

CLINICAL PRACTICE GUIDELINES

for the **BC EATING DISORDERS**

CONTINUUM OF SERVICES



Ministry of Health (Project Leader)

Gerrit van der Leer, MSW, Director, Mental Health and Addictions

Authors

Josie Geller, PhD, R. Psych, Director of Research, Eating Disorders Program, Providence Health Care. Associate Professor, Department of Psychiatry, University of British Columbia.

Shawna Goodrich, MSW, Former Clinical Director, Eating Disorders Program, Providence Health Care

Kathy Chan, MA, Graduate Student, University of Ottawa

Sarah Cockell, PhD, R. Psych, Psychologist, Heart Centre, Providence Health Care

Suja Srikameswaran, PhD., R. Psych, Professional Practice Leader, Psychology, Providence Health Care, Outpatient Psychologist, Eating Disorders Program, SPH, Clinical Associate Professor, Department of Psychiatry, University of British Columbia

Provincial Advisory Committee

Connie Coniglio, EdD, Clinical Director, Provincial Specialized Eating Disorder Program for Children and Adolescents, BC Children's Hospital.

Pei Yoong Lam, MD, FRACP, Assistant Clinical professor, Division of Adolescent Medicine, Department of Pediatrics, University of BC. Provincial Specialized Eating Disorders Program for Children and Adolescents, BC Children's Hospital.

Kim Williams, RD, Dietician, Eating Disorders Program, Providence Health Care

Randy Murray, Practice Lead, Mental Health and Substance Use, Interior Health

Shelagh Bouttell, MSc RD, Nutrition Therapist, Fraser South Eating Disorder Program, Fraser Health Authority

Anne Merrit-Hiley, MSW, RSW, Program Coordinator, Fraser South Eating Disorders Program, Fraser Health Authority

Miranda Pearson, RPN MA, Coordinator, Vista Residential Facility, Vancouver Coastal Health Authority

Cliff Duncalf, MD, FRCPC, Psychiatrist, Vancouver Island Health Authority, Victoria, BC.

Julie Dhaliwal, BA CYC (cert), Manager, Youth Regional Services and Eating Disorders Mental Health and Addiction Services, Northern Health

Sandi DeWolf, MA, Team leader, Eating Disorder Clinic, Early Psychosis Intervention and Youth Mental Health & Addictions Outpatient Services, Northern Health, Prince George Eating Disorders Clinic

Rachael Johnson, MC, Eating Disorder Clinician, Child & Youth Mental Health

Catherine Carr, Med, RCC, CEC, Child and Youth Mental Health Policy, Mental Health Consultant

Eva Hemmerich, MD, CCFP, Primary Care Physician, Courtney, BC

Provincial Expert Consultants

Dr. Jane McKay (Internist, specialist in adult tertiary care)

Dr. Lori Taylor (Registered Psychologist, specialist in adult tertiary care)

Dr. Bertrand Wicholas (Psychiatrist, specialist in adolescent tertiary care)

International Experts:

Ivan Eisler, PhD

Joint Head of CAMHS Eating Disorders Service

Professor of Family Psychology and Family Therapy

Joint Head of the Trust's, Child and Adolescent Eating Disorder Service

Professor of Family Psychology and Family Therapy at the Institute of Psychiatry, Kings College London.

Bryan Lask, MD

Prof of Child and Adolescent Psychiatry, University of London

Academic Director, Ellen Mede Eating Disorders Service, London

Research Director, Regional Eating Disorders Service, Oslo, Norway

President, Eating Disorders Research Society

Daniel LeGrange, PhD

Professor of Psychiatry & Behavioral Neuroscience, University of Chicago

Marion Olmsted, PhD

Director, Eating Disorder Program, Toronto General Hospital, University Health Network

Professor in Psychiatry, University of Toronto

Stephen Touyz, PhD

Professor of Clinical Psychology and Honorary Professor in the Discipline of Psychiatry,

University of Sydney

Co-Director, Beaumont Centre for Eating Disorders

Walter Vandereycken, MD, PhD

Professor of Psychiatry at the Catholic University Leuven

Clinical Director of the Eating Disorders Unit of the Alexian Brothers Psychiatric Hospital in Tienen, Belgium

This report is available on the British Columbia Ministry of Health – Mental Health and substance use website: <http://www.healthservices.gov.bc.ca>

TABLE OF CONTENTS

ACRONYMS	1
BACKGROUND	3
QUALIFYING STATEMENT	4
EXECUTIVE SUMMARY	5
Key Principles	6
OVERVIEW OF THE GUIDELINES	9
Scope	9
Methodology.....	9
Limitations.....	10
Layout of Guidelines	10
PART 1: GENERAL OVERVIEW	11
Barriers to Engagement	11
The Significance of the Therapeutic Alliance	12
Engagement and Readiness Across the Continuum	12
Clinician Stance	13
Therapeutic Boundaries / Treatment Non-Negotiables	14
Collaborative Care, Teamwork and Role Clarity	15
Family and Caregivers	16

PART 2: TREATMENT PLANNING ACROSS THE CONTINUUM OF CARE	17
The Short Treatment Allocation Tool for Eating Disorders (STATED)	17
PART 3: ASSESSMENT	21
Diagnostic Criteria.....	21
Clinical Interview.....	24
Nutritional Interview	34
Readiness and Motivation for Change.....	36
PART 4: PRIMARY CARE	37
Identification & Screening.....	37
Barriers and Solutions to Effective Screening	39
Ethical Issues.....	55
Self-Help.....	55
PART 5: LOW INTENSITY OUTPATIENT TREATMENT – ENGAGEMENT OR RECOVERY FOCUS (STATED SECTION A)	56
Rationale for this Level of Care	56
Patient Profile	56
Determining Type of Outpatient Treatment	58
Description and Guidelines: Engagement and Preparation Focus.....	59
Description and Guidelines: Recovery Focus.....	64
Patients in Transition.....	76

PART 6: RECOVERY-FOCUSED INTENSIVE (DAY, RESIDENTIAL, INPATIENT) TREATMENT (STATED SECTION B)	77
Rationale for this Level of Care	77
Patient Profile.....	77
Day Therapy vs. Residential vs. Inpatient Treatment.....	80
Description and Guidelines.....	82
Preparation for Treatment and Planning Transitions.....	87
Transitioning Between Levels of Care.....	88
Length and Intensity of Stay.....	89
Structuring Intensive Treatment	89
PART 7: QUALITY OF LIFE FOCUS: OUTPATIENT WITH INPATIENT SUPPORT (STATED SECTION C)	97
Rationale for this Level of Care	97
Patient Profile.....	99
Description and Guidelines.....	100
PART 8: HIGH INTENSITY INPATIENT TREATMENT – MEDICAL STABILIZATION FOCUS (STATED SECTION D)	105
Rationale for this Level of Care	105
Patient Profile.....	106
Risk Assessment for Hospital Admission	106
Malnutrition Risk Assessment	111
Cardiovascular Risk Assessment	113
Endocrine and Osteoporosis Risk Assessment	114
Gastrointestinal Risk Assessment	116
Metabolic Risk Assessment	117
Assessment for Discharge	119

Medical Management on Inpatient Unit	119
Potential Complications with Re-feeding	125
Behavioural Management in Inpatient Medical Unit.....	128
Team Cohesion	132
Transfer or Discharge	133
PART 9: PHARMACOTHERAPY	134
Anorexia Nervosa	134
Bulimia Nervosa.....	135
Eating Disorder Not Otherwise Specified (EDNOS).....	136
Children and Adolescents.....	137
GLOSSARY OF TERMS	138
Appendix: Services offered at each level of Care.....	140
REFERENCES	142
TEXT BOXES	
Functions of an Eating Disorder.....	11
The Patient’s Experience at a Glance.....	12
Engagement and Readiness at a Glance	13
Clinician Stance at a Glance	14
Therapeutic Boundaries at a Glance.....	15
Family Engagement at a Glance	16
Anorexia Nervosa – DSM-IV-TR Diagnostic Criteria (abbreviated)	21
Bulimia Nervosa – DSM-IV-TR Diagnostic Criteria	22
Key Opening Questions	24

Sample Follow-up Questions.....	25
Sample Food Record	25
Self-Report Measures that Assess Eating Behaviours	26
Self-Report Measures to Assess Eating Disorder Cognitions	28
Self-Report Measures to Assess Comorbid Conditions.....	30
Self-Report Measures to Assess Family Functioning.....	32
Self-Report Measures that Assess Eating Behaviours & Comorbid Conditions for Children and Adolescents	33
Sample Nutritional Assessment Questions.....	34
Self-Report Measures to Assess Readiness for Change.....	36
Overcoming Prejudicial Views of Eating Disorders	39
Overcoming Time Constraints in Primary Care	40
Overcoming Barriers to Disclosure	41
Examples of PCP Communication Using an MI Approach	43
Focused Physical Examination.....	44
Body Mass Index Table (Adults).....	47
Physical Indicators for Inpatient Hospitalization	53
Questions to Consider in Planning Low Intensity Treatment	57
Motivational Tasks Associated with Patient Stages of Change.....	61
Key Components of Patient Education Groups	63
Key Components of CBT-Enhanced	65
Problem Areas Identified in IPT	66
Dialectical Behaviour Therapy Skills	67
Topics Addressed by Dieticians	68
Key Components of Family Based Therapy-AN	69
Key Components of Multifamily Groups	70
Key Components of Family Based Therapy-BN	71

Additional Topics Addressed by Dietitians with Younger Patients	72
Key Components of MANTRA	74
Key Components of UCAN for AN	75
What is Moderate Engagement?	78
Outcomes from Intensive Treatments at a Glance	80
Contraindications for Day Treatment.....	81
Benefits of Different High Intensity Recovery-Focused Treatments	82
Key Treatment Recommendations for Children and Adolescents.....	83
Non-negotiables in High Intensity Recovery-focused Treatment.....	85
Pointers for Maximizing Patient Motivation.....	86
Preparation for Intensive Treatment at a Glance	87
General Transition Guidelines	88
Transition from Medical Stabilization to Recovery Focused Admission.....	89
Goals of High Intensity Recovery Focused Treatment	90
Guidelines for Meal Supervision	92
Profiles of Severe and Enduring Eating Disorders	97
Goals Identified by Patients with Chronic EDs	98
Examples of Psychosocial Rehabilitation Activities	102
Management Strategies at a Glance	103
Goals of Hospitalization for Individuals with Enduring Eating Disorders	104
Key Physical Assessment Parameters and Action Points for Adults.....	107
Key Physical Assessment Parameters and Action Points for Younger Patients*.....	109
Malnutrition Risk Assessment	112
Osteoporosis Treatment.....	115
Criteria for Delayed Puberty.....	115
Loss of Bone Mass, Osteopenia & Osteoporosis Treatment	116
Estimated Potassium Deficits.....	118

Normal Electrolyte Ranges	118
Serum Potassium Levels in Children & Adolescents	118
Laxative Taper Used in a Pharmacist Supervised Blinded Withdrawal Protocol	121
Severity Indicators for Re-feeding Syndrome	122
Re-feeding Guidelines Based on Severity Indicators.....	123
Management of Re-feeding	125
Nasogastric Re-feeding Considerations.....	126
Behavioural Management of Eating Disorders on Medical Unit	129
Recommendations for Inpatient Medical Nursing Care.....	133
Clinical Recommendations – Anorexia Nervosa	134
Clinical Recommendations – Bulimia Nervosa.....	135
Clinical Recommendations – EDNOS.....	137
Clinical Recommendations – Children and Adolescents.....	137

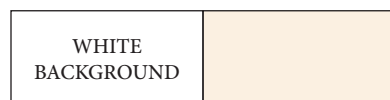
ACRONYMS

APA	American Psychiatric Association
AN	Anorexia Nervosa
BCCH	British Columbia Children's Hospital
BMI	Body Mass Index
BN	Bulimia Nervosa
CBT	Cognitive Behaviour Therapy
CBT-E	Cognitive Behaviour Therapy-Enhanced
CPS	Canadian Paediatric Society
DBT	Dialectical Behavior Therapy
DSM-IV-TR	Diagnostic and Statistical Manual of Mental Disorders, 4th edition, text revision.
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, 5th edition,
ED	Eating Disorder
EDNOS	Eating Disorder Not Otherwise Specified
EDP	Eating Disorders Program
FBT	Family-Based Therapy
FDA	Food and Drug Administration
IEG	International Expert Group
IPT	Interpersonal Psychotherapy
Junior MARSIPAN	Management of Really Sick Patients with Anorexia Nervosa – Report from the Junior MARSIPAN group.
MANTRA	Maudsley Model for Individual Treatment of Anorexia Nervosa
MARSIPAN	Management of Really Sick Patients with Anorexia Nervosa
MCFD	Ministry of Children and Family Development
MDT	Multidisciplinary Team
MET	Motivation Enhancement Therapy
MFG-FBT	Multifamily Group Family Based Therapy
MFT	Multi-Family Therapy
MI	Motivational Interviewing

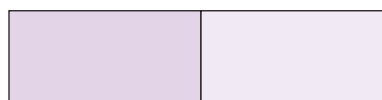
MoH	Ministry of Health
MH&SU	Ministry of Health and Substance Use
NICE	National Institute for Clinical Excellence
PCG	Provincial Consultants Group
PCP	Primary Care Physician
PHC	Providence Health Care
PHSA	Provincial Health Services Authority
PRG	Provincial Representative Group
PTSD	Post-Traumatic Stress Disorder
QOL	Quality of Life
RCT	Randomized Controlled Trials
SGA	Second-Generation Antipsychotic
SPH	St. Paul's Hospital
SSRI	Selective Serotonin Reuptake Inhibitor
STATED	Short Treatment Allocation Tool for Eating Disorders
SUSS	Sit Up-Squat-Stand Test
UCAN	Uniting Couples in the Treatment of Anorexia Nervosa
VCHA	Vancouver Coastal Health Authority

LEGEND

Colour coding is used through these guidelines to indicate information specific to Adults and Children/Adolescents, as well as information applicable to all:



Information applicable to All



Information applicable to Children and Adolescents



Information applicable to Adults

BACKGROUND

In 2010, the Ministry of Health (MoH), in collaboration with the Ministry of Children and Family Development (MCFD), produced an *Action Plan for Provincial Services for People with Eating Disorders*. The goal of the Action Plan is to improve the system of care for children, youth and adults with eating disorders in British Columbia. One of its key recommendations is the development of multidisciplinary clinical practice guidelines for the treatment of eating disorders across the continuum of care.

The Action Plan recommended enhancing communication and integrated care approaches of current eating disorders services in the province. A goal of these clinical guidelines is therefore to build upon current provincial strengths and initiatives and maximize collaboration among regional health authorities and the Ministry of Children and Family Development (MCFD). One such initiative is the *Redesign of the Provincial Adult Tertiary Eating Disorder Program and the Vancouver Coastal Health Authority (VCH) Secondary Eating Disorders Program*, supported by the Ministry of Health in 2010 and led by the Provincial Health Services Authority (PHSA) in collaboration with Vancouver Coastal Health (VCH) and Providence Health Care (PHC). This contextualization is fundamental to optimizing the integration and implementation of the guidelines.

In order to ensure that the guidelines received input from across the province, care was taken to ensure that the *Clinical Practice Guidelines Advisory Committee* actively sought feedback from each level of care (e.g., primary, secondary, tertiary), region and/or health authority (e.g., urban and rural), professional discipline (e.g., dietician, general practitioner, therapist, physician), and patient/consumer type (e.g., child, adolescent, adult, parent/caregiver). Care was also taken to ensure that existing provincial initiatives had input, including the *Provincial Eating Disorders Network*, and the *Eating Disorders Community of Practice*.

The *Centres for Excellence in Eating Disorders*, currently under development, will play a key role in the dissemination of these guidelines. One of its guiding principles is an “evidence informed approach” and two of the five proposed key components in its mandate include “High Quality Patient Care,” and “Research.” There is thus a natural overlap between the guidelines and the proposed activities of the Centres, offering an ideal opportunity for collaboration.

It should be noted that while the content and focus of these guidelines is directed by current evidence-based best practices and input from the *Clinical Guidelines Advisory Committee*, the recommendations are not reflective of current resources available in BC. They will however ensure that future regional and provincial initiatives are informed by the highest level of evidence and provide optimal care to eating disorder patients and families in British Columbia.

QUALIFYING STATEMENT

This document provides evidence based clinical guidelines and tools for professionals along various levels of intensity as outlined in the *Continuum of Care for Eating Disorders Service Provision* in British Columbia (Harrison, 2010).

The guidelines in this document are based upon:

- A thorough review of published research evidence
- Consultation with provincial, national, and international experts in the area of eating disorders
- Consultation with a Provincial Advisory Committee comprised of representatives from the BC Regional Health Authorities and the Provincial Health Services Authority, Ministry of Health, Ministry of Children and Family Development, and the Provincial Eating Disorders Network

The involvement of experts and provincial advisory and stakeholder feedback will ensure that regional and provincial initiatives are informed by the highest level of evidence and address the needs of patients, families and stakeholder groups across the province.

The information contained in the document reflects the knowledge and evidence at the time of its release. As new research emerges, the guidelines will evolve to ensure that clinical practice is based on the best evidence. Efforts for continuing quality improvement, as well as opportunities for knowledge exchange and consultation are critical to ensuring that clinical practices remain current and that British Columbians receive services that result in the best possible system and individual outcomes.

EXECUTIVE SUMMARY

The eating disorders are complex and often difficult to diagnose and treat. They are characterized by a serious disturbance in eating behaviour, which may involve over-eating or under-eating. The three main types of eating disorders are anorexia nervosa (AN), bulimia nervosa (BN), and eating disorder not otherwise specified (EDNOS). In 2008, nearly 60,000 British Columbians were living with a diagnosed eating disorder (BC Statistics, 2008), and many more were ill but remained undiagnosed. Eating disorders are commonly associated with other conditions such as substance use, depression, anxiety disorders and high rates of self-harming behaviours. They are serious illnesses that can become chronic with severe medical consequences including life-threatening effects on health.

It is essential for individuals with eating disorders to receive the most effective services at the appropriate level of care. A continuum approach tailors the type of treatment and intensity level according to the needs of the individual. Clinical services at all levels of intensity need to be based on interventions that are supported by empirical research and that expert clinicians consider most effective as demonstrated by positive individual client outcomes. Clinical guidelines directed to the variety of professionals that provide services to this population will serve to promote effective, consistent practices and optimal care for British Columbians.

The essential tools for treating the eating disorders, including key principles that are relevant across the continuum of care, are contained within this document. These guidelines address primary care, low intensity outpatient treatment, high intensity day, residential and inpatient treatment, variable intensity quality of life treatment, and high intensity medical stabilization treatment.

The literature on effective treatments suggests that the best approach to treating AN, BN and EDNOS involves a variety of service models: preventative; community-based; outpatient; residential; and day and inpatient hospitalization.

– Harrison, 2010, p. 24

KEY PRINCIPLES

Four key principles derived from current empirical evidence and expert clinical opinions are emphasized throughout these guidelines. These are considered critical to addressing some of the unique challenges inherent in working with this patient population, namely high rates of treatment refusal, dropout and relapse, the need to monitor and address complex medical factors, and the unique needs of children, adolescents and adults. The principles include:

- ***Relationships matter:*** A strong therapeutic alliance with patients and their families is critical across the continuum of care.
- ***Matching level of care to patients:*** In order to be cost-effective and responsive, services must be tailored to relevant patient characteristics at each level of care.
- ***Managing medical factors:*** Primary Care Physicians play a key role in eating disorders identification and treatment across the continuum of care and medical acuity needs to be effectively managed when inpatient admissions are required.
- ***Care across the developmental spectrum:*** The unique social, psychiatric and medical needs of children, adolescents and adults must be addressed at all stages of treatment.

Relationships matter

The eating disorders are notoriously challenging to treat due to high levels of ambivalence about change (e.g., Geller et al., 2001; Treasure & Schmidt, 2001; Vitousek, Watson & Wilson, 1998). While a minority of patients recover quickly and maintain these changes throughout life (Steinhausen, 2002), a more typical course of illness is of longer duration. As such, the relationships established between health care providers and patients and their families are potentially ones that will span over several years. Research has shown that patient readiness and the nature of patient and family members' relationships with care providers are strongly associated with outcomes. There is also evidence that the relationships among care providers, families and teams are critical to long term outcome. These guidelines summarize key points on how to optimize care by fostering relationships that enhance readiness for change in patients and families and promote excellent communication among care providers. Namely, they describe:

- Working with ambivalence about change and engaging patients and their families
- Establishing and maintaining healthy relationships among care providers
- Having clearly defined roles for care providers when transitioning patients between levels of care and between youth and adult services
- Working with enduring eating disorders in a cost-effective manner that is responsive to patient engagement.

Matching level of care to patients

Challenges with engagement and relapse in eating disorders treatment are increasingly linked to mismatches between the behavioural expectations within a level of care and patient and family readiness for change. The acceptability of treatment that is offered has also been described as a key component. Finally, it is critical that the level of care matches patient medical acuity and life interference due to the eating disorder.

It is crucial that correct interventions match the individual's need at the appropriate time and for sufficient duration.

– Harrison, 2010, p. 12.

In the current guidelines, key factors that determine a patient and family's suitability for a level of care were synthesized into a new tool, the *Short Treatment Allocation Tool for Eating Disorders (STATED)*. The *STATED* recognizes three dimensions that need to be considered in determining a patient's suitability for a particular level of care: medical acuity, eating disorder and psychiatric symptom severity, and level of engagement with treatment/readiness for recovery. The levels of care as described in these guidelines are consistent with those outlined in the *Continuum of Care* document (Harrison, 2010) and previously developed guidelines (e.g., APA, 2006). By including three independent dimensions however, the *STATED* builds upon this previous work and allows for greater precision in assigning patients to the most appropriate and cost-effective level of care.

These guidelines thus aim to reduce mismatches between patients and levels of care in the following ways:

- Providing a common language for discussing patients within and across multidisciplinary teams in order to ensure they are allocated to the appropriate level of care.
- Recognizing unique features in the delivery of services between younger and older patients across levels of care.
- Expanding treatment options to include care that focuses on enhancing quality of life for patients who have been ill for a long time and have not benefitted from traditional recovery-focused treatment.

Managing medical factors

The Primary Care Physician (PCP) plays a key role in delivering early services and in assisting individuals and families find specialized treatment as required (Rome et al., 2003). PCPs can offer a number of supports to patients with eating disorders including screening, early intervention, consultation, and medical monitoring, and follow up care to patients discharged from intensive treatment. In cases where patients do not have access to specialized services, the PCP may provide medical continuity as the patient moves through their recovery journey. When patients require medical stabilization, it is critical to have sufficiently resourced multidisciplinary inpatient treatment as one component of care. These guidelines address how to manage the unique medical issues in this population by:

- Overcoming barriers to early identification in the medical setting
- Comprehensive review of medical care for PCPs including the focused physical examination
- Specific medical and team requirements in conducting medical stabilization admissions

Ideal interventions are multidisciplinary, comprehensive and specialized.

– Harrison, 2010, p. 10

Care across the developmental spectrum

Finally, although there are many commonalities to ED treatment across the developmental spectrum, there are also key differences between younger and older patients. First, families play a central role in working with younger patients. Second, early intervention is critical to avoid the irreversible long-term consequences of malnutrition. Third, a developmental framework is necessary to ensure that interventions are matched to patients' evolving developmental competencies. Finally, while motivational factors are key to developing and maintaining an alliance across the age spectrum, with younger populations, non negotiable thresholds are lower, and are ideally implemented primarily by parents, as opposed to health professionals.

- Importance of interventions targeted to developmental status
- Central role of parents and family members in treating children and youth
- Readiness and engagement of parents is central to working with younger patients.

OVERVIEW OF THE GUIDELINES

These guidelines are intended for use by Regional Health Authorities and MCFD to develop, implement and evaluate services to British Columbians with eating disorders across the continuum of care.

SCOPE

- The guidelines address all levels of care for anorexia nervosa, bulimia nervosa and eating disorder not otherwise specified with the exception of binge eating disorder.
- The guidelines apply to services for children and adolescents and their families, as well as adults with eating disorders.
- Practices and recommendations regarding the prevention of eating disorders are not provided in these guidelines.
- Practices and recommendations regarding the assessment or treatment of binge eating disorder are not provided in these guidelines.
- Specific aboriginal and other culture related factors are not addressed in these guidelines.

METHODOLOGY

These guidelines are based on the best available research evidence combined with input from experts and key stakeholders. The principal activities undertaken to support development of the guidelines included:

- i. A review of existing guidelines documents
- ii. Consultation with international experts in the field of eating disorders
- iii. A review of recent scientific literature on eating disorders treatment and the effectiveness of service delivery models and interventions, including the recently completed *Continuum of Care for Eating Disorders Service Provision* (Harrison, 2010).
- iv. Development and preliminary validation of the *STATED* to inform the allocation of care in the eating disorders
- v. Consultation with the *Clinical Guidelines Advisory Committee*, comprised of an *International Expert Group*, a *Provincial Representative Group (PRG)* and *Provincial Consultants Group (PCG)*.
- vi. Consultation with the Ministry of Health (MH & SU, HCIC, Primary Care, Pharmacare and Patient Safety Branch), the Provincial Health Services Authority, the Ministry of Children and Family Development, university-based academics and senior consultants.

LIMITATIONS

Several possible limitations to the guidelines should be noted:

- 1) These guidelines reflect understanding of eating disorders treatment at the time they were written. It should be noted that relative to other fields, there are significant gaps to the evidence base, which is limited by poor adherence rates, small samples, and a dearth of randomized controlled trials. These guidelines will require updating as the evidence base expands.
- 2) There is great variability and a lack of evidence in the field regarding who provides what care to which patients in what settings. Typically, these decisions are a function of geographic location, clinical judgment and resource availability. As such, when evidence was not available, the recommendations made in these guidelines are based upon clinical writing and consultation with recognized experts in the field.
- 3) These guidelines do not specify where treatments should occur. Instead, they provide recommendations for the minimal resources necessary for successful management of eating disorder patients at each level of care. They recognize that a number of developmental, geographic, and resource factors will influence decision-making about the most suitable level of care. It is recognized that certain geographic/health regions may face considerable challenges in implementing the recommendations made in these guidelines.
- 4) These guidelines do not address specific culture-related factors or special need groups such as the intellectually impaired. Further research is needed to determine how to meet the needs of diverse cultural backgrounds and how culture may impact responsiveness to treatment.

LAYOUT OF GUIDELINES

The document is subdivided into nine sections:

- Part 1: General Overview
- Part 2: Treatment Planning across the Continuum of Care
- Part 3: Assessment
- Part 4: Primary Care
- Part 5: Engagement or Recovery-Focused Low Intensity Outpatient Treatment
- Part 6: Recovery-Focused Intensive (Day, Residential, Inpatient) Treatment
- Part 7: Quality of Life Focus: Outpatient with Inpatient Support
- Part 8: Medical Stabilization Focus: High Intensity Inpatient Treatment
- Part 9: Pharmacotherapy

Wherever applicable, the following is provided in each section:

- 1) Rationale for each level of care
- 2) Child, adolescent and adult considerations
- 3) Techniques for patient and family engagement
- 4) Synthesis of current evidence

PART 1: GENERAL OVERVIEW

While a minority of patients with eating disorders recover quickly (i.e., within a year) and maintain these changes throughout life (Steinhausen, 2002), a more typical course of illness is of longer duration. As such, the relationships established between health care providers and patients are potentially ones that will span over several years. This section describes barriers to engagement, the significance of the therapeutic alliance, and relationship factors that are central to engagement across levels of care and patient developmental status. This section also describes therapeutic boundaries, the importance of shared care and teamwork, and involvement of family and other caregivers. These themes are considered central to successful eating disorders treatment and will be integrated throughout these guidelines.

BARRIERS TO ENGAGEMENT

The eating disorders are notoriously challenging to treat due to high levels of ambivalence about change (e.g., Geller et al., 2001; Treasure & Schmidt, 2001; Vitousek, Watson & Wilson, 1998). Many patients, especially adolescents, experience negative consequences of their eating disorder but nevertheless avoid treatment because they fear that recovery will result in more costs than benefits. There is a large body of clinical research describing the multiple functions of eating disorder behaviours. For instance, patients describe AN as providing a sense of control, a means of avoiding painful experiences, and a way of feeling special or different. (Cockell, Geller & Linden, 2003; Serpell et al., 2004; Nordbo et al., 2011; Vitousek Watson & Wilson, 1998). Dominant themes expressed by patients with BN include bingeing and purging to avoid or manage emotions, and a method for staying slim. Both groups describe the disorder as a guardian, a friend, or as a means to increase attractiveness (Gale et al., 2006). Similar benefits of the disorder are identified in adults and adolescents (Freedman et al., 2006; Serpell et al., 2003).

Functions of an Eating Disorder

- Provides a sense of control and safety
- Helps avoid and manage painful emotions
- Provides a valued identity
- Is a method for staying slim
- Is experienced as a reliable guardian or friend

THE SIGNIFICANCE OF THE THERAPEUTIC ALLIANCE

As a result of these eating disorder functions, patients are often reluctant to describe the full extent of their symptoms to care providers. They may fear that speaking about their ambivalence to change will result in judgment, or that they might be asked to make changes for which they are not prepared, such as gaining weight or refraining from purging. Patients who are critically ill may fear that they will be asked (or forced) to come into hospital for re-feeding. It is thus important to establish a relationship that invites open discussion about eating and the desire for change with an acknowledgement of patient fears in order to promote honest communication and an alliance that endures over time.

The importance of therapeutic alliance is well established across multiple psychiatric populations. A meta-analysis of published and unpublished research spanning a 20 year period (1977–1997) concluded that independent of patient and treatment factors, the strength of the alliance between patient and care provider was consistently associated with symptom improvements (Martin et al., 2000). The task of ED clinicians is thus a challenging one; developing and maintaining a strong alliance while working with a highly ambivalent, and at times acutely ill patient.

The Patient's Experience at a Glance

- Eating disorder patients experience their behaviours as fulfilling a valued need.
- Ambivalence about, or lack of interest in change is normal.
- Patients may be reluctant to describe their symptoms or readiness if they fear honest responses will result in negative consequences (e.g., judgment or unwanted treatment).
- Acknowledging and validating patient fears regarding change helps build trust and an enduring therapeutic alliance.

ENGAGEMENT AND READINESS ACROSS THE CONTINUUM

New research highlights the importance of addressing readiness for change in the eating disorders (e.g., Jones, Bamford, Ford, Schreiber-Kounine, 2007; Treasure & Schmidt, 2001; Waller et al., 2007). Across a number of settings and age groups, patient readiness scores have been shown to predict clinical outcomes, including engagement in residential treatment, dropout from residential care, recovery in inpatient and outpatient settings, and relapse post-treatment (e.g., Bewell & Carter, 2008; Geller et al., 2001; Gowers & Smyth, 2004; Jones, Bamford, Ford, Schreiber-Kounine, 2007; Treasure et al., 1999). However, assessing readiness for change can be challenging. For instance, one study found that readiness ratings made by clinicians who were not trained in assessing readiness were uncorrelated with patient behaviour change (Geller, 2002), suggesting that clinicians may benefit from tools to assist them in assessing readiness.

Over the past decade, several new measures have been developed for both adults and adolescents (e.g., Cockell, Geller & Linden, 2002; Gusella et al., 2003; Rieger et al., 2000; Serpell et al., 2004;

Serpell & Treasure, 2002). Tools that can assist clinicians in determining readiness are outlined in Part 3 of these guidelines. Use of tools such as these help to build therapeutic alliance by showing interest in the patient's experience and increase the likelihood that recommended treatments will be of benefit.

In younger patients, family engagement and readiness may be more central to treatment decision making (Bryant Waugh & Lask, 2010). Although formal tools for assessing family readiness have not yet been developed, hypothesized markers include parents' willingness and ability to work together to support their child and the acceptability of the treatment model that is being offered (B. Lask, personal communication, January 15, 2011; D. Le Grange, personal communication, February 1, 2011; W. Vandereycken, personal communication, June 29, 2011).

Engagement and Readiness at a Glance

- Patient readiness, as assessed using validated measures, predicts outcome in some treatment settings
- Clinicians have difficulty assessing readiness
- In youth, it is recommended that readiness and engagement is assessed in the context of the family

CLINICIAN STANCE

Motivational interviewing (MI) is a therapeutic approach designed to engage ambivalent patients and enhance their readiness to change. It is characterized by elements of style (e.g., warmth and empathy) and technique (e.g., key questions and reflective listening). Clinician stance is critical to MI, such that the therapist uses a curious, non-judgmental approach and shows genuine interest in the patient's experience of the problem. This is consistent with other approaches advocating the importance of a curious, Socratic questioning style, in which the therapist encourages the client to answer their own questions (e.g., Vitousek et al., 1998; Wilson & Schlam, 2004).

MI has received increased attention in the ED treatment literature and will be described in greater detail in Part 5 of these guidelines. MI is not considered a stand-alone treatment for eating disorders. What MI offers in particular is its attention to not only *what* care providers communicate, but also *how* they communicate. Body language, awareness of personal beliefs regarding change, the ability to tolerate patient distress and recognizing that applying pressure to an already anxious situation increases resistance, are all fundamental to this approach. The clinical stance elements described in MI are emphasized throughout these guidelines, as they are in all existing national clinical guidelines (e.g., NHS Quality Improvement Scotland, 2007; Royal Australian and New Zealand College of Psychiatrists, 2004; NICE, 2004).

