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Impact of the ego-dystonic nature of obsessions on treatment outcome in eating disorders

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Thèse présentée à la Faculté des arts et des sciences
en vue de l'obtention du grade de doctorat
en psychologie clinique
option recherche et intervention (Ph.D.)

Août, 2014

Résumé

Il s'agit d'une hypothèse largement répandue que l'égo-dystonie et l'égo-syntonie caractérisent les obsessions dans les troubles des conduites alimentaires (TCA) et que ces facteurs sont cliniquement pertinents pour la conceptualisation et le traitement des TCA. Cependant, les résultats empiriques sur ce sujet sont rares. Compte tenu du chevauchement reconnu entre les TCA, notamment l'anorexie et la boulimie (BN), et le trouble obsessionnel-compulsif (TOC) dans la phénoménologie et les caractéristiques psychologiques, un programme de thérapie cognitive basée sur les inférences (TBI) de 24 semaines, démontré efficace dans le traitement des TOC, a été adapté pour traiter les TCA.

La recherche sur le TOC suggère que la transformation des pensées intrusives en obsessions est liée à la mesure dans laquelle les pensées intrusives menacent des perceptions fondamentales du soi et de l'identité. Cette thèse a pour objectif d'examiner le lien entre l'égo-dystonie et les TCA. Pour se faire, nous avons exploré le lien entre la nature égo-dystone des obsessions chez les patients souffrant d'un TCA et la peur de l'image de soi. Nous avons également étudié la relation entre la sévérité des symptômes TCA et l'égo-dystonie dans les obsessions. En outre, nous avons investigué les différences dans la présence de pensées égo-dystones et de peur face à son identité entre des sujets non-cliniques et des personnes atteintes d'un TCA. Enfin, nous avons comparé le degré d'égo-dystonie dans les pensées de personnes atteintes d'un TCA à celui dans les pensées d'individus souffrant d'un TOC. L'égo-dystonie dans les pensées a été mesurée par l'*Ego Dystonicity Questionnaire* (EDQ) et le degré de peur face à l'identité a été mesuré par le *Fear of Self Questionnaire* (FSQ) d'une part dans un échantillon de femmes souffrant d'un TCA (n = 57) et d'autre part dans un échantillon de participantes non-cliniques (n = 45). Les résultats révèlent que l'égo-dystonie et la peur face à l'identité étaient fortement corrélées à la fois dans l'échantillon clinique et non-clinique. Les scores de l'EDQ n'étaient pas significativement corrélés à la sévérité des symptômes TCA à l'exception de la sous-échelle d'irrationalité de l'EDQ qui était fortement associée à la sévérité des comportements compulsifs compensatoires. Les participantes souffrant d'un TCA avaient des scores significativement plus élevés à l'EDQ et au FSQ que les sujets non-cliniques.

Ensuite, une étude de cas décrit l'application du programme de thérapie cognitive TBI pour une femme de 35 ans avec un diagnostic de BN. La pathologie TCA s'est significativement améliorée au cours de la TBI et six mois suivant la thérapie. Cette étude de cas met en évidence l'importance de cibler les idées surévaluées, les doutes et le raisonnement face au soi et à l'identité dans le traitement psychologique pour les TCA.

Enfin, l'objectif final de cette thèse était d'examiner les changements au niveau (1) des symptômes TCA, (2) du degré d'égo-syntonie dans les obsessions, et (3) des mesures de peur face à l'identité, de motivation, d'humeur et d'anxiété au cours de la TBI et au suivi post six mois. L'égo-dystonie, la peur face à l'identité, les symptômes TCA et le stade motivationnel ont été mesurés chez 15 femmes souffrant de BN au cours du traitement et six mois après la TBI. Quatre vingt pourcent de l'échantillon, soit 12 des 15 participantes, ont démontré une diminution cliniquement significative des symptômes TCA et 53% ont cessé leurs comportements compensatoires au suivi post six mois. Les retombées cliniques relatives au traitement des TCA sont discutées.

Mots-clés : Égo-dystonie; égo-syntonie; trouble des conduites alimentaires; anorexie mentale; boulimie; trouble obsessionnel-compulsif; peur face à l'identité; thérapie basée sur les inférences; thérapie cognitive.

Abstract

There is a widely held assumption that both ego-dystonicity and ego-syntonicity characterize obsessions in eating disorders (EDs), and these factors are clinically relevant to the conceptualization and treatment of EDs; however, empirical findings on this subject are scarce. Given the recognized overlap between EDs, particularly anorexia and bulimia nervosa (BN), and obsessive-compulsive disorder (OCD) in phenomenology and psychological characteristics, a 24-week cognitive inference-based therapy (IBT) program shown to be effective in treating OCD was adapted to treat EDs.

OCD research has suggested that the transformation of intrusive thoughts into obsessions is linked to the degree to which intrusive thoughts threaten core perceptions of the self. The present thesis aims to examine the relationship between ego-dystonicity and EDs. To do so, we explored the link between the ego-dystonic nature of obsessions in patients suffering from an ED and fear of self concept. We also investigated the relationship between ED symptom severity and ego-dystonicity in obsessions. Moreover, we studied differences between non-clinical and eating-disordered individuals in the presence of ego-dystonic thoughts and extent of fear of self. Finally, we compared the degree of ego-dystonicity in individuals with EDs' thoughts to those suffering from OCD. Ego-dystonicity in thoughts was measured by the *Ego Dystonicity Questionnaire* (EDQ) and degree of feared self was measured by the *Fear of Self Questionnaire* (FSQ) in both a clinical sample (n = 57 women with EDs) and a non-clinical female sample (n = 45). Ego-dystonicity and fear of self were highly correlated in both clinical and non-clinical samples. EDQ scores were not significantly correlated to overall ED symptom severity with the exception of the EDQ Irrationality subscale, which was related strongly to ED compulsion (ritual) severity. Participants suffering from an ED had significantly higher EDQ scores and FSQ scores compared to controls.

Next, a case study describes the application of IBT treatment for a 35-year-old woman diagnosed with BN. ED pathology significantly decreased from pre-IBT to six-month follow-up. This case study highlights the importance of addressing overvalued ideas, fear of self and

self-doubt in psychological treatment for EDs via a focus on self-cognitions and reasoning about self.

Furthermore, the final objective of this thesis was to examine the change in (1) ED symptom severity, (2) the degree of ego-dystonicity in obsessions, and (3) fear of self, motivational, mood and anxiety measures from pre-IBT to six-month follow-up. Ego-dystonicity, fear of self, ED symptoms and motivational stage were assessed in 15 women with BN over the course of IBT and at follow-up. Eighty percent of the sample demonstrated a clinically significant reduction in ED symptoms and 53% ceased their compensatory behaviors at six-month follow-up. Clinical implications relevant to the treatment of EDs are discussed.

Keywords : ego-dystonicity; ego-syntonicity; eating disorders; anorexia nervosa; bulimia nervosa; obsessive-compulsive disorder; fear of self; inference-based therapy; cognitive therapy.

Table des matières

Résumé ..... **i**

Abstract ..... **iii**

Liste des tableaux ..... **ix**

Liste des figures ..... **x**

Liste des abréviations ..... **xi**

Remerciements ..... **xiv**

Introduction **1**

Premier article: Cognitive therapy, ego-dystonicity and eating disorders **10**

Abstract **11**

Introduction **12**

Obsessive-compulsive disorder, anorexia nervosa, and bulimia nervosa **13**

Phenomenology 13

Epidemiology 14

Comorbidity 14

Obsessive-compulsive disorder spectrum **15**

Similarities between eating disorders and obsessive-compulsive disorder **16**

Ego-dystonicity and ego-syntonicity in obsessions 17

Similar cognitive characteristics 18

Importance of self-cognitions 20

Cognitive and behavioral therapies **22**

Conclusion **26**

Objectifs et hypothèses de la thèse **36**

Deuxième article: Food for thought: ego-dystonicity and fear of self in eating disorders **37**

Abstract **38**

Introduction **39**

Method **42**

Participants 42
Measures 44
Symptom severity measure completed at the Montreal Mental Health University Institute by the clinical sample: 45
Symptom severity measure completed at the Douglas Mental Health University Institute by the clinical sample: 45
Procedure 45
Results 46
Ego-dystonicity and fear of self 46
Ego-dystonicity, fear of self, and symptom severity. 47
Ego-dystonicity and fear of self comparisons in ED and non-clinical samples 47
OCD versus ED: Comparison with previous findings 47
Discussion 48
Ego-dystonicity and fear of self 48
Ego-dystonicity, fear of self, and ED symptom severity 48
Clinical implications 49
Conclusions 50
Troisième article: Inference-Based Therapy for Bulimia Nervosa: A Clinical Case Study 58
Abstract 59
Introduction 60
Case Introduction 63
Presenting Complaints 64
History 65
Assessment 66
Case Conceptualization 67
Course of Treatment and Assessment of Progress 68
Complicating Factors 71
Follow-up 72
Discussion 73
Summary 74

Quatrième article : Food for thought II: change in ego-dystonicity and fear of self in bulimia nervosa over the course of treatment 80

Abstract 81

Introduction 82

Treatment 84

Method 86

Participants 86

Assessment 86

Measures 86

Clinician assessment 87

Self-report symptom measures 88

Procedure 90

Inclusion and exclusion criteria 90

Drop outs 90

Final sample characteristics 91

Treatment 92

Results 92

Longitudinal changes in ED symptoms 93

Longitudinal changes in ego-dystonicity and OVI 94

Longitudinal changes in cognitive process measures 95

Longitudinal changes in depression, anxiety and motivational measures 95

Discussion 96

Longitudinal changes in ED symptoms 96

Longitudinal changes in ego-dystonicity and OVI 97

Longitudinal changes in cognitive process measures 97

Longitudinal changes in depression, anxiety and motivational measures 98

Conclusions 98

Discussion Générale 108

Objectifs et hypothèses de la thèse 108

Principaux résultats 108

Forces de l'étude et implication clinique des résultats 111

Limites et pistes de recherches futures 113

Annexe 1 : Ego Dystonicity Questionnaire (version française) ..... **i**

Annexe 2 : Fear of Self Questionnaire (version française) ..... **iv**

Annexe 3 : Formulaire de consentement pour une évaluation psychologique ..... **vi**

Annexe 4: Formulaire de consentement pour un traitement cognitif des troubles de l'alimentation ..... **ix**

Annexe 5 : Attestation d'éthique ..... **xiv**

Annexe 6 : Attestation d'éthique ..... **xv**

Liste des tableaux

DEUXIÈME ARTICLE

Tableau 1 : Means, standard deviations and intercorrelations 55

Tableau 2 : Differences between an ED sample and a non-clinical sample on ego-dystonicity and fear of self 56

TROISIÈME ARTICLE

Tableau 1 : Pre-, post-treatment and follow-up scores on self-report clinical measures 78

QUATRIÈME ARTICLE

Tableau 1 : Longitudinal changes in eating disorder symptoms assessed by a clinician 104

Tableau 2 : Longitudinal changes in Eating Disorder Inventory-2 105

Tableau 3 : Longitudinal changes in ego-dystonicity, fear of self, and other symptom measures 106

Liste des figures

PREMIER ARTICLE

Figure 1 : Schematic representation of normal and obsessional relationship between self-as-is and self-as-could-be 21

Figure 2 : Schematic representation of Inference Based Therapy model of the maintenance of obsessive-compulsive disorder and eating disorders 24

TROISIÈME ARTICLE

Figure 1 : Progression of client's confidence in her capacity to resist her eating disorder rituals 66

Figure 2 : Progression of the probability percentage of the primary doubt "Maybe I will lose control and not be able to stop eating" 69

Liste des abréviations

Abréviations	Nom complet
APA	American Psychiatric Association
AN	Anorexia nervosa (anorexie mentale)
AN-r	Anorexia nervosa- restrictive subtype
AN-bp	Anorexia nervosa- binge-purge subtype
BAI	Beck Anxiety Inventory
BDI-II	Beck Depression Inventory-II
BMI	Body mass index
BN	Bulimia nervosa (boulimie)
BN-np	Bulimia nervosa- non-purging subtype
BN-p	Bulimia nervosa- purging subtype
CBT	Cognitive-behavioural therapy
DSM	Diagnostic and Statistical Manual of Mental Disorders
EDE	Eating Disorder Examination Interview
EDE-Q	Eating Disorder Examination-Questionnaire
EDI-2	Eating Disorder Inventory-2
EDQ	Ego Dystonicity Questionnaire

EDs	Eating disorders
FSQ	Fear of Self Questionnaire
IBT	Inference-based therapy
ICQ-EV	Inferential Confusion Questionnaire-Expanded Version
MANOVA	Multivariate Analysis of Variance
OBQ-44	Obsessionnal Belief Questionnaire-44
OCD	Obsessive-compulsive disorder
OVI	Overvalued ideas
OVIS	Overvalued Ideas Scale
PDQ-4+	Personality Disorders Questionnaire-4+
SCID-I/CV	Structured Clinical Interview for DSM-IV Clinical Version
SPSS	Statistical Package for the Social Sciences
TBI	Thérapie basée sur les inférences
TCA	Trouble des conduites alimentaires
TCC	Thérapie cognitivo-comportementale
TOC	Trouble obsessionnel-compulsif
WSRT	Wilcoxon Signed Rank Tests
YBC-EDS	Yale-Brown-Cornell Eating Disorder Scale

« Heureux soient les fêlés, car ils laisseront passer la lumière. » Michel Audiard

Remerciements

Plusieurs personnes ont contribué à la réalisation de cette thèse doctorale. Je souhaiterais d'abord adresser mes plus sincères remerciements à Dr Kieron O'Connor, qui en 2008 m'a accueillie dans son laboratoire de recherche en me laissant carte blanche sur le choix de mon sujet de thèse. Merci Kieron de m'avoir soutenue et encouragée tout au long de mon parcours doctoral. Tu as su me guider et me conseiller toujours avec grande disponibilité et confiance. Je te remercie particulièrement pour ta générosité remarquable et ton humour irlandais attachant. Grâce à la confiance que tu m'as témoignée, je me suis acharnée dans mes demandes de bourses et j'ai pu profiter des plaisirs des congrès internationaux. Je me sens très privilégiée d'avoir travaillé à tes côtés et d'avoir eu la chance de profiter de ton expertise. Je te souhaite la plus belle des suites.

Merci au soutien financier des Instituts de Recherche en Santé du Canada de même que des Fonds de Recherche sur la Société et la Culture du Québec.

Merci à Drs Frederick Aardema et Jennifer Coelho qui furent d'une aide précieuse lors de l'analyse de mes données et la rédaction. Thanks Fred for your exceptional patience. I would like to extend my gratitude to you Jennifer, for your constructive and invaluable feedback.

Merci mon ptit cuy, ma partner in crime, d'avoir partagé avec moi six ans de fous rires, de larmes et d'amitié dans notre bureau. Je n'ai jamais eu autant de plaisir à procrastiner qu'avec toi.

Je tiens à te remercier Giulia, pour tes judicieux conseils, ton regard critique, ton ouverture et ton soutien inestimable au fil de ces années partagées à espérer un jour terminer nos doctorats. On y est enfin mon amie.

Merci à tous les participant(e)s, à mes patient(e)s et à toutes celles que j'ai côtoyées qui ont pris le risque de s'ouvrir à moi. Le courage dont vous avez fait preuve en faisant face au trouble alimentaire m'a grandement inspirée et touchée.

J’envoie également au passage un clin d’œil affectueux aux superviseurs de stage qui ont cru en moi et qui ont alimenté mon enthousiasme pour la pratique clinique.

Un gros merci à tous les membres de l’équipe du Centre de Recherche Fernand-Seguin qui ont participé de près ou de loin au déroulement du projet et qui ont été des collègues fantastiques au cours des années : Annette, Annie S., Annie T., Audrey, Benjamin, Geneviève, Julie, Karine, Melha, Mélodie, Natalia, Sarah, Stella et Valérie.

Mes remerciements provenant du plus profond de mon cœur, les plus sentis et personnels sont réservés à ma maman, mon papa, ma sœur, mon frère et mon amoureux. Sentir que vous m’appuyez, que vous croyez en moi et que je peux toujours compter sur vous me donne la force de persévérer jusqu’au bout de mes rêves. Votre amour, compréhension, patience et humour m’ont permis d’affronter les épreuves dans mon cheminement doctoral. Merci de m’avoir accompagnée et motivée dans cette longue aventure. Je suis si choyée de vous avoir à mes côtés.

Finalement, merci à toute ma famille, ma belle-famille et à mes chers amis pour votre encouragement et votre intérêt maintenu tout au long de ce périple. Vous contribuez tous, chacun à votre façon, à me faire sentir si bien entourée. Merci pour votre soutien indéfectible, votre présence et votre parfaite dose de folie.

Introduction

Les troubles des conduites alimentaires (TCA), particulièrement l'anorexie mentale (AN) et la boulimie (BN), sont des troubles mentaux caractérisés par des obsessions liées à l'alimentation, au poids et à la silhouette. L'AN et la BN sont les principaux TCA ayant été associés avec le trouble obsessionnel compulsif (TOC) dans la littérature (Mazure, Halmi, Sunday, Romano, & Einhorn, 1994; Shafran, Teachman, Kerry, & Rachman, 1999; Shafran, 2002; Shafran, Fairburn, Robinson, & Lask, 2004; Purcell Lalonde & O'Connor, 2012).

L'AN est définie par une perte de poids importante et un refus de maintenir un poids normal (APA, 2013). Les personnes souffrant d'AN ont une crainte excessive de prendre du poids et ce en dépit du fait que leur poids soit inférieur à la normale. Souvent, elles présentent une distorsion de leur image corporelle ainsi qu'un déni de la gravité de leur perte de poids. Dans l'AN, l'estime de soi est indûment influencée par le poids et/ou la silhouette. L'AN peut être de type restrictif ou de type avec crises de boulimie. Dans ce dernier cas, les crises de boulimie, qui se caractérisent par l'absorption d'une quantité importante de nourriture en un temps restreint, sont suivies par des comportements visant à éviter la prise de poids, tels que les vomissements provoqués, l'emploi abusif de laxatifs, de diurétiques, de lavements, le jeûne et/ou l'exercice physique excessif.

Selon *l'American Psychiatric Association* (APA, 2013), l'AN apparaît vers 13 ans à 17 ans et affecte 0,5 % de la population féminine. L'AN se présente habituellement sous la forme restrictive et un nombre significatif (54%) des anorexiques commencent à faire des crises de boulimie suivies de comportements compensatoires à l'intérieur des cinq ans suivant le début du trouble (Bulik, Sullivan, Fear, & Pickering, 1997).

La BN est, quant à elle, caractérisée par la survenue récurrente de crises de boulimie (APA, 2013). Celles-ci sont également suivies de comportements compensatoires inappropriés visant à prévenir la prise de poids (type purgatif : vomissements, laxatifs, diurétiques, ou type non-purgatif : jeûnes, activité physique intense). Comme dans l'AN, l'estime de soi des

personnes souffrant de BN est également influencée de manière excessive par le poids et la silhouette.

Les hommes peuvent également souffrir de TCA, mais beaucoup moins fréquemment que les femmes (ratio de dix femmes pour un homme) (APA, 2013). Un chevauchement marqué existe entre les TCA et le TOC au niveau diagnostique, phénoménologique, épidémiologique et concernant les comorbidités ainsi que les caractéristiques psychologiques reliées au trouble (Mazure et al., 1994; Shafran et al., 1999; Shafran, 2002; Shafran et al., 2004). Le terme *trouble du spectre obsessionnel-compulsif* est utilisé pour englober ces troubles mentaux qui partagent certains facteurs communs (Goldsmith, Shapira, Phillips, & McElroy, 1998; Hollander, 1993; Hollander & Benzaquen, 1997). D'une part, les problématiques des TCA ainsi que du TOC se ressemblent au niveau du caractère obsessionnel des pensées. D'autre part, dans le cas des TCA, la nourriture, le poids corporel et la silhouette, qui constituent l'objet des obsessions, engendrent des compulsions qui s'apparentent aux comportements répétitifs et ritualisés observés chez les personnes souffrant du TOC.

Cependant, à la différence des obsessions du TOC qui sont majoritairement égo-dystones, c'est-à-dire que les pensées sont perçues comme étant absurdes et contraires aux valeurs de la personne, les pensées obsessionnelles observées dans l'AN et la BN sont considérées à ce jour comme étant majoritairement égo-syntones. Dans ce dernier cas, les obsessions seraient donc plus en accord avec le système de croyances et les valeurs des personnes atteintes d'un TCA. Les résultats de plusieurs études ont néanmoins démontré que les obsessions des individus aux prises avec un TCA ont des degrés variables d'égo-dystonie et d'égo-syntonie, malgré la croyance initiale que l'égo-syntonie seule caractérise les pensées dans les TCA (Roncero, Belloch, Perpiña, & Treasure, 2013; Mazure, Halmi, Sunday, Romano, & Einhorn, 1994; Sunday & Halmi, 2000). Peu d'études se sont penchées sur le degré d'égo-dystonie dans les obsessions TCA, son impact au niveau du traitement psychologique et ses fluctuations en fonction de la sévérité et de l'évolution des symptômes du TCA.

La thérapie cognitivo-comportementale (TCC) est actuellement le traitement de choix pour le traitement de la BN ainsi que du TOC (Butler, Chapman, Forman, & Beck, 2006). Pour ce qui est de l'AN, la TCC se démontre efficace, mais aucune approche de traitement ne ressort comme étant supérieure (Kaplan, 2002). Malgré l'efficacité de la TCC pour les TCA et le TOC, plusieurs clients se montrent néanmoins très résistants à un traitement impliquant l'exposition et la prévention de la réponse (EPR). La résistance à l'EPR est d'autant plus marquée chez les personnes présentant des idées surévaluées, c'est-à-dire un haut niveau de conviction face aux obsessions. Les clients atteints d'un TCA sont encouragés avec l'EPR à confronter leur phobie de prendre du poids en s'exposant aux stimuli anxiogènes, en normalisant leur apport calorique tout en évitant d'avoir recours aux comportements compulsifs associés aux TCA (restriction alimentaire, activité physique excessive, vomissements provoqués, etc). En chiffres, près de 50% des personnes souffrant d'un TCA (Eivors et al., 2003; Vandereycken & Pierloot, 1983; Waller, 1997) et jusqu'à 40% des personnes souffrant d'un TOC (Steketee, 1993) abandonnent ou refusent d'avoir recours à une TCC. Dans le cas des adultes boulimiques, plus de la moitié n'atteignent pas les critères asymptomatiques au suivi post-traitement (Fairburn et al., 1995; Fairburn and Harrison, 2003) et environ un quart abandonnent la thérapie (Shapiro et al., 2007). Plusieurs chercheurs ne rapportent pas de bénéfices ajoutés en lien avec l'EPR dans une TCC pour la BN (Bulik et al., 1998; Agras et al., 1989).

Une approche visant des changements substantiels au niveau cognitif avant d'arriver aux exercices comportementaux s'avère en conséquence plus indiquée pour ces troubles, où la présence d'idées surévaluées nuit au progrès. Une idée surévaluée est une croyance surestimée et fixe qui, bien qu'elle comporte certains éléments de doute, ne répond habituellement pas aux tentatives de rationalisation (Neziroglu & Yaryura-Tobias, 1997). On parle d'idée surévaluée lorsque l'individu est fortement convaincu de la réalité objective de sa croyance, la conviction n'atteignant toutefois pas un niveau délirant (c'est-à-dire qu'il persiste quand même un certain doute). Une personne ayant de fortes idées surévaluées s'investit de manière excessive dans une croyance précise, qui n'est habituellement pas partagée par les autres.

La thérapie basée sur les inférences (TBI) a été élaborée par O'Connor et al. (2005) afin de traiter les personnes aux prises avec un TOC et présentant de fortes idées surévaluées. Étant donné que la TBI a prouvé son efficacité pour le traitement d'individus avec de fortes idées surévaluées (Taillon & O'Connor, 2009; O'Connor et al., 2009; Taillon et al., 2013) et qu'il existe un chevauchement marqué entre les TCA et le TOC, la TBI a été adaptée aux TCA (Bertrand & O'Connor, 2009).

La TBI vise une diminution des idées surévaluées en travaillant sur les construits de soi négatifs qui rendent la personne vulnérable à des scénarios obsessionnels en ciblant précisément les convictions égo-syntones, les doutes et le raisonnement face au soi et à l'identité. La TBI ne conceptualise pas l'obsession comme une pensée qui serait mal interprétée, mais plutôt comme un doute qui s'élabore à partir d'un narratif purement idiosyncratique.

Selon la TBI, le processus de raisonnement commun aux TOC et aux TCA qui mènerait aux obsessions est la « confusion inférentielle ». L'individu dont le processus de raisonnement est caractérisé par la « confusion inférentielle » a tendance à ne pas avoir confiance en ses sens et à accorder une importance démesurée aux possibilités et à l'imagination, d'où la présence et l'importance du doute obsessionnel (Aardema, Emmelkamp, & O'Connor, 2005). Par ailleurs, deux études portant sur le TOC ont révélé une corrélation positive entre la diminution de la confusion inférentielle et la diminution des symptômes obsessionnels-compulsifs au cours d'une TCC (Aardema, Emmelkamp, & O'Connor, 2005) et d'une TBI (Del Borrello, & O'Connor, 2014), et ce même en contrôlant pour les changements relatifs à l'humeur au cours de cette même période. Paradisis, Aardema, & O'Connor (2011) et Aardema et al. (2008) ont également observé que la confusion inférentielle était un facteur prédictif fort des changements au niveau des symptômes du TOC. Il est donc important d'explorer ce concept dans un échantillon d'individus souffrant de TCA.

