains may result in joy and optimism, and enhanced expectations for continued improvements. Reminding the couple of realistic goals and that not all gains will be large, and that setbacks may occur will be important in mitigating the potential for disappointment and discouragement.

Treatment Goals

The purpose of this manual is to provide clear guidelines for how to conduct CBCT with couples experiencing PVD, as well as a means for systematic assessment of the intervention's efficacy. Treatment goals are to:

1) Provide clear and accurate information about PVD, pain management, sexual function and dyadic factors.
2) Re-conceptualize PVD as a multidimensional pain disorder that is influenced by thoughts, emotions, behaviors, and the relationship, among other factors (e.g., biomedical).
3) Approach PVD from a couples perspective - shifting the perspective from the woman as the pain patient to the couple as a unit or system in which both members are affected by and affect the pain.
4) Understand, modify and/or accept (as appropriate) the thoughts, feelings, behaviors and couple interactions associated with painful intercourse in order to increase adaptive coping strategies and decrease maladaptive coping mechanisms (e.g., woman and partner catastrophizing).
5) Improve the couple communication process regarding pain during intercourse and its consequences
6) Facilitate the experience of pleasurable sexual experiences
7) Strengthen relationship intimacy (e.g. disclosure, empathy, validation)
8) Consolidate couple and individual skills learned during therapy and maintain changes.

Session-by-Session Outline

Assessment
Introduction of the clinician to the couple Introduction of the couple to the clinician: Telling their story

Treatment (Sessions 1-12)	
1	Explanation of the treatment plan Opening the dialogue regarding treatment expectations Setting a schedule Homework: *PVD readings* *Pain and sex journaling*
2	Review of homework Information about PVD Psychoeducation: Dispelling myths about pain ACT Value Clarification Exercise: Card Sorting Discussion: Treatment expectations and goals Homework: *Mindfulness breathing* *Tantric breathing for two*
3	Review of homework Intervention: Facilitating emotional disclosure and subsequent validating responses Intervention: Communication exercise for both partners Homework: *"I" statements and continuation of disclosure and validation exercises* *Continuation of pain journaling* *Continuation of breathing exercises*
4	Review of homework Re-conceptualizing pain and PVD as multifactorial (Gate-control theory of pain) In-session exercise: Start identifying biopsychosocial factors that can influence pain specific to the couplet Psychoeducation regarding sexuality and models of sexual response Understanding how pain can impact upon sexuality and the relationship for both members of the couple and encouraging their self-disclosure to one another about this issue Homework: *Pain localization and 'discomfort desensitization'* *Body-scan relaxation / meditation*
5	Review of homework The role of anxiety/anticipation in pain and sex Discussion: Attitudes towards genitals for him and her and ways to approach

	Homework: *Kegel exercises (discuss with partner)*
6	Review of homework Discussion and psychoeducation: Role of the partner and partner responses in women's pain experience and sexual satisfaction Discussion: Partner and woman responses in relation to sexual satisfaction Continuing communication and facilitating the quality of the relationship (e.g., brief communication skills training) Homework: *Giving and receiving (Step 1 – Relaxing together and non-sexual massage)* *Disclosing favourite intimate moments (sexual intimacy)*
7	Review of homework Psychoeducation and discussion: Sexual communication Discussion: Defining/redefining the sexual narrative in the context of pain, and "Outercourse" Homework: *Relaxation breathing with visualization and dilatation* *Involving the partner in dilatation exercises*
8	Review of homework Discussion: Problem solving – what's working and what's not working Psychoeducation and discussion: Facilitating sexual desire and arousal Introduction: Cognitive defusion Homework: *Facilitating sexual desire and arousal* *Continuation of giving and receiving (Step 2 – Relaxing together and non-sexual massage)* *Continuation of pain and sex journaling*
9	Review of homework Following up: Sexual desire and arousal Cognitive defusion intervention: Defusing negative thoughts, beliefs and cognitive distortions related to pain (catastrophizing, hypervigilance, attributions, self-efficacy, etc.), the relationship and sex. Psychoeducation and discussion: Attributions about pain Follow-up: Pain and sex journaling check in – Any revelations to share? Homework: *Practice cognitive defusion*
10	Review of homework Intervention and follow-up: Cognitive defusion revisited Homework: *Continue practicing cognitive defusion* *Continuation of giving and receiving (Step 3 – Sexual touching and potential to focus on orgasm)*
11	Review of homework

	Discussion: Asserting oneself with one's partner Psychoeducation and discussion: Avoidance of sexual activities Homework: *Homework exercises revisited*
12	Review of homework Discussion: Progress and setbacks Discussion: Summarizing information learned Psychoeducation and discussion: Tools for the future

Material covered during Assessment

- ❖ Introduction of the clinician to the couple
- ❖ Introduction of the couple to the clinician: Telling their story
- ❖ Setting a schedule

Pilot testing of this manual has yielded several important insights, one of which emphasizes the importance of taking the opportunity to assess the couple, or get to know the couple before launching into CBCT. If the couple has reported a history of childhood trauma, the therapist should be conscious of the information, but appreciate that these previous experiences may not be open for discussion as part of their CBCT. An awareness of this history will help the therapist navigate future discussions and hone her sensitivity to certain reactions from the couple.

Important considerations to make regarding the use of information presented from the self-report measures, and the assessment session are:

- Certain topics may get opened, but not resolved during this session. The therapist can suggest that some topics may be tabled for a future therapy, or tabled until the woman, partner, or couple are ready to broach them in therapy.
- How might the issues raised have an impact on expectations for the woman, for the partner, and for the couple?
- How will these issues play into therapy?

Introductions between the clinician and both members of the couple

The therapist will introduce herself to the couple and explain that she understands that they have received a diagnosis of PVD, and that they have been randomized to this form of treatment. She will explain the limits of confidentiality, and remind the couple that they have the right to withdraw at any time. The therapist will acknowledge that this experience (i.e., therapy) may be new and different, and that they are welcome to ask questions at any point. She will encourage them to collaborate with her throughout the process. She will emphasize that the therapy aims to ameliorate the pain and sexual function. The therapist will also mention that this session is an assessment session where she will be trying to get to know the couple so that she "personalize" the planned interventions as much as possible.

Introduction of the couple to the clinician: Telling their story

The therapist will ask the couple to introduce themselves to her. The therapist will start by asking the couples to share similar information they would have shared in their pre-treatment, brief, structured interview (duration of the relationship, current and past sexual functioning or sex life, frequency of sexual activity, intercourse, desire, etc.). Following this, the therapist can start by asking the couple to tell her about the story of their couple, and their current relationship dynamic. This is often a familiar and shared story for the couple. For example, the therapist can suggest the couple tell her about themselves, how they met, what first attracted them to one another, how they get along on a good day, a regular day, and during a crisis. In addition to helping the therapist determine the couple's current state of the relationship, this will also be an important contribution to forming rapport with the couple given the the opportunity for the therapist to listen and reflect on their story.

The impact PVD has had on their relationship

The therapist can also encourage the couple to share information about the PVD **and** their relationship, while concurrently validating their disclosure. The therapist will also confirm and gather additional information about the couple's experience with the PVD pain as it occurs within their sexual relationship. Specifically, the duration of the pain, prior treatments that have been attempted, and the impact the pain has had for each partner (in brief). The clinician will facilitate disclosure or turn-taking from both partners by directing open-ended questions to each partner. Some couples may be more prepared to disclose and elaborate on their experiences, whereas others may be more reticent. In both cases, the therapist should indicate that she is taking a few minutes to confirm these important pieces of information. If more time is needed, she can indicate that there will be more opportunities to discuss the impact the PVD has had on their sex life and their relationship. If the couple is slow to open up, the therapist will remember that other opportunities will present themselves to confirm this information during the course of treatment.

Given that the priority of this session is to assess the couple to better serve the therapist in future interactions with the couple, please note that there should be space during "Session 1" to continue the discussion of the impact PVD has had on their relationship.

Material covered in Session 1

- Explanation of the treatment plan
- Opening the dialogue regarding treatment expectations

Homework:
PVD readings
Pain and sex journaling

Getting settled
The therapist will explain the transition from the portion of the first session (i.e., assessment) that was devoted to getting to know them better to the beginning of the interventions. The therapist may share a copy of the treatment outline with the couple at this point, and state that this session (i.e., Session 1) is about looking over the treatment plan, hearing more about their experiences with PVD (if there is more to discuss from the assessment session), and starting a discussion about the couple's expectations and goals for treatment.

Explanation of the treatment plan
The therapist will explain the treatment program by providing specific examples of how pain management functions (i.e., that thoughts, emotions, behaviors and the pelvic floor musculature play important roles in pain perception). She will highlight the credibility of the interventions included in the treatment plan (e.g., "The information, treatment strategies and exercises all follow those that have been used effectively in practice and research.").

The clinician can validate previous experiences and dispell misconceptions couples may have heard from other health care professionals. "Many women and couples report having been to as many as four to six physicians in search of an explanation for their pain. Some have been told that the pain is all in their head, which is unfortunately a common misconception and is nonsense. It is not true and it is not helpful. Your pain is real. The proper question is, what are the factors that influence the pain? At one time we used to think that pain was a simple matter: Something hurt your body and you felt pain. But it is just not that simple. Many different things affect the pain experience (e.g., surgery under hypnosis, athletes and dancers who do not feel pain until the end of a performance, people who walk on hot coals, etc.).

"Newer research has also shown that the partner can impact upon the woman's pain experience (both negatively and positively), and there are also consequences to the partner and to the relationship. Throughout this treatment, we will examine all the things that may be related to your pain so that we can select the best set of strategies to be used to reduce your pain and can help you have a more satisfactory and pleasant sex life. Some women and couples will improve by 50%, others by 75%; it will vary. Even if your pain doesn't go away completely, you'll be able to do more. To achieve these goals, it is important for you to understand that we do not have any magical techniques or procedures that will immediately take away your pain. Instead, we will work together to develop pain management tools. Some of these tools may include methods for controlling the pain, while others will help you integrate and accept the pain into your life, and still others will help you process your emotional reactions to the pain. You will be able to use all of the tools in your everyday life to better understand and eventually alleviate the pain."

The therapist will establish that both partners will be working together, and that both will be involved throughout the process. For example, "This therapy and the strategies we will be using are developed for the couple, and not just for the woman experiencing pain. It has been shown that including the partner for sexual difficulties is beneficial for the person experiencing the difficulty and for the couple."

The therapist will refer to the copy of the treatment outline and remind couples that they can look to the outline to understand what to expect in upcoming sessions. She will ask the couple about their expectations of the treatment program (e.g., concerns, reservations, skepticism, doubts, hopes, etc.). The therapist should promote realistic goals (e.g., moving beyond unrealistic goals such as completely pain-free sex).

The therapist will answer any questions about the nature of the treatment outline, as well as clear up any misunderstandings.

Opening the dialogue regarding treatment expectations
The therapist will suggest that the couple take a few minutes during the week to discuss their respective expectations and goals for treatment, to be discussed in more depth during the next session. If the couple is prepared to discuss some of their expectations, and there is sufficient time, she can open the dialogue with the couple with the understanding that the couple might still take some time to discuss their expectations with one another between sessions.

Setting a schedule
The therapist will confirm the time and date of the next session with the couple. Ideally, the couple will keep the same time each week.

Homework

PVD readings
Pain and sex journaling

PVD readings – an activity for both partners
The therapist will provide each member of the couple with copies of the PVD articles to read during the next week. She will explain that the information is meant to complement the information discussed during the session, and that she will be happy to answer any questions they may have.

Bergeron, S., Rosen, N. O., & Morin, M. (2011). Genital pain in women: Beyond interference with intercourse. *Pain,* 152, 1223-1225.

Sheppard, C., Hallam-Jones, R., & Wylie, K. (2008). Why have you both come? Emotional, relationship, sexual and social issues raised by heterosexual couples seeking sexual therapy (in women referred to a sexual difficulties clinic with a history of vulval pain). *Sexual and Relationship Therapy, 23*(3), 217-226.

Pain and sex journaling – an activity for both partners

The therapist will provide each member of the couple with the Pain and sex journaling handout. She will explain the rationale for the journaling exercise: to better understand the pain and what factors both partners perceive as influencing the pain, as well as how their shared sexual experiences are also contributing to the pain experience, and their feelings about sex as well. Self-monitoring of the pain will allow each member of the couple to recognize if the perceived pain intensity follows any particular relational, cognitive, emotional, and behavioural patterns. Reflection about their sexual activities can also help them be more mindful of what is happening for them in these intimate moments. They may each have causal theories about the pain, but the therapist will explain that journaling will make the phenomenon of the pain more clear and concrete, and will help when implementing future therapeutic strategies. **The therapist will ask the couples to complete these journals following each experience of pain, and/or after each sexual experience.** The therapist will explain that the woman with PVD will likely have more entries than her partner given that she will be more aware of her own pain, and that the partner may only complete a journal if he or she is made aware of or witnesses the pain. The therapist will collaborate with the couple to determine how best to remember journal completion (e.g., strategic placing on the nightstand, kitchen counter, cellphone or smartphone alarms, etc.). The therapist will explain how to complete the journal, and will answer any questions the couple has.

Study-related issue:

The therapist should email the RA for the study to let them know that the couple has completed the first session of CBCT (Week 1). The therapist can remind the couple that they will have online questionnaires to complete at home for the study within the next couple days.

SESSION 1 HANDOUT #1

Pain and sex journaling for the woman with PVD

The pain and sex journal constitutes a tool that will help you better understand your pain and the factors that influence it, as well as how you and your partner feel about your sexual activity. The journal will also help you measure your progress in the weeks to come. We will use the pain and sex journal regularly in our discussions. Fill in a journal form **immediately** following each event having caused you pain, or soon after a sexual experience.

1. Day: _____ 2. Time: _____
3. Time of menstrual cycle _____ 4. Pain intensity (0 to 10): _____
5. Cause of the pain _____ 6. Duration of the pain: _____
7. Where were you? _____

8. Describe your thoughts, feelings, and behaviours before, during, and after the pain experience:

	Before	During	After
Thoughts			
Feelings			
Behaviours			

If the pain was experienced during sexual activity:
Describe your thoughts, feelings, and behaviours before, during, and after the sexual experience:

	Before	During	After
Thoughts			
Feelings			
Behaviours			

9. *How satisfying was your sexual experience (0-10)?* _____
10. How much time did you spend on sexual foreplay? _____
11. How aroused were you (0 to 10)? _____
12. How lubricated were you (0 to 10)? _____
13. Up to what point were you in the mood for sex (0 to 10)? _____

14. What was your reaction to your pain?

_____

15. *What was your partner's reaction to your pain?*

_____

16. How relaxed did you feel (0 to 10)? _____

17. What did you or your partner do to try to reduce the pain?

_____

18. How effective was this? (Circle the appropriate number).

0 = did not help at all 1 = helped very little 2 = helped somewhat

3 = helped a lot 4 = stopped the pain

SESSION 1 HANDOUT #2

Pain and sex journaling for the partner

The pain and sex journal constitutes a tool that will help you better understand your perception and experience of your partner's pain and the factors that influence it, as well as how you think and feel about the pain and how you and your partner feel about your sexual activity. The journal will also help you assess changes in her pain and your perception of her pain. We will use the pain and sex journal regularly in our discussions. Fill in a journal form **immediately** following each event that caused your partner pain, or shortly after a sexual experience with your partner.

1. Day: _____ 2. Time: _____
3. Perceived Pain intensity (0 to 10): _____
4. Cause of the pain _____ 5. Duration of the pain: _____
6. Where were you? _____

7. Describe your thoughts, feelings, and behaviours before, during, and after her pain experience:

	Before	During	After
Thoughts			
Feelings			
Behaviours			

If the pain was experienced during sexual activity:
Describe your thoughts, feelings, and behaviours before, during, and after the sexual experience:

	Before	During	After
Thoughts			
Feelings			
Behaviours*			

How satisfying was your sexual experience (0-10)? _____
8. How much time did you spend on sexual foreplay? _____
9. What was your reaction to her pain? _____
10. What was your partner's reaction to her pain? _____
11. What did you or she do to try to reduce the pain? _____

12. How effective was this? (Circle the appropriate number).

0 = did not help at all 1 = helped very little 2 = helped somewhat

3 = helped a lot 4 = stopped the pain

Material covered in Session 2

- Review of homework
- Information about PVD
  - Psychoeducation: Dispelling myths about pain
- ACT value clarification exercise: Card sorting
- Discussion: Treatment expectations and goals

Homework:
Mindfulness breathing
Tantric breathing for two

Review of homework
The clinician should check with the couple that they understand the pain and sex journal, and answer any questions. She should address lingering or new questions regarding PVD. If clients have not been able to do their homework, the clinician should adhere to the guidelines listed above (page 5), take a few minutes to identify obstacles to homework completion, and identify factors that could dissolve these barriers.

When answering questions the couple may have about the articles provided to them in the previous session, the therapist should integrate (rather than teaching) the below information "PVD" and "Dispelling myths about pain".

Information about PVD

Rationale for provision of information about PVD
(Research information for the clinician)

Many women are often not aware that their pain is even a disorder. As difficult as it is for women to conceptualize their pain as a disorder or a diagnosable pain problem, it may be equally or more difficult for the partner (who does not experience the pain first-hand) to understand PVD. Debunking myths and providing accurate information about PVD will help foster an understanding of the pain, and help normalize what these couples are experiencing. The provision of statistics can often be reassuring, so that they know they are not alone, and that others experience this problem.

The therapeutic power of providing accurate information to women with PVD was demonstrated in a study of women with PVD who participated in three 1-hour educational seminars. The results indicated significant improvements in depression and anxiety, as well as sexual functioning, and reductions in sexual distress. The decrease in psychological symptoms associated with the provision of accurate information about PVD may serve to reduce catastrophizing about the pain and set the stage for subsequent pain management options, such as psychological therapy (Brotto, Sadownik & Thomson, 2010).

Information to provide:

- Definition (symptoms and diagnostic criteria) of dyspareunia and PVD
  - Cotton-swab test, pain during other activities
- Statistics and rates:
  - Mostly experienced among women between 18 and 30
  - Prevalence rates up to 15-20%
- Etiology and course:
  - Can begin from first intercourse, or later on, following repeated yeast infections, or other trauma to the area, and for no apparent reason
  - Likely multifactorial in nature (yeast infections, past trauma, hormonal - early and prolonged use of contraceptives, neuropathic - change in nerve pathways like in other chronic pain conditions and increased sensitivity to pain, increased pelvic floor muscle tension)
  - History of consulting many doctors - many women think they are not normal, are ashamed and have a hard time talking about it with many people
- Impact and consequences to sexual functioning (diminished desire, arousal and frequency of orgasm and intercourse), and consequences to the relationship
- Recent epidemiological research (the study of patterns, course, causes, and effects of health problems, or diseases) has shown that women with PVD are more likely to score higher on anxiety and depression symptoms, as well as women with anxiety and depression disorders are more likely to report PVD (Khandker et al., 2011).

The therapist will ask the couple if any of the information rings true to them, and ask about their reactions to this information. She will normalize their thoughts and feelings.

Dispelling myths about pain

Understanding the mechanisms of pain will help clarify the experience of PVD for the woman and her partner. As part of this component of treatment, the clinician will briefly explain and discuss how chronic pain is believed to occur, and help clarify and repudiate any myths concerning pain. A more in-depth discussion of how pain works is planned for Session 3.

"Pain is multifactorial and can be something we do not consider too deeply. For example, pain is often thought of our body's way of telling us something is harmful and is usually felt acutely. Unfortunately for some people, pain can become chronic and start to interfere with functioning, and then it can become problematic. There are various ideas or myths about pain that patients and their significant others often have. I am not sure if you believe these, but they are worth our going over and considering where they fit and do not fit with your own notions."

MYTHS: If physicians can't cure your pain or find out exactly what is causing it, then your pain must be in your imagination (Malec, Glasgow, Ely & King, 1977). FALSE. If you can make your pain less by psychological self-control, then the pain was "all in your head" to begin with (Malec et al., 1977). FALSE.

The therapist can say something along the lines of the following: Besides, looking at it another way, all pain is "in your head." After all, your brain is in your head. The brain is what tells you if you hurt, how much you hurt, where you hurt, and what to do about it. Even when you hurt because you hit your thumb with a hammer, the pain is "in your head." This is why psychological methods of pain management work, because they involve your brain, which is the one who perceives pain. You can learn to keep pain from bothering you as much. This is different than the notion of completely blocking pain signals from traveling to your brain. In short, the pain is real, but we can learn ways to help it not take so much space in your life, and to minimize its negative consequences.

The therapist can also add that: Although some of the outward signs of pain may be visible, pain is a private, individual experience. And because it is so private, so individual, no two people undergo exactly the same feelings of pain from the same source. Many things beside the *intensity of the stimulation* contribute to the experience of pain. On two different occasions, you may experience quite different pain from exactly the same external stimulation (e.g. differences in pain ratings from the same stimulation, penile penetration and thrusting). For example, you may stub your toe on one day, and keep on walking, whereas another time, all forces being equal but perhaps you are more tired, or distracted with work, and the pain can feel much more intense.