For instance, the NICE guidelines state:

“Whilst a forceful approach may result in a degree of weight gain in AN, clinicians are increasingly drawing attention to the importance of engagement and positive motivation if short term gains are to be maintained in the long term, whatever the treatment setting”

– (NICE, 2004, p. 37)

Clinician Stance at a Glance

- Across treatment setting and patient population the strength of the therapeutic alliance is positively associated with outcome
- Motivational interviewing is an effective means to engage with and support change in patients who are ambivalent about change
- Motivational interviewing can be used at all levels of care and in the context of different treatment models

THERAPEUTIC BOUNDARIES / TREATMENT NON-NEGOTIABLES

While a strong therapeutic alliance is central to working with eating disorder patients and their families, effective treatment requires a balance between attending to therapeutic alliance and ensuring clear boundaries to ensure patient safety. The manner in which these boundaries, or “treatment non-negotiables” are determined, communicated and implemented is central to effective management of the illness (I. Eisler, personal communication, January 20, 2011; D. Le Grange, personal communication, February 1, 2011; W. Vandereycken, personal communication, February 9, 2011). This is emphasized in the treatment literature across patient developmental status and at all stages along the continuum of care (Bryant-Waugh & Lask, 2010; Geller et al., 2001; Touyz & Carney, 2010). Therapeutic boundaries take different forms, and vary according to medical or psychiatric acuity of the patient, treatment setting, focus of therapy, and patient developmental status.

In addition to ensuring medical and psychiatric safety, therapeutic boundaries also help ensure that resources are used efficiently and do not unintentionally exacerbate or prolong the illness. For instance, whereas in circumstances of high medical acuity, treatment non-negotiables will be based upon medical and psychiatric needs (i.e., an inpatient admission is required if patients become medically or psychiatrically critically ill), in recovery-focused residential programs, boundaries ensure that the milieu is therapeutic and that the treatment resource is used efficiently (i.e., patients are expected to refrain from purging in the therapeutic environment).

The optimal boundaries for a given treatment setting differ according to patient characteristics. For instance, in working with children and adolescents, the focus is on empowering parents in setting and implementing treatment non-negotiables where there is a low level of parental criticism and psychopathology (see Part 5). For instance, parents may determine that their child cannot use the washroom after mealtimes. In adult out-patient settings however, therapeutic boundaries are more typically set by care providers. For instance, adult patients may be required to see a general practitioner as recommended, or to adhere to empirically supported treatment protocols (e.g., attending all therapy sessions). Therapeutic boundaries must also be responsive to psychiatric comorbidities and substance use.

In implementing therapeutic boundaries or treatment non-negotiables, research has shown that patients, clinicians, and family members consider use of a collaborative approach to be more

acceptable and likely to produce favourable outcomes than a directive approach (Brown & Geller, 2006; Geller et al., 2001; Treasure, Gavan, Todd & Schmidt, 2003). Research has also shown that it is common for both care providers and family members to be less collaborative than they believe to be optimal (Brown & Geller, 2006; Geller et al., 2003). A recent study of family members suggested that distress accounts for the discrepancy between intentions and actions in using a collaborative stance (Geller et al., 2010). Thus, these guidelines focus on empowering care providers with information in order to reduce care provider distress in an effort to improve relationships and outcomes.

A number of factors have been described as helpful to the development and implementation of treatment non-negotiables (Geller & Srikameswaran, 2006; NICE, 2004; Robinson, 2006). These include: having a sound rationale for treatment non-negotiables and explaining this rationale to the patient and/or family (e.g., preventing death, ensuring a safe therapeutic environment on an inpatient unit), providing ample advance warning of treatment expectations (e.g., discussing what they are as early as possible in treatment), implementing boundaries consistently (e.g., all family members and care providers consistently following-through on teams), and maximizing patient autonomy (e.g., continuing to allow and support patients to participate in decision making for which they are competent).

Therapeutic Boundaries at a Glance

- Therapeutic boundaries are necessary to ensure patient safety and most efficient use of intensive treatment resources
- In outpatient settings: for children and youth, parents are in the best position to set and support treatment non-negotiables while for adults, treatment providers more typically set non-negotiables
- In intensive treatment programs: clear boundaries are needed to ensure that the milieu is therapeutic and that treatment resources are used efficiently
- The characteristics of sound therapeutic boundaries include:
 - Providing ample advance warning
 - Having a sound rationale that is explained to the patient
 - Implementing treatment non-negotiables consistently
 - Maximizing patient autonomy
- Research has shown that therapeutic boundaries are considered most acceptable and effective when delivered using a collaborative style

COLLABORATIVE CARE, TEAMWORK AND ROLE CLARITY

When several professionals are involved in a patient's care, it is important that they share an understanding of the therapeutic boundaries that are in place and that all team members implement them consistently (Kuyken, Padesky & Dudley, 2009; Robinson, 2006). Good communication ensures that care providers make referrals which result in appropriate matching of patient characteristics to program contingencies (Olmsted et al., 2010, Yager, 2007). These will be described in greater detail in Part 8.

FAMILY AND CAREGIVERS

Families play a central role in recovery from an eating disorder and education is important across the developmental spectrum. The level and nature of involvement and optimal way of engaging families in therapy, however, differs according to patient developmental status and level of family functioning. In Family Based Therapy, for instance, parents learn to engage their children and practice similar psychological and behavioural strategies that are used by care providers in inpatient hospital weight restoration programs. For patients transitioning between adolescence and adulthood (i.e., age 17–25), a number of factors need to be considered in determining the optimal level of family involvement, such as the patient’s developmental status, living situation and family functioning. These issues will be addressed throughout the guidelines.

Although adult models focus primarily on engaging the adult patient to make healthy decisions about their eating and exercise, new approaches are exploring ways of involving the family and if appropriate, partner and spouse (Bulik, Baucom, Kirby, & Pisetsky, 2010; Treasure, Smith & Crane, 2007; Treasure, Gavan, Todd & Schmidt, 2003). These adult approaches help family members to examine and modify their caring style (e.g., overly domineering, providing too much direction; providing excessive over-protection, or a balance between empathy and direction), and are currently being evaluated (S. W. Touyz, personal communication, February 8, 2011).

Family Engagement at a Glance

- It is essential to engage families in the treatment of children and youth
- For patients transitioning between adolescence and adulthood, the level and nature of family involvement is determined by a number of factors including patient developmental status, living situation and family functioning
- New approaches are exploring different ways of engaging families and significant others with adults

PART 2: TREATMENT PLANNING ACROSS THE CONTINUUM OF CARE

Previously developed clinical guidelines for eating disorders emphasize the importance of matching treatment intensity to patient needs and ensuring that engagement with patients and their families is optimized at each level of care. In addition, a consistent recommendation is that effective management requires good communication among practitioners and clarity regarding areas of responsibility associated with each level of care (e.g., NICE, 2004, 2.7.4.).

THE SHORT TREATMENT ALLOCATION TOOL FOR EATING DISORDERS (STATED)

Although the evidence to support decision making regarding appropriate treatment type (i.e., inpatient vs. outpatient), intensity of care (i.e., weekly outpatient sessions vs. residential or inpatient care), and treatment goals (i.e., recovery, medical stabilization) with eating disorder patients is currently limited, a number of factors are nevertheless consistently recommended as important in determining appropriate treatment for a given patient (e.g., NICE, 2004; APA, 2006). These key factors were synthesized into a tool: the *Short Treatment Allocation Tool for Eating Disorders (STATED)* which is illustrated in Table 1. The *STATED* improves upon previous decision making tools (e.g., APA, 2006) in its recognition that medical acuity, eating disorder and psychiatric symptom severity, and level of engagement with treatment/readiness for recovery do not necessarily co-occur in fixed, pre-determined ways. Instead, the *STATED* allows for naturally-occurring independent variations along the three continua to occur. To facilitate communication across models however, the APA levels are mapped onto the *STATED* in Table 1.

For instance, whereas the APA level of care guidelines (APA, 2006) assume a fixed level of (low) engagement in medically acute patients (where certification may be necessary), the *STATED* recognizes that this is not true of all patients. In some instances, where a good therapeutic alliance has been established, patient engagement may be moderate, thus allowing for the development of shared treatment goals and a different approach to the admission, regardless of medical acuity. Similarly, patients who have a low level of medical acuity and a moderate level of engagement may differ in their symptom severity/life interference, and thus be suited to different levels of care. For instance, outpatient symptom reduction interventions (e.g., Cognitive Behaviour Therapy for adults, Family Based Therapy for children) would be suitable for patients with less symptom severity/life interference. In contrast, day or residential treatment may be necessary to support adult patients with higher symptom severity/life interference and younger patients whose support providers are unable to provide 24 hour care.

In recognizing the complexity of patient presentations, the *STATED* offers a flexible communication and conceptualization heuristic that helps health care professionals determine the appropriate type and intensity of treatment for a patient and/or family. The *STATED* thus ensures the most efficient and appropriate use of resources, the development and maintenance of a strong therapeutic alliance by matching treatment to patient presentation, and patient and family satisfaction with the system.

Table 1 also describes how the STATED maps on to services provided across the continuum of care (see Appendix).

The three dimensions of the *STATED* include:

Medical Acuity

Definition: Medical acuity refers to a patient's immediate medical risk due to eating disorder and/or psychiatric symptoms. This dimension is the primary, and in some cases the only factor to consider in decision-making regarding a medical stabilization hospital admission. For patients at risk of serious medical consequences or death, life-saving measures need to be administered, independent of life interference and symptom severity, though these latter dimensions will influence the way in which the admission is managed. Tools for assessing medical acuity are provided in Part 4 and Part 8.

Symptom Severity/Life Interference

Definition: Symptom severity and life interference refer to the level of disruption in an individual's life as a result of the eating disorder and/or psychiatric or medical comorbidities. Dimensions to consider include intensity of eating disorder and psychiatric conditions, the individual's ability to attend school or work, and their ability to participate in activities free from disruption of the eating disorder. This dimension is important to ensure appropriate allocation of treatment resources. That is, intensive treatments, such as inpatient and residential care are costly treatment options and should only be used for patients who are unable to benefit from lower intensity treatments.

Engagement with Treatment

Definition: Engagement with treatment refers to a patient and family's motivation to engage with treatment and recovery. As noted earlier, readiness and engagement are recognized as critical patient and family characteristics in determining treatment pacing and in some cases appropriate allocation of level of care. Given that research has shown that outcomes (e.g., dropout, relapse) from some treatments are predicted by readiness (e.g., Bewell & Carter, 2008; Geller, Cockell & Drab, 2001; Gowers & Smyth, 2004), ensuring an adequate match between patient and family readiness and program contingencies is essential to ensure cost effectiveness of limited treatment resources. In the case of children and adolescents, the focus of early stages of treatment is on building confidence and skills in parents. As such, parent readiness is most central in treatment decision making in younger populations. Ways of addressing engagement across the developmental spectrum are noted throughout these guidelines.

The four levels of care as described in the *STATED* include:

A) Low intensity Outpatient Treatment: Focus on Engagement and Recovery

This refers to individual and group outpatient treatment that is offered to ED patients and their families outside of primary care. It is possible to participate in low intensity outpatient treatment while attending school or working (see Part 5). These treatments can be delivered in the context of both eating disorder specialist and non-specialist services.

B) High Intensity Treatment (Day, Residential, Inpatient): Focus on Recovery

These are intensive multi-modal specialized programs that support full recovery and require patients to take time away from their normal activities in order to participate. Day programs typically range from three to five days per week, and residential and inpatient programs require patients to live in the treatment setting (see Part 6 of guidelines).

C) Variable Intensity Outpatient Treatment with Inpatient Support: Focus on Quality of Life

This treatment approach is for individuals with chronic eating disorders who have not benefitted from recovery focused treatment. The approach focuses on use of a psychosocial rehabilitation model, reducing dependency on hospitals while ensuring patient safety and enhancing quality of life (see Part 7 of guidelines).




D) High Intensity Inpatient Hospitalization: Focus on Medical Stabilization

These are brief hospital admissions focusing on medical stabilization with a view to fostering patient engagement and alliance outside of the hospital setting. This treatment is to be distinguished from recovery-focused intensive treatments, which are longer in duration (see Part 8 of guidelines).

The levels of care as identified in the *STATED* have been used to organize these guidelines. Parts 5, 6, 7 and 8 describe each level of care in greater detail, including the rationale, the most critical patient dimensions to consider in assigning level of care, how to enhance engagement, and key features in working with children, adolescents and adults at each level of care.

Table 1. The Short Treatment Allocation Tool for Eating Disorders (STATED):

Determining level of care using patient dimensions of medical acuity, life interference, and engagement with treatment/readiness for recovery.

	A) Low Intensity Outpatient Treatment: Focus on Engagement and Recovery	B) High Intensity Treatment (Day, Residential, Inpatient): Focus on Recovery	C) Variable Intensity Outpatient Treatment with Inpatient Support: Focus on Quality of Life**	D) High intensity Inpatient Hospital: Focus on Medical Stabilization
 Medical Acuity	<i>LOW to MODERATE</i>	LOW to HIGH Type of treatment (i.e., residential vs. inpatient) is tailored to medical acuity	MODERATE to HIGH	<i>HIGH</i>
 Life Interference / Symptom Severity	<i>LOW to MODERATE</i>	<i>MODERATE to HIGH</i>	<i>MODERATE to HIGH</i>	MODERATE to HIGH
 Engagement With Treatment / Readiness For Recovery *	Treatment is tailored to patient and family readiness (menu of options)	<i>Adults: MODERATE (minimum)</i> Child and Youth: Treatment is tailored to family readiness	<i>LOW</i>	Treatment is tailored to readiness in the context of treatment non-negotiables
***APA LEVEL	1, 2	3, 4, 5	1, 2, 5	5
Level of Care	Secondary	<i>Secondary or Tertiary</i>	<i>Partnership between secondary and tertiary</i>	Secondary or tertiary

Note: Italicized text represent the most critical dimensions in assigning patients and/or families (in the case of children and adolescents) to the designated level of care. Failure to match on an italicized dimension may result in either inefficient use of treatment resources and/or low likelihood of patient/family engagement, thus increased likelihood of treatment refusal, dropout or relapse following treatment.

* In the case of children and adolescents, readiness and engagement refers to the patient and his or her family system.

** Note that this is not a first line treatment and is appropriate only when recovery-focused treatments have not been successful.

***APA levels 1 = Outpatient, 2 – Intensive inpatient, 3 = Partial hospitalization (full day outpatient care), 4 = Residential treatment and 5 = Inpatient hospitalization.

PART 3: ASSESSMENT

The *STATED* provides a framework to facilitate consultation between practitioners, support clinicians in making appropriate referrals, and improve communication between levels of care. This section provides the diagnostic criteria for eating disorders and describes the clinical interview, family assessment, the nutritional interview, and assessment of readiness and motivation for change. In this section, ***tools for assessing two of the three STATED dimensions are provided***; life interference due to eating disorder and psychiatric symptom severity and engagement with treatment/readiness for recovery. Tools for assessing the third *STATED* dimension, medical acuity, are provided in Part 4 (Primary Care).

☞ The swirl bullet shown here is used throughout these guidelines to designate information that can be used with the *STATED* to make treatment decisions.

DIAGNOSTIC CRITERIA

The eating disorders include anorexia nervosa (AN), bulimia nervosa (BN) and eating disorder not otherwise specified (EDNOS). Many patients with eating disorders shift between diagnoses over time with up to 50% of patients with AN developing bulimic symptoms, and a smaller percentage with BN developing anorexic symptoms (Devlin, Jahraus, & Dobrow, 2005). The DSM-IV-TR criteria for AN, BN, and EDNOS are provided below, as well as proposed changes for the DSM-5.

Anorexia Nervosa

The DSM-IV-TR diagnostic criteria for AN are (p.589):

Anorexia Nervosa – DSM-IV-TR Diagnostic Criteria (abbreviated)

- A. Refusal to maintain body weight at or above a minimally normal weight for age and height
- B. Intense fear of gaining weight or becoming fat, even though underweight
- C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self evaluation, or denial of the seriousness of current low body weight
- D. In post-menarcheal females, amenorrhea, defined as the absence of at least three consecutive menstrual cycles. NOTE: this is not a useful criterion in females who are younger, taking hormones, or pregnant.

The DSM-IV-TR describes ***subtypes*** for individuals who engage in binge-eating or purging behaviours (binge-purge subtype) and those who do not regularly engage in binge-eating or purging (restricting subtype).

Differential diagnosis

Individuals who experience unintended weight loss resulting from a medical or psychiatric condition are not given a diagnosis of AN. Examples of such conditions include, but are not limited to: cancer, gastrointestinal diseases, acquired immunodeficiency syndrome, depression, anxiety, and psychotic disorders.

Bulimia Nervosa

The DSM-IV-TR diagnostic criteria for BN are (p.594):

Bulimia Nervosa – DSM-IV-TR Diagnostic Criteria

- A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
 - i. Eating in a discrete period of time (e.g., within any 2-hour period) an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.
 - ii. A sense of lack of control over eating during the episode (e.g., feeling that one cannot stop eating or control what or how much one is eating)
- B. Recurrent inappropriate compensatory behaviour in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting or excessive exercise.
- C. The binge eating and inappropriate compensatory behaviours both occur, on average, at least twice a week for 3 months
- D. Self-evaluation is unduly influenced by body shape and weight.
- E. The disturbance does not occur exclusively during episodes of AN.

The DSM-IV-TR also describes *subtypes* for BN: patients who compensate for binge-eating by regularly engaging in self-induced vomiting or the misuse of laxatives, diuretics, or enemas (purging type) and those who use other compensatory behaviours such as fasting or excessive exercise but not self-induced vomiting or the misuse of laxatives, diuretics or enemas (non-purging type).

Differential diagnosis

Individuals who experience conditions that are associated with unintentional purging are not assigned a diagnosis of BN. Examples of such conditions include gastrointestinal and pain conditions.

Eating Disorder Not Otherwise Specified

Patients who do not meet all of the DSM-IV-TR criteria for AN or BN but who nevertheless experience significant impairment may be diagnosed with EDNOS.

Examples include:

- meeting all criteria for AN except amenorrhea
- meeting all criteria for AN except weight criterion
- meeting the physical criteria for AN, but not the cognitive-emotional criteria
- failing to meet the frequency criteria of BN for either binge eating or purging behaviours
- repeatedly chewing and spitting, but not swallowing large amounts of food
- recurrent episodes of binge eating in the absence of the regular use of compensatory behaviours

Children and adolescents

Research has shown that more than half of children and adolescents who are treated for eating disorders do not meet all DSM-IV-TR criteria for AN or BN because they either do not articulate body-image dissatisfaction or because their inadequate nutrition is manifested by growth failure rather than weight loss to less than 85% of expected weight. Moreover, amenorrhea is less useful as a diagnostic marker in younger populations. Nevertheless, research has shown that these patients experience the same medical and psychological consequences of their disorder as patients who meet full criteria (Eddy et al., 2010). To facilitate earlier diagnosis and treatment and to reduce long-term sequelae in younger populations, relaxation of the diagnostic criteria for children and adolescents has been proposed for the DSM-5. A summary of the proposed changes to DSM-5 is provided below.

Proposed changes to DSM-5

The DSM-5 is scheduled for publication in May 2013. A working committee designated to review the evidence in support of current criteria, in consultation with feedback from clinicians and researchers in the field have recommended a number of changes. For AN, it is proposed that the weight criterion be changed to “a weight that is less than minimally normal, or for children and adolescents, less than that minimally expected,” and that the amenorrhea criterion be eliminated. For BN, it is recommended that frequency threshold of binge episodes and compensatory behaviours be reduced to one time per week, and that the purging and non-purging sub-types be eliminated. The committee recommended replacing EDNOS with a new category termed “Feeding and Eating Conditions Not Elsewhere Classified.” These conditions include Atypical Anorexia Nervosa, Sub-threshold Bulimia Nervosa (low frequency or limited duration), Sub-threshold Binge Eating Disorder (low frequency or limited duration), Purging Disorder, Night Eating Syndrome, and other Feeding or Eating Condition Not Elsewhere Classified. Details of these changes are described on the APA DSM-5 Development website (APA; DSM-5 Development link).

CLINICAL INTERVIEW

The clinical interview is typically a first point of contact with a patient and family, in which the clinician is able to determine eating disorder background, social and legal history, interpersonal style, cognitive functioning, family functioning and other comorbid conditions. The clinical interview allows the clinician to assess life interference and level of engagement, which can be used with the *STATED* to make treatment recommendations and determine level of care.

This section is divided in two parts: i) general components of the clinical interview that apply across the age spectrum and ii) specific issues pertaining to children, adolescents and their families.

General

Patients with eating disorders are not always forthcoming about their symptoms. Minimizing, exaggerating, or denying may occur as a result of shame, fear of judgment, lack of insight, or fear of treatment that enforces weight gain. Taking time to describe what is going to happen and providing a safe, empathic and nonjudgmental environment has been shown to promote alliance and increase patients' disclosure of sensitive information (Klostermann, Slap & Nebrig, 2005).

Background

Clinical interviews begin with background questions about age, education, living and family situation, and for adults, employment and relationship status. In interviewing individuals with eating disorders, acknowledging potential ambivalence about change early in the interview is central to establishing rapport.

Patients will pay close attention to clinicians' reactions, and as such, it is important to use words and body language that convey lack of judgment and acceptance of the patient's current situation and wishes about treatment.

Key Opening Questions

- What brought you here today?
- Did someone encourage or pressure you to come? To what extent are you interested in obtaining help at this time?
- Do you have a wish about what might happen today?

After obtaining a general understanding of the problem, specific questions targeting the ED symptoms, including onset and course are helpful. Asking about when symptoms increase or decrease provides useful information about the function of the eating disorder.

Sample Follow-up Questions

- When did you become concerned about your shape or weight?
- Do you try to lose weight? If so, what is your reason? How did things progress?
- How much weight have you lost? Over what length of time?
- Do you binge or purge? If so, when did this start?
- Are you aware of any triggers that precipitate or stop a binge?
- How do you purge? Is it through vomiting, use of laxatives, diuretics, insulin or amphetamines? Are you aware of triggers that precipitate or stop a purge?
- How often do binges occur? How often do purge episodes occur?
- Do you exercise? If so, what kind, how much or how long?

Each of several domains will now be described in greater detail. They include: eating behaviour, binge eating, purging and non-purging compensatory strategies, weight, menses, eating disorder cognitions, co-occurring psychiatric conditions and family and social history.

Eating behaviour

Patients can be asked to complete food records in which they document eating, hunger and satiety cues, binge/purge/restricting episodes, and thoughts and feelings associated with food. This behavioural exercise provides information about eating patterns and the patient's experience of self-monitoring.

Sample Food Record

Time	Food eaten	Hunger (0–5)	Fullness (0–5)	B	P	R	E	Thoughts/feelings
8:30	Coffee	2	3				X	Feeling strong today, not hungry
13:00	Apple	4	4					Feeling a bit dizzy...

Note: B = bingeing, P = purging, R = restricting food intake, E = exercising

Eating patterns can also be assessed using questions from the Eating Disorders Examination (EDE; Fairburn & Cooper, 1993). In the EDE, patients are prompted to reflect upon their eating over the past 4 weeks and to describe the content of meals or snacks that are eaten on a regular basis, dietary restraint, food avoidance, and dietary rules. Sample EDE questions include:

- Have your eating habits varied much from day to day?
- Have there been any days that you haven't eaten anything at all?
- Can you describe a typical day of eating?

☞ **Life interference/symptom severity:** Individuals who eat a narrow range of food items, have restrictive rules about what and when to eat, and consistently skip meals have severe restraint behaviours. Patients who restrict but nevertheless eat several meals and snacks each day and have fewer rules about eating have lower restraint severity.

The following self-report measures can be used to help determine symptom severity of eating behaviours:

<i>Self-Report Measures that Assess Eating Behaviours</i>		
Measure (authors)	Construct	Age
• Eating Attitudes Test – 26 (EAT; Garner et al., 1982)	Anorexia nervosa symptoms – dieting, bulimia, oral control	≥ 16 yrs
• Children’s Eating Attitudes Test (ChEAT; Maloney et al., 1988)	Attitudes and behaviours associated with AN; dieting, obsessions/preoccupation with food, perceived body image.	8–13 years
• Eating Disorders Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994)	Global eating disorder severity score, restraint, eating concern, shape concern, weight concern	Older adolescents & adults

Binge eating

Binge episodes are defined as having the following two features:

- A large amount of food consumed in a discrete period of time
- The experience of loss of control, defined as an inability to resist eating or not being able to stop eating once having started.

The onset, frequency, intensity, duration, triggers, settings and consequences of binge episodes provide information about the function of bingeing.

Four types of eating episodes are described in the Eating Disorders Examination. In addition to the objective binge episode (described above), individuals who consume an objectively large amount of food but feel in control of eating are described as “objectively overeating.” Individuals who eat an amount of food they believe is too much but that is not objectively excessive and who experience a loss of control are described as having a “subjective binge.” Finally, individuals who believe they have overeaten but haven’t and who don’t feel out of control are “subjectively overeating.” These are described below:

	<i>Large amount of food</i>	<i>Not large but viewed by individual as excessive</i>
<i>Loss of control</i>	Objective bingeing	Subjective bingeing
<i>No loss of control</i>	Objective overeating	Subjective overeating

Purging and non-purging compensatory behaviours

Purging compensatory behaviours include self-induced vomiting or use of ipecac, laxatives, diuretics, and enemas to compensate for eating. For individuals with diabetes, mismanaging insulin is also a way of compensating for eating. Patterns of spitting, regurgitating or chewing food without swallowing should also be noted.

Non-purging compensatory behaviours include fasting and excessive exercise. In order to be considered a compensatory behaviour, these behaviours must occur for the purpose of controlling shape and weight. Determining the link with shape and weight is sometimes challenging as some patients may strongly endorse other benefits such as enjoying a sport, being an athlete, or fasting as a form of therapy. In these situations, taking time to acknowledge the benefits and then asking if any part of the behaviour is connected to weight control may make it easier for patients to draw a link with shape and weight. Individuals can also be prompted to describe how they anticipate they would feel if they couldn't engage in the compensatory behaviour, such as in a treatment context.

Misuse of prescription or over-the-counter agents that promote weight loss such as diet pills, stimulants, herbal agents or medications to stimulate the thyroid may also be part of the individual's attempts to control weight or compensate for eating and should be noted.

S Life interference/symptom severity: Binge eating and/or purging that occurs multiple times per day and interferes with daily functioning is considered severe. In contrast, binge eating and/or purging that occurs below diagnostic threshold (i.e., lower frequency, smaller amount of food, or no loss of control) is considered low in symptom severity.

Eating disorder cognitions

In order to make a diagnosis, the following cognitive features are assessed: fear of weight gain or becoming fat, feelings of fatness, shape- and weight-based self esteem, and denial about the seriousness of low weight in underweight individuals. In the EDE, the following questions are used to assess these features:

- Over the past 3 months have you been afraid that you might gain weight or become fat?
- Over the last 3 months have you felt fat?
- Over the past 3 months, has your shape or weight been important in influencing how you feel about yourself as a person?

For underweight individuals:

- Over the past 3 months have you felt that being at your current weight presents any serious health risks to you?

Self-Report Measures to Assess Eating Disorder Cognitions

Measure (authors)	Construct	Age
• Eating Disorder Inventory – 3 (EDI-3; Garner, 2004)	Eating disorder, risk ineffectiveness, interpersonal problems, affective problems, overcontrol, general psychological maladjustment	≥ 12 yrs
• Shape and Weight Based Self Esteem (SAWBS; Geller, Johnson & Madsen, 1997)	Influence of weight and shape on self-evaluation	≥ 13 yrs
• Body Shape	Negative feelings about body size and shape	≥ 12

Life interference/symptom severity: Individuals who experience their low weight status as ego-syntonic (i.e., acceptable or consistent with one’s self-image) and/or have a strong drive for thinness despite disturbance to their lives or medical risk are considered to have severe ED cognitions. In contrast, individuals who have awareness or insight about the harmful effects of their low weight status and/or strong drive for thinness are considered to have low severity ED cognitions.

Weight

A weight history, including the patient’s lowest and highest weight (at current height), desired weight and what they believe to be a “healthy” weight provides information about patients’ weight goals and context of their current weight status. A weight history also allows clinicians to ask about life events that may have contributed to weight loss and gain. Part 4 of this document provides information on how to assess weight across the age spectrum.

Menses

A menstrual history determines whether the menstrual cycle is regular, sporadic, or ceased, and identifies factors that may be impacting the menstrual cycle, such as contraception (i.e., birth control pills, patches or intrauterine devices), a medical condition (e.g., endometriosis), pregnancy, or menopause.

Co-occurring psychiatric conditions and risk assessment

Comorbid conditions are common in the eating disorders. This section summarizes key points in assessing mood and anxiety, personality disorders, self-injury, and substance use in patients with eating disorders. Self-report measures can help determine life interference and severity for each of these domains.

Mood and anxiety: The most common comorbid conditions in the eating disorders are mood and anxiety disorders (Hudson et al., 2007; Troop, Serpell, & Treasure, 2001). In assessing these conditions, it is useful to determine the chronology of onset in relation to the development of the eating disorder as this may help clarify the function of ED behaviours. For instance, rigid food rules and rituals around eating and exercise may serve to reduce anxiety associated with obsessive-compulsive tendencies. In contrast, basing self-worth on shape and weight may enhance esteem in individuals who struggle with depressed mood. Given that eating disorders are associated with elevated risk of mortality due to suicide, it is important to assess current and past suicidal ideation and suicide attempt history (Keel et al., 2003).

Personality disorders: Restricting subtype AN is associated with constricted, obsessional and conforming traits that are captured by the DSM-IV-TR Axis II Cluster C (avoidant, obsessive-compulsive and dependent) personality disorders. Although there is a less consistent picture with BN, the most consistent features are affective instability and impulsivity, as captured by the DSM-IV-TR Axis II Cluster B (narcissistic, histrionic, and borderline) personality disorders (Halmi et al, 1991; Vitousek & Manke, 1994).

Self-injury: Self-injurious behaviours are common in eating disorders (Paul, Schroeter, Dahme, & Nutzinger, 2002; Svirko & Hawton, 2007). For individuals who are currently or who have a history of self-harming, it is important to establish how eating disorder behaviours occur in relation to self-harm. This is important for treatment planning and in determining an appropriate setting and rate of weight gain or symptom cessation. For instance, an intensive treatment program that requires abstinence of ED behaviours may trigger or worsen self-harming behaviours if not adequately addressed. If suicidal ideation is present, a lethality assessment should be conducted.

Clinical correlates of suicidality among patients with eating disorders include purging behaviours, comorbidity (e.g. depression and substance abuse) and a history of physical and/or sexual abuse.

Substance use: Substance use is common in the eating disorders (Holderness, Brooks-Gunn, & Warren, 1994; Wiederman & Pryor, 1996). A report by the National Center on Addiction and Substance Abuse revealed that up to 50 percent of individuals with eating disorders abuse alcohol or illicit drugs, and that teenage girls are especially vulnerable to a concurrent diagnosis. Substance abuse is also a correlate of suicidal behaviour (Franko & Keel, 2006). In some cases, substance use and ED symptoms may serve a similar function (e.g., binge drinking and binge eating as means to numb difficult emotions), and in other cases, the functions may be distinct (e.g., restricting to experience a sense of control and using drugs or alcohol to escape or relax). Appetite suppressants, such as amphetamines, and drugs that boost metabolism are commonly used by individuals who practice severe caloric restriction. Tranquilizer use is associated with binge eating (Wiederman & Pryor, 1996). In all cases, determining the level of life interference of substance use in relation to ED behaviours is helpful for treatment planning.

Self-Report Measures to Assess Comorbid Conditions

Measure (authors)	Construct	Age
<ul style="list-style-type: none"> Beck Depression Inventory – 2 (BDI-2; Beck, Steer, & Brown, 1996) 	Depression severity	≥ 13 yrs
<ul style="list-style-type: none"> Beck Anxiety Inventory (BAI; Beck, Epstein, Brown & Steer, 1988) 	Anxiety severity	≥ 17 yrs
<ul style="list-style-type: none"> Revised Children’s Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978) 	Symptoms of anxiety in childhood.	6–9 years
<ul style="list-style-type: none"> Brief Symptom Inventory (BSI; Derogatis, 1993) 	Somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, psychoticism.	≥ 13 yrs
<ul style="list-style-type: none"> Behavior Assessment System for Children, 2nd Ed (BASC-2, Reynolds & Kamphaus, 2004) 	<u>Child and adolescent psychopathology scales</u> : e.g., anxiety, depression, hyperactivity, interpersonal relations, self-esteem, sense of inadequacy, somatization	2–21 yrs
<ul style="list-style-type: none"> Deliberate Self Harm Inventory (DSHI; Gratz, 2001) 	<u>Self-harming behaviours</u> : e.g., intentionally cut, burn, carve, scratch, bite, hit.	≥ 18 yrs
<ul style="list-style-type: none"> Drug Abuse Screening Questionnaire (DAST, Gavin, Ross & Skinner, 1989) 	Drug use and impairment	Adults
<ul style="list-style-type: none"> Personality Assessment Inventory (PAI; Morey, 1991) 	<u>Clinical scales</u> : somatic complaints, anxiety, anxiety-related disorders, depression, mania, paranoia, schizophrenia, borderline features, antisocial features, drug problems. <u>Treatment consideration scales</u> : aggression, suicidal ideation, stress, nonsupport, treatment rejection. <u>Interpersonal scales</u> : dominance, warmth. Validity scales included.	≥ 18 yrs
<ul style="list-style-type: none"> Personality Assessment Inventory – Adolescent (PAI-A; Morey, 2007) 	Same as in PAI (see above).	12–18 yrs
<ul style="list-style-type: none"> Borderline Symptom List (BSL; Bohus et al., 2007) 	<u>Borderline-typical symptom subscales</u> : self-perception, affect regulation, self-destruction, dysphoria, loneliness, intrusions, hostility.	≥ 17 yrs
<ul style="list-style-type: none"> Borderline Symptom List (BSL; Bohus et al., 2007) 	Borderline-typical symptomatology	≥ 17 yrs

Family and social history

A comprehensive family and social history includes constructing a genogram and assessing family member characteristics, relationships and functioning. It is also useful to explore any history of illness within the family, and family member reactions to the eating disorder. In assessing younger patients, it may be informative to inquire about the young person's awareness of family member illness, as this may be an indicator of family openness regarding sensitive health information. A social history includes academic and peer experiences, including bullying, in elementary and high school, friendships and intimate relationships, substance use and abuse history. Inquiry about personal involvement with the law may also be helpful. It is not uncommon for individuals with BN to shoplift various items including food.