Les objectifs principaux de cette thèse sont d'examiner le degré d'égo-dystonie dans les obsessions TCA, son impact au niveau du traitement psychologique et ses fluctuations en fonction de la sévérité et de l'évolution des symptômes du TCA. Celle-ci est organisée comme

suit : une revue de la littérature scientifique publiée sous forme de chapitre, suivie d'un article empirique, d'une étude de cas et d'une dernier article empirique à devis longitudinal.

Le premier article de la thèse présente le chapitre de livre intitulé « Cognitive therapy, ego-dystonicity and eating disorders ». Il s'agit d'une revue de la littérature portant sur le lien entre l'égo-dystonie et les TCA, les similarités marquées existantes entre les TCA et le TOC et proposant un état actuel des thérapies cognitives pour les TCA, incluant la TBI.

Le deuxième article est une étude empirique intitulée « Food for thought: ego-dystonicity and fear of self in eating disorders ». Cet article explore (1) le lien existant entre la nature égo-dystone des obsessions chez les patientes TCA et le concept de peur face à leur identité et à la personne qu'elles pourraient devenir, (2) la relation existante entre la sévérité des symptômes TCA et l'égo-dystonie dans les obsessions et (3) les différences existantes dans les pensées égo-dystones et de peur face à son identité chez des sujets non-cliniques d'une part et des personnes aux prises avec un TCA d'autre part. Dans cette étude, le degré d'égo-dystonie dans les pensées a été mesuré par le « Ego Dystonicity Questionnaire » (EDQ; Purdon, Cripps, Faull, Joseph, & Rowa, 2007; voir Annexe 1) et le niveau de peur face à l'identité a été mesuré par le « Fear of Self Questionnaire » (FSQ; Aardema et al., 2013; voir Annexe 2) auprès d'un échantillon de femmes souffrant d'un TCA (n = 57) ainsi que d'un échantillon de sujets non-cliniques (n = 45).

Le troisième article intitulé « Inference-based therapy for bulimia nervosa: A clinical case study » présente une étude de cas décrivant l'application du programme de thérapie cognitive TBI à une femme de 35 ans souffrant de BN. Dans cette étude, nous avons examiné les symptômes TCA au pré-, post-traitement et six mois suivant la TBI. Les implications cliniques reliées au traitement des individus avec un TCA présentant de fortes idées surévaluées sont examinées.

Le quatrième article présente une étude empirique à devis longitudinal intitulée « Food for thought II: change in ego-dystonicity and fear of self in bulimia nervosa ». Ce dernier article évalue le changement du pré-traitement au post-traitement et six mois suivant la TBI au niveau (1) de la sévérité des symptômes TCA, (2) du degré d'égo-dystonie dans les obsessions

et (3) de la peur face à son identité, des mesures de motivation, d'humeur et d'anxiété. Dans cette étude, Nous avons mesuré la pathologie TCA, l'égo-dystonie, la peur face à son identité, les idées surévaluées et la confusion inférentielle au cours de la TBI et six mois suivant la psychothérapie chez 15 femmes avec un diagnostic de BN.

Pour terminer, une conclusion générale souligne l'apport global des études réalisées dans le cadre de cette thèse en discutant des sujets traités, des méthodes utilisées et des résultats obtenus en vue d'orienter les recherches futures.

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Premier article: Cognitive therapy, ego-dystonicity and eating disorders [1]

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Author Note

This work was supported by grant number 174014, awarded to the last author, from the Canadian Institutes of Health Research.

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1 Cet article a été publié dans : Purcell Lalonde, M., & O'Connor, K. (2012). Cognitive therapy, ego-dystonicity and eating disorders. In S. A. Lee & D. M. Edget (Eds.), Cognitive Behavioral Therapy: Applications, Methods and Outcomes (pp. 93-114). Hauppauge, NY: Nova Science Publishers.

Abstract

The present chapter reviews empirical findings on the relationship between ego-dystonicity and EDs, and the efficacy of current cognitive therapy for EDs. It introduces a new cognitive therapy model that supplements current psychological thinking on the cognitive domains shared by individuals with OCD and EDs. Eating disorders [EDs; anorexia nervosa (AN) and bulimia nervosa (BN)] affect 1-3% of the population. The *National Association of Anorexia Nervosa and Associated Disorders* reports that these pervasive disorders have the highest mortality rate of any group of mental illnesses. Resistance to cognitive-behavioral therapy in individuals with EDs is very common; nearly 50% abandon or refuse treatment. Treatment resistance may result from a high degree of ego-syntonicity in AN and BN obsessions. Ego-syntonic obsessions are consistent with an individual's self-image and goals; in contrast, ego-dystonic obsessions are characterized by behaviors, thoughts, or feelings that are personally unacceptable or incongruent with individual values. The roles of ego-dystonicity and ego-syntonicity in treatment response in obsessive compulsive disorder (OCD) have been explored. Greater ego-syntonicity in obsessions in individuals with OCD has been associated with treatment résistance and non-adherence, treatment refusal, poor motivation and poor insight. Nevertheless, little is known about the relationship between ego-dystonicity and eating disorders (EDs). This relationship is particularly relevant because of the recognized overlap between OCD and EDs in phenomenology, epidemiology, comorbidity, and psychological characteristics of the disorders.

Key words: Cognitive therapy, ego-dystonicity, eating disorders, obsessive-compulsive disorder.

Introduction

A focus of recent research on obsessive-compulsive disorder (OCD) has been to identify the role of ego-dystonicity and syntonicity in obsessions in relation to treatment response. Ego-dystonicity is a defining feature of obsessions as well as compulsions and is characterized by behaviors, thoughts, images or feelings unacceptable to the person's values, sense of self or personality (Purdon, Cripps, Faull, Joseph, & Rowa, 2007). In contrast, ego-syntonic wishes, dreams, impulses, ideas are consistent with the person's self-image since they fit with the person's perceived needs and goals, and are considered an integral part of the person's personality (Purdon et al., 2007). In fact, a greater degree of ego-syntonicity in obsessions of individuals with OCD has been associated with treatment resistance, treatment refusal, poor insight, and is often typical in individuals with overvalued ideas or a high degree of conviction towards obsessional doubts (Foa, 1979; Foa, Abramowitz, Franklin, & Kozak, 1999; Neziroglu, McKay, Yaryura-Tobias, Stevens, & Todaro, 1999). If the content of an obsession is perceived as consistent with a person's values, then the investment in resisting it may not be as great; this may weaken motivation and compliance to treatment (Christenson & Greist, 2001; Summerfeldt, 2006).

Nevertheless, little is known about the impact of ego-dystonicity on treatment outcome in eating disorders (EDs: Anorexia Nervosa and Bulimia Nervosa). This question is particularly relevant given the recognized overlap between OCD and EDs in phenomenology, epidemiology, comorbidity, and psychological characteristics related to the disorder. As increased attention is placed on these similarities, many researchers even argue that EDs are part of the "obsessive-compulsive spectrum" (Goldsmith, Shapira, Phillips, & McElroy, 1998; Hollander, 1993; Hollander & Benzaquen, 1997).

Obsessive-compulsive disorder, anorexia nervosa, and bulimia nervosa

Phenomenology

Obsessive-compulsive disorder (OCD) is characterized by a presence of obsessions (recurrent and persistent thoughts, impulses, or images) that are experienced as intrusive and inappropriate, causing marked anxiety or distress (American Psychiatric Association, 2000). Most people suffering from OCD also present compulsions (repetitive behaviors or mental acts such as hand washing, checking, ordering, counting, praying, repeating words) that are aimed at neutralizing the obsessions and at reducing the related anxiety (American Psychiatric Association, 2000).

Anorexia nervosa (AN) and bulimia nervosa (BN) are the main EDs that have been associated with OCD. AN is defined as the refusal to maintain a minimally normal body weight according to age and height (body mass index (BMI) equal to or below 17.5 kg/m^2 or body weight below 85% of that expected), and an intense fear of weight gain or of becoming fat even when one is underweight (American Psychiatric Association, 2000). Another important feature of AN is the disturbance in the way in which one's body weight or shape is experienced and the undue influence of body weight or shape on self-evaluation. Individuals suffering from AN often exhibit a distorted view of their body image (e.g., thinking one is fat when they are emaciated) and/or deny the gravity of their current low body weight (American Psychiatric Association, 2000). Furthermore, postmenarcheal women with this disorder may become amenorrheic for at least three consecutive months (American Psychiatric Association, 2000). AN can be of restrictive type or of binge eating/purging type which includes the use of compensatory behaviors such as self-induced vomiting, laxative or diuretic abuse, enemas, fasting, and/or excessive exercise (American Psychiatric Association, 2000).

BN is characterized by recurrent episodes of binge eating, which are defined by eating, in a short period of time, quantities of food that exceed what most people would ingest under similar circumstances and during which one loses control over food intake (American

Psychiatric Association, 2000). These episodes are followed by inappropriate compensatory behaviors aimed at preventing weight gain. Individuals with the purging subtype of BN engage in purging behaviors such as self-induced vomiting, abuse of laxatives and/or diuretics, enemas, while the nonpurging subtype is characterized by methods like fasting and excessive exercise (American Psychiatric Association, 2000). In addition, the self-esteem of individuals suffering from BN, like those suffering from AN, is unduly influenced by body shape and weight (American Psychiatric Association, 2000).

Epidemiology

OCD, AN and BN are relatively rare, occurring in respectively approximately 2.5%, 0.5% and 1-3% of the population across cultures (American Psychiatric Association, 2000). Men and women are equally likely to suffer from OCD. However, EDs affect predominantly women outnumbering men by a 10:1 ratio (American Psychiatric Association, 2000). According to the APA (2003), the age of onset for OCD and both AN and BN is generally during adolescence and young adulthood, but boys may develop OCD between childhood and adolescence (between ages 6 and 15).

Comorbidity

EDs often coexist with one or several psychiatric disorders. On Axis I, anxiety, mood and substance abuse disorders are the most common (Blinder, Cumella, & Sanathara, 2006; Godart et al., 2006). In addition to this same portrait of comorbid Axis I disorders, OCD is frequently associated with tic disorder and Gilles de la Tourette syndrome (Denys, Tenney, van Megen, de Geus, & Westenberg, 2004; Ladouceur, Rhéaume, & Freeston, 1999). On Axis II, EDs are often present in comorbidity with personality disorders (PDs). Marañon, Echeburúa and Grijalvo (2004) found that more than half (51.5%) of people with EDs also suffer from a PD. Lilenfeld et al. (1998) discovered a high risk of obsessive compulsive personality disorder among relatives of individuals suffering from AN. Among all personality disorders, obsessive compulsive personality disorder shows the highest comorbidity rate with EDs (Rastam, 1992; Thornton & Russell, 1997; Wonderlich & Mitchell, 2001), though borderline and avoidant PDs are also frequent (Marañon et al., 2004). However, no significant

association between OCD and PDs has been found (O'Connor & Robillard, 1996). In the cases where individuals suffering from OCD are further diagnosed with a PD, authors have found dependent, avoidant and obsessive-compulsive PDs to be the most common (Denys et al., 2004; Ladouceur et al., 1999). As EDs and OCD are related to many of the same psychiatric disorders, it is not surprising that joint comorbidity is considerably high in clinical populations (Anderluh, Tchanturia, Rabe-Hesketh, & Treasure, 2003; Kaye, Weltzin, Hsu, Bulik, McConaha, Sobkiewicz, 1992).

Obsessive-compulsive disorder spectrum

Similarities between EDs and OCD and their overlap have long been acknowledged. Many researchers have even suggested that EDs should be considered a form of OCD. Indeed, Palmer & Jones (1939) suggested AN was a manifestation of OCD, DuBois (1949) proposed that AN was a "Compulsion Neurosis with Cachexia" and Rothenberg (1986) described EDs as a "modern obsessive-compulsive syndrome". Recently Godart, Flament, Perdereau and Jeammet (2002) reported that 10% to 60% of individuals with AN and up to 40% of individuals with BN have a coexisting OCD diagnosis. Furthermore, elevated lifetime rates of EDs (8.3-12%) in OCD populations have been found (Bellodi, Cavallini, Bertelli, Chiapparino, Riboldi, & Smeraldi, 2001; Halmi, Eckert, Marchi, Sampugnaro, Apple, & Chen, 1991; Hsu, Kaye, & Weltzin, 1993; Kasvikis, Tsarkis, Marks, Basoglu, & Noshirvani, 1986; Rubenstein, Pigott, L'Heureux, Hill, & Murphy, 1992). Tamburrino, Kaufman, and Hertzer (1994) have noted the presence of an ED (past or present) in 42% of women with an OCD diagnosis. Other authors have concluded that 11 to 13% of women with OCD have a previous history of AN (Fahy, Osacar, & Marks, 1993; Zribi, Chambron, & Cottraux, 1989). In addition, Rubenstein et al. (1992) have found that the prevalence of sub-clinical EDs is as high as 22.6 % in women and 12.9 % in men suffering from OCD. According to Angst et al. (2004), suffering from clinical or sub-clinical OCD is a risk factor for developing BN.

Many studies have investigated whether obsessions and compulsions, other than those related to eating behaviors, are observed in people with EDs (Bastiani et al., 1996; Halmi et al., 2003; Hasler et al., 2005; Kaye et al. 1992; Matsunaga, Kiriike, Iwasaki, Miyata,

Yamagami, & Kaye, 1999; Matsunaga, Miyata, Iwasaki, Matsui, Fujimoto, & Kiriike, 1999). Ordering and arranging, symmetry and exactness obsessions appear with highest frequency in individuals with EDs, whereas obsessions related to fear of contamination, cleaning rituals, and hoarding compulsions are less common (Bastiani et al.; 1996, Halmi et al., 2002; Matsunaga, Kiriike et al., 1999; Matsunaga, Miyata et al., 1999; Srinivasagam, Kaye, Plotnicov, Greeno, Weltzin, & Rao, 1995; von Ranson, Kaye, Weltzin, Rao, & Matsunaga, 1999). Sexual, aggressive or religious obsessions, and checking, counting, or repetition compulsions are rarely observed in people suffering from an ED. Taken together, findings suggest that people with EDs have less of a variety of obsessions and compulsions than people with OCD.

Similarities between eating disorders and obsessive-compulsive disorder

Significant resemblances exist between obsessional content of thoughts in EDs and in OCD. OCD is characterized by a presence of obsessive, intrusive thoughts and related compulsions aimed at reducing anxiety. Similarly, EDs also present obsessional thoughts about thinness, body shape, and incessant ruminations about food, followed by ritualistic compulsions like methodical calorie counting, weighing, and repetitive food cutting. There are also compensatory behaviors such as purging and excessive exercise intended to evacuate negative emotions anxiogenic ED thoughts (Mazure, Halmi, Sunday, Romano, & Einhorn, 1994).

Similar instruments evaluate the two disorders. The *Yale-Brown-Cornell Eating Disorder Scale* (YBC-EDS) measures the form that preoccupations (obsessions) and rituals (compulsions) can take in individuals suffering from an ED (Mazure et al., 1994). This instrument was in fact adapted from the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) which assesses OCD symptoms and severity (Goodman et al., 1989 a,b). Preoccupations and rituals in EDs can be related to food and weight (ex: calorie counting, compulsively checking that one's weight is unchanged or hoping that it has decreased, trying on a tight fitted piece of clothing while noting any variations in weight or in body shape, watching oneself closely and

at length in the mirror, making excessive lists to record changes in weight, number of calories consumed per day). Other common compulsions include binging, purging, and physical exercise (always eating the same foods during bulimic episodes, starting with certain foods such as beets that serve as a signal that everything ingested has successfully been vomited, maintaining a strict exercise routine such as running 45 minutes everyday, counting the exact number of burnt calories which can determine eating behavior for the rest of the day). Moreover, individuals suffering from EDs often abide by specific rules or safety behaviors such as routinely eating the same foods every day, at a specific time, in a specific order, or cutting their food into little pieces. These rigid rules are distinguishable from compulsions because they can be driven by anxiety or by the fear of change and can comfort the person to some extent, but do not necessarily have the immediate effect of reducing anxiety as do compulsions (Fairburn, 2008).

Ego-dystonicity and ego-syntonicity in obsessions

Obsessions in most subtypes of OCD such as fear of contamination, checking, and counting are considered to be ego-dystonic, that is to say that thoughts are considered aversive and unacceptable to the person's values. OCD subtypes where religious, sexual, or hoarding obsessions predominate are generally more ego-syntonic in nature, namely, consistent with the person's self-image and values. For example, hoarders perceive the act of collecting objects and never throwing them away as good and useful, because they will probably be needed one day. They also often feel emotionaly attached to these objects.

Although ruminations in people suffering from AN and BN have often been described as voluntary and ego-syntonic, several researchers have argued that further investigation of how they live with their preoccupations about calories and food reveal their ego-dystonic nature (Holden, 1990; Rothenberg, 1986; Garfinkel & Garner, 1982). Indeed, individuals with EDs suffer from intrusive thoughts and fears about the food that they plan to eat and/or that they would like to eat, but do not allow themselves to. Garfinkel and Garner (1982) specified that in the case of AN, incessant thoughts about food are ego-dystonic and only relentless thoughts about thinness and body shape preoccupations are ego-syntonic. BN is considered to be less ego-syntonic in nature, as the compensatory behaviors like purging are viewed as less

consistent with one's values. The ego-syntonic nature in EDs is reflected in the investment of the self in thinness to the extent that control over weight becomes a predominant goal in life. Distinguishing ego-dystonic from ego-syntonic criteria is also pertinent to distinguishing obsessions found in EDs. Aardema and O'Connor (2007) have argued that a degree of both ego-dystonicity and ego-syntonicity is found in every obsession and this seems the case in EDs.

Similar cognitive characteristics

Fairburn, Cooper and Shafran (2003) suggest a « transdiagnostic » theory of maintenance of EDs which integrates dysfunctional schema for self-evaluation (over-evaluation of achieving perfectionism, of eating, shape and weight, of one's control), core low self-esteem, as well as mood intolerance. Many of these maintaining characteristics are also reported in OCD (perfectionism, over-evaluation of the importance of thoughts, of control, low self-esteem, mood impacting on symptom intensity), which reflect EDs and OCD's shared etiology.

Shafran (2002) has shown that cognitive characteristics such as intolerance for uncertainty, overestimation of threat and perfectionism found in individuals with OCD (Obsessive.Compulsive.Cognitions.Working.Group., 2005) are also present in persons with EDs.

In fact, perfectionist attitudes like the need for control and for certainty can contribute to the development as well as the maintenance of EDs. For example, individuals suffering from an ED are constantly striving for a perfect body or always wanting to lose more weight; they are never satisfied with themselves. Persons with OCD can check if the door is perfectly locked or if their things are placed exactly like they should be. Satisfaction or pleasure is usually not reached through these obsessions with perfection because the absolute is unrealistic.

Tolerance for uncertainty is often very low in people with EDs as they have a high need for order and routine. They often eat the same meals from day to day because they have a

great difficulty tolerating the uncertainty associated with different or new foods and what could happen if they ate something without being aware of its caloric content. This inability to tolerate uncertainty provokes ritualistic compulsions such as methodical weighing, excessive examination of silhouette, and/or counting consumed and burnt calories. This overestimation of threat related to themes of food, weight or body shape/silhouette is also very present in individuals with EDs. For example, people with EDs may believe that eating a certain type of food like a cookie causes weight gain. This overestimation of threat frequently contributes to the maintenance of an ED. In addition, Shafran, Fairburn, Robinson, and Lask (2004) found that the great majority (92%) of people suffering from AN or BN have checking rituals like verifying one's weight or one's silhouette (weighing, examining one's body in the mirror, trying on a specific article of clothing to detect weight gain or loss, etc.). In this study, the more rituals the individuals with an ED presented, the more severe their symptoms were (Shafran et al., 2004).

Cognitive distortions have been implicated in the development and maintenance of EDs and OCD. In particular, the concept of thought-action fusion, identified in individuals with OCD (Amir, Freshman, Ramsey, Neary, & Bartholomew, 2001; Shafran, Thordarson, & Rachman, 1996), has been described as the belief that thinking about an unacceptable or negative event makes it more likely to happen, and the related belief that having an unacceptable or negative thought is morally equivalent to carrying out the corresponding negative action (Rachman, Shafran, Mitchell, Trant, & Teachman, 1996; Shafran et al., 1996). For example, clients suffering from OCD can believe that imagining themselves killing someone, thinking about hitting a pedestrian with their car or engaging in an extramarital affair increases the probability that it will occur or even that the thought is as immoral as the action in itself. The thought-action fusion phenomenon in those with OCD can be assessed by the *Thought Action-Fusion Scale* (Shafran et al., 1996).

Evidence that a comparable cognitive distortion exists in the ED population has been provided (Shafran, Teachman, Kerry, & Rachman, 1999). Indeed, Shafran et al. (1999) have shown that individuals with EDs fuse thoughts with behaviors and actions. They developed the thought-shape fusion concept relevant to the psychopathology of EDs which consists of the

belief that thinking about eating certain types of food increases a person's estimate of their shape and/or weight, evokes a feeling of moral wrongdoing, and/or provokes the sensation of being fat. For example, people with an ED can feel that thinking of eating a type of food that they forbid themselves to eat is as guilt-provoking than eating it. Even the thought of eating a high-caloric food can elicit the feeling of weight-gain. Thus, cognition biases and obsessional thoughts experienced by individuals suffering from EDs seem to take the same form as those in OCD. Studying the thought and reasoning processes implicated in EDs is therefore essential for a better understanding of EDs and to offer more effective and complete treatments in the cognitive domain for these disorders.

Importance of self-cognitions

Threat has been recognized as a general vulnerability factor for anxiety disorders. Aardema and O'Connor (2007) have studied the menacing character of obsessions that arise from within the individual. However, in individuals suffering from OCD, the fear of who they could or may become, seems a key self threat (Aardema & O'Connor, 2007). Rachman (1997) also emphasized that individuals with obsessional disorders believe deep down that they have unacceptable aspects to their identity. Markus & Nurius (1986) define the feared self as a set of attributes that people are worried of becoming and thus constantly striving not to become. Ogilvie (1987) argues that the feared self contains awful memories, undesired emotions, frightening events, and socially unacceptable thoughts or behavior. Similarily, Ferrier and Brewin (2005) have recently reported evidence for the existence of the concept of the "fear of self" in OCD as they found that those with OCD make more negative inferences about themselves on the basis of their intrusions.

Aardema and O'Connor (2007) have observed people with OCD's strong investment in their "sense of self-as could-be" in contrast to their "sense of self-as-is". They argue that their tendency to experience the self according to what it could be rather than experiencing it as is, originates from pathological imaginative processes, learning experiences and other developmental factors leading to a self definition based on what they could be or might become. Specifically, a tendency to sacrifice personal needs and autonomy as well as excessive concern with interpersonal relationships may be associated with this overinvestment

in OCD and thus lead to acquired self-doubt, lack of self-confidence, and excessive self-monitoring (Careau, O'Connor, Freeston, & Turgeon, 2007; Aardema & O'Connor, 2007). The perceived discrepancy between actual and feared self as well as the extent to which obsessions are ego-dystonic differ across individuals (Aardema & O'Connor, 2007). Indeed, people suffering from EDs often experience their obsessions as more concordant with their identity just like people with a hoarding subtype of OCD. According to Aardema & O'Connor (2007), even should the obsessions be subjectively realistic, they are always objectively discrepant with the person's "self-as-is" or actual self because they arise from a false self-evaluation. In other words, the experience that an obsession is ego-dystonic is illusory in that the incongruence with the person's identity results from the fear of a nonexistent possible self. Figure 1 illustrates the distinction between a normal and obsessive relationship to a "self-as could-be".

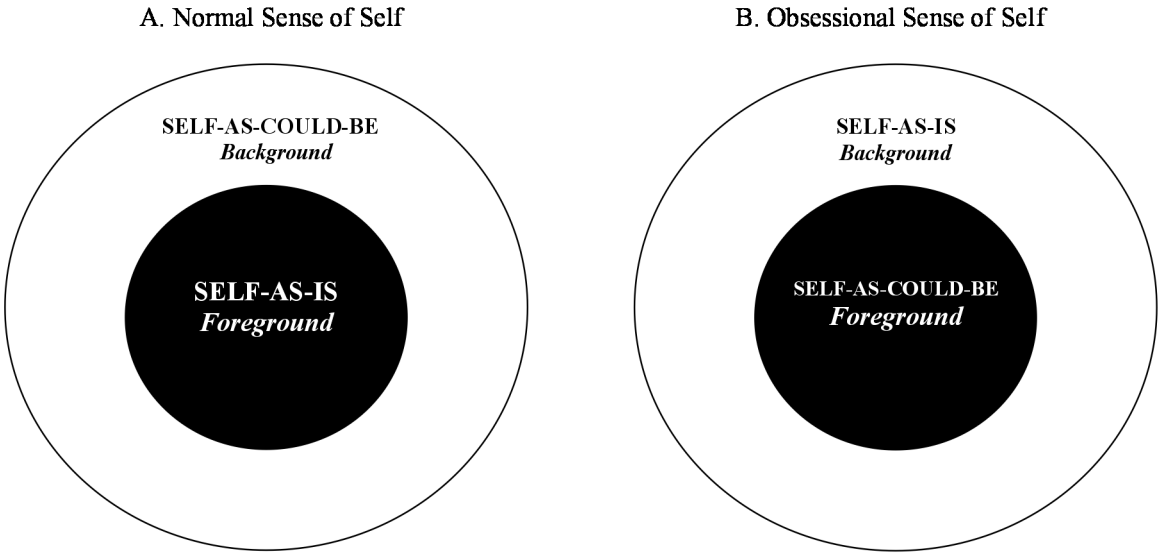

Figure 1. Schematic representation of normal and obsessional relationship between self-as-is and self-as-could-be.

Source.Aardema & O'Connor, 2007.