The therapist will have the couple generate examples of their own to support the contention that pain is more than a consequence of the specific so-called physical cause. The therapist, via discussion, will begin to get the couple thinking about how different factors affect the pain experience and highlight the variations in their current pain. **At this point the intention is more to raise issues than to find solutions – this discussion can continue in Session 4 when discussing the Gate-control theory of pain.** The therapists' probes will be designed to begin the reconceptualization process in which the woman (and her partner) plays an active role in contributing to her presenting problems and is not a helpless bystander or victim of the pain. As this reconceptualization emerges, one implication is that something could be done to change the behaviors, feelings, and thoughts that affect the pain experience.

E.g. "Can you think of any examples of when your pain varied and what might have contributed to this?" Additional prompts if they can't think of anything: "Have you ever noticed that the pain varies depending on how aroused you are, how lubricated you are, how you and partner feel about one another just before, how anxious you are, etc."

ACT value clarification exercise: Card sorting

The therapist will introduce the Value clarification exercise by explaining the goal of the exercise: The aim of value clarification is to help the couple to identify and realize what is important in their lives, particularly with respect to their sexual and relational functioning, with the intention of acting and living in concordance with these values. Part of this process is also establishing a hierarchy of these values.

The therapist will begin by asking the couple some open-ended questions: Why is it important for them to connect sexually? How does it fit with their values? The couple will begin to examine

their values, which may include values relating to sex and the relationship, as well as goals and reasons for having or wanting sex. Specifically, these may include:

- being intimate with my partner
- having an orgasm
- pain-free sex
- feeling emotionally close to my partner
- avoiding conflict with my partner
- pleasuring my partner
- experiencing pleasure myself
- expressing love for my partner
- wanting to feel desirable
- avoiding problems in the relationship
- sharing a pleasurable experience with my partner
- avoiding being hurt by my partner
- preventing my partner from leaving me
- avoiding feeling guilty or saying no to my partner
- relieving stress
- and many others…

The goal of this exercise is to shift toward the idea that being sexually intimate with one's partner is an important aspect of sex, and possibly more important than penetration/intercourse or pain-free sex.

Another aim of this exercise is to shift toward "approach" and "acceptance" themed goals as opposed to "avoidance" type goals. For example, "To be close to my partner." relates to approaching one's partner and accepting one's value that a goal of sex is to increase closeness and intimacy. Whereas, "To avoid a conflict" has to do with engaging in the behavior to avoid a negative response from the other, or a negative outcome, and may not allow the person to be acting in acceptance with the values they hold for sex and their relationship.

Card sorting task – How to do it:

Have each member of the couple write a reason or goal <u>for having or not having sex</u> on a separate index card. Remind them that goals can include reasons for having sex, and other goals can relate to pain reduction or finding sexual activities that do not induce as much pain (e.g., these may relate to their reasons for seeking treatment). By the end, they should have a small stack of cards. The therapist will ask them to share the reasons with one another. She will then ask them to put the cards in order of importance with the most important reason (i.e., the value that they hold most dear) at the top of the stack. If the value at the top is avoidance-oriented (e.g., avoiding conflict) or pain-focused (e.g., pain-free intercourse), ask them what it would be like to move a different value to the top (e.g., being intimate with partner/expressing love for partner). The therapist will explore with the couple how it feels to make that value more important. "What would it take to bring this value to the top of the pile?" Consistent with ACT's intention of helping the clients live consistently with their core values, the therapist can also ask the following questions: How does this value fit in with your core values? How would it feel to act in concordance with this value? How would your attitudes or behaviors have to change? What would be difficult about this behavior change? What would be the benefits?

Discussion of treatment expectations and goals
From the card-sorting task, the therapist will have a better idea of the couple's goals and intentions for treatment. She will assist the couple in identifying treatment goals for both partners and for them as a couple. "Knowing a bit more about PVD, having made the decision to take part in treatment together, what are some of your expectations and goals for treatment?"

During the discussion, the therapist will revisit the importance of establishing realistic expectations and goals. "In starting to view PVD as a chronic pain problem, we have begun to appreciate that there will be times where you may experience less pain and others where it seems increased. What we can do with treatment is develop ways to manage the pain so that it does not hurt your relationship or capacity to be sexually intimate with one another."

Homework:

Relaxation and diaphragmatic breathing exercises
Mindfulness breathing
Tantric breathing for two

Relaxation and diaphragmatic breathing exercises
Nearing the end of the session, the therapist will introduce the *breathing exercise*, starting with its **rationale**: "as you may have noticed, the anticipation of pain creates anxiety, which has two consequences: (a) it inhibits arousal, which in turn inhibits lubrication, which increases the pain upon penetration; (b) it often contributes to an involuntary contraction of the vaginal muscles, which again, makes penetration a lot more painful, and sometimes impossible. For these reasons, an important part of the treatment is to learn to reduce anxiety. One major way in which they will learn to do this is via breathing/relaxation techniques.

This exercise is twofold, in that it aims to bring about a relaxation response, and serve as a mindfulness exercise. She can explain that mindfulness refers to being present and purposeful in one's experience in a way that allows one to pay attention to the moment, and what is felt, thought and experienced in that moment. Part of being mindful is paying attention to any interfering, distracting, thoughts as they come into your mind, acknowledging those thoughts, but then redirecting your attention back to the present experience. The therapist will explain that it is normal for unrelated or irrelevant thoughts to intrude during this and other experiences. Again, being mindful is acknowledging these thoughts, and then focusing your attention back to your current experience.

For centuries humankind has been provided with instructions for bringing about a quieting response (the contrary of a stress response), called the 'relaxation response' (RR). This natural bodily reflex however does not happen automatically. It requires practice with certain mental techniques before it can be called upon to counter anxiety. Many techniques can bring about this natural response, although two simple steps are common to all of them: (a) focusing one's mind on a repetitive phrase, word, breath, or action; (b) adopting a passive (accepting) attitude toward the thoughts that go through one's head. The physical effects of the RR can be divided into: (a) immediate changes, which occur while a person is focusing on a repetitive word, phrase, breath or action, and (b) long-term changes, which occur after repeated practice for at least a month, and are present even when a person is not sitting quietly practicing an RR technique. People report a

decrease in anxiety and depression, as well as an ability to cope with life stressors. The key to bringing about RR is focused awareness. Your breathing can be the object of that focus. Normal breathing patterns can be disrupted by anxiety and pain.

There are two types of breathing: chest breathing (short, shallow breaths, characteristic of anxiety) and diaphragmatic or abdominal breathing (abdomen rising and falling, like babies, brings about a feeling of calm and relaxation). Before doing any other exercises in this therapy, you need to become aware of how you breathe. Place one hand on your breastbone and one hand on your belly button. Close your eyes and become aware of what is moving when you breathe in and out. If it is your abdomen, you are already breathing diaphragmatically. If it is your chest, you need to learn how to breathe from the abdomen. This is something that is particularly useful for the person experiencing the pain, but can also be useful for her partner." The therapist can direct this statement to the partner: "By being calm, present and focused with your partner, not only are you seeking a more relaxed state, but you can help her relax further."

How to do it:

Mindfulness breathing

"Place your hands just below your belly button. Close your eyes and imagine a balloon inside your abdomen. Each time you breathe in, imagine the balloon filling with air. Each time you breathe out, imagine the balloon collapsing." The therapist will practice it with them for about 5 minutes and ask them if they have any questions or concerns. She will ask them to practice diaphragmatic breathing at home. They can count 10 breaths and start again. They can try it for about 5 minutes at a time, as often as possible, such as once a day.

Tantric breathing for two - an activity for both partners

"In addition to the relaxing effect that diaphragmatic (deep) breathing can have, breathing with someone else can also help create an attunement or connection, and help express a loving exchange. Breathing is also a basic component of tantric practices. Tantric practices are ancient spiritual practices from India, Nepal and China. They are about using one's awareness through breath, sound, movement, and symbols to enhance consciousness and bliss, and to help quiet the mind and activate one's sexual energy (Kuriansky, 2004)." The therapist will explain "The Synchronizing Breath" to the couple, and provide them with a handout which explains the other types of partnered breathing activities. She will suggest they try one or as many of the exercises as they would like. She will encourage them to try the breathing exercise during the week, repeating it at least one more time. The therapist can remind the couple that these breathing exercises may seem silly, and that silly is good. She will encourage them to try it, and to embrace and accept any "giggles" or "awkward" feelings.

Study-related issue:

The therapist will explain the homework checklist, and have each participant fill out a homework compliance form.

SESSION 2 HANDOUT #1

Mindfulness breathing instructions

Choose a moment during which you know you will not be disturbed. If you want, unplug the phone or leave the answering machine on.

1. Lie down on your back or in a comfortable chair or sofa.
2. Place your hands just below your belly button. Close your eyes and imagine a balloon inside your abdomen. As you breathe in through your nose, imagine the balloon filling with air. As you breathe out through your mouth, imagine the balloon collapsing.
3. While exhaling, notice the sensation of calm and relaxation that you are bringing forth with this type of breathing.
4. You can increase the relaxation effect by concentrating on words like "calm", "peacefulness", and "relaxation" while exhaling.
5. After 1 deep breath, breathe normally for 30 seconds -1 minute (approximately).
6. Allow your limbs to relax, become heavy, and sink into the chair.
7. Repeat this sequence 5-6 times once a day or more.

If intruding thoughts or worries cross your mind, imagine that your mind is a sieve and that all the thoughts just pass through its holes. Don't hang on to your thoughts.

SESSION 2 HANDOUT #2

Tantric breathing for two (Kuriansky, 2004)

Below are three types of tantric breathing exercises to try with your partner. Together, find a quiet moment during the week to try the first breath. If possible, repeat the exercise again during the week. Feel feel to try all three breathing exercises. You will find that they are ordered in terms of level of complexity. The more you try them, the easier and more natural they will feel.

1) "The Synchronizing Breath"

Breathe in and out at the same time to tune into each other's rhythm. Facing one another, sit cross-legged and comfotably, using pillows if you wish. Make sure to keep your spine straight. Use a small touch of the hand or fingertips, or wink to help pace one another. After a minute or two, close your eyes and continue breathing together, and work on sensing the other's energy and breath.

2) "The Reciprocal Breath"

In this exercise, the tantric principle is to send your love into the other. Sit cross-legged in front of one another, or lying down facing each other, maybe sharing one pillow, almost nose-to-nose. The goal is to inhale while your partner exhales, and exhale while your partner inhales. Your faces should be close or almost touching for this exercise and your hands can be pressed against one another or touching. Imagine as though you are breathing for one another.

3) "The Circulating Breath"

This exercise has you sitting with your partner in a more intimate position. It is your choice, and you can try this breathing exercise clothed and unclothed. For the position, the partner will sit, cross-legged, and the woman with PVD will sit or straddle her partner so that they are face-to-face, and can touch their palms together, on top of her partner. When you inhale, imagine the energy rising through your body, passing through your core, through the top of your head and, as you exhale, imagine the energy looping back down to the base of your spine and genitals. You and your parter will inhale and exhale together – each picturing the circulating breath through each of you, and imagining a harmonizing or synchronization of this breath.

*** If you find it too invasive to breath in as your partner breathes out (i.e., breathe in your partner's face), you may choose to do this exercise cheek to cheek so that you feel your partner's breath on your ear and neck. This alternative positioning may help avoid discomfort the first few times you try the breathing exercises, as well engage another sense (i.e., hearing), and therefore help you and your partner be present and aware of each other. ***

Material covered in Session 3

- Review of homework
- Intervention: Facilitating emotional disclosure and subsequent validating responses
- Intervention: Communication exercise for both partners

Homework:
"I" statements and continuation of disclosure and validation exercises
Continuation of pain journaling
Continuation of breathing exercises

Review of homework
The therapist should take a few minutes at the beginning of each session to review the homework from previous sessions. She will check in with the journaling for both partners. She will also ask how they experienced the breathing exercises presented in the previous session.

Some couples may want to speak about conflicts, or stay on certain topics longer than others. If this is the case, and to help stay on task, the therapist may remind couples that there are several opportunities to discuss a variety of topics throughout the therapy, and can point to certain sessions that will allow for discussions about pain, sex, or the relationship.

Intervention: Facilitating emotional disclosure and subsequent validating responses
Communication is an important tool that will help the couple navigate the PVD pain, and their shared sexuality. It can be one of their greatest assets in feeling more like a team, and working together. It can also be helpful for the couple in other areas of their relationship. The therapist should emphasize that every couple communicates differently, and that the following information and exercises are meant to help them facilitate their communication. This will also mean that the therapist will explore their established communication styles, and related feelings and thoughts about their communication.

An important consideration: The therapist should consider information gathered during the assessment session, and should open the discussion about communication by using positive examples of their communication that is specific to the couple, even if this example relates to finances, work, or something unrelated to their sex lives. Distressed couples will experience communication as more challenging, and couples should be validated that communicating when upset or hurt is more difficult.

The therapist will explain the importance of emotional disclosure and validating each other's disclosure in terms of improving communicating with one another. Specifically, she will highlight how this becomes important when communicating about the PVD pain, their sexuality, and their relationship. She will explain that emotional disclosure and "I" statements can be more effective than accusing or blaming "you" statements. She will also explain the concept of validation - validation refers to feeling understood, listened to and cared for by one's partner.

Starting the discussion of what communication looks like for the couple:

The overarching question that the below questions help build is: *What do you need to feel understood?* By using the questions below, the therapist can help work up to this question.

When do you feel understood by your partner? How do you know (what are the signs?) your partner is listening and understanding what you are saying with regard to the pain? When do you not feel this way (what are the signs)? What would help you to feel listened to? What would be a way of communicating when you are starting to feel unheard?

The therapist will provide each member of the couple with the Communication Tips handout. She will go through the handout with them, explaining the components of "I" statements and "active listening". The therapist will ensure that the couple understands the communication concepts, and invite them to ask questions.

Intervention: Communication exercise for both partners
The therapist will explain the exercise Turning Toward Your Partner's Needs. She will explain how this exercise builds on the previous discussion. She will provide the couple with the Handout #1 for this week, and will invite the couple to each practice stating one of the items from the Needs List, and then to come up with their own Need Statement relating to their pain or the impact of pain on their relationship and sexuality. She will instruct the couple to use the communication skills (e.g., "I statements" and "active listening") and to practice validation during this exercise. Again, the therapist will help coach the couple through this exercise, and model when necessary.

The 4-step process of communication has many more steps than a couple might be used to, and it can also make the couple feel as though they are being "taught" communication. The therapist can move through these steps slowly with the couple, and should present them as a guide for the exercise. It will be important to check-in with each couple regarding which components of the 4 steps they found the most helpful, and to point out that these steps will either blend together or become more second-nature with practice.

Homework:

"I" statements and continuation of disclosure and validation exercises Continuation of pain journaling Continuation of breathing exercises

"I" statements and continuation of disclosure validation exercises - an activity for both partners
Each member of the couple should already have a copy of the Communication Tips and Turning Toward Your Partner's Needs handouts. She will encourage them to find a moment during the week to have a discussion using these techniques and to continue practicing. She will suggest they either choose to discuss the PVD pain or a related-element. She will ask if they foresee any challenges with this exercise, and help explore potential solutions.

Continuation of pain and sex journaling
The therapist will encourage the couple to keep journaling, and offer more handout copies of the journal if necessary.

Continuation of breathing exercises
The therapist will encourage the couple to continue the breathing exercises together, as well as the deep breathing. She will suggest they try one of the tantric breathing methods that they have not yet attempted. She will encourage them to try the breathing exercise more than once throughout the week. She will explore any potential barriers to this task, and help identify potential solutions.

Study-related issue:

The therapist will have each participant fill out a homework compliance form.

SESSION 3 HANDOUT #1

Communication Tips

Below are some suggestions for how to improve your communication about difficult topics such as PVD and sex.

1) Choose an appropriate time for broaching the subject
    a. It may be helpful to set a time aside in advance, so your partner does not feel caught off guard.
    b. Choose a time when both partners feel they have enough energy (i.e., not too tired) and are relaxed enough to engage in the conversation.

2) Use **"I" messages**
    a. "I" messages allow you to express to someone your need for them to change their reactions or behaviors, without blaming them or putting them down.
    b. Speaking from the "I" and stating one's feelings is more likely to create a positive atmosphere for communication and problem-solving, and is less likely to be met with defensiveness.
    c. <u>How to do it:</u> There are 4 parts to an "I" message. Not all parts need to be used (you may wish to postpone stating what you want to happen/change to allow a discussion of possible options) and you don't need to say the message in this order either.
        i. "I feel . . ." (state the feeling)
        ii. "When you . . ." (state the other person's behavior)
        iii. "Because . . ." (state the effect on you)
        iv. "I need . . ." (state what you want to happen)

3) Try to be an **active listener**
    a. *Encourage* your partner's efforts at talking to convey your interest (verbal & nonverbal).
    b. *Clarify* what your partner is saying by asking questions.
    c. *Reflect* back your partner's feelings to check that you understand. If you misunderstood, gently let your partner know you did not understand, and allow your partner to gently restate what he/she meant to say.
    d. *Validate* your partner's feelings, efforts, and actions. Show respect for your partner's intentions.
    e. *Restate* and *summarize* the basic ideas, facts, and feelings expressed by your partner to show that you understood what he/she said and to establish a basis for further discussion – this should be done thoughtfully and with the intention to continue the conversation.

SESSION 3 HANDOUT #2

Turning toward your partner's needs

INSTRUCTIONS: Read the list below and select a need that you have from it. Then take turns describing the need you selected to your partner by incorporating "I" messages

I feel (state feeling)…
when you (state behavior) …
because (state effect on you) …
I need (state what you want to happen)

If you are the listener, try incorporating active listening techniques:
Encourage, clarify, reflect, restate and summarize, validate

Both of you should try making suggestions about how you can better meet this need in the coming week.

Needs list (some examples of needs people may have)

I need more physical affection
I need to cuddle more
I need to talk more about the pain
I need more patience (for myself or from you)
I need to talk more about sex
I need to talk about feeling guilty
I need to talk about how we talk about sex
I need for us to have a date night
I need to have some time alone
I need help with housework or chores
I need to know you find me attractive
I need to do more things together
I need more or less family time
I need more alone time with you

Material covered in Session 4

- ❖ Review of homework
- ❖ Re-conceptualizing pain and PVD as multifactorial (Gate-control theory of pain)
- ❖ In-session exercise: Start identifying biopsychosocial factors that can influence pain specific to the couplet
- ❖ Psychoeducation regarding sexuality and models of sexual response
- ❖ Understanding how pain can impact upon sexuality and the relationship for both members of the couple and encouraging their self-disclosure to one another about this issue

Homework:
Pain localization and 'discomfort desensitization'
Body-scan relaxation / meditation

Review of homework
The therapist will review the couple's experience with homework, and ask about their journaling. She will ask the couple how they are experiencing the homework exercises. What challenges have they faced? What are potential work-arounds? What realizations have they had since starting the journal process?

Re-conceptualizing pain and PVD as multifactorial (Gate-control theory of pain)
This intervention, including the in-session completion of biopsychosocial factors that influence pain should be afforded 15-20 minutes.

Pain is multi-factorial. Many people unfamiliar with pain research and treatment are unaware of the influence of emotions, thoughts and behaviors, and the social context on pain. In this part of treatment, the clinician will discuss empirically identified emotions, behaviors and cognitions related to pain, as well as explore those experienced by the couple.

Gate-control theory of pain (Melzack & Wall)
From Karol, Doerfler, Parker, and Armentrout (1981): "Pain may begin with bodily damage or injury or with disease. A pain message from the site of injury is sent through a mechanism that works like a "gate to the brain." The brain then interprets this message. This gate can be partially or fully opened or closed, determining the amount of pain. A variety of physical, emotional, and mental factors may open or close the gate." The following is Melzack and Wall's gate control theory of pain and can be discussed with the couple, although the therapist should keep in mind that this model does not fully apply to painful intercourse.

Factors that open the gate
1. Physical factors
    a. Extent of injury or trauma to the area
    b. Readiness of the nervous system to send pain signals.
    c. Inappropriate activity level – fatigue.
2. Emotional stress
    a. Depression

b. Anxiety
c. Worry
d. Tension
e. Anger

3. Mental factors
    a. Focusing on the pain
    b. Boredom due to minimal involvement in life activities
    c. Nonadaptive attitudes

Factors that close the gate

1. Physical factors
    a. Medication
    b. Counterstimulation (cold, massage, acupuncture)
    c. Appropriate activity level
2. Relative emotional stability
    a. Relaxation
    b. Positive emotions (e.g., happiness, optimism).
    c. Adequate rest
3. Mental factors
    a. Life involvement and increased interest in life activities
    b. Intense concentration
    c. Adaptive attitudes

Start identifying biopsychosocial factors that can influence pain specific to the couple

The therapist will emphasize the potential for the woman to perceive her pain differently, to accept her pain and what contributes to it, and to control her pain and discomfort. The therapist should try to include the partner in this discussion as well while being careful that the partner does not point out only the factors that contribute to more pain (i.e., blame). The therapist can provide a handout of gate-control/biopsychosocial model for the couple to complete together with the therapist. This may help them visualize and understand the many factors associated with the woman's pain, and with the pain experience for the couple. The therapist should keep this handout in the couple's file, for future use during a discussion of pain journaling – to see what else has been added to the contributing factors.

During the listing of the above factors, or afterwards, the therapist will ask the woman and her partner, "How does this gate-control theory or way of understanding pain sit with you? Which factors mentioned match your experience with the pain? What additional factors do you believe play a role?"