Children and adolescents

When working with children and adolescents the family assessment is a crucial component in the clinical interview. The family assessment involves interviewing parents or guardians on their own as well as the entire family together. In a separate interview with parents/guardian the clinician can obtain a developmental and family history and assesses contributory factors to the eating disorder. Family history should include details of meal times and eating and dieting behaviours. It should also include an assessment of the quality of the parental and marital relationship (Gowers, 2008; Lask & Bryant-Waugh, 2000). In the assessment with the entire family emphasis is given to the following:

- social and emotional climate of the home
- family functioning including cohesion, adaptability, resilience and problem solving or conflict management
- multiple perspectives on the history and development of the eating disorder
- parents' ability to work together and be consistent
- parents' ability to allow age-appropriate autonomy while providing clear and appropriate boundaries
- assessment of parents' potential role in treatment
- family strengths and weaknesses
- family communication processes

Standardized measures can provide useful contributory information to the family assessment and are included below.

Self-Report Measures to Assess Family Functioning

Measure (authors)	Construct	Age
• Self-Report Measures to Assess Family Functioning	Family system, relationship quality, perceived roles	≥ 10 yrs
• Family Environment Scale (FES; Moos & Moos, 1981)	<u>Relationship scales</u> : cohesion, expressiveness, conflict. <u>Personal growth scales</u> : independence, achievement orientations, intellectual-cultural orientations, active-recreational orientations, moral-religious emphasis System maintenance scales: organization, control	≥ 11 yrs
• Family Adaptability and Cohesion Evaluation Scale (FACES IV; Tiesel & Olson, 1997)	<u>Cohesion (bonding) scales</u> : enmeshed, disengaged <u>Adaptability (flexibility) scales</u> : chaotic, rigid	11–21 yrs
• Family Assessment Device (FAD; Epstein, Baldwin, & Bishop, 1983)	<u>Scales</u> : Problem solving, communication, roles, affective response, affective involvement, behaviour control, and general functioning.	Any

When conducting a clinical interview with children and adolescents, it is important to take time to develop a therapeutic alliance. Key factors are being respectful and using an age appropriate approach. The clinical interview is an opportunity to understand the eating disorder from the child or adolescent's point of view. The quality of the assessment interview sets the tone for the therapeutic journey.

In a recent study, adolescent patients with AN were encouraged to take an experimental, evidence-based view of their treatment and clinicians used a curious, collaborative and non-judgmental style. This approach produced significant improvements in adolescents' motivation for change.

(Gowers & Smyth, 2004)

In the initial interview with children and adolescents, the aim is to assess the following:

- the patient's perception and feelings associated with the eating disorder
- cognitive maturity, body image distortion and the impact of weight gain
- readiness to participate in treatment
- suicidal ideation and risk (an eating disorder substantially increases risk of a suicide attempt)
- comorbid psychiatric disorders
- neuropsychological anomalies such as, impaired cognitive flexibility, perfectionistic tendencies and attention to detail at the cost of central coherence
- concerns about school and peers

Bryant-Waugh & Lask, 2010

In assessing children and adolescents, discussion about limits of confidentiality with both children and their parents helps increase safety and avoid misunderstandings about privacy (Hutchinson & Stafford, 2005). Self-report questionnaires are an additional way to obtain information that may help overcome some of these obstacles. Empirically supported, psychometrically validated child and adolescent specific measures are listed below according to each assessment domain. Psychometrically validated measures that can be used across the age spectrum can be found in the general section.

Self-Report Measures that Assess Eating Behaviours & Comorbid Conditions for Children and Adolescents

Measure (authors)	Construct	Age
<ul style="list-style-type: none"> Children's Eating Attitudes Test (ChEAT; Maloney et al., 1988) 	Attitudes and behaviours associated with AN; dieting, obsessions/preoccupation with food, perceived body image.	8–13 yrs
<ul style="list-style-type: none"> Beck Depression Inventory – 2 (BDI-2; Beck, Steer, & Brown, 1996) 	Depression severity	≥ 13 yrs
<ul style="list-style-type: none"> Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978) 	Symptoms of anxiety in childhood.	6–19 yrs
<ul style="list-style-type: none"> Behavior Assessment System for Children, 2nd Ed (BASC-2, Reynolds & Kamphaus, 2004) 	<u>Child and adolescent psychopathology scales</u> : e.g., anxiety, depression, hyperactivity, interpersonal relations, self-esteem, sense of inadequacy, somatization	2–21 yrs
<ul style="list-style-type: none"> Personality Assessment Inventory – Adolescent (PAI-A; Morey, 2007) 	Same as in PAI (see above).	12–18 yrs

NUTRITIONAL INTERVIEW

General

The nutritional assessment explores eating and weight history, current eating patterns, food rules and rituals, fluid intake, compensatory behaviours, nutrition beliefs and knowledge, hunger and fullness cues, use of vitamin and mineral supplements, food allergies/intolerances and nutritional goals in greater depth. Other components of the nutritional assessment include macro- and micro-nutrient deficiencies, compensatory behaviours, activity/exercise level, risk of re-feeding syndrome, and motivation to work on nutrition goals.

The nutritional assessment can also focus on the patient's comfort with grocery shopping, food preparation, and social eating. One of the most beneficial aspects of a nutritional assessment is distinguishing between behaviours that are “eating disorder” driven vs. those that contribute to the patient's well being, independent of the eating disorder. For example, a vegetarian lifestyle may be chosen because it restricts intake of high calorie foods vs. adherence to ethical or cultural beliefs. Sample questions are provided below:

Sample Nutritional Assessment Questions

Challenging foods:

- Are there any foods that you find more challenging to eat?
- Have these foods always been challenging?
- Do you relate these current struggles to your eating disorder?
- What makes these foods more challenging for you?
- What qualities make a food more challenging to eat?
- What do you fear would happen if you were to eat one of these foods?

Food allergies:

- Do you have any food allergies or intolerances?
- What sort of reactions do you have to these foods?
- When was the last time you tried these foods?
- Do these food allergies predate when your eating difficulties began?

Food rules:

- Do you find yourself eating according to a set of rules or rituals?
- Describe these rules and how they help you?

Dietitians assessing patients at higher levels of readiness may use food records to identify and address barriers to change. It should be noted that patients may differ in their level of readiness to change different symptoms (i.e., high readiness to change bingeing and purging or increase fluids and low readiness to change restricting).

Children and adolescents

With children and adolescents, the focus of the nutritional assessment depends, in part, on the type of treatment the patient and family are receiving. For patients in standardized family based therapy (FBT), the dietician recognizes the family as the expert in feeding their child and acts as a resource in educating and helping parents understand the caloric needs of a child recovering from an eating disorder. The dietician also helps the family recognize eating patterns that may hinder or delay the recovery process, and provides practical nutritional support to parents. Attention is also given to the family's comfort with food related activities such as taking the patient shopping, food preparation and eating in social situations. Finally, dieticians may find it helpful to assess the family's perceptions of foods that are challenging for the patient and any ritualistic eating behaviours that may be occurring.

If the patient is receiving standardized FBT, the nutritional assessment is conducted with the parents, unless the family therapist makes a request for an individual assessment. In cases where dieticians conduct individual nutritional assessments, the family eating environment nevertheless remains centrally important to treatment.

READINESS AND MOTIVATION FOR CHANGE

While patient readiness and motivation for change has been shown to predict clinical outcomes such as dropout, symptom change and relapse, readiness ratings made by care providers in clinical settings have been shown to be uninformative in predicting patient behaviour change (Geller, 2002). Assessing patient and family motivation for change may be especially important in younger populations as readiness in this group has been identified as an important factor in determining risk status of youth with eating disorders (Junior MARSIPAN Report, 2011). In addition, readiness in youth is associated with the quality of the parental relationship, which is an important feature of FBT (Zaitsoff & Taylor, 2009). Thus, across the developmental spectrum, there is support for use of tools that assist clinicians in assessing readiness and motivation for change.

Self-Report Measures to Assess Readiness for Change


Measure (authors)	Construct	Age
• Anorexia Nervosa Stages of Change Questionnaire (Reiger et al., 2000)	Stages of change	Adolescents and adults
• Motivational Stages of Change for Adolescents Recovering from an Eating Disorder (Gusella et al., 2003)	Stages of change	Adolescents
• Readiness and Motivation Interview (Geller et al., 2001; 2008)	Stages of change and internality	Adolescents and adults
• Readiness Ruler (Rollnick, 1998)	Stages of change and internality	Adolescents and adults

If a standardized readiness assessment tool is not available, clinicians can use a simple readiness ruler, in which patients are prompted to discuss and rate (i.e., on 10-point rating scales) the extent to which they feel ready to make changes to each of their eating disorder behaviours (e.g., dietary restriction, use of laxatives). Readiness rulers are commonly used in the substance use literature and have been shown to have clinical utility (Rollnick, 1998; Heather, Smailes & Cassidy, 2008; Stott et al, 1995). Research has shown that the dimension that is most useful in predicting outcome in the eating disorders is readiness to change dietary restriction and/or gain weight. It may also be helpful to assess the extent to which patients desire change for themselves vs. for others, as this internality dimension predicts relapse in adults with eating disorders (Geller et al., 2004). It should be noted that adolescents are more inclined to change for others than are older patients (Geller et al., 2008).

Engagement with treatment/readiness for recovery: Individuals who do not wish to make changes to their dietary restriction or who are unwilling to gain weight or cease in their efforts to lose weight are considered to have low readiness for recovery and engagement with treatment. In contrast, individuals who experience their efforts to lose weight as a problem and who demonstrate a willingness to experiment with normalizing their eating are considered to have moderate or high readiness for change.

PART 4: PRIMARY CARE

The Primary Care Physician (PCP) plays an important role in the delivery of early interventions and in assisting individuals and families with locating and gaining access to specialized treatment as required (Rome et al., 2003). PCPs can offer a number of supports to patients with eating disorders including screening, early intervention, consultation, and medical monitoring. PCPs may also provide follow up care to patients discharged from inpatient units or to those that are transitioning between levels of care (i.e intensive treatments). For patients who do not have access to specialized services, the PCP may provide critical medical continuity as the patient moves along their recovery journey. Details for managing medical admissions are provided in Part 8. In this section, interventions that are suited to the primary care setting, including screening, early intervention, consultation and medical monitoring are provided.

 This section summarizes *tools for assessing the medical acuity dimension of the STATED*, including indicators for hospital admission.

IDENTIFICATION & SCREENING

General

PCPs are frequently the first to be consulted in the healthcare system and are therefore in an ideal position to provide early detection and intervention for eating disorders (Currin et al., 2009; Endacott et al., 2006; Linville et al., 2010). Many individuals with eating disorders can be managed effectively in primary care settings. This is critically important particularly in rural and underserved areas where primary care providers may be the patient's principle and sometimes only health care resource (Harrison, 2010).

“The most effective screening device probably remains the general practitioner thinking about the possibility of an eating disorder”

(NICE, 2004, p. 74)

Intervention is most effective when it takes place in the prodromal stage, or early course of the illness, where an individual may be asymptomatic yet screens positively for risk factors (Arcelus et al., 2008; Currin & Schmidt, 2005; Fichter et al., 2008; Keel & Brown, 2010; Lask et al., 2005; Rome et al., 2003; Stice et al., 2010; Treat et al., 2008; as cited in Harrison, 2010).

The longer an eating disorder goes untreated, the more likely that its effects will reduce the possibility of full recovery.

(Currin & Schmidt, 2005)

PCPs can provide first line interventions for patients who are ineligible, live far from, or face long waiting lists for specialized treatment. They can also play an important role in helping eating disorder patients access specialized services where necessary.

Children and adolescents

In recent decades the incidence and prevalence rates of eating disorders among children and adolescents have increased, with studies showing progressively younger age of onset (Rosen, 2010). Clinical reports and policy statements emphasize the need for early detection and treatment of eating disorders in children and adolescents, as these vital interventions can minimize the long-term developmental damage frequently resulting from malnutrition during this stage of life (Rosen, 2010; Nicholls et al., 2011). Primary care paediatricians are not only in a unique position to detect the onset of eating disorders; they may also be able to interrupt the progression of the physical and psychological consequences of malnutrition.

“The evidence suggests that intervention with children and adolescents cannot take place too early.”

(Harrison, 2010, p. 30)

The relationship between early detection and good prognosis is stronger in adolescents than it is in adults (Rosen, 2010). It is preferable for detection to occur therefore before the occurrence of severe symptoms such as bradycardia or emaciation. Thus, screening and monitoring as part of routine annual health care is recommended (Kaplan et al., 2003; Rosen, 2010). Any evidence of inappropriate dieting, excessive preoccupation with weight loss, a weight loss pattern or failure to achieve appropriate increases in weight and height for age warrants attention.

Adolescents, in particular, are unlikely to acknowledge the presence of an eating disorder (Kaplan et al., 2003). For this reason, a simple denial by an adolescent does not exclude the possibility of an eating disorder. Paediatricians are recommended to take a cautious approach if an eating disorder is suspected by following weight and nutrition patterns closely. It can also be helpful to take a history of eating attitudes and behaviours from a parent; although, it is important to note that for a variety of reasons, parents and family members may also deny the presence of illness.

The Canadian Paediatric Society (CPS) emphasizes that regular visits with a PCP can help build a therapeutic relationship and monitor the young person's condition. CPS also advocates educating PCPs in the practice of Family Based Therapy (FBT) for families of children and adolescents diagnosed with AN (Findlay et al., 2010 in Harrison, 2010). Further, it is suggested that physicians can support families by writing letters to employers to advocate for parents if they require a leave of absence in order to carry out specialized therapy such as FBT at home.

BARRIERS AND SOLUTIONS TO EFFECTIVE SCREENING

General

There are numerous opportunities for recognizing eating disorders and providing early intervention in primary care settings (Linville et al., 2010). Prior to diagnosis, individuals with eating disorders contact PCPs significantly more frequently than individuals without EDs (Lask et al., 2005; Ogg et al., 1997, Striegel-Moore et al., 2008; NICE 2004). In these earlier consultations, individuals often present with a variety of nonspecific psychological, gynaecological and gastroenterological complaints. (Mehler et al., 2010; Striegel-Moore et al., 2008; NICE 2004). Despite frequent contact, ***more than one half of ED cases go undetected in primary care settings*** (Becker et al., 1999; Johnston et al. 2007). Research has identified a number of common barriers to effective screening in the PCP setting. These barriers include individual, practitioner, and systemic factors. The next section describes three common barriers to effective screening, and identifies solutions to overcoming them.

Barrier #1: Prejudicial views

Research has shown that while there are certainly PCPs providing excellent ED care, prejudicial views towards EDs among PCPs are common (Currin, Waller and Schmidt, 2009; Roehrig & McLean, 2010; Vandereycken, 1993). Prejudicial views may stem from a lack of skill and knowledge, overly pessimistic beliefs about prognosis, and lack of resources and treatment options (Currin, Waller & Schmidt, 2009; Reid et al., 2010; Roehrig & McLean, 2010; Vandereycken, 1993). Ways of overcoming prejudicial views are provided below:

Overcoming Prejudicial Views of Eating Disorders

PCP awareness that:

- An open nonjudgmental stance encourages open communication whereas prejudicial attitudes discourage patient disclosure
- Expertise in eating disorders is not a prerequisite to effective screening and early intervention
- Principles of good care are basic and are contained within this document
- Younger age at detection predicts positive outcome for AN and BN (van Son et al., 2010)
- In a large PCP cohort, the majority of patients diagnosed with AN and BN were fully recovered after a mean of 4.8 years (van Son et al. 2010)

Barrier #2: Time constraints

Large caseloads, brief appointments and a lack of clinical or administrative support create barriers to effective screening in busy PCP practices. The *SCOFF* is a rapid and effective screening tool for eating disorders that is appropriate for a PCP setting.

Overcoming Time Constraints in Primary Care

PCPs can use the *SCOFF*:

- Do you make yourself **S**ick (induce vomiting) because you feel uncomfortably full?
- Do you worry that you have lost **C**ontrol over how much you eat?
- Have you recently lost more than **O**ne stone (14 lb {6.4 kg}) in a three-month period?
- Do you think you are too **F**at, even though others say you are too thin?
- Would you say that **F**ood dominates your life?

A positive response to any *SCOFF* question warrants further evaluation. Although this questionnaire has only been validated in adults, it provides a useful framework for screening with children and adolescents (Rosen, 2010).

Barrier #3: Secretive nature of EDs

It is common for individuals with eating disorders to conceal symptoms, which may contribute to low detection rates. Many individuals are unlikely to consult treatment for their eating disorder, as they fear that they will be judged, misunderstood or expected to make changes. However, they may present in a PCP setting with nonspecific complaints (Mehler et al., 2010). Information that can help PCPs overcome barriers to disclosure is provided below:

Overcoming Barriers to Disclosure

Be aware of risk factors:

- Early puberty
- Poor or abnormal growth curves in children and adolescents
- Activities and occupations that emphasize body, shape, and weight (e.g. ballet, gymnastics, modeling)
- Low or high body mass index, or weight fluctuations
- Type 1 diabetes
- Amenorrhea (primary or secondary)
- Family history of ED
- Weight concerns among normal weight individuals

Be aware of nonspecific eating disorder symptoms:

- Abdominal pain, bloating and constipation
- Exertional fatigue, palpitations, dizziness or fainting
- Tiredness and chronic fatigue
- Pain sitting or lying down
- Edema in hands or feet
- Depression
- Cold intolerance
- Fertility problems
- Hair loss, nail and skin changes

Children and adolescents

Although many risk factors outlined in the “General” heading are relevant across the age spectrum, eating disorders can present differently with children and adolescents. Evidence specific to early identification in children and adolescents is outlined as follows:

- Patients under 13 years of age are less likely to endorse more typical ED behaviours (e.g., have binge/purge episodes, concerns with weight and shape) and are equally likely to be male or female.
- For children and adolescents, childhood obesity is a risk factor for developing an ED; therefore, paediatricians should be careful to avoid seemingly harmless statements that may contribute to disordered eating.
- Serious nutritional problems at higher % BMI can occur in youth who are losing weight rapidly or those with bulimic symptoms including extreme over-exercise.
- Often family members, friends or school personnel contact PCPs when they have noticed that a child or adolescent has made significant food, eating and weight related changes.

- Adolescents who are referred by school counsellors for weight or eating concerns are at a significantly higher risk of a subsequent AN diagnosis (Lask et al., 2005; Rosen, 2010).
- Common parental concerns about youth include: closeted eating, hiding food, changes in eating patterns (e.g. cutting food into small pieces, moving food around on the plate), skipping meals, patterns or rituals around food preparation, and avoidance of particular food groups. Also common are a continual denial of hunger, frequent trips to the bathroom and evidence of vomit. Mood fluctuations and changes in sleep patterns and activity levels are also associated with abnormal eating attitudes and behaviours in youth (Katzman et al. 2010; NICE, 2004).

There are several chronic medical conditions that may be associated with eating disorders in children and adolescents. These include:

- Diabetes (insulin dependent)
- Inflammatory bowel disease (Crohn's disease and ulcerative colitis)
- Cystic fibrosis
- Celiac disease
- Illnesses requiring long-term use of steroids

THERAPEUTIC ALLIANCE IN PRIMARY CARE

General

Given that individuals seeking help for an eating disorder often do so at the insistence of others, the stance of the PCP is critical to establishing a working therapeutic alliance. Traditional health education approaches that place practitioners in the role of “expert advisor” may contribute to resistance to treatment recommendations. Motivational Interviewing (MI), described in Parts 1 and 3, is a therapeutic approach designed to engage ambivalent patients and enhance their readiness for change. This approach has been shown to outperform traditional advice-giving in the treatment of a broad range of problems and diseases (Emmons & Rollnick, 2001). Of relevance to the PCP setting, brief interventions (e.g., 15-minute encounters) have been shown to be effective at promoting change (Rubak et al., 2005). The open, curious, and nonjudgmental stance used in MI can assist PCPs in fostering honest communication about eating related concerns (Martin et al. 2000; Andersen, 2007).

Brief methods are useful to jump-start motivational processes, with repeated contact fostering and supporting behavioural change.

(Emmons & Rollnick, 2001, p. 71)

PCPs can create a safe environment and help patients explore ambivalence about change by using curiosity, reflective listening and providing objective feedback. This stance may be particularly helpful in providing patients with test results of objective physical parameters in order to enhance motivation for change. The MI approach is conducive to fostering long-term relationships between providers and patients (Rubak et al., 2005; Emmons & Rollnick, 2001). It should be noted that repeated contact is often necessary to convey acceptance of patients and to support a trusting relationship.

Examples of PCP Communication Using an MI Approach

Establishing rapport:

- Open-ended questions such as, “How have things been going with your eating?” or “Do you have concerns about your eating?” or “What is most important to you about your eating and health?”

Assessing Readiness:

- “How do you feel about making changes to your eating?” or “How do you feel about making changes to improve your physical health?”

Provide Feedback:

- “What is your reaction to these test results?” or “Would more information be helpful?”

Offer further support targeted to level of readiness for change:

- For clients who are not “ready” to make change: “What would it take for you to consider thinking about change?”
- For clients who are unsure about change: “What are the things you like and don’t like about your eating disorder?”
- For clients who are ready to make change: “What would you like to work on changing?”

(Emmons & Rollnick, 2001)

Children and adolescents

While adolescents rarely seek help willingly and are likely to deny their symptoms (Katzman et al. 2010; Rosen, 2010), paediatric healthcare research has shown that the nature of interactions between parents and paediatricians has an important therapeutic impact on children’s mental health outcomes (Erickson et al., 2005; Wissow et al. 2010). Research has shown that the strength of the therapeutic alliance with both adolescents and parents is linked to therapeutic outcomes (Pereira, Lock & Oggins, 2006).

“The initial experience of young people in relation to managing their eating disorder impacts their engagement with services, and consequently the course of their illness.”

(Nicholls et al., 2011, p. 7–8)

It is also important to note that engagement levels in youth are considered integral to risk assessment and treatment decisions (Nicholls et al., 2011). That is, in addition to medical acuity, low engagement places adolescent patients at greater risk (Rosen, 2010).

PHYSICAL ASSESSMENT IN PRIMARY CARE

General

For patients referred for a suspected eating disorder, an initial focused physical examination is recommended. This section describes how to assess medical acuity, including an assessment of malnutrition. Other conditions, namely pregnancy and diabetes, which contribute to medical acuity are also described. It is important for PCPs to recognize that satisfactory exam and laboratory results do not rule out medical concerns. As noted earlier, PCPs should also be aware that individuals with EDs often minimize or conceal physical symptoms (Power & Santana, 2002).

Focused physical examination

When screening raises suspicion of an eating disorder, a physical examination is necessary to establish the diagnosis and determine the patients' medical and nutritional status. The components of a focused physical exam are described below.

Focused Physical Examination

Vital signs

- Establish baseline set of vital signs (low pulse and temperature may indicate poor nutrition, pulse in AN reported to be bradycardic < 60 beats per minute in most patients and majority may have hypotension with pressures 90/60)
- Heart rate and rhythm (should be taken lying and then standing)
- Establish baseline set of orthostatic pulse and blood pressure (decrease of 10 to 30 mm Hg systolic blood pressure or 10mm Hg diastolic blood pressure with rise in pulse of 20 beats per minutes indicates orthostatic hypotension)
- Hydration
- Sit Up-Squat-Stand Test to test muscle weakness

Skin Exam

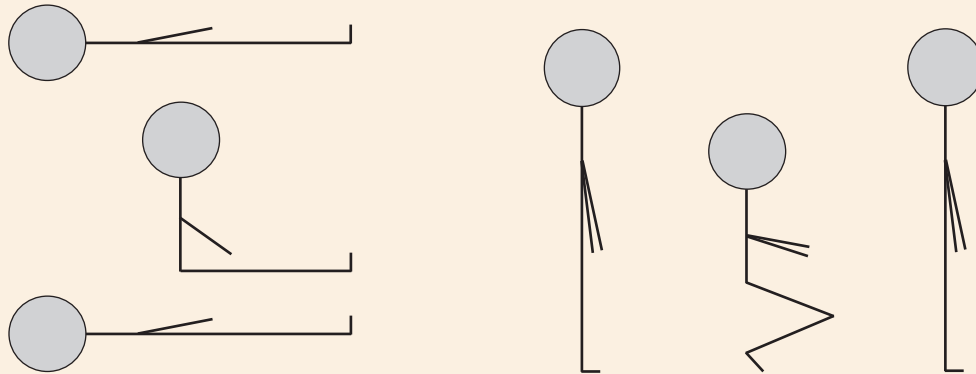
- Examine cutaneous changes associated with starvation (brittle hair, brittle fingernails, dry skin with scaling, loss of subcutaneous fat, pretibial edema without hypoproteinemia, and the appearance of lanugo hair)
- Skin appearance (examine skin turgor and mucous membranes); pallor, acrocyanosis, carotenaemia
- Russell sign (callous in knuckles from self-induced emesis)

Head and neck

- Enlargement of parotid or submandibular salivary glands is a common finding in BN
- Dental erosion due to frequent vomiting

(Keel, P.K. & McCormick, L., 2010)

Sit Up – Squat – Stand Test (to detect muscle weakness)



1) Sit-up: patient lies down flat on the floor and sits up without, if possible, using their hands.

2) Squat – Stand: patient squats down and rises without, if possible, using their hands.

Scoring (for Sit-up and Squat–Stand tests separately)

0: Unable

1: Able only using hands to help

2: Able with noticeable difficulty

3: Able with no difficulty

Medical acuity: The following laboratory values are recommended to determine medical acuity:

- ECG: abnormalities include bradycardia, non-specific ST-T wave changes including ST segment depression, U waves in the presence of hypokalemia and hypomagnesemia
- Blood chemistry
 - Complete blood count with differential
 - Serum electrolytes
 - Glucose
 - Calcium
 - Magnesium
 - Phosphate
 - Thyroid function tests (T3, T4, and TSH)
 - Liver function tests (AST, ALT, bilirubin)
 - Albumin, transferrin
 - Blood urea nitrogen
 - Creatinine

- Urinalysis

• **Medical acuity:** Additional assessments for patients who have been underweight for more than 6 months that contribute to medical acuity include:

- Bone densitometry to assess for osteopenia and osteoporosis
- Abdominal ultrasound to assess maturity of ovaries and uterus
- FSH, LH, and estradiol levels in females, testosterone level in males
- Testosterone levels in males

Differential diagnosis: In the medical assessment PCPs must rule out a number of possible conditions before developing a course of treatment. It is important to note that eating disorders can co-occur with some of these conditions. As such, detecting one or more of these conditions does not exclude the presence of an ED.

“While doing a physical examination or tests, the PCP should observe carefully the patient’s reaction and attitudes to look for psychological signs of the ED: Some may dramatize the complaint to use it as an excuse for poor eating or losing weight; others react in an indifferent way as a general attitude of denial or minimization of their health status.”

Personal communication: Vandereycken, August 8, 2011

Endocrine disorders to rule out include: diabetes mellitus, hyperthyroidism, hypopituitarism, Addison’s disease, glucocorticoid insufficiency. Gastrointestinal disorders to rule out include: coeliac disease, inflammatory bowel disease, malabsorption, and peptic ulcer. Oncological disorders to rule out include: lymphoma, leukaemia, and central nervous system tumour. Psychiatric disorders to rule out include: depression, autism spectrum disorder, and obsessive-compulsive disorder. Also note infectious diseases including viral infections and tuberculosis (Nicholls et al., 2011).

Pregnancy: Women with amenorrhoea are often not aware that they may continue to ovulate. Women who become pregnant may be reluctant to disclose eating disorder related symptoms (Kouba et al., 2005). Pregnancy puts women with eating disorders in a particularly vulnerable position and therefore increases medical considerations (Birmingham & Treasure, 2010). For women with a history of weight and dietary restriction, bodily changes associated with pregnancy may prompt an increase in ED behaviours. For this reason, it is essential that PCPs utilize early detection screening tools with pregnant women if there is any suspicion of an eating disorder.

- **Medical acuity:** Further investigation is warranted for pregnant women with hyperemesis and those with an ED history who have not gained sufficient weight in two consecutive visits in the second trimester.

Although little is known about the effects of eating disorders on pregnancy, a number of potentially negative consequences can occur. The most common is inadequate or excessive weight gain, miscarriage and hyperemesis. Frequently reported birth complications include preterm delivery, low birth weight, cesarean delivery, and low Apgar score. A high rate of post partum depression is also

common in individuals with eating disorders.

Steps for PCPs if pregnancy is confirmed:

- Conduct a thorough history and physical examination including laboratory tests.
- Reassess all medications and terminate any that may put the fetus at risk.
- Assess the patient's level of depression and suicide risk.
- Refer to an obstetrician as a high-risk pregnancy.
- Refer to an ED specialist and a dietician.
- If a hospital admission is indicated, referral to a prenatal unit rather than an ED unit is recommended. Specialist ED service is best delivered under the stabilizing influence of the prenatal unit.

Diabetes: Patients with comorbid eating disorders and type 1 diabetes mellitus suffer far more complications and a reduced life span. This is in part due to glycaemic instability but also in many cases to the omission or reduction of insulin doses as a means of weight control. It is recommended that patients be referred to an outpatient diabetic specialist rather than to a diabetic clinic. If insulin dose manipulation is occurring, it is recommended that the patient be admitted to an inpatient ED unit to support the goal of eating, regular activity and insulin usage.

Body Mass Index: Consistent weight measurement is recommended. Weight should be taken in private, with a hospital gown, after the bladder is emptied. Patients may attempt to conceal weight by ingesting large volumes of fluid, wearing oversized clothing and heavy jewellery, adding weight to the body and consuming salt days before an appointment. The Body Mass Index (BMI; weight in kilograms divided by height in meters squared) should be calculated for all individuals with eating disorders. Adults with a BMI < 18.5 are considered underweight.

- **Medical Acuity:** The table below specifies level of acuity according to BMI. Note that these are only approximate estimates, as many factors determine the relevance of BMI for a given patient including abnormal muscularity, body frame, constipation, fluid loading, and ethnicity (Lask & Frampton, 2009).

Body Mass Index Table (Adults)

- BMI: weight (kg/m²)
 - anorexia < 17.5
 - medium risk 13–15
 - high risk < 13

Children and adolescents

Studies have shown that more than half of children and adolescents with eating disorders may not fully meet the DSM-IV criteria for AN and BN, while experiencing the same medical and psychological consequences of these disorders (Kaplan et al., 2003). Patients who meet the criteria for EDNOS should be given the same careful attention and monitoring as those who meet criteria for full AN and BN. Patients who have lost weight rapidly but do not meet the weight diagnostic criterion of 15% below expected body weight may be more physically and psychologically compromised than those at lower weights.

In growing children and adolescents, failure to make appropriate gains in weight and height, and not weight loss, indicate severe malnutrition. The first indication of an ED may be alterations in a child's growth chart. Due to normal developmental changes in weight, height and BMI in children and adolescents, the use of simple weight or BMI is not recommended in the assessment of malnutrition. ***The most accurate way to determine whether a child is at risk is to use a growth chart with previous weight and height data for that child*** (Lask & Frampton, 2009). Weight and height can be used to track changes once baseline data is established. Any comparison of a child against population norms must take into account height, sex and age. The WHO Growth Charts for Canada provided below allow this to be done for girls and boys, respectively (Junior MARSIPAN, 2011).

The assessment of a number of parameters together with the degree of underweight is recommended rather than anthropometry alone. A number of studies have shown that each of the following predicts high risk of mortality: low mid-upper arm circumference (MUAC, <115 mm) and/or weight for height (<70%) or weight for height Z score (<-3). Bilateral nutritional oedema improves predictability. In addition, a sexual maturity rating (breast development and pubic hair for girls and genital development and pubic hair for boys) should also be used to monitor physical changes and pubertal development (Katzman et al., 2010). Finally, the use of pelvic ultrasounds can also be used as a health indicator.