Cognitive and behavioral therapies

Cognitive-behavioural therapy (CBT) is the current treatment of choice for BN (Butler, Chapman, Forman, & Beck, 2006) and effective for the treatment of AN, although not shown as superior to other treatments (Fairburn et al., 2003). Current CBT models of EDs and OCD are very similar in terms of associations between thoughts and behavior. Indeed, compulsions in both OCD and ED aim to reduce anxiety generated by obsessional thoughts and stimulus bound fears. Although CBT can be effective for OCD and EDs (Butler et al. 2006), clients with a difficulty tolerating anxiety and a lower motivation to change are often resistant to behavioral treatments which require prolonged exposure to anxiogenic stimuli paired with prevention of the compulsive response (ERP). In EDs, ERP usually requires clients to consume their feared foods while following a hierarchy of least anxiogenic foods to most anxiogenic like high-fat foods, and preventing them from carrying out their compulsions such as purging. ERP may generate anxiety or other negative emotions which prove too overwhelming such as anger, frustration, sadness, or guilt. Further, in the case of clients with OCD who have strong overvalued ideas (a high degree of conviction towards obsessional doubts) and more ego-syntonic obsessions, there may be ambivalence about resisting the ritual (Abramowitz, Taylor, & McKay, 2005). In fact, approximately 50% of individuals with an ED (Eivors, Button, Warner, & Turner, 2003; Vandereycken & Pierloot, 1983; Waller, 1997) and up to 40% of clients with OCD (Steketee, 1993) refuse or abandon CBT. Specialized CBT for individuals with overvalued ideas may require a more thorough investigation of the cognitive maintaining factors prior to behavioral exercises (O'Connor et al., 2005). In people with EDs, often strong investment in overvalued ideas clearly drives behaviors. Irrational thoughts such as "If I feel full, I will immediately gain weight", "If I eat food that I usually do not allow myself to eat, I will lose control", "If I eat food that I usually do not allow myself to eat, I will instantly gain weight" are representative of overvalued ideas held by individuals with EDs (Steinglass, Eisen, Attia, Mayer, & Walsh, 2007). In addition, in EDs, self concept and self worth are narrowly defined around weight and food issues.

Inference based Therapy (IBT) was developed by O'Connor, Aardema, and Pélissier (2005) in order to treat individuals with OCD with particularly strong overvalued ideas by

focusing on self-cognitions and reasoning about self in therapy. A small scale randomized controlled trial compared the efficacy of IBT, exposure and response prevention, and therapy addressing cognitive appraisal (O'Connor et al., 2005). Although all approaches were effective in treating OCD without overvalued ideas, IBT worked more consistently in treating OCD with higher conviction levels. A recent open trial (n=86) confirmed IBT's efficacy in treating all subtypes of OCD and two other studies have shown equally effective treatment outcome in people with and without strong overvalued ideas (Taillon & O'Connor, 2009; O'Connor et al., 2009; Taillon, O'Connor, Dupuis, & Lavoie, in press).

Hence, given IBT's effectiveness in treating people suffering from OCD and the marked similarities between OCD and EDs, IBT has been adapted to treat individuals with EDs by tailoring therapy around doubts specific to EDs and addressing issues of self doubt and reasoning about the self (Bertrand, & O'Connor, 2009). According to IBT, the obsessional sequence begins at the point of a primary obsessional doubt (e.g., "Maybe I gained weight"). This doubt is an inference arrived at through reasoning. IBT first targets primary inferences in therapy which serve as the basis for the subsequent chain of obsessions and distress, and lead to secondary inferences or anticipated consequences (e.g., "If I gain weight, I will be fat and rejected by others") following from the primary doubt.

IBT allows clients to change their internal narrative that maintains the primary inferences in order to adhere to a more realistic scenario, which can in turn help change behavior. Furthermore, IBT considers that obsessions originate from interior narratives based on invalid inductive arguments specific to each client. Clients learn to change their narrative and to rely on their senses (for e.g., "I am looking at myself in the mirror and I can see my ribs, thus I am not fat"). It is important to clarify with clients that the inferences of individuals with obsessions are not entirely unrealistic; rather their narrative via a number of reasoning devices convinces them that the doubt is a real possibility in the "here and now". Narratives help maintain the obsessional doubt (primary inference) and the compulsions and other neutralizations because the person behaves as if the doubt was highly probable. The IBT model of the maintenance of OCD and EDs is schematically presented in Figure 2 . Doubts act

as the initiating factor in the cycle as they lead on to imagined negative consequences, which provoke anxiety and hence the neutralizations and compulsions.

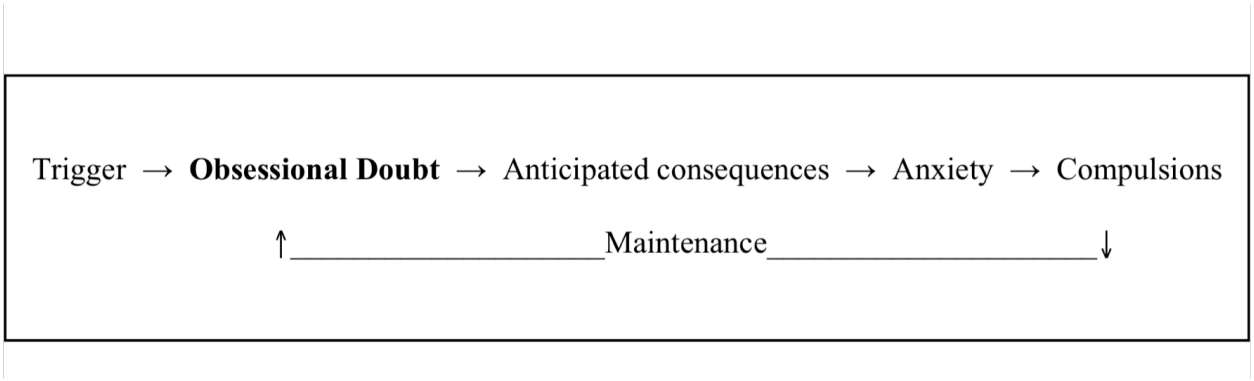

Figure 2. Schematic representation of Inference Based Therapy model of the maintenance of obsessive-compulsive disorder and eating disorders.

In the case of EDs, individuals create an internal narrative that validates their beliefs about the need to complete compulsions to maintain weight or lose weight. Compulsive rituals or other neutralizations are driven by a desire to reduce discomfort produced by primary and secondary inferences. However, the relief is short-lived as the obsessional preoccupations reappear sooner or later and the cycle continues because the compulsive rituals reinforce the strength of the primary inference.

One of the important claims of IBT is that the individual doubts experienced by people with OCD or EDs can be linked together by a common self theme. This self theme renders individuals vulnerable to doubting themselves in certain areas, but not in others. For example, someone who's OCD central theme is "maybe I'm not a good mother" might doubt herself when checking, cleaning or ordering, but may be less prone to doubt herself when reading, writing or in a social situation. In EDs, this self theme is frequently a feared identity (e.g, "I could become someone fat and unlovable"). In other words, individuals are convinced they could become a person they fear becoming if they do not take compulsive-like precautions. This strong investment in their "sense of self-as could-be" or feared self, at the expense of their "sense of self-as-is" or authentic self, results in experiencing the self according to what it could be rather than experiencing it as is (see Figure 1; Aardema & O'Connor, 2007). In IBT,

clients explore all the characteristics related to the person they fear to become and compare them with those they derive from their actual, authentic self. For example, clients often have a feared identity of being a fat person with no self-control, who is lazy and unloved. The psychologist helps clients realize that they complete compulsions in order to compensate for this fear of lack of control and rigor, for example, and are aimed at preventing them from becoming their feared self.

IBT addresses the link between clients' identity and their ED. The psychologist helps them identify their vulnerable self themes which maintain their ED and underlines their obsessional doubts (for e.g., "I am not a balanced person like my thin friends. I cannot eat moderately like they do. I am such a glutton that I am at risk of becoming fat if I allow myself to eat without restriction. I am the type of person who needs rigid rules concerning my eating habits otherwise I will lose control, I will not be able to stop eating, and become fat and disliked by others").

Other recent attempts to directly address self themes in therapy are Acceptance and Commitment Therapy (Hayes, Strosahl, & Wilson, 2004) which aims to help people live according to self values, thus clarifying their knowledge of the self in order to move towards a chosen direction that is meaningful to them, and Compassionate Mind Training (Gilbert & Procter, 2006), which was developed particularly for people with high shame and self-criticism in order to guide them towards compassion of the self, self-warmth and self-acceptance. In addition to these approaches, the importance of self-based treatments including building the individual's sense of self, as well as aspects of self concepts such as self-ambivalence have been emphasized in relation to OCD (Doron, Kyrios, & Moulding, 2007 ; Moulding, Forgione, Nedeljkovic, & Kyrios, 2010). Therefore, the previously discussed overlap between OCD and EDs suggests that cognitive treatments addressing self-concepts would also benefit individuals suffering from EDs.

The notion of ego-dystonicity and ego-syntonicity is crucial to future interventions with EDs. If a person's self is heavily invested in the belief in the utility of their behavior, then there will be more difficulty to change. On the one hand, it can be useful to consider motivational interviewing and attempting to prioritize meaningful life goals to reorient

behavior. However, alternatively, revealing how the eating disordered self is an illusory self which hides the authentic self can be a route to motivate change. Since once the person realizes the values of ED are against their genuine self and that authentic actions are not those dictated by the ED, then motivation to let go of ED beliefs logically becomes strengthened.

Conclusion

To conclude, it would be important for future studies to examine the impact of the ego-dystonic nature of obsessions on treatment outcome in eating disorders. Too little is known about this relationship in such a population. Recent developments have pointed to the importance of examining self-values, sense of self, self-compassion and ambivalence towards the self, and have produced promising interventions.

Finally, there is a great need for research evaluating how the ego-dystonic nature of obsessions relate to an overinvestment in the "self-as could-be", or feared identity, in contrast to the "self-as-is" in individuals with EDs as proposed by Inference Based Therapy.

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Objectifs et hypothèses de la thèse

Cette thèse a pour objectif d'examiner le lien entre l'égo-dystonie et les TCA. Pour se faire, le deuxième article vise d'abord l'exploration de la relation entre la nature égo-dystone des obsessions chez les patientes TCA et le concept de peur face à leur identité. Dans cette étude, nous investiguons aussi le lien entre la sévérité des symptômes TCA et l'égo-dystonie dans les obsessions. De surcroît, nous mesurons les différences dans la présence de pensées égo-dystones et de peur face à son identité entre des sujets non-cliniques et des personnes atteintes d'un TCA. Enfin, nous comparons le degré d'égo-dystonie dans les pensées de personnes atteintes d'un TCA à celui dans les pensées d'individus souffrant d'un TOC.

Ensuite, à travers une étude de cas, le troisième article a pour objectif de proposer et de décrire l'application du programme de thérapie cognitive TBI pour les TCA ciblant précisément les fortes idées surévaluées, les convictions égo-syntones, les doutes et le raisonnement face au soi et à l'identité. L'article vise également à évaluer l'hypothèse selon laquelle les symptômes TCA et les idées surévaluées de la participante souffrant de BN diminueront au cours de la TBI et six mois suivant la thérapie.

Enfin, le but final de cette thèse, dans le quatrième article, est d'étudier l'hypothèse selon laquelle au cours de la TBI et six mois suivant la thérapie, une diminution chez des adultes atteints d'un TCA sera observée au niveau (1) des symptômes TCA, (2) du degré d'égo-syntonie dans les obsessions et les compulsions, (3) du degré de peur de l'identité, (4) des idées surévaluées et (5) de la confusion inférentielle.

Deuxième article: Food for thought: ego-dystonicity and fear of self in eating disorders [2]

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This work was supported by grant number 20573, awarded to the second author, from the Fonds de la recherche en santé du Québec, and by an Insight Development Grant (430-2012-0115) awarded to the last author by the Social Sciences and Humanities Research Council. Correspondence concerning this article should be addressed to Magali Purcell Lalonde, Montreal Mental Health University Institute, 7331 Hochelaga street, Montréal (Québec), Canada, H1N 3V2.

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2 Cet article a été soumis pour publication dans : *European Eating Disorders Review.*

Abstract

There is a widely held assumption that both ego-dystonicity and ego-syntonicity characterize obsessions in eating disorders (EDs), and these factors are clinically relevant to the conceptualization and treatment of EDs; however, empirical findings on this subject are scarce. Obsessive-Compulsive Disorder (OCD) research has suggested that the escalation of intrusive thoughts into obsessions is linked to the degree to which intrusive thoughts threaten core perceptions of the self. This study aims to explore (1) the relationship between the ego-dystonic nature of obsessions in ED patients and a fear of self, (2) the link between ED symptom severity and ego-dystonicity in obsessions, and (3) differences between non-clinical and eating-disordered individuals in the presence of ego-dystonic thoughts and a fear of self. Ego-dystonicity in thoughts was measured by the Ego Dystonicity Questionnaire (EDQ) and degree of feared self was measured by the Fear of Self Questionnaire (FSQ) in both a clinical sample (n = 57 women with EDs) and a non-clinical female sample (n = 45). Ego-dystonicity and fear of self were highly correlated in both clinical and non-clinical samples. EDQ scores were not significantly correlated to overall ED symptom severity with the exception of the EDQ Irrationality subscale, which was related strongly to ED compulsion (ritual) severity. Participants suffering from an ED had significantly higher EDQ scores and FSQ scores compared to controls. Clinical implications relevant to the treatment of EDs are discussed.

Key words: ego-dystonicity; fear of self; eating disorders; obsessive-compulsive disorder.

Introduction

Despite a widely held assumption that both ego-dystonicity and ego-syntonicity characterize obsessions in eating disorders (EDs), and that these factors are clinically relevant to the conceptualization and treatment of EDs, empirical findings on this subject are scarce. Research in this area is particularly pertinent given the recognized overlap between Obsessive-Compulsive Disorder (OCD) and EDs in phenomenology, epidemiology, comorbidity, and psychological characteristics related to the disorder (Purcell Lalonde & O'Connor, 2012). Obsessions in most subtypes of OCD (such as fear of contamination, checking, and counting) are considered to be ego-dystonic, that is to say that thoughts are considered illogical and unacceptable to the person's values. Purdon, Cripps, Faull, Joseph, and Rowa (2007) studied ego-dystonicity in adult OCD samples and in a non-clinical university student sample. They presented the validation of the Ego Dystonicity Questionnaire (EDQ) and indicated its potential for use in understanding and treating obsessional problems. The EDQ was found to distinguish between obsessional thoughts and common worries, and individuals in the clinical sample had higher scores than the non-clinical sample.

A distinguishing feature of obsessions is their ego-dystonicity (American Psychiatric Association, 2000). Purdon et al. (2007) define an ego-dystonic thought as:

> One that is perceived as having little or no context within one's own sense of self or personality. […]The thought gives rise to considerable emotional distress and is resisted. (p. 200)

In contrast, ego-syntonic obsessions are consistent with an individual's self-image, values and goals. A greater degree of ego-syntonicity in obsessions of individuals with OCD has been associated with treatment resistance, treatment refusal, poor insight, and is often typical in individuals with overvalued ideas or a high degree of conviction towards obsessional doubts (Foa, 1979; Foa, Abramowitz, Franklin, & Kozak, 1999; Neziroglu, McKay, Yaryura-Tobias, Stevens, & Todaro, 1999). If the content of an obsession is perceived as consistent with a person's values, then the investment in resisting it may not be as great;

thus may weaken motivation and compliance to treatment (Christenson & Greist, 2001; Summerfeldt, 2006).

Although obsessions in patients suffering from EDs have often been described as ego-syntonic, Roncero, Belloch, Perpiña, and Treasure (2013) demonstrated that intrusive thoughts experienced by ED patients can simultaneously be both ego-dystonic and ego-syntonic:

> For example one patient stated: "All the time, no matter what I do, thoughts like these bother me: you're fat, you have to vomit, you ate too much. I can't stand it. I can't concentrate on anything. But for me it is so important to have a good physique, that I find it normal and rational to have thoughts like this. So I will not fight the thoughts, I'll do what they say." (p. 72)

Mazure, Halmi, Sunday, Romano, and Einhorn (1994) found that although more than half of their 40 ED patient-sample rated their eating-related preoccupations as ego-syntonic, 10 rated them as ego-dystonic. Similar findings were replicated in recovered ED patients and restrained-eating control subjects (Sunday & Halmi, 2000).

There is also variation in degree of ego-dystonicity in individuals with OCD. In particular, OCD research has suggested that the escalation of intrusive thoughts into obsessions is linked to the degree to which intrusive thoughts threaten core perceptions of the self (Bhar & Kyrios, 2007; Clark & Purdon, 1993; Rowa, Purdon, Summerfeldt, & Antony, 2005).

OCD researchers have also proposed that self-themes and the areas of life where an individual has important self doubts render a person vulnerable to a particular selective set of obsessional doubts (Aardema & O'Connor, 2007; O'Connor, Aardema, & Pélissier, 2005). Aardema and O'Connor (2007) have studied the menacing character of obsessions that arise from within the individual. In individuals suffering from OCD, the fear of who they could or may become, seems a key self threat (Aardema & O'Connor, 2007). Rachman (1997) also emphasized that individuals with obsessional disorders believe deep down that they have unacceptable aspects to their identity. Markus & Nurius (1986) define the feared self as a set of attributes that people are worried of becoming and thus constantly striving not to become.

Ogilvie (1987) argues that the feared self contains awful memories, undesired emotions, frightening events, and socially unacceptable thoughts or behaviour. Similarly, Ferrier and Brewin (2005) have reported evidence for the existence of the concept of the "fear of self" in OCD as they found that those with OCD make more negative inferences about themselves on the basis of their intrusions.

Recent research has demonstrated that ED patients have unconditional negative representations of the self or core beliefs that are not directly related to food, weight or shape (Cooper, 1997; Leung, Waller, & Thomas, 1999; Waller et al., 2003) and different patterns of these self-beliefs are associated with binge-eating and vomiting behaviours (Waller, Ohanian, Meyer, & Osman, 2000).

In EDs, the self-theme is frequently a feared identity (e.g., "I could become someone fat and unlovable"). That is, individuals with EDs are convinced that they could become a person they fear becoming if they do not take precautions. They demonstrate a strong investment in their sense of feared self or "self-as-could-be", at the expense of their actual self or sense of "self-as-is". This results in a skewed experience of self that is not based on reality (Aardema et al., 2013a; Aardema & O'Connor, 2007).

The strong investment in OCD patients' "sense of self-as-could-be" in contrast to their "sense of self-as-is" has been examined (Aardema et al., 2013a; Aardema & O'Connor, 2007). Aardema and O'Connor (2007) argue that the tendency to experience the self according to what it could be rather than experiencing it as is, originates from pathological imaginative processes, learning experiences and other developmental factors leading to a self definition based on what a person could be or might become. Specifically, a tendency to sacrifice personal needs and autonomy as well as excessive concern with interpersonal relationships may be associated with this overinvestment in an OCD self and thus lead to acquired self-doubt, lack of self-confidence, and excessive self-monitoring (Careau, O'Connor, Turgeon, & Freeston, 2012; Aardema & O'Connor, 2007). The perceived discrepancy between actual and feared self as well as the extent to which obsessions are ego-dystonic differ across individuals (Aardema & O'Connor, 2007). Aardema et al. (2013a) measured fear of self in a non-clinical undergraduate student sample and Aardema, Moulding, Radomsky, & Doron (2013) studied

fear of self in an adult OCD sample. Aardema and O'Connor (2007) have argued that a degree of both ego-dystonicity and ego-syntonicity is found in every obsession and this seems the case in EDs.

There is an overlap between OCD and EDs in terms of intrusion management and cognitive appraisal (Purcell Lalonde & O'Connor, 2012). Building on research in the field of OCD, it is clear that ego-dystonicity and ego-syntonicity is of clinical relevance in the resistance of obsessions and consequently may impact treatment outcome in EDs. Given that a significant proportion of individuals with EDs have a limited response to treatment, there is a need to study variables that may hinder effective treatment of EDs.

In the current article, we first aim to examine the extent to which individuals suffering from an ED have ego-dystonic obsessions. Second, we explore the hypothesis that the ego-dystonic nature of obsessions in ED patients may be linked to a feared self. Third, we investigate if ED symptom severity is related to ego-dystonicity in obsessions. Finally, we compare non-clinical and eating-disordered individuals regarding the ego-dystonicity of their thoughts as well as their degree of feared self.

Method

Participants

Participants were recruited from two different sites in Montreal. Each sample received the Ego Dystonicity Questionnaire (EDQ; Purdon et al., 2007) and the Fear of Self Questionnaire (FSQ; Aardema et al., 2013a) in addition to other measures, which varied by site.

The clinical sample consisted of 57 individuals with a principal diagnosis of an ED, in accordance with criteria put forth in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, text revision (DSM-IV-TR) (American Psychiatric Association, 2000). Amenorrhea was not a requirement for individuals diagnosed with anorexia (AN-restrictive (r) or binge-purge subtype (bp)), given recommendations that this criterion be removed from the

core diagnostic features (Attia & Roberto, 2009). Diagnoses were confirmed by a psychologist or staff psychiatrist following the assessment of a psychology undergraduate or graduate student (supervised by a psychologist) using the Structured Clinical Interview for DSM-IV Clinical Version (*SCID-I/CV*; First, Spitzer, Gibbon, & Williams, 1996).

Thirty-three individuals diagnosed with EDs were beginning treatment at the *OCD Spectrum Study Center* of the *Montreal Mental Health University Institute* offering an outpatient intervention program for EDs. The sample had only one male participant (n = 32 female; n = 1 male), a mean age of 30.64 (SD = 9.45), and a mean BMI of 23.13 (SD = 4.71). The majority of participants had a diagnosis of bulimia-purge subtype (BN-p) (n = 20; 60.6%), 11 had a diagnosis of BN-np (33.3%), and 2 had a diagnosis of AN-bp (6.1%). The diagnostic interview at this site also included the *Yale-Brown-Cornell Eating Disorder Scale* (YBC-EDS; Mazure et al., 1994), a semi-structured interview assessing ED symptom severity. Sixteen participants were students (48.5%), 3 were working full-time (9.1%), 3 were working part-time (9.1%), and 3 were unemployed (9.1%). Twenty-two were single (66.7%), 9 were married or had a common law partner (27.3%), and 2 were divorced (6.1%).

Twenty-four individuals were beginning their first treatment or a new round of treatment at the *Eating Disorders Program* of the *Douglas Mental Health University Institute* offering an inpatient, day treatment and outpatient program. In this sample, all participants were female, with a mean age of 28.04 (SD = 9.25), and a mean BMI of 20.97 (SD = 4.55). Twelve participants had a diagnosis of BN-p (50%), 1 had a diagnosis of BN-np (4.2%), 6 had a diagnosis of AN-r (25%), 3 had a diagnosis of AN-bp (12.5%), and 2 had a diagnosis of EDNOS (8.3%). Eight participants were students (33.3%), 8 were working full time (33.3%), 1 was working part-time (4.2%), 1 was unemployed (4.2%), and 6 were on sick leave (25.0%). Twenty were single (83.0%), 3 were married or had a common law partner (12.5%), and 1 was divorced (4.2%).

The non-clinical sample consisted of 45 women who were recruited from the local community, mostly via postings on student websites at the local universities, but also on the internal website for staff of the Douglas Mental Health University Institute,,and website advertisements including Kijiji and Craigslist. Non-clinical participants had a mean age of

24.5 (*SD* = 5.33) and were paid 10$ per hour to complete the study. Twenty-one participants were students (46.7%), 18 were working full-time (40%), 4 were working part-time (8.9%), and 2 were unemployed (4.4%). Thirty-three were single (73.3%), 12 were married or had a common law partner (26.7%).

No significant difference was found between the non-clinical and the clinical group concerning BMI ($t(100) = .82$, $p = .41$), occupation ($X^2(4, n = 102) = 5.56$, $p = .24$), or social status. However, the non-clinical participants were significantly younger than those with an ED (*M* = 29 years old) as most of them were students (*M* = 25 years old). No significant difference was found between the two clinical samples concerning age ($t(55) = 1.03$, $p = .31$), BMI ($t(55) = 1.74$, $p = .09$), or social status ($X^2(3, n = 57) = 2.06$, $p = .56$). Nevertheless, there were significantly more students as well as participants with a diagnosis of AN in the *Douglas Mental Health University Institute* sample versus the *Montreal Mental Health University Institute* sample.

Measures

Ego Dystonicity Questionnaire (EDQ; Purdon et al., 2007): The EDQ is a 37-item questionnaire that measures the degree of ego-dystonicity in obsessions according to four key concepts: inconsistency with morals, repugnance, implications of thought for personality, and irrationality. The EDQ has demonstrated adequate internal consistency reliability ($\alpha = 0.76$ to 0.89) and evidence of satisfactory construct validity, with significant relationships with obsessive-compulsive symptoms, mood and appraisal of obsessions (Purdon et al., 2007). The EDQ version used in the present study was modified to prompt individuals that the questionnaire was focusing on obsessions about food, weight, and/or shape.

Fear of Self Questionnaire (FSQ; Aardema et al., 2013a): The FSQ is a 20-item questionnaire that measures the degree of investment in an individual's "sense of self-as could-be" or feared self in contrast to their "sense of self-as-is", a concept related to ego-dystonicity. The FSQ has shown strong internal consistency ($\alpha = 0.96$), good divergent and convergent validity, including strong relationships to obsessional symptoms.

Symptom severity measure completed at the Montreal Mental Health University Institute by the clinical sample:

Yale-Brown-Cornell Eating Disorder Scale (YBC-EDS; Mazure et al., 1994) : the YBC-EDS is a semistructured interview assessing symptom severity and cognitive as well as behavioural changes pertaining to ED obsessions and compulsions. In addition, a subscale evaluates the degree of ego-syntonicity of obsessions and compulsions and another estimates motivation to change. The YBC-EDS is an adaptation of the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) (Goodman et al., 1989a,b) used to assess OCD symptoms and severity. The subscales of the instrument have good psychometric properties with internal consistency reliability coefficients of $\alpha = 0.87$ to 0.90 and interrater reliability coefficients of $\alpha = 0.81$ to 0.99.