Psychoeducation regarding sexuality and models of sexual response

This psychoeducation exercise can be presented as an extension to the discussion stemming from the card-sorting task. By this point, sex has been eluded to during treatment, but not explored and explained at great length. The therapist will take the time to discuss the couple's views on sexuality, their own sexual narratives, and their understanding of sexual response. During this part of treatment, the clinician should be sensitive to individual variations when identifying with the couple their conceptualization of sexuality. This way, information that is provided can be

adapted to their sexual narrative. The clinician might say "Sex is often portrayed as including kissing, foreplay and intercourse and orgasm, but sex or the sex narrative is unique to each person and couple, and can include many other behaviors as well as emotional and interpersonal components. When you think of sex, what does the whole process include for you?" The clinician should ask both members of the couple to describe what sex means to them.

Traditional model of sexual response cycle

The therapist will explain that there have been changes to our understanding of the sexual response cycle in recent years, particularly to reflect that motivations for sex go beyond biological urges. The therapist will explain the traditional model below, which indicates that there is desire, then excitation (vasocongestion of the genitals), then orgasm (reflexive muscular contractions), and resolution or a denouement.

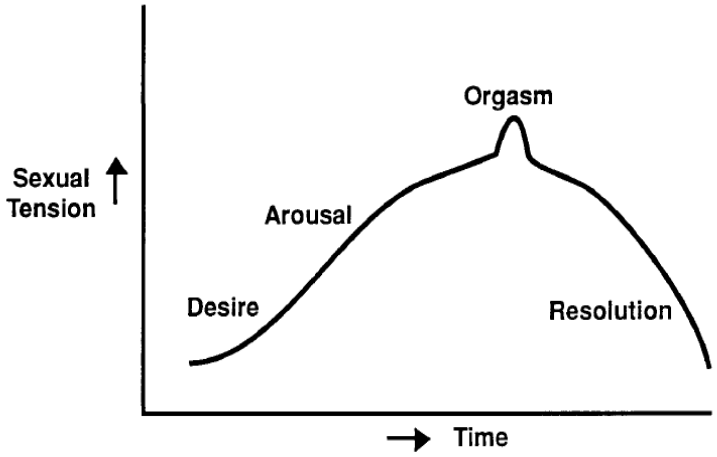


FIGURE 6. Masters/Johnson/Kaplan model of sex response.

Additional perspectives on sexual motivations and sexual response

The therapist will explain that more recent research provides alternative understandings of sexual response or sexual desire and arousal. The traditional model of sexual response can give the impression that desire for sex is almost spontaneous, that one desires sex and thus pursues it, primarily due to an innate or biological urge. Research has shown, and your experience may reflect this as well, that there are many other reasons that motivate people to have sex. Equally, there are a variety of reasons, aside from a lack of desire or arousal, for not wanting to have sex. One study found that women with PVD reported multiple goals related to sexual activity that go beyond wanting to avoid pain, including many reasons why they continue to have sex despite the pain, such as a desire to maintain intimacy, pleasure a partner, avoid a partner's disappointment, or for fear of losing one's partner (Elmerstig et al., 2008).

There are also a variety of factors that can influence the different phases of sexual response described in the traditional model of sexual response. Research has demonstrated that there can be a disconnect between our subjective experience of sexual arousal (i.e., when we say we feel aroused or "turned on") and our bodies' physiological response (Chivers & Bailey, 2005). While other times, you may feel quite turned on, or be faced with something or someone that is arousing (like your partner!), but something else (the pain!) competes for your attention or distracts you and therefore dampens or drowns out the desire or arousal (Janssen & Bancroft, 2007).

For example, you may really want to have sex because you want to feel emotionally close to your partner, but then the thought or memory of the pain might put the breaks on your desire and arousal, or it may be hard to experience orgasm and pleasure when one has interfering thoughts about the pain.

The therapist will also mention that desire/arousal are not the only phases of sexual response that can be inhibited. That is, it can be hard to experience pleasure and orgasm when one has interfering thoughts about the pain, whether it is about the experience of pain (woman), or contributing to pain (partner).

Discussion of which "model" is most consistent with the couple's experience
Following an explanation of the sexual response model and factors that can influence difference aspects of the model, the therapist will ask each member of the couple about which aspects resonate with their experience, and which differ.

Understanding how pain can impact upon sexuality and the relationship for both members of the couple and encouraging their self-disclosure to one another about this issue
The therapist will discuss the impact of pain on thoughts, feelings, physical sensations and behavior, and in return the impact that thoughts, feelings, and physical sensations such as arousal might have on the pain experience. She will explain to clients the details of the vicious cycle and continue to educate them about the impact of coital pain on desire, arousal and orgasm, having them generate their own examples: How has their sex life changed since the pain?

In a study conducted by our research group, 86% of participants, who were women with PVD, reported having sexual intercourse for reasons other than their own desire (e.g., feeling obligated). In addition, 24% of women stated not being able to have sexual intercourse at all because of the pain. For women who are still having intercourse, some of the difficulties reported included lubrication or arousal problems because of the pain, trouble reaching orgasm, lesser frequency of intercourse, negative attitudes toward sex, and avoidance of sex. Overall, there is an important deterioration in sexual function and satisfaction associated with PVD pain.

What are some of the consequences the couple has noticed in their sexual functioning? What have been the consequences for the woman? What have been the consequences for the partner? How do they feel about these changes? What does having pain during intercourse mean to the woman and her partner?

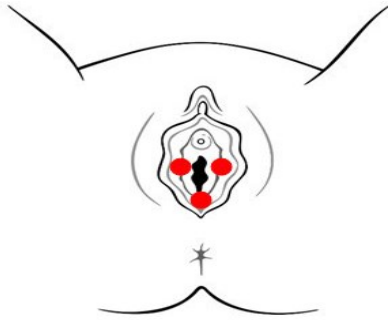
PVD can have a tremendous impact on the life of the couple. Long term, it can result in relationship conflict, sexual frustration, feeling pressured to have sex, a fear of losing one's partner, and the partner feeling powerless.

The therapist will explore some of the ways the couple feels their relationship has been impacted upon by the pain.

Homework:

Pain localization and 'discomfort desensitization'

Pain localization and 'discomfort desensitization' - an activity for both partners
The therapist will present this activity as an exercise for the couple to do together. The goal is to demystify the locale of the pain, and to alleviate discomfort and taboo that the woman and her partner may have about the woman's genitals. This activity may be illuminating for both the woman and her partner, particularly for those who have not identified the exact location of the pain. This may also be considered as a team problem-solving exercise. The therapist will explain the rationale of the activity, and may use the below diagram to show the couple the area of the pain (generally between 3 and 9 o'clock). The therapist will explain that this is a diagram and that each woman has a different symmetry and shape. She will refer couples to the following website to provide examples of vaginas:
http://dodsonandross.com/blogs/carlin/2010/05/bettys-vulva-illustrations



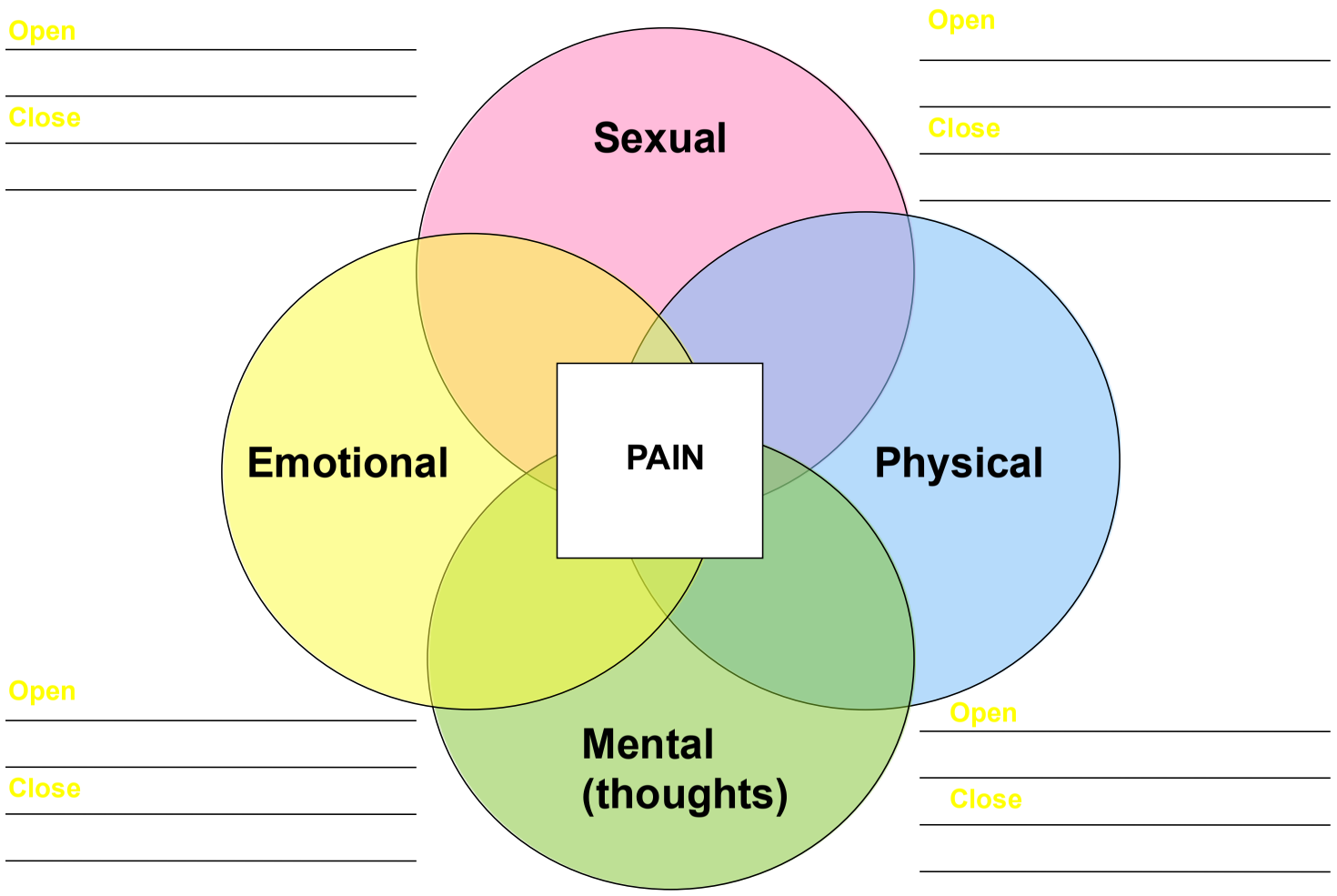
http://www.nva.org/whatIsVulvodynia.html

Body-scan relaxation and meditation (adapted from Jon Kabat-Zinn's Body-scan exercise in Full Catastrophe Living, 1990)
The therapist will introduce the Body-Scan Meditation exercise as another method of relaxation (and anxiety reduction) for the woman and her partner. This exercise is a mindfulness exercise. She will provide each of them with a copy of the handout, and explain how they can take each other through the exercise at home. The rationale for this exercise is similar to that of diaphragmatic breathing, such that a relaxed state can counteract the tension that contributes to increased pain, and therefore help lessen pain. Moreover, the therapist can explain how the identification and deepened connection with one's body is particularly important when one feels disconnected from the body or as though one's body has betrayed her or him, as can be the case with people who experience chronic pain.

Study-related issue:
The therapist will have each participant fill out a homework compliance form.
The therapist will send an email to the RA to confirm the couple completed the fourth session of CBCT. The therapist can also remind the participants that they have questionnaires to complete online in the next couple days.

SESSION 4 IN-SESSION HANDOUT

Gate-Control Theory: PVD



SESSION 4 HANDOUT #1

Pain localization and discomfort desensitization

During the session, we identified where the pain is located on the image. The goal of this activity is to identify where your pain is located with your partner. This activity will help you and your partner to clearly identify where it hurts, and may diminish perceived radiation (i.e., spread) of your pain. In addition, this exercise may help break down the taboo and discomfort that is associated with your genitals and with PVD.

This exercise will involve being naked in front of your partner in a context that is not sexual. It may be new for some, and normal for others. You should have a hand-mirror nearby.

Choose a moment during which you know you will not be disturbed, and where both of you are able to relax. If necessary, unplug the phone or leave the answering machine on. If the idea of doing this exercise makes you a bit nervous, take a bath before starting, engage in another activity that usually helps you to relax, or use the breathing techniques from the previous session.

Observe your genitals attentively, using the mirror. Touch different points to see where the pain is located. Invite your part to touch different points (lightly of course) so he may understand where the pain is located as well. What's important here, for you and your partner, is to identify exactly where it hurts and where it does not hurt.

If you try the exercise once and find that it's not working out (e.g. you're feeling uncomfortable, etc.), repeat it a second time, a third time, etc., until you feel relatively at ease and are able to make it through with your partner and identify where it hurts exactly. If you find this activity particularly challenging, you may want to add an extra step. For example, you could try the activity alone first, and then ask your partner to join you. Or, you could try conducting the exercise over your underwear first, and then try the activity as described.

While observing your genitals, both members of the couple should note one's own reactions and that of your partner's. This includes everything that goes through your head, without censuring or censoring yourself. For example, you may experience certain reactions towards the appearance of your genitals, their smell, etc.

Website showing different examples of vaginas:
http://dodsonandross.com/blogs/carlin/2010/05/bettys-vulva-illustrations

SESSION 4 HANDOUT #2

Body-scan (Adapted from Jon Kabat-Zinn's technique in Full Catastrophe Living)

Goal of this exercise: The goal of this exercise is two-fold. First, this exercise will help you to get in touch with your body, to learn to attend to its sensations and feelings, and to learn to be mindful and accepting of those sensations, in a non-judgemental manner. The second goal is to practice the act of being mindful, which is a form of relaxation. By scanning your body using the script below, you will learn to focus on each body part so that it can relax, with the ultimate benefit of leaving you completely relaxed as well. Body scan relaxation is another technique for bringing about a 'relaxation response'.

In this meditation you simply notice the feelings, you become aware of them. You do not try to actively change them. They will relax on their own. You will see at the end of the relaxation session that you may feel a stress/anxiety/pain relief anyway simply because this is a desired after-effect of the body scanning relaxation

How do I do it?

It is recommended that you practice the body scan once per day. Ask your partner to read the instructions to you at a pace that allows you to attend to each part of your body. You and your partner may want to make a recording of the instructions below. Eventually, you will be able to practice the scan without the instructions.

Find a comfortable space, and lie on your back. You may choose to turn off your phone. You may use a yoga mat or a camping air mattress. The aim is to be comfortable, but not to fall asleep during the exercise. Make sure you are warm enough. You could use a blanket if you like.

1) **Calmly let your eyes close.**
2) **Tune into the feeling of your breath as your abdomen rises and falls with your inhale and exhale.**
3) **Attend to your whole body in its entirety from your toes to the top of your head. Feel the sensation of your body's weight pressing against the floor.**
4) **Focus your attention on the toes of your left foot. While you are bringing your attention to your toes, direct your breathing toward your toes as well, so that your breath is flowing in and out from your toes. It can be helpful to imagine your breath flowing or traveling from your nose through your body to your toes and back.**
5) **Let yourself feel the sensations from your toes. If you find that you are not feeling anything, accept "no sensation" as the sensation.**
6) **Once you are ready to direct your breath and attention to the next part of your body, take a deeper breath all the way through your toes and bring your attention to the arch or sole of your foot. As you exhale this breath, allow the sensation from your toes to dissolve in your mind. Continue your breathing through each part of your body as you scan up through the top of your foot - - your heel - - your ankle. Observe your experience of the sensation as you breathe through each body part.**

7) **As you come to each region, breathe with that region and let go as you transition to the next region.**
8) **If your attention has slipped elsewhere, focus your awareness and mind to the target body region. This will happen from time to time.**
9) **Move slowly up your left leg (ankle - - calf - - shin - - knee - - your upper leg - - your inner thigh - - your genitals - - your buttocks - - the base of your spine - -your lower back - - your abdomen - - your rib cage - - your chest - - your breasts - - your upper back - - your shoulders. Take the time to direct your attention to the fingers of both arms, and move up your arms simultaneously, tuning into the sensations of your wrists - -your forearms - - your elbows - - your upper arms - - your armpits, your neck - -throat - - your jaw - - your cheeks - - your nose - - your eyes - - your brow and the top of your head.**
10) **The final step is to breathe through the top of your head through your whole body. Tune into your whole body, and take note of the sensations as they occur of their own will. Remember you are whole, and breathe through these sensations. When you are ready, take a moment to lay still in the silence and calm. You may feel as though your body has melted away. When you are ready, return to your body as a whole. Intentionally and slowly move your hands and feet. You can even massage your face lightly before opening your eyes.**

*** *If you are feeling pain, attend to the sensation of the pain as you attend to other regions, breathe through it, accept the sensation and let go as you transition your attention back to where you left off in the scan. If your pain continues to pull your attention away, be aware of it, and continue re-focusing your attention to your continued scan.*

*** If you still have trouble staying awake during this exercise, try doing the body scan with your eyes open.

If you prefer to use a pre-recorded version of this exercise, please visit this website:

http://rodalebooks.s3.amazonaws.com/mindfulness/02%20Meditation%202%20-%20The%20Body%20Scan%201.mp3

Material covered in Session 5

- ❖ Review of homework
- ❖ The role of anxiety/anticipation in pain and sex
- ❖ Discussion: Attitudes towards genitals for him and her and ways to approach

Homework:
Kegel exercises (discuss with partner)

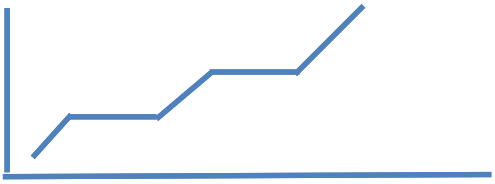
Review of homework
The therapist may want to check in with the couple's experience during the Pain localization and discomfort desentization exercise. She will ask, "What emotions did they experience? What did they learn from this experience?" The therapist will also review other homework exercises with the couple, such as the body-scan. She will continue to problem-solve with the couple if they are finding it challenging to accomplish homework exercises during the week.

The role of anxiety/anticipation in pain...and sex
As highlighted last session, pain, as well as cognitive and emotional processes such as anxiety and anticipation can influence all phases of sexual response. The therapist will capitalize on the previous discussion to highlight how anxiety and anticipation of pain can impact upon the couple's sexual experiences. The therapist will explain how the anticipation of pain leads to anxiety which in turn inhibits arousal and can contribute to involuntary muscle contraction. Both of these things lead to more pain. Moreover, excitement about sex can quickly turn into inhibitory excitement, sometimes depleting one's libido and making it difficult to tap into pain management techniques like breathing and relaxation, and the pleasure associated with sexual activity.

If the therapist is aware of a history of trauma, or suspects a history of trauma for either member of the couple, she should exercise a mindful sensitivty throughout this discussion, with validation that trauma (abuse, coercion, or emotionally negative experiences with sex) may also contribute to anxiety and apprehension about sexual activity, even when that activity is now happening with a loving and safe partner. Understanding what has not been great about sex, if this is the case, will help create a clearer picture about the role of anxiety, anticipation, and apprehension.

The therapist can ask some of the following questions to both members of the couple, to guide the discussion: "How has pain contributed to your anxiety about sex and visa versa? What are your anxieties as they relate to sex? How do they influence the way you approach sex?" The therapist will help the couple link their pain, emotions, thoughts and behaviors using emotionally-focussed questions and techniques. She will explore emotional connections by highlighting the dynamic that might play out between the partners (e.g., "If we were to "unpack" that emotion of anxiety, or in other words, look deeper into the emotional reaction to see what other emotions are involved (e.g., sadness, frustration), what might we find? What's happening for you in that moment? And, in this moment, how are you experiencing sharing how you feel? And John/June, what's happening for you when Mary feels this way?").

It is likely that avoidance of sexual activity will be raised as part of this discussion, or at a later moment for the couple. Avoidance as a coping mechanism does not allow the person avoiding to address the unpleasant experience, and therefore it can take more and more space, rather than less. The therapist could even draw the following diagram for the couple – as anxiety increases, we engage in avoidance, which can level it off, but it never decreases, but keeps creeping up. This explanation helps illustrate how avoidance is not adaptive in terms of coping over the long term.



The therapist will encourage each person to speak directly to their partner, to avoid the passive voice and to explicitly state their emotions out loud in the first person (i.e., using the word "I"). For example, if the woman says "I feel on edge, and all closed up, like I don't want him to touch me at all". The therapist will say "Can you say that to John/June directly?" The goal is for woman to say, "John/June, when we start being sexually intimate I feel on edge, and closed up. I feel like I don't want you to touch me at all." Then the therapist will ask how the woman feels in this moment. It is likely that sharing her emotions directly will conjure up the same feelings of anxiety. The therapist will ask the partner to describe his or her reaction in that moment when the woman is "on edge". The partner may offer how he or she reacts to Mary not wanting to be touched, and may offer reassurance because he or she realizes she is feeling anxious, or another reaction. The idea is to move back and forth between the emotional reactions, and to deepen the understanding and communication between the couple.

Discussion: Attitudes towards genitals

As a continuation to the above discussion, the therapist can introduce the concept of one's own attitudes towards genitals as another contributing factor to sexual function. By opening this topic, the couple remains in exploration of their understanding of sexual function and their shared sexuality. The therapist can tie in the importance of this discussion with the pain localization exercise, and the images that were provided as part of the website on that handout.