The following physical observations are associated with the presence of an eating disorder in children and adolescents:

- Sinus bradycardia; other cardiac arrhythmias
- Orthostatic changes in pulse (>20 bpm) or blood pressure (>10 mm Hg)
- Hypothermia (temp < 36°C)
- Delayed or interrupted pubertal development
- Cold extremities; acrocyanosis; poor perfusion
- Edema of the extremities
- Dull, thinning scalp hair
- Carotenemia (orange discoloration of the skin, particularly palms and soles)
- Cachexia; facial wasting

WHO GROWTH CHARTS FOR CANADA

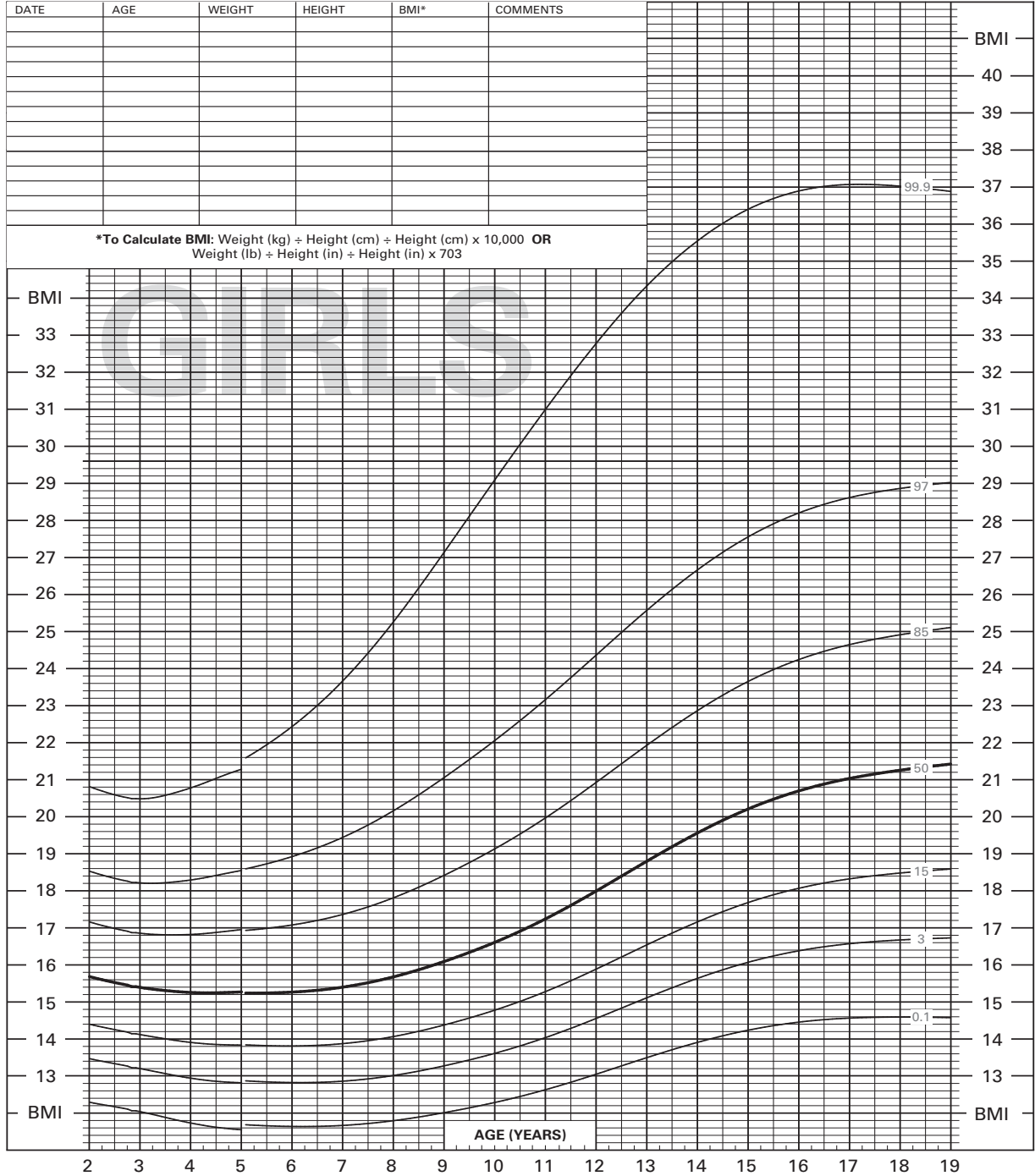
GIRLS

2 TO 19 YEARS: GIRLS

Body mass index-for-age percentiles

NAME: _____

DOB: _____ RECORD # _____



SOURCE: Based on the World Health Organization (WHO) Child Growth Standards (2006) and WHO Reference (2007) adapted for Canada by Dietitians of Canada, Canadian Paediatric Society, the College of Family Physicians of Canada and Community Health Nurses of Canada.
 © Dietitians of Canada. 2010. May be reproduced in its entirety (i.e. no changes) for educational purposes only.
www.dietitians.ca/growthcharts

WHO GROWTH CHARTS FOR CANADA

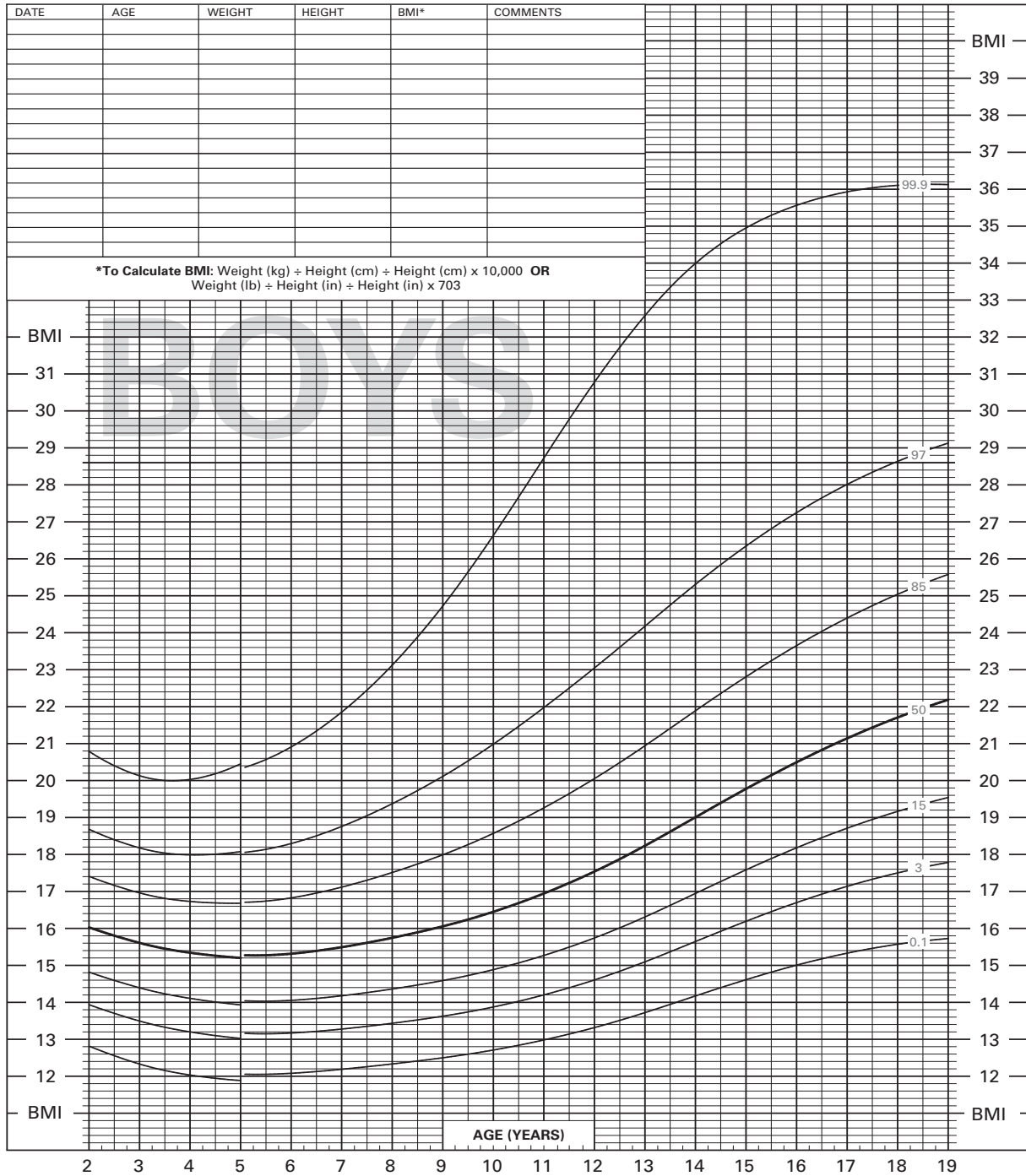
BOYS

2 TO 19 YEARS: BOYS

Body mass index-for-age percentiles

NAME: _____

DOB: _____ RECORD # _____



SOURCE: Based on the World Health Organization (WHO) Child Growth Standards (2006) and WHO Reference (2007) adapted for Canada by Dietitians of Canada, Canadian Paediatric Society, the College of Family Physicians of Canada and Community Health Nurses of Canada.
 © Dietitians of Canada. 2010. May be reproduced in its entirety (i.e. no changes) for educational purposes only.
 www.dietitians.ca/growthcharts

- Cardiac murmur (one-third with mitral valve prolapse)
- Sialoadenitis (parotitis most frequently reported)
- Angular stomatitis; palatal scratches; oral ulcerations; dental enamel erosions
- Dry, sallow skin; lanugo
- Bruising/abrasions over the spine related to excessive exercise
- Atrophic breasts
- Russell sign (callous on knuckles from self-induced emesis)

(Rosen, 2010)

MEDICAL MONITORING

General

Once an initial physical examination has been completed, treatment decisions should follow. Patients who are at minimal risk can be followed by PCPs through frequent medical monitoring in regularly scheduled appointments. PCPs who are comfortable with treating patients at moderate risk are encouraged to do so, as the security of a long-term relationship can be beneficial. Regular visits are necessary to monitor progress and detect physical and psychiatric deterioration. The PCP is in an ideal position to monitor weight, nutritional intake, and physical symptoms when additional care is unavailable or patients are unwilling to see other care providers. In collaboration with the patient or family (in the case of youth), the PCP can determine the frequency of appointments and establish a treatment plan. The PCP should also specify the minimum physical parameters necessary to maintain outpatient treatment. This increases the likelihood of patient and family cooperation if urgent intervention is required for medical stabilization.

Setting target weights

Although it is a common practice, there is controversy over the merit of setting a target weight with ED patients. Some of the troublesome points about setting targets include:

- Weight is difficult to measure accurately, is easy to manipulate, and does not account for level of physical activity
- There is a wide variation of normal weight within the population (consider family and patient weight history)
- Setting a static target weight for adolescents fails to consider patient growth and development or amount of muscle mass
- There is no correlation between target weight and other health indicators such as reproductive maturity
- For some patients, a target weight can promote an over-focus on numbers

(Lask & Frampton, 2009)

For each patient, it is helpful to set a health goal that includes a variety of health indicators, including a weight range at which optimal health is likely to occur. In supporting underweight individuals to gain weight, the rate of gain should be gradual, determined in collaboration with patients and in response to their level of readiness, using tools described earlier in this section.

Monitoring interventions

In regularly scheduled appointments, patients' weight is recorded and BMI recalculated. Blood pressure and heart rate are assessed lying down and sitting down to look for bradycardia and arrhythmia. Blood tests are taken to monitor urea, creatinine kinase, electrolytes, magnesium, glucose and phosphate. Occasionally, white cell count and platelet counts need monitoring. Multivitamins with iron and vitamin D may be suggested for patients with EDs. Some evidence suggests that zinc supplementation at 50 mg daily facilitates weight gain and improves affective symptoms. If the patient complains of abdominal bloating, metoclopramide may be helpful. However, it is associated with significant side effects for young people and is not recommended in this group. Domperidone could be useful. As acne may develop with weight gain in AN, it may be helpful to explain to adolescents that their bodies will go through puberty again with weight gain, as weight loss causes hormonal prepubertal changes (Birmingham & Treasure, 2010). Treatment of acne is also recommended.

When hospitalization is needed

In order to ensure patient safety and minimize confusion, it is recommended that the PCP establish and document transparent, clear non-negotiable physical and nutritional indicators for hospitalization (Geller & Srikameswaran, 2006; Mehler, 2001). In this way, as the patient's physical status approaches established indicators, the PCP and patient can openly discuss potential treatment options. The threat of admission to hospital can be motivating for some patients to make specific nutritional or behavioural changes. For those who are unable to make such changes, the PCP can help the patient prepare by discussing the admission process, nutritional and weight expectations, methods of re-feeding, and estimated length of stay. Ideally, this is done in collaboration with the admitting team. Patients' needs will vary according to age, type of eating disorder, marital, family and employment status. Risk assessments according to organ systems are provided in Part 8. General physical indicators for a short stay medical admission are listed below.

Physical Indicators for Inpatient Hospitalization

- Suicide risk
- Core temperature < 35.5°C or 95.5°F
- Heart rate < 40 beats per minute or severe bradycardia
- Blood pressure < 90/60 mm Hg or orthostatic hypotension (with an increase in pulse of >20 bpm or a drop in blood pressure of >10–20 mmHg/minute from lying to standing)
- Arrhythmia as seen on ECG
- Sodium < 127 mmol/l
- Potassium < 2.3 mmol/l
- Hypoglycaemia; blood glucose < 2.5 mmol/l
- Hypophosphataemia; phosphorous below normal on fasting
- Magnesium < 0.6 mmol/l (normal above 0.7 mmol/l)
- Rapid and progressive weight loss
- Dehydration that does not reverse within 48 hrs
- Poorly controlled diabetes
- Muscular weakness or diaphragmatic wasting not accounted for by a correctable deficiency
- Severe acrocyanosis
- Pregnancy with an at risk foetus (infant birthrate is lower in mothers with AN; the miscarriage rate for women with BN is higher than for healthy women)
- Signs of inadequate cerebral perfusion (confusion, syncope, loss or decreased level of consciousness, organic brain syndrome, ophthalmoplegia, seizure, Signs of inadequate cerebral perfusion (confusion, syncope, loss or decreased level of consciousness, ophthalmoplegia, seizure, tetany, ataxia)

(Birmingham & Treasure, 2010)

Children and adolescents

Treatment objectives with children and adolescents must address the completion of physical and psychological puberty and growth (Gowers & Bryant-Waugh, 2004). For patients who do not progress in outpatient treatment, a short stay medical admission is recommended. Research shows that children and adolescents have the best prognosis if their disease is treated rapidly and aggressively.

The following are indicators for inpatient hospitalization for youth:

- < 75% of ideal body weight or ongoing weight loss
- Body fat < 10%
- Heart rate < 50 bpm daytime; < 45 bpm night time
- Orthostatic changes of > 20 bpm increase in heart rate or >10–20 mmHg drop in blood pressure
- Systolic blood pressure < 90 mmHg
- Temperature < 35.6°C or 96.0°F
- Potassium <3 mEq/l or 3.2 mmol/l
- Serum chloride concentration < 88 mmol/L
- Dehydration
- Cardiac arrhythmias including prolonged QTc
- Intractable vomiting
- Esophageal tears
- Hematemesis
- Suicide risk
- Poorly controlled diabetes
- Syncope
- Failure to respond to outpatient treatment

(Rosen & The Committee on Adolescence, 2010)

CONSULTATION AND TREATMENT CONTRACTS

General

When eating disorder patients present with complex problems, multiple comorbidities, or medical and/or psychiatric instability, it is optimal for treatment to involve a multidisciplinary team that includes the PCP, a psychiatrist or mental health clinician, family therapist and a nutritionist.

The PCP can provide a valuable communication link to other team members while providing medical management and setting the parameters for an inpatient medical admission.

A written contract specifying physical and nutritional parameters (e.g. non-negotiables), developed early in treatment in collaboration with the patient and treatment team is preferable. The characteristics of sound non-negotiables include: ample advance warning, a rationale that is clearly explained to the patient, consistent implementation among all team members and maximizing patient autonomy. A shared understanding of non-negotiables among team members is essential to maintaining therapeutic alliance. A comprehensive and thoughtful intervention plan for mandatory treatment puts the team in a better position to maintain a balance between non-negotiables and therapeutic alliance. Non-negotiables are described more fully in Part 1. In family approaches for children and adolescents, it is recommended that parents take an active role in setting and implementing non-negotiables (see Part 5).




ETHICAL ISSUES

Severe malnutrition can interfere with patients' competence to make decisions about their health. In some cases treatment refusal may have life threatening consequences and it may be necessary to address ethical, legal, and clinical issues. In such cases, use of an ethical decision making framework is recommended (Goldner, Birmingham & Smye, 1997; Manley, Smye & Srikameswaran, 2001). In working with individuals with chronic eating disorders, there may be instance where treatment decision-making raises conflicting values and perspectives. For instance, values of patient autonomy and the right to refuse treatment come in conflict with care provider nonmaleficence and the intent to avoid harm to the patient. These issues are especially salient in determining when hospitalization is required. In such cases, an ethical decision making framework can be extremely helpful to consider medical risk in the context of legal and ethical issues (Goldner, Birmingham & Smye, 1997). Such frameworks advise bringing together the patient, designated friends or family members, and all care providers to conduct a review of the patient's history, previous treatment approaches, and assessment of what has previously worked and not worked. Future options regarding decision making can then be considered in the context of ethical and legal principles.

SELF-HELP

Finally, the PCP can refer individuals and families to a range of self-help materials. These include written materials, audio and digital videos, computer based materials and self-help groups. A systematic review of randomized controlled trials of guided self-help interventions for BN and EDNOS concluded that self-help approaches can be effective in the treatment of eating disorders and superior to placebo and wait lists in reducing symptomatology (Palmer et al. 2002; Perkins, Murphy, Schmidt & Williams, 2006). PCPs can play a valuable role by monitoring patients' use of self-help materials. A non-exhaustive list of materials is provided in the Appendix.

PART 5: LOW INTENSITY OUTPATIENT TREATMENT – ENGAGEMENT OR RECOVERY FOCUS (STATED SECTION A)

	A) Outpatient: Focus on Engagement and Recovery	B) Intensive Treatment: Focus on Recovery	C) Outpatient and Inpatient: Focus on Quality of Life	D) Inpatient: Focus on Medical Stabilization
 Medical Acuity	LOW to MODERATE	LOW to HIGH	MODERATE to HIGH	HIGH
 Interference / Symptom Severity	LOW to MODERATE	MODERATE to HIGH	MODERATE to HIGH	MODERATE to HIGH
 Engagement / Readiness	Treatment tailored to readiness	Adults: MODERATE (minimum) Child and Youth: N/A	LOW	Treatment is tailored to readiness

RATIONALE FOR THIS LEVEL OF CARE

Low intensity outpatient treatment is recommended for most individuals with eating disorders. This level of care has the strongest evidence-base and is the most cost effective form of specialized treatment across the developmental spectrum (Byford et al., 2007; Gowers et al., 2010). Outpatient treatment enables patients and their families to learn and practice new skills while maintaining independence with life activities. Thus, patients can integrate therapeutic gains while receiving specialized care (Schaffner & Buchanan, 2008; Gowers & Bryant-Waugh, 2004).

Low intensity outpatient treatment is recommended as a first-line treatment for newly diagnosed patients and for those who are stepping down from more intensive levels of care (Fairburn, 2005; Palmer, 2006; Wilson et al., 2007). It can vary in intensity, ranging from single to multiple visits per week for individual therapy sessions and medical monitoring provided by a primary care physician (PCP), to a range of treatments provided by an interdisciplinary team of professionals working in community or hospital-based programs. Many forms of this treatment can be delivered in individual, family and group formats. As noted in the *STATED*, the ***primary focus of low intensity outpatient treatment is on engagement and recovery.***

PATIENT PROFILE

Patients suited to low intensity outpatient treatment are ***medically stable*** and present with ***low to moderate medical and psychiatric symptoms.*** Although their eating disorder and comorbid psychiatric symptoms have an impact on their day-to-day lives, they are nevertheless able to maintain some level of functioning in one or more life domains. That is, their symptoms do not preclude them from attending school or work, maintaining one or more friendships or relationships, or participating in personally meaningful activities.

Low intensity outpatient care is suitable for patients at ***all levels of engagement and readiness for change.*** However, patient readiness status impacts the type and delivery of treatment that is offered.

For instance, in treating children and adolescents with AN, the initial focus of treatment is on engaging parents to support their child to eat, independent of child readiness status. In the case of adolescents there is greater emphasis on engaging both the youth and parents.

The impact of malnutrition at an early age is serious and may lead to permanent damage if left unaddressed. Thus, it is critical to engage parents and respond to medical stabilization issues in outpatient treatment as early as possible.

Conversely, underweight adults who are medically stable yet do not wish to make dietary changes or increase their weight are unlikely to engage in and benefit from action-oriented outpatient treatment requiring immediate behavioural change. However, such individuals may benefit from sessions using a motivational or educational approach to address higher values, the function of the eating disorder and an exploration of alternative ways of coping. They may also be more suited for quality of life focused treatment (Part 7). Finally, adults with BN who are willing to make changes to their eating are likely to benefit immediately from action-oriented treatments, such as cognitive behaviour therapy. Low intensity outpatient treatment thus takes many forms, and is tailored to patients' illness acuity, developmental and readiness status.

Questions to Consider in Planning Low Intensity Treatment

General

- What is the patient's medical status? Can this patient be followed by the PCP? What frequency of contact and level of communication is needed?
- What treatment non-negotiables are required to ensure the patient's safety? Can the patient adhere consistently to the treatment non-negotiables?
- What type of eating disorder does the patient have? Are there medical or psychiatric comorbidities?
- What functions do eating disorder symptoms serve?

Adults

- How ready is this patient to engage in treatment? If the patient is underweight, how ready are they to make dietary changes to gain weight?
- How does this patient respond to a one-week nutritional goal?
- Is dietary consultation needed for education and guidance regarding setting up a healthy meal plan and exploring nutritional goals?
- Could this patient benefit from self-help?

Children & Adolescents

- Are parents willing and able to take an active role in treatment? What supports do parents need in order to participate in therapy?
- Would parents benefit from a consultation with a dietician?
- Could parents and youth benefit from self-help/education?

When to refer to a different level of care

While many patients with eating disorders will benefit from low intensity outpatient treatment, a minority, usually those with a moderate to high level of interference due to eating disorder and/or psychiatric symptoms may not improve with low intensity treatment options. These individuals may require more intensive interventions such as residential, day treatment, and/or inpatient hospital admission. These treatment options are described in Parts 6, 7 and 8.

Evidence for this level of care

- In the treatment of adults with AN, no psychological treatment (including CBT, IPT, cognitive analytic therapy, focal psychodynamic therapy, family therapy) has been shown to be superior to any other.
- There is no research that has demonstrated advantage of inpatient care over outpatient psychological treatments for patients who are not severely ill (Crisp, 1991).
- Outpatient treatment of AN is characterized by high rates of dropout (Dare et al., 2001; Halmi et al., 2005; McIntosh et al., 2005).
- Weight restoration and menses are not always associated with long-term improvements on psychological outcome variables for adolescents, suggesting further research is needed to understand how to maintain psychological gains (Robin et al., 1999).

DETERMINING TYPE OF OUTPATIENT TREATMENT

Several factors need to be considered in determining what form of low intensity outpatient treatment to offer: patient developmental status, patient or parent level of engagement, and patient or family preferences regarding the acceptability of the proposed treatment. Regarding treatment acceptability, in adult patients some degree of openness is necessary for treatment involving psychological interpretations, such as CBT or IPT. With younger patients, some parents may be willing to support their child and expect educational and nutritional guidance but may not wish to discuss personal interactional family issues in a group setting.

Although EDNOS patients comprise a significant proportion of those presenting for treatment, psychological interventions for these patients have not been extensively studied. Given that research has shown few differences between current sub-threshold variants of EDNOS and their AN or BN counterparts, clinicians are encouraged to follow the treatment guidelines for the disorder that their condition most resembles (NICE, 2004).

The evidence-based outpatient interventions described in these guidelines are divided into two sections: low engagement and/or preparatory treatments and moderate engagement treatments. These are described in the table below. New therapies, which have limited evidence but promising preliminary results, are also provided at the end of this section.

DESCRIPTION AND GUIDELINES: ENGAGEMENT AND PREPARATION FOCUS

In this section, motivational therapies and patient and family education groups are reviewed. These treatments are client-centered and increase understanding of factors contributing to the illness while providing tools for addressing challenges and barriers to recovery. They are informative and exploratory in nature and do not place high demands or pressure on patients. As a result, they are helpful for patients and families who have *low levels of engagement and readiness to change*. They are also helpful as preparatory treatments for all patients and certain components (i.e., motivational interviewing stance) can be used throughout treatment.

Motivational interventions

Description: Motivational Enhancement Therapy (MET) has its origins in the substance use field and was designed to address denial, ambivalence and resistance to change. Motivational approaches combine elements of style (e.g., warmth and empathy) and technique (e.g., key questions, reflective listening) to explore the function of problem behaviours and help patients clarify their wishes regarding change. The delivery of treatment is a central feature of motivational approaches.

In a motivational framework patients can cycle through different stages of change and clinicians need to monitor and adjust interventions accordingly. The care provider demonstrates acceptance about patients' ambivalence and helps them to consider the costs and benefits of life with and without an eating disorder in the context of their higher values and aspirations. Motivational interventions are usually delivered individually but they can also be offered in group format for eating disorder patients (e.g., Dunn et al., in press; Fursland et al., in press; Tantillo et al., 2001). A number of therapeutic exercises can be used to address the role of ambivalence in the change process, including writing letters to the ED as a friend and as a foe and generating a list of pros and cons of the ED (Dunn et al., 2012). MI techniques include rolling with resistance, expressing empathy, developing discrepancy, and supporting self-efficacy (Dunn et al., 2012). They are described in detail in the box below:

Principles of Motivational Interviewing

- 1) **Roll with resistance:** Avoid directly arguing, refuting, or contradicting the patient’s point of view. Respond non-defensively, express empathy, and emphasize personal choice. In MI, “resistance” or relationship problems are believed to occur when practitioners are in a different place (and think their patients should be in a different place) than where they actually are.
- 2) **Reframe resistance as a relationship problem,** as a healthy way to protect one’s sense of self, as feedback about a patient’s interpersonal style and motivation to change, and/or an invitation to try a new clinical approach. It may also help to reframe “rebelliousness” as *independent and strong-minded*, “rationalizing” or “over-intellectualizing” as *thinkers, planners, or curious* people, and “resigned” as *hopeless and demoralized, yet persistent*.
- 3) **Express empathy:** Empathy involves willingness and ability to understand and accept where patients are at regarding readiness, and expressing this to the patient. Empathy strengthens the therapeutic bond, promotes trust, and can be healing in its own right. Moreover, empathy can diffuse resistance and help guide the patient through resolving his/her ambivalence.
- 4) **Develop discrepancy:** This refers to helping patients experience and verbalize the discrepancy between their current state and their ideal state. It also involves encouraging patients to talk about the importance of changing and their confidence in their ability to make changes, if they decided to do so.
- 5) **Support self-efficacy:** This refers to strategies for enhancing confidence, and often includes asking patients about their previous successes with changing the target behaviour or other behaviours, as well as inquiring about personal qualities that may help them to make changes and reinforcing their small steps towards change.

The following table describes the stages of change and provides strategies that therapists can use to enhance motivation at each stage. As noted earlier, although MET is offered as a stand-alone therapy, the motivational stance is recommended throughout eating disorders treatment.

Motivational Tasks Associated with Patient Stages of Change

Patient Stage	Description	Motivational Task
Precontemplation	Not considering the possibility of change	Raise doubt. Help patient understand the benefits of the unhealthy behaviour, while at the same time highlighting the costs
Contemplation	Seriously thinking about change, but not ready to take action. The individual considers change and rejects it	Tip the balance in favor of change: Strengthen patient self-efficacy to change by drawing upon past successes
Preparation	Getting ready to change	Help the patient identify small, realistic behavioural steps towards change
Action	Actively engaged in a new healthier behaviour	Support new behaviours, empathize difficulty of change behaviour
Maintenance	Maintain new behaviour for several months	Help the individual use new skills to prevent relapse
Relapse	Return to old pattern of unhealthy behaviour	Help the patient avoid discouragement and demoralization

It should be noted that change is not a static state, but rather a process. Some individuals progress from one stage to the next as indicated in the circular model below. The change process for other individuals may take a different course, as influenced by a number of factors, such as recent negative events, emotional (and motivational) lability, and being in different stages with respect to different issues (for example more ready to address laxative use but not over-exercising). As such, readiness for change must be regularly reviewed and adjustments made accordingly.

In working with children and adolescents, a critical early task of treatment is engaging parents in therapy. However, it is important to note that adolescent readiness is also associated with important clinical outcomes including engagement in therapy, weight gain and behavioural change (Geller et al., 2008; Gowers & Smyth, 2004; Gusella et al., 2003; Rieger et al., 2000). Preliminary work examining the efficacy of motivational interventions in younger populations has been promising. In one study, a brief motivational assessment interview was used with adolescent patients and their families. Care was taken to place the adolescent at the center of treatment, and the adolescent was encouraged to weigh up the advantages and disadvantages of AN using a motivational stance. This assessment interview resulted in significantly improved motivation status, which was a powerful predictor of engagement in treatment and weight gain (Gowers & Smyth, 2004). Further research is needed to improve understanding of how to enhance readiness for change in the context of the family for younger individuals (Gowers & Bryant-Waugh, 2004). Several resources describing motivational interviewing with adolescents are available (e.g., Naar-King & Suarez, 2011).

Evidence

- A recent meta-analysis of motivational interventions demonstrates that motivational interviewing works with clients of various ages ranging from adolescent to geriatric (Lundahl & Burke, 2009).
- Motivational approaches have been shown to enhance motivation and decrease problem behaviours in a number of populations, including smoking, alcohol, substance use, and medication adherence (Prochaska & DiClemente, 1983; Miller & Rollnick, 2002).
- A brief adolescent-centered interview for adolescents with AN resulted in significant improvements in motivational status, engagement in treatment, and weight gain (Gowers & Smyth, 2004).
- Preliminary research on the efficacy of adaptations of motivational approaches to adults with eating disorders has been promising (Cassin et al., 2008; Dunn et al., 2006; Feld et al., 2001; Geller, Brown & Srikameswaran, 2010; Geller & Dunn, 2010; Treasure et al., 1999).
 - For instance, a brief outpatient intervention increased readiness in highly ambivalent individuals with clinical eating disorders (Geller, Brown & Srikameswaran, 2010) and single session motivational interventions decreased binge eating in community samples (e.g., Cassin et al., 2008; Dunn et al., 2006).

Patient/Family Education

Patient and family education groups provide patients and families with information on factors that cause and maintain ED symptoms. Some education groups for family members and friends of individuals with eating disorders also address communication styles that promote good relationships and recovery.

Description: Education groups provide information and research evidence about eating disorders to patients and their loved ones. Brief educationally oriented treatments have been shown to promote insight and behavioural change in some patients while providing a positive and non-threatening first treatment experience for those who are not yet ready to engage in action-oriented treatment (Olmsted et al., 1991). Education groups are cost effective and require less training to deliver than more intensive forms of therapy.

The content of patient education groups can be tailored to the clinical setting and patient population. The most studied groups have been developed at the Toronto General Hospital and include the following key components:

Key Components of Patient Education Groups

- Multiple causes of eating disorders: a review of the predisposing, precipitating and perpetuating factors
- The cultural context of eating disorders: a discussion about cultural factors that influence women of all ages to be preoccupied with fatness and to focus on controlling weight and shape
- Set-point theory and physiological regulation of body weight: an explanation about why body weight resists change
- The effects of starvation on behaviour as described in fasting experiments: food preoccupation, binge eating, emotional and personality changes, social withdrawal, reduced sexual interest, cognitive decline, physical changes, reduced physical activity
- Restoring regular eating patterns: meal planning and self-monitoring
- Vomiting, laxatives, and diuretics in controlling weight: a discussion about the ineffectiveness of these behaviours
- Determining a healthy body weight by eliminating eating disorder behaviours and considering a 5-pound range rather than an exact weight. Personal, ethnic and family weight history should be considered.
- Physical complications: a review of medical complications as a way to enlist motivation for change
- Relapse prevention techniques: reminding patients that progress is rarely linear, that “slips” are normal, and that long term change requires an ongoing commitment, regular eating and using skills to stay on track.

(Garner, 1997)

New education groups for family and friends addressing optimal ways of engaging with loved ones who have eating disorders have recently been developed (Treasure et al., 2007). These groups increase awareness of helpful and unhelpful communication strategies and have recently been incorporated into a new comprehensive treatment model for AN (see MANTRA in New Approaches section).

Evidence

- Brief introductory education interventions are most effective for patients with less severe BN symptomatology (Wilson et al., 2000; Wilson & Fairburn, 1998).
- Group psychoeducation improves outcomes for some patients when combined with other interventions such as individual CBT (Davis et al., 1999) and drug therapy (Ricca et al., 1997)
- Education programs for carers of young adults with eating disorders that focus on increasing understanding and improving communication produce reductions in expressed emotion, distress, and depression (Grover et al., 2011).

DESCRIPTION AND GUIDELINES: RECOVERY FOCUS

Recovery-focused treatments are suited to patients and families who are interested in and ready for action oriented symptom-focused treatments. It is important to note that readiness in some cases may be in part a function of the treatment matching the patient's expectations and beliefs regarding the mechanisms of recovery. In the first part, self-help treatments are described; these flexible therapies can be used throughout treatment in both adult and child populations. The most empirically supported adult therapies include cognitive behaviour therapy (CBT) and interpersonal therapy (IPT). There is also support for dialectical behaviour therapy (DBT) and the role of nutritional counselling. The most empirically supported child and youth therapies include family based therapy for AN (FBT-AN), family based therapy for BN (FBT-BN) and multifamily therapy (MFT). There is some support for use of individual therapies, including cognitive behaviour therapy and interpersonal therapy where developmentally appropriate. Nutritional counselling with families of younger patients is also addressed.

Self-help

Description: Self-help interventions include written materials, audio and digital videos, computer based materials and self-help groups. Self-help approaches typically teach skills and use empirically supported approaches that are found in clinical settings. Self-help treatment manuals and on-line materials typically use cognitive behavioural and motivational frameworks to introduce topics related to diet, body image, self-esteem, and healthy relationships. Self-help approaches have been developed for patients across the developmental and eating disorder spectrum. Self-help materials have also been developed for loved ones of individuals with disordered eating. If combined with minimal professional guidance, we call it “guided” self-help.