Symptom severity measure completed at the Douglas Mental Health University Institute by the clinical sample:

Eating Disorders Examination- Questionnaire (EDE-Q; Fairburn & Beglin, 1994): The EDE-Q is a self-report questionnaire that can be used to assess the severity of the psychopathology associated with eating disorders. For the purposes of this research, only a global score was calculated. A French version was developed by first translating the material into French, and then back translating the material into English to ensure accuracy in the translation. This translated measure has been demonstrated to have similar psychometric properties to the original English version (Bruce et al., 2005).

Procedure

Non-clinical sample: Participants recruited via website advertisements were screened for exclusion criteria (i.e., current or past history of an eating disorder, substance dependence, or psychotic episode) and provided informed consent before completing a battery of questionnaires as part of a research project on food-related cognitions and beliefs at the *Eating Disorders Program* of the *Douglas Mental Health University Institute*.

Clinical sample: Participants at the *Montreal Mental Health University Institute* completed a battery of questionnaires as part of an on-going research project assessing treatment outcome in the program. The questionnaires, which included the EDQ and the FSQ, were mailed to participants after a principal diagnosis of an ED was confirmed following an assessment interview which inlcuded the use of the YBC-EDS. Participants at the *Douglas Mental Health University Institute* completed a battery of questionnaires during an in-person session including the EDQ, the FSQ and the EDE-Q. Participants provided informed consent (Annexes 3 & 4), and all measures and procedures were approved by the Research Ethics Board at the *Montreal Mental Health University Institute* (Annexe 5) and at the *Douglas University Mental Health Institute* (Annexe 6).

Results

Data were analysed using SPSS 17.0. Prior to performing t-tests, a MANOVA, and correlational analyses, scores on the questionnaires were checked for normality and homogeneity of variance, according to guidelines set forth by Tabachnick and Fidell (2001). The cut-off for significance was determined a priori at $p < .01$ to control for type II error.

Ego-dystonicity and fear of self

Means, standard deviations and intercorrelations between measures are reported in Table 1. Ego-dystonicity and fear of self appear to be strongly related, given high intercorrelations (with Bonferroni corrections) between EDQ total scores, most EDQ subscales and FSQ scores in clinical and non-clinical samples. However, according to Campell and Fiske (1959), with correlations between $r = .23$ and .61 in the ED sample, the measures were deemed to show adequate discriminant validity. In the ED sample, the 3 subscales that demonstrated the strongest correlation with FSQ scores were Implications of thought for personality ($r = .61$, $p < .001$), Inconsistency with morals ($r = .47$, $p < .001$), and Repugnance ($r = .45$, $p < .001$). The Implications of thought for personality subscale was also highly correlated with fear of self in the non-clinical sample ($r = .50$, $p < .001$). Irrationality was not

significantly related to fear of self in the ED sample (r = .23, p = .02), nor in the non-clinical sample (r = .07, p = .64).

Ego-dystonicity, fear of self, and symptom severity.

EDQ scores were not significantly correlated to YBC-EDS total severity scores (r = .31, p = .08) nor to EDE-Q severity scores (r = .49, p = .02), but showed a positive trend. However, the EDQ Irrationality subscale was positively correlated to YBC-EDS Compulsions scale (r = .53, p < .01).

Ego-dystonicity and fear of self comparisons in ED and non-clinical samples

Independent samples t-tests revealed that participants suffering from an ED had a significantly higher EDQ score (t(100) = 6.83, p < .001) and FSQ score (t(100) = 4.39, p < .001) compared to controls (see Table 2). A 4 (EDQ subscales) × 2 (ED group versus non-clinical group) MANOVA was also calculated. The ED sample scored significantly higher in all EDQ subscales than the non-clinical sample (with Bonferroni corrections, Wilks' Λ = .60, F(4,97) = 16.29, p < .001): Inconsistency with morals (F(1,100) = 29.04, p < .001), Repugnance (F(1,100) = 40.75, p < .001), Implications of thought for personality (F(1,100) = 58.86, p < .001), and Irrationality (F(1,100) = 6.43, p < .01). According to Cohen (1988), effect sizes concerning these group differences were moderate to large (|d| = .51 to 1.54).

OCD versus ED: Comparison with previous findings

Purdon et al. (2007) reported comparable EDQ scores to those in the present study in both their OCD sample scores (M = 140.32, n = 16) and university student sample (M = 121.04, n = 187).

Next, we examined the differences between non-clinical and eating-disordered individuals regarding the ego-dystonicity of their thoughts as well as fear of self. Aardema et al. (2013b) found slightly lower FSQ scores in an OCD adult sample (M = 55.74, n = 103) than the ED sample in the present study (M = 58.32), which was specific to obsessions, but not

to OCD symptom severity in general (r = .16, p < .01, n = 67) assessed by the Vancouver Obsessional Compulsive Inventory (VOCI; Thordarson et al. (2004).

Discussion

Ego-dystonicity and fear of self

In line with our hypothesis, the ego-dystonic nature of obsessions was found to be strongly related to fear of self in individuals suffering from an ED. This relationship between ego-dystonic obsessions and having fears about one's own identity seems to be explained in great part by the implication this thought or obsession has for the individual's personality. Thus the more individuals have thoughts relating to their feared self, the more they believe it has implications for who they fear becoming. This correlation is supported in non-clinical individuals as well. The greater degree to which intrusive thoughts are felt to be inconsistent with individuals' morals and repugnant to them, the more a person feels like these thoughts go against their sense of self or identity, and are therefore associated to feared aspects of their identity. Nevertheless, the illogical characteristic of a food/weight/shape-related obsession was not found to be linked to an individual's degree of feared self. Therefore, it seems that the extent to which an obsession is experienced as more ego-dystonic may not be associated with the logicality of the thought, but to an underlying and general process, namely how it touches the person's fear of self concept.

Ego-dystonicity, fear of self, and ED symptom severity

The degree of ego-dystonicity in obsessions was not significantly related to ED symptom severity, but a positive trend was demonstrated. Nevertheless, the EDQ irrationality subscale was significantly associated to ED patients' severity of compulsions or rituals, but there was no link between irrationality and severity of obsessions. This finding may be explained by the fact that coping with ED thoughts through compulsions is more likely when these thoughts are considered irrational. However, a large component of how an intrusive thought is evaluated as ego-dystonic or ego-syntonic depends on how it relates to the person's personality and sense of self. Likewise, the more individuals have thoughts relating to their

feared self, the more they will believe their thoughts will have important implications for their personality. Our results seem to partially resolve the incongruence that the same thought can be identified as both ego-dystonic and ego-syntonic. When individuals are relating the thought to their personality, on one hand, they may see it as more ego-syntonic (as they do not wish to become the feared self that is linked to this thought). On the other hand, when the same thought is evaluated on the basis of rationality, individuals may then view it as more ego-dystonic and feel the need to neutralize it with a compulsion or ritual as it seems absurd or illogical.

ED symptom severity was only partially related to the ego-dystonic nature of obsessions. Severity of EDs are largely assessed by patients' behaviours, including food restriction, binging, purging, exercise, and other rituals or compulsions they use to control their weight and neutralize their obsessions. As noted, we could expect thoughts related to compulsions to be more ego-dystonic as they can be considered more irrational. In the current study, patients' level of motivation to change, individual differences in self-awareness, and/or in self-discovery, and that patients were at different phases of treatment may have been factors that increased variance and dampened the association between ego-dystonicity in obsessions and ED symptom severity.

The degree to which a thought is characterized as ego-dystonic versus ego-syntonic may be related to high levels of ambivalence to change in EDs (Roncero et al., 2013). In the current study, all participants completed the EDQ, FSQ, and ED symptom severity measure at the beginning of a new phase of treatment. Participants may have considered their obsessions to be more ego-dystonic because they had a certain motivation to question their ED thoughts in therapy. Qualitative studies exploring the content of obsessions and identifying their degree of ego-dystonicity at different phases of treatment would be useful.

Clinical implications

Purdon et al. (2007) proposed a non-linear relationship between ego-dystonicity and the severity of OCD. The extent to which an obsession is ego-dystonic or ego-syntonic may also follow different degrees of fear of self. Among other fears, individuals with EDs may fear

becoming fat, out of control, lazy, unattractive, and unloved. Their actions are dictated by this feared identity, which may be an important underlying process that produces differences in ego-dystonicity of thoughts at different stages in time. Operating for a long period of time in reaction to fearing self could lead to believing that such thoughts are securitizing and serving a positive purpose; hence, these thoughts may be characterized as primarily ego-syntonic. Thus, it would seem very pertinent to address fear of self and self-doubt in psychological treatment for EDs via a focus on self-cognitions and reasoning about self. Patients could benefit from a therapy exploring other options than constantly running away from their feared identity.

Adults with EDs in this study had slightly higher degrees of ego-dystonic obsessions than was reported in adults with OCD by Purdon et al. (2007). Indeed a greater degree of fear of self in EDs may augment the degree of ego-dystonicity in their obsessions, since a strong relationship was shown to exist between these two concepts. Addressing feared identity therefore may be particularly important in the treatment of EDs.

Conclusions

To conclude, this study highlights the importance for future research, so far scarce, on the impact of ego-dystonicity in obsessions and how it relates to an overinvestment in the "self-as could-be", or feared identity, in contrast to the "self-as-is" in EDs. Recent developments have pointed to the importance of examining self-values, sense of self, self-compassion and ambivalence towards the self, and have produced promising interventions. The major limitation of the present study is it not having an experimental control or a longitudinal design. A further limitation is the small sample size across the sites, which in turn interfered with the ability to perform more in-depth analyses of symptom predictors associated with food-related intrusive thoughts and the fear of self. However, the current findings provide good preliminary evidence that these concepts play an important role in EDs. Although another limitation is the fewer participants with AN in our sample, the transdiagnostic model of EDs by Fairburn, Cooper, & Shafran, (2003) provides support that all individuals with EDs over-value food/weight/shape thoughts, and use weight control techniques (dieting, restriction) to cope with these thoughts. Therefore, even though some ED symptoms in BN may be

distressing, like vomiting, there are a variety of ego-syntonic symptoms (restriction, drive for thinness) that are theoretically expected to be common across diagnoses. We therefore expect that our findings extend to AN symptoms. Further research is needed in order to further our understanding of ego-dystonicity and ego-syntonicity, fear of self, and contribute to a better understanding of the variables hindering effective treatment of EDs.

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Table 1

Means, standard deviations and intercorrelations (ED sample: *n*= 57; non-clinical sample: *n*= 45)

		M	*SD*	FSQ	YBC-EDS Total	YBC-EDS Obsessions	YBC-EDS Compulsions	EDE-Q
EDQ	Clinical	146.74	35.96	.55**	.31	.21	.33	.49
	Non-clinical	100.64	30.95	.40*				
Inconsistency with morals	Clinical	34.21	12.86	.47**	.22	.17	.22	.43
	Non-clinical	22.00	9.10	.32				
Repugnance	Clinical	48.47	11.80	.45**	.27	.17	.30	.41
	Non-clinical	33.42	11.85	.27				
Implications of thought for personality	Clinical	41.28	11.26	.61**	.29	.23	.28	.45
	Non-clinical	25.07	9.69	.50**				
Irrationality	Clinical	21.86	6.09	.23	.39	.14	.53*	.35
	Non-clinical	18.96	5.27	.07				
FSQ	Clinical	58.32	23.28		.16	.15	.13	.33
	Non-clinical	39.24	19.68					
YBC-EDS Total	(*n*= 33)	23.48	3.87					
YBC-EDS Obsessions	(*n*= 33)	11.85	2.06					
YBC-EDS Compulsions	(*n*= 33)	11.64	2.34					
EDE-Q	(*n*= 24)	3.90	1.24					

note: ** correlation significant at $p < .001$; * $p < .01$. EDQ = Ego Dystonicity Questionnaire; FSQ = Fear of Self Questionnaire; YBC-EDS = Yale-Brown-Cornell-Eating Disorder Scale; EDE-Q = Eating Disorders Examination-Questionnaire.

Table 2

Differences between an ED sample and a non-clinical sample on ego-dystonicity and fear of self

	ED sample			*Non clinical sample*					
	n	*M*	*(SD)*	*n*	*M*	(*SD*)	*t*	*F*	*p*
EDQ	57	146.74	(35.96)	45	100.64	(30.95)	6.83		.001
Inconsistency with morals		34.21	(12.86)		22.00	(9.10)		29.04	.001
Repugnance		48.47	(11.80)		33.42	(11.85)		40.75	.001
Implications of thought for personality		41.28	(11.26)		25.07	(9.69)		58.86	.001
Irrationality		21.86	(6.09)		18.96	(5.27)		6.43	.01
FSQ	57	58.32	(23.28)	45	39.24	(19.68)	4.39		.001

note: EDQ = Ego Dystonicity Questionnaire; FSQ = Fear of Self Questionnaire.

Troisième article: Inference-Based Therapy for Bulimia Nervosa: A Clinical Case Study[3]

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This work was supported by grant number 20573, awarded to the second author, from the Fonds de la recherche en santé du Québec.

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3 Cet article a été soumis pour publication dans : *Behavioral Modification.*

Abstract

Anorexia nervosa (AN) and bulimia nervosa (BN) are the primary eating disorders (EDs) that have been associated with obsessive-compulsive disorder (OCD). There is a recognized overlap between EDs and OCD in terms of diagnosis, phenomenology, epidemiology, and psychological characteristics related to the disorder. Although CBT can be effective for EDs, approximately 50% of individuals refuse or abandon CBT. In the case of those with BN, more than half fail to reach asymptomatic criteria at follow-up and about a quarter drop out of treatment. Given the marked similarities between OCD and EDs, a cognitive inference-based therapy (IBT) program shown to be effective in treating OCD was adapted for EDs. The present case study describes the application of IBT treatment for a 35-year-old woman diagnosed with BN. Over a 24-week period, ED pathology significantly decreased. This case study has important implications for the treatment of individuals with EDs and strong overvalued ideas.

Keywords: bulimia nervosa; eating disorders; cognitive therapy; obsessive-compulsive disorder

Introduction

Eating Disorders (EDs), particularly anorexia nervosa (AN) and bulimia nervosa (BN), are mental illnesses characterized by an obsession with food and weight. AN and BN are the primary EDs that have been associated with obsessive-compulsive disorder (OCD). There is a recognized overlap between EDs and OCD in terms of diagnosis, phenomenology, epidemiology, comorbidity, and psychological characteristics related to the disorder (Purcell Lalonde & O'Connor, 2012).

Cognitive-behavioural therapy (CBT) is the current treatment of choice for BN (Butler, Chapman, Forman, & Beck, 2006) and effective for the treatment of AN, although not shown as superior to other treatments (Fairburn, Cooper, & Shafran, 2003). Current CBT models of EDs and OCD are very similar in terms of associations between thoughts and behaviour. Indeed, in both OCD and ED, the goal of compulsions is to reduce anxiety generated by obsessional thoughts and stimulus-bound fears.

Although CBT can be effective for OCD and EDs (Butler et al. 2006), approximately 50% of individuals with an ED (Eivors et al., 2003; Vandereycken & Pierloot, 1983; Waller, 1997) and up to 40% with OCD (Steketee, 1993) refuse or abandon CBT. In the case of those with BN, more than half fail to reach asymptomatic criteria at follow-up (Fairburn et al., 1995; Fairburn and Harrison, 2003) and about a quarter drop out of treatment (Shapiro et al., 2007).

Recent research has demonstrated that ED patients have unconditional negative representations of the self or core beliefs that are not directly related to food, weight or shape (Cooper, 1997; Leung, Waller, & Thomas, 1999; Waller et al., 2003) and different patterns of these self-beliefs are associated with binge-eating and vomiting behaviours (Waller, Ohanian, Meyer, & Osman, 2000).

OCD research has linked strong overvalued ideas (OVI; a high degree of conviction towards obsessional doubts) and ego-syntonic obsessions to ambivalence about resisting rituals (Abramowitz et al., 2005). Specialized CBT for individuals with OVI may require a more thorough investigation of cognitive maintaining factors prior to the introduction of

behavioural exercises (O'Connor et al., 2005a). In individuals with EDs, strong investment in OVI may drive behaviour. Irrational thoughts such as "If I feel full, I'm gaining weight" and "If I eat food that I usually deny myself, I'll lose control" are representative of OVI held by individuals with EDs (Steinglass et al., 2007).

Inference-Based Therapy (IBT) was developed by O'Connor et al. (2005b) to treat individuals with OCD with particularly strong OVI. A small-scale randomized controlled trial compared the efficacy of IBT, ERP, and therapy based on cognitive appraisal (O'Connor et al., 2005a). Although all three approaches were effective in treating OCD without OVI, IBT was more consistently effective in treating individuals with OCD with greater conviction regarding thoughts. A recent open trial (n = 86) confirmed the efficacy of IBT in treating all subtypes of OCD (O'Connor & Niekerk, 2011) and other studies have demonstrated that IBT is equally effective in individuals with OVI and individuals without OVI (Taillon & O'Connor, 2009; O'Connor et al., 2009; Taillon et al., 2013).

Given the demonstrated effectiveness of IBT for individuals with OCD, and the marked similarities between OCD and EDs, IBT was adapted to treat individuals with EDs with strong OVI by addressing doubts, issues of self-doubt and reasoning about the self specific to EDs (Bertrand & O'Connor, 2009). According to the IBT model, the obsessional sequence begins at the point of a primary obsessional doubt (e.g., "Maybe I gained weight"). This doubt is generated by subjective reasoning and is a primary treatment target. Primary doubts serve as the basis for subsequent obsessions and distress, and generate concerns about anticipated consequences (e.g., "If I gain weight, I'll be fat and will be rejected by others").

Individuals with EDs create an internal narrative that validates their beliefs about the need to engage in compulsions to maintain or lose weight. Compulsive rituals and other neutralizations are driven by the desire to reduce the discomfort generated by primary doubts and imagined consequences. However, relief is short-lived because obsessional preoccupations reappear sooner or later; compulsive rituals reinforce the strength of the primary doubt, and the cycle continues.

IBT is a cognitive therapy, which does not use any formal element of exposure and response prevention (ERP). It starts by addressing primary doubts and imagined consequences that maintain obsessional preoccupations in EDs, and clients work on resisting their compulsions in line with decrease in doubt. The objective of IBT is to decrease clients' degree of conviction regarding primary doubts in a non-confrontational manner rather than challenging beliefs. It is expected that addressing primary doubts in therapy will have a positive impact on the rest of the obsessional sequence in ED, including imagined consequences, anxiety, and compulsive behaviour.

One of the important claims of IBT is that discrete doubts reported by individuals with OCD or EDs often concern idiosyncratic self-themes, rendering individuals vulnerable to doubt in some areas but not in others. For example, an individual whose central OCD theme is "maybe I'm not a good mother" might experience doubt when caring for her child, but may be less likely to doubt herself when reading or writing, or in a social situation. OCD research has suggested that the escalation of intrusive thoughts into obsessions is linked to the degree to which intrusive thoughts threaten core perceptions of the self (Bhar & Kyrios, 2007; Clark & Purdon, 1993; Rowa et al., 2005). OCD researchers have also proposed that self-themes and the areas of life where an indiviudal has important self doubts render a person vulnerable to a particular selective set of obsessional doubts (Aardema & O'Connor, 2007; O'Connor et al., 2005b). A strong investment in individuals with OCD's "sense of self-as could-be" in contrast to their "sense of self-as-is" has been demonstrated (Aardema et al., 2013; Aardema & O'Connor, 2007).

In EDs, the self-theme is frequently a feared identity (e.g., "I could become someone fat and unlovable"). That is, individuals are convinced that they could become a person they fear becoming if they do not take precautions. They demonstrate a strong investment in their sense of feared self or "self-as-could-be", at the expense of their actual self or sense of "self-as-is". This results in a skewed experience of self that is not based on reality (Aardema et al., 2013; Aardema & O'Connor, 2007). Among other fears, individuals with EDs may fear becoming fat, out of control, lazy, unattractive, and unloved. Their actions are dictated by the fear of becoming a "fat or out-of-control" self.

This article presents a case study of a participant who was the first referral to received IBT in the context of an ongoing research project designed to evaluate the effectiveness of at the *Montreal Mental Health University Institute* offering an outpatient 20-week IBT intervention program for AN and BN (n = 15). Participants were recruited through advertising at University of Montreal and University of Quebec in Montreal as well as through ANEB Quebec, a non-profit organization assisting individuals suffering from an ED. Participants included in the study were adults with a principal diagnosis of AN or BN in accordance with criteria put forth in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, text revision (DSM-IV-TR) (American Psychiatric Association, 2000). Amenorrhea was not a requirement for individuals diagnosed with AN, given recommendations that this criterion be removed from the core diagnostic features in DSM-5 (Attia & Roberto, 2009). All medications were stabilized 3 months prior to participation. The study excluded patients with binge eating disorder, current substance abuse, current or past schizophrenia, bipolar disorder, or those with suicidal intent. Patients with other comorbid diagnoses were included in the study as long as their primary diagnosis was AN or BN. Written informed consent was obtained from all participants, giving their permission for their data to be used in clinical case studies and quantitative analyses. All measures and procedures were approved by the Research Ethics Board at the *Montreal Mental Health University Institute* (reference code 2008-001). Treatment components are described, and the client's progress (as evaluated by formal clinical measures and monitored by self-report diary data) is reported.

Case Introduction

Sara was a 35-year-old woman with a bachelor's degree; she and her husband had one child and she had recently returned to work after an 8-month maternity leave. She reported no drug or medication use. She reported that she had suffered from an ED for ten years and felt that she was not able to tolerate the problem on her own any longer. She had never been in psychotherapy, and refused to seek treatment in the traditional CBT program offered in the only intensive hospital-based ED clinic in Montreal as she had been hospitalized for AN for a few days when she was 16 years old and did not want to return. The only therapy she could attend was our IBT trial which was offered free of charge on a weekly outpatient basis. At 21

years old, Sara's weight had increased significantly and remained in the normal range (BMI = 23). At that point, her anorexic symptoms were replaced with bulimic symptoms, and she began binging and purging. She reported that she had stopped purging during her pregnancy in order to protect the baby's health, but had replaced purging with excessive exercise to control her weight. She expressed a strong desire to overcome her ED and expressed a strong wish to avoid transferring her obsessions about food and weight to her daughter.

Presenting Complaints

Sara suffered from non-purging BN according to DSM-5 (American Psychiatric Association, 2013) and had a BMI of 22.1 before beginning therapy. Her ED compulsions were intensive and involved ritualized exercise routines for approximately two hours every day, including 90 minutes of cardiovascular exercises and 30 minutes of bodybuilding aimed at compensating for calories ingested during binges.

Sara's major complaint was nocturnal binges because; she was awakened from sleep 2 to 3 times a week with an uncontrollable hunger. She was also upset by her binges in the evening as well as up to 4 binges exclusively in the day on weekends when she was at home. Her binges also occurred in the day if she took the day off work or on holidays. She restricted her diet as much as possible during the day and sometimes fasted, especially the morning after a binge. She did not allow herself to eat starchy foods or desserts. She weighed herself every morning in a ritualized manner: naked, after elimination, before ingesting any food or water, in order to get the most accurate estimate of her actual weight. Sarah often lost control over her food intake in the evening, at night, and on weekends. Sara often avoided social activities that involved eating (e.g., eating at a restaurant with friends or family), fearing that she would lose control in front of others. She never ate her lunch with work colleagues in order to avoid receiving comments regarding portions. At home, she prepared all of her husband's meals in order to maintain control over the ingredients. She often baked desserts, but only ate them when she binged in the evening, at night and on weekends.

History

Sara reported that her problem with weight began in her early adolescence. Her mother was constantly dieting, did not allow the family to eat desserts, and often commented on Sara's portion size. To avoid disappointing her mother, Sara ate candy, desserts, and other forbidden food in secret. Her father left the family when Sara was 7 years old. She described this period of her life as very difficult, affecting her mood and her grades at school. She has tried re-contacting her father many times since her childhood, with no success. She reported being bullied throughout elementary school because she was chubby, and suffering from very low self-esteem.

Sara remembered deciding to lose weight before entering high school to ensure that she would not be teased again. She fasted and her weight dropped drastically; she felt proud and confident because boys started noticing her and her mother complimented her. She suffered from AN until she was hospitalized at age 16. After being hospitalized and becoming aware of the severity of the health dangers associated with AN, Sara increased her food intake. Unfortunately, this change triggered the onset of binging and purging rituals, which persisted until she became pregnant with her daughter. Sara then decided to stop using laxatives and vomiting to compensate for binges, but subsequently she began to over-exercise to control her weight.

Sara had completed a bachelor’s degree in sociology. At the beginning of therapy, she had recently returned to work full-time as a research coordinator in a university after a maternity leave of eight months. She found her return to work difficult primarily because she feared that her colleagues would notice and judge her weight gain. Sara reported that she was very organized, structured, and a self-imposed perfectionist at work; she was satisfied with her job and was very busy with her new responsibilities as a mother. Sara's main motivation to start therapy was her fear that her daughter would develop an unhealthy relationship with food and body weight. Prior to IBT, Sara had participated in support groups for new mothers, which she reported had helped her to become more confident in her parenting. However, she struggled with the fact that she still evaluated her self-worth almost entirely on the basis of her weight and shape, a realization that generated a lot of guilt.