"Attitudes towards genitals is an area of focus when a sexual dysfunction is present. It refers to how we feel and what we think about our genitals. Both female and male genitalia come in all shapes and sizes, with different amounts of pubic hair, different symetry, and different smells. Some people are more comfortable with their genitals than others, and some have never taken the time to look at their own genitals. Sometimes we don't know how to feel because we have never really thought about it or taken the time to look that closely. If I ask you now to reflect on all this, how do you feel about your genitals? How might your feelings about your genitals affect your pain and ability to enjoy sexual activities?"

The therapist will connect negative feelings about genitals to anxiety and thus pain as per the biopsychosocial model. "Women and men with sexual problems can sometimes feel betrayed by

their vagina or penis, because they may feel that things aren't working as they should be. But you are not your genitals, no more than you are defined by knees, elbows, or hands. Having a positive attitude towards one's genitals is like having a positive attitude towards one's body, it will help contribute to a sense of comfort and confidence, which may translate into increased sexual satisfaction and decreased pain (e.g., via enhanced ability to communicate with partner about sex).

This can become an emotionally-charged discussion for some couples, and the therapist should quickly defuse negative comments by asking for more sensitive re-framing, helping the clients unpack the negative feelings. In this instance, interrupting the member of the couple expressing negativity can help the therapist maintain a safe discussion for the couple.

Homework:

Kegel exercises (discuss with partner)

Kegel exercises

The therapist will introduce Kegel exercises for the woman, and provide her with a copy of the handout. The therapist can link Kegel exercises to the importance of connecting with or tuning into one's own body, and being mindful. Research has shown that the anxiety associated with anticipated pain can cause contraction and tensing of the vaginal muscles upon attempted intercourse, and that the pelvic muscles may even be more tense at rest. Together, these factors are associated with more pain. The therapist will suggest that the woman practice the contraction/relaxation exercises for 5 minutes each day. She will take a moment to ask the woman if there are any problems with this homework, and to explore potential solutions.

Study-related issue:

The therapist will have each participant fill out a homework compliance form.

SESSION 5 HANDOUT #1

Kegels

Goal of this exercise: The goal of this exercise is to increase your control over the muscles in your vagina so that you can relax them completely during intercourse and do this despite of the pain. When you involuntarily contract those muscles, it contributes to increasing the pain intensity. It is thus very important to learn to relax those muscles.

How do I know which vaginal muscles to focus on?
To make contact with your vaginal muscles, try stopping the flow of urine the next time you go to the washroom. The muscles that will enable you to do this are the muscles that circle your vagina and urethra; these muscles are the ones you'll be working on during the Kegel exercises.

Instructions
1. Choose a moment during which you know you will not be disturbed. If necessary, unplug the phone or leave the answering machine on. To feel more at ease, you can also choose a room where you can lock the door.
2. If the idea of doing this exercise makes you a bit nervous, engage in another activity that usually helps you to relax (e.g., diaphragmatic breathing, breathing with your partner, play calming music, take a bath)
3. Kegel exercises are easy to do. Here are the steps:
    a) Start by engaging in diaphragmatic breathing for a few minutes
    b) Contract your vaginal muscles, and hold the contraction for 5-10 seconds (count the seconds if you don't have an appropriate watch).
    c) Then relax the muscles for the following 10-20 seconds.
    d) Keep alternating this way between the contraction and the relaxation up to a **sequence of 10 contractions-10 relaxations**. Relaxations should be twice as long as contractions.
    e) Practice **one sequence of Kegel exercises per day**.

Important: If you feel pain during the exercise, note it in the Pain Journal, just as for any other activity.

Talking with your partner: We encourage you to talk to your partner about how you find the Kegel exercises. What are your reactions? What have you realized about your body following the exercises?

Material covered in Session 6

- ❖ Review of homework
- ❖ Discussion and psychoeducation: Role of the partner and partner responses in women's pain experience and sexual satisfaction
- ❖ Discussion: **Partner and woman** responses in relation to sexual satisfaction
- ❖ Continuing communication and facilitating the quality of the relationship (e.g., brief communication skills training)

Homework:
Giving and receiving (Step 1 – Relaxing together and non-sexual massage)
Disclosing favourite intimate moments (sexual intimacy)

Review of homework
The therapist should ask the couple how they experienced the homework exercises from the previous session. The therapist should always be looking for ways to help couples overcome challenges to homework, but may need to remind couples that the homework exercises are theirs to use as they please. For example, if they have not completed the homework exercises, they should not feel they are not prepared for therapy.

Discussion and psychoeducation: Role of the partner and partner responses in women's pain experience and sexual satisfaction
The therapist will explain to couples that in addition to pain being influenced by thoughts, emotions and behaviors, that it can also be influenced by the social context or interpersonal factors. Research from the past few years has started to assess the partner's experience, and has suggested that partner's experience psychological distress as well, depending on how they perceive the woman's pain. She will explain that research with chronic pain patients, and also with women with PVD, has shown that the way the partner responds to the person with pain can lead to higher and lower reports of pain, as well as psychological and sexual outcomes like changes in anxiety and depression and sexual satisfaction (Boothby, Thorn, Overduin & Ward, 2004; Cano, Gillis, Heinz, Geisser & Foran, 2004; Rosen, Bergeron, Leclerc, Lambert & Steben, 2010). At the same time, it is important to know that partner responses can also be extremely helpful! One study reported that women who experience pain during intercourse list an understanding partner as the most helpful component when emotionally coping with vulvar pain (Gordon, Panahian-Jand, McComb, Melegari & Sharp, 2003). The therapist will exercise sensitivity when explaining this to the couple so as not to lay blame or guilt on the partner. One way to help present this information is to mention that the woman's own way of responding to her pain is important, and that responding to pain by her and her partner interact with one another. Responses to pain are behaviors and communications, and just like any other behavior and communication it is important to understand their intention and our own reactions.

Before explaining the different types of responses identified in the scientific literature, the therapist will ask the couple about the ways they **each** respond to the woman's pain during or after intercourse. Pain responses may include active and passive behaviors (e.g., getting more lubricant, hugging/kissing, switching to non-painful sexual activity, turning over in bed, etc.) and

verbal expressions (e.g., expressing frustration, offering comfort, asking how he can help, etc.). The therapist can ask the couples what they believe is the impact of the various types of responses on the woman's pain, on the sexual interaction, and on both of them in terms of emotional reactions. The therapist will also ask the woman about her perceptions of partner responses and how she responds as a result; **highlighting the interaction between each person's responses**. This is intended to facilitate open-ended responding.

Research regarding partner responses to PVD
(Research information for the clinician)

Consistent with data from the chronic pain literature, women who perceived their partner as responding to their pain in a highly solicitous manner (concern, attention, support) or as high in negativity (aggression, hostility and resentment) reported higher pain intensity during intercourse in a small cross-sectional investigation (Desrosiers et al., 2008). An examination of partner responses from the perspectives of the woman and her partner found that greater solicitous responses, as perceived by women and partners, were associated with greater vulvo-vaginal pain intensity (Rosen et al., 2010). Rosen and colleagues (2010) suggest that partner solicitousness may result in avoidance of sexual intercourse. Avoidance as a coping mechanism can increase cognitive-affective factors such as catastrophizing, anxiety and hypervigilance, which are associated with increased pain intensity (Gates & Galask, 2001; Payne et al., 2005; Rosen et al., 2010). Greater negative responses and greater solicitous responses were also associated with higher sexual satisfaction in women. Negative partner responses may signal a lack of sensitivity and understanding of the pain, whereas solicitous responses signal the opposite. In this way, partner responses affect the interpersonal environment in which the sexual activity occurs, and consequently the sexual satisfaction.

Another type of partner response, facilitative responses, are thought to decrease avoidance of painful activities and negative cognitive-affective factors associated with pain (Rosen et al., under review). Facilitative responses include encouraging the patient's adaptive coping strategies (Schwartz, Jensen & Romano, 2005). Higher facilitative partner responses, among couples with PVD, are associated with lower pain, as well as higher sexual satisfaction when controlling for sexual function, trait anxiety, and frequency of pain-related and sexual behaviors (Rosen et al., under review).

The therapist will explain that just as one's own responses (thoughts, anxiety, anticipation) about the pain can intensify or lessen the pain we experience, the partner's responses to pain and painful sex can impact upon pain intensity and sexual satisfaction. The response styles that have been most studied among women with PVD are solicitous and negative responses, and more recently facilitative responses. Solicitous responses include those that demonstrate an exaggerated level of concern, attention and support. Negative responses include hostility, criticism and resentment. Both greater solicitous and negative responses are associated with greater pain reported during intercourse. It has been suggested that solicitous responses might

encourage avoidance and increase catastrophizing about the pain. Facilitative responses are those that encourage adaptive coping with the pain. Higher facilitative responses are associated with lower pain and higher sexual satisfaction. Therefore facilitative responses are supportive in nature, but they are distinguished from solicitous responses because they help encourage adaptive coping or adaptive ways of approaching the pain, rather than avoidance (which tends to be associated with more pain). The therapist will ask the couple to reflect on and identify their own experiences with partner responses to pain, as well as how the woman responds to her own pain.

Using previously established strategies which focus on affect, the therapist will facilitate a discussion about how partner responses may **encourage** or **discourage** avoidance of sexual activity, but also intimacy in general, and **reinforce** or **help correct** cognitive appraisals of the pain (e.g., catastrophizing, self-efficacy) that in turn heighten pain. The therapist will also explore what types of partner responses have **validated or invalidated** efforts on the woman's part, and what were the consequences of these responses for both partners. Here, validating the effort refers to supporting, encouraging or rewarding the effort (e.g., with praise or affection), whereas invalidating would refer to undermining or discouraging the effort (e.g., with criticism). The therapist will introduce the idea that each person's reaction can lead to cognitive-affective and behavioral reactions in the other, initiating a vicious cycle, and will explore the consequences of each person's reaction. She may wish to refer back to the biopsychosocial diagram of PVD pain to illustrate this cycle and the role of partner responses. How does the woman's responses to her own pain (e.g., crying, anger, avoidance, apologizing, etc.) impact upon her partner's sexual and emotional experience? (E.g., How do you typically react to your own pain? What happens for you [the partner] when she feels this way/reacts this way?). The therapist should highlight that the various partner responses may occur on different occasions, and it can be helpful to identify patterns so that we can work on increasing helpful responses and decreasing harmful ones (e.g., patterns of responses may change when it has been a longer time between sex, or when sex is on a special occasion, or depending on who initiated sex, etc.).

Discussion: <u>Partner and woman</u> responses in relation to sexual satisfaction
Continuing with the previous discussion about partner responses, the therapist will remind couples of the types of partner responses already mentioned (e.g., facilitative, solicitous and negative), and ask the couples to discuss how they have experienced partner responses in relation to sexual satisfaction. For example, how do they believe partner responses (and the woman's responses) have influenced their sexuality and sexual satisfaction? The focus of this discussion will be the impact of one's reactions and responses on sexuality and sexual satisfaction, and not the impact of the pain itself.

Continuing communication and facilitating the quality of the relationship (e.g., brief communication skills training)
The therapist can inquire about ways in which the couple communicates about the pain and the areas of difficulty. If not already done in earlier sessions, she can then teach them basic communication skills such as how to broach highly charged topics. For example, **when** to say something (e.g., reserve a time slot in advance so as not to take one's partner by surprise), or **speaking from the "I"** and **stating one's own feelings**. The therapist can help illustrate by taking from previous exchanges she has facilitated with the couple, pointing to the importance of speaking about how one feels in the first person without blaming the partner.

She can discuss the disadvantages of not saying what is on their mind (e.g., if they say to their partner two years down the road that they do not enjoy some sexual behaviour or way of approaching sex that has been present all along, the partner may be more upset than if they say it the first or second time he does it). Finally, the detrimental effects of avoidance can be highlighted (i.e., the less you talk about it, the bigger the problem becomes, and the harder the solutions are to implement because of the accumulated resentment that needs to be worked through).

Homework:

Giving and receiving (Step 1 – Relaxing together and non-sexual massage)
Disclosing favorite intimate moments (sexual intimacy)

Giving and receiving - an activity for both partners
The therapist will provide the couple with the Giving and Receiving handout. She will explain the rationale for the exercise, and will suggest that the couple try Step 1 this week. This exercise presents an opportunity to be mindful, and the therapist will explain how to approach mindfulness during giving and receiving. She will also go over how to provide feedback to each other. She will remind the couple that mindfulness refers to paying attention to the moment, and what is being felt during that moment (see page 19 for the previous description of mindfulness). For certain couples (e.g., those with histories of trauma, suspected trauma, or couples in which the therapist assesses trust to be low or easily threatened), the therapist may suggest certain safe zones as part of this exercise. For example, the therapist can work with the couple to make this a safe exercise by checking in with both members of the couple about how they feel about the exercise and creating zones of the body which are "safe" to touch, and which ones should remain "off the menu" for the moment.

Disclosing favorite intimate moments (sexual intimacy) - an activity for both partners
In preparation for the next session's discussion relating to sexual communication, the therapist will suggest that the couple take 15 minutes during the next week to take turns disclosing their favorite intimate moment to one another. This could be anything from the first time they held hands to the first kiss, or to a time when they felt strongly desired by the other, or felt strong desire for their partner. It could be a particular sexual encounter. It can be more sexual or less. The goal is to communicate their favorite moment, and to share why this moment stands out for him or her.

Study-related issue:

The therapist will have each participant fill out a homework compliance form.

SESSION 6 HANDOUT #1
Giving and receiving pleasure

Rationale: The purpose of this exercise is to increase your awareness of what feels pleasurable to you and your partner while going at your own pace. The goal is to improve your skills at guiding each other toward what feels good for both of you. A secondary goal is to practice the skill of being mindful. Mindfulness refers to being present and purposeful in one's experience in a way that allows one to pay attention to the moment, and what is felt, thought and experienced in that moment. Part of being mindful is paying attention to any interfering, distracting, thoughts as they come into your mind, acknowledging those thoughts, but then redirecting your attention back to the present experience.

How do we do it? Choose a time when you will not be disturbed. It can be helpful to set up the right environment, perhaps by lighting candles, playing soft music, taking a bath, engaging in some tantric breathing with one another, or whatever else makes you feel relaxed and comfortable. It is recommended that you should both undress.

One partner – the receiver – lies down on a bed in a comfortable position, on his or her stomach, back or side. The other partner – the giver – will take the role of the "toucher". For each step, the partners will switch positions. In other words, you and your partner take turns giving and receiving pleasure. Try spacing the steps out over the course of next couple weeks, but set aside enough time so that both partners give and receive on each occasion.

<u>Steps</u>

1) Non-erotic massage, no genital touching
    a. The giver should not try to sexually arouse the receiver. The giver should focus on exploring, touching many parts of the receiver's body, noticing the various textures and sensitivities.
2) Touch/massage including some erotic/genital touching, but focus still on sensations and arousal, not orgasm or sexual performance
3) Touching in an erotic way for sexual pleasure, including orgasm if desired. Couples can also experiment with mutual touching at this step.

Being mindful: Pay attention to the moment, what you are experiencing and thinking. Acknowledge your thoughts, distracting and otherwise. Once you have acknowledged the thoughts, let them pass, and bring your attention back to your experience. Continue to be mindful of the sensations, emotions, and thoughts relevant to the present experience.

This exercise does not include sexual intercourse. You and your partner can of course choose to engage in intercourse or sexual activity whenever you like during the week, but you are encouraged to refrain from intercourse when you are doing a step from this exercise so that you can focus specifically on giving and receiving pleasure.

Important: At each step, the receiver should make suggestions to the giver, telling their partner what feels good and what is uncomfortable. The giver should also remember to ask for feedback from the receiver.

Material covered in Session 7

- ❖ Review of homework
- ❖ Psychoeducation and discussion: Sexual communication
- ❖ Discussion: Defining/redefining the sexual narrative in the context of pain, and "Outercourse"

Homework:
Relaxation breathing with visualization and dilatation
Involving the partner in dilatation exercises

Review of homework
The therapist will take a few minutes to ask the couple how they experienced the Giving and Receiving exercise from last session. What were their reactions? How did the exercise make them each feel? How did they experience being mindful of what they felt and thought during the massage?

Psychoeducation and discussion: Sexual communication

"Sexual communication pertains to the way we communicate our sexual desires, need, likes, and dislikes with our partner. It comprises how we talk about sex when clothed, and during the throws of sexual activity. It has to do with how we talk to one another about sex, and during sex. Is sex something you normally discuss? If so, what does a typical conversation look like? How do you wish it looked? What are some of the things that stop you from talking about sex with your partner? What helps you to feel more comfortable to speak about sexual matters with one another?"

Discussion: Defining/redefining sexual narrative and schemas in the context of pain, and 'Outercourse'
"Sometimes there's a divide between couples because of the way they see themselves in the sexual relationship (Perel, 2006). She might say, I'm an emotional person and I need to feel connected before having sex. (He) might say, I'm more physical and I express my connectedness through being sexual. Or, vice versa. And these differences can contribute to sexual problems. Sometimes having an open conversation about how you see yourself sexually can be illuminating and help bridge a divide that you perceived to be there, or help demystify one that was never really there. Our sexual schema is defined as the way we think about the sexual aspects of ourself. A sexual schema is formed through previous experience and plays out in our current sexual experiences by determining how we interpret sexual information and how we behave sexually (Andersen & Cyranowski, 1994; Andersen, Cyranowski & Espindle, 1999). If I were to ask you each how you see yourself sexually, what would you say (e.g., romantic, adventurous, conservative, timid, etc.)? How do you each view your partner? The therapist will ask the partner to describe reactions to the other person's sexual schema. How do you think your schemas affect each other (do they work against or with each other)? How can we bridge the gap between the two?

The therapist will be building upon the couple's previously stated sexual narrative, or idea of what sex includes. Intercourse is often where couples experience difficulty during sexual activity. Outercourse includes sexual activity other than intercourse. It includes foreplay, carressing, heavy petting, kissing, manual sex such as mutual masturbation, oral sex, etc.

What are non-penetrative sexual activities that they each enjoy? What comes to mind when you think of a sexual encounter that doesn't include intercourse? The therapist will examine myths or perceptions of what it means to the couple to have a sexual relationship that focuses more heavily on outercourse. For example, some myths include that outercourse is reserved for a period of time in the relationship where they were not ready to engage in intercourse, that it does not constitute sex, or that it cannot be pleasurable as intercourse. Other myths and themes may relate to how the couple approaches sexual activity

Other pertinent notions or themes to discuss with the couple during the 'outercourse' intervention are listed below, and discussion of these themes may depend on what has been previously discussed with each couple.

- **"Spontaneous vs. planned sex":** Couples may complain that they find it less sexy (or exciting) when they have to plan sexual activity. If this is the case, the therapist can explore what "spontaneity" means to the couple, and what "planning" seems to take away from their shared sexual activity. Alternatively, she can also see if there times when planning helps build excitement. It may be helpful to nuance previously established beliefs about "spontaneous sex" by exploring the types of planning that were utilized when they first started having sex (e.g., going on dates, shaving one's legs, getting waxed, bringing a condom, having mints or gum for one's breath, etc.), and how these differ with current scheduling challenges. Some couples may discount things they did in the past that helped enhance desire, arousal, and excitement (e.g., texting sexy innuendos, holding or touching hands, romantic date planning). It might be that couples discount these acts because they were not paying close attention to these efforts as a "means to an end", or were not anxious or pressured that these acts lead to sexual intercourse necessarily. The pressure of wanting to specifically achieve sex, in addition to the inhibiting factors associated with pain, and the fear of pain may make it more difficult for couples to engage in planning, or may make the types of planning different than how they planned in the past. The therapist should validate the experience and feelings shared by the couple, and explore ways in which less pressured/goal-directed, and more mindful approach might help the couple become reacquainted with simmering, flirting, setting the mood, arranging for a baby-sitter so that they can go out on a date, etc. The goal of this discussion can include helping "planning" become fun and exciting for the couple, rather than another "chore" for them to tackle.
- **"Simmering":** Many couples will talk about the novelty and excitement foreplay (or outercourse activities) held at the beginning of their relationship, before they started having sexual intercourse. While novelty, nervousness, and initial exploration of their shared attraction helped contribute to the excitement, "simmering" may have also played a role. In that sense, the couple may not have let things heat up too quickly, or would have cooled things down when they got too hot so as not to rush their sexual activity. The therapist can ask couples if this resonates with their experience, and if they think it may be helpful way to approach their outercourse so that it does not seem like a step backwards, but another way to keep the fires burning (so to speak).

- **Adequate duration for sexual intercourse:** A study by Corty and Guardiani (2008) quantified the opinion of expert sex therapists in North America and determined that, despite what is depicted in films, sit-coms, and mainstream erotica, "adequate" sexual intercourse has a duration of 3 to 7 minutes, with "desirable" durations lasting between 7 and 13 minutes. Many couples are surprised to hear this, and this is a great opportunity to discuss other pressures the partner and the woman may each feel in terms of sexual activity. In terms of the PVD pain and in line with the previous discussion of "outercourse" options, the therapist can discuss with the couple the idea of decreasing the amount of time they focus exclusively on sexual intercourse.
- **Orgasms are orgasms, simultaneous or not:** Some couples (or one member of the couple) will think that the most ideal way to achieve orgasm is together, simultaneously, and during sexual intercourse. While this is often how the media portrays sexual climax, there is no one ideal that applies to everyone. For example, some people (men and women alike) prefer to be part of the other's orgasm (as the "giver" and "witness"), and then to feel more free to focus on their own pleasure. Simultaneous orgasms are not a myth, but are certainly not the norm for many couples. The therapist should encourage pleasure-focused activity, and continue the dialogue regarding "outercourse", pressures the couple may feel, and problem solve with the couple in terms of addressing these sexually-related pressures. A continued discussion of what it means to be the giver of pleasure, and receiver of pleasure may also be pertinent at this time.