Self-help interventions have been delivered in a variety of medical, clinical and community settings and are now available in manual, web-based and CD-ROM versions (Sanchez-Ortiz & Schmidt, 2010).

Evidence:

- Systematic reviews of randomized controlled trials of guided self-help interventions for BN and EDNOS conclude that self-help approaches are superior to placebo and wait lists in reducing symptomatology (Palmer et al. 2002; Perkins et al., 2006).
- Systematic reviews of manual based self-help interventions suggest that there is insufficient evidence to support one form of self-help approach over another.
- Psychopharmacology in combination with self-help has been shown to produce better outcomes than self-help alone in BN and BED (Sanchez-Ortiz & Schmidt, 2010).
- Online self-help for carers of individuals with eating disorders produced significant reductions in expressed emotion, distress, and depression in carers (Grover et al., 2011).

Adult Therapies

Cognitive Behaviour Therapy (CBT)

Description: Cognitive Behaviour Therapy for eating disorders is an intervention aimed at helping patients normalize eating by reducing dietary restraint, establishing regular, healthy eating patterns, and combating maladaptive beliefs regarding eating and weight (Agras et al., 2000; Bulik et al., 1998; Garner et al., 1993; Mitchell et al., 1993; Wilson et al., 2002). In the best known version (CBT-BN), 20 psychotherapy sessions are administered over 16 weeks (Fairburn 1981; Wilson et al., 2002). Key components of CBT include education, self-monitoring, behavioural experimentation, cognitive restructuring, addressing shape and weight issues, problem solving, and relapse prevention.

CBT-Enhanced is a new form of CBT consisting of two versions; CBT-Ef focuses exclusively on eating disorder psychopathology and CBT-Eb offers a greater number of treatment options that can be tailored to specific needs by targeting additional psychopathology (e.g., mood intolerance, perfectionism, low self-esteem, interpersonal difficulties). All forms of CBT are time limited and can be delivered individually and in groups (Cooper & Fairburn, 2010; Pike, Carter & Olmsted, 2010).

The key components of CBT-E are described as follows:

Key Components of CBT-Enhanced

- Engagement, assessment and collaborative formulation of the eating disorder
- Consideration of physical health, suicide risk, clinical depression, persistent substance abuse and events or crises that might impact ability to attend treatment in determining whether to proceed with treatment or postpone
- Self-monitoring, weekly weighing and education about weight fluctuations
- Guided reading (e.g., *Overcoming Binge Eating*, Fairburn, 1995)
- Education about regular eating
- Involvement of significant others
- Ongoing review of progress and plans to overcome identified obstacles in the context of formulation, as needed
- Addressing mechanisms maintaining the eating disorder, including:
 - overvaluation of shape and weight
 - dietary restraint
 - event or mood related changes in eating
 - under-eating and being underweight
 - broader issues such as perfectionism, low self-esteem and interpersonal difficulties
- Development of a plan to help maintain changes
- Relapse prevention

(Cooper & Fairburn, 2010)

Evidence

- There is strong empirical support for the efficacy of CBT-BN; it has been shown to be superior to wait list control or placebo and is considered the “treatment of choice” for BN and BED (NICE, 2004).
- CBT has been shown to be effective in reducing relapse and improving recovery rates following weight restoration in patients with AN (Pike et al., 2003; Carter et al., 2009).
- CBT-E has been shown as an effective treatment for individuals with BN and EDNOS: CBT-Ef and CBT-Eb resulted in long term (60-week) improvements to eating disorder symptoms relative to a wait-list control condition (Fairburn et al., 2009).
 - A recent trial of CBT-E in low weight patients (BMI between 15.5 and 17.5) found that 50% of treatment completers showed improvements on behavioural and cognitive outcome indicators. However, more than one third of patients did not engage in or complete the treatment (Fairburn, 2011).

Interpersonal Therapy (IPT)

Description: The goal of Interpersonal therapy (IPT) is to improve psychological adjustment and reduce psychopathology by targeting problematic domains of interpersonal functioning. There is strong research linking interpersonal problems and eating disorder symptoms (Jacobs, Welch & Wilfley, 2004). Thus, the use of an interpersonal focused intervention is a face-valid approach.

IPT consists of three phases. In the initial phase the problem area(s) that will be targeted for treatment are identified. Problems are categorized into one of four social domains: interpersonal deficits, interpersonal role disputes, role transitions, and grief. The second phase is dedicated to reducing the target area(s) and helping the patient link difficulties in interpersonal functioning with eating disorder symptoms. The final phase involves consolidating gains made in treatment and preparing the individual for follow-up. IPT can be offered in individual and group formats (Wilfley et al., 2000).

Problem Areas Identified in IPT

- Interpersonal deficits
Social isolation and lack of fulfilling relationships
- Role disputes
Conflicts emerging from unfulfilled relationship expectations
- Role transitions
Difficulties resulting from change in life status
- Grief
Difficulties associated with death or loss

Evidence

- In the treatment of BN, IPT is as effective as CBT-BN in producing symptom change at 8 and 12-month follow-up. However, CBT-BN produces more rapid early change than IPT (Agras et al, 2000; Fairburn et al., 1993).
- IPT is an effective alternative to CBT in the treatment of BN and BED. However, like CBT, less favourable outcomes are associated with higher comorbidity, lower self-esteem and greater interpersonal difficulties at baseline (Hilbert et al., 2007).

Dialectical Behaviour Therapy (DBT)

Description: Dialectical Behaviour Therapy (DBT; Linehan, 1993a, 1993b) is a multifaceted, skills based treatment that balances behavioural change with acceptance-based, emotion regulation strategies. DBT includes individual therapy, skills training and skills coaching. DBT has been used for patients with BN and BED. It is hypothesized that DBT is effective in individuals who binge eat and who have borderline personality disorder because it reduces the urge to eat impulsively as a means of reducing negative emotions (Telch, Agras & Linehan, 2001).

Dialectical Behaviour Therapy Skills

- **Mindfulness:** The ability to nonjudgmentally observe and describe moment-to-moment emotional experiences, thoughts and urges.
- **Emotion regulation:** Being able to understand emotions, decreasing vulnerability to negative affect, increasing positive emotions and changing specific emotional states (e.g., anger, guilt).
- **Distress tolerance:** Having adaptive and effective ways to cope with the inevitable stresses and pains of life and accepting the reality of circumstances.
- **Interpersonal effectiveness:** Learning effective ways to ask for what one needs and to say no. The skills are intended to maximize the likelihood that a person's goals in a specific situation will be met, while at the same time not damaging the relationship or the person's self-respect.

Evidence

- Dialectical behaviour therapy has been shown to be an effective adjunct therapy for individuals with BN or BED and borderline personality disorder (Brewerton, 2009; Choate & Switzer, 2009; Chen et al., 2008; Palmer, Birchall & Damani, 2003; Safer, Telch & Agras, 2001; Telch, Agras & Linehan, 2001).

Nutrition counselling

Description: Dietitians offer a range of services that can be tailored to symptom severity and level of engagement. For patients with low levels of readiness to making changes to their eating, counselling with a dietician can help explore ambivalence about nutritional changes and clarify the extent to which they are interested in changing for themselves versus others (Birmingham & Treasure, 2010). A skilled dietician can also explore fears prior to experimenting with nutritional challenges, increasing the chances of successful behavioural change.

The restoration of nutritional health requires the ongoing support of a skilled clinician who has a detailed understanding of the complex relationship between thoughts, emotions, eating behaviours and food (Barker, 2010).

Dieticians working with patients at higher levels of readiness may use food records to deepen an understanding of eating difficulties and barriers to change while collaboratively developing a plan to support experimentation with new eating behaviours. Some of the areas that dieticians address with patients who have higher readiness for change include: making changes to food/fluid intake, compensatory behaviours, exploring nutrition beliefs and knowledge, identifying and responding to hunger and fullness cues, use of appropriate vitamin and mineral supplements, food allergies/intolerances and developing nutritional goals. Dieticians can also help patients develop skills and overcome barriers with grocery shopping, food preparation, and social eating. It should be noted that patients may differ in their level of readiness to change different symptoms (i.e., high readiness to change bingeing and purging or increase fluid and low readiness to change restricting). It is therefore imperative that the dietician be aware of multiple factors that affect their food intake, including lifestyle and socioeconomic factors, personal values, interpersonal relationships and skills, substance use, and activity level (Reiter & Graves, 2010).

Topics Addressed by Dieticians

- Determining healthy body weight range and energy requirements
- Challenging distorted thinking about food and weight
- Discussing strategies to reduce bingeing and/or compensatory behaviours
- Ensuring that patient is not at risk of re-feeding syndrome
- Recognizing internal hunger cues
- Managing constipation
- Providing education about the effects of starvation
- Reviewing tools and techniques (i.e., meal plans, food records)

Dieticians who are interested in working in the field of eating disorders can benefit from additional training and guidance to enhance their education and skills (Barker, 2010).

Evidence:

- Nutritional counselling with ED trained nutritionists is considered a useful adjunctive therapy and is widely supported by expert opinion (Reiter & Graves, 2010) and empirical evidence (Pike et al., 2003; Hay et al., 2003; Wilson et al., 2007).
- Nutritional counselling is not recommended as a stand-alone treatment in eating disorders (NICE, 2004).

Child and Adolescent Therapies

Family Based Therapy-AN (FBT-AN)

Description: Family based treatment for AN (FBT-AN) is the most studied therapeutic model for children and adolescents with eating disorders.

In FBT-AN, parents are supported to take primary responsibility for re-feeding their adolescent. Treatment takes place over three phases. In the first phase, the therapist provides the family with information about the seriousness of AN and encourages parents to work together to re-feed their child and bring about weight restoration. In some cases, the therapist may strategically use information to heighten parent anxiety in this phase. In the second phase, parents gradually hand back control of eating and exercise to the adolescent. The third phase focuses on supporting the family with general adolescent development issues (e.g., pubertal change, social identity development, intimacy and vocational themes).

Key Components of Family Based Therapy-AN

- Engagement with the family
- Emphasis on the seriousness of starvation and the prognosis and sequelae of AN
- Parents are absolved of responsibility of causing the illness
- Externalizing conversations to separate the individual from the illness
- Focus on weight restoration
- Parents take charge of restoring weight
- Siblings are invited to become allies to their brother/sister with AN but are not involved in re-feeding
- Gradual shift of control back to the adolescent
- Social eating
- Focus on normal adolescent development – puberty, identity, intimacy, vocational development
- Normalization of the need for autonomy and self-assertion

Multifamily Therapy (MFT)

Description: Multifamily groups can be used either as a single treatment modality or as an adjunct to single family FBT-AN. These groups build on the shared experiences of families and facilitate collaborative learning. The key components of MFT are similar to those described for single family therapy, although the focus is broader. There is an emphasis on weight restoration and normalization of eating, but more time is spent on other issues such as family coping styles, body image, social and cultural issues.

Bringing families together reduces feelings of isolation. Seeing other families working with similar problems has the benefit of raising self-awareness and seeing things from a different perspective.

Key Components of Multifamily Groups

- ***Introductory evening:*** group is described, meet and greet with staff and a graduate family, psychoeducational talk about the seriousness of ED, hearing the graduate family's story
- ***Four-Day workshop:*** multifamily discussion groups, separate groups for parents (living with ED and the effect on family life, practical issues around what does and doesn't work at meal times) and adolescents (motivational issues), creative and nonverbal exercises (role plays, family sculpts, genograms, drawings), joint family meals, foster meals (adolescent is joined by a mother and father from a different family)
- ***Follow-up group meetings:*** 4–6 group meetings over the course of 9–12 months, with individual family sessions in between as needed.

Evidence

- FBT-AN is associated with better outcomes than no treatment, routine care (Crisp et al., 1991; Dare et al., 2001) dietary advice (Hall & Crisp, 1987) and supportive individual therapy (le Grange et al., 2011; Russell et al., 1987).
- The optimal dose of FBT-AN is not known; 6 months of family therapy may be as effective as 12 months (le Grange et al., 1992; Lock et al., 2005).
- FBT-AN has been shown to be equally effective in children and adolescents (Lock et al., 2006).
- FBT-AN has been shown to be effective for a full course of outpatient weight restoration thereby preventing hospitalization (Lock et al., 2005; Eisler et al., 2000), and such gains are maintained 4–5 years after treatment ends (Eisler et al., 2007; Lock et al., 2006).
- There is some evidence that patients from families with high levels of criticism have better outcomes from separate (parents and child seen separately) as opposed to conjoint (family seen together) family treatment (Russell et al., 1997; Eisler et al., 2000; Eisler et al., 2007)

Family Based Therapy-BN (FBT-BN)

Description: FBT-BN was developed as an adaptation of FBT-AN. It shares many similarities to FBT-AN, including an active role for parents in recovery, use of externalizing strategies, and treatment comprising three distinct phases. However in FBT-BN adolescents take a more active role in decision making; parents and adolescents work collaboratively together to come up with solutions to BN. In addition, concerns about eating, shape and weight, as well as beliefs that support binge eating and purging (i.e., all-or-none thinking) are addressed. Overall, there is greater emphasis on autonomy and independence and on supporting a healthy relationship between parents and adolescents.

Key Components of Family Based Therapy-BN

- Emphasis on the seriousness of the disorder
- Parents are absolved of responsible for causing the illness
- Externalizing conversations to separate the individual from the illness
- Focus is on regular eating and decreasing purging
- Treatment is collaborative; parents and adolescents work together to come up with solutions
- Self-monitoring
- Gradual shift of control back to the adolescent
- Social eating
- Establishment of healthy relationships (including with parents)
- Increase in autonomy and independence

Evidence:

- One strong RCT (le Grange et al., 2007), a second good randomized uncontrolled study (Schmidt et al., 2007) and several other analyses (le Grange & Lock, 2010; Loeb & le Grange, 2009; le Grange et al., 2003) suggest that FBT shows promise for treating adolescent BN. FBT has been delivered as a regular face-to-face treatment and as an early intervention using a guided self-help format.

Cognitive Behaviour Therapy (CBT) and Interpersonal Therapy (IPT)

While Family-Based Therapy (FBT) is generally the recommended treatment approach for children and adolescents, in instances where parents do not engage in treatment or where there are high levels of criticism or expressed emotion in the family, it may be beneficial to offer young patients individual treatment options that have been primarily validated thus far in adults (i.e., CBT, IPT). IPT, the adolescent's relationship with his or her parents may be a central focus and there is greater attention to family roles and climate. More research is needed to determine the efficacy of these individual treatments with adolescents. However, preliminary evidence is provided below.

Evidence:

- ***CBT:*** There is some support for the efficacy of a guided self-care form of CBT-BN for youth at reducing bulimic symptomatology (Schmidt et al., 2007).
- ***IPT:*** The efficacy of IPT in adolescents with depressive disorders has been established (Mufson et al., 2004). IPT has also been shown to prevent excessive weight gain in adolescents who report loss of control with eating patterns including those who are at risk for BN (Tanofsky-Kraff et al., 2008).

Nutritional counselling

As in all other aspects of the care of children and adolescents with eating disorders, families play a central role in nutritional counselling. As noted in Part 3, parents are involved in the nutritional assessment and participate actively in formulating a nutritional plan for recovery. If a patient is receiving FBT, nutritional sessions may be exclusively with the parents. Nutritional counselling follows up on themes that emerge from the nutritional assessment.

Treatment focuses on the family's comfort with food related activities such as taking the patient shopping, preparation and eating in social situations. Dietitians may also help parents address foods that are challenging for the patient and any ritualistic behaviours that may be occurring. The dietitian helps the family address eating patterns that may hinder or delay the recovery process. The dietitian also provides practical nutritional support to parents.

The goal of nutritional counselling is to empower parents to manage their child's eating and symptomology.

“The dietitian involved in FBT recognizes the family as expert in feeding their child. The dietitian acts as a resource in educating / helping parents understand the caloric needs of a child recovering from an eating disorder. The dietitian helps in recognizing family eating patterns that may hinder the recovery process, and provides practical nutritional support to parents.”

(Cairns, personal communication, 2010)

In addition to the topics addressed by dietitians in the adult section, the following are topics that specifically target the needs of children and adolescents.

Additional Topics Addressed by Dietitians with Younger Patients

- Empowering parents to take a lead in renourishing patients and monitoring their child's purging activities
- Teaching mindful eating strategies, particularly as patients become renourished and the goal is to level off weight gain trend
- Ensure that eating time is “sacred” and that all family members refrain from multi-tasking, encouraging enjoyment of meal times and increasing awareness of the child's hunger and satiety cues.

New Approaches

Given the paucity of empirical support for anorexia nervosa treatments, there is a recognized need for the development and evaluation of new treatment approaches. Two new treatments with promising pilot data are currently under evaluation in large-scale clinical trials. The Maudsley Model for Individual Treatment of Anorexia Nervosa (MANTRA) is an experimental integrative cognitive-interpersonal individual treatment that includes family members in order to enhance social support. The Uniting Couples in the treatment of Anorexia Nervosa (UCAN) enlists the support of partners and spouses of adults with eating disorders by improving relationship and problem solving skills within the couple. Preliminary data from both of these new approaches are very promising. A brief description of each follows.

Maudsley Model for Individual Treatment of AN (MANTRA)

Description: MANTRA is an empirically derived experimental treatment for adults with AN. It differs from treatments focusing primarily on weight and shape as the central area of psychopathology in its use of a multifactorial conceptualization of the disorder. In MANTRA, AN is seen as arising from a mismatch between the challenges, difficulties or stresses that a person faces and their resources, strengths and social supports. Once a pattern of coping using AN develops, several factors maintain the disorder. These include pro AN beliefs, rigid thinking styles, avoiding intense emotions, and emotional responses and relationship patterns with an emphasis on conflict and self-criticism.

MANTRA is a multifaceted, skills-based treatment that draws from existing empirically supported therapies, including MI, CBT, IPT, DBT, and Emotion-Focused Therapy. MANTRA balances patient engagement and readiness with cognitive, behavioural, emotion-focused, and interpersonal strategies, which can be tailored to patients' individual needs. These approaches are introduced in seven modules:

Key Components of MANTRA

- **Engagement:** assessing readiness for change, externalizing AN, examining the pros and cons of AN, identifying the impact of AN, looking into the future, and reflecting on core values
- **Support system:** identifying key supports, empathizing with carers, defining helpful relationships, and being open to other perspectives
- **Nutrition:** assessing risks of poor nutrition, assessing readiness to take responsibility for nutritional needs, learning about nutritional needs, understanding the consequences of not eating healthily, recognizing when and why hunger and fullness cues are disrupted, overcoming barriers to healthy eating
- **Goal setting:** identifying areas to work on in treatment, setting up SMART (Specific, Measurable, Attainable, Relevant, Timely) goals, behavioural experiments
- **Working towards change:** Developing emotional and social intelligence: this involves understanding emotions; identifying relationship patterns; expressing feelings and needs; learning how to regulate extreme and overwhelming emotions; learning how to assess and understand other people's emotions; developing self-compassion
- **Exploring thinking styles:** identifying the degree to which one is flexible, attentive to detail, afraid to make mistakes, and driven to meet excessively high standards; assessing the impact these thinking styles have on oneself, relationships, and work; learning how to look at the “big picture”, to be more flexible, to be “good enough”; improving problem solving skills
- **Identity:** recognizing that one's true identity has been lost; identifying higher values; working towards one's best possible self; identifying personal views, opinions, and passions; connecting with people who support your changes
- **Maintaining change and relapse prevention:** creating a toolbox of new coping skills

Evidence:

- Findings from a recently published case series evaluation of MANTRA are promising. Patients receiving MANTRA showed significant improvements in body mass index, eating psychopathology and motivation, with large effect sizes (Wade, Treasure & Schmidt, 2011).

Uniting Couples in the Treatment of Anorexia Nervosa (UCAN)

Research indicates high rates of relationship distress, poor communication and high levels of sexual concerns among couples in which one spouse has an eating disorder.

Description: A new and innovative form of treatment that draws on cognitive behavioural couples therapy is currently being studied for adults with AN. Uniting couples in the treatment of anorexia nervosa (UCAN) leverages family support in the treatment of adults with eating disorders by capitalizing on relationships in which there is a partner who wishes to be involved in the care of their loved one. UCAN integrates a variety of AN specific relationship interventions to target core pathologies of the illness and elicits the support of partners in recovery. Targeted interventions are aimed at treatment retention, global mental health improvement, weight gain, and emphasize knowledge, support, communication and sexual functioning.

Key Components of UCAN for AN

- Understanding AN in the context of the relationship:
 - psychoeducation about AN and the recovery process
 - teaching effective communication skills
- Addressing AN pathology using a couples based approach
 - ED behaviours, body image and sexuality
- Relapse prevention, recovery and termination

Evidence:

- In a recent follow-up study of 70 women who had been treated for AN ten years earlier, a supportive partner was cited as the “driving force” in participants’ recovery process (Bulik et al., 2011).
- A pilot RCT comparing a multi-component treatment including either UCAN or unstructured supportive couples therapy showed the UCAN group had superior improvements in communication behaviours, body image concerns, and BMI (Bulik et al., 2011).




PATIENTS IN TRANSITION

There are significant cultural differences in the treatment of youth vs. adults regarding issues of autonomy, responsibility for change, and the role of the family. Whereas family based treatments encourage active parental involvement, adult based treatments emphasize patient readiness, engagement and responsibility for change. To date there is little data on optimal ways of working with patients as they transition between the sometimes disparate approaches of adolescent and adult treatments (i.e., age 17–25).

Despite little research on this topic, studies of youth transitioning to adult services note that there are risks to insufficient planning between treatment modalities. Families that are not prepared may experience high levels of distress as they adjust to new roles and responsibilities. As adolescents gain autonomy, the degree to which parents are encouraged to maintain control is determined by a number of considerations including the level of family functioning, the youth's living situation (i.e. at home versus school) and parents' history of providing helpful support (Holmbeck et al., 2000; Kazdin, 1993; Shirk, 1999). Recommendations include collaborative transition planning and effective transfer of information among teams and a treatment plan for continuity of care following transition.

A thoughtful transition is essential to ensure that youth and parents are prepared for the role changes associated with an adult model of care (Junior MARSIPAN, 2011). It is recommended that decisions regarding the future role of parents in treatment be determined on a case by case basis. To ensure clarity among all interested parties including the patient and family, it is recommended that plans be carefully recorded with clear delineations of responsibilities. As such, there may be advantages to establishing integrated child, youth, and adult community programs which provide flexible treatment conditions required by individuals in transition (Harrison, 2010).

PART 6: RECOVERY-FOCUSED INTENSIVE (DAY, RESIDENTIAL, INPATIENT) TREATMENT (STATED SECTION B)

	A) Outpatient: Focus on Engagement and Recovery	B) Intensive Treatment: Focus on Recovery	C) Outpatient and Inpatient: Focus on Quality of Life	D) Inpatient: Focus on Medical Stabilization
 Medical Acuity	LOW to MODERATE	LOW to HIGH	MODERATE to HIGH	HIGH
 Interference / Symptom Severity	LOW to MODERATE	MODERATE to HIGH	MODERATE to HIGH	MODERATE to HIGH
 Engagement / Readiness	Treatment tailored to readiness	Adults: MODERATE (minimum) Child and Youth: N/A	LOW	Treatment is tailored to readiness

RATIONALE FOR THIS LEVEL OF CARE

For some patients, the care that can be provided in low intensity outpatient treatment is insufficient to support interruption of ED symptoms and/or maintenance of behavioural change. For instance, there may be a significant risk of suicide or severe self-harm while interrupting ED behaviours, or, patients may lack the capacity to make changes to their ED behaviour in the absence of more intensive structure and support. Finally, intensive treatment may be needed for patients who have recently completed a medical stabilization admission to support and build upon the changes necessary to continue on the recovery journey. For these groups of patients, recovery-focused intensive treatments are warranted.

Patients and families who require more structure and support than is available in standard outpatient treatment options may be suited for recovery-focused intensive treatment. These include day, residential, and inpatient therapy options.

PATIENT PROFILE

As shown in the *STATED*, the primary clinical feature in determining the suitability of this level of care for patients is a **moderate to high level of interference and symptom severity**. That is, across the developmental spectrum, recovery focused intensive treatments are intended for patients who have intractable symptoms and who require external structure and support in order to make changes to their eating, exercise, and/or purging behaviours (Olmsted et al., 2007). Intensive treatments are generally reserved for patients who are low weight, who binge and purge with high frequency, and who have other comorbid conditions, most commonly anxiety, post-traumatic stress disorder, depression, substance use, and personality disturbance (Olmsted et al., 2007). The life interference / symptom severity dimension helps distinguish between patients suited for high intensity vs. low intensity treatment options to ensure that intensive treatment resources are matched to patients who are most in need of this level of support.

The *medical acuity dimension* helps distinguish between patients requiring a medical stabilization vs. a recovery-focused admission. As noted in the *STATED* and described in Part 8, across the developmental spectrum, irrespective of readiness, if medical acuity is such that health consequences may result from failure to treat, then a recovery-focused high intensity treatment is *not* the appropriate form of immediate care. Instead, medical risk needs to first be managed either in a general medical/paediatric bed or in a specialist ED bed (see Part 8) with the possibility of subsequent transfer to high intensity recovery focused treatment. It should be noted that medical and psychiatric complications can occur simultaneously (i.e., extreme low weight may lead to medical complications and an exacerbation of psychiatric symptoms) and independently as well (i.e., an individual with an ED can be suicidal with no significant medical acuity).

Regarding *optimal level of readiness*, current thinking differs between adults and younger populations in determining suitability for this level of care. In adults, baseline readiness predicts dropout, weight gain, behavioural change and relapse from day therapy and residential treatment (Geller et al., 2001; Geller et al., 2004; Rieger et al., 2000). As such, *in adults at least a moderate level of engagement with treatment and recovery* is recommended to ensure the efficient use of intensive treatment resources and the likelihood that changes made will be maintained following discharge. Engagement can be assessed using the Readiness Motivation Interview, or the Readiness Ruler (see Part 3)

What is Moderate Engagement?

- Completion of residential treatment in the BC adult tertiary program is consistently predicted by restriction precontemplation, or the extent to which an individual does not want to make changes to their eating and/or reach or maintain a healthy body weight.
 - Program completers state that less than 50% of them does not want to make changes to their eating and weight
 - Program non-completers state that more than 70% of them does not want to make changes to their eating or gain weight.

(Continuous Quality Improvement Report, EDP; 2007, 2011)

*Research has shown that patient readiness is an important factor to consider with **adult** ED patients in order to make best use of intensive resources and ensure that treatment is matched to patient needs.*

In children and adolescents, it is common for young patients to be opposed to treatment and typically **parents make the decision to enrol their child in intensive recovery-focused treatment**. This decision-making role for parents is developmentally appropriate, as they are primarily responsible for their child's health and will have a critical role in helping maintain changes upon discharge from treatment. Nevertheless recent research supports the need to address and work with adolescent readiness as much as possible: low readiness in adolescents is an independent predictor of future hospitalization (Amettler et al., 2005) and adolescent readiness is associated with engagement, weight gain and behavioural change (Geller et al., 2008; Gowers & Smyth, 2004; Gusella et al., 2003; Reiger et al., 2000). Furthermore, adolescent motivation at discharge from inpatient treatment has been shown to predict weight maintenance (Castro-Fornieles et al., 2007). Therefore, although the decision to enrol in intensive treatment is in the hands of parents and care providers and not determined by child and adolescent readiness, research is needed to improve understanding of how to enhance readiness for change in the context of the family for younger individuals with eating disorders (Gowers & Bryant Waugh, 2004).

For children and adolescents, readiness is not a factor in determining suitability for intensive treatment. Instead, the young person's medical needs and the parents' and community providers' ability to address these are most important.

Within the treatment types for this level of care, the highest level of motivation is required for day therapy, and the lowest is for inpatient hospitalization.

Evidence for this level of care

Across the developmental spectrum, despite widespread use of intensive recovery focused treatments, there is a paucity of empirical evidence supporting their effectiveness in relation to alternate forms of care. A number of concerns have been raised including the dependency that patients may develop on the treatment program, high rates of treatment dropout and relapse, and the cost and accessibility of residential and inpatient care (e.g., Vandereycken, 2003; Zeeck, Herzog, & Hartmann, 2004). Furthermore, although behavioural weight restoration is reliably helpful in the short term management of low weight eating disorders, there is uncertainty about the long-term benefit of intensive programs (Attia & Walsh, 2009). There is only one published randomized control trial of inpatient vs. outpatient treatment and this investigation in adolescents with AN did not show long term advantage to receiving inpatient treatment following medical stabilization (Gowers, 2007).

Despite lack of research on the long term efficacy of intensive treatments, centres around the world nevertheless report behavioural improvements from these forms of care (e.g., Olmsted, 2007; Treat et al., 2008) and it is generally agreed that when comprehensive treatments are delivered at the right time to the right patients, they play a vital role along the continuum of care (Harrison, 2010). Although further research is needed to better define these timing and patient parameters, a summary of current evidence follows:

Outcomes from Intensive Treatments at a Glance

- Early interventions are associated with lower relapse rates in adolescents
- Across age groups, there is great variability in admission and re-feeding practices for day therapy, residential and inpatient treatment (Zipfel et al., 2002; Schwartz et al., 2008). Nevertheless:
 - Inpatient and day treatments are associated with weight restoration and symptom reduction post-treatment in adults (Olmsted et al., 2010).
 - Dropouts from inpatient treatment range from 20% to 51% and from day therapy from 13 to 19% in adults (Olmsted et al., 2007; 2010).
 - Relapse rates from inpatient treatments range from 9% to 42% with an average of 30% for adults and 9% for adolescents.
- Although day therapy is less common with adolescents, case reports indicate that younger individuals benefit from this form of therapy (e.g., Touyz et al., 2003; Goldstein et al., 2011).
- Research underscores the need for follow-up treatment following weight restoration and normalization of eating

DAY THERAPY VS. RESIDENTIAL VS. INPATIENT TREATMENT

There are currently no empirically-based criteria for determining which patients should be referred to which type of treatment within this level of care for adults and younger patients (day therapy, residential treatment or recovery-focused inpatient hospitalization). The literature indicates that in practice, such decisions are typically based upon contextual and availability factors (e.g., Touyz et al., 2003; Zeeck et al., 2004). Nevertheless, each form of intensive treatment has advantages and drawbacks.

Referrals are ideally based upon matching the resources and capacity of the program to the patient's symptoms and to patient and family readiness.

Inpatient and residential treatments have the advantage of offering 24-hour support for individuals who are unable to interrupt eating disorder behaviours outside of a structured environment. Inpatient units have greater capacity and expertise to manage complex medical and psychiatric complications than do residential units. The place of inpatient treatment for adult BN is not clearly supported by research evidence, unless extreme severity, comorbidity or suicidal risk (Gowers & Bryant-Waugh, 2004; Zipfel et al., 2002). There are no specific studies investigating these issues in adolescents.

Inpatient treatment can be used to accomplish multiple recovery-focused goals including assessment, symptom interruption, and preparation for less intensive levels of care (e.g., day or outpatient therapy).

Residential services provide a less institutionalized and more home-like environment, and are accessible for individuals who do not live within close proximity to a day therapy or a specialist ED unit. Although they have received little empirical investigation, residential services are considered an intermediate step between inpatient and day therapy (American Psychiatric Association, 2000).

Residential services provide a high level of structure and support but have lower capacity to address acute medical and psychiatric issues.

Finally, day therapy is a useful step-down form of care for individuals completing residential or inpatient hospitalization, and/or a stand-alone treatment for individuals and families with higher levels of readiness. Given the lower capacity of day programs to provide structure to ED patients (day therapies and partial day therapies often provide treatment services on fewer than five days per week, whereas inpatient and residential programs provide treatment 24 hours per day), the following criteria are considered contraindications for day treatment:

Contraindications for Day Treatment

- Acute substance dependence
- Suicidal or parasuicidal behaviours
- Psychiatric crisis (psychosis, hallucinations, delusions)
- Unsafe home environment (i.e., homelessness, physical or sexual abuse)
- Repeated failure of day hospital treatment
- Very low body mass index or % ideal body weight.

(Zipfel et al., 2004)

Thus, while all three treatment types support recovery for individuals with moderate to high life interference due to the ED, inpatient hospitalization is most appropriate for patients whose eating disorder symptoms and comorbidities are most severe. Generally, day therapy is more suited for adult patients whose readiness for change is greatest.

The benefits of day therapy, residential treatment, and recovery-focused inpatient treatment are described below:

Benefits of Different High Intensity Recovery-Focused Treatments

Day Therapy

- Promotes and fosters greatest patient and family responsibility for recovery (e.g., this treatment is not suited for patients and families who do not have a high level of commitment to dedicate to recovery)
- Less dependence and regression
- Opportunity for daily practice in patient's home environment
- Patient remains connected to family and social contacts
- Less disruption to life
- Family is continuously involved
- Transitions and discharge are easier
- Less stigmatization

Residential Treatment

- Offers more structure and support than is available in day therapy for patients whose ED symptoms are more entrenched
- Provides accessible treatment to patients and their families for whom distance to day therapy treatment is prohibitive
- Less institutionalized therapeutic environment than hospitalization

Recovery-focused Inpatient Treatment

- Is the preferred form of treatment for most complex cases requiring frequent access to multidisciplinary team and specialists
- Provides necessary 24-hour support for patients who may be at risk of medical or psychiatric destabilization
- Can be used to assess patients and determine their suitability for less intensive forms of recovery-focused care

DESCRIPTION AND GUIDELINES

The specific psychological, social and nutritional interventions that occur in intensive treatment are similar across day therapy, residential, and inpatient treatments (Olmsted, 2007). Namely, the care is delivered by multidisciplinary teams and provides structure and support focusing on: normalization of eating and symptom alleviation, weight restoration when necessary, family based therapy for children and adolescents, therapeutic exploration of underlying issues, skill development related to affect regulation and interpersonal relationships, and social/vocational/educational/family components (depending upon the patient's developmental status). The primary differences between the treatment types pertain to the level of external containment provided by the therapeutic milieu, the location, and treatment intensity (e.g., number of treatment hours per day, number of treatment days per week, and the availability of medical and psychiatric expertise).