Assessment

Sara's symptoms were assessed by an independent clinical evaluator at pre-, mid-, and post-treatment, and at six-month follow-up. She was administered semi-structured interviews including the *Eating Disorder Examination Interview (EDE;* Fairburn & Cooper, 1993), the *Yale-Brown-Cornell Eating Disorder Scale (YBC-EDS ;* Mazure et al. 1994); the *Structured Clinical Interview for DSM-IV Clinical Version* (*SCID-I/CV*; First et al., 1996); and the *Overvalued Ideas Scale (OVIS;* Neziroglu et al., 1999). Sara was weighed by the clinical evaluator at pre-, mid-, post-treatment, and at six-month follow-up to obtain her BMI. Self-report measures included the *Eating Disorder Inventory-2 (EDI-2;* Garner, 1991), the *Personality Disorders Questionnaire-4+* (*PDQ-4+*; Hyler, 1997); the *Beck Depression Inventory-II* (*BDI-II*; Beck et al., 1996), the *Beck Anxiety Inventory* (*BAI*; Beck et al., 1988)*;* and the *clinical scales and daily diaries*; O'Connor & Robillard, 1999). The *EDE, EDI-2, YBC-EDS,* and *SCID-I/CV* were used to evaluate ED symptoms, the *OVIS* to measure the strength of OVI; the *PDQ-4+* to evaluate personality traits, the *BDI-II* to measure mood, and the *BAI* to measure anxiety. The client was asked to complete daily diaries for the duration of treatment, in order to measure degree of conviction regarding primary doubts, confidence in capacity to resist rituals (self-efficacy) and time spent engaged in rituals. At pre-treatment, mid-treatment, and at the end of therapy, she was also asked to complete eating diaries during one week in order to evaluate her food restriction rituals, and to complete clinical scales to measure her degree of conviction toward primary doubts and imagined consequences, as well as her confidence in her capacity to resist her rituals (self-efficacy scale).

Furthermore, Sara's psychologist called her every month for six months after therapy, in order to assess progress and maintenance of gains during the period prior to the formal 6-month evaluation. The Therapy Evaluation Scale, an adaptation of the Therapist Rating Scale (TRS; Williams & Chambless, 1990), was administered at six-month follow-up to assess Sara's satisfaction with the psychologist and with the IBT program. This scale measures therapeutic alliance, and assesses participant perceptions of the following therapist characteristics: caring/involved, modelling self-confidence, unconditionally accepting, challenging, explicit, and willing to be known.

Emmelkamp et al. (2002)'s criterion of 33% or greater improvement from pre- to post-treatment was used to determine the presence or absence of significant changes. A significant decrease in scores was observed in semi-structured interviews and self-report measures (see Table 1). The client's BMI remained in the normal range from the start of therapy to six-month follow-up. The lack of session-by-session symptom data is a limitation of the present case study.

Results on the self-efficacy clinical scale indicated that the client was significantly more confident in her capacity to resist her rituals following treatment (see Figure 1).

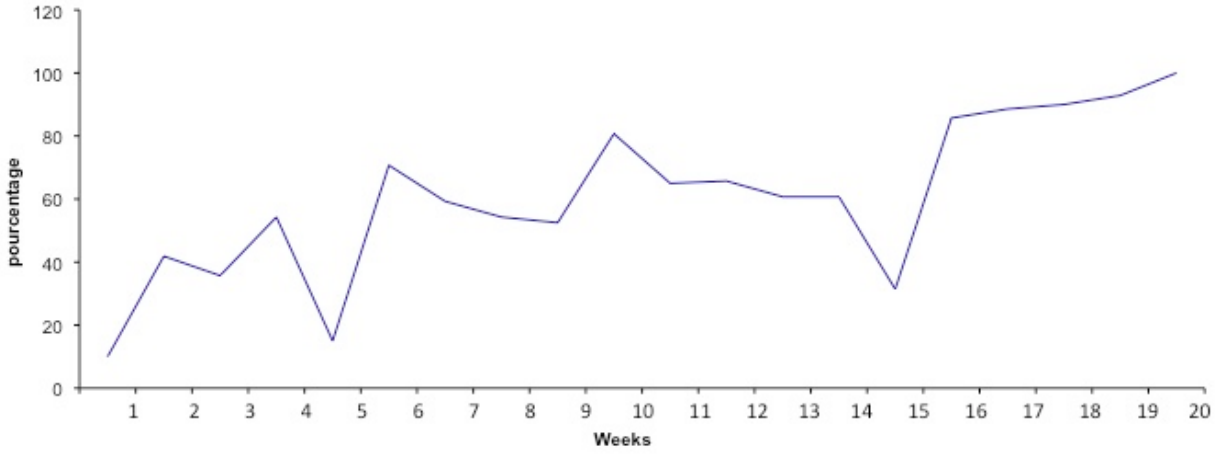

Figure 1. Progression of client's confidence in her capacity to resist her eating disorder rituals.

Case Conceptualization

Sara's clinical symptoms correspond to a diagnosis of BN, non-purging subtype, according to DSM-5 (American Psychiatric Association, 2013). She did not meet criteria for Night Eating Syndrome as her nocturnal episodes of binge eating were followed by inappropriate compensatory behaviours designed to prevent weight gain: fasting and excessive exercise. She reported feeling lack of control over her food intake during her recurrent binges in the evening, at night, and in the day, and her self-esteem was unduly influenced by body shape and weight.

Her primary doubt was “Maybe I'll lose control and won't be able to stop eating,” which led to her secondary inference or imagined consequence “I'll get fat and others will dislike me.” A detailed description of Sara's obsessional doubts and inferences is included below. IBT was deemed appropriate for Sara, as it is a validated treatment for individuals with strong OVI like her, as measured by the *OVIS*.

Course of Treatment and Assessment of Progress

Four clinical evaluation sessions allowed the therapist to construct a hierarchy of Sara’s obsessions and compulsions, evaluate her initial degree of conviction toward each primary doubt and secondary inference (imagined consequence), evaluate Sara's confidence in her capacity to resist her rituals, determine amount of the time spent performing rituals, and establish therapeutic alliance. Evaluation sessions were followed by 20 weekly sessions of IBT (24 sessions in total). Sessions 5 to 7 were dedicated to psychoeducation for EDs. The therapist addressed the psychological, social, and physical impact of being underweight; the consequences of restricting food intake; the consequences of binging, vomiting, and laxative and diuretic use (Fairburn, 2008; Keys et al., 1950); the ineffectiveness of dieting; the role of water retention in adding weight; healthy eating habits; the role of individual metabolism in the maintenance of a natural and healthy body weight; and the non-trivial role of disordered eating thoughts and behaviours.

The subsequent therapy focused on: *1)* The distinction between the feared self and the actual or authentic self; *2)* The distinction between an obsessional doubt and a normal doubt; *3)* ED logic; *4)* ED doubt as 100% irrelevant to the “here and now;” *5)* Exploring the narrative supporting the doubt; *6)* Crossing the barrier from reality into ED imagination; *7)* Identification of reasoning errors that create and maintain the obsessional narrative; *8)* Establishing the false nature of the ED doubt; *9)* Establishing the selective nature of the ED doubt; *10)* Identifying vulnerable self themes in obsessional narratives; *11)* Learning to trust the reality of the senses and to tolerate the void left by decreased obsessional behaviour.

In sessions 8-9, Sara’s psychologist presented Aardema and O’Connor's (2007) model regarding overinvestment in sense of "self-as could-be” to the exclusion of identifying with

sense of "self-as-is." For example, Sara's feared identity was a fat person with no self-control, who was lazy and perceived by others as disgusting. She was able to distinguish this feared self from her actual self; her actual self had many positive qualities including being responsible and very hard-working, the very opposite of lazy! Sara realized that she engaged in compulsions in order to alleviate her fear of lack of control and lack of rigor. In other words, her compulsions were designed to prevent her from becoming her feared self.

Sessions 10-11 helped Sara recognize that obsessions arise from a doubt and exploring with her the difference between an obsessional doubt and a normal doubt. For example, Sara reported that when she saw a thin woman eating cupcakes at a party (trigger), she began doubting: "If I allow myself one, I'll surely lose control, eat excessively, become fat, and be judged by others." These anticipated negative consequences provoked feelings of anxiety that pushed her to forbid herself to try even a bite of a cupcake.

In sessions 12-14, the psychologist familiarized Sara with the narrative behind the ED doubt. Sara's narrative was that she would lose control and gain weight if she ate without restriction. The narrative was still based on an invalid argument because, at the moment that the doubt occurred, there was no justification in the "here and now" for losing control gaining weight.

In sessions 15-17, Sara gathered all the arguments that supported her obsessional doubt to create a rich narrative that constructed her ED story. Sara's obsessional narrative was "A nutritionist told me once that I should avoid all desserts because they're addictive. I'm a glutton and so it's important that I don't allow myself my favourite foods, like bread, pasta, or any kind of dessert. Otherwise I'll lose control. In fact, unlike my thin friends, I always lose control when I eat these foods. Thin women aren't gluttons; they're better than me because they are psychologically balanced people." Her alternative narrative integrating elements of reality that contradict the obsessional narrative was "I'm a person who has control in other domains of my life. Even when my daughter irritates me, I'm able to control my frustration and be patient. At work, I'm very organized and structured and I'm on top of all my tasks. Therefore, there's no reason why I would lose control and not be able to stop eating if I allowed myself to eat my favourite foods, even if they seem irresistible to me. My binges are a

consequence of my extremely restrictive diet. They are not proof that I'm a person who loses control. I know I can trust myself because, in the past, when I haven't restricted my diet during the day, I've eaten normal portions of my favourite foods, even the ones that seem irresistible." Following session 10, Sara began succeeding in decreasing her food restriction and weighed herself less often during the week. Figure 2 shows how the degree of probability that Sara accorded her inferences decreased throughout the course of therapy.

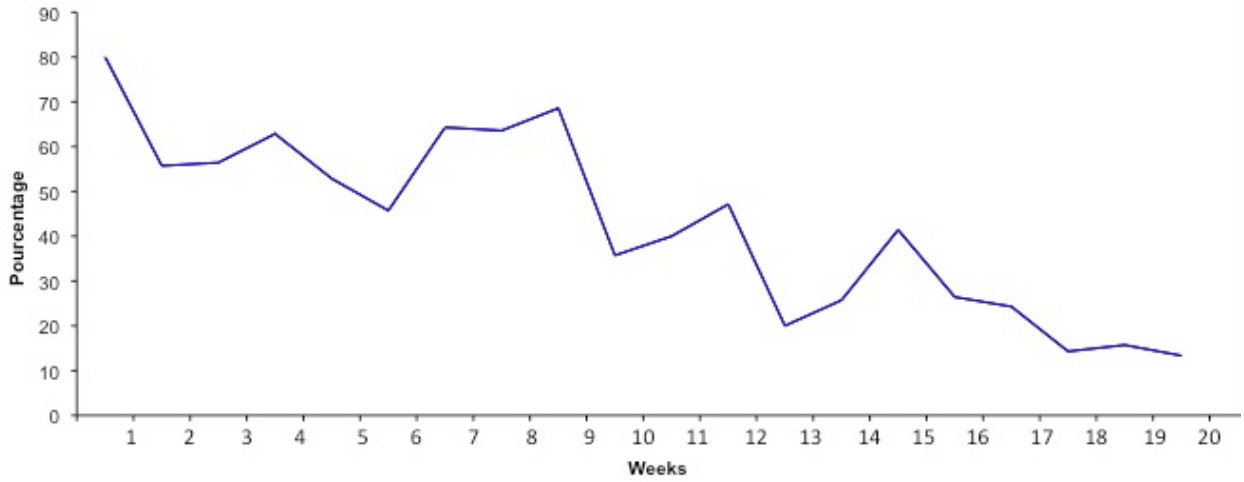

Figure 2. Progression of the probability percentage of the primary doubt "Maybe I will lose control and not be able to stop eating".

In sessions 18-19, the psychologist helped Sara understand how her ED thoughts cross over a barrier from reality into the world of possibilities where senses are distrusted. Sara identified the words, thoughts, and sensations that pushed her into the world of possibilities. In most domains of Sara's life, obsessional doubts were not present but she experienced highly specific obsessional doubts in the ED context. To highlight this discrepancy, Sara compared her reasoning processes in neutral situations to her reasoning processes in ED situations. She recognized that, in non-obsessional situations, she was perfectly able to reason in a non-selective and realistic manner.

Sessions 20-22 further explored the link between Sara's identity and her ED. The psychologist helped Sara identify the vulnerable self themes that maintained her ED and her

obsessional doubts (e.g., “I'm not a balanced person like my thin friends. I cannot eat moderately like they do. I am such a glutton that I risk becoming fat if I let myself eat without restriction. I'm the type of person who needs rigid rules about eating; otherwise I'll lose control, I won't be able to stop eating, and I'll become fat and disliked by others”).

In final sessions (23-24), Sara was encouraged to use reality sensing to make decisions. Reality sensing signifies using the five senses in a normal, non-obsessional way to determine reality. This is different from reality testing and formal exposure, which disconfirms or confirms expectations. Reality sensing allowed Sara to recognize her bodily signals and so reintegrated healthy and balanced eating habits. Clients who cease compulsive actions often experience an initial emptiness; over time, they learn to tolerate the void, and it eventually fills up with normal activities. During these last sessions, Sara’s binge eating behaviours decreased, as did her ritualistic weighing and exercise routine. Physical exercise was no longer perceived as a way to control her weight or compensate for calories ingested.

IBT was delivered by a licensed and experienced psychologist trained in IBT at the *Montreal Mental Health University Institute* and was supervised for adherence to treatment protocol by a senior IBT therapist. The Therapy Evaluation Scale was used to evaluate Sara's reactions and perceptions regarding her psychologist, the therapy process, and the therapeutic alliance. Sara was very satisfied with all aspects of both the therapy and the therapeutic relationship. In the first therapy sessions, Sara reported that she identified with the IBT model and understood that the arguments that maintained her doubts were relatively unrealistic.

Complicating Factors

Between sessions 14 and 15, three-quarters of the way through therapy, a marked increase was observed in degree of perceived probability of her primary doubt (see Figure 2). This increase occurred the day after Sara independently decided to completely stop her compensatory behaviour (i.e., her intensive and ritualized exercise routine to control her weight). She reported that not exercising had increased anxiety significantly and that, in combination with her new, more permissive eating habits, not exercising had exacerbated her belief that she would lose control and become fat and disliked by others. Her confidence in her

capacity to resist her rituals also decreased significantly at this time (see Figure 1). However, the peak in Sara's conviction regarding her doubt was short-lived and decreased rapidly. As illustrated in Figures 1 and 2, a fluctuating course of improvement is to be expected in therapy, and is not a contra-indication of successful outcome.

Sara demonstrated considerable motivation throughout therapy. However, at the beginning of the treatment program, she frequently failed to complete the assigned homework exercises, reporting she was having difficulty balancing work stress, trying to be a good mother and a good wife, and having a satisfying social life. The psychologist evaluated Sara's possible desire to be perfect in all domains of her life; she asked Sara to draw a list of priorities and a list of areas for change. Sara identified working on her ED as her priority because it affected every other aspect of her life: without her ED, she could be a better mother, wife, and employee. This prioritizing allowed Sara to understand the importance of investing in therapy and in collaborating with her psychologist to overcome her ED. This intervention helped Sara to complete homework exercises, including her daily eating diaries.

Follow-up

At the end of therapy, as well as at six-month follow-up, Sara's *YBC-EDS,* and *EDI-2* scores were sub-clinical (according to specific cut-off points: 11 for *YBC-EDS* and 50 for *EDI-2* total scores) and her score on the OVIS remained low. Two months after the end of therapy, during the follow-up telephone interview, Sara reported that her obsessions about weight and food were no longer as strong and as debilitating as they had been pre-treatment, and was pleased to report that her life no longer revolved around her obsessions. She felt that her concerns about weight were no more intense than those of many women who have some degree of body dissatisfaction. She reported that she monitored her weight approximately once per month, but that the number on the scale was not a source of alarm because she no longer believed that her self-worth depended on her weight. She admitted that during periods of stress, her fear of losing control and eating excessively increased, and that she tended to limit certain types of high-calorie foods during those times. Nonetheless, she reported eating healthy portions and eating sufficient quantities to prevent binging behaviour.

Furthermore, at follow-up, Sara reported that since she had stopped her intensive and ritualized excessive exercise routine, she only played sports or did physical exercise for pure pleasure rather than to compensate for calories ingested. She had realized that her compulsive exercise and daily weighing were useless in controlling her weight, and only maintained her obsessions, tricking her into thinking her doubting inferences were real. Sara reported that she was very proud of her accomplishments and was grateful for the psychologist's help and patience. She felt greater freedom to devote time and energy to her daughter, husband, job, and social life.

Discussion

This case study has several clinical implications. First, aside from an initial lack of compliance (e.g., with daily diaries), Sara was a motivated client. Her motivation was probably a crucial factor in her adherence to treatment. From the start, Sara demonstrated insight regarding the debilitating nature of her problem. The present study describes the adaptation of IBT to meet the therapeutic needs of an individual suffering from an ED. Therapy began by addressing self-doubt and self-concept. The content of ED obsessions is often ego-syntonic and perceived as consistent with individuals' values, wishes and self-image; the obsessional content seems to fit with individuals' perceived needs and goals, and is integrated well into the personality (Purdon et al., 2007). In IBT, ego-syntonicity is addressed by guiding clients to the realization that the ED self is not the authentic self. Rather, the ED self is the feared self, reinforced by obsessional doubt.

Individuals with OCD and ED are not typically invested in resisting obsessions and compulsions, and motivation and treatment compliance are often poor (Christenson & Greist, 2001; Summerfeldt, 2006). In fact, individuals with strong OVI typically have greater degrees of ego-syntonicity with obsessions; ego-syntonicity is associated with treatment resistance, treatment refusal, and poor insight (Foa, 1979; Foa et al., 1999; Neziroglu et al., 1999). Sara's significant improvement in therapy provides evidence that IBT can be effectively used to treat BN by decreasing strong OVI and ego-syntonic obsessions via a focus on self-cognitions and reasoning about self. Further, as ego-syntonicity in obsessions and strong OVI characterize

AN, IBT's more thorough investigation of cognitive maintaining factors, self-cognitions and reasoning about self should also be useful in treating AN.

Summary

Although individuals with an ED usually require extended psychotherapy, Sara responded well to a 20-week cognitive-based program. As mentioned earlier, it is important to note that her age and her strong motivation were facilitating factors for successful treatment. There are clear obsessional-compulsive characteristics to BN, where doubt is the source of distress. This case study highlights the importance of addressing doubt about becoming the feared self in treating BN in a cognitive therapy framework. We expect IBT's effectiveness in decreasing strong OVI and ego-syntonic obsessions in BN to extend to treating AN.

Note. Sara's identifying features were modified in order to preserve anonymity.

Suggestions for follow-up reading:

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Table 1

Pre-, post-treatment and follow-up scores on self-report clinical measures

Self-report clinical measures	Pre-treatment score	Post-treatment score	Follow-up score
EDI-2	103	24	37
Drive for thinness	21	3	3
Bulimia Subscale	14	1	1
Body dissatisfaction	18	13	19
Ineffectiveness	7	1	1
Perfectionism	8	6	6
Interpersonal distrust	0	0	0
Interoceptive awareness	8	0	1
Maturity fears	4	0	3
Asceticism	9	0	2
Impulse regulation	5	0	1
Social insecurity	9	0	0
BMI	22.1	22.5	23
BDI-II	15	5	3
BAI	9	2	6
Semi-structured interviews	**Pre-treatment score**	**Post-treatment score**	**Follow-up score**
EDE			
Number of binges/month	20	2	0
Number of days of dietary restraint/month	25	0	0
Number of fasts	1	0	0
Number of hours/week of exercise	17.5 (to compensate)	3 (some compensation)	1.5 (no compensation)
Shape concern subscale	Supreme	Moderate-high	Moderate-low
Weight concern subscale	Supreme	Moderate-high	Moderate-low
YBC-EDS	24	10	5
YBC-EDS Preoccupation Subscale	15	7	3
YBC-EDS Ritual Subscale	9	3	2
OVIS	70	10	10

note: EDI-2 = Eating Disorder Inventory; BMI = Body Mass Index; BDI-II = Beck Depression Inventory; BAI = Beck Anxiety Inventory; YBC-EDS = Yale-Brown-Cornell-Eating Disorder Scale; EDE = Eating Disorder Examination Interview; OVIS = Overvalued Ideas Scale.

Quatrième article : Food for thought II: change in ego-dystonicity and fear of self in bulimia nervosa over the course of treatment[4]

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Author Note

This work was supported by grant number 20573, awarded to the second author, from the Fonds de la recherche en santé du Québec.

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[4] Cet article a été soumis pour publication dans : *European Eating Disorders Review*

Abstract

Degree of ego-dystonicity in obsessions is clinically relevant to the conceptualization and treatment of eating disorders (EDs). Obsessive-Compulsive Disorder (OCD) research has suggested that the transformation of intrusive thoughts into obsessions is linked to the degree to which intrusive thoughts threaten core perceptions of the self. Given the recognized overlap between EDs, particularly anorexia and bulimia nervosa (BN), and OCD in phenomenology and psychological characteristics, a 24-week cognitive inference-based therapy (IBT) program shown to be effective in treating OCD was adapted to treat EDs. This study explores the change in (1) ED symptom severity, (2) the degree of ego-dystonicity in obsessions, and (3) fear of self, motivational, mood and anxiety measures from pre-IBT to six-month follow-up. Changes in ego-dystonicity, fear of self, ED symptoms and motivational stage were assessed in 15 women with BN over the course of IBT and at follow-up. Clinical implications are discussed.

Key words: ego-dystonicity; bulimia nervosa; eating disorders; fear of self; obsessive-compulsive disorder.

Introduction

A distinguishing feature of obsessions is their ego-dystonicity (American Psychiatric Association, 2000). Purdon et al. (2007), authors of the Ego Dystonicity Questionnaire (EDQ), define an ego-dystonic thought as:

> One that is perceived as having little or no context within one's own sense of self or personality. […]The thought gives rise to considerable emotional distress and is resisted. (p. 200)

In contrast, ego-syntonic obsessions are consistent with an individual's self-image, values and goals. Recent research has shown that ego-dystonicity and ego-syntonicity characterize obsessions in eating disorders (EDs) and that these factors are clinically relevant to the conceptualization and treatment of EDs (Purcell Lalonde, O'Connor, Aardema, & Coelho, submitted; Roncero, Belloch, Perpiña, & Treasure, 2013). A greater degree of ego-syntonicity in obsessions of individuals with obsessive-compulsive disorder (OCD) has been associated with treatment resistance, treatment refusal, poor insight, and is often typical in individuals with overvalued ideas (OVI) or a high degree of conviction towards obsessional doubts (Foa, 1979; Foa, Abramowitz, Franklin, & Kozak, 1999; Neziroglu, McKay, Yaryura-Tobias, Stevens, & Todaro, 1999). If the content of an obsession is perceived as consistent with a person's values, then the investment in resisting it may not be as great; thus may weaken motivation and compliance to treatment (Christenson & Greist, 2001; Summerfeldt, 2006).

Although obsessions in patients suffering from EDs have often been described as ego-syntonic, Roncero et al. (2013) demonstrated that intrusive thoughts experienced by ED patients can simultaneously be both ego-dystonic and ego-syntonic:

> For example one patient stated: "All the time, no matter what I do, thoughts like these bother me: you're fat, you have to vomit, you ate too much. I can't stand it. I can't concentrate on anything. But for me it is so important to have a good physique, that I

find it normal and rational to have thoughts like this. So I will not fight the thoughts, I'll do what they say." (p. 72)

Mazure, Halmi, Sunday, Romano, and Einhorn (1994) found that although more than half of their 40 ED patient-sample rated their eating-related preoccupations as ego-syntonic, 10 rated them as ego-dystonic. Similar findings were replicated in recovered ED patients and restrained-eating control subjects (Sunday & Halmi, 2000).

The extent of ego-dystonicity varies between individuals with EDs. In particular, many authors suggest that the transformation of intrusive thoughts into obsessions is linked to the degree to which intrusive thoughts threaten core perceptions of the self (Purcell Lalonde et al., submitted; Clark & Purdon, 1993; Rowa, Purdon, Summerfeldt, & Antony, 2005).

OCD researchers have proposed that self-themes and the areas of life where an individual has important self doubts render a person vulnerable to a particular selective set of obsessional doubts (Aardema & O'Connor, 2007; O'Connor, Aardema, & Pélissier, 2005). Aardema and O'Connor (2007) have studied the menacing character of obsessions that arise from within the individual. In individuals suffering from OCD, the fear of who they could become, seems a key self threat (Aardema & O'Connor, 2007). Rachman (1997) also emphasized that individuals with obsessional disorders believe deep down that they have unacceptable aspects to their identity. Markus & Nurius (1986) define the feared self as a set of attributes that people are worried of becoming and thus constantly striving not to become. Ogilvie (1987) argues that the feared self contains awful memories, undesired emotions, frightening events, and socially unacceptable thoughts or behaviour. Similarly, Ferrier and Brewin (2005) have reported evidence for the existence of the concept of the "fear of self" in OCD as they found that those with OCD make more negative inferences about themselves on the basis of their intrusions.

Recent research has demonstrated that ED patients have unconditional negative representations of the self or core beliefs that are not directly related to food, weight or shape (Cooper, 1997; Leung, Waller, & Thomas, 1999; Waller et al., 2003) and different patterns of these self-beliefs are associated with binge-eating and vomiting behaviours (Waller, Ohanian,

Meyer, & Osman, 2000). In EDs, the self-theme is frequently a feared identity of what the person could become (e.g., "I could become someone fat and unlovable"). That is, individuals with EDs are convinced that they could become a person they fear becoming if they do not take precautions. They demonstrate a strong investment in their sense of feared self or "self-as-could-be", at the expense of their actual self or sense of "self-as-is". This results in a skewed experience of self that is not based on reality (Aardema et al., 2013a; Aardema & O'Connor, 2007). Among other fears, individuals with EDs may fear becoming fat, out of control, lazy, unattractive, and unloved.