Homework:

Relaxation (deep breathing) with visualization and dilation exercises Involving the partner in the dilation exercises

Relaxation with visualization and dilatation exercises
The therapist will ask the woman with PVD to do her breathing exercises and to imagine or visualize penetration. The goal of this activity is to pair the idea of penetration with the relaxation response. The therapist will provide coping statements and suggestions for muscular and cognitive reactions to imagined penetration.

Vaginal dilatation
The therapist will explain that the goal of dilatation is (1) to desensitize oneself to the association of 'something inside the vagina equals pain' and to get acquainted with the feeling of having something inside the vagina while not experiencing any pain and while in complete control of the situation, and (2) to accomplish this in a **progressive** approach. Progressive increase (slow and steady) is an important component of this exercise. The therapist can also refer back to the gate-control theory of pain, that by progressive exposure to "something inside he vagina" can help them slowly and safely approach the cues that might normally open the pain gate. The therapist will suggest that the woman try the visualization exercise before trying the dilatation. The therapist will ask the woman to do this type of exercise once a day, preceded by a relaxation exercise. Insertion should ideally be about 2 inches deep, but may start with less, depending on the woman's current level of pain and readiness for this exercise. She may use lubricant to facilitate insertion, and she may start with a cotton-swab if a finger is too difficult. As she develops more comfort, she can use other objects if she likes (carrot or zucchini covered with a condom), or proceed with her fingers and her partner's. Provide them with the handout and

highlight the suggested progression of dilatation, which includes the partner. The therapist will ask if she and her partner envision any potential problems? Can they think of solutions?

Study-related issue:

The therapist will have each participant fill out a homework compliance form.

SESSION 7 HANDOUT #1

Dilatation

Goal of this exercise: The goal of this exercise is to desensitize yourself to the association of 'something inside the vagina equals pain' and to get acquainted with the feeling of having something inside the vagina while not experiencing any pain and while in complete control of the situation.

General instructions

- Choose a moment during which you know you will not be disturbed. If necessary, unplug the phone or leave the answering machine on. To feel more at ease, you can also choose a room where you can lock the door. If the idea of doing this exercise makes you a bit nervous, take a bath before starting, or engage in another activity that usually helps you to relax.
- Practice **one dilatation exercise per day**. The sequence of exercises will serve as a model, although you will not always necessarily follow it precisely.
- As is evident by the sequence and the fact that you must do one exercise a day, you will often repeat the same exercise two or three days in a row, which will enable you to master it well.
- When you feel that you have mastered a given exercise, go on to the next one. You may progress slower or faster than the model sequence. Go at your own pace, making sure that you practice one exercise a day.

Instructions for dilatation exercises

- First, do the breathing/relaxation exercise.
- Then do a dilatation exercise, starting with exercise 1 (insertion of your smallest finger).
- Once you have succeeded in inserting the finger, keep it inserted for about 5 minutes, continuing to take deep breaths.
    - You might not succeed right away. If you can't insert your finger, just touch the entry of your vagina with the tip of the finger. You can try inserting it farther the next time you do the exercise.
- Observe how you are feeling (anxious, frustrated, tired, etc.). Don't hang on to those emotions; concentrate on your breathing.
- If you feel pain during the exercise, note it in the Pain Journal, just as for any other activity.

Gradation of dilatation exercises

This is a guide to progressing through the exercises. Remember to go at your own pace!

1. Insert smallest finger alone
2. Insert second smallest finger alone
3. Insert third smallest finger alone
4. Insert index or middle finger and move around gently
5. Insert partner's smallest finger yourself
6. Insert partner's index finger yourself
7. Have partner insert his index finger
8. Insert 2 of your own fingers alone
9. Have partner insert his index and move around gently
10. Have partner insert 2 fingers
11. Insert 2 fingers alone and move around gently
12. Have partner insert 2 fingers and move around gently
13. Insert penis yourself with no thrusting
14. Have partner insert penis with no thrusting
15. Attempt gentle thrusting, indicating to your partner what kind of thrusting hurts less

Material covered in Session 8

- ❖ Review of homework
- ❖ Discussion: Problem solving – what's working and what's not working
- ❖ Psychoeducation and discussion: Facilitating sexual desire and arousal
- ❖ Introduction: Cognitive defusion

Homework:
Facilitating sexual desire and arousal
Continuation of giving and receiving (Step 2 – Relaxing together and non-sexual massage)
Continuation of pain and sex journaling

Review of homework
The therapist should take a few moments to ask the couple how they experienced the homework exercises from the previous session. She will ask the woman if she attempted the dilatation exercises, and how they both feel about including the partner in the dilatation exercises.

Discussion: Problem-solving – What's working? What's not working?
Taking from previous discussions about how their sex life has changed since the pain started / over the course of their relationship, the therapist will assess and introduce and facilitate the idea of problem-solving for the couple. For example, have they started trying non-penetrative sexual activities? What changes or adaptations have they made? What adaptations have worked? Which haven't worked? What do solutions look like for the woman? For her partner? Have they come up with their own helpful ways of responding to the pain?

Psychoeducation and discussion: Facilitating sexual desire and arousal
Likely raised in previous sessions, many women report a decrease in desire and capacity to become aroused because they are anticipating the pain. The reverse is also true: the experience of pain leads to decreases in desire and arousal. Likewise, it is possible for the partner to feel a decrease in desire and arousal because of the negative associations (e.g., the woman's discomfort) with sexual intercourse. The therapist will ask the couple to think about ways to facilitate their desire for sex and she will help them make a list. In addition, she will ask them to also think about things that enhance their arousal and sexual excitement. If they are shy about this, she can start generating ideas herself (e.g., fantasy rehearsal, erotic material, discussing their frustrations with their partner in order to problem solve, setting the mood, lighting candles) and slowly bring them to do it themselves. She should use humour to dissipate their discomfort if any. She might also ask them to think about their entries in their Pain and Sex Journals by asking, "What ideas might those entries spark?"

How to facilitate desire and arousal

The desire and arousal discussions can be blended into one single discussion encompassing both dimensions. For some couples, discussions of desire may be more important, and for others it may be challenges to sparking and maintaining arousal that is more pertinent for discussion.

The therapist may refer back to models of sexual response and normalize the idea that desire and arousal may not be spontaneous, but may evolve and grow once sexual activity is initiated.

1) The therapist will ask the woman and her partner at what point during sex does the woman experience desire and/or arousal problems. The therapist will also ask the partner this question if the partner experiences desire and/or arousal problems. “Think back to those moments, what would help increase your desire and/or arousal?” The therapist will help by making the list, or taking notes. She will add some suggestions herself if necessary and discuss ways to implement these: What might prevent them from implementing those changes (e.g., the myth of simple, spontaneous sex)? How does the partner feel about the changes they may make in their sex life? The therapist will facilitate a conversation between the woman and her partner to discuss their feelings about these changes using previously developed techniques that centre on the clients’ emotions.

2) Could anything else besides anticipation of pain be inhibiting desire and/or arousal? The therapist can have them generate examples. For example, issues with receiving pleasure or being the focus of pleasure, feeling guilty that they have pain and that their partner has to put up with a "dysfunctional partner", difficulties in communicating preferences, especially regarding new ways to diminish or avoid the pain, focusing only on the partner's arousal, negative body image, etc. The therapist will help facilitate an exchange between the woman and her partner about these factors.

Introduction: Cognitive defusion of thoughts (ACT)
The therapist will introduce cognitive defusion, which is a method of working with preoccupying or maladaptive cognitions. Cognitive defusion relates back to the concept of mindfulness.

It is the process of recognizing thoughts as just that – thoughts. Rather than altering the content of the thought, cognitive defusion works to reframe the context in which one has the thought. The therapist can explain that defusion is meant to help address the thoughts that tend to hold us hostage and reduce their power to negatively affect our lives. For example, a negative thought could be watched dispassionately as it passes through the mind, repeated out loud until only its sound remains, or treated as an externally observed event by giving it a shape, size, color, speed, or form. A person could thank their mind for such an interesting thought, label the process of thinking (‘‘I am having the thought that I am no good’’), or examine the historical thoughts, feelings, and memories that occur while they experience that thought. Such procedures attempt to reduce the literal quality of the thought, weakening the tendency to treat the thought as what it refers to (‘‘I am no good’’) rather than what it is directly experienced to be (e.g., the thought ‘‘I am no good’’). Again, the idea is that thoughts are just thoughts. Cognitive defusion helps diffuse maladaptive thoughts of their power, lessening their ability to determine how we feel and act. The result of defusion is usually a decrease in believability of, or attachment to, private events rather than an immediate change in their frequency.

The therapist will ask each member of the couple to identify and share a thought related to the PVD pain, sex or their relationship that they believe might be problematic, or one that has been bothering them. She will help coach and guide the couple through this process (i.e., identifying thoughts that seem to take hold of them or preoccupy them). In particular, this might be useful for

thoughts like, “This is going to hurt.” and other thoughts that are realistic and true for the couple. The therapist can assure couples that identifying their thoughts can be a difficult process at first because thoughts are often automatic and quick that we may not be aware of them. Increasing our attention to thoughts is a first step to reducing their influence, and will get easier with time.

The therapist will encourage the couple to notice their thoughts over the coming week in preparation for beginning cognitive defusion in the following session.

Homework:

Try one thing from their list of ways to facilitate sexual desire and arousal Continuation of giving and receiving (Step 2 – Relaxing together and non-sexual massage) Continuation of pain and sex journals

Try one thing from their list of ways to facilitate sexual desire and arousal - an activity for both partners
The therapist will provide the couple with the list of ideas regarding desire and arousal developed during the session. As an exercise for the week, she will encourage them to select one of the ideas and try it out. She will ask if they foresee any problems, or if there are any activities that seem more feasible or more exciting to try.

Continuation of giving and receiving (Step 2 – Relaxing together and non-sexual massage) - an activity for both partners
The therapist will ask the couple to engage in the Giving and Receiving exercise again so that they can try Step 2. She will encourage them to engage in mindfulness during the exercise. For certain couples, it may be important for the therapist to remind them of their safe zones.

Pain and sex journal
The therapist will ask the couple to read over their pain journal entries during the next week and to bring their pain journal entries with them to the next session. She can point out that the journaling or reading of the journal may help them identify some of their preoccupying thoughts related to PVD pain, sex and the relationship.

Study-related issue:
The therapist will have each participant fill out a homework compliance form.
The therapist will confirm with the RA that the couple completed week 8 of CBCT. She can also remind the participants that they will have questionnaires to complete at home in the next couple days.

SESSION 8 HANDOUT #1

List of ideas to facilitate desire and arousal
(To be completed during the session)

Material covered in Session 9

- Review of homework
- Following up: Sexual desire and arousal
- Cognitive defusion intervention: Defusing negative thoughts, beliefs and cognitive distortions related to **pain** (catastrophizing, hypervigilance, attributions, self-efficacy, etc.), the **relationship** and **sex.**
- Psychoeducation and discussion: Attributions about pain
- Follow-up: Pain and sex journaling check in – Any revelations to share?

Homework:
Practice cognitive defusion

Review of homework
The therapist will check in with the couple about how they are experiencing the Giving and Receiving activity. How has it made them feel? What have they noticed? Have they run into any difficulty in trying it? If they have yet to try the activity, what could help them in trying? How did they experience practicing mindfulness during the actvity or exercise?

Following up: Sexual desire and arousal
The therapist will ask the couple to share their experience in trying one of their ideas to facilitate desire and arousal. How did it feel trying something from their list? What did they take away from trying something new? What are they taking away from this experience? How did applying arousal techniques work for the woman and her partner? Did they try any other items on their list and what was the outcome? The therapist can suggest more ways to increase sexual interest if these have not already come up (identifying sexual needs, reading and viewing erotic material, fantasizing, etc.). What might be preventing them from trying out some of the desire and arousal strategies that have been suggested? Why do the things they know about sexual pleasure suddenly become irrelevant when they start to feel the pain?

Research regarding pain-related cognitions
(Research information for the clinician)

Women with PVD report more catastrophizing about their pain (i.e., an exaggerated and pessimistic perspective) compared to control women reporting on other forms of pain (Pukall, Binik, Khalifé, Amsel & Abbott, 2002; Payne et al., 2007). Women with PVD also demonstrate higher levels of hypervigilance towards the pain when compared to a neutral stimulus (Payne, Binik, Amsel & Khalifé, 2005). In addition, women with PVD tend to exhibit increased catastrophizing over the negative pain-related consequences for their partner and relationship (Granot & Lavee, 2005). Higher levels of catastrophizing, and hypervigilance, as well as lower levels of pain self-efficacy (i.e., one's beliefs about one's ability to cope with the pain) have been found to contribute unique variance in predicting increased intercourse pain in women with PVD (Desrochers, Bergeron, Khalifé, Dupuis & Jodoin, 2009). Higher levels of pain self-efficacy were also found to be

significantly associated with better sexual functioning (Desrochers et al., 2009). Moreover, there is evidence of a prospective relationship between cognitive variables and PVD, where higher levels of pain catastrophizing and lower levels of self-efficacy were shown to predict worse treatment outcomes in a randomized trial evaluating cognitive-behavioral therapy (Desrochers, Bergeron, Khalifé, Dupuis & Jodoin, 2010).

Cognitive defusion intervention

The therapist will briefly re-explain cognitive defusion. "Our thoughts have a direct impact on the way we perceive and react to events that happen in our lives. Cognitive defusion is about learning to distance oneself from one's thoughts. The idea is to take a step back from one's thoughts so that they do not preoccupy us to the point of distraction or make us feeling trapped. Defusion allows one to perceive thoughts as simply thoughts, and as passing words or images. The therapist can use the following metaphors to help illustrate the process of defusion (i.e., the process of distancing oneself or detangling oneself from one's negative or burdensome thoughts): cars passing by a house or along a street, clouds moving in the sky, waves rolling into the beach, trains pulling out of the station.

The therapist can provide this rationale for defusion: "Changing how you interact with your thoughts is important because the way you react to your pain has a direct effect on how you perceive this pain. Unrealistic thoughts about pain, such as catastrophizing, are linked to higher pain intensity, among other reasons because they provoke anxiety and anxiety is related to increases in pain intensity. These maladaptive thoughts also limit adaptive coping and can even maintain unproductive interactions between partners."

The therapist will introduce the following exercise by explaining that the intention is to learn one way of taking a preoccupying thought, and taking steps to label it as a thought, and then taking steps to create some distance between them and the thought.

I'm having the thought that (adapted from Hayes et al., 1999; Harris, 2009)

1) The therapist will, in turn, ask each member of the couple to state a negative thought relating to the pain, sex, the relationship or her or himself in a short sentence. For example, "I'm not sexy because I can't have pain-free sex like everyone else."
2) The therapist will then ask the client to "fuse" with this thought for 10 seconds, encouraging them to get wrapped up in the thought. "This can be done by repeating it to yourself, or focusing on this thought. Get wrapped up in it."
3) Next, the therapist will ask the client to "replay" or repeat the thought with these words in front of it: "**I'm having the thought** that…" The therapist will say the sentence for the client twice to emphasize the difference. She will then ask the client to repeat it back to her, followed by another repetition. She will ask her or him to repeat it one more time to herself or himself.
4) Then the therapist will ask them to repeat the thought again with these words in front of it: "**I notice** that I'm having the thought that…" The therapist will use the same method listed in step 3 to help the client get wrapped up in the new phrasing of the thought, and thus defusing the original thought.

Following this exercise, the therapist will explore the client's experience with this exercise. For example, "What happened for you during this process? Did you notice any changes in your connection to or experience of the thought? Did you feel yourself get further from the thought?" The therapist may want to repeat the exercise with each member of the couple if there is time. The therapist will follow up with the couple after the exercise and ask if they believe they can apply this exercise outside of therapy. "When you have a negative thought, do you think you could use this technique to distance yourself from the thought?"

Psychoeducation and discussion: Attributions about pain

Research regarding attributions about PVD pain
(Research information for the clinician)

Researchers investigated male partners' attributions about vestibulodynia and found that partners who attributed the woman's pain to internal causes (e.g., personal responsibility) demonstrated lower dyadic adjustment and higher levels of psychological distress (Jodoin et al., 2008). Negative forms of attributional dimensions (i.e., internal, women responsibility, global and stable) along with higher pain intensity for the woman, were correlated with greater psychological distress in male partners. Partners who perceive the pain as a pervasive and long-lasting problem may be less likely to utilize healthy forms of coping, may feel more helpless in the face of their female partners' pain, and therefore are likely to experience more psychological distress (Jodoin et al., 2008). In a similar study examining women's attributions about their own pain, results indicated that the more women perceived their vulvar pain as external, global and stable, taken together, the more relationship distress they reported (Jodoin et al., 2011). Addressing one's attributions or beliefs about the pain may serve as an important pathway to lessening the negative consequences of chronic pain on romantic relationships. Internal and global (i.e., pervasive) attributions were associated with higher levels of dyadic adjustment, however, global attributions were also associated with greater psychological distress and lower sexual functioning (Jodoin et al., 2011).

The therapist will explore how each member of the couple views the pain, and to what they attribute the pain (e.g., the causes). What types of attributions has the woman made about her pain? And her partner? What do they believe causes the pain? Do they believe the causes are external or internal, or both? How do they expect the pain to change or not to change in the future? Does the pain affect all aspects of their life and sense of self, across all situations, or is it confined to certain aspects/situations? Why do they think it continues?

Causal attributions are how one explains the pain. These ideas may have already been raised in a previous session, however, the intention in this intervention is to highlight the impact these attributions can have. For example, the woman may perceive the PVD as all her fault, and therefore feel guilt, shame, or as though she is not a woman because of the loss and difficulty

associated with their sexuality. The perception of it being her fault can lead to negative feelings, which in turn can lead to a behavioral consequence such as avoiding sex (as per the CBT model). Some men feel responsible for the woman's pain, or perceive their partner as being "the problem". As part of this exploration, the therapist will explain that these are the attributions that each person makes about the pain. She will go on to explain that the attributions that one makes about the pain can influence the quality of relationship, pscyhological distress for both partners and sexual functioning for the woman. The therapist can link this information back to the biopsychosocial diagram as well as the CBT model to illustrate the impact of attributions on pain, sexual, relational, and psychological functioning.

How do these attributions affect how they feel? How do they influence their behaviour (e.g. avoidance)? How can these attributions be reframed?

The therapist will explain that negative forms of attributions can be problematic. For example, partner attributions that are internal, place responsibility on the woman, are global and stable are the types of attributions that are associated with more psychological distress for the partner. Whereas, the woman's attributions of the pain being external, global and stable (all at once) were associated with higher reports of relationship distress. The therapist can take some time with the couple to see if these elements are present in their attributions and continue re-framing with them.

Follow up: Pain and sex journaling check-in
In addition to using the pain journal entries in the previous discussion, the therapist will ask each member of the couple if the process of keeping a pain journal, or in examining the entries in their pain journal has contributed to any new realizations about the pain or if they have noticed any patterns with regard to their pain (e.g., context), thoughts, or behaviours?

Homework:

Practice cognitive defusion

Practicing defusion
The therapist will give each member of the couple a copy of the cognitive defusion handout. She will explain the rationale of practicing cognitive defusion. The therapist can explain that their experience in pain and sex journaling will help with this exercise in that it may have helped identify some of their negative thoughts. She will tell the couple to keep track of their experience with defusion using the provided grid during the week because they will discuss it next session.

Study-related issue:

The therapist will have each participant fill out a homework compliance form.

SESSION 9 HANDOUT #1

Practicing cognitive defusion

Rationale: Our thoughts have a direct impact on the way we perceive and react to events that happen in our lives. The means we use to cope with a given problem can modify our perception of that problem. For example, the way you react to your pain has a direct effect on how you perceive this pain. Thus, certain thoughts can take hold of us and keep us from doing the things we want to do, feeling good about ourselves and living our lives. Cognitive defusion is a technique whose goal is to help you distance yourself from your negative thoughts, and therefore cope more efficiently with the pain, thus enabling you to perceive it as less intense.

Instructions for defusion:

1) Take note of the negative thought.
2) Take note of the thought's form – is it made of words, images or sounds? By taking the time to consider the form of the thought, you are taking steps toward identifying the thought for what it is, a thought, and toward demystifying the thought and its power to preoccupy you.
3) Take a moment to thank your mind for the thought, even if it is negative. This helps remind you that the thought came from your mind, and is just a thought.
4) Try the exercise below. Keep in mind that structuring the thought into a simple sentence may make the exercise easier.

Below are the instructions for the exercise you tried during this week's session (from Harris, 2009). Remember to keep track of your experiences with these exercises. For example: How did they make you feel? What did you like about them? What did you notice during the process of defusion?