Children and Adolescents

Parents play a vital role at all levels of care, including in intensive recovery focused treatment for children and adolescents. It is recommended that intensive services for younger patients involve parents or primary care givers, other significant family members, and possibly the family general practitioner and/or paediatrician. It may also be helpful to include the child's school and/or other individuals and agencies, including social services where appropriate.

The use of a developmental framework is essential to providing appropriate treatment to children and adolescents. As developmental competencies in younger patients evolve over the course of treatment, interventions need to be matched to their cognitive, language and psychological abilities, as well as their environmental context. For instance, in addressing adolescent developmental difficulties the treatment aims are to support patients in discovering and adjusting to a new physical and psychological state (e.g. puberty and individuation) rather than returning to their pre-morbid condition.

The following are general service-related recommendations for intensive recovery-focused treatment with children and adolescents:

Key Treatment Recommendations for Children and Adolescents

- In child and adolescent programs, parents are involved from the start and through all levels of treatment. They play a central role in weight restoration and normalization of eating.
- Services are delivered in an age-appropriate manner and setting, taking into account the young person's developmental, social and educational needs
- Intensive treatment ideally occurs on units that are able to distinguish between the needs of children and adolescents
- The care of older adolescents is flexible depending upon their level of maturity, and when necessary, transition to adult services is planned and facilitated by members of both child/adolescent and adult programs.
- Family therapy plays a key role in preparing child and adolescents patients for discharge.
- Careful advance planning is necessary to ensure smooth transitioning when an adolescent is transferring from a paediatric to an adult program.

(Gowers & Bryant Waugh, 2004)

Treatment Philosophy

Intensive treatment programs require a clearly defined philosophy and model that provides guiding principles for staff members, a rationale for their decision making process, and a structure that supports a consistent, predictable environment for patients. It is essential that program staff function as a team and have adequate time for meeting and collaborative decision making (Olmsted et al., 2010).

Key components of intensive treatments include a clear philosophy and structure of treatment that is communicated and agreed upon prior to admission, an overarching program stance and attitude that is supportive of change, and a therapeutic milieu that is predictable, consistent and which fosters normalizing eating while maximizing patient and family autonomy.

(Olmsted et al., 2007; 2010; Touyz et al., 2003; Junior MARSIPAN, 2011)

Whereas intensive treatment programs differ significantly in admission criteria, intensity of care and length of stay (e.g., Frisch et al., 2006; Schwartz et al., 2008; Zipfel et al., 2001), good communication and coordination between intensive treatment providers, other professionals involved in the patient's care, and with patients and their families is critical (NICE, 2004; Olmsted, 2010; Junior MARSIPAN, 2011). The judicious development and implementation of treatment non-negotiables, which are reviewed and agreed upon prior to beginning treatment, ensure that the program philosophy is well understood and implemented.

Evidence:

- The inpatient ED unit at the Douglas Hospital in Montreal documented changes to dropout and relapse rates after adopting a non-negotiable treatment philosophy. This involved sound rationale, no surprises, consistent implementation and maximizing patient autonomy. The shift in ethos resulted in improvements in behavioural outcomes, decreased dropout and relapse rates and improved staff morale (Bruce et al., 2011).
- Intensive treatment that provided a supportive environment in which to “explore emotional issues” and not have behavioural expectations was shown to not produce weight gain, with some patients deteriorating while receiving this form of care (Thornton & Russell, 1995).
- BN patients who were expected to become abstinent early on in intensive treatment achieved better symptom control than did BN patients who were expected to “do their best” (Mitchell et al., 1993).

Guidelines regarding non-negotiables in intensive treatment are described below:

Non-negotiables in High Intensity Recovery-focused Treatment

- Treatment non-negotiables are necessary to ensure patient safety, most efficient use of intensive treatment resources, and to maintain a therapeutic milieu
- The characteristics of treatment non-negotiables include:
 - Advance warning of program expectations to patients and their families
 - A sound rationale that is explained to patients and families prior to admission
 - Consistent implementation for all patients and by all program staff
 - Maximizing patient autonomy by providing choices wherever possible
- Treatment non-negotiables are considered most acceptable and effective when delivered using a collaborative style
- Non-negotiables are subject to ongoing revision and review by the treatment team in which patient and family feedback are considered.

(Geller & Srikameswaran, 2006)

Finally, it is important to consider the overarching goals of treatment in the context of the bigger picture of long term change. In a discussion of treatment options available to ED patients, Palmer (2004) makes an important point regarding treatments that promote weight gain in AN:

The central question in evaluating the nature of behavioural change is not how quickly weight gain occurs but rather the extent to which symptom change is sustained following treatment.

(Palmer, 2004)

The sticky issue of motivation

Ambivalence about eating is a normal feature of an eating disorder for all age groups. Facing the fear of weight gain is central to treatment and recovery and it is common for patients to either fight program requirements or to relinquish control entirely while in the intensive treatment environment. In these latter cases, it is common to experience difficulty maintaining change following discharge.

In order to promote motivation, expectations about behavioural change are delivered using a collaborative stance to maximize patient and family autonomy by providing choices.

When patients are well prepared for recovery-focused treatment and are provided with a balance of structure and choices, they are less likely to challenge the program and have the greatest chance of developing internal motivation for change.

Thus, clear non-negotiable behavioural expectations are critical to ED treatment. There is great variability across programs and little or no research to support the specific non-negotiables that are used in intensive treatments (e.g., expected rate of weight gain per week, specific behavioural expectations re: meal time) the manner in which non-negotiables are delivered has a significant impact on patient engagement and outcome (Geller & Srikameswaran, 2006; Touyz et al., 2003).

Whenever possible, it is helpful for care providers to acknowledge and validate the difficulty of change while helping patients make the best decision for themselves within non-negotiable program constraints.

Pointers for Maximizing Patient Motivation

- In treating younger patients, parents participate in all key decisions involving their child’s care.
- In order to strengthen a sense of choice and control, whenever possible patients and families are provided with at least three choices regarding how to bring about change
- The therapeutic environment is predictable and consistent to minimize disputes with staff regarding inconsistencies or unfairness.
- Treatment is not set up as something at which patients and their families “succeed” or “fail” – rather, intensive treatment is considered as a step along the recovery journey. This reduces pressure on patients and families at discharge and helps them remain focused on their own goals and wishes.
- In working with highly ambivalent patients, it may be helpful to conceptualize treatment as an experiment with short-term goals. This may reduce anxiety about being expected to be fully “recovered” before ready.
- In working with **adults**, rather than have patients be coerced into recovery-focused intensive treatment, it is ideal to set up services such that prior to entry, patients demonstrate that they are ready for this level of care.
- This may occur in pre-care or preparatory treatment programs where patients have the opportunity to work on small behavioural goals and experiment with change.
- In working with **children and adolescents**, treatment focuses on training parents to use a motivational stance in supporting their child to make behavioural change.
- This involves helping parents develop and implement non-negotiables that promote healthy behavioural change in their children.

The key point is that individuals not be expected to recover as a result of an inpatient admission; inpatient services are not stand-alone treatments.

(Harrison, 2010, p. 46)

Thus, across the developmental spectrum, a collaborative motivational stance is optimal for use in enhancing motivation in ED patients. A distinction between children and adults is that non-negotiable thresholds differ (e.g., for children and adolescents, criteria for admission to intensive recovery focused treatment are lower, expectations regarding resolution of medical issues and weight restoration upon discharge are higher), and wherever possible, with younger patients it is parents and not care providers, who optimally communicate non-negotiables.

PREPARATION FOR TREATMENT AND PLANNING TRANSITIONS

There is accumulating evidence that what occurs prior to admission contributes to the overall success of treatment. It is therefore helpful for adult patients and for younger patients and their families to meet with a program representative to share information about what to expect from the program and what will be expected of them. This meeting (or series of meetings) helps foster engagement with treatment. Use of an open, honest, positive style and communication of empathy are central to fostering trust in patients and families. In the community, it is helpful for outpatient therapists to be aware of and review program expectations with patients to ensure that referral to high intensity treatment matches patient and family wishes.

Evidence:

- Having a formal care plan at the time of referral was associated with treatment adherence in a specialist ED unit. This formal care plan was more important than illness severity or wait time in predicting adherence (Schmidt, Morgan & Yousaf, 2008)
- Motivational assessment in adolescents improved treatment engagement in adolescents with AN (Gowers & Smyth, 2004).

Preparation for Intensive Treatment at a Glance

- Several individual pre-care sessions are ideal
- In pre-care sessions, the following key elements are addressed:
 - Review of previous treatment experiences
 - Discussion of program guidelines and expectations
 - Review of criteria for stepping-out or discharge from program
- Group pre-care or preparatory sessions are also helpful to provide patients with opportunities to practice being in a group
- Family pre-care helps the patient and family prepare for the roles that they will have during and following admission

TRANSITIONING BETWEEN LEVELS OF CARE

Referral and transition processes between levels of care have an important impact on engagement with treatment and longer term outcomes (e.g., Schmidt et al., 2008; Junior MARSIPAN, 2011, MARSIPAN, 2010). Transitioning is optimal when it involves adequate planning between treatment service providers, good information transfer, and continuity of care following each transition.

For these reasons, in planning recovery-focused treatment, it is important to consider not only the treatment that best supports weight gain and/or normalization of eating, but what conditions, including the pre-care and after-care interventions that are in place for the patient and family to support sustained changes following discharge. It is critical to ensure that outpatient care is linked to intensive treatment resources so that patients and families are supported through these transitions. There is also a need to continuously address and respond to patient and family readiness and wherever possible include patients and families in autonomous decision-making. These linkages between levels of care are critical to reducing gaps as patients and family navigate their way through the continuum of care (Harrison, 2010).

General Transition Guidelines

- Joint protocols between services. When this is not possible, recorded meetings between representatives of services that includes the patient and family to ensure shared understanding of treatment plan and clear responsibility of roles.
- Repetition of meetings until care transfer is satisfactorily achieved
- Carer and patient concerns incorporated into risk assessment and ongoing treatment decision making

(MARSIPAN, 2010; Junior MARSIPAN, 2011)

Transitioning from medical stabilization to recovery focused admissions

Although these may occur within the same hospital stay, there are important distinctions in treatment objectives, philosophy and management of care between a medical stabilization and a recovery-focused admission, particularly for adult patients. Whereas medical stabilization admissions may be involuntary under the BC Mental Health Act and have a narrow focus (i.e., to address and stabilize medical issues), recovery-focused admissions are ideally voluntary for adults, and address a broad range of behavioural, emotional, social and educational/vocational goals. Therefore, adult patient readiness is a critical factor to consider in determining suitability for recovery focused treatment. It is thus important to ensure that transitions from medical stabilization to recovery-focused treatment occur in the context of appropriate assessment and preparation of adult patients for this phase of care.

Key Points regarding stabilization vs. recovery focused admissions across the developmental spectrum are described below:

Transition from Medical Stabilization to Recovery Focused Admission

- Ideally, admissions to recovery-focused intensive treatments are planned.
- After completing medical stabilization (in a specialist ED bed or in a general medical/paediatric bed), assess patient and family readiness to determine whether ongoing care is best achieved in inpatient, day therapy or outpatient settings.
- In youth, the distinction between medical stabilization and recovery-focused inpatient care is less clear than it is in adults, as the goals of any admission with youth include full resolution of physical risk factors

LENGTH AND INTENSITY OF STAY

The optimum length of stay for intensive therapy admissions is not clear from the existing evidence base. While there is general agreement that medical stabilization admissions are best kept as brief as possible, there is considerable variability in the literature regarding length and intensity of day, residential, and inpatient treatment. In many parts of the world, length of stay is primarily determined by funding issues. In countries with publicly funded services, while some programs have pre-determined guidelines regarding length of stay for different treatment goals (e.g., in the BC adult tertiary program, a symptom interruption admission is 3 weeks and a recovery-focused admission in the residential program is 12–15 weeks), many are tailored to the needs of the individual (e.g., Toronto Day Hospital program has a mean length of 71 days and the mean length of stay in the BC tertiary children's inpatient program is 61 to 73 days (for patients under the age 12 and over the age 12, respectively). In addition, there is variability in intensity of treatments. One adolescent day therapy program offered both 5 and 3 day a week programs to facilitate transitioning and reintegration to lower intensity treatment (Touyz et al., 2003).

“A lack of empirical evidence means that it is up to individual clinicians, preferably in collaboration with individual sufferers, to decide when to admit, what goals to pursue during the admission, and when to discharge.”

*Source: Harrison, 2010, p. 47

STRUCTURING INTENSIVE TREATMENT

The model used in intensive treatment programs should provide guiding principles for staff members, a rationale for their decision making process, and the structure to provide a consistent, predictable environment for patients. Specific guidelines are required to address behavioural expectations regarding general safety, ED behaviours, urges to self-harm, and substance use. The structure should include a weekly schedule of activities as well as expectations about attendance, punctuality and anticipated length of stay. These structural issues need to be carefully reviewed with patients and families and documented.

For children and adolescents, parents need to be involved in all aspects of treatment and be empowered to manage their child's illness. Parents play a critical role in developing and implementing a meal plan and working in collaboration with dietitians and program therapists to devise a strategy for how to best support their child while in treatment, and following discharge. The involvement of siblings is also considered useful as it provides opportunities to address their fears and dispel any false ideas they may have about EDs. Finally, it is important to attend to the educational needs of younger patients.

“A structured approach to the management of individuals with severe AN with good documentation of plans and restrictions will help to maintain consistent care and avoid splitting between the young person, family, and staff.”

(Junior MARSIPAN, 2011, p. 35)

As noted earlier, little is known about specific non-negotiable contingencies that are most therapeutic in promoting change. They will depend upon a number of factors, including the patient's age, symptom severity, level of readiness, and treatment setting. However, there is general agreement that there needs to be a balance between program requirements and patient and/or family responsibility.

Treatment goals

The goals of high intensity recovery focused treatments are described in the following table. The extent to which each of these goals are addressed will vary according to the capacity of the program and the length of stay. Each will be reviewed in subsequent sections.

Goals of High Intensity Recovery Focused Treatment

- Normalization of eating through a balanced meal plan
- Weight gain for patients who are below a healthy range
- Parents learning and becoming successful at managing their child's eating and exercise routines (for children and adolescents)
- Cessation of bingeing, purging (i.e., vomiting, laxatives, over-exercise) and other unhealthy behaviours to control weight
- Therapeutic exploration of underlying issues and skill development
- Social and vocational rehabilitation (for adults) / educational development and progression (for children and adolescents)

Normalizing eating and weight gain

All patients are provided with an individualized and balanced meal plan that addresses food variety, expectations about eating feared foods and the role of supplements. It is most common for programs to use a graduated approach to eating, beginning with more modest nutritional goals and increasing to more challenging foods over time. Ultimately, the goal is to generalize eating while in intensive treatment to the patient's home environment. In the case of day therapy this would occur over the weekend and during unsupported meals, in the case of residential and inpatient therapy this may occur in the program, during passes and following discharge.

For adult patients, the program dietician determines a safe meal plan that is carefully documented and which the team and patient agree upon prior to treatment. For children and adolescents, the paediatric dietician, in collaboration with parents and in some cases the adolescent, ensures that essential nutrients are met for growth and development according to the child's age and physical status.

Parent involvement

Parents are seen at admission and throughout the course of treatment. The goal is to empower them to manage their child's eating and symptomatology outside of the intensive treatment environment. Family based therapy and multi-family groups are key features of intensive treatment admissions for younger patients (see Part 5) with a focus on improving family communication patterns, boundaries, decision making and problem solving.

“The dietician involved in FBT recognizes the family as expert in feeding their child. The dietician acts as a resource in educating / helping parents understand the caloric needs of a child recovering from an eating disorder. The dietician helps in recognizing family eating patterns that may hinder the recovery process, and provides practical nutritional support to parents.”

(Cairns, personal communication, 2010)

With younger patients, parents are integral to meal planning, such that the family's usual diet is accommodated as much as possible. Parents work with the program dietician at all stages of treatment and participate in meal preparation and eating with children where ever possible. It may be helpful to describe food as the “medicine” of ED treatment.

Mealtime guidelines

Intensive treatment programs have clear behavioural guidelines for meal times. It is recommended that patients be supervised at all times while eating, with the goal to create as normal an eating environment as possible. Meals are an important component of intensive treatment. Patients can feel supported by engaging in this challenging task by working together in a supportive environment. The overarching goal is to provide structure and consistency thereby decreasing uncertainty and anxiety for both patients and staff at meal times.

Mealtime guidelines are reviewed prior to admission, including the rationale and consequences of non-adherence. Patients are provided with ample opportunity to ask questions, discuss their concerns, and plan for anticipated challenges.

At a practical level, as much as possible, parents have a role in meal-planning, shopping for food, and meal time management.

Guidelines for Meal Supervision

- Patients are required to eat according to the plan they agreed upon in pre-care; in some cases this will involve eating all the food that they are given with no substitutions, in other cases this may involve selecting appropriate amounts of food based upon their discussion with the program dietician.
- Mealtimes are provided with clear structures regarding the period of time they are given to consume meals and snacks, and what actions are taken if meal or snack is not completed (e.g., replacing uneaten food with a meal supplement)
- Patients are asked to eat as “normally” as possible. For instance, no cutting food into excessively small pieces or abnormal food mixing, no more than six different condiments in one meal, consume the meal in the allotted time. Eating disorder behaviours are addressed if they arise at meal times.
- In order to foster a normal social environment, patients are asked refrain from talking about issues related to weight loss or body image.
- Meal support providers model appropriate social behaviour according to the developmental needs of the patient, with more coaching and encouragement with younger patients.
- Patients are given a specific number of foods they are never required to eat (i.e., three “veto” foods). Eating and guidelines are provided for the amount of condiment use allowed (e.g., no more than six different condiments in one meal and no extra salt).
- Patients may be asked to have hands visible during the meal, bathroom visits are not allowed once the meal has begun, and patients are asked to complete snacks in 30 minutes, and meals in 60 minutes. Bathroom visits are supervised.
- Food choices should be made in advance according to the patient’s agreed upon meal plan. Patients are monitored for inappropriate eating patterns and redirected if necessary.

Weighing

To minimize weight fluctuations unrelated to nutritional changes patients can be weighed in the same way and at the same time in the morning, before breakfast and after emptying their bladder in underclothes only. It is important that staff is aware of common methods used by patients to alter their weight including, hiding items in underclothes and water-loading to mimic weight gain. If water loading is suspected, access to fluid may need to be restricted. If the concern is ongoing, measurement of urine specific gravity may need to occur at the same time as weighing. Patient access to scales should also be restricted to avoid frequent weighing (Junior MARSIPAN, 2011; MARSIPAN, 2010).

Cessation of binge eating and unhealthy weight control behaviours

Program structure is critical to support ED patients in refraining from bingeing and unhealthy weight control behaviours while in the intensive treatment environment. Care is taken to ensure that food supplies are not available to reduce opportunities to binge eat. Self-induced vomiting may be decreased by providing structured activities to support patients during high risk times such as immediately following meals, and limiting or supervising washroom visits.

Exercise

A recent review of six studies examining exercise interventions in individuals with eating disorders concluded that exercise may improve a range of biopsychosocial outcomes in patients with eating disorders. For instance, tailored exercise protocols were associated with improvements in body satisfaction, mood, and quality of life, and no studies reported an adverse effect on weight gain (Hausenblas, Cook & Chittester, 2008). There is a need for more research regarding the role of exercise during intensive treatment. Nevertheless, it is generally recommended that patients be provided with an exercise protocol suited to their health status upon admission, and that exercise levels be modified during the course of admission as a function of the patient's progress.

Therapeutic exploration and skill development

Most intensive treatments are multimodal and provide a range of group and individual therapeutic experiences. For adults, individual and group therapy modalities that have received greatest empirical support (e.g., CBT, IPT, DBT, MET) focus on addressing function of eating disorder, improving relationships, increasing distress tolerance and emotion regulation skills. Family therapy may be an important component for some individuals. For children and adolescents, family, group and individual therapies that have received most empirical support are provided (e.g., FBT, CBT) with a focus on assisting parents in promoting regular eating, improving family communication, and helping young patients master the developmental tasks of adolescence and the psychosocial issues unique to this age group.

Given that patients are together for at least 30–40 hours per week, the intensive treatment environment provides patients with unique opportunities to learn and practice skills. Groups focus on learning and practicing numerous skills such as distraction, stimulus control, giving and receiving emotional support, expressing affect, distress tolerance, problem solving, and relaxation.

“In this environment, various modalities are combined to create a synergistic effect that is much more than the sum of its parts. For example, exposure and response prevention occurs several times daily as patients have meals and refrain from ED symptoms.”

(Olmsted, 2010, p. 205)

Anxiety and Post-Traumatic Stress Disorder

Eating disorder may develop in some individuals as a means of coping with anxiety and post-traumatic stress disorder (PTSD) symptoms. As a result, for some patients, PTSD symptoms may be activated with a return to more normal eating and a reduction of associated symptoms. Treatment planning must include expert resources during intensive recovery-focused treatment to address these experiences (Olmsted et al., 2007). It is important to include patients and families early in a discussion of the form and intensity of treatment that will be most helpful when anxiety and PTSD symptoms emerge.

Treating substance use and other comorbidities

Up to 50% of individuals with eating disorders abuse alcohol or illicit drugs, compared to 9% of the general population (National Center on Addiction and Substance Use, 2003). It is common for eating disorder patients requiring intensive recovery-focused treatment to present with comorbid substance use issues. Eating disorders and substance use disorders share a number of common features; both are long-term, difficult to treat, can be life threatening, and are associated with cravings and compulsive behaviours. Both are methods of coping and will persist despite negative physical and psychological consequences.

Like symptoms associated with PTSD, it is common for substance use to intensify when patients are successful at reducing their eating disorder behaviours in intensive treatment environments. As a result, integrated (as opposed to sequential) care is considered optimal in order to effectively address both issues.

A multidisciplinary treatment strategy that uses focused interventions for substance use and disordered eating, combined with individualized, group and family therapy holds the greatest promise for helping these patients.

(National Center on Addiction and Substance Use, 2003)

Unfortunately, despite widespread recommendations for an integrated treatment approach for ED and substance use issues, this rarely occurs in practice. This may be due to a perceived lack of expertise or capacity to manage these two conditions simultaneously, or to concerns about potential disruptions to the therapeutic milieu associated with the behavioural issues presented by patients who are withdrawing from substances and reducing eating disorder behaviours simultaneously. At present, it is most common for patients with these co-occurring conditions to be required to address their substance use issues prior to entering intensive ED treatment.

It is extremely common for people with eating disorders to suffer from comorbid illnesses... This presents a significant challenge in terms of designing a strong continuum of care and providing effective services, as EDs will not resolve if comorbid problems are left untreated; comorbidities may worsen as a result of compromised nutrition; EDs can worsen with treatment of comorbidities alone; and comorbid problems may limit access to specialized ED services (Blinder et al., 2006; Courbasson et al., 2005).

(Harrison, 2010, p. 61)

Thus, there is a clear need to improve treatment models and service delivery for individuals with comorbid substance use. The development and evaluation of integrated treatment programs is needed.

Social / vocational / educational rehabilitation

Intensive treatment involves time away from normal life and regular social, vocational, and educational activities. Depending upon the anticipated length of stay in treatment, it will be important to consider how to ensure that treatment is supportive of the individual's re-integration into normal life upon discharge. Ideally, such planning will begin occurring at admission.

Social contact, fulfilling relationships and engaging with the outside world are needed to fill the vacuum that the ED previously occupied.

For adults who have taken time away from work or who have been unemployed due to their eating disorder, vocational planning and assistance may be helpful to include in their treatment plan. For children and adolescents, it is important to assess the level of academic work they are able to manage during intensive treatment, and for teaching staff involved in their care to tailor academic requirements to their evolving needs.

Healthy teams and therapeutic milieu

Factors that promote a healthy team and foster optimal therapeutic milieu include:

- Ample time is required for a team-based review of the care of each patient, to ensure consistency and address any issues that arise in the treatment milieu.
- Opportunities to receive supervision and support are invaluable, particularly when managing complex patients with significant behavioural and emotional needs who may be especially demanding.
- A collaborative climate and strong relationships among team members fosters confidence and support across disciplines; this models an environment that promotes patients and families taking responsibility for change. A collaborative relationship is also encouraged between nursing and allied care providers on the team.
- When patients are admitted on the same unit for medical stabilization or for recovery-focused treatment, the goals for each type of patient need to be clearly distinguished and made transparent for all. This maximizes the potential for a trusting relationship between patient, family and the treatment team and decreases tension that may develop among patients as a result of different recovery goals.
- Wherever possible, consideration of the patient mix on inpatient units and in groups is helpful to ensure a recovery-focused milieu and reduce the “contagion” that may occur when patients are admitted involuntarily and may not be cooperative with program guidelines (Vandereycken, 2011)

Maintaining Change Post-Treatment

It is helpful for patients and families to have opportunities to practice skills that they learned in program outside of the treatment environment during time away from the program. Following passes, it is important that they be provided with structured opportunities to review and problem solve any challenges they faced. These experiences can facilitate learning and decrease the risk of relapse.

Discharge planning is a critical component of high intensity recovery-focused care. Ideally, the transition from high intensity to low intensity treatment occurs gradually in a series of steps during which the patient takes progressively more responsibility for recovery-oriented behaviour. For children and adolescents, it is recommended that admissions occur with built-in transitioning so that full restoration of health occurs in the least intensive care environment possible (Gowers & Bryant-Waugh, 2004).




It is important to provide planned after-care programs for patients to support them in maintaining changes. After-care follow-up programs can take several different forms, including attending a weekly group, participating in inpatient groups as day patients, or – individually-based therapy in the patient’s home community. Discharge planning also involves assisting the patient and family to cultivate interests and create a life beyond the eating disorder. This may involve assisting the patient to return to school, work, or a social network, and to develop new patterns that support increased well-being.

Early relapse may be prevented by addressing the following in follow-up programs; early weight loss, motivation for and confidence about maintaining change, and residual weight and shape concerns and exercise (Olmsted, 2010).

Evidence:

- For adolescents with shorter duration illness, family therapy during follow-up from inpatient therapy produced better outcomes than individual therapy. In contrast, for adolescents with a longer duration of illness, individual therapy was superior to family therapy (Eisler et al., 1997).
- In adults, individual CBT was superior to nutritional counselling and a multimodal group-based counselling in sustaining change post treatment (Carter et al., 2009; Pike et al., 2003).
- Follow-up with a dietician and acceptance of referral to a support group is associated with improved treatment outcomes (Schmidt et al., 2008).

PART 7: QUALITY OF LIFE FOCUS: OUTPATIENT WITH INPATIENT SUPPORT (STATED SECTION C)

	A) Outpatient: Focus on Engagement and Recovery	B) Intensive Treatment: Focus on Recovery	C) Outpatient and Inpatient: Focus on Quality of Life	D) Inpatient: Focus on Medical Stabilization
 Medical Acuity	<i>LOW to MODERATE</i>	LOW to HIGH	MODERATE to HIGH	<i>HIGH</i>
 Interference / Symptom Severity	<i>LOW to MODERATE</i>	<i>MODERATE to HIGH</i>	<i>MODERATE to HIGH</i>	MODERATE to HIGH
 Engagement / Readiness	Treatment tailored to readiness	<i>Adults: MODERATE (minimum)</i> Child and Youth: N/A	<i>LOW</i>	Treatment is tailored to readiness

RATIONALE FOR THIS LEVEL OF CARE

Although many individuals with eating disorders benefit from the care they receive, approximately 50 per cent of those with anorexia nervosa do not achieve full remission (Keel & Brown, 2010) and up to 20% develop a chronic, disabling form of the illness (Noordenbos et al, 2002; Robinson, 2006; Steinhausen, 1999). While there is no established definition of chronic, the term is typically used in the literature to describe patients who have been ill for at least 7 to 10 years, and who have multiple levels of life impairment due to their illness (Arkell & Robinson, 2008; George, Thornton, Touyz, Waller & Beaumont, 2004; Williams, Dobney & Geller, 2010).

Different patient profiles of severe and enduring eating disorders have been described in the literature:

Profiles of Severe and Enduring Eating Disorders

- Patients with **multiple problems** including the eating disorder, deliberate self-harm, suicide attempts and substance misuse, social problems such as homelessness, or a need to change accommodation and financial difficulties resulting from long term illness
- Patients with chronic illness **requiring rehabilitation** beyond that available through the eating disorder service
- Patients with very severe ED requiring **frequent medical and psychiatric hospitalizations** or those recently discharged following a long hospitalization

(Robinson, 2006)

A number of medical and psychiatric comorbidities are commonly associated with severe and enduring eating disorders. These include anxiety disorders, cardiovascular symptoms, chronic fatigue, chronic pain, depressive disorders, infectious disease, insomnia, neurological symptoms, and suicide attempts (Yager, 2007, p. 409). Individuals with chronic eating disorders are often very ill; the level of disability in some is comparable to that of individuals with schizophrenia (Arkell & Robinson, 2008).

Individuals with chronic eating disorders often refuse treatment. For many, gaining weight is extremely threatening, and may lead to depression, suicidality, and the development of negative feelings towards their care providers including distrust about new treatment attempts (Noordenbos et al., 2002). Having experienced traditional treatment as repeatedly unsuccessful, hopelessness is common and motivation to re-engage is poor (Noordenbos et al., 2002).

The reluctance of these patients to engage in treatment may result from repeatedly bad previous experiences with professionals and treatment programs, adverse effects of treatment, and financial or other social considerations.

(Williams, Dobney & Geller, 2010)

Clinicians are faced with a significant dilemma, particularly when a patient's medical condition deteriorates to a point that they are at risk of severe harm or death. These individuals may become "revolving hospital door patients" in which they are admitted when their condition becomes acute, stabilized while in hospital, and then rapidly lose the gains they made once discharged (Goldner, Birmingham & Smye, 1997). Because of disruptions resulting from acute hospital admissions, many will quit their education or lose their jobs as anorexia nervosa or bulimia nervosa becomes a way of life (Noordenbos et al., 2002). A ***variable intensity outpatient treatment*** model that focuses on ***improving quality of life*** has been developed in an attempt to address these problems

Although this community-based approach is relatively new, it has been implemented in the care of chronic eating disorder patients in several countries including Canada, the United Kingdom, The Netherlands, and Australia (e.g., George et al., 2004; Kaplan, 2008; Robinson, 2006; Williams et al., 2010). In British Columbia, this approach has also been successfully used in rehabilitation programs within Vancouver Coastal Health. The approach is consistent with a shift over the past 50 years toward maximizing client autonomy and minimizing dependency upon hospitals.

Programs focusing on improving quality of life are based upon narratives and feedback of those who have not benefitted from traditional treatment. For example, patients with chronic eating disorders were invited to participate in a focus group to describe their experiences of treatment and wishes for the future. Key patient-identified goals that emerged are listed below.

Goals Identified by Patients with Chronic EDs

- Decreasing anxiety and depression
- Increasing autonomy
- Improving quality of life while living with the eating disorder
- Increasing hope for the future

(Williams et al., 2010)

Patient accounts thus suggested that although they were not willing to consider working toward full recovery, they were nevertheless interested in pursuing goals that were meaningful to them and which improved their quality of life. These are the points upon which more recent approaches with this group have capitalized, incorporating principles of harm reduction (e.g., Marlatt, 1996), psychosocial rehabilitation (Zahniser, 2005), and motivational interviewing (e.g., Miller & Rollnick, 2002).

When to refer to another level

Some patients receiving quality of life focused treatment make significant medical and psychological gains and thus become suitable for an alternate level of care. For patients who have moderate to high medical acuity but whose engagement with treatment and readiness for change has significantly improved, a high intensity recovery oriented day, residential, or inpatient treatment may be warranted (Part 6). In contrast, for patients whose engagement and readiness increase and whose medical acuity and life interference are lower, low intensity action oriented treatment options may be of benefit (Part 5).