Purcell Lalonde et al. (in review) have found that in EDs, ego-dystonicity in obsessions is associated to the concept of fear of self. There is a recognized overlap between EDs, particularly anorexia nervosa (AN) and bulimia nervosa (BN), and OCD in terms of diagnosis, phenomenology, epidemiology, comorbidity, and psychological characteristics related to the disorder (Purcell Lalonde & O'Connor, 2012).

Treatment

Cognitive-behavioural therapy (CBT) is the current treatment of choice for BN (Butler, Chapman, Forman, & Beck, 2006) and effective for the treatment of AN, although not shown as superior to other treatments (Fairburn, Cooper, & Shafran, 2003). Although CBT can be effective for OCD and EDs (Butler et al. 2006), approximately 50% of individuals with an ED (Eivors et al., 2003; Vandereycken & Pierloot, 1983; Waller, 1997) and up to 40% with OCD (Steketee, 1993) refuse or abandon CBT. In the case of those with BN, more than half fail to reach asymptomatic criteria at follow-up (Fairburn et al., 1995; Fairburn and Harrison, 2003) and about a quarter drop out of treatment (Shapiro et al., 2007).

EDs are associated with overvalued ideas (OVI) firmly held beliefs towards obsessional doubts. Irrational thoughts such as "If I feel full, I'm gaining weight" and "If I eat food that I usually deny myself, I'll lose control" are representative of OVI held by individuals with EDs (Steinglass et al., 2007). Specialized CBT for individuals with OVI may require a more thorough investigation of cognitive maintaining factors prior to the introduction of behavioural exercises (O'Connor et al., 2005a).

Inference-Based Therapy (IBT) was developed by O'Connor et al. (2005b) to treat individuals with OCD with particularly strong OVI. Studies have demonstrated that IBT is equally effective in individuals with OVI and individuals without OVI (Taillon & O'Connor, 2009; O'Connor et al., 2009; Taillon et al., 2013). IBT has been adapted to treat individuals with EDs (Bertrand & O'Connor, 2009). The reasoning process hypothesized to be common to OCD and EDs and to lead to obsessions is termed inferential confusion, which is defined as a tendency as a confusion between reality and possibility, where the person distrusts the senses, and invests in remote and often imaginary possibilities at the expense of reality (Aardema, Emmelkamp, & O'Connor, 2005). Inferential confusion was found to be associated with treatment outcome in an OCD sample receiving CBT (Aardema, Emmelkamp, & O'Connor, 2005) and another receiving IBT (Del Borrello, & O'Connor, 2014).

According to the IBT model, the obsessional sequence begins with a doubt (e.g., "Maybe I gained weight") generated by a subjective reasoning narrative and is a primary treatment target. This obsessional doubt serves as the basis for subsequent obsessions and distress, and generates concerns about anticipated consequences (e.g., "If I gain weight, I'll be fat and will be rejected by others"). The aim of IBT is to decrease the person's degree of conviction regarding obsessions in a non-confrontational manner rather than challenging beliefs, modify the reasoning narrative producing the doubt, return the person to the world of common sense perception, and so have a positive impact on the rest of the obsessional sequence in ED, including imagined consequences, anxiety, and compulsive behaviour. Additionally, IBT addresses doubts about the self and unconditional negative representations of the self, present in EDs.

Since individuals with EDs often have OVI and IBT has been shown effective in decreasing OVI, we adapted and applied IBT to EDs. In the present study, our first aim was to investigate if ED symptoms decrease following IBT. Second, we examine our hypothesis that ego-dystonicity in obsessions and compulsions as well as OVI decrease over the course of IBT. Third, we explore the change in cognitive process measures including inferential confusion, feared self and obsessive beliefs following IBT.

Method

Participants

Participants were recruited through advertising at University of Montreal and University of Quebec in Montreal as well as through ANEB Quebec, a non-profit organization assisting individuals suffering directly or indirectly from an ED. Forty three individuals contacted the *Montreal Mental Health University Institute* offering an outpatient 24-week intervention program for AN and BN. Participants included in the study were adults with a principal diagnosis of AN (AN-restrictive (r) or binge-purge subtype (bp)) or BN (BN-purging subtype (p) or non-purging subtype (np)) in accordance with criteria put forth in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, text revision (DSM-IV-TR) (American Psychiatric Association, 2000). Amenorrhea was not a requirement for individuals diagnosed with AN, given recommendations that this criterion be removed from the core diagnostic features in DSM-5 (Attia & Roberto, 2009). All medications were stabilized 3 months prior to participation.

Assessment

Assessment included a two-stage process involving telephone screening interviews followed by initial questionnaires returned by mail and a face-to-face diagnostic interview with a psychology doctoral student (supervised by a psychologist) using the Structured Clinical Interview for DSM-IV Clinical Version (*SCID-I/CV*; First, Spitzer, Gibbon, & Williams, 1996). A licensed psychologist then confirmed the primary diagnosis of AN or BN.

Measures

Participants completed a battery of questionnaires before the start of therapy (pre-treatment) as well as at mid, post-treatment, and at six-month follow-up. Their ED symptoms were also assessed by a doctoral psychology student in a face-to-face interview at mid, post, and at six-month follow-up.

Clinician assessment

Eating Disorder Examination (EDE 12th edition; Fairburn & Cooper, 1993): The EDE is a semistructured interview composed of four subscales of disordered eating including restraint, concern with eating, concern with weight, and concern with shape. It provides frequency and severity ratings for key behavioural and attitudinal aspects of EDs that can assess the presence of an ED according to DSM-IV criteria. Response scales range from 0 (no pathology) to 6 (extreme pathology). The subscales of the EDE have good psychometric properties with internal consistency reliability coefficients ranging from $\alpha = 0.67$ to 0.90 (Cooper, Cooper, & Fairburn, 1989).

Overvalued Ideas Scale (OVIS; Neziroglu et al., 1999): The OVIS is an 11-item semistructured interview assessing different dimensions of overvalued ideas such as fixidity (whether the belief persists), effectiveness of compulsions (in reducing feared outcome probability), reasons others do not share the belief (others are unaware or misinformed). The OVIS has good psychometric properties with an internal consistency reliability coefficient of $\alpha = 0.88$, test-retest reliability of $r = 0.86$ and interrater reliability of $r = 0.88$.

Structured Clinical Interview for DSM-IV Clinical Version (SCID-I/CV; First, Spitzer, & Gibbon, 1997): The SCID-I/CV is the semistructured interview of choice to establish a differential diagnosis of axis I disorders according to the DSM-IV. It has good psychometric properties (Zanarini & Frankenburg, 2001).

Yale-Brown-Cornell Eating Disorder Scale (YBC-EDS; Mazure et al., 1994): The YBC-EDS is a semistructured interview assessing symptom severity and cognitive as well as behavioural changes pertaining to ED obsessions and compulsions. In addition, a subscale evaluates the degree of ego-syntonicity of obsessions and compulsions and another estimates motivation to change. The YBC-EDS is an adaptation of the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) (Goodman et al., 1989a,b) used to assess OCD symptoms and severity. The subscales of the instrument have good psychometric properties with internal consistency reliability coefficients of $\alpha = 0.87$ to 0.90 and interrater reliability coefficients of $\alpha = 0.81$ to 0.99.

Self-report symptom measures

Ego Dystonicity Questionnaire (EDQ; Purdon et al., 2007): The EDQ is a 37-item questionnaire that measures the degree of ego-dystonicity in obsessions according to four key concepts: inconsistency with morals, repugnance, implications of thought for personality, and irrationality. The EDQ has demonstrated adequate internal consistency reliability ($\alpha = 0.76$ to 0.89) and evidence of satisfactory construct validity, with significant relationships with obsessive-compulsive symptoms, mood and appraisal of obsessions (Purdon et al., 2007). The EDQ version used in the present study was modified to prompt individuals that the questionnaire was focusing on obsessions about food, weight, and/or shape.

Fear of Self Questionnaire (FSQ; Aardema et al., 2013a): The FSQ is a 20-item questionnaire that measures the degree of investment in an individual's "sense of self-as could-be" or feared self in contrast to their "sense of self-as-is", a concept related to ego-dystonicity. The FSQ has shown strong internal consistency ($\alpha = 0.96$), good divergent and convergent validity, including strong relationships to obsessional symptoms.

Eating Disorder Inventory-2 (EDI-2; Garner, 1991): The EDI-2 is a 91-item questionnaire assessing different attitudes, emotions and behaviours related to disordered eating containing 11 subscales: drive for thinness, bulimia, body dissatisfaction, ineffectiveness, perfectionism, interpersonal distrust, interoceptive awareness, maturity fears, asceticism (provisional), impulse regulation (provisional), social insecurity (provisional). It is widely used to measure treatment response in ED studies. The EDI-2 has good psychometric properties with internal consistency reliability coefficients ranging from $\alpha = 0.83$ to 0.93 (Garner & Olmsted, 1984) and test-retest reliability coefficients ranging from of $r = 0.79$ to 0.95 (Welch, 1988).

Motivational stages of change questionnaire ("*Questionnaire de motivation et les stades de changement*") is a French self-report questionnaire designed to assess readiness to change based on DiClemente and Prochaska (1998)'s six stages of change model and inspired from the *Motivational stages of change for adolescents recovering from an eating disorder* (MSCARED) questionnaire (Gusella, Butler, Nichols, & Bird, 2003): (1) pre-contemplation,

(2) contemplation, (3) preparation, (4) action, (5) maintenance, (6) recovery. This instrument determined in which stage of change participants described themselves currently in relation to their ED as well as their readiness to change.

Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988): The BAI a 21-item anxiety symptom checklist rating symptom intensity for the last week. The French translation of the BAI has adequate psychometric properties with an internal consistency reliability coefficient of $\alpha = 0.84$ and a test-retest reliability of $r = 0.63$ (Freeston, Ladouceur, Thibodeau, Gagnon, & Rhéaume, 1994).

Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996): The BDI-II is a 21-item questionnaire that measures emotional, cognitive, motivational, and physiological symptoms of depression. The French version of the BDI-II has excellent psychometric properties with internal consistency reliability coefficients of $\alpha = 0.92$-$.93$ and test-retest reliability of $r = 0.93$ (Harcourt.Brace & Company.Canada, 1998).

Personality Disorders Questionnaire-4+ (PDQ-4+; Hyler, 1997): The PDQ-4+ is a 99-item self-report questionnaire with a true-false format that evaluates the presence of personality disorders consistent with the DSM-IV (American Psychiatric Association, 2000). The questionnaire also includes validity scales designed to assess invalid responding patterns. It has acceptable psychometric properties (Fossati et al., 1998). For the purpose of the present study, the PDQ-4+ was used to identify predominant personality traits rather than as a personality disorder diagnostic tool, as personality disorders were not part of the exclusion criteria for participation in the study.

The Obsessional Belief Questionnaire (OBQ-44; Obsessive Compulsive Cognitions Working Group, 2005): The OBQ-44 is a 44-item questionnaire that assesses four domains of obsessive beliefs including inflated responsibility for harm, overestimation of threat, intolerance of uncertainty/perfectionism, and over-importance/control of thoughts. The OBQ-44 demonstrated good internal consistency and criterion-related validity ($\alpha = 0.95$) in clinical and non-clinical samples. Initial validation of the French version of the OBQ-44: "Questionnaire sur les croyances obsessionnelles" (Julien et al., 2008) indicates good

convergent and construct validity (α = 0.89 to 0.93) and evidence of good internal consistency reliability.

Inferential Confusion Questionnaire-Expanded Version (ICQ-EV; Aardema et al., 2010): The ICQ-EV is a 30-item questionnaire measuring inferential confusion. Scores range from 30 to 180 with higher scores signifying greater inferential confusion. The ICQ-EV has excellent psychometric properties with an internal consistency reliability coefficient of α = 0.90 and construct validity of α = 0.85.

Procedure

Inclusion and exclusion criteria

The study excluded patients with binge eating disorder, current substance abuse, current or past schizophrenia, bipolar disorder, or those with suicidal intent. Patients with other comorbid diagnoses were included in the study as long as their primary diagnosis was AN or BN. Written informed consent was obtained from all participants, and all measures and procedures were approved by the Research Ethics Board at the *Montreal Mental Health University Institute.* Eight individuals were excluded and referred to appropriate mental health resources.

Drop outs

Sixteen either did not return our calls after the telephone screening interview, did not return the initial questionnaires required to complete the assessment phase and/or informed us of their lack of readiness to commit themselves to our therapy program because of limited availability in their schedule and/or ambivalence regarding change. From the four participants who dropped out of treatment within the three first months of IBT, two with a diagnosis of AN-r and AN-bp were contacted by an intensive hospital-based ED clinic in Montreal as they were on the waiting list for several months, and two with a diagnosis of AN-bp and BN-p reported their lack of time and motivation to pursue therapy. Two participants who dropped out of treatment reported that they were in the contemplation motivational stage according to

DiClemente & Prochaska (1998) stages of change and were motivated to change for themselves and for others. Two others who dropped out said that they were in the action stage, and were motivated to change only for themselves. One participant who abandoned therapy had antisocial personality traits, which is associated with difficulty in forming therapeutic alliance. No other noteworthy differences in demographic or clinical characteristics were found in participants who abandoned therapy compared with treatment completers.

Final sample characteristics

In total, twelve participants completed IBT and returned the six-month follow-up questionnaires, one completed IBT but did not return the follow-up questionnaires, and two had recently undergone their post-treatment assessment at the time this article was written thus did not have follow-up data. Participants (n = 15), had a mean age of 31.07 (SD = 7.90), and a mean BMI of 24.08 (SD = 4.35). Five (33.3%) reported that they were in the preparation stage of change and ten (66.7%) in the action stage. Thirteen (86.7%) said that they wanted to change only for themselves, and two (13.3%) for themselves and for others. Number of years suffering from an ED ranged from less than one to 26 (M = 11.47; SD = 7.90). Nine participants (60.0%) had a diagnosis of BN-p and six (40.0%) had a diagnosis of BN-np. Two (13.3%) had a comorbid diagnosis of social anxiety, 7 (46.7%) had a past diagnosis of a major depressive episode, 7 (46.7%) had a past diagnosis of AN-r, 2 (13.3%) had a past diagnosis of AN-bp, and 2 (13.3%) had a past diagnosis of substance abuse. The most common personality traits among participants were borderline (n = 9; 60.0%), depressive (n = 9; 60.0%), avoidant (n = 8; 53.3%), obsessive-compulsive (n = 5; 33.3%), and dependent (n = 4; 26.7%) traits. Two had attended high school (13.3%), six had a college-level education (40.0%) and seven attended university (46.7%). Nine were single (never married; 60.0%), four were married (26.7%), and two were separated/divorced (13.3%). Four had one child or more (26.7%) and eleven did not (73.3%). Seven were working full time (46.7%), four were students (26.7%), two were working part time (13.3%), one was unemployed and one was a full-time mother (13.3%). Three had a yearly individual income of less than 10,000$ (20.0%), three from 10,000 to 19,999$ (20.0%), one from 20,000 to 29,999$ (6.7%), six from 30,000 to 39,999$ (40.0%), and two of 40,000$ or more (13.3%).

Treatment

Four clinical assessment sessions were followed by 20 weekly 1-hour sessions of IBT (24 sessions in total) delivered by a licensed and experienced psychologist trained in IBT at the *Montreal Mental Health University Institute* and supervised for adherence to treatment protocol by a senior IBT therapist.

Sessions 5 to 7 were dedicated to psychoeducation for EDs addressing psychological, social, and physical impacts of being underweight; the consequences of restricting food intake; the consequences of binging, vomiting, laxative and diuretic use (Fairburn, 2008; Keys et al., 1950); the ineffectiveness of dieting; the role of water retention in adding weight; healthy eating habits; the role of individual metabolism in the maintenance of a natural and healthy body weight; and the non-trivial role of disordered eating thoughts and behaviours.

Subsequent therapy focused on: *1)* The distinction between the feared self and the actual or authentic self; *2)* The distinction between an obsessional doubt and a normal doubt; *3)* ED logic; *4)* ED doubt as 100% irrelevant to the "here and now;" *5)* Exploring the narrative supporting the doubt; *6)* Crossing the barrier from reality into ED imagination; *7)* Identification of reasoning errors that create and maintain the obsessional narrative; *8)* Establishing the false nature of the ED doubt; *9)* Establishing the selective nature of the ED doubt; *10)* Identifying vulnerable self themes in obsessional narratives; *11)* Learning to trust the reality of the senses and to tolerate the void left by decreased obsessional behaviour.

Results

Data were analysed using SPSS 17.0. Non-parametric statistics were performed because of a small sample size and because data did not meet the stringent assumptions of parametric tests concerning normality and homogeneity of variance, according to guidelines set forth by Tabachnick and Fidell (2001). Wilcoxon Signed Rank Tests and Friedman Tests were used after checking for specific assumptions related to these non-parametric tests. The cut-off for significance was determined a priori at $p < .05$ as non-parametric tests tend to be less sensitive. Effect sizes were measured using Cohen (1988) criteria.

Longitudinal changes in ED symptoms

The results of the Friedman Test indicated that there was a statistically significant decrease in YBC-EDS total severity scores across the four time points (pre-, mid-, post-therapy, and six-month follow-up) (see Table 1). Inspection of the median values showed a decrease in YBC-EDS scores from pre- to mid-IBT to post-IBT and a further decrease at follow-up. A significant decrease was also observed across the four time points in YBC-EDS Obsession scores as well as in YBC-EDS Compulsion scores (see Table 1). A Wilcoxon Signed Rank Test (WSRT) demonstrated a significant reduction in YBC-EDS total scores following IBT (with Bonferroni corrections), with a large effect size and at six-month follow-up, with a large effect size. The median YBC-EDS total, obsessions and compulsions scores decreased from pre- to post-IBT program and further significantly decreased at follow-up, with large effect sizes (see Table 1).

Although results on the Friedman Test did not show a significant difference in EDE restraint scores across the four time points, the WSRT indicated a significant reduction in this subscale scores following IBT, with a medium effect size, but not at six-month follow-up. Inspection of the median values showed a decrease in EDE restraint scores from pre- to mid-IBT to post-IBT, but a slight increase at follow-up (see Table 1). A Friedman Test revealed a significant decrease in EDE eating, weight, and shape concern scores across the four time points. A WSRT indicated a significant decrease from pre- to post-IBT in median EDE eating, weight, and shape concern scores, with large effect sizes, and further significantly decreased at follow-up, with medium to large effect sizes (see Table 1).

A Friedman Test showed a significant increase in participants' report of their ideal weight in the EDI, however only 8 participants answered this question across all time points. A WSRT confirmed a significant increase from pre- to post-IBT in median ideal weight, with a large effect size, and a slight decrease at follow-up, but remaining a significant increase in their ideal weight compared to pre-IBT, with a large effect size (see Table 2).

Results on the Friedman Test indicated that participants' BMI did not significantly differ across four time points. Although there was a non-significant increase in median BMI

scores from pre- to post-IBT, they then reverted back to their initial score at follow-up, which was in the normal range for all participants (see details in Table 2).

A Friedman Test demonstrated a significant decrease in EDI-2 drive for thinness, bulimia, ineffectiveness, perfectionism, interoceptive awareness, maturity fears, asceticism, impulse regulation, and social insecurity scores (see Table 2), across the four time points. A WSRT confirmed a significant decrease from pre- to post-IBT in these median EDI-2 subscale scores, with medium effect sizes (see Table 2). A trend is observed towards decrease in EDI-2 body dissatisfaction and interpersonal distrust scores from pre- to post-IBT, with a medium effect size, and body dissatisfaction scores further decreased at follow-up. Although all other subscales scores slightly increased from post-therapy to follow-up, a WSRT indicated that this increase was not significant (drive for thinness, z = -.41, p = .68; bulimia, z = -1.72, p = .09; ineffectiveness, z = -1.53, p = .13; perfectionism, z = -.99, p = .32; interpersonal distrust, z = -.70, p = .48; interoceptive awareness, z = -1.13, p = .26; maturity fears, z = -1.49, p = .14; asceticism, z = -.67, p = .50; impulse regulation, z = -1.20, p = .23; and social insecurity scores, z = -.71, p = .48).

Longitudinal changes in ego-dystonicity and OVI

A Friedman Test revealed a significant difference in EDQ irrationality scores across the four time points, but not in other EDQ subscales scores (see Table 3). A WSRT indicated a trend in an increase from pre-IBT to follow-up in the degree to which participants judged their ED thoughts as irrational, with a medium effect size (see Table 3). A Friedman Test showed a significant difference in YBC-EDS degree of ego-syntonicity in obsessions as well as ego-syntonicity in compulsions across the four time points and a WSRT confirmed a significant decrease from pre-IBT to follow-up in the ego-syntonicity of obsessions and compulsions, with large effect sizes (see Table 1).

A Friedman Test showed a significant decrease in OVIS scores across the four time points and a WSRT confirmed a significant decrease from pre-IBT to follow-up in OVIS scores, with a large effect size (see Table 3).

Longitudinal changes in cognitive process measures

In a Friedman Test, a trend was observed in decreasing FSQ scores across the four time points and a WSRT indicated a significant decrease from pre- to post-IBT in median scores, with a medium effect size (see Table 3).

A Friedman Test demonstrated a significant decrease in OBQ-44 inflated responsibility for harm, intolerance of uncertainty/perfectionism, and over-importance/control of thoughts scores, and a trend towards decrease in overestimation of threat scores across the four time points (see Table 3). A WSRT indicated a significant decrease from pre- to post-IBT in all median subscale scores, with medium to large effect sizes, with the exception of overestimation of threat scores. Nevertheless, overestimation of threat scores were already low at the start of therapy and still decreased at follow-up (see Table 3).

A Friedman Test indicated a significant decrease in ICQ-EV total scores across the four time points, but a WSRT revealed only a significant reduction from mid- to post-IBT median scores, with a medium effect size, not at follow-up (see Table 3).

Longitudinal changes in depression, anxiety and motivational measures

Results on a Friedman Test showed a significant decrease in BDI-II scores across the four time points (see Table 3). A WSRT indicated a significant reduction in median BDI-II scores from pre- to post-IBT, with a large effect size. However, an increase in scores was observed at follow-up; a WSRT revealed that the difference between post-IBT and follow-up scores was not significant (see Table 3).

Although results on the Friedman Test did not show a significant difference in BAI scores across the four time points, the WSRT indicated a significant reduction in scores following IBT, with a medium effect size, but not at six-month follow-up (see Table 3). Inspection of the median values showed an increase in BAI scores at follow-up, however a WSRT revealed that the difference between post-IBT and follow-up scores was not significant (see Table 3).

A Friedman Test revealed a significant change in motivational stage across the four time points within the six motivational stages. Inspection of the median values showed a change from participants' feeling of being in the action stage pre-IBT to a feeling of being in the recovery stage at follow-up. A WSRT confirmed this significant progression in participants' motivational stage from pre-IBT to follow-up, with a large effect size (see Table 3).

Discussion

Longitudinal changes in ED symptoms

In the current study, a significant improvement in both ED obsessions and compulsive behaviour was observed over the course of treatment and persisted at six-month follow-up. In fact, 80% of the sample (n = 15) demonstrated a clinically significant reduction in ED symptoms according to Emmelkamp (2002). Fairburn et al. (2003) reported that 40 to 50% of treatment completers ceased binge eating and purging following CBT for BN. This study's results slightly surpass this rate, with 53% ceasing their compensatory behaviors at six-month follow-up. Participants' concern over eating, weight, and shape significantly decreased during treatment and at follow-up. Furthermore, food restraint behaviours significantly decreased following IBT. It is noteworthy that participants' report of their ideal weight significantly increased from pre- to post-treatment and at follow-up. Thus, they seem to have accepted that a higher weight than which they were aiming for before IBT would be ideal for their body. Additionally, what patients with EDs fear the most at start of therapy, weight gain, did not occur in the long term. Although a non-significant increase in median BMI scores was observed following IBT, they reverted back to their initial score at follow-up, which was in the normal range for all participants.

Results revealed a significant decrease in drive for thinness (excessive concern with dieting, preoccupation with weight, and fear of weight gain), bulimia (episodes of binge eating and purging), ineffectiveness (feelings of inadequacy, insecurity, worthlessness and having no control over one's life), perfectionism, difficulty in interoceptive awareness (ability of an

individual to discriminate between sensations, feelings, and between the sensations of hunger and satiety), maturity fears, asceticism, difficulty in impulse regulation (ability to regulate impulsive behavior, especially the binge behaviour), and social insecurity following IBT. A trend was observed towards decrease in body dissatisfaction and interpersonal distrust from pre- to post-IBT, and body dissatisfaction further decreased at follow-up. This suggests that improvements in ED symptoms following IBT extend to areas that are not specifically addressed by IBT such as feelings of ineffectiveness, interoceptive awareness, maturity fears, asceticism, impulse regulation, social insecurity, and interpersonal distrust.

Longitudinal changes in ego-dystonicity and OVI

In line with our hypothesis, OVI or the degree of conviction towards obsessional doubts decreased significantly over the course of treatment as ED obsessions and compulsions improved. The degree of ego-syntonicity in obsessions and compulsions measured by the YBC-EDS was also found to decrease significantly at six-month follow-up. Furthermore, the irrationality of ED intrusive thoughts was shown to augment over the course of IBT. This is consistent with the decrease in OVI and with IBT's premise that modifying the reasoning narrative producing the obsessional doubt will in turn decrease compulsive behaviour even though treatment was not focused on behaviour change or ERP as in traditional CBT.