I'm having the thought that…

- Take the negative thought and put it in the form of a short sentence.
- Just as you did with the therapist during this week's session, "fuse" with the thought for 10 seconds. Get caught up in the thought. Repeat it to yourself. Focus on it.
- Now, to yourself, replay this thought with these words in front of it: "I'm having the thought that…" Replay this at least three times to yourself.
- And now, replay it again with these words: "I'm noticing that I'm having the thought that…"

SESSION 9 HANDOUT #2

Practicing cognitive defusion for the partner

Rationale: Our thoughts have a direct impact on the way we perceive and react to events that happen in our lives. The means we use to cope with a given problem can modify our perception of that problem. Our way of thinking can also influence our partner's experiences. For example, the way you react to your partner's pain can have an impact on your perception and her perception of her pain. Thus, certain thoughts can take hold of us and keep us from doing the things we want to do, feeling good about ourselves and living our lives, as well as impact upon our partner's experiences. Cognitive defusion is a technique whose goal is to help you distance yourself from your negative thoughts, and therefore cope more efficiently with the pain, thus enabling you to perceive it as less intense.

Instructions for defusion:

5) Take note of the negative thought.
6) Take note of the thought's form – is it made of words, images or sounds? By taking the time to consider the form of the thought, you are taking steps toward identifying the thought for what it is, a thought, and toward demystifying the thought and its power to preoccupy you.
7) Take a moment to thank your mind for the thought, even if it is negative. This helps remind you that the thought came from your mind, and is just a thought.
8) Try the exercise below. Keep in mind that structuring the thought into a simple sentence may make the exercise easier.

<u>Below are the instructions from the exercise practiced during this week's session (from Harris, 2009). Remember to keep track of your experiences with these exercises. For example: How did they make you feel? What did you like about them? What did you notice during the process of defusion?</u>

I'm having the thought that…

- Take the negative thought and put it in the form of a short sentence.
- Just as you did with the therapist during this week's session, "fuse" with the thought for 10 seconds. Get caught up in the thought. Repeat it to yourself. Focus on it.
- Now, to yourself, replay this thought with these words in front of it: "I'm having the thought that…" Replay this at least three times to yourself.
- And now, replay it again with these words: "I'm noticing that I'm having the thought that…"

Material covered in Session 10

- ❖ Review of homework
- ❖ Intervention and follow-up: Cognitive defusion revisited

Homework:
Continue practicing cognitive defusion
Continuation of Giving and receiving (Step 3 – Sexual touching and potential to focus on orgasm)

Review of homework
The therapist will check in with the couple about how they experienced the cognitive defusion exercises, and keeping track of these experiences.

Intervention and follow-up: Cognitive defusion revisited
The therapist will discuss the cognitive defusion exercise with the clients. Did they notice a distancing from their negative thoughts? What did this feel like?

The therapist will practice another defusion exercise with the couple. She will explain that this exercise is considered to be a mode meditative technique, and builds upon previous mindfulness strategies discussed during the course of therapy. The therapist will remind the couple that mindfulness refers to bringing awareness to one's thought and feelings, without trying to hold onto, reject them or judge them.

Leaves on a stream (from Harris, 2009)

1) Get into a comfortable position, and close your eyes or find a point to focus on.
2) Imagine yourself sitting by the water, by a gently flowing stream. Picture that there are leaves floating past along the surface of the water. The stream and leaves can look however you like. They could be autumn leaves that have fallen, or green leaves. (Pause for 10 seconds as the client develops her or his own image).
3) For the next couple of minutes, take every thought that comes to your mind and place it on a leaf floating along the water. Let it float away. Do this with every thought, whether the thought it positive or negative, pleasant or painful. (Pause for 10 seconds so he or she can start to picture this).
4) If the thoughts stop, just take a few moments to watch the stream in your imagination. Your thoughts will start up again. (Pause for 20 seconds).
5) Let the water move at its pace. Do not try to slow it down or speed it up. (Pause 20 seconds).
6) If you happen to be thinking that "This is stupid" or "I can't do this", I encourage you to place those thoughts on a leaf. (Pause 20 seconds).
7) You may find some leaves get stuck and do not float away as fast as others. This is ok. Don't force it to float away.
8) If you are feeling bored, or impatient, take those feelings and place them on leaves. Let them float on by.
9) You may notice that some thoughts are going to grab you and it will be harder to focus on the stream and the exercise. Just as with the body-scan, this is normal and will happen. When this

happens, acknowledge that you have been hooked by a thought and gently turn your attention back to the steam and the exercise.

Following the last instruction, the therapist will allow the clients a few minutes to continue imagining their stream. She will remind them periodically that it is normal for thoughts to grab their attention, and that as soon as they realize this and note it, that they should return their attention back to the exercise.

10) Now, we can bring the exercise to an end. Take your time in opening up your eyes, or sitting up in your chair. Take a moment to look around the room – welcome back.

In turn, the therapist will ask the clients how they experienced this exercise. What did they notice? What types of thoughts moved along the stream more quickly? Which ones tended to grab or hook their attention? Did they find themselves trying to speed up or slow down certain thoughts or feelings? What was it about those thoughts? During this discussion, the therapist will explain that this exercise was not about rushing to create distance between one and one's thoughts, but to experience a "natural flow" of her or his thoughts.

If the couple is struggling with defusion or the therapist believes that defusion is contributing to an increased focus on the thoughts, or a fusion with the negative thoughts, the therapist will explore this experience with them. She will identify "fusion" if it is occurring, and highlight the impact of one's thoughts (e.g., just how preoccupying some thoughts can be, or how much of our attention they can take). Following the exploration of the experience, she may suggest selecting a negative thought that has less charge and that can be phrased more simply as a means of practicing defusion.

The therapist will explore the following questions with both members of the couple regarding cognitive defusion: What were there reactions? What challenges did it pose? What did they like about it? Do they believe they will be able to use this strategy in the future? She will gently encourage couples by highlighting that similar to other mindful exercises, this strategy make time to learn and will take practice.

Homework:

Continue practicing cognitive defusion Continuation of giving and receiving (Step 3 – Sexual touching and potential to focus on orgasm)

Continue practicing cognitive defusion - an activity for both partners
The therapist will provide the couple with a copy of Session 10 Handout #1, which outlines the steps for the same Leaves on a stream intervention that was accomplished during the session. She will encourage them in taking turns walking the other through this exercise.

Continuation of Giving and receiving (Step 3 – Sexual touching and potential to focus on orgasm) - an activity for both partners
If the couple has not tried Step 3 of the Giving and Receiving exercise, the therapist can suggest that they take time to try Step 3 during the week. She can explore any concerns or challenges that they foresee with this activity. If the couple does not feel ready to try Step 3, the therapist will

suggest that they do Step 2 again, but explore reasons for avoiding Step 3 (lack or orgasm, discomfort with mutual pleasure, etc.) For certain couples, it may be important for the therapist to remind them of their safe zones.

Study-related issue:

The therapist will have each participant fill out a homework compliance form.

SESSION 10 HANDOUT #1

Leaves on a stream guided meditation and cognitive defusion exercise

Instructions: For this cognitive defusion exercise, you will need to take turns guiding one another by reading the instructions below. In addition to the written guidelines below, you may also need a clock with a second hand to help you time each step. Together, you can set up a comfortable space in your living room in which you can each sit comfortably. You may even want to set your phones to silent so that you will not be interrupted. If you like, you can take a few minutes at the end to share some of the thoughts that grabbed you more than others, which ones moved more quickly down the stream, and any reactions.

Leaves on a stream (from Harris, 2009)

1) Get into a comfortable position, and close your eyes or find a point to focus on.
2) Imagine yourself sitting by the water, by a gently flowing stream. Picture that there are leaves floating past along the surface of the water. The stream and leaves can look however you like. They could be autumn leaves that have fallen, or green leaves. (Pause for 10 seconds as the meditator develops her or his own image).
3) For the next couple of minutes, take every thought that comes to your mind and place it on a leaf floating along the water. Let it float away. Do this with every thought, whether the thought it positive or negative, pleasant or painful. (Pause for 10 seconds so he or she can start to picture this).
4) If the thoughts stop, just take a few moments to watch the stream in your imagination. Your thoughts will start up again. (Pause for 20 seconds).
5) Let the water move at its pace. Do not try to slow it down or speed it up. (Pause 20 seconds).
6) If you happen to be thinking that "This is stupid" or "I can't do this", I encourage you to place those thoughts on a leaf. (Pause 20 seconds).
7) You may find some leaves get stuck and do not float away as fast as others. This is ok. Don't force it to float away.
8) If you are feeling bored, or impatient, take those feelings and place them on leaves. Let them float on by.
9) You may notice that some thoughts are going to grab you and it will be harder to focus on the stream and the exercise. Just as with the body-scan, this is normal and will happen. When this happens, acknowledge that you have been hooked by a thought and gently turn your attention back to the steam and the exercise.

Following the last instruction, the reader will allow the meditator a few minutes to continue imagining their stream. He or she will remind them periodically that it is normal for thoughts to grab their attention, and that as soon as they realize this and note it, that they should return their attention back to the exercise.

10) Now, we can bring the exercise to an end. Take your time in opening up your eyes, or sitting up in your chair. Take a moment to look around the room, and welcome yourself back.

Material covered in Session 11

- ❖ Review of homework
- ❖ Discussion: Asserting oneself with one's partner
- ❖ Psychoeducation and discussion: Avoidance of sexual activities

Homework:
Homework exercises revisited

Review of homework
The therapist will ask the couple continues to experiencing the Giving and Receiving massage exercises. The therapist will also check in about other homework exercises that the couple may be incorporating.

Discussion: Asserting oneself with one's partner
The therapist will raise the issue of communication again. She can reiterate how communication difficulties can create conflicts between partners, and that certain communication difficulties stem from lack of assertion. She will begin by asking couples about their experiences with assertion in their relationship. Are there certain areas that are more easily approached with assertion? She will ask them to think of an area of difficulty (e.g. initiation, arousal problems, asserting sexual needs, broaching the topic of sex, taking partners' frustration too personally, etc.) and discuss reasons why it is difficult for them to talk about some of these issues with their partners. What are the barriers or obstacles? What facilitates assertion in areas where it happens more easily or naturally? It can be useful to explore the emotions associated with the area of difficulty being discussed. Moreover, it may also be useful to do some cognitive defusion with the couple regarding some of these issues, as well as reframing. The therapist should encourage the couple to do the cognitive defusion with one another, helping only to facilitate if necessary.

Psychoeducation and discussion: Avoidance of sexual activities
The therapist will help clients to identify if they have been avoiding sex. She will work at breaking avoidance habit if some of them are avoiding (this will be an ongoing task throughout the therapy): How do they avoid sex? Do they have unrealistic beliefs or less adaptive attitudes about sex? She can use the different levels they are at to facilitate their learning from one another. What are some of the reasons why they avoid sex? Pain is one, but what about activities that are not painful? What purpose might the avoidance serve for them as individuals and for the relationship? What sexual activities do not involve pain? Can they practice these? Can they show their partner how they masturbate so as to avoid any pain? The therapist can lead the discussion toward the partner's reactions to the pain. How might these contribute to the pain experience? This discussion may repeat issues previously discussed in therapy. The therapist should have them generate some potential ideas/solutions and suggest some herself if necessary. She should potentiate their own coping skills and give them the opportunity to develop their own solutions, while emphasizing the potential they have to control their pain.

What else do they avoid? Intimacy in general? Does the couple avoid hugging/kissing for fear it will lead to painful sex? Depending on how the discussion evolves, the therapist may incorporate

and encourage the couple to practice any of the interventions previously introduced in therapy during this discussion (e.g., cognitive defusion, validating/active listening, etc.)

Homework:

Homework revisited (identify homework activities that were unsuccessful, very helpful or that went untried, and the couple will choose which to try or re-try)

Homework revisited
The therapist will ask the couple about their experiences with the homework exercises. She will ask which ones were most successful or easy to complete. She will enquire about which homework exercises slipped through the cracks, or were attempted but unsuccessful. Their homework for the following week will be to re-try a homework that was previously attempted, or to try a homework that was never attempted. The therapist will explore the reasons for why the selected homework was not tried, etc. She will ask the couple to identify the challenges associated with this particular exercise, and explore potential solutions with the couple. The therapist should have copies of all handouts in case the couple has misplaced the handout for the selected homework exercise. The therapist should also be ready to explain any of the homework exercises.

Study-related issue:

The therapist will have each participant fill out a homework compliance form.

Material covered in Session 12

- ❖ Review of homework
- ❖ Discussion: Progress and setbacks
- ❖ Discussion: Summarizing information learned
- ❖ Psychoeducation and discussion: Tools for the future

Review of homework
The therapist will follow-up with the couple about their revisiting certain homework tasks. She will take a moment to explore the couple's experience with re-trying a homework, or trying a homework they had never tried before. What had stopped them from trying it in the first place? Why did they choose this exercise to re-try?

Discussion: Progress and setbacks
The therapist will open a discussion with the couple about their perceived progress during therapy. What changes have they noticed? How do they feel now having gone through therapy? She will also explore setbacks or negative perceptions that may have developed during therapy? What challenges or problems did they encounter? What might be some ways of overcoming these barriers (e.g., barriers to trying new exercises)?

Discussion: Summarizing information learned
The therapist will review what has been learned with the couple. What is the most significant thing they have learned? What aspects of therapy have been integrated into their daily life as a couple? What take-away messages are they leaving with for their sex-life? What components, exercises or information do they plan to continue integrating? What will they do in the future if they experience a period of increased pain, a flare-up? The therapist will also ask some of the following questions: How can they ensure they will keep practicing or implementing what they have learned? What problems do they anticipate? What might help prevent these problems?

Psychoeducation and discussion: Tools for the future
The therapist will discuss how to communicate with doctors and clinicians in the future. Women with PVD and their partners often report frustration with doctors for many reasons, including: not feeling understood or listened to respectfully by physicians, feeling as though they are not taken seriously, and their experience that many physicians lack of expertise and knowledge regarding PVD (Connor, Robinson & Wieling, 2008). As part of this discussion, the therapist will encourage women and their partners to be their own advocates when navigating the health care system, and to engage in self-assertion.

Tools for the future: She will suggest the following books if appropriate for the couple's situation: a) Lonnie Barbach, "For yourself", b) Lonnie Barbach, "For each other", c) Margaret Caudill, "Managing pain before it manages you", d) Glazer and Rodke, 'Vulvodynia Survival Guide', Elizabeth Stewart, 'the V Guide', e) Goldstein, Pukall & Goldstein, "When sex hurts: A woman's guide to banishing sexual pain", and any other book on sexuality that seems serious and instructive.

Considerations for therapy termination

Saying good-bye to clients is often a challenging part of therapy. During this last session, the therapist can share her impressions of the couple's strengths for the future, alongside the couple outlining the tools they feel they have developed. The therapist can also express an authentic appreciation in having gotten to know them, and work with them.

Study-related issues:
The therapist will have each participant fill out a homework compliance form. The therapist will send an email to the RA to let her know the couple has completed CBCT. She can also remind the couple they have some questionnaires to complete online within a couple days, and that they will be contacted by the RA for the post-treatment assessment.

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Annexe B

Mesures et Questionnaires

Échelle d'auto-compassion

Échelle visuelle analogue – Douleur

Inventaire d'anxiété état-trait de Speilberger – Sous-échelle Trait

Inventaire de dépression de Beck-II

Échelle de détresse sexuelle

Index de satisfaction conjugale

Réactions catastrophiques envers la douleur – Version femmes avec VP

Réactions catastrophiques envers la douleur – Version partenaires

Mesure d'efficacité personnelle pour les relations sexuelles douloureuses– Version femmes avec VP

Mesure d'efficacité personnelle pour les relations sexuelles douloureuses – Version partenaire

Index de fonction sexuelle de la femme

Indice international de la fonction érectile

Échelle d'auto-compassion
Self-Compassion Scale (SCS)
[Les deux partenaires, Pré-traitement, Post-traitement, Suivi]

Instructions: S'il vous plaît, lire attentivement chaque énoncé avant de répondre. Veuillez indiquer à quelle fréquence vous vous comportez de la manière décrite sur l'échelle allant de 1 (presque jamais) à 5 (presque toujours).

Presque jamais	Occasionnellement	Environ la moitié du temps	Assez souvent	Presque toujours
1	2	3	4	5

1. Je désapprouve et juge sévèrement mes défauts et mes faiblesses.
2. Lorsque j'ai le moral à plat, j'ai tendance à en faire une obsession et à me focaliser sur tout ce qui va mal.
3. Lorsque les choses vont mal pour moi, je vois les difficultés comme une partie de la vie par laquelle tout le monde doit passer.
4. Lorsque je pense à mes faiblesses, cela tend à me faire sentir plus isolé(e) et coupé(e) du reste du monde.
5. J'essaie de me donner de l'amour lorsque je ressens une souffrance émotionnelle.
6. Lorsque j'échoue à quelque chose d'important pour moi, je deviens envahie par le sentiment d'être incompétent (e).
7. Lorsque je traverse des moments difficiles, je me rappelle qu'il y a beaucoup de personnes dans le monde qui ressentent ce que je ressens.
8. Dans les moments vraiment difficiles, j'ai tendance à être dur(e) envers moi-même.
9. Lorsque quelque chose me contrarie j'essaie de garder un équilibre émotionnel.
10. Lorsque je me sens inadéquat(e) d'une certaine manière, j'essaie de me rappeler que ce sentiment est ressenti par la plupart des gens.
11. Je suis intolérant(e) et impatient(e) à l'égard des aspects de ma personnalité que je n'aime pas.
12. Lorsque je traverse un moment très difficile, je me donne les soins et la tendresse dont j'ai besoin.
13. Lorsque j'ai le moral à plat, j'ai tendance à avoir le sentiment que la plupart des autres personnes sont probablement plus heureuses que moi.
14. Lorsque quelque chose de douloureux arrive, j'essaie d'avoir une vision équilibrée de la situation
15. J'essaie de voir mes échecs comme une composante de la condition humaine.
16. Lorsque je vois des aspects de moi-même que je n'aime pas, je me rabaisse.
17. Lorsque j'échoue dans quelque chose d'important pour moi, j'essaie de mettre les choses en perspective.
18. Lorsque je me sens vraiment dépassé(e) par les évènements, j'ai tendance à sentir que pour les autres, tout est beaucoup plus facile.
19. Je suis gentil(le) envers moi-même lorsque j'éprouve de la souffrance.
20. Lorsque quelque chose me contrarie, je me laisse emporter par mes sentiments.
21. Je peux être un peu sans cœur envers moi-même lorsque j'éprouve de la souffrance.
22. Lorsque j'ai le moral à plat, j'essaie d'approcher mes sentiments avec curiosité et ouverture.

23. Je suis tolérant(e) envers mes propres défauts et faiblesses.
24. Lorsque quelque chose de douloureux arrive, j'ai tendance à amplifier l'incident de manière démesurée.
25. Lorsque j'échoue dans quelque chose d'important pour moi, j'ai tendance à me sentir seul(e) dans mon échec.
26. J'essaie d'être compréhensif(ve) et patient(e) envers les aspects de ma personnalité que je n'aime pas.

Échelle visuelle analogue – Douleur
Visual Analog Scale (VAS)
[Femme seulement: Pré-traitement, Post-traitement, Suivi]

(Au cours des 6 derniers mois/depuis le début du traitement), notez l'intensité moyenne de votre douleur vulvo-vaginale pendant les relations sexuelles (pénétration) sur une échelle de 0 à 10.

0	1	2	3	4	5	6	7	8	9	10
Pas de douleur										Pire douleur vécue

Inventaire d'anxiété état-trait de Speilberger – Sous-échelle Trait
Trait subscale of Speilberger State-Trait Anxiety Inventory (TS-STAI)
[Les deux partenaires: Pré-traitement, Post-traitement, Suivi]

Consigne: Voici un certain nombre d'énoncés que les gens ont l'habitude d'utiliser pour se décrire. Lisez chaque énoncé, puis encerclez le chiffre approprié à droite de l'énoncé pour indiquer comment vous vous sentez **en général**. Il n'y a pas de bonne ou de mauvaise réponse. Ne vous attardez pas trop sur chaque énoncé, mais donnez la réponse qui vous semble décrire le mieux les sentiments que vous éprouvez **de façon générale**.

(1) «presque jamais»; (2) «quelquefois»; (3) «souvent»; (4) «presque toujours»

1. Je me sens bien	1	2	3	4
2. Je me sens nerveux(se) et agité(e)	1	2	3	4
3. Je me sens content(e) de moi	1	2	3	4
4. Je souhaiterais être aussi heureux(se) que les autres semblent l'être	1	2	3	4
5. J'ai l'impression d'être un(e) raté(e)	1	2	3	4
6. Je me sens reposé(e)	1	2	3	4
7. Je ressens un grand calme	1	2	3	4
8. Je sens que les difficultés s'accumulent au point que je ne peux pas en venir à bout	1	2	3	4
9. Je m'en fais trop pour des choses qui n'en valent pas vraiment la peine	1	2	3	4
10. Je suis heureux(se)	1	2	3	4
11. J'ai des pensées troublantes	1	2	3	4
12. Je manque de confiance en moi	1	2	3	4
13. Je me sens en sécurité	1	2	3	4
14. Je prends des décisions facilement.....	1	2	3	4
15. Je ne me sens pas à la hauteur	1	2	3	4
16. Je suis satisfait(e)	1	2	3	4
17. Des idées sans importance me passent par la tête et me tracassent	1	2	3	4
18. Je prends les déceptions tellement à cœur que je n'arrive pas à me les sortir de la tête	1	2	3	4
19. J'ai les nerfs solides	1	2	3	4

20. Je deviens tendu(e) ou bouleversé(e) quand je songe à mes préoccupations actuelles	1 2 3 4

Inventaire de dépression de Beck
Beck Depression Inventory en français (BDI-II)
[Les deux partenaires: Pré-traitement, Post-traitement, Suivi]

Consigne: Ce questionnaire comporte 21 groupes d'énoncés. Lisez avec soin chacun de ces groupes d'énoncés puis, dans chaque groupe, choisissez l'énoncé qui décrit le mieux comment vous vous êtes senti(e) **au cours des deux dernières semaines, incluant aujourd'hui**. Encerclez alors le chiffre placé devant l'énoncé que vous avez choisi. Si, dans un groupe d'énoncés, vous en trouvez plusieurs qui semblent décrire également bien ce que vous ressentez, choisissez celui qui a le chiffre le plus élevé et encerclez ce chiffre. Assurez-vous bien de ne choisir qu'**un seul énoncé** dans chaque groupe.