Evidence for this level of care

Despite the difficulties that individuals with chronic eating disorders face, preliminary evaluations of a quality of life approach to the care of these individuals have been very promising:

- In an Australian study, increases in motivation for change, reduction in laxative use, improved medication management, dietary improvements, and weight increase were reported at 6-month follow-up (Thornton, Beaumont & Touyz, 2002)
- In a Canadian study, significant improvements were found in global distress, hopelessness, eating disorder symptoms, quality of relationships, shape and weight cognitions and self-harm behaviours. (Williams, Dobney & Geller, 2010)

PATIENT PROFILE

As noted in the *STATED*, the key patient features in allocating this level of care include *low engagement with recovery-focused treatment*, and *moderate to high life interference*. It should be noted that this level of care is only a suitable option for patients who have repeatedly not benefitted from recovery-focused treatment. Thus, it is not an appropriate form of treatment for children, adolescents, or young adults. The following is a description of a typical patient that would benefit from this level of care:

DESCRIPTION AND GUIDELINES

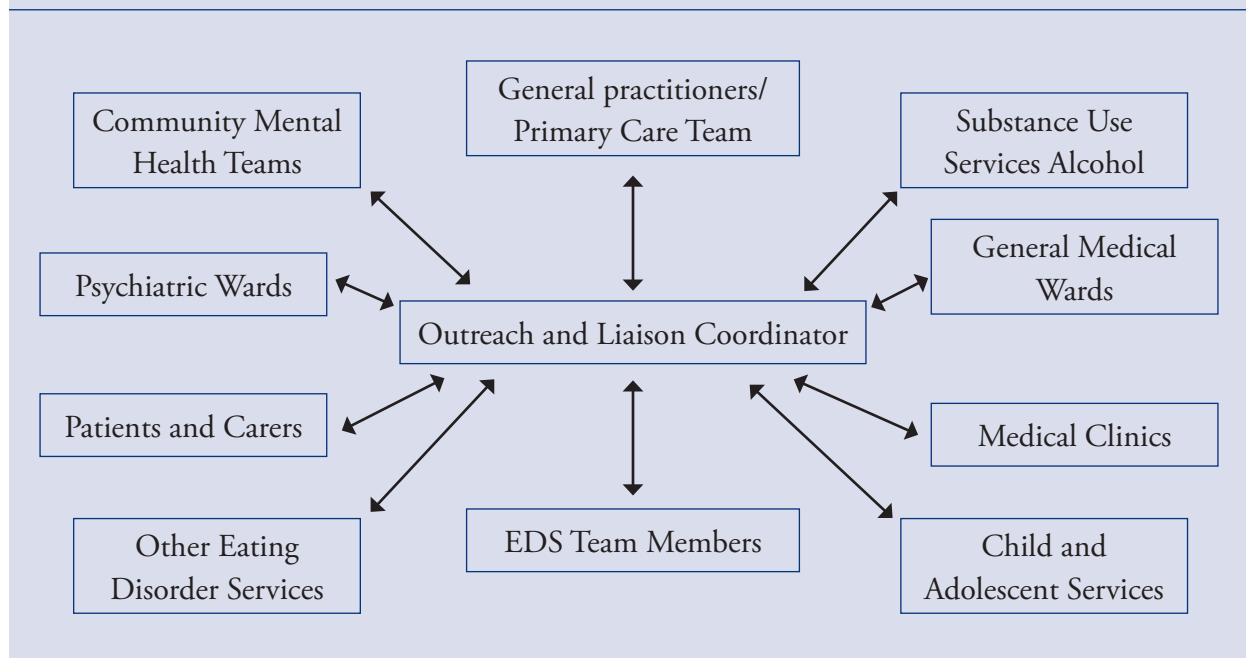
The primary treatment ingredients of a quality of life focused program include: engaging the patient with their community, fostering linkages with environmental resources, reducing harms associated with the condition as opposed to full recovery, increasing meaningful activity and ensuring medical stability and decreasing crisis hospital dependency. The approach is characterized by clinical flexibility, creativity and adaptability.

The Team

The care of individuals with complex and enduring eating disorders is ideally provided by a multidisciplinary team that includes a therapist, outreach counsellor, psychiatrist, physician, dietician, substance use therapist, occupational therapist focusing on psychosocial rehabilitation, and family therapist. In order to ensure efficient and therapeutic use of inpatient hospitalizations, at a bare minimum the team requires a physician who has admitting privileges to appropriate medical or psychiatric beds with specialized nursing care. The team should also have a designated outreach coordinator who can liaise with other professionals and caregivers as needed, and arrange hospital admissions for patients who are at high risk (see Figure below).

In community settings, it has been proposed that a professional in the eating disorders be designated as a champion to pass on expertise to individuals with less eating disorder experience (Robinson, p. 123, 2006). However, the care of this patient group can only be successful when there is an outreach coordinator and an established working relationship between members of a multidisciplinary team, at least one of whom is a physician with hospital admitting privileges. Finally, in order to meet the special needs of these patients, the team must also be in a position to work collaboratively within a shared care framework with teams in primary care, general mental health and psychiatry, substance use services, residential care and supported housing providers.

Care providers most suited to working with these patients are those who are able and willing to accept small changes, can sit with clients through hardship, recognize openings for hope, and are not overly aggressive with treatment goals. As noted earlier, cohesion and consistency between team members is fundamental to this approach. This is challenging work and it is essential to have adequate support for members of the multidisciplinary team working with this population. The following figure describes the role of the outreach coordinator and team.

The Role of the Outreach Counsellor:

(Robinson, 2006)

Building Capacity Through Linkages

Quality of life-focused treatment can be enhanced for these patients by connecting their care to outside community resources. Some suggested ways of doing this include:

- Providing education and support to general practitioners in the community in order to increase confidence and demystify the needs of eating disorder patients
- Advocating to ensure practical quality of life needs are addressed by mental health teams
- Linking with integrated substance use/mental health programs, as needed

The Therapeutic Approach

Therapy is supportive in nature, consistent, and focuses on decreasing the patient's suffering. Consistent with harm reduction models, goal setting may involve reducing the impact of the eating disorder on the individual's life. For instance, a patient who binges and purges throughout the day may set the goal of having several consecutive hours during which no eating disorder behaviours occur. Other patient goals may be to binge on less harmful food, diminish the impact of a comorbid psychiatric condition or improve their housing situation. It is critical that the patient determine the goals and that these goals be meaningful to her. It should be noted that sometimes the complexity of a patient's problems demands a degree of flexibility that only a specialist eating disorder service can provide.

Psychosocial rehabilitation models recognize the importance of environmental factors and meaningful work/activity, with a focus on skill development (Zahniser, 2005). In working with individuals with chronic eating disorders, team members may assist the patient to take small steps toward exploring interests that increase their engagement in activities that are meaningful for them. For example, a patient may choose to enrol in a course at a local community center and could work with her outreach worker to have enough freedom from her eating disorder in order to do so. Efforts are also made to build a support system that is less dependent upon hospitalizations and health care providers and increase environmental or community supports and resources.

Examples of Psychosocial Rehabilitation Activities

General life skills	<ul style="list-style-type: none"> • Finding appropriate housing • Career/school exploration • Time management • Incorporating leisure activities into daily routine • Self care • Budgeting • Parenting
Social functioning	<ul style="list-style-type: none"> • Parenting • Assertiveness training • Conflict resolution • Boundary setting • Improving interpersonal relationships
Emotional regulation	<ul style="list-style-type: none"> • Relaxation • Mindfulness • Grounding
Nutritional management	<ul style="list-style-type: none"> • Keeping food records • Use of distraction to delay purging • Normalizing eating • Meal planning and preparation • Grocery shopping
Psychiatric symptoms management	<ul style="list-style-type: none"> • Managing anxiety and depression • Techniques to reduce self-harm • Sleep hygiene

Finally, as described in Part 1, motivational interviewing involves tailoring treatment goals to patient readiness, and the patient being responsible for change (Miller & Rollnick, 2002). This is a stance that is optimally used by all team members in approaching problems.

Use of a motivational approach in working this group involves developing and fostering a trusting, supportive relationship that promotes client self-awareness, self-acceptance, and responsibility for change.

(Geller, Williams & Srikameswaran, 2001)

Balance is key in working with this group; the clinician must establish therapeutic goals that neither grossly overestimate what can realistically be achieved, nor underestimate the patient's potential (Yager, 2007).

Unrealistically high clinician expectations may generate internal performance pressure, and contribute to a cycle of attempt and failure that results in psychological harm, or avoidance of trying altogether. On the other hand, setting therapeutic expectations too low may lead the clinician to inadequately attend to the possibility of change and put insufficient emotional energy into the patient.

The task for the clinician is thus to work with the patient to permit her to steer between these two poles by steadily setting and resetting explicit but modest goals in a step-wise fashion.

Management Strategies at a Glance

- 1) Make every effort to establish a heartfelt connection with the patient to secure a durable and effective working alliance
- 2) Review as fully as possible the nature of previous psychological, psychosocial and medical (including psychopharmacological) treatment attempts, and seek both the patient's and previous health professionals' perceptions of what worked and what failed and the likely reasons for the successes and failures
- 3) Assess the patient's current true goals for herself
- 4) Assess the patient's own beliefs about what future treatments might work and not work and why
- 5) Encourage the patient to develop a detailed behavioural program
- 6) Establish basic limits regarding weight and medical severity beyond which the treatment team will insist that the patient be hospitalized, at least for medical stabilization (treatment non-negotiables)
- 7) Reconsider the patient's program for psychotherapeutic interventions
- 8) Do not put the patient through expensive and time-consuming treatment or psychotherapy programs that are unlikely to affect sustained improvement

(Yager, 2007)

Patient Safety

For patients whose medical condition is unstable, it is critical to ensure patient safety with frequent monitoring and intervention to avert physical risks resulting from medical deterioration or suicidal behaviour. Medical monitoring of a compromised patient should be a shared team responsibility to ensure adequate support for the individual at the front line.

The team needs to be clear and consistent about conditions under which the patient needs to be hospitalized. One of the benefits of using a team approach is that it enables movement from unplanned certified crisis admissions to voluntary, planned admissions linked with therapeutic goals. Patients who require admission can thus be identified and provided with timely and appropriate inpatient care when needed.

The shift from crisis to planned admissions reduces patient and care provider anxiety and is a more effective use of costly hospital admissions.




A detailed discussion of planning medical stabilization admissions is provided in Part 8 of these guidelines.

Goals of Hospitalization for Individuals with Enduring Eating Disorders

- Shift from unplanned, crisis admissions to planned, voluntary admissions
- Restore weight to a realistic and sustainable level that the patient may be able to maintain without immediate decline to dangerous levels
- Interrupt self-harm behaviour patterns
- Restore physical and psychic energy and morale sufficiently to permit the patient to return to somewhat stable post-hospital equilibrium
- Keep the long view – consider how best to make this admission fit into the patient’s overall treatment plan

(Yager, 2007)

PART 8: HIGH INTENSITY INPATIENT TREATMENT – MEDICAL STABILIZATION FOCUS (STATED SECTION D)

	A) Outpatient: Focus on Engagement and Recovery	B) Intensive Treatment: Focus on Recovery	C) Outpatient and Inpatient: Focus on Quality of Life	D) Inpatient: Focus on Medical Stabilization
 Medical Acuity	<i>LOW to MODERATE</i>	LOW to HIGH	MODERATE to HIGH	<i>HIGH</i>
 Interference / Symptom Severity	<i>LOW to MODERATE</i>	<i>MODERATE to HIGH</i>	<i>MODERATE to HIGH</i>	MODERATE to HIGH
 Engagement / Readiness	Treatment tailored to readiness	<i>Adults: MODERATE (minimum)</i> Child and Youth: N/A	<i>LOW</i>	Treatment is tailored to readiness

RATIONALE FOR THIS LEVEL OF CARE

High intensity inpatient treatment with a focus on medical stabilization is recommended for individuals with eating disorders who are at short or long term risk of harm unless their medical complications are addressed immediately. The care of these patients is extremely complex and requires a high level of resource and expertise. As such, although this level of care can be provided in specialized or non-specialized inpatient units, there are a number of minimum service provisions that are recommended in order to effectively provide this level of care. They optimally include:

- Physician/paediatrician with expertise in eating disorder management
- Nursing staff with a working knowledge of eating disorders, and for younger patients training in paediatric and mental health care
- Psychiatric/paediatric teams that can provide support and liaison to nursing staff
- Dietician with expertise in eating disorders to implement and oversee meal plan

(Junior MARSIPAN, 2011; MARSIPAN, 2010)

It is critical that this expertise be available in order to address the needs of this group who commonly present with a range of medical, psychiatric and behavioural needs. While it is ideal for patients to be admitted as close to home as possible (MARSIPAN, 2010; Junior MARSIPAN, 2011), when such care is unavailable, access to the recommended level of service provision must be prioritized over receiving treatment in the patient's community.

PATIENT PROFILE

As indicated in the *STATED*, the only criterion that is necessary to warrant high intensity inpatient treatment with a focus on medical stabilization is a *high level of medical acuity*.

🌀 This section summarizes *tools for assessing the medical acuity dimension* of the *STATED* for hospital admission.

NOTE: Although some of the evidence for assessing and treating medically compromised patients applies across the age spectrum, there are a number of unique features specific to children and adolescents. Therefore in each section, guidelines are provided that are relevant for all age groups (with the heading “General”), followed by unique recommendations for adults (with the heading “Adults”) and then younger individuals (heading “Children and Adolescents”), wherever appropriate.

RISK ASSESSMENT FOR HOSPITAL ADMISSION

General

Patients with AN may appear deceptively well and energetic and often object to treatment (Junior MARSIPAN, 2011; MARSIPAN, 2010). However, there are a number of medical and symptom indicators resulting from malnutrition or secondary to compensatory behaviours, which signal acute risks requiring patients to be admitted to hospital. In addition, numerous factors and conditions influence patients’ risk level including age of onset, rate and degree of weight loss, chronicity, ethnicity, comorbid conditions and medication. As a result of this complex picture, firm criteria for hospitalization are not available. Clinical judgment based on a number of physical parameters is the best approach to assess risk in patients with severe eating disorders.

Adults

The text box below outlines approximate physical parameters that may signify the need for a medical admission in adults, with specific management recommendations.

Key Physical Assessment Parameters and Action Points for Adults

Assess	What to look for	High Risk	Action
Heart rate	Bradycardia	HR < 40 bpm	Nutrition
	Postural tachycardia	Symptomatic postural tachycardia	ECG
ECG	Alternate cause for bradycardia (e.g. heart block)	Prolonged QTc	Nutrition and correct electrolyte abnormalities
	Arrhythmia	Arrhythmia associated with malnutrition & electrolyte disturbances	QTc > 450 msec: bed rest, Consult cardiologist
	Check QTc time (use Bazett's formula**)	> .04 milliseconds between QT intervals	Medication unlikely to be helpful unless symptomatic or tachycardic
	Check electrolytes QT dispersion		
Blood pressure	Hypotension	Marked orthostatic hypotension with ↑ in pulse 20 bpm or ↓ blood pressure of 20 mmHg upon standing	Nutrition Bed rest until improved Echo likely to be abnormal while malnourished
Hypothermia	Temperature < 35.5°C and accompanied with other features	If lower than 35°C	Nutrition, blankets, warming jacket Consult internal medicine, emergency or intensive care unit, rule out hypoglycemia or drug toxicity
Dehydration	Hypotension and bradycardia related to malnutrition usually not acute dehydration; elevated blood urea nitrogen (BUN) and creatinine	Significant dehydration and malnutrition BUN/creatinine ratio greater than 20 to 1	Fluid replacement with sodium solutions, for severe cases use intravenous intervention, check electrolytes and renal function
Metabolic Alkalosis/ Acidosis	Elevated serum bicarbonate due to vomiting or diuretic abuse or low bicarbonate level due to laxative abuse	Severe >33–35 mEq/l	Intravenous infusions of sodium chloride at slow rate; milder cases with oral hydration; prevent vomiting
Hypokalemia	Low serum potassium level < 3.0 mmol/l Normal electrolytes Level does not exclude medical compromise	Potassium level < 2.7 mEq/l	Intravenous supplementation if < 2.7 at rate of 10 mEq/l per hour*** and continuous cardiac monitoring ECG
Hypernatremia or Hyponatremia	Consider water loading	< 130 mmol/l admit, consider ICU if < 120–125 mmol/l	Must be corrected slowly

Other electrolyte abnormalities	Check PO ₄ , Magnesium, Calcium, ECG		
Hypoglycemia		Rare finding Admit Brief hypoglycemia occurs with re-feeding after meals but should normalize	Oral or NG correction (sugar drink, hypostop). IV dextrose bolus if severe (altered conscious or mental state, seizures): 5 mls/kg of 10% dextrose. Consider ongoing IV dextrose if no oral input or input unlikely in presence of initial hypoglycemia. Be aware of rebound hypoglycemia after IV dextrose bolus. Glucagon in malnourished patients may not be effective as glycogen storages are likely to be low
Features of severe malnutrition	Lanugo hair Dry skin Skin breakdown and/or pressure sores		Nutrition, specialist wound care for skin breakdown or pressure sores

* Sources: Junior MARSIPAN, 2011; Mehler & Andersen, 2010, **Bazett's formula: $QTc = \sqrt{QT/RR}$, ***Reasonable range for oral potassium repletion is 20 to 40 mEq of potassium chloride preparation 2x daily with daily monitoring of blood levels.

Children and adolescents

Younger patients may present with subtle findings, nondescript symptoms and are also likely to resist treatment. As with adults, risk indicators for hospitalizing children and adolescents serve as approximate, rather than absolute values and decisions to admit are based on the clinical judgment of the paediatrician in consultation with care providers. In determining the level of medical risk in young patients the following additional points are important:

- Malnutrition in young patients cannot be determined by BMI alone
- The definition of serious underweight in adults does not apply to children and adolescents
- Younger patients with rapid weight loss are at serious medical risk
- Danger thresholds for children and adolescents vary with age and growth development
- Normal and cut off physiological parameters such as blood pressure vary with age
- Younger patients at medical risk may present without amenorrhea or significantly low BMI

The text box below outlines approximate physical parameters that may signify the need for a medical admission in children and adolescents.

*Key Physical Assessment Parameters and Action Points for Younger Patients**

Check for/measure	What to look for	High Risk	Specific management
Heart rate	Bradycardia Postural tachycardia	HR < 50 bpm Or symptomatic postural tachycardia	Nutrition ECG
ECG (especially if bradycardic or any other CVS complication)	Other cause for bradycardia (heart block) Arrhythmia Check QTc time (using Bazett's formula **) Check electrolytes, rule out genetic etiology or drug effects (e.g. prescribed medications and illicit drug use)	Prolonged QTc HR <50 bpm Arrhythmia associated with malnutrition and/or electrolyte disturbances	Nutrition and correct electrolyte abnormalities QTc >450 msec: bed rest, discuss with cardiologist, Medication likely to be unhelpful unless symptomatic or tachycardic, should correct with nutrition and correct electrolytes
Blood pressure	Hypotension – refer to standardized charts for age and sex	Systolic, diastolic or mean arterial pressure below the 0.4th centile for age and sex*** and/or postural drop of more than 15 mmHg	Nutrition, bed rest until postural hypotension improved, echo likely to be abnormal while malnourished
Hypothermia	Temperature <36° C will usually be accompanied by other features, beware <35° C		Nutrition Blankets
Dehydration	Hypotension and bradycardia related to malnutrition usually not acute dehydration	Significant dehydration and malnutrition	ORS orally or via NG preferred treatment unless hypovolemic, beware of giving fluid boluses unless hypovolemic (may have cardiac compromise or be hyponatraemic, check electrolytes and renal function)
Hypovolemia	Tachycardia or inappropriate normal HR in undernourished young person, hypotension and prolonged capillary refill time		Senior paediatric review, normal saline 10 ml/kg bolus then review; if IV fluids are used then these should usually be normal saline with added electrolytes (e.g., KCL, phosphate) as required. Consider other factors (intercurrent sepsis as a contributor)

Other features of severe malnutrition	Lanugo hair Dry skin Skin breakdown and/or pressure sores		Nutrition, if skin breakdown or pressure sores seek specialist wound care
Evidence of purging	Low potassium Metabolic alkalosis or acidosis	Hypokalemia as below, uncontrolled vomiting with risk of esophageal and other visceral tears	Specialist nursing supervision to prevent vomiting
Hypokalemia	Likely due to purging, Normal electrolytes level does not exclude medical compromise	Potassium <3 mmol/l admit, consider HDU, PICU or ICU if <2–2.5 mmol/l	Correction IV initially if <3 mmol/l Oral supplements may still be vomited ECG
Hyponatraemia or Hybernatraemia	Less common but important Consider water loading	Sodium <130 mmol/l admit Sodium > 145 mmol/l, commonly called dehydration Consider HDU, PICU or ICU if <120–125 mmol/l	If IV correction proceed with care
Other electrolyte abnormalities	Check PO ₄ , Magnesium, Calcium ECG, any significant abnormalities		Admit, nutrition and correction abnormalities, proceed with care
Hypoglycemia		Hypoglycemia is a relatively rare finding at presentation and implies poor compensation or co-existing illness (e.g. infection) Admit Once re-feeding is established, brief hypoglycemia can be found after meals but should normalize rapidly	Oral or NG correction, where possible (sugar drink, hypostop). IV bolus if severe (altered conscious or mental state; seizures): 5 mls/kg of 10% dextrose. Consider ongoing IV dextrose if no oral input or input unlikely in the presence of initial hypoglycemia. Beware of rebound hypoglycemia after IV dextrose bolus. Glucagon in malnourished patients may not be effective as glycogen storages are likely to be low.
Mental Health Risk or safeguarding family	Suicidality Evidence of self-harm Family not coping	Admit for comprehensive psychosocial assessment, admit for place of safety if necessary	Admit to psychiatric unit, apply safeguarding procedures, consult tertiary eating disorder program

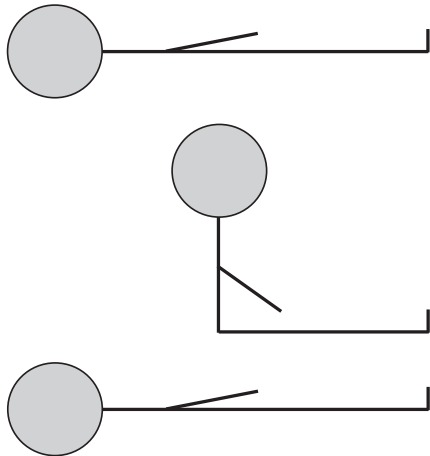
*Junior MARSIPAN, 2011, **Bazett's formula: QT/, ***See Blood pressure centiles for United States.

MALNUTRITION RISK ASSESSMENT

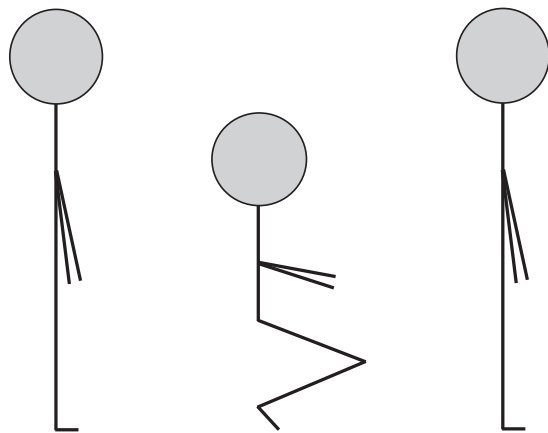
General

Muscular weakness is a common indicator of serious prolonged malnutrition that results in muscle wasting. For all age groups, the sit up, squat-stand test (SUSS) is recommended to test muscle weakness.

*Sit up–Squat–Stand test (to detect muscle weakness)**



1. Sit-up: patient lies down flat on the floor and sits up without, if possible, using their hands.



2. Squat–Stand: patient squats down and rises without, if possible, using their hands.

*Scoring (for Sit-up and Squat–Stand test separately) 0: Unable 1: Able only using hands to help 2: Able with noticeable difficulty 3: Able with no difficulty

Adults

In adults, body mass index (BMI), calculated as weight (kg) /height² (m²) is the most common method for gauging malnutrition. It is important to note, however, that BMI does not provide a measure of body composition or nutritional status (Mehler & Andersen, 2010).

Adult general parameters:

- anorexia nervosa <17.5
- medium risk 13–15
- high risk <13

Children and adolescents

Assessment of malnutrition is complex in children and adolescents, as these life stages are marked by rapid growth necessitating increased demands for energy and nutrients. Chronic malnutrition may manifest as pubertal delay and poor longitudinal growth. Malnutrition at these critical junctures may arrest linear growth, brain development, pubertal development and prevent the attainment of peak bone mass.

For children and adolescents, weight and height maintenance, in time, is equivalent to failure to thrive.

Recommendations for assessing malnutrition in children and adolescents are as follows:

Malnutrition Risk Assessment

- Percentile charts for weight and height for age should be part of the physical assessment
 - Ideally the weight and height trajectory should be plotted over time
 - Single point dots on a centile chart are UNHELPFUL as they give no indication of growth pattern
 - A flat line on a centile chart indicating a lack of growth over time is equivalent to failure to thrive in children and adolescents
- Calculation of body mass index (BMI) should not be used in isolation
 - Normal BMI varies with age
 - Rate of weight loss may be more significant than BMI
- Important to consider the following limitations of BMI in children and adolescents
 - It does not directly measure body fat, which is essential to pubertal development
 - It does not fully take into account the fact that mass increases in 3 dimensions with growth
 - Weight may be within normal range without deficits of linear growth, if the child/adolescent developed eating disorder after growth spurt

(Pei Yoong Lam, 2011 personal communication, 2011)

CARDIOVASCULAR RISK ASSESSMENT

General

Severe weight loss results in shrinkage of skeletal and cardiac muscle, a reduction in cardiac chamber volumes, and a decrease in cardiac mass and output (Mehler & Andersen, 2010). Bradycardia (heart rates <60 bpm) and hypotension (systolic blood pressure <90 mmHg and/or a diastolic blood pressure <50 mmHg) are very common among patients with AN. It is important to note that bradycardia is not necessarily normal for athletic patients. To rule out alternative causes for these cardiovascular symptoms an ECG is recommended.

Although some studies have documented QT interval prolongation in AN (Mehler & Andersen, 2010), current thinking is that it may not be inherent to AN. Therefore, a prolonged QT interval should prompt a search for independent causes such as, electrolyte disturbance and congenital long QT syndrome. For patients with QT dispersion (i.e., difference in the lengths between maximum QT interval and the minimum QT interval in any of the 12 ECG leads), there is an increased arrhythmic risk. Cardiac abnormalities typically normalize with weight gain.

Children and adolescents

In younger people, the most commonly seen cardiac abnormalities include: bradycardia, arrhythmia, QT prolongation, hypotension, syncope, orthostatic hypotension and poor peripheral perfusion. The necessary medical equipment to evaluate cardiac abnormalities in younger patients include: an appropriate range of blood pressure cuffs, 12 lead ECG machine, monitoring equipment, resuscitation equipment and an appropriate adjustable bed. Specific cardiac risk indicators include:

- Possible causes of arrhythmia should be investigated and include low weight, prolonged QTc, electrolyte disturbances and medications.
- QTc prolongation for age and sex require further assessment on a medical unit in consultation with a paediatric cardiologist.
- Hypotension should be compared to age and sex based normal values.
- Syncope and pre-syncope symptoms are common, but they may be a marker of cardiovascular instability and sudden unexpected cardiovascular death.

Orthostatic hypotension is a marker of disruption of normal homeostatic physiological cardiovascular mechanisms, which control blood pressure with change in posture.

ENDOCRINE AND OSTEOPOROSIS RISK ASSESSMENT

General

Patients with AN often have hypothalamic amenorrhea syndrome with varying degrees of pituitary gland impairment. Some patients may experience amenorrhea before significant weight loss (20–25%), with a majority developing amenorrhea during weight loss (50–75%). When patients have secondary amenorrhea (previously had menstrual period), it is temporary and reversible and menstrual cycles typically resume when restored to previous weight of menses. Amenorrhea that occurs prior to significant weight loss may persist after weight restoration. Primary and secondary amenorrhea's are both strongly associated with BMI, caloric intake and exercise. Menstrual irregularities also occur in BN, to a lesser degree. Duration of amenorrhea and low body weight are significant predictors of reduced bone mineral density (Mehler & Andersen, 2010).

Osteoporosis, a disease characterized by significant bone loss and deterioration of the microarchitectural structure of bone, is seen in almost 40% of patients with AN (Mehler & Andersen, 2010). Osteoporosis often results in bone fragility and non-traumatic fractures. A dual-energy X-ray absorptiometry (DEXA) scan is used to diagnose osteoporosis and to quantitatively define bone density. The bone density of the adult patient is compared to the average peak bone density of young adults of the same sex and race. This score is called the “T score,” and it expresses the bone density in terms of the number of standard deviations (SD) below peak young adult bone mass. The World Health Organization (WHO) defines osteoporosis as a bone density T score of -2.5 or below. Osteopenia (between normal and osteoporosis) is defined as bone density T score between -1 and -2.5. In children and young adolescents (below 18 years) this definition is not valid because they have not attained peak bone mass, and sufficient data correlating bone density with fractures in youngsters are not available. At the first Paediatric Consensus Development Conference on the use and interpretation of bone density studies in children (Montreal, June 2007), paediatric osteoporosis was defined as a bone density Z score below -2. The “Z-score” is the number of standard deviations away from the average value of the reference group of people of the same age and gender. The term osteopenia is no longer used when related to paediatric bone density. A DEXA scan should be administered in any patient with anorexia with amenorrhea greater than 6 months.

Osteoporosis associated with AN results in a seven fold increased risk incidence of life time risk fractures and if not treated early it is irreversible.

Young women with osteoporosis experience rapid bone loss at an annual rate of 2.5%. Factors that determine whether patients' achieve peak adult bone mass include: the time and onset of the eating disorder, degree of nutritional depletion, changes in body compensation, and the stress associated with AN (Mehler & Andersen, 2010). The fracture risk increases twofold for every standard deviation decrease in bone mineral content of the lumbar spine. For the hip, with every standard deviation decrease in bone mineral content the risk of fracture increase by 2.5 times. The use of estrogen and birth control is not recommended in the treatment of osteoporosis. Males with AN are at increased risk for loss of bone density. The severity level of osteoporosis is greater in males than in females.

Adults

The following are treatment recommendations for adults with osteoporosis:

Osteoporosis Treatment

- Early detection is key
- Weight restoration and resumption of menses
- Exercise does not protect
- Calcium (1200–1500 mg/d)
- Measure vitamin D level, if inadequate prescribe 800 IU
- Bisphosphonates may be helpful with severe AN
- Growth hormone may enhance bone formation
- One RCT showed significant benefit of IGF
- Estrogen therapy shows no benefit

(Mehler, AED workshop, May 2011)

Children and adolescents

AN may result in delayed onset of puberty (defined as more than 2 standard deviations from the mean for age and gender, with an absence of progression through expected sexual maturity stages). Criteria for delayed puberty are provided below:

Criteria for Delayed Puberty

- Females
 - Absence of breast development >13.4 years of age
 - Absence of pubic hair development >14.1 years of age
 - Absence of menarche by 16 years of age
 - More than 5 years elapsed between breast development and menarche
- Males
 - Absence of testicular growth (>2.5 ml) by 13.7 years of age
 - Absence of pubic hair development >15.1 years of age
 - More than 5 years elapsed from initiation to completion of testicular development

(Birmingham & Treasure, 2010)

A detailed history of growth patterns and a review of previous height and weight records are essential to determine if puberty is delayed. A family history of growth patterns is also helpful.

Emerging evidence suggests that loss of bone mass occurs rapidly and early in the course of AN. Failure to achieve peak bone mass is irreversible.

Loss of Bone Mass, Osteopenia & Osteoporosis Treatment

- Failure to address loss of bone mass compromises normal bone development during adolescence
- Weight restoration & resumption of menses are the best means to increase bone mineralization
- Growth hormone may enhance bone formation
- Estrogen therapy is not recommended
- No data support the use of calcitonin, fluoride or teriparatide (form of parathyroid hormone)
- Exercise does not protect loss of bone mass
- Measure vitamin D level, if inadequate prescribe 1000 IU
- Males with AN are at higher risk

(Mehler & Andersen, 2010)

GASTROINTESTINAL RISK ASSESSMENT

General

Gastrointestinal symptoms are the most frequent complaint of patients with eating disorders. Common gastrointestinal tract symptoms include reflux, bloating, gas and constipation with paradoxical diarrhoea. The recommended treatments for constipation are adequate water intake of 6 to 8 glasses per day, fiber in low doses (10 grams per day), one to three tablespoons of polyethylene glycol powder daily and a non-absorbable synthetic disaccharide (30–60 ml) 1–2x per day. For bloating and intestinal gas, treatment recommendations include liquid food supplements, smaller and more frequent meals and weight restoration. If a non-absorbable disaccharide is prescribed, it may be useful to inform patients that because this medicine is not absorbed it is devoid of calories. Given the potential for laxative abuse in this patient population, stimulant laxatives, as a course of treatment for constipation, are not recommended.

Stomach complaints such as, non-specific pain, shrinking or distending, ulcers and ruptures or tears on stomach walls are also common. This results in gastrointestinal bleeding. Recommended treatments for stomach complaints are adequate fluid intake, regular eating and cessation of purging. For patients who vomit, increased gastric acid causes temporary erosion of dental enamel. Dental consultation should not occur until purging ceases.

Patients may report throat pain, problems swallowing, vomiting blood and reflux. The general recommendation for oesophagus complaints is to avoid spicy and acidic foods and to add soft foods. A complete rupture of the oesophageal wall (Boerhaave's syndrome) is rare and dangerous. Treatment for Boerhaave syndrome is emergency care with intravenous fluids and consideration of endoscopy and surgery (Mehler et al., 2010).

The enlargement of parotid and submandibular glands can also be seen with frequent purging. A number of treatments are recommended including applying warmth over parotid glands, gargling with saline and lemon as mouthwash, sucking on hard candies, discontinuing purging and weight restoration.

METABOLIC RISK ASSESSMENT

General

Metabolic disturbances are common in patients with BN but are unlikely to occur with AN. If electrolyte values are abnormal in a patient with AN restrictive subtype, it is likely due to covert purging (Mehler & Andersen, 2010).

“The electrolyte values for anorectic patients who are only restricting are remarkably and consistently found to be normal, as are their serum albumin and protein levels. This is an important clinical fact.”