Longitudinal changes in cognitive process measures

Results revealed a significant decrease in participants' fear of who they could become following IBT. Moreover, a significant decrease in inflated responsibility for harm, intolerance of uncertainty/perfectionism, and over-importance/control of thoughts following treatment was observed as well as a trend towards decrease in overestimation of threat scores at follow-up. It is noteworthy that the belief domains of the OBQ changed following IBT although they were not addressed specifically in therapy.

Although a decrease in inferential confusion over the course of therapy was shown, only a significant reduction was found from mid- to post-IBT. Del Borrello & O'Connor (2014) demonstrated that changes in levels of inferential confusion were the most predictive of

change in OCD symptoms, supporting the theoretical basis of IBT that a decrease in inferential confusion is associated with a decrease in symptoms. This result is also consistent with findings of Paradisis, Aardema, & O'Connor (2011) and Aardema et al. (2008) demonstrating that inferential confusion is a strong predictor of change in OCD symptoms. The current study could not confirm that the decrease in inferential confusion over the course of IBT predicted the improvement in ED symptoms. Nonetheless, in accordance with previous findings, this could be the case, and should be investigated in future research.

Longitudinal changes in depression, anxiety and motivational measures

Depression and anxiety symptoms were both moderate at the start of therapy. They decreased significantly following IBT. Moreover, the majority of participants (n = 10; 62.5%) reported a change from a feeling of being in the action stage at pre-treatment to a feeling of being in the recovery stage at follow-up. This awareness in the significant progression of participants' motivational stage follows the improvement trajectory in ego-dystonicity in obsessions and compulsions, OVI, fear of self, inferential confusion, obsessional beliefs, ED, depression and anxiety symptoms.

Conclusions

To conclude, the present study highlights the pertinence to address fear of self and self-doubt in psychological treatment for EDs via a focus on self-cognitions and reasoning about self. Patients can benefit from a therapy exploring other options than constantly running away from their feared identity. Our findings also reveal the importance for future research, so far scarce, on the impact of ego-dystonicity in obsessions and how it relates to an overinvestment in the "self-as could-be", or feared identity, in contrast to the "self-as-is" in EDs. Recent developments have pointed to the importance of examining self-values, sense of self, self-compassion and ambivalence towards the self, and have produced promising interventions. In addition, this study suggests that IBT be considered a promising alternative to traditional CBT especially when OVI are high and underlines the importance of examining the long-term outcome of interventions.

The major limitation of this study is the small sample size, which in turn interferes with the ability to perform more in-depth analyses of predictors and mediators of symptom improvement and change in ego-dystonicity in obsessions and related fear of self. However, the current findings provide good preliminary evidence that these concepts play an important role in BN. Although another limitation is the lack of participants with AN in our sample, the transdiagnostic model of EDs by Fairburn et al. (2003) provides support that all individuals with EDs over-value food/weight/shape thoughts, and use weight control techniques (dieting, restriction) to cope with these thoughts. Therefore, even though some ED symptoms in BN may be distressing, like vomiting, there are a variety of ego-syntonic symptoms (restriction, drive for thinness) that are theoretically expected to be common across diagnoses. We therefore expect IBT's more thorough investigation of cognitive maintaining factors, self-cognitions, reasoning about self and effectiveness in decreasing strong OVI and ego-syntonic obsessions in BN will extend to treating AN.

Finally, the lack of a control group prevents attributing improvements exclusively to the IBT intervention. Nevertheless, given the exploratory nature of the study and the large effect sizes that were found, the data and conclusions presented here still provide coherent and solid empirical support for the use of IBT in BN. A randomized-controlled trial will be crucial to confirm IBT's efficacy and effectiveness with EDs, and particularly with AN. Further research is needed in order to improve our understanding of ego-dystonicity and ego-syntonicity, fear of self, inferential confusion and contribute to a better comprehension of the variables hindering effective treatment of EDs.

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Table 1

Longitudinal changes in eating disorder symptoms assessed by a clinician

	x^2	*p*	*Md* Pre-	*Md Mid-*	*Md Post-*	*Md Follow-up*	*z Pre-Post*	*p*	|d|	*z Pre-Follow-up*	*p*	|d|
YBC-EDS Total	28.23	***	23.50	14.00	4.00	1.50	-3.41	***	.62	-3.07	**	.59
YBC-EDS Obsessions	29.15	***	12.00	7.50	3.50	1.50	-3.42	***	.62	-3.07	**	.59
YBC-EDS Compulsions	27.65	***	12.00	6.50	.50	.00	-3.30	***	.60	-3.06	**	.59
YBC-EDS Ego-syntonicity in obsessions	14.12	**	1.50	1.00	.00	.00	-1.81	.07	-	-2.69	**	.52
YBC-EDS Ego-syntonicity in compulsions	11.96	**	2.00	.50	.00	.00	-2.30	*	.42	-2.84	**	.55
EDE Restraint	3.13	.37	2.11	2.00	1.72	1.78	-2.41	*	.39	-1.65	.10	-
EDE Eating concern	18.83	***	2.64	1.50	.07	.29	-2.90	**	.53	-2.43	*	.47
EDE Weight concern	28.27	***	3.67	2.92	1.42	1.83	-3.41	***	.62	-3.06	**	.59
EDE Shape concern	26.46	***	5.30	3.80	2.50	2.40	-3.33	***	.61	-3.06	**	.59

Note: *** significant at $p < .001$; ** $p < .01$; * $p < .05$. YBC-EDS = Yale-Brown-Cornell-Eating Disorder Scale; EDE = Eating Disorder Examination.

Table 2

Longitudinal changes in Eating Disorder Inventory-2

	x^2	*p*	*Md* Pre-	*Md Mid-*	*Md Post-*	*Md Follow-up*	*z Pre-Post*	*p*	|d|	*z Pre-Follow-up*	*p*	|d|
BMI	6.84	.08	23.15	23.99	24.76	24.68	-1.19	.24	-	-.89	.37	-
EDI-2 Ideal weight	11.77	**	55.91	59.09	61.36	60.23	-2.58	**	.50	-2.37	*	.48
EDI-2 Drive for thinness	14.79	**	17.00	11.00	5.00	6.00	-2.14	*	.39	-.85	.40	-
EDI-2 Bulimia	19.87	***	9.00	2.00	1.00	3.00	-2.42	*	.44	-.66	.51	-
EDI-2 Body dissatisfaction	5.59	.13	19.00	12.00	11.00	7.00	-1.37	.17	-	-.66	.51	-
EDI-2 Ineffectiveness	14.67	**	6.00	3.00	1.00	2.00	-2.42	*	.44	-.80	.43	-
EDI-2 Perfectionism	7.98	*	9.00	6.00	4.00	6.00	-2.05	*	.37	-.77	.44	-
EDI-2 Interpersonal distrust	3.75	.29	2.00	1.00	.00	.00	-1.87	.06	.34	.00	1.0	-
EDI-2 Interoceptive awareness	10.37	*	9.00	4.00	3.00	5.00	-2.21	*	.40	-.57	.57	-
EDI-2 Maturity fears	9.22	*	4.00	2.00	1.00	1.00	-2.14	*	.39	-.41	.68	-
EDI-2 Asceticism	11.87	**	6.00	4.00	3.00	3.00	-2.28	*	.42	-.85	.40	-
EDI-2 Impulse regulation	12.16	**	3.00	1.00	,00	2.00	-2.44	*	.45	-.09	.93	-
EDI-2 Social insecurity	12.80	**	7.00	3.00	2.00	2.00	-2.17	*	.40	-.67	.51	-

Note: *** significant at $p < .001$; ** $p < .01$; * $p < .05$. BMI = Body Mass Index.

Table 3

Longitudinal changes in ego-dystonicity, fear of self, and other symptom measures

	x^2	*p*	*Md* Pre-	*Md Mid-*	*Md Post-*	*Md Follow-up*	*z Pre-Post*	*p*	|d|	*z Pre-Follow-up*	*p*	|d|
EDQ Irrationality	8.75	*	23.00	20.00	23.00	26.00	-.47	.64	-	-1.92	.06	.40
EDQ Inconsistency with morals	4.76	.19	34.00	34.00	26.00	35.00	-1.02	.31	-	-1.07	.29	-
EDQ Repugnance	2.23	.53	50.00	47.00	56.00	54.00	-.76	.45	-	-1.00	.33	-
EDQ Implications in thought for personality	4.92	.18	39.00	31.00	27.00	33.00	-1.70	.09	-	-.46	.65	-
OVIS	28.36	***	60.50	23.50	17.00	10.50	-3.41	***	.62	-3.06	**	.59
FSQ	6.85	.08	55.00	38.00	35.00	35.00	-2.22	*	.41	-.73	.46	-
ICQ-EV	8.49	*	56.00	68.00	44.00	41.00	-1.41	.16	-	-.31	.75	-
OBQ-44 Inflated responsibility for harm	11.25	**	24.00	20.00	15.00	14.00	-2.70	**	.49	-.85	.40	-
OBQ-44 Overestimation of threat	5.08	.17	10.00	12.00	10.00	8.00	-1.61	.11	-	-.71	.48	-
OBQ-44 Intolerance of uncertainty/ Perfectionism	15.29	**	71.00	64.00	49.00	42.00	-3.10	**	.57	-.85	.40	-
OBQ-44 Over-importance/Control of thoughts	13.01	**	29.00	23.00	19.00	17.00	-2.45	*	.45	-.85	.40	-
BDI-II	8.34	*	18.00	6.00	4.00	4.00	-2.79	**	.51	-.70	.51	-
BAI	5.81	.12	10.00	5.00	5.00	8.00	-2.50	*	.46	-.77	.44	-
Motivational stage	29.35	***	4.00	4.00	4.00	6.00	-2.92	**	.53	-3.09	**	.59

Note: *** significant at $p < .001$; ** $p < .01$; * $p < .05$. EDQ = Ego Dystonicity Questionnaire; FSQ = Fear of Self Questionnaire; OVIS = Overvalued Ideas Scale; OBQ-44 = Obsessional belief questionnaire-44; ICQ-EV = Inferential confusion questionnaire-Expanded version; BDI-II = Beck Depression Inventory-II; BAI = Beck Anxiety Inventory.

Discussion Générale

Objectifs et hypothèses de la thèse

Cette thèse avait pour objectif d'examiner le lien entre l'égo-dystonie et les TCA. Pour se faire, le deuxième article visait d'abord l'exploration de la relation entre la nature égo-dystone des obsessions chez les patientes TCA et le concept de peur face à leur identité. Dans cette étude, nous avons aussi investigué le lien entre la sévérité des symptômes TCA et l'égo-dystonie dans les obsessions. De surcroît, nous avons mesuré les différences dans la présence de pensées égo-dystones et de peur face à son identité entre des sujets non-cliniques et des personnes atteintes d'un TCA. Enfin, nous avons comparé le degré d'égo-dystonie présent dans les pensées de personnes atteintes d'un TCA à celui dans les pensées d'individus souffrant d'un TOC.

Ensuite, à travers une étude de cas, le troisième article avait pour objectif de proposer et de décrire l'application du programme de thérapie cognitive TBI pour les TCA ciblant précisément les fortes idées surévaluées, les convictions égo-syntones, les doutes et le raisonnement face au soi et à l'identité. L'article visait également à évaluer l'hypothèse selon laquelle les symptômes TCA et les idées surévaluées de la participante souffrant de BN diminueraient au cours de la TBI et six mois suivant la thérapie.

Enfin, le but ultime de cette thèse, dans le quatrième article, était d'étudier l'hypothèse selon laquelle au cours de la TBI et six mois suivant la thérapie, une diminution chez des adultes atteints d'un TCA serait observée au niveau (1) des symptômes TCA, (2) du degré d'égo-syntonie dans les obsessions et les compulsions, (3) du degré de peur de l'identité, (4) des idées surévaluées et (5) de la confusion inférentielle.

Principaux résultats

À travers la conception TBI des obsessions comme étant des inférences de doute, cette thèse démontre que les TCA possèdent des caractéristiques obsessionnelles-compulsives claires où les doutes et le raisonnement face au soi et à l'identité contribuent à la détresse. Les résultats des troisième et quatrième articles suggèrent que le programme d'intervention cognitive TBI

peut être efficace dans le traitement de la BN en diminuant le degré d'égo-syntonie dans les obsessions et les compulsions, les fortes idées surévaluées, ainsi que la peur de l'identité.

Dans l'article 4, une diminution significative des obsessions et des comportements compulsifs a été observée au cours du traitement et a persisté au suivi six mois plus tard. En effet, 80% de l'échantillon, soit 12 des 15 participantes, ont démontré une diminution cliniquement significative des symptômes TCA, selon Emmelkamp (2002). Fairburn, Cooper et Shafran (2003) rapportent que 40 à 50% de leurs participantes ont cessé leurs comportements compensatoires suite à une TCC pour la BN. Nos résultats surpassent légèrement ce taux, avec 53% ayant cessé leurs comportements compensatoires au suivi post six mois. Une amélioration significative a aussi été mesurée durant la psychothérapie et au suivi chez les participantes dans leurs préoccupations au niveau de l'alimentation, du poids et de la silhouette. Leurs comportements de restriction alimentaire ont significativement diminué suite à la TBI. En outre, il est important de noter que le poids idéal rapporté par les participantes a augmenté significativement suite au traitement et au suivi. A l'issue de la psychothérapie, celles-ci semblent donc accepter qu'un poids supérieur à celui visé avant la psychothérapie serait idéal pour leur corps. De surplus, ce que les clientes avec un TCA craignent le plus au début d'une psychothérapie, un important gain de poids, ne s'est pas produit à long terme. Bien qu'une légère augmentation des scores médians d'IMC fût observée suite au traitement, ceux-ci sont revenus au score initial au suivi. Toutes les participantes avaient un IMC normal au début de la psychothérapie.

Les résultats de l'article 4 ont révélé une diminution significative dans les sous-échelles de l'EDI-2 suite à la thérapie: désir de minceur, épisodes de boulimie, sentiment d'inefficacité, perfectionnisme, difficultés d'interprétation intéroceptive, peur de la maturité, ascétisme, difficultés de régulation des impulsions et insécurité sur le plan des relations sociales. Une tendance vers une diminution dans l'insatisfaction corporelle et la méfiance dans les relations interpersonnelles a été observée suite à la TBI et l'insatisfaction corporelle a continué de diminuer au suivi. Ces résultats suggèrent que les progrès au niveau des symptômes TCA suite à la TBI s'étendent aux domaines qui ne sont pas spécifiquement ciblés par la TBI, tels que les sentiments d'inefficacité, la conscience intéroceptive, la peur de la maturité, l'ascétisme, les

difficultés de régulation des impulsions, l'insécurité sur le plan des relations sociales et la méfiance dans les relations interpersonnelles.

Les troisième et quatrième articles supportent l'hypothèse principale de la thèse, selon laquelle les idées surévaluées et le degré d'égo-syntonie dans les obsessions diminueraient au cours de la TBI. En effet, les résultats de l'article 4 ont démontré que l'égo-syntonie dans les obsessions et les compulsions mesurée par le YBC-EDS a diminué significativement (les obsessions et compulsions sont donc devenus plus égo-dystones) au cours de la thérapie ainsi qu'au suivi post six mois, alors que les symptômes TCA s'amélioraient. Bien que la sous-échelle d'irrationalité des obsessions de l'EDQ ait augmenté significativement pendant le traitement, les scores mesurés aux autres sous-échelles d'égo-dystonie sont restés constants. L'augmentation du caractère irrationnel perçu par les participantes concernant leurs obsessions TCA concorde avec la diminution des idées surévaluées. En outre, ce résultat est en accord avec la prémisse de la TBI selon laquelle la modification du narratif de raisonnement produisant les doutes obsessionnels diminuerait les comportements compulsifs, et ce même si le traitement ne cible pas le changement comportemental ou l'EPR (comme dans le cas d'une TCC traditionnelle).

Dans le deuxième article, l'égo-dystonie dans les obsessions et la peur face à sa propre identité ont été explorées et révélées comme étant des concepts fortement corrélés dans un échantillon de patientes TCA ainsi que dans un échantillon de sujets non-cliniques. Cette relation semble être expliquée en grande partie par l'implication que possède la pensée ou l'obsession pour la personnalité de la personne aux prises avec un TCA. Ainsi, plus la personne a des pensées reliées à l'identité qu'elle craint et à la personne qu'elle pourrait devenir, plus elle croit que ceci a des implications concernant cette personne qu'elle craint devenir.

Par ailleurs, la sous-échelle d'irrationalité de l'EDQ mesurant le caractère illogique des obsessions reliées à l'alimentation, le poids et/ou la silhouette n'était pas reliée au degré de peur face à l'identité. Il apparait donc que la mesure dans laquelle une obsession est vécue comme plus égo-dystone n'est pas associée à la rationalité de la pensée, mais à un processus général sous-jacent tel que la mesure dans laquelle la personne s'investit dans sa peur de devenir l'identité qu'elle craint excessivement.

Purdon, Cripps, Faull, Joseph, et Rowa (2007) ont proposé une relation non-linéaire entre l'égo-dystonie et la sévérité des obsessions TOC. La mesure dans laquelle une obsession est égo-dystone ou égo-syntone peut aussi suivre des degrés différents de peur face à l'identité. Parmi d'autres peurs, les patientes avec un TCA peuvent craindre de devenir grosses, hors de contrôle, paresseuses, sans attrait, sans valeur et mal aimées. Leurs actions sont dictées par cette personne qu'elles craignent devenir, ce qui peut être un processus sous-jacent important qui produit des différences d'égo-dystonie des pensées à différents stades dans le temps. Vivre pendant une longue période de temps en réaction à cette peur de soi peut amener une personne à croire que de telles pensées et comportements associés sont sécurisants et utiles pour atteindre leur but d'être mince et de contrôler leur poids. Par conséquent, ces pensées peuvent être caractérisés comme étant principalement égo-syntones. Un autre résultat important décrit dans le deuxième article est la présence, chez les adultes souffrant d'un TCA, de degrés légèrement plus élevés d'obsessions égo-dystones comparativement aux adultes atteints d'un TOC tel que rapporté par Purdon et al. (2007). En effet, il est possible qu'un plus grand degré de peur face à l'identité dans les TCA puisse augmenter le degré d'égo-dystonie dans les obsessions, puisqu'une relation forte s'est révélée exister entre ces deux concepts dans le deuxième article.

Finalement, suite au traitement, le quatrième article a démontré une baisse statistiquement significative chez les participantes souffrant de BN dans le degré de peur face à leur identité. Une diminution de la confusion inférentielle du mi-traitement au post-traitement a aussi été observée. Ceci était attendu puisque nous postulons que la présence de peur face à son identité sous-tende le processus de confusion inférentielle. Ainsi, une personne qui, au cours de la TBI, a moins peur de devenir la personne qu'elle craint excessivement devenir, s'investira moins dans des possibilités non-fondées. Par conséquent, la personne aura moins de doutes obsessionnels et considérera que ses comportements compulsifs ne sont plus nécessaires.

Forces de l'étude et implication clinique des résultats

D'abord, au niveau des retombées cliniques, cet ouvrage souligne la pertinence d'investiguer le degré d'égo-dystonie et d'égo-syntonie dans les obsessions TCA et son impact sur la réponse thérapeutique alors que ce domaine d'étude a jusqu'à présent été limité à la littérature des TOC. Pour se faire, il semblait essentiel de comparer pour la première fois les

scores d'égo-dystonie dans les obsessions, mesurés par l'EDQ, chez des individus souffrant d'un TCA d'une part et de TOC, d'autre part. L'EDQ a été modifié pour cette thèse afin de spécifier aux participantes que le questionnaire ciblait les pensées intrusives et obsessions concernant l'alimentation, le poids et/ou la silhouette. Le deuxième article a permis de corroborer les résultats de plusieurs études démontrant que les obsessions des individus aux prises avec un TCA ont des degrés variables d'égo-dystonie et d'égo-syntonie, malgré la croyance initiale que l'égo-syntonie seule caractérise les pensées dans les TCA (Roncero, Belloch, Perpiña, & Treasure, 2013; Mazure, Halmi, Sunday, Romano, & Einhorn, 1994; Sunday & Halmi, 2000). Grâce aux études 2 et 4, nous pouvons affirmer qu'il existe un degré d'égo-dystonie dans les obsessions TCA comparable à celui dans les obsessions TOC à différents moments dans le processus de rétablissement. De plus, d'après les scores élevés d'égo-dystonie examinés dans cette thèse, nous pouvons confirmer que les préoccupations des personnes atteintes d'un TCA peuvent bien être nommées « obsessions » puisqu'à certains moments, elles sont des pensées vécues comme étant intrusives, non voulues, récurrentes et causant de la détresse.

L'article 2 a également permis de mettre en lumière la relation existante entre l'égo-dystonie et la peur de l'identité ainsi que les rôles importants que jouent ces concepts dans les TCA. La présente thèse suggère que la mesure dans laquelle une obsession est égo-dystone ou égo-syntone peut suivre des degrés différents de peur face à l'identité et fluctuer selon une amélioration de la symptomatologie TCA au cours d'une psychothérapie.

Ensuite, le devis longitudinal du quatrième article est une force non négligeable de cette thèse. Elle est la première à évaluer le changement au niveau du degré d'égo-dystonie dans les obsessions et les compulsions, des symptômes TCA, de la peur face à l'identité, des idées surévaluées et de la confusion inférentielle au cours d'un programme de thérapie cognitive TBI et au suivi post six mois chez des adultes souffrant de BN. Les résultats favorables de ce dernier article présente la TBI comme une alternative prometteuse à la TCC traditionnelle pour les TCA. En effet, les symptômes dépressifs et anxieux, qui étaient d'une sévérité moyenne au début du traitement, se sont significativement améliorés suite à la TBI. De plus, la majorité des participantes (n = 10; 62.5%) ont rapporté être à différents stades de changement au cours de la thérapie, soit dans la phase d'action à l'évaluation pré-traitement et à l'ultime phase de rétablissement au suivi post six mois. Leur sentiment de progresser dans ces stades

motivationnels suivent la trajectoire de changement révélée dans le degré d'égo-dystonie dans leurs obsessions et comportements compulsifs, les idées surévaluées, le degré de peur face à leur identité, la confusion inférentielle, les croyances obsessionnelles, et les autres symptômes TCA, de dépression et d'anxiété.

Limites et pistes de recherches futures

Malgré les résultats intéressants dégagés dans cette thèse, certaines limites doivent être prises en considération. La principale limite de l'étude clinique décrite à l'article 4 est sans doute la taille modérée de l'échantillon de participantes ayant complété la TBI (n = 15) ainsi que l'absence d'adultes souffrant d'AN, restreignant la généralisation des résultats à la clientèle souffrant de BN.

Selon le modèle transdiagnostique des TCA de Fairburn et al. (2003), tout individu aux prises avec un TCA surévalue l'importance de leurs pensées concernant l'alimentation, le poids, la silhouette et utilisent des stratégies pour contrôler leur poids (les régimes, la restriction) afin de gérer ces pensées. Par conséquent, même si certains symptômes TCA propres à la BN peuvent être pénibles (e.g. les vomissements), il existe une variété de symptômes égo-syntones (e.g. la restriction, le désir de minceur) qui sont connus comme étant communs à travers les diagnostics TCA, notamment l'AN. Bien que l'échantillon décrit à l'article 2 contienne moins de participantes ayant un diagnostic d'AN (n = 11) comparé à celles souffrant de BN ou d'un TCA non-spécifié (n = 46), nous postulons donc que les résultats révélés aux articles 2 et 4 pourraient s'appliquer également à l'AN. En effet, nous croyons que l'exploration plus approfondie des facteurs cognitifs qui maintiennent les TCA, des doutes obsessionnels et du raisonnement sur le soi et l'identité, et l'efficacité de la TBI à diminuer les fortes idées surévaluées et les obsessions égo-systones chez des personnes souffrant de BN s'étendent au traitement de l'AN. La TCC traditionnelle ne s'attarde habituellement pas à ces éléments, se centrant davantage sur l'interprétation des conséquences appréhendées des obsessions et sur les stratégies comportementales d'exposition. Les deux approches (TCC et TBI) n'étant pas incompatibles, elles pourraient avoir intérêt à être combinées selon les caractéristiques particulières de chaque cas. Par exemple, des éléments de la TBI pourraient être introduits dans les cas où l'individu présente des idées surévaluées.

Par ailleurs, bien qu'un suivi à long terme du maintien des bénéfices thérapeutiques a été prévu dans l'étude 4 (six mois suite à la thérapie), les données inclues à cet effet dans l'étude clinique demeurent partielles. En effet, une participante n'a pas retourné ses questionnaires d'évaluation de suivi et les données post six mois de deux participantes n'étaient pas encore disponibles au moment d'écrire l'article. Afin de mieux juger de l'efficacité à long terme de la TBI sur les TCA, il sera essentiel de se pencher sur ces résultats lorsque davantage de données seront recueillies.

De plus, dans l'article 2, le nombre de participantes ayant été effectivement recruté aux deux sites, *Institut universitaire en santé mentale de Montréal* (n = 33) et *Institut universtaire en santé mentale Douglas* (n = 24), et dans l'article 4, la taille modeste de l'échantillon ayant terminé le programme TBI, ont entravé la capacité d'effectuer des analyses approfondies des facteurs prédictifs des symptômes associés aux pensées intrusives liées à l'alimentation et à la peur face à son identité. Ainsi, bien que substantielle, la taille de l'échantillon de l'article 4 n'était pas suffisante pour permettre d'effectuer des analyses plus poussées investiguant les facteurs de médiation et de prédiction dans l'amélioration des symptômes et dans les changements au niveau de l'égo-dystonie dans les obsessions et compulsions, la peur face à l'identité et la confusion inférentielle. Toutefois, les résultats ont pu fournir des preuves préliminaires que ces concepts jouent un rôle important dans la BN.