1 Tristesse
0 Je ne me sens pas triste.
1 Je me sens très souvent triste.
2 Je suis tout le temps triste.
3 Je suis si triste ou si malheureux(se), que ce n'est pas supportable.

2 Pessimisme
0 Je ne suis pas découragé(e) face à mon avenir.
1 Je me sens plus découragé(e) qu'avant face à mon avenir.
2 Je ne m'attends pas à ce que les choses s'arrangent pour moi.
3 J'ai le sentiment que mon avenir est sans espoir et qu'il ne peut qu'empirer.

3 Échecs dans le passé
0 Je n'ai pas le sentiment d'avoir échoué dans la vie, d'être un(e) raté(e).
1 J'ai échoué plus souvent que je n'aurais dû.
2 Quand je pense à mon passé, je constate un grand nombre d'échecs.
3 J'ai le sentiment d'avoir complètement raté ma vie.

4 Perte de plaisir
0 J'éprouve toujours autant de plaisir qu'avant aux choses qui me plaisent.
1 Je n'éprouve pas autant de plaisir aux choses qu'avant.
2 J'éprouve très peu de plaisir aux choses qui me plaisaient habituellement.
3 Je n'éprouve aucun plaisir aux choses qui me plaisaient habituellement.

5 Sentiments de culpabilité
0 Je ne me sens pas particulièrement coupable.
1 Je me sens coupable pour bien des choses que j'ai faites ou que j'aurais dues faire.
2 Je me sens coupable la plupart du temps.
3 Je me sens tout le temps coupable.

6 Sentiment d'être puni(e)
0 Je n'ai pas le sentiment d'être puni(e).
1 Je sens que je pourrais être puni(e).
2 Je m'attends à être puni(e).
3 J'ai le sentiment d'être puni(e).

7 Sentiments négatifs envers soi-même
0 Mes sentiments envers moi-même n'ont pas changé.
1 J'ai perdu confiance en moi.
2 Je suis déçu(e) de moi-même.
3 Je ne m'aime pas du tout.

8 Attitude critique envers soi
0 Je ne me blâme pas ou ne me critique pas plus que d'habitude.
1 Je suis plus critique envers moi-même que je ne l'étais.
2 Je me reproche tous mes défauts.
3 Je me reproche tous les malheurs qui arrivent.

9 Pensées ou désirs de suicide
0 Je ne pense pas du tout à me suicider.
1 Il m'arrive de penser à me suicider, mais je ne le ferais pas.
2 J'aimerais me suicider.
3 Je me suiciderais si l'occasion se présentait.

10 Pleurs

0 Je ne pleure pas plus qu'avant.
1 Je pleure plus qu'avant.
2 Je pleure pour la moindre petite chose.
3 Je voudrais pleurer mais je n'en suis pas capable.

11 Agitation

0 Je ne suis pas plus agité(e) ou plus tendu(e) que d'habitude.
1 Je me sens plus agité(e) ou plus tendu(e) que d'habitude.
2 Je suis si agité(e) ou tendu(e) que j'ai du mal à rester tranquille.
3 Je suis si agité(e) ou tendu(e) que je dois continuellement bouger ou faire quelque chose.

12 Perte d'intérêt

0 Je n'ai pas perdu d'intérêt pour les gens ou pour les activités.
1 Je m'intéresse moins qu'avant aux gens et aux choses.
2 Je ne m'intéresse presque plus aux gens et aux choses.
3 J'ai du mal à m'intéresser à quoi que ce soit.

13 Indécision

0 Je prends des décisions toujours aussi bien qu'avant.
1 Il m'est plus difficile que d'habitude de prendre des décisions.
2 J'ai beaucoup plus de mal qu'avant à prendre des décisions.
3 J'ai du mal à prendre n'importe quelle décision.

14 Dévalorisation

0 Je pense être quelqu'un de valable.
1 Je ne crois pas avoir autant de valeur ni être aussi utile qu'avant.
2 Je me sens moins valable que les autres.
3 Je sens que je ne vaux absolument rien.

15 Perte d'énergie

0 J'ai toujours autant d'énergie qu'avant.
1 J'ai moins d'énergie qu'avant.
2 Je n'ai pas assez d'énergie pour pouvoir faire grand-chose.
3 J'ai trop peu d'énergie pour faire quoi que ce soit.

16 Modifications dans les habitudes de sommeil

0 Mes habitudes de sommeil n'ont pas changé.
1 Je dors un peu plus que d'habitude.
2 Je dors un peu moins que d'habitude.
3 Je dors beaucoup plus que d'habitude.
4 Je dors beaucoup moins que d'habitude.
5 Je dors presque toute la journée.
6 Je me réveille une ou deux heures plus tôt et je suis incapable de me rendormir.

17 Irritabilité

0 Je ne suis pas plus irritable que d'habitude.
1 Je suis plus irritable que d'habitude.
2 Je suis beaucoup plus irritable que d'habitude.
3 Je suis constamment irritable.

18 Modifications de l'appétit

0 Mon appétit n'a pas changé.
1 J'ai un peu moins d'appétit que d'habitude.
2 J'ai un peu plus d'appétit que d'habitude.
3 J'ai beaucoup moins d'appétit que d'habitude.
4 J'ai beaucoup plus d'appétit que d'habitude.
5 Je n'ai pas d'appétit du tout.
6 J'ai constamment envie de manger.

19 Difficulté à se concentrer

0 Je parviens à me concentrer toujours aussi bien qu'avant.
1 Je ne parviens pas à me concentrer aussi bien que d'habitude.
2 J'ai du mal à me concentrer longtemps sur quoi que ce soit.
3 Je me trouve incapable de me concentrer sur quoi que ce soit.

20 Fatigue	**21 Perte d'intérêt pour le sexe**
0 Je ne suis pas plus fatigué(e) que d'habitude. 1 Je me fatigue plus facilement que d'habitude. 2 Je suis trop fatigué(e) pour faire un grand nombre de choses que je faisais avant. 3 Je suis trop fatigué(e) pour faire la plupart des choses que je faisais avant.	0 Je n'ai pas noté de changement récent dans mon intérêt pour le sexe. 1 Le sexe m'intéresse moins qu'avant. 2 Le sexe m'intéresse beaucoup moins maintenant 3 J'ai perdu tout intérêt pour le sexe.

Échelle de détresse sexuelle
Sexual Distress Scale en français
[Les deux partenaires: Pré-traitement, Post-traitement, Suivi]

Consignes: Ci-dessous se trouve une liste de sentiments et de problèmes que les gens ont parfois en ce qui concerne leur sexualité. Veuillez lire chaque item attentivement, et encercler le nombre qui décrit le mieux **la fréquence à laquelle ce problème vous a dérangé(e) ou vous a causé une détresse au cours des 30 derniers jours, incluant aujourd'hui.** Veuillez encercler un nombre seulement pour chaque item, et prendre soin de répondre à tous les énoncés.

Exemple: À quelle fréquence vous êtes vous senti(e): **Personnellement responsable de vos problèmes sexuels.**

Jamais 0	Rarement 1	Occasionnellement 2	Fréquemment 3	Toujours 4

À QUELLE FRÉQUENCE VOUS ÊTES VOUS SENTI(E):

1. En détresse par rapport à votre vie sexuelle	0	1	2	3	4
2. Malheureux(se) par rapport à votre relation sexuelle	0	1	2	3	4
3. Coupable des difficultés sexuelles	0	1	2	3	4
4. Frustré(e) par vos problèmes sexuels	0	1	2	3	4
5. Stressé(e) par le sexe	0	1	2	3	4
6. Inférieur(e) à cause de problèmes sexuels	0	1	2	3	4
7. Inquiet(ète) par rapport au sexe	0	1	2	3	4
8. Sexuellement inadéquat(e)	0	1	2	3	4
9. Avoir des regrets par rapport à votre sexualité	0	1	2	3	4
10. Embarrassé(e) par rapport à vos problèmes sexuels	0	1	2	3	4
11. Insatisfait(e) de votre vie sexuelle	0	1	2	3	4
12. En colère par rapport à votre vie sexuelle	0	1	2	3	4
13. Dérangé(e) par votre faible désir sexuel	0	1	2	3	4

Index de satisfaction conjugale
Couple Satisfaction Index (CSI-32) en français
[Les deux partenaires: Pré-traitement, Post-traitement, Suivi]

1. Veuillez indiquer à quel point vous êtes heureux(se) dans votre relation, en y considérant tous les aspects de celle-ci.

Extrêmement malheureux(se)	Très malheureux(se)	Un peu malheureux(se)	Heureux(se)	Très heureux(se)	Extrêmement heureux(se)	Parfaitement heureux(se)
0	**1**	**2**	**3**	**4**	**5**	**6**

La plupart des gens vivent des désaccords dans leur relation. Veuillez indiquer à quel point vous et votre partenaire êtes en accord ou en désaccord pour chacun des items suivants.

	Toujours d'accord	Presque toujours d'accord	Occasion-nellement en désaccord	Fréquem-ment en désaccord	Presque toujours en désaccord	Toujours en désaccord
2. La quantité de temps passé ensemble	5	4	3	2	1	0
3. Prendre des décisions importantes	5	4	3	2	1	0
4. Les démonstrations d'affection	5	4	3	2	1	0

	Tout le temps	Presque tout le temps	Plus souvent qu'autre-ment	Occasion-nellement	Rarement	Jamais
5. En général, à quelle fréquence pensez-vous que les choses vont bien entre votre partenaire et vous?	5	4	3	2	1	0
6. À quelle fréquence souhaitez vous ne jamais vous être engagé(e) dans cette relation?	0	1	2	3	4	5

	Pas du tout VRAI	Un peu VRAI	Assez VRAI	La plupart du temps VRAI	Presque totalement VRAI	Totale-ment VRAI
7. Je ressens encore une connexion intense avec mon/ma partenaire	0	1	2	3	4	5
8. Si je devais recommencer ma vie, j'épouserais (ou vivrais avec / fréquenterais) la même personne	0	1	2	3	4	5
9. Notre relation est solide	0	1	2	3	4	5
10. Je me demande parfois s'il y a quelqu'un d'autre fait pour moi	5	4	3	2	1	0
11. Ma relation avec mon/ma partenaire me rend heureux(se)	0	1	2	3	4	5
12. J'ai une relation chaleureuse et confortable avec mon/ma partenaire	0	1	2	3	4	5
13. Je ne peux m'imaginer mettre fin à ma relation avec mon/ma partenaire	0	1	2	3	4	5
14. Je sens que je peux me confier à mon/ma partenaire sur pratiquement n'importe quel sujet	0	1	2	3	4	5
15. Récemment, je me suis questionné(e) sur ma relation	5	4	3	2	1	0
16. À mes yeux, mon/ma partenaire est le/la partenaire romantique parfait(e)	0	1	2	3	4	5
17. Je me sens vraiment comme faisant partie d'une équipe avec mon/ma partenaire	0	1	2	3	4	5

18. Je ne peux imaginer qu'une autre personne me rende aussi heureux(se) que mon/ma partenaire actuel(le)	0	1	2	3	4	5

	Pas du tout	Un peu	Assez	La plupart du temps	Presque totalement	Totalement
19. À quel point votre relation avec votre partenaire est-elle gratifiante?	0	1	2	3	4	5
20. À quel point votre partenaire répond-il/elle à vos besoins?	0	1	2	3	4	5
21. À quel point votre relation actuelle répond-elle à vos attentes initiales?	0	1	2	3	4	5
22. En général, à quel point êtes-vous satisfait(e) de votre relation avec votre partenaire?	0	1	2	3	4	5

	Pire que toutes les autres (Extrêmement mauvaise)					Meilleure que toutes les autres (Extrêmement bonne)
23. À quel point votre relation est bonne en la comparant à la plupart des relations?	0	1	2	3	4	5

	Jamais	Moins d'une fois par mois	Une à deux fois par mois	Une à deux fois par semaine	Une fois par jour	Plus souvent
24. Trouvez-vous agréable la compagnie de votre partenaire?	0	1	2	3	4	5
25. À quelle fréquence avez-vous du plaisir ensemble?	0	1	2	3	4	5

Pour chacun des items suivants, choisissez la réponse qui décrit le mieux *comment vous vous sentez par rapport à votre relation avec votre partenaire*. Choisissez votre réponse en fonction de votre première impression et de votre sentiment immédiat à propos de chaque item.

26.	INTÉRESSANTE	5	4	3	2	1	0 ENNUYANTE

27.	MAUVAISE	0	1	2	3	4	5	BONNE
28.	REMPLIE	5	4	3	2	1	0	VIDE
29.	SOLITAIRE	0	1	2	3	4	5	AMICALE
30.	SOLIDE	5	4	3	2	1	0	FRAGILE
31.	DÉCOURAGEANTE	0	1	2	3	4	5	PLEINE D'ESPOIR
32.	AGRÉABLE	5	4	3	2	1	0	MISÉRABLE

Réactions catastrophiques envers la douleur
Pain Catastrophizing Scale (PCS) en français – Version Femme
[Pré-traitement, Post-traitement, Suivi]

Chacun d'entre nous aura à subir des expériences douloureuses. Dans le présent questionnaire, nous vous demandons de décrire le genre de pensées et d'émotions que vous avez lorsque vous ressentez de la douleur vulvo-vaginale. Vous trouverez ci-dessous treize énoncés décrivant différentes pensées et émotions qui peuvent être associées à la douleur. Veuillez indiquer à quel point vous avez ces pensées et émotions, selon l'échelle ci-dessous, lorsque vous ressentez de la douleur vulvo-vaginale.

0- pas du tout **1**- quelque peu **2**- de façon modérée **3**- beaucoup **4**- tout le temps

Quand j'ai de la douleur vulvo-vaginale…

1 ☐ j'ai peur qu'il n'y aura pas de fin à la douleur

2 ☐ je sens que je ne peux pas continuer

3 ☐ c'est terrible et je pense que ça ne s'améliorera jamais

4 ☐ c'est affreux et je sens que c'est plus fort que moi

5 ☐ je sens que je ne peux plus supporter la douleur

6 ☐ j'ai peur que la douleur empire

7 ☐ je ne fais que penser à d'autres expériences douloureuses

8 ☐ avec inquiétude, je souhaite que la douleur disparaisse

9 ☐ je ne peux m'empêcher d'y penser

10 ☐ je ne fais que penser à quel point ça fait mal

11 ☐ je ne fais que penser à quel point je veux que la douleur disparaisse

12 ☐ il n'y a rien que je puisse faire pour réduire l'intensité de la douleur

13 ☐ je me demande si quelque chose de grave va se produire

Réactions catastrophiques envers la douleur (RCD)
Pain Catastrophizing Scale (PCS) en français – Version Partenaire
[Pré-traitement, Post-traitement, Suivi]

Nous sommes intéressés à la relation qui existe entre les pensées et la douleur. Vous trouverez ci-dessous treize énoncés décrivant différentes pensées et émotions qui peuvent être associées à la douleur. Veuillez indiquer à quel point vous avez ces pensées et émotions, selon l'échelle ci-dessous, lorsque votre partenaire ressent de la douleur vulvo-vaginale.

Lorsque ma partenaire ressent de la douleur…

1. Je m'inquiète tout le temps à savoir si sa douleur va cesser.

0	1	2	3	4
Pas du tout				Tout le temps

2. Je sens que je ne peux pas continuer.

0	1	2	3	4
Pas du tout				Tout le temps

3. C'est terrible et je pense que ça ne s'améliorera jamais.

0	1	2	3	4
Pas du tout				Tout le temps

4. C'est atroce et je sens que ça m'accable.

0	1	2	3	4
Pas du tout				Tout le temps

5. Je sens que je ne peux le supporter davantage.

0	1	2	3	4
Pas du tout				Tout le temps

6. J'ai peur que sa douleur empire.

0	1	2	3	4
Pas du tout				Tout le temps

7. Je pense à ses autres expériences douloureuses.

0	1	2	3	4
Pas du tout				Tout le temps

8. Je souhaite anxieusement que sa douleur disparaisse.

0	1	2	3	4
Pas du tout				Tout le temps

9. Il semble que je ne peux arrêter d'y penser.

0	1	2	3	4
Pas du tout				Tout le temps

10. Je pense continuellement à quel point cela lui fait mal.

0	1	2	3	4
Pas du tout				Tout le temps

11. Je pense continuellement à combien je veux que sa douleur cesse.

0	1	2	3	4
Pas du tout				Tout le temps

12. Il n'y a rien que je puisse faire afin de diminuer l'intensité de sa douleur.

0	1	2	3	4
Pas du tout				Tout le temps

13. Je me demande si quelque chose de grave va se produire.

0	1	2	3	4
Pas du tout				Tout le temps

Mesure d'efficacité personnelle pour les relations sexuelles douloureuses
Painful Intercourse Self-Efficacy Scale (PISES) en français – Version Femme
[Pré-traitement, Post-traitement, Suivi]

Sous-échelle d'efficacité personnelle : douleur

Pour les questions suivantes, nous aimerions savoir comment la douleur que vous ressentez pendant les relations sexuelles vous affecte. Pour chacune des questions suivantes, veuillez encercler le nombre correspondant à la certitude que vous avez de pouvoir *maintenant* accomplir les activités suivantes.

1. Jusqu'à quel point êtes-vous certaine de pouvoir diminuer votre douleur *de façon importante?*

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

2. Jusqu'à quel point êtes-vous certaine de pouvoir poursuivre la majorité de vos activités sexuelles?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

3. Jusqu'à quel point êtes-vous certaine de pouvoir empêcher votre douleur pendant les relations sexuelles de nuire à votre relation de couple?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

4. Jusqu'à quel point êtes-vous certaine de pouvoir diminuer *un peu à modérément* la douleur que vous ressentez pendant les relations sexuelles en utilisant des méthodes non chirurgicales?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

5. Jusqu'à quel point êtes-vous certaine de pouvoir diminuer *de beaucoup* la douleur que vous ressentez pendant les relations sexuelles en utilisant des méthodes non chirurgicales?

10	20	30	40	50	60	70	80	90	100

Très incertaine	Modérément incertaine	Très certaine

Sous-échelle d'efficacité personnelle : fonctionnement

Nous aimerions savoir jusqu'à quel point vous êtes confiante en votre capacité à accomplir certaines activités. Pour chacune des questions suivantes, veuillez encercler le nombre qui correspond à la certitude que vous avez de pouvoir accomplir ces activités *dès maintenant*. Veuillez prendre en considération ce que vous pouvez faire *de façon routinière* et non ce qui vous demanderait un effort extraordinaire.

DÈS MAINTENANT, JUSQU'À QUEL POINT ÊTES-VOUS CERTAINE QUE VOUS POUVEZ:

6. Tenter une relation sexuelle et réussir une pénétration partielle.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

7. Tenter une relation sexuelle et réussir une pénétration complète sans mouvement.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

8. Tenter une relation sexuelle et réussir une pénétration complète avec mouvement.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

9. Insérer ou retirer un tampon.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

10. Prendre part à un examen gynécologique complet.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

11. Insérer votre doigt dans votre vagin.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

12. Laisser votre partenaire insérer son doigt dans votre vagin.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

13. Laisser votre partenaire stimuler manuellement vos organes génitaux.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

14. Laisser votre partenaire stimuler oralement vos organes génitaux.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

Sous-échelle d'efficacité personnelle : autres symptômes

Pour les questions suivantes, nous aimerions savoir comment vous vous sentez quant à votre capacité à contrôler votre douleur pendant les relations sexuelles. Pour chacune des questions suivantes, veuillez encercler le nombre qui correspond au degré de certitude que vous avez que vous pouvez *maintenant* accomplir les activités suivantes.

15. Jusqu'à quel point êtes-vous certaine de pouvoir contrôler votre désir et votre excitation sexuelle?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

16. Jusqu'à quel point êtes-vous certaine de pouvoir adapter votre activité sexuelle afin d'être active sans aggraver votre douleur pendant les relations sexuelles?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

17. Jusqu'à quel point êtes-vous certaine de pouvoir faire quelque chose qui vous aidera à vous sentir mieux si vous vous sentez découragée à propos de votre douleur pendant les relations sexuelles?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

18. Comparativement à d'autres femmes avec des douleurs pendant les relations sexuelles telles que les vôtres, jusqu'à quel point êtes-vous certaine de pouvoir gérer votre douleur génitale pendant vos activités sexuelles?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

19. Jusqu'à quel point êtes-vous certaine de pouvoir gérer vos relations sexuelles douloureuses et les symptômes qui y sont associés afin de pouvoir faire les choses que vous aimez?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

20. Jusqu'à quel point êtes-vous certaine de pouvoir composer avec la frustration accompagnant la douleur pendant les relations sexuelles?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

Mesure d'efficacité personnelle pour les relations sexuelles douloureuses
Painful Intercourse Self-Efficacy Scale (PISES) en français – Version Partenaire
[Pré-traitement, Post-traitement, Suivi]

Sous-échelle d'efficacité personnelle : douleur

Pour les questions suivantes, nous aimerions savoir comment votre partenaire est affectée par la douleur qu'elle ressent pendant les relations sexuelles. Pour chacune des questions suivantes, veuillez encercler le nombre correspondant à *votre perception* quant à la certitude que votre partenaire a de pouvoir *maintenant* accomplir les activités suivantes.