Une autre limite de l'étude 4 consiste en l'absence d'un groupe de comparaison recevant un autre type de traitement jugé efficace pour les TCA, telle que la TCC traditionnelle. En raison de l'absence d'un tel groupe, il s'avère impossible de comparer directement l'efficacité de la TBI à celle des interventions actuellement considérées comme les traitements de choix pour la BN, et par le fait même de tirer des conclusions claires quant à leur efficacité relative, et plus précisément quant à la supériorité de la TBI. En plus des limites associées à la mesure de l'efficacité thérapeutique relative de différentes modalités d'intervention, l'utilisation d'un seul groupe affecte également la validité interne de l'étude, l'effet du simple passage du temps ne pouvant pas être contrôlé. Cependant, une amélioration spontanée des symptômes de TCA en absence de traitement adéquat s'avère improbable. Il sera important de procéder à des études futures randomisées et contrôlées, avec de plus grands échantillons, particulièrement avec des participantes souffrant d'AN, afin de pouvoir identifier les facteurs de médiation et de prédiction

d'une meilleure ou d'une moins bonne réponse à la TBI, tant en termes de symptomatologie TCA qu'au niveau de l'égo-dystonie dans les obsessions et compulsions, la peur face à l'identité et la confusion inférentielle. Néanmoins, il est à noter que la thèse était de nature exploratoire et qu'elle visait avant tout à investiguer le rôle de l'égo-dystonie dans la réponse au traitement dans les TCA, ce que l'utilisation d'un seul groupe dans l'étude longitudinale à l'article 4 a clairement permis d'évaluer.

De surcroît, un aspect limitant la compréhension des niveaux d'égo-dystonie et l'égo-syntonie dans les obsessions et compulsions concerne le fait que le degré d'égo-syntonie soit uniquement mesuré à l'aide du YBC-EDS. Il est aussi présumé qu'un haut score dans l'EDQ signifie un degré faible d'égo-syntonie. Cependant, une piste de recherche importante pourrait être l'élaboration d'un nouvel outil de mesure comme l'EDQ afin d'optimiser la distinction entre la nature plus égo-syntone de certaines obsessions et compulsions et afin d'approfondir nos connaissances sur le continuum de symptômes entièrement égo-dystones à entièrement égo-syntones.

Un autre élément à prendre en considération concerne l'absence de validation des versions françaises de plusieurs outils de mesure utilisés, soit le YBC-EDS, l'OVIS, l'EDQ, le FSQ, le questionnaire de motivation et des stades de changement, et l'ICQ-EV. Bien que les versions originales de ces instruments possèdent de bonnes qualités psychométriques, il sera pertinent de procéder à la validation de leur version française puisque la majorité des participants à nos études sont francophones. Il est à noter que la traduction de ces outils s'est faite selon une procédure de traduction/rétro-traduction, maximisant ainsi la correspondance de la version traduite avec la version originale.

En outre, une avenue de recherche intéressante serait d'approfondir l'étude de la relation entre l'égo-dystonie et l'égo-syntonie dans les symptômes TCA et les stades de motivation au cours du traitement.

Enfin, cette thèse souligne l'importance de procéder à des études futures permettant de préciser la présentation particulière du phénomène de confusion inférentielle dans un contexte TCA.

En conclusion, d'autres études sont nécessaires afin d'améliorer notre compréhension de l'égo-dystonie et de l'égo-syntonie, de la peur face à son identité, de la confusion inférentielle et des variables qui entravent le traitement des TCA, particulièrement celui de l'AN. Nous considérons que la présente thèse doctorale est parvenue à contribuer aux connaissances sur les TCA et à donner des pistes d'orientation enrichissantes pour les recherches futures.

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Annexe 1 : Ego Dystonicity Questionnaire (version française)

Les questions suivantes concernent les pensées qui vous préoccupent (obsessions par rapport au poids, à la silhouette et/ou à la nourriture). En utilisant l'échelle ci-dessous, svp veuillez indiquer à quel niveau vous êtes en accord ou en désaccord avec chaque énoncé. SVP répondez aussi honnêtement que possible. Il n'y a pas de bonnes ou de mauvaises réponses.

Fortement en désaccord **1 2 3 4 5 6 7** Fortement d'accord

1. Ça ne fait pas de sens pour moi que j'aie une pensée comme celle-là. __

2. Je me demande comment une personne comme moi pourrait avoir une pensée comme cela. __

3. Lorsque j'ai cette pensée, je fais habituellement quelque chose pour m'assurer que la pensée n'est pas ou ne deviendra pas vraie dans la vie réelle. __

4. Plus j'ai cette pensée, plus je m'inquiète que cela m'arrivera en réalité, malgré mes efforts de contrôle de soi. __

5. Cette pensée est bouleversante parce qu'elle viole mon sens de la moralité et de la décence. __

6. Cette pensée entre en conflit avec ma personnalité ou mon sens de «qui je suis». __

7. Cette pensée est immorale. __

8. Bien que cette pensée soit bouleversante, je comprends pourquoi je l'ai. __

9. Je n'ai jamais agi en conséquence à cette pensée dans le passé. __

Fortement en désaccord **1 2 3 4 5 6 7** Fortement d'accord

10. Bien que le contenu de la pensée soit dérangeant, je ne suis pas perturbé par le fait d'avoir cette pensée. __

11. Ce n'est pas le genre de pensée que je m'attends à avoir. __

12. Je ne veux plus jamais avoir cette pensée. __

13. Je serais une meilleure personne si je n'avais pas ce genre de pensées. __

14. Je ne trouve aucune bonne raison pour laquelle j'aurais une pensée comme cela. __

15. Cela me dérange que je ne puisse pas me débarrasser de cette pensée plus facilement étant donné qu'elle est si irrationnelle. __

16. Il n'y a rien d'attirant pour moi dans le fait que cette pensée devienne réelle.__

17. J'ai besoin de me prouver que je ne suis pas le type de personne que cette pensée suggère que je pourrais être. __

18. Cette pensée est repoussante. __

19. Plus j'ai cette pensée, plus je m'inquiète qu'elle devienne réelle malgré mes bonnes intentions. __

20. Cette pensée signifie que je me préoccupe des autres. __

21. Quand j'ai cette pensée, je commence à me questionner sur la perception que j'ai de moi-même. __

22. Cette pensée est tellement irrationnelle que je ne comprends pas pourquoi je pourrais l'avoir. __

23. Cette pensée viole mon sens de ce qui est bien. __

Fortement en désaccord **1 2 3 4 5 6 7** Fortement d'accord

24. Ce n'est pas le genre de pensée que je m'attendrais à avoir donc cela est plutôt angoissant pour moi. __

25. Je ne ferais jamais rien volontairement qui pourrait faire en sorte que cette pensée devienne vraie en réalité. __

26. Quand j'ai cette pensée, je dois la chasser de mon esprit aussi vite que possible et la garder à distance. __

27. Cette pensée ne reflète pas mes fantasmes. __

28. Même si cette pensée va à l'encontre de ma personnalité, cela ne signifie rien du tout. __

29. Je ne voudrais jamais que cette pensée arrive réellement. __

30. Je fais habituellement n'importe quoi pour sortir cette pensée de mon esprit au moment où j'en prends conscience. __

31. Une personne comme moi ne devrait pas avoir de pensées comme celles-là. __

32. Plus j'ai cette pensée, plus je me demande si une partie de moi souhaiterait qu'elle devienne réelle. __

33. Cette pensée me prend complètement par surprise. __

34. Cette pensée me met l'estomac à l'envers. __

35. Je suis immoral d'avoir cette pensée. __

36. Cette pensée est bouleversante parce que je n'ai rien fait de ce genre par le passé et je ne voudrais jamais le faire dans le futur. __

37. Plus j'ai cette pensée, plus je m'inquiète que peut-être une partie de moi veuille qu'elle devienne réelle. __

Annexe 2 : Fear of Self Questionnaire (version française)

Veuillez noter votre niveau d'accord ou de désaccord avec les affirmations ci-dessous en utilisant l'échelle suivante:

Échelle: 1 2 3 4 5 6

Fortement en désaccord	En désaccord	Un peu en désaccord	Un peu en accord	En accord	Fortement en accord

	Réponse (1 à 6)
1. Je remets souvent en question mon propre caractère.	
2. Une attention constante est requise pour m'assurer que je pense et que je me comporte de façon appropriée.	
3. Je m'inquiète souvent de ce que mes pensées intérieures pourraient révéler de mon caractère.	
4. J'ai peur de possiblement être une personne violente et folle.	
5. Je peux facilement m'imaginer que je suis le genre de personne qui devrait définitivement se sentir coupable.	
6. Je remets souvent en question mon caractère moral.	
7. Je remets souvent en question ma santé mentale.	
8. Si les autres me connaissaient vraiment, ils auraient peur.	
9. Je remets souvent en question mes propres intentions ou désirs.	
10. J'ai parfois peur de regarder à l'intérieur de moi-même, car j'ai peur de ce que je pourrais trouver.	
11. Je me sens comme si une mauvaise partie de moi-même cherche toujours à s'exprimer.	
12. Je m'inquiète d'être le genre de personne qui pourrait faire des choses très immorales.	
13. Je m'inquiète souvent d'avoir un « agenda » négatif caché.	
14. J'ai peur du genre de personne que je pourrais être.	
15. Je m'accuse souvent d'avoir fait quelque chose de mal.	
16. J'ai peur du genre de personne que je pourrais devenir si je ne fais pas très attention.	
17. Je doute souvent que je suis une bonne personne.	

Échelle: 1 2 3 4 5 6

1	2	3	4	5	6
Fortement en désaccord	**En désaccord**	**Un peu en désaccord**	**Un peu en accord**	**En accord**	**Fortement en accord**

	Réponse (1 à 6)
18. J'ai peur de devenir le genre de personne que je déteste.	
19. Je sens souvent que je ne montre pas de manière honnête la réalité négative à l'intérieur de moi.	
20. Je dois être très prudent afin d'éviter de faire quelque chose d'affreux.	

Merci d'avoir rempli notre questionnaire!

Annexe 3 : Formulaire de consentement pour une évaluation psychologique

Évaluation d'une approche basée sur les inférences dans le traitement des troubles de l'alimentation

Magali Purcell Lalonde, Audrey Bertrand, Kieron O'Connor, Claude Bélanger, Christo Todorov

Centre de recherche Fernand-Seguin (Unité d'intervention psychologique)

7331, rue Hochelaga, Montréal, Qc, H1N 3V2, (514) 251-4015

Formulaire de consentement pour une évaluation psychologique

(Pré-sélection)

Chercheur :

Kieron P. O'Connor, Ph.D., psychologue, Centre de recherche Fernand-Seguin

Co-chercheurs :

Audrey Bertrand, B.Sc., candidate au Ph.D. psychologie, Université du Québec à Montréal

Magali Purcell Lalonde, B.Sc., candidate au Ph.D. psychologie clinique, Université de Montréal

Description du processus d'évaluation:

L'évaluation a pour but de déterminer si vous rencontrez les critères d'inclusion de l'un ou l'autre des projets de recherche évaluant différentes modalités de traitement pour l'anorexie mentale et la boulimie. Les premières étapes de l'évaluation impliquent que vous remplissiez des questionnaires à la maison et participiez à une entrevue téléphonique afin de préciser la nature de vos difficultés.

Après ces étapes initiales, si vous rencontrez certains critères d'inclusion, le processus d'évaluation se poursuivra. Il implique une deuxième entrevue qui précisera davantage la nature de vos difficultés. Celle-ci aura lieu au Centre de recherche Fernand-Seguin avec un évaluateur clinique. Il faudra prévoir au

maximum, une demie journée pour cette entrevue. Avec votre accord, et pour les besoins des études, l'entrevue sera enregistrée sur bande audio et demeurera confidentielle. Si vous rencontrez toujours les critères d'inclusion, de plus amples informations concernant le traitement offert vous seront fournies. Par contre, si vous ne rencontrez plus les critères d'inclusion nous vous suggérerons différents endroits où vous pourriez obtenir une aide appropriée. Vous êtes libre de vous retirer du processus d'évaluation à tout moment sans que cela vous cause préjudice.

Tous les résultats de l'évaluation (questionnaires, entrevue, bande audio) seront traités de manière tout à fait confidentielle et codifiés par numéro. Seuls les membres de l'équipe de recherche auront accès aux résultats. Ceux-ci seront gardés sous clé dans un local réservé à cette fin. Il est entendu que les résultats de la présente étude pourront servir à des fins de publication scientifique tout en respectant les règles de confidentialité. Cette étude a été évaluée par le Comité d'éthique de l'Hôpital Louis-H. Lafontaine et répondent aux normes de l'éthique médicale.

CONSENTEMENT

Nom et prénom: _____

Date de naissance: _____

Adresse actuelle: _____

_____

1. Je, soussigné(e), ai pris connaissance de l'objectif du processus d'évaluation et accepte d'y participer. Cette évaluation n'implique aucun risque pour ma santé.

2. Je sais que ma participation à une évaluation implique que je remplisse des questionnaires à la maison et participe à une entrevue téléphonique afin de préciser la nature de mes difficultés. Si je rencontre certains critères d'inclusion, il y aura une deuxième entrevue qui précisera davantage la

nature de mes difficultés. Cette dernière aura lieu, au Centre de recherche Fernand-Seguin avec un évaluateur clinique. Avec mon accord, l'entrevue sera enregistrée sur bande audio et demeurera confidentielle.

3. Je sais que ma participation à cette évaluation ne m'oblige aucunement à poursuivre un traitement si je rencontre les critères d'inclusion. Je sais aussi que ma participation à cette évaluation n'oblige pas les chercheurs à m'offrir un traitement pour les difficultés identifiées lors de l'évaluation. Si je ne rencontre pas les critères d'inclusion de l'un ou l'autre des projets de recherche sur le traitement des troubles de l'alimentation, les chercheurs me suggéreront des endroits où je pourrais obtenir une aide appropriée.

4. J'ai été informé(e) que, dans l'éventualité où les chercheurs m'offriraient le traitement, ils me fourniront alors de plus amples informations sur celui-ci.

5. J'ai été informé(e) que tous les résultats de l'évaluation (questionnaires, entrevue, bande audio) seront traités de manière tout à fait confidentielle et codifiés par numéro. Seuls les membres de l'équipe de recherche auront accès aux résultats. Ceux-ci seront gardés sous clé dans un local réservé à cette fin. Mon dossier (incluant mes questionnaires remplis ainsi que les entrevues d'évaluation) sera ainsi conservé aux archives pendant 5 ans.

6. Enfin, j'ai été informé(e) que je peux me retirer de la recherche à tout moment sans que cela me cause préjudice.

Signature du participant: _____

Date: _____

Thérapeute/responsable: _____

Date: _____

Annexe 4: Formulaire de consentement pour un traitement cognitif des troubles de l'alimentation

Évaluation d'une approche basée sur les inférences dans le traitement des troubles de l'alimentation

Magali Purcell Lalonde, Audrey Bertrand, Kieron O'Connor, Claude Bélanger, Christo Todorov

Centre de recherche Fernand-Seguin (Unité d'intervention psychologique)

7331, rue Hochelaga, Montréal, Qc, H1N 3V2, (514) 251-4015

Formulaire de consentement pour un traitement cognitif des troubles de l'alimentation

Chercheur :

Kieron P. O'Connor, Ph.D., psychologue, Centre de recherche Fernand-Seguin

Co-chercheurs :

Audrey Bertrand, B.Sc., candidate au Ph.D. psychologie, Université du Québec à Montréal

Magali Purcell Lalonde, B.Sc., candidate au Ph.D. psychologie clinique, Université de Montréal

Description du projet :

Cette recherche vise à évaluer l'efficacité d'un traitement cognitif pour les troubles de l'alimentation (anorexie mentale et boulimie). Le traitement comprend 20 rencontres d'une heure qui s'échelonneront sur une période de 20 semaines. Le traitement est offert par un(e) psychologue de l'équipe du chercheur nommé ci-dessus. Le traitement consiste à apprendre de nouvelles stratégies pour mieux composer avec les pensées obsessionnelles concernant le poids, la nourriture et l'image corporelle, les comportements malsains face à l'alimentation et les symptômes d'anxiété. À certains moments, vous aurez des tâches à accomplir à la maison (ex. : noter des comportements, pratiquer de nouvelles stratégies, etc.).

Ce traitement n'implique aucune médication. Si vous recevez déjà des médicaments de votre médecin ou de votre psychiatre, cela demeure la responsabilité de ce dernier pendant la durée du traitement. Nous (l'équipe de recherche) vous demandons de ne pas augmenter la dose ni de modifier le type de médicament sans l'accord de votre médecin ou de votre psychiatre traitant. Si des changements s'avéraient nécessaires, nous vous demandons alors d'avertir votre thérapeute dans les plus brefs délais.

Votre participation comprend d'abord une évaluation psychologique. L'évaluation implique des rencontres où vous aurez à répondre aux questionnaires et aux entrevues administrés par les membres de l'équipe de recherche. Les rencontres auront lieu au Centre de recherche Fernand-Seguin. Par la suite, la thérapie se déroulera tel que décrit précédemment. Une fois la thérapie terminée, un suivi téléphonique sera assuré pendant six mois. Vous recevrez donc chaque mois un appel téléphonique de votre thérapeute. La durée de chacun des appels sera approximativement de 15 minutes. Également, une rencontre avec un(e) des membres de notre équipe sera prévue au centre de recherche six mois et un an après la fin du traitement.

Pour les besoins de l'étude et avec votre accord, les entrevues seront enregistrées. Des parties de cet enregistrement pourront être écoutées par des psychologues et des psychiatres de l'équipe de recherche ou par des assistants de recherche sous la supervision de Kieron O'Connor.

Tous les résultats aux questionnaires et aux entrevues seront codifiés par numéro et traités ainsi de manière tout à fait confidentielle. Seulement les membres de l'équipe de recherche auront accès aux résultats. Ceux-ci seront gardés sous clé dans un local réservé à cette fin pendant 5 ans. Il est entendu que les résultats de la présente étude pourront servir à des fins de publication scientifique tout en respectant les règles de confidentialité. Cette étude a été évaluée par le Comité d'éthique de l'hôpital Louis-H. Lafontaine qui considère qu'elle répond aux normes de l'éthique morale.

Évaluation d'une approche basée sur les inférences dans le traitement des troubles de l'alimentation

Magali Purcell Lalonde, Audrey Bertrand, Kieron O'Connor, Claude Bélanger, Christo Todorov

CONSENTEMENT

Nom et prénom : _____

Date de naissance : _____

Adresse actuelle : _____

_____

---

1. Je, soussigné(e), ai pris connaissance des objectifs du projet de recherche ci-haut mentionnés et j'accepte d'y participer. Cette recherche vise à évaluer l'efficacité d'un traitement cognitif pour les troubles de l'alimentation.

2. Je sais que ma participation au projet de recherche implique ce qui suit :

   2.1. Il y aura une évaluation psychologique qui comprend des questionnaires et des entrevues administrés par un des membres de l'équipe de recherche. Les rencontres auront lieu au Centre de recherche Fernand-Seguin.

   2.2. Je recevrai un traitement cognitif avec un(e) psychologue de l'équipe de recherche. Les traitements consistent à apprendre de nouvelles stratégies pour m'aider à changer mes pensées et mes comportements reliés à mon problème alimentaire. À certains moments, j'aurai des tâches à accomplir à la maison (ex. : noter des comportements, pratiquer de nouvelles stratégies, etc.). J'aurai également des questionnaires à remplir à la maison à trois reprises durant le traitement (au début, à la moitié et à la fin), ce qui prendra autour d'une ou deux heures à chacune des fois. Ce traitement n'implique aucun médicament.

   2.3. Durant les six mois qui suivront la fin du traitement, je recevrai un appel téléphonique par mois de mon thérapeute d'une durée approximative de 15 minutes.

   2.4. Il y aura une rencontre de suivi prévue 6 mois et un an après la fin du traitement.

   2.5. Si je reçois des médicaments psychotropes de mon médecin ou de mon psychiatre, cela demeure la responsabilité de ce dernier pendant le traitement. Cependant, je m'engage à ne pas augmenter la dose, ni

modifier le type de médicament sans l'accord de mon médecin ou psychiatre et sans en avertir mon thérapeute (_____). Si je dois modifier la dose d'un médicament (ou que je veux commencer à prendre un nouveau) durant la thérapie, je devrai suspendre ma thérapie pour une période de 3 mois, le temps que l'effet des médicaments soit stabilisé. Je pourrai poursuivre la thérapie par la suite.

2.6. Pour les besoins de l'étude et avec mon accord, les entrevues seront enregistrées. Des parties de ces enregistrements pourront être écoutées par des psychologues et des psychiatres de l'équipe de recherche ou par des assistants de recherche sous la supervision de Kieron O'Connor.

3. J'autorise le chercheur responsable ou les thérapeutes à contacter mon médecin ou psychiatre traitant (_____) afin de discuter de mon traitement et de la prise de médicaments.

4. J'ai été informé(e) que tous les résultats aux questionnaires et aux entrevues seront traités de manière tout à fait confidentielle et codifiés par numéro. Seulement les membres de l'équipe de recherche ont accès aux résultats. Ces derniers seront gardés sous clé dans un local réservé à cette fin. Il est entendu que les résultats de la présente étude pourront servir à des fins de publication scientifique tout en respectant les règles de confidentialité. De plus, mon dossier (incluant mes questionnaires remplis ainsi que les entrevues d'évaluation) sera conservé aux archives pendant 5 ans.

5. J'ai été informé(e) qu'une fois la période d'évaluation complétée, je recevrai ensuite un traitement cognitif. Le traitement comprend 20 rencontres d'une heure, qui s'échelonneront sur une période de 20 semaines.

6. Je comprends que cette étude ne comporte aucun risque pour ma santé physique ou mentale. Cependant, s'il advenait que ma situation par rapport au trouble alimentaire s'aggrave et qu'une thérapie hebdomadaire ne soit plus suffisante pour m'aider, je serai référé à des services plus adaptés à mes besoins (ex.: le programme de jour de l'Institut Douglas).

7. Si je le désire, je peux demander à voir le certificat d'éthique du Comité d'éthique de l'Hôpital Louis-H. Lafontaine pour m'assurer que le projet de recherche auquel je participe est approuvé par cette institution et qu'il est acceptable sur le plan de l'éthique médicale.

8. Enfin, j'ai été informé(e) du fait que je peux me retirer de la recherche à tout moment. Dans ce cas, le chercheur m'aidera à trouver un endroit où je pourrai obtenir l'aide dont j'ai besoin.

9. En cas d'urgence ou si je désire plus de détails concernant l'étude, je peux contacter Kieron O'Connor, responsable du projet, au (514) 251-4015. Si je veux formuler une plainte, je peux m'adresser à la commissaire locale aux plaintes et à la qualité des services de l'Hôpital Louis-H. Lafontaine, Mme Élise St-Amand au (514) 251-4000 poste 2920.

Signature du participant*:* _____
Date*:* _____

Thérapeute/responsable: _____

Signature : _____

Date: _____

Annexe 5 : Attestation d'éthique

Le 25 janvier 2013

Monsieur Kieron O'Connor
Centre de recherche Fernand-Seguin

PAR COURRIEL

Objet : Renouvellement annuel de l'approbation éthique

Projet n° 2008-001 – Évaluation d'une thérapie cognitive (approche basée sur les inférences) dans le traitement des troubles d'alimentations.

Monsieur O'Connor,

Le Comité d'éthique de la recherche de l'Hôpital Louis-H. Lafontaine, en comité restreint, a pris connaissance de votre Formulaire de renouvellement annuel de l'approbation éthique daté du 24 janvier 2013

Le CÉR approuve le suivi de projet de recherche et renouvelle le certificat d'éthique pour une période d'un an, soit *du 29 septembre 2012 au 28 septembre 2013*.

Espérant le tout à votre entière satisfaction, je vous prie d'agréer, monsieur O'Connor, mes meilleures salutations.

Me Odette Beaudoin, présidente
Comité d'éthique de la recherche

/kl

7331, rue Hochelaga
Montréal (Québec)
H1N 3V2

Téléphone : 514 251-4015
www.hlhl.qc.ca

Affiliée à l'Université de Montréal

Annexe 6 : Attestation d'éthique

SOIGNER.
DÉCOUVRIR.
ENSEIGNER.

Douglas
INSTITUT UNIVERSITAIRE EN SANTÉ MENTALE
MENTAL HEALTH UNIVERSITY INSTITUTE

CARING.
DISCOVERING.
TEACHING.

Research Ethics Board

At a Meeting of the Research Ethics Board of the Douglas Mental Health University Institute held on October 23rd, 2012

A Committee consisting of:

BRODEUR, Mathieu, Researcher
EDWARDS, Moïra, Community Representative
JAITOVICTH GROISMAN, Iris, Ph.D., Acting Ethicist
PÂQUET, Brigitte Me., Lawyer
SCHMITZ, Norbert, Vice President and Researcher

Has confirmed the approval of the new research protocol titled:

Vulnerability to Bizarre Beliefs: The Role of Embodied Cognition

As proposed by: Dr. Jennifer Coehlo

This protocol is approved for a one-year period

Norbert Schmitz, Ph.D., Vice President
Douglas Institute Research Ethics Board

Date: 12/10/23
REB #: 12-27

March 13th, 2013

Doctor Jennifer Coelho
Douglas Mental Health University Institute
Research Centre
Eating Disorders

Subject: Protocol 12/27 *Vulnerability to Bizarre Beliefs: The Role of Embodied Cognition*
Amendment – Expedited Approval
Funder: SSHRC

Dear Dr. Coelho;

We acknowledge receipt of the amendment which you submitted for approval for the above mentioned protocol. I have examined this request and found it satisfactory. As Chairperson, I therefore give expedited approval to the following proposed modification since your request is complete and it meets REB requirements.

- Addition of two (2) brief questionnaires

Sincerely yours,

For: J. Bruno Debruille, MD, PhD
Chairperson
Douglas Institute Research Ethics Board
/éc