1. Jusqu'à quel point votre partenaire est-elle certaine de pouvoir diminuer sa douleur *de façon importante?*

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

2. Jusqu'à quel point votre partenaire est-elle certaine de pouvoir poursuivre la majorité de ses activités sexuelles?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

3. Jusqu'à quel point votre partenaire est-elle certaine de pouvoir empêcher sa douleur pendant les relations sexuelles de nuire à votre relation de couple?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

4. Jusqu'à quel point votre partenaire est-elle certaine de pouvoir diminuer *un peu à modérément* la douleur qu'elle ressent pendant les relations sexuelles en utilisant des méthodes non chirurgicales?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

5. Jusqu'à quel point votre partenaire est-elle certaine de pouvoir diminuer *de beaucoup* la douleur qu'elle ressent pendant les relations sexuelles en utilisant des méthodes non chirurgicales?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

Sous-échelle d'efficacité personnelle : fonctionnement

Nous aimerions savoir jusqu'à quel point votre partenaire est confiante en sa capacité à accomplir certaines activités. Pour chacune des questions suivantes, veuillez encercler le nombre qui correspond à *votre perception* quant à la certitude que votre partenaire a de pouvoir accomplir ces activités *dès maintenant*. Veuillez prendre en considération ce que votre partenaire peut faire *de façon routinière* et non ce qui lui demanderait un effort extraordinaire.

DÈS MAINTENANT, JUSQU'À QUEL POINT VOTRE PARTENAIRE EST-ELLE CERTAINE DE POUVOIR:

6. Tenter une relation sexuelle et réussir une pénétration partielle.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

7. Tenter une relation sexuelle et réussir une pénétration complète sans mouvement.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

8. Tenter une relation sexuelle et réussir une pénétration complète avec mouvement.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

9. Insérer ou retirer un tampon.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

1. Prendre part à un examen gynécologique complet.

10	20	30	40	50	60	70	80	90	100

Très incertaine	Modérément incertaine	Très certaine

2. Insérer son doigt dans son vagin.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

3. Vous laisser insérer votre doigt dans son vagin.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

4. Vous laisser stimuler manuellement ses organes génitaux.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

5. Vous laisser stimuler oralement ses organes génitaux.

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

Sous-échelle d'efficacité personnelle : autres symptômes

Pour les questions suivantes, nous aimerions savoir comment votre partenaire se sent quant à sa capacité à contrôler sa douleur pendant les relations sexuelles. Pour chacune des questions suivantes, veuillez encercler le nombre qui correspond à votre perception du degré de certitude qu'a votre partenaire de pouvoir *maintenant* accomplir les activités suivantes.

15. Jusqu'à quel point votre partenaire est-elle certaine de pouvoir contrôler son désir et son excitation sexuelle?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

16. Jusqu'à quel point votre partenaire est-elle certaine de pouvoir adapter son activité sexuelle afin d'être active sans aggraver sa douleur pendant les relations sexuelles?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

17. Jusqu'à quel point votre partenaire est-elle certaine de pouvoir faire quelque chose qui l'aidera à se sentir mieux si elle se sent découragée à propos de sa douleur pendant les relations sexuelles?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

18. Comparativement à d'autres femmes avec des douleurs pendant les relations sexuelles telles que celles de votre partenaire, jusqu'à quel point est-elle certaine de pouvoir gérer sa douleur génitale pendant ses activités sexuelles?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

19. Jusqu'à quel point votre partenaire est-elle certaine de pouvoir gérer ses relations sexuelles douloureuses et les symptômes qui y sont associés afin de pouvoir faire les choses qu'elle aime?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

20. Jusqu'à quel point votre partenaire est-elle certaine de pouvoir composer avec la frustration accompagnant la douleur pendant les relations sexuelles?

10	20	30	40	50	60	70	80	90	100
Très incertaine				Modérément incertaine					Très certaine

Index de fonction sexuelle de la femme
Female Sexual Function Index (FSFI) en français – Version Femme ou Partenaire Femme
[Version femme: Pré-traitement, Post-traitement, Suivi]

Ces questions portent sur vos sentiments et réponses sexuelles **des 4 dernières semaines**. Répondez aux questions suivantes le plus honnêtement et le plus clairement possible. Vos réponses sont entièrement confidentielles. Les définitions ci-dessous s'appliquent aux questions auxquelles vous aurez à répondre:

Activité sexuelle: Inclut les rapports sexuels, les caresses, les préliminaires et la masturbation.

Rapport sexuel: Pénétration vaginale (introduction du pénis ou d'un jouet sexuel dans le vagin).

Stimulation sexuelle: Comprend des situations telles que les préliminaires avec un(e) partenaire, la masturbation, les fantasmes sexuels, etc.

Excitation sexuelle: L'excitation sexuelle est un état qui comporte des aspects physiques et mentaux. L'excitation peut inclure des sensations de chaleur ou de picotement dans les organes génitaux, de la lubrification (être «mouillée»), ou des contractions musculaires.

Désir sexuel: Le désir ou l'intérêt sexuel est un sentiment qui comprend la volonté d'avoir une expérience sexuelle, se sentir réceptif à l'initiation sexuelle d'un(e) partenaire, et le fait de penser ou de fantasmer à propos de la relation sexuelle.

Ne cochez qu'une seule réponse par question.

1. Au cours des 4 dernières semaines, à quelle fréquence avez-vous ressenti du désir ou de l'intérêt sexuel?
    1. Presque jamais ou jamais
    2. Quelquefois (moins de la moitié du temps)
    3. Parfois (environ la moitié du temps)
    4. La plupart du temps (plus de la moitié du temps)
    5. Presque toujours ou toujours

2. Au cours des 4 dernières semaines, comment évalueriez-vous votre degré de désir ou intérêt sexuel?
    1. Très faible ou absent
    2. Faible

3. Modéré
4. Élevé
5. Très élevé

3. Au cours des 4 dernières semaines, à quelle fréquence vous êtes-vous sentie excitée pendant des activités ou rapports sexuels?

N/A Pas d'activité sexuelle

1. Presque jamais ou jamais
2. Quelquefois (moins de la moitié du temps)
3. Parfois (environ la moitié du temps)
4. La plupart du temps (plus de la moitié du temps)
5. Presque toujours ou toujours

4. Au cours des 4 dernières semaines, comment évalueriez-vous votre degré d'excitation sexuelle pendant des activités ou rapports sexuels?

N/A Pas d'activité sexuelle

1. Très faible ou absent
2. Faible
3. Modéré
4. Élevé
5. Très élevé

5. Au cours des 4 dernières semaines, jusqu'à quel point étiez-vous confiante de devenir excitée pendant des activités ou rapports sexuels?

N/A Pas d'activité sexuelle

1. Confiance très faible ou absente
2. Confiance faible
3. Confiance modérée
4. Confiance élevée
5. Confiance très élevée

6. Au cours des 4 dernières semaines, à quelle fréquence avez-vous été satisfaite de votre excitation sexuelle pendant des activités ou rapports sexuels?

N/A Pas d'activité sexuelle

1. Presque jamais ou jamais
2. Quelquefois (moins de la moitié du temps)
3. Parfois (environ la moitié du temps)

4. La plupart du temps (plus de la moitié du temps)
5. Presque toujours ou toujours

7. Au cours des 4 dernières semaines, à quelle fréquence êtes-vous devenue lubrifiée («mouillée») pendant des activités ou rapports sexuels?

N/A Pas d'activité sexuelle

1. Presque jamais ou jamais
2. Quelquefois (moins de la moitié du temps)
3. Parfois (environ la moitié du temps)
4. La plupart du temps (plus de la moitié du temps)
5. Presque toujours ou toujours

8. Au cours des 4 dernières semaines, jusqu'à quel point était-il difficile de devenir lubrifiée («mouillée») pendant des activités ou rapports sexuels?

N/A Pas d'activité sexuelle

1. Extrêmement difficile ou impossible
2. Très difficile
3. Difficile
4. Quelque peu difficile
5. Pas difficile

9. Au cours des 4 dernières semaines, à quelle fréquence avez-vous maintenu votre lubrification jusqu'à la fin des activités ou rapports sexuels?

N/A Pas d'activité sexuelle

1. Presque jamais ou jamais
2. Quelquefois (moins de la moitié du temps)
3. Parfois (environ la moitié du temps)
4. La plupart du temps (plus de la moitié du temps)
5. Presque toujours ou toujours

10. Au cours des 4 dernières semaines, jusqu'à quel point était-il difficile de maintenir votre lubrification jusqu'à la fin des activités ou rapports sexuels?

N/A Pas d'activité sexuelle

1. Extrêmement difficile ou impossible
2. Très difficile
3. Difficile

4. Quelque peu difficile
5. Pas difficile

11. Au cours des 4 dernières semaines, lorsque vous aviez une stimulation sexuelle ou un rapport sexuel, à quelle fréquence avez-vous atteint l'orgasme (jouissance)?

N/A Pas d'activité sexuelle

1. Presque jamais ou jamais
2. Quelquefois (moins de la moitié du temps)
3. Parfois (environ la moitié du temps)
4. La plupart du temps (plus de la moitié du temps)
5. Presque toujours ou toujours

12. Au cours des 4 dernières semaines, lorsque vous aviez une stimulation sexuelle ou un rapport sexuel, jusqu'à quel point était-il difficile pour vous d'atteindre l'orgasme (jouissance)?

N/A Pas d'activité sexuelle

1. Extrêmement difficile ou impossible
2. Très difficile
3. Difficile
4. Quelque peu difficile
5. Pas difficile

13. Au cours des 4 dernières semaines, jusqu'à quel point étiez-vous satisfaite de votre capacité à atteindre l'orgasme (jouissance) pendant des activités ou rapports sexuels?

N/A Pas d'activité sexuelle

1. Très insatisfaite
2. Modérément insatisfaite
3. Également satisfaite et insatisfaite
4. Modérément satisfaite
5. Très satisfaite

14. Au cours des 4 dernières semaines, jusqu'à quel point étiez-vous satisfaite du degré de proximité émotive entre vous et votre partenaire lors d'activités sexuelles?

N/A Pas d'activité sexuelle

1. Très insatisfaite
2. Modérément insatisfaite
3. Également satisfaite et insatisfaite

4. Modérément satisfaite
5. Très satisfaite

15. Au cours des 4 dernières semaines, jusqu'à quel point avez-vous été satisfaite de l'aspect sexuel de votre relation avec votre partenaire?

    1. Très insatisfaite
    2. Modérément insatisfaite
    3. Également satisfaite et insatisfaite
    4. Modérément satisfaite
    5. Très satisfaite

16. Au cours des 4 dernières semaines, jusqu'à quel point avez-vous été satisfaite de votre vie sexuelle dans son ensemble?

    1. Très insatisfaite
    2. Modérément insatisfaite
    3. Également satisfaite et insatisfaite
    4. Modérément satisfaite
    5. Très satisfaite

17. Au cours des 4 dernières semaines, à quelle fréquence avez-vous ressenti de l'inconfort ou de la *douleur* **pendant** la pénétration vaginale?

    N/A Pas de pénétration vaginale

    1. Presque toujours ou toujours
    2. La plupart du temps (plus de la moitié du temps)
    3. Parfois (environ la moitié du temps)
    4. Quelquefois (moins de la moitié du temps)
    5. Presque jamais ou jamais

18. Au cours des 4 dernières semaines, à quelle fréquence avez-vous ressenti de l'inconfort ou de la douleur **après** la pénétration vaginale?

    N/A Pas de pénétration vaginale

    1. Presque toujours ou toujours
    2. La plupart du temps (plus de la moitié du temps)
    3. Parfois (environ la moitié du temps)
    4. Quelquefois (moins de la moitié du temps)
    5. Presque jamais ou jamais

19. Au cours des 4 dernières semaines, comment évalueriez-vous votre degré d'inconfort ou de douleur pendant ou après la pénétration vaginale?

    N/A Pas de pénétration vaginale

    1. Très élevé
    2. Élevé
    3. Modéré
    4. Faible
    5. Très faible ou absent

IIEF - Indice international de la fonction érectile
Derogatis Interview for Sexual Function – self-report (DISF-SR) en français – Version Homme
[Partenaire homme seulement: Pré-traitement, Post-traitement, Suivi]

Consignes : Ces questions portent sur vos sentiments et réponses sexuelles des 4 dernières semaines. Répondez aux questions suivantes aussi honnêtement et aussi clairement que possible. En répondant à ces questions, les définitions suivantes s'appliquent :

Activité sexuelle: Inclut les rapports sexuels, les caresses, les préliminaires et la masturbation.

Rapport sexuel: Est défini par la pénétration vaginale de votre partenaire (introduction du pénis dans le vagin).

Stimulation sexuelle: Comprend des situations telles que les préliminaires avec un(e) partenaire, la masturbation, les fantasmes sexuels, etc.

Éjaculation: Est définie par l'éjection du sperme hors du pénis (ou par cette sensation).

Désir sexuel: Le désir ou l'intérêt sexuel est un sentiment qui comprend la volonté d'avoir une expérience sexuelle, se sentir réceptif à l'initiation sexuelle d'un(e) partenaire, et le fait de penser ou de fantasmer à propos de la relation sexuelle.

Ne cochez qu'une seule réponse par question.

1. Au cours des 4 dernières semaines, à quelle fréquence avez-vous réussi à avoir une érection pendant une activité sexuelle?

   ☐ N/A Aucune activité sexuelle
   ☐ 1 Presque jamais ou jamais
   ☐ 2 Parfois (moins de la moitié du temps)
   ☐ 3 Assez souvent (environ la moitié du temps)
   ☐ 4 La plupart du temps (plus de la moitié du temps)
   ☐ 5 Presque toujours ou toujours

2. Au cours des 4 dernières semaines, lorsqu'une stimulation sexuelle vous a procuré une érection, à quelle fréquence l'érection a-t-elle été suffisamment ferme pour permettre la pénétration?

   ☐ N/A Aucune activité sexuelle
   ☐ 1 Presque jamais ou jamais
   ☐ 2 Parfois (moins de la moitié du temps)
   ☐ 3 Assez souvent (environ la moitié du temps)
   ☐ 4 La plupart du temps (plus de la moitié du temps)
   ☐ 5 Presque toujours ou toujours

Les questions 3, 4 et 5 portent sur les érections que vous avez pu avoir lors des rapports sexuels.

3. Au cours des 4 dernières semaines, lorsque vous avez tenté d'avoir un rapport sexuel, à quelle fréquence avez-vous réussi à pénétrer votre partenaire?

☐ N/A Aucune tentative d'avoir un rapport sexuel
☐ 1 Presque jamais ou jamais
☐ 2 Parfois (moins de la moitié du temps)
☐ 3 Assez souvent (environ la moitié du temps)
☐ 4 La plupart du temps (plus de la moitié du temps)
☐ 5 Presque toujours ou toujours

4. Au cours des 4 dernières semaines, pendant vos rapports sexuels, à quelle fréquence avez-vous réussi à maintenir votre érection après avoir pénétré votre partenaire?

☐ N/A Aucune tentative d'avoir un rapport sexuel
☐ 1 Presque jamais ou jamais
☐ 2 Parfois (moins de la moitié du temps)
☐ 3 Assez souvent (environ la moitié du temps)
☐ 4 La plupart du temps (plus de la moitié du temps)
☐ 5 Presque toujours ou toujours

5. Au cours des 4 dernières semaines, pendant vos rapports sexuels, à quel point a-t-il été difficile de maintenir votre érection jusqu'à la fin de ce rapport sexuel?

☐ N/A Aucune tentative d'avoir un rapport sexuel
☐ 1 Extrêmement difficile
☐ 2 Très difficile
☐ 3 Difficile
☐ 4 Légèrement difficile
☐ 5 Pas difficile

6. Au cours des 4 dernières semaines, combien de fois avez-vous essayé d'avoir un rapport sexuel**?**

☐ 0 Jamais
☐ 1 Une à deux fois
☐ 2 Trois à quatre fois
☐ 3 Cinq à six fois
☐ 4 Sept à dix fois
☐ 5 Onze fois et plus

7. Au cours des 4 dernières semaines, lorsque vous avez tenté d'avoir un rapport sexuel, à quelle fréquence a-t-il été satisfaisant pour vous?

☐ N/A Aucune tentative d'avoir un rapport sexuel
☐ 1 Presque jamais ou jamais
☐ 2 Parfois (moins de la moitié du temps)
☐ 3 Assez souvent (environ la moitié du temps)
☐ 4 La plupart du temps (plus de la moitié du temps)
☐ 5 Presque toujours ou toujours

8. Au cours des 4 dernières semaines, quel plaisir vous ont procuré vos rapports sexuels**?**

☐ N/A Aucun rapport sexuel
☐ 1 Aucun plaisir
☐ 2 Pas très agréable
☐ 3 Assez agréable
☐ 4 Très agréable
☐ 5 Extrêmement agréable

9. Au cours des 4 dernières semaines, lorsque vous avez été stimulé sexuellement ou lors d'un rapport sexuel, à quelle fréquence avez-vous éjaculé?

☐ N/A Aucune stimulation ni aucun rapport sexuel
☐ 1 Presque jamais ou jamais
☐ 2 Parfois (moins de la moitié du temps)
☐ 3 Assez souvent (environ la moitié du temps)
☐ 4 La plupart du temps (plus de la moitié du temps)
☐ 5 Presque toujours ou toujours

10. Au cours des 4 dernières semaines, lorsque vous avez été stimulé sexuellement ou lors d'un rapport sexuel, à quelle fréquence avez-vous eu l'impression d'avoir un orgasme ou une jouissance (avec ou sans éjaculation)?

☐ N/A Aucune stimulation ni aucun rapport sexuel
☐ 1 Presque jamais ou jamais
☐ 2 Parfois (moins de la moitié du temps)
☐ 3 Assez souvent (environ la moitié du temps)
☐ 4 La plupart du temps (plus de la moitié du temps)
☐ 5 Presque toujours ou toujours

Les questions 11 et 12 portent sur le désir sexuel.

11. Au cours des 4 dernières semaines, à quelle fréquence avez-vous ressenti un désir sexuel?

☐ 1 Presque jamais ou jamais
☐ 2 Parfois (moins de la moitié du temps)
☐ 3 Assez souvent (environ la moitié du temps)
☐ 4 La plupart du temps (plus de la moitié du temps)
☐ 5 Presque toujours ou toujours

12. Au cours des 4 dernières semaines, comment évaluez-vous votre niveau de désir sexuel?

☐ 1 Très faible ou absent
☐ 2 Faible
☐ 3 Modéré
☐ 4 Élevé
☐ 5 Très élevé

13. Au cours des 4 dernières semaines, à quel point êtes-vous satisfait de votre vie sexuelle en général?

☐ 1 Très insatisfait
☐ 2 Modérément insatisfait
☐ 3 Tout autant satisfait qu'insatisfait
☐ 4 Modérément satisfait
☐ 5 Très satisfait

14. Au cours des 4 dernières semaines, à quel point êtes-vous satisfait de l'aspect sexuel de votre relation avec votre partenaire?

☐ 1 Très insatisfait
☐ 2 Modérément insatisfait
☐ 3 Tout autant satisfait qu'insatisfait
☐ 4 Modérément satisfait
☐ 5 Très satisfait

15. Au cours des 4 dernières semaines, comment évaluez-vous votre confiance à obtenir et à maintenir une érection?

☐ 1 Très faible ou absente
☐ 2 Faible
☐ 3 Modérée
☐ 4 Grande
☐ 5 Très grande

16. Au cours des 4 dernières semaines, à quelle fréquence avez-vous ressenti de l'inconfort ou de la douleur **pendant** une activité sexuelle?

☐ N/A Aucune activité sexuelle
☐ 1 Presque toujours ou toujours
☐ 2 La plupart du temps (plus de la moitié du temps)
☐ 3 Assez souvent (environ la moitié du temps)
☐ 4 Parfois (moins de la moitié du temps)
☐ 5 Presque jamais ou jamais

17. Au cours des 4 dernières semaines, à quelle fréquence avez-vous ressenti de l'inconfort ou de la douleur **après** une activité sexuelle?

☐ N/A Aucune activité sexuelle
☐ 1 Presque toujours ou toujours
☐ 2 La plupart du temps (plus de la moitié du temps)
☐ 3 Assez souvent (environ la moitié du temps)
☐ 4 Parfois (moins de la moitié du temps)
☐ 5 Presque jamais ou jamais

18. Au cours des 4 dernières semaines, comment évalueriez-vous votre degré d'inconfort ou de douleur pendant ou après une activité sexuelle?

☐ N/A Aucune activité sexuelle
☐ 1 Très élevé
☐ 2 Élevé
☐ 3 Modéré
☐ 4 Faible
☐ 5 Très faible ou absent