(Mehler & Andersen, 2010, p. 99)

For severe metabolic alkalosis (>33–35 mEq/L), normal saline should be administered intravenously at a slow rate of 50–75 cc/hr at a maximum of 10ml/kg over 3–4 hours. Mild cases can be treated with aggressive oral hydration with oral rehydration fluid. Due to patients' poor nutritional status and possible cardiac muscle weakness, excessive amounts of intravenous saline administered at a rapid rate can lead to marked edema.

Pseudo-Bartter's syndrome is a condition to be aware of when rehydrating patients with eating disorders. More common with BN, this condition results in severe edema and can be alarming to patients. It is associated with abrupt cessation of purging and does not usually occur during purge episodes. Dietary salt restriction, slow infusion of saline, leg elevation for 10–15 minutes a few times a day and, if necessary, spironolactone 25 mg daily for 1–2 weeks are recommended. If pseudo-Bartter's syndrome is present, rehydration must occur first to ensure the efficacy of potassium repletion (Mehler & Andersen, 2010).

“Efforts to replete potassium are often unsuccessful if a coexisting metabolic alkalosis induced by dehydration is not treated first.”

(Mehler & Andersen, 2010, p. 102)

If a dehydrated patient has significant hypernatremia (serum sodium >145 mmol/L), the saline infusion should be slow (serum sodium corrected to approximately 125–130 mmol/L) in the first 24 hours. In such cases, slow saline infusion is essential to avoid central pontine myelinolysis, a neurologic complication.

Adults

It is important to note that serum measurement of potassium can be misleading in estimating the degree of total body depletion. The table below provides estimates for total body potassium deficits.

Estimated Potassium Deficits

Serum potassium	Potassium deficit
3–3.5	100–150
2–3	200–300
<1.5	400–600

(Mehler & Andersen, 2010)

Normal electrolyte ranges in adults:

Normal Electrolyte Ranges

Bicarbonate	22–28
Chloride	101–12
Potassium	3.6–5.2
Sodium	138–47

Children and adolescents

The following are recommendations for action resulting from serum potassium levels in children and adolescents.

Serum Potassium Levels in Children & Adolescents

Serum potassium	Action
3–3.5	Treat with oral potassium
<3	Admit with intravenous potassium correction
<2	Admit with intravenous potassium correction and intensive monitoring

ASSESSMENT FOR DISCHARGE

Children and adolescents

Due to the fragile nature of development during childhood and adolescence, it is imperative that young patients are not discharged from hospital until they are medically and nutritionally stable. Recommended criteria for medical discharge, which may take up to several months or more to reach, include:

- calculation and attainment of healthy weight and range
- evidence of resumption of height growth
- evidence of resumption of pubertal maturation including
 - physical changes in body
 - resumption of menses or increased levels of FSH, LH and Estradiol (without hormonal contraception) consistent with ovulation in females as early marker
 - changes on pelvic ultrasound for females

(Pei Yoong Lam, personal communication, 2011)

MEDICAL MANAGEMENT ON INPATIENT UNIT

Medical management of eating disorders on medical units requires consultation and planning to ensure safe and efficient admissions. With training and sufficient resources a multidisciplinary medical team in consultation with psychiatry, can provide treatment for physical complications secondary to eating disorders.

“Effective clinical care recognizes the importance of structure and clarity, reliability and predictability, and patients’ anxiety about the unfamiliar.”

(Nicholls et al. 2010, p. 2)

This section addresses the specific components of medical management including, admission orders, laxative protocols, recognizing and avoiding re-feeding and underfeeding syndrome, nasogastric and other forms of re-feeding, weighing and psychiatric comorbid conditions. Each of these is described below.

Admission Orders for Medical Unit

Admission orders should be tailored to the specific physical and medical needs of the patient. However, a number of standard guidelines apply to all medically compromised patients with eating disorders. These include:

- History and physical examination
- Admission laboratory work
 - Routine ECG
 - Haemoglobin
 - White blood cell count
 - Red blood cells and platelets
 - Sodium
 - Potassium
 - Chloride
 - Bicarbonate
 - Blood urea nitrogen
 - Nitrogen
 - Creatinine
 - Aspartate transaminase
 - Alkaline phosphatase
 - Magnesium
 - Calcium
 - Phosphorus
 - Ferritin
 - Vitamin B12
 - Zinc
 - INR
 - Urinalysis (midstream urine)
 - Stool examination if GI bleeding, abdominal complaints, or anemia
- Bed rest
- Intravenous fluids if dehydrated
- Correction of vitamin and mineral deficiencies
- Protocols as needed
- Re-feeding should begin after deficiencies and dehydration are corrected
- Dietician involvement in meal planning
- Begin re-feeding slowly and follow instructions in re-feeding instructions in this section

The Appendix includes inpatient standard admissions orders provided by the BC tertiary programs.

Laxative Protocol

There is no clear evidence on the best technique for withdrawing patients from laxatives (Roerig et al., 2010). However, the first step for any laxative protocol is to elicit the patient's beliefs about laxative use and to provide basic health education about the ineffectiveness of laxatives as a method of weight loss. Prior to initiating a laxative protocol, it is important to address patients' concerns about potential symptoms following discontinuation. The most frequent symptoms include increased anxiety and weight, fluid retention and constipation. Edema, the most common symptom following laxative withdrawal, usually subsides over a period of weeks as sodium balance is restored.

The lack of evidence on laxative withdrawal protocols in the treatment of eating disorders has led to mixed views and practices. In a study that evaluated a pharmacist-supervised, blinded withdrawal protocol, five of the seven eating disorder patients reduced their laxative use by 50% (Roerig et al., 2010). The withdrawal protocol in this study began with patient education about normal eating and bowel habits.

Laxative Taper Used in a Pharmacist Supervised Blinded Withdrawal Protocol

Magnolax®/cascara	Previous laxative dose
Magnolax® 30mL/cascara 30mL	<20 bisacodyl 5 mg tablets/day
Magnolax® 45mL/cascara 45mL	20–40 bisacodyl 5 mg tablets/day
Magnolax® 60mL/cascara 60mL	40–60 bisacodyl 5 mg tablets/day
Magnolax® 90mL/cascara 90mL	>60 bisacodyl 5 mg tablets/day

(Roerig et al., 2010)

In another laxative withdrawal protocol study patients admitted to an ED program between a period of two years were followed up at three and twenty months (Roerig et al., 2010). The protocol consisted of abrupt discontinuation of laxative use, a withdrawal stage that involved the use of non-laxative digestive aids to normalize bowel function and psycho-education. Initial digestive aids included bulk-forming agents with fluids, stool softeners and glycerin suppositories. In the second half of the protocol patients progressed to a small clear-water enema and ultimately the addition of an irrigation agent. At follow-up 57% of patients reported abstinence from laxative use.

A laxative protocol administered by Dr. Mehler, an expert in the medical management of severely compromised patients with eating disorders, gives emphasis to psycho-education and reassurance followed by complete termination of laxative use. In the detoxification weeks following discontinuation, the protocol includes ample hydration, a high fiber diet and moderate amounts of exercise, for patients without a history of excessive exercise as a means of controlling weight. For patients with persistent constipation, a glycerin suppository or nonstimulating osmotic laxative such as lactulose may be useful. Stool softeners are not recommended for this protocol. It is also important to inform the patient that normal bowel function is anything above two bowel movements per week (Mehler, 2010).

Re-feeding and Underfeeding Syndrome

Recognizing and avoiding re-feeding syndrome is highly controversial in the treatment of patients with AN (Junior MARSIPAN, 2011 & MARSIPAN, 2010). The conflict is due primarily to the distinction between a safe and cautious re-feeding approach versus an over-cautious approach that may be counterproductive in an illness known to thrive on low caloric intake. The danger of an over-cautious approach is under-feeding syndrome, a phenomenon that occurs when patients lose weight due to the re-feeding protocol. **Under-feeding syndrome is as risky as re-feeding syndrome.**

When patients are first reintroduced to food, the sudden reversal of prolonged starvation poses a number of potential dangers, which is referred to as re-feeding syndrome. Reintroduction of nutrients leads to rapid reductions in electrolytes such as potassium and phosphate and the resulting cardiac effects can be fatal. The key electrolyte for re-feeding syndrome is phosphorus (Mehler & Andersen, 2010). Re-feeding syndrome can be avoided in severely malnourished patients by gradually increasing nutritional intake and frequently monitoring blood chemistry values (potassium, phosphorus, magnesium, sodium and glucose). Restricting carbohydrate calories and increasing dietary phosphate (e.g. milk) also reduces the threat of re-feeding syndrome. For patients who are prescribed oral or enteral nutritional supplements, high-calorie supplements with lower levels of carbohydrates are recommended (MARSIPAN, 2010). For all sources of fluid it is recommended that total intake not exceed 30–35 mL/kg/24h.

“The risk of the re-feeding syndrome is directly correlated with the degree of weight loss that has occurred as a result of the anorexia nervosa.”

(Mehler & Andersen, 2010, p. 83)

It is essential to test for and correct electrolyte abnormalities before initiating any form of nutrition. Patients with the following indicators are considered most at risk for re-feeding syndrome:

Severity Indicators for Re-feeding Syndrome

- Very low weight for height
- Minimal or no nutritional intake for more than 3–4 days
- Weight loss of over 15% in the last 3 months
- Abnormal electrolytes prior to re-feeding
- Significant ECG abnormalities
- Active comorbidities (i.e. infections)
- Significant comorbidities (e.g. cardiac)
- Re-feeding initiated with nasogastric tube

(Junior MARSIPAN, 2011; MARSIPAN, 2010)

Adults

There are differences of opinion among ED experts on the rate of caloric intake for re-feeding patients. However, the recommendation for patients who are most at risk for re-feeding syndrome is to begin re-feeding at lower caloric levels. Caloric intake should be guided by patients' pattern of weight gain. Rates of weight gain greater than 2–3 pounds (0.9–1.4 kg) per week may represent edema or constipation. Suggested re-feeding guidelines follow:

Re-feeding Guidelines Based on Severity Indicators

- Input and output of fluids supervised and measured
- Daily electrolyte and phosphorus checks
- In the absence of severity indicators...
 - a starting caloric intake of 20–25kcal/kg/day appears to be safe
 - monitor electrolytes, serum phosphorus and clinical status for the first 7 to 10 days
 - monitor for development of tachycardia or edema
 - intake should rarely exceed 70–80 kcal/kg/day
 - limit protein intake to 1.0–1.5 g/kg/day
 - start with no-added-salt diet and low-fat
 - aim for 2–3 pound (0.9 – 1.4 kg) weight increase per week
- In the presence of severity indicators...
 - a starting caloric intake of 5–10 kcal/kg/day reviewed within 12 hours
 - decisions to initiate low-calorie-re-feeding should occur in consultation with an expert physician in clinical nutrition and a clinical nutrition team
 - increase caloric intake in steps to 15–20 kcal/kg/day within 2 days unless contraindicated
 - increased feeding should not be delayed by minor or moderate abnormalities in liver functioning (e.g. alanine transaminase up to four times the upper limit of normal range)

(MARSIPAN, 2010; Mehler & Andersen, 2010)

Caloric estimates on the minimum amount of energy required to keep the body functioning with total bed rest can also be calculated using the Basal Energy Expenditure (BEE), which is synonymous with Basal Metabolic Rate (BMR) and Resting Energy Expenditure (REE). Harris-Benedict equation for basal energy expenditure (BEE):

- Women: $BEE = 655 + (9.6 \times \text{body weight in kg}) + (1.8 \times \text{height in cm}) - (4.7 \times \text{age in years})$
- Males: $BEE = 66 + (13.7 \times \text{weight in kilos}) + (5 \times \text{height in cm}) - (6.8 \times \text{age in years})$

The BEE/REE is often lower early on in the re-feeding process than during weight gain and may have to be recalculated (Mehler & Andersen, 2010). The change in the BEE/REE value may be responsible for plateaus in weight gain. To determine the total energy expenditure (TEE) the BEE/REE value is multiplied by an activity factor (1.2–2.0). The TEE is the target to achieve after the initiation of re-feeding and should not be the starting caloric intake (Mehler & Andersen, 2010).

The TEE should never exceed twice the BEE/REE

It is important to note that patients with AN gain weight with greater difficulty than do patients with BN (Mehler & Andersen, 2010); therefore, it is prudent to not immediately suspect purge behaviours. Calculation for caloric needs should be continuously adjusted and increased.

Children and adolescents

Unfortunately there are no evidence-based guidelines for the reintroduction of food for younger patients with eating disorders. Recommended re-feeding guidelines range from 10 kcal/kg to 60 kcal/kg (Junior MARSIPAN, 2011). Various formulas exist to calculate energy requirements based on Basal Metabolic Rate (BMR) [Schofield Equation] + Activity Factors (AF[1.1–1.3]). Some dietitians advocate for approximately 35–40% of calculated BMR (500–600 kcal/day). Other clinicians start at around 1000 kcal and increase carefully, while closely monitoring electrolytes. However, even 1000 kcal is considered overly cautious. Another approach to avoid re-feeding syndrome – which is insulin mediated – is to restrict carbohydrate calories and increase dietary phosphate (e.g. milk).

“...for the majority of patients an overly cautious approach to re-feeding is not necessary, BUT close monitoring is required and in high risk patients a more careful approach may be needed.”

(Junior MARSIPAN, 2011, p. 33)

Seasoned physicians and dietitians suggest that the rate of nutritional increase is of greater importance than the starting energy intake. Prolonged low intake is more likely to cause under-feeding syndrome. A common recommendation is to increase daily from baseline intake by 200kcal/day, depending on biochemistry. If phosphate drops, then intake should remain static until it stabilizes. Reducing caloric intake is not recommended.

- A one-year retrospective chart review revealed that only 4 of 46 adolescent AN admissions were at high risk of re-feeding syndrome. Percent ideal body weight at admission was significantly associated with the development of hypophosphatemia (Whitelaw et al., in press).

The evidence base for vitamin and mineral supplement with paediatric patients is limited; however, it is common practice to prescribe a multivitamin and mineral supplement. Phosphate and magnesium supplements are necessary if either level drops significantly. With older adolescents, it is reasonable to follow the standard adult practice of prescribing thiamine.

Management of Re-feeding

- Starting intake should not be lower than at admission. In general, most patients can start on 20kcal/kg/day or higher; however, close monitoring of electrolytes, phosphate and clinical state should occur.
- Patients with severity indicators such as ECG abnormalities, evidence of cardiac failure, electrolyte abnormalities before re-feeding starts, active comorbidities (such as diabetes and infections) or very low initial weight may need lower starting intakes (e.g. 5–10 kcal/kg/day).
- If a low initial calorie level (5–15 kcal/kg/day) is implemented, clinical and biochemical reviews should be taken twice daily at first, with calories increased incrementally until weight gain is achieved. Initial low calorie feeding warrants consultation with an expert in clinical nutrition. Minor or moderate abnormalities of liver function should not delay increased feeding.

(Junior MARSIPAN, 2011)

POTENTIAL COMPLICATIONS WITH RE-FEEDING

General

Careful monitoring of clinical parameters is necessary to reduce potential complications from re-feeding. This involves taking vital signs daily in the first few weeks. An elevated heart rate (80–90 beats/minute range) can be a precursor to re-feeding syndrome. A sudden sustained increase in the pulse greater than 80–90 bpm warrants further evaluation.

Edema is a common minor complication during the early stages of re-feeding; however, its presence, particularly in the ankle and shin, may indicate the onset of re-feeding syndrome. In the early phases of re-feeding, insulin secretion increases which causes sodium retention. When this occurs, a low sodium diet may offset fluid retention. Nevertheless, any of the clinical findings associated with edema require a thorough medical evaluation.

Abdominal bloating and constipation are also common symptoms during re-feeding. Delayed stomach emptying and prolonged colonic transit time can cause abdominal pain. In such cases, a bowel regimen with careful amounts of fiber and adequate hydration is recommended.

Fluid and electrolyte abnormalities are well known during the re-feeding process. Low serum levels including hypokalemia, hypophosphatemia, and hypomagnesaemia can occur as the body shifts from a catabolic to an anabolic state. Daily monitoring of potassium, phosphorous, magnesium, sodium and glucose can avert potential problems. Once the patient has consistently gained weight and has relatively stable blood levels, monitoring of serum levels can be reduced to bi-weekly. As re-feeding hypophosphatemia is the main chemical cause of re-feeding syndrome, serum phosphorus levels should be monitored closely (Mehler & Andersen, 2010).

Other metabolic complications may occur but they have little clinical significance. These include mild elevations of the liver enzymes aspartate aminotransferase (AST) and alanine aminotransferase (ALT) followed by alkaline phosphatase and then bilirubin. They will usually resolve with a slowing of the rate of re-feeding. If the elevations are more than three times normal, consultation with a dietician is recommended to consider reducing carbohydrate-dextrose calories.

With total parenteral nutrition (TPN) or enteral feeds, abrupt cessation of feeds can result in dangerous hypoglycemia.

Nasogastric and Other Sources of Feeding

Whenever possible, oral food and fluid, with nutritional supplements is the preferred feeding option for patients with eating disorders, as it is less invasive, safer and more therapeutic. However, for patients who are unable to follow an oral re-feeding plan or prefer to be relieved of the responsibility of eating, nasogastric feeding may be necessary. Other forms of re-feeding such as enteral nasogastric feedings (NG), percutaneous endoscopic gastrostomy-based feeding (PEG) and total parenteral nutrition (TPN) are a consideration for patients with life-threatening weight loss, persistent failure to gain weight and worsening psychological status (Mehler & Andersen, 2010). Given the added potential complications with alternative forms of feeding, some level of special expertise is necessary. With respect to TPN, this treatment modality is best prescribed for only severe and refractory cases.

Nasogastric feeding is often a short-term intervention until oral intake improves. The use of supplements and/or nasogastric feeding requires a prescription and should occur in consultation with a dietician. An accurate and up to date record of tube feeds should be kept by staff and by parents, if they have share the responsibility. Additional considerations for nasogastric tube feeding are listed below.

Nasogastric Re-feeding Considerations

- Patient's needs determine if feeds are intermittent, bolus or continuous
 - Continuous feeds must be closely monitored in same way as intravenous infusion (e.g. hourly observations)
- Supplemental drinks or bolus nasogastric feeds must be observed and monitored closely, even when given by pump
- Day time bolus feeds at mealtimes are recommended to mimic physiological demand
- Choice can be offered on whether patient prefers oral or tube feed for each meal
- Night time feeds are less helpful with AN, as patient needs to stay awake and there is risk of aspiration of feed if tube is dislodged
- Insertion of nasogastric tube against a patient's will requires legal considerations and may require the aid of mental health nurses trained in safe control and restraint techniques

(Junior MARSIPAN, 2011; MARSIPAN, 2010)

Weighing

To minimize weight fluctuations unrelated to nutritional changes patients can be weighed in underclothes only in the same way and at the same time in the morning, before breakfast and after emptying their bladder. It is important that staff is aware of common methods used by patients to alter their weight including, hiding items in underclothes and water-loading to mimic weight gain. If water loading is suspected, access to fluid may need to be restricted. If the concern is ongoing, measurement of urine specific gravity may need to occur at the same time as weighing. Patient access to scales should also be restricted to avoid frequent weighing (Junior MARSIPAN, 2011; MARSIPAN, 2010).

Psychiatric Comorbid Conditions

Eating disorders often co-occur with depression, social anxiety, and/or obsessive-compulsive disorder. If patient is not on a psychotropic medication, it is recommended to not start treatment until they are medically stable (MARSIPAN, 2010).

Significant distress regarding the prospect of eating or being fed is common for patients. As patients get nourished, cognitive impairment decreases but anxiety levels often increase. In such cases, a psychiatric consultation is recommended to help manage anxiety and address any sleep disturbance.

Involuntary Detainment, Treatment and Extended Leave Provisions under the Mental Health Act

In cases in which either a younger or adult patient with an eating disorder is at serious medical risk to the extent that they are in jeopardy of dying, they can be admitted involuntarily under the Mental Health Act in designated Mental Health Facilities. Involuntary detainment and treatment can occur as a life-saving measure if a voluntary admission is not a possibility and the patient can be shown to a) have a mental disorder, b) require inpatient medical or psychiatric admission and/or c) require care and supervision to prevent substantial mental or physical deterioration. Patients who have a lengthy history of involuntary detainment and treatment due to frequent relapses benefit from community support and assistance in adhering to a treatment program designed to ensure their medical and psychiatric safety. Further details about the B.C. Mental Health Act can be found on B.C. government health website (Guide to the Mental Health Act, 2005). See: <http://www.health.gov.bc.ca/library/publications/year/2005/MentalHealthGuide.pdf>

BEHAVIOURAL MANAGEMENT IN INPATIENT MEDICAL UNIT

General

For the safety of the patient with an eating disorder, other patients on the unit and the staff a behavioural management plan is imperative. A structured and consistent behavioural management plan with clearly documented restrictions helps to avoid obstructive and disruptive dynamics on the unit. A firm but supportive approach by staff that conveys familiarity of potential weight loss behaviours provides a safe environment for eating disorder patients. Staff should keep in mind that patients are not always aware of, or in control of, their behaviours. Often patients act on compulsion and are unable to alter their behaviours without additional support. Although they may promise to stop behaviours, they are likely to break that promise.

“A core feature of anorexia nervosa is a drive for thinness; thus the presence of behaviours designed to lose weight confirm the diagnosis, rather than being a cause for alarm.”

(Junior MARSIPAN, 2011, p. 35)

The management of ED behaviours, in particular, those aimed at weight loss can be challenging. A number of strategies can be effective. These include one-on-one nursing care, establishing a contract with the patient, confining patients to areas where they can easily be observed and keeping bathrooms and bedrooms locked. If one-on-one observation is necessary, it is essential to train sitters and to provide them with a set of guidelines.

Common weight loss behaviours during medical admissions for patients with eating disorders include the following:

- vomiting
- watering down tube feeds
- allowing tube feed to drip into a cup
- compulsive exercise such as running up and down stairs, jiggling legs up and down, pacing up and down the hallway, making frequent trips to the bathroom
- wearing very little clothing in order to induce shivering
- preventing attempts to feed fully by disposing of food, turning off NG feeds and drips and aspirating the NG tube between bolus tubes
- becoming violent when specific requests are not permitted
- falsifying weight (e.g. water loading, wearing heavy objects and gripping scale with toes), in particular, when changes to meal plans are predicated on weight changes
- if patient is suspected of water loading, the water supply in room should be turned off to avoid dangerous electrolyte disturbance from overloading

Behavioural Management of Eating Disorders on Medical Unit

- If weight gain is less than expected (e.g. less than 0.5–1.0 kg/week), assume weight-losing behaviours. A punitive response is counterproductive and should be avoided, as these behaviours are an inevitable part of the illness. Conversely, if weight gain is dramatic (e.g. 2 kg within a few days), assume water loading (if edema is ruled out).
- As early as possible in the admission, organize a multidisciplinary meeting with key staff members to decide how to reach treatment goals and document the meeting clearly. Involve the patient and parents in a discussion of the plan.
- At the outset of admission establish the level of nursing supervision required and the level of parental care that is possible and appropriate.
- Seek consultation from psychiatric team and the tertiary ED program.
- Develop a management plan to be transferred between nurses with consistent handover.
- Schedule regular review meetings with key staff, parents and patient to monitor and revise treatment goals
- Be prepared to use the Mental Health Act if necessary

(Junior MARSIPAN, 2011)

Children and adolescents

With children and adolescents it is essential that the multidisciplinary team utilize a family based approach to treatment. By actively engaging and respecting the concerns of parents and/or guardians throughout treatment, the team is able to foster trust and cooperation.

Family members are integral to treatment outcomes with younger ED patients. The establishment of a respectful, collaborative, and informative relationship with the patient and family is the cornerstone of effective treatment. It is best to consider parents as partners in the process of recovery (Junior MARSIPAN, 2011). By the time the patient requires a medical admission, the eating disorder has probably taken over the lives of the entire family. Parents and family are often distraught and overwhelmed. Younger patients may be relying heavily on parental support to eat and manage associated ED behaviours. Separation anxiety is also a common feature for younger patients with AN (Junior MARSIPAN, 2011). For these reasons, it is essential that parents and families receive the support and information they need to increase the likelihood of treatment success. It is also important to note that making assumptions about the role of the family in the development of eating disorders is not helpful. Staff are encouraged to maintain a nonjudgmental attitude with parents and to help determine their appropriate level of involvement. For example, if parents' want to be involved with re-feeding on the unit, a trial period can help determine if it is helpful. If staff and parents decide that changes are necessary, it is essential that they not be abrupt. Should staff have concerns about relationship dynamics between patients' and family members a social worker from the unit can be consulted.

Social Interaction

Although patients may benefit from social interaction and activities, it is important that neither interferes with the treatment plan by affecting snack or meal times nor recommended rest periods.

It is recommended that staff carefully consider contact between patients when more than one young person with an eating disorder is admitted to a paediatric unit. Young patients with less advanced ED pathology may be negatively influenced by those more advanced in their illness and competition can occur. With respect to other paediatric patients without a diagnosis of eating disorders, it is important to be vigilant as they may witness behaviours and adopt them.

Time Off Ward and Privileges

Although passes are not recommended on medical wards, if they are permitted, careful consideration should be given, as time off the ward may present opportunities to exercise and sabotage weight gain. If time off ward is appropriate, then patient should be accompanied in a wheelchair for a short period.

A number of considerations should be taken into account if paediatric patients and their parents request time off the ward. These include the patient's physical status, potential harmful behaviours and interactions with parents and opportunities to exercise, dispense of food, water load or to expend energy by not keeping warm. The multidisciplinary team should address additional privileges such as cell phone use. In general, use of cell phones and social media platforms are not recommended.

Meal Plan

A dietician with expertise in eating disorders is responsible for implementing and overseeing a food and fluid meal plan. It is recommended that the dietician seek agreement from the patient on the plan; however, attendance to nutritional and physical needs takes precedence. Staff and the patient should keep a record of the meal plan, unless the patient prefers not to have a copy.

Snack Time and Meal Time

The needs of the patient during snack and meal times will vary; however, it is essential that the details of observation be clear and consistent. These include determining who is responsible for: observation during and after snack and meal times, ensuring and documenting food and fluid intake and length of time to completion. Agreement regarding substitutions or course of action if meal is not completed should occur in advance and be well documented.

Exercise/Activity

On admission, 24 hours of bed rest is recommended until the extent of patients' compromised state is assessed. A risk assessment for tissue viability is also recommended and liaison with a tissue viability nurse if indicated. For patients with severe AN, strict activity level restrictions are recommended, including micro exercising. Gentle activities such as watching television, reading a book or doing crafts may help to reduce distress. The level of supervision should be discussed, determined and documented at the time of admission and reviewed as necessary. For young people with AN, enforced bed rest is extremely distressing and necessitates ample support.

Purging and Other Methods of Avoiding Weight Gain

In addition to restricting access to toilets, self-induced vomiting may be decreased with one hour of supervision after snack and meal times. It is recommended that staff be aware of the availability of syringes on medical units, as they aid patients in aspirating stomach contents via nasogastric tubes. Staff should also be vigilant of laxative supplies.

Bingeing

Despite the low occurrence of binge behaviours in younger age groups, it is important that nursing staff is aware if excessive amounts of food are requested either from patients or visitors or if food is missing from supplies and fridges on the unit.

Self-harm

If there is any concern about the risk of self-harm or suicidal ideation, an assessment by the psychiatry team is recommended. The risk assessment should include steps to be taken if risk increases.

Violent and Disturbed Behaviour

Instances of violent and disturbing behaviour on a medical unit should be discussed with psychiatric services to determine if additional actions and resources are required in the management of the patient.

Showers/Washes/Toilet

It is recommended that supervision occur during washing and toileting in the bedroom to ensure safety and prevent self harming behaviours.

Schoolwork

Patients who are severely ill are unlikely to be well enough to participate in academic work. For those who are well enough, it is important to consider the amount and type of academic work that they undertake. Young patients with AN often have obsessive and perfectionistic tendencies that may further exacerbate their level of anxiety and be counterproductive to the treatment goals. To reduce the anxiety of young patients it is important that a member of the multidisciplinary team (MDT) obtain parental consent to liaise with the school about academic expectations and any areas of concern (Junior MARSIPAN, 2011).

TEAM COHESION

In order to develop and adhere to a care plan with clear and well-developed goals, it is incumbent on the MDT to maintain cohesion in the face of obstacles. Delineating roles for decision-making and management responsibilities best allows the team to take the recommended firm but supportive approach.

Nursing care

Patients with eating disorders admitted to a medical or paediatric ward can cause significant anxiety for the nursing staff (Junior MARSIPAN, 2011; MARSIPAN, 2010). Anorexic and bulimic behaviours including refusing and hiding food, excessive exercising and purging behaviours can pose challenges to nursing staff on busy inpatient units. It is essential that hospital administrators and the MDT recognize the singular pressures placed on nurses in the management of ED patients and that necessary training and support are provided. In some environments child and youth counsellors can provide useful support to nurses in the management of ED patients. When necessary, mental health nurses may be seconded to help develop skills and expertise among medical nurses.

Parents may have a supportive role to play to facilitate or augment nursing care (Junior MARSIPAN, 2011). If a parent's presence on the unit is supportive and enables their child to reduce eating disorder behaviours, then empowering parents to act in this capacity is encouraged. However, staff should not assume that parents are able or willing to take on extra nursing duties. By the time many young patients are admitted to hospital, parents are often frightened and exhausted.

Recommendations for nursing care are outlined below.

Recommendations for Inpatient Medical Nursing Care

- Identify core group of nurses to care for patient during an admission
- Maintain continuity of care as much as possible
- Resist requests by patients for specific nurses unless warranted from the perspective of the ward
- Ensure detailed and clear communication and handover between nursing staff
- Ensure additional special nursing staff are appropriately trained and well-briefed in care plans

(Junior MARSIPAN 2011; MARSIPAN, 2010)

Separate nursing care in a single room may have some benefits for patients with severe eating disorders but there are a number of disadvantages to consider (Junior MARSIPAN, 2011). Although a separate room and nursing care ensures privacy for patients in disturbed mental states and may minimize disruption on the unit, it also isolates them with their persecutory thoughts, presents opportunities to exercise, dispose of nutrients and purge and may increase opportunities to engage in deliberate acts of self-harm. Therefore, it is recommended that the need for separate nursing be evaluated on a case-by-case basis depending on the nature of the problem behaviours, the patient's capacity for interacting with others on the ward and the need for special psychiatric nursing.

TRANSFER OR DISCHARGE

If possible, admissions to medical units should be short in duration (MARSIPAN, 2010). Short admissions are recommended in part because as medical acuity decreases, distress level increases. Due to the nature of eating disorders, the more distressed patients' become the more likely they are to increase problematic behaviours that sabotage treatment. Every time that the team meets, including the first week of admission, the process of discharge planning can begin. Precipitous discharge should be avoided. However, it is equally important that patients' with eating disorders are not discharged until the reasons for admission have been addressed and they are medically stable. It is also recommended that patients' remain on the unit if one risk factor (e.g. low potassium) has improved but others have not (MARSIPAN, 2010).

If the patient's clinical problems are best managed by specialized inpatient treatment, it is recommended that a referral be made to a designated tertiary ED disorder unit. If a bed on an ED specialist unit is not available immediately, the following is recommended:

- Consult with the tertiary specialist ED team about how to best manage behavioural and psychological challenges that interfere with physical improvement
- Establish a regular meeting between medical and nursing staff and liaison psychiatry staff on how to best implement and the ED specialist's advice
- Establish clear procedures for one on one nurse supervision, including when it is not working
- Create a communication sheet with telephone numbers and contact information of the medical physician, liaison psychiatrist and ED specialist consultant should an emergency arise

PART 9: PHARMACOTHERAPY

ANOREXIA NERVOSA

Psychotherapy is considered a first-line treatment in cases of anorexia nervosa (AN), as pharmacotherapy has been found to be generally ineffective for reducing symptoms of AN. However, medications are often used to treat comorbid psychiatric conditions.

Evidence

- Across four placebo-controlled trials, no significant evidence was found for the superiority of antidepressant medication over placebo for improving weight gain, eating disorder (ED) psychopathology, or associated functioning (Claudino et al., 2006)
- Olanzapine, a second-generation antipsychotic (SGA), is the only medication for which there is evidence of efficacy supported by randomized controlled trials (RCTs)
 - a. The evidence suggests that olanzapine may increase the rate of weight gain when compared to placebo (Attia et al., 2008; Bissada et al., 2008), but not the overall amount of weight gained (Bissada et al., 2008; Brambilla et al., 2007)

Clinical Recommendations – Anorexia Nervosa

- Individual psychotherapy remains the treatment of choice for AN, as this disorder is mostly resistant to treatment with medication
- Comorbid conditions (i.e., depression, obsessive-compulsive disorder) may still be treated with medication, but the effects of starvation on neurotransmitter functioning may reduce the efficacy of such medications
- While some evidence exists for the efficacy of olanzapine in promoting weight gain, the use of SGAs in treating AN are generally considered experimental and typically reserved for severe cases characterized by chronic resistance to weight gain
- Patient adherence to SGAs may be challenging considering that weight gain is an established side effect
 - SGA medications, if used, should be titrated slowly
- It is important to be acutely aware of adverse events and side effects in the AN population since many patients can be medically unstable

BULIMIA NERVOSA

Of the antidepressant medications which have been found to be effective in the treatment of bulimia nervosa (BN), fluoxetine is considered the “gold standard”.

Evidence

- Antidepressant medications have demonstrated effectiveness in the treatment of BN (Jackson, Cates, & Lorenz, 2010)
 - a. Fluoxetine, a selective serotonin reuptake inhibitor (SSRI), has been established as the “gold standard” medication in the treatment of BN and is the only pharmacological treatment for BN that has been approved by the Food and Drug Administration (FDA) (Broft, Berner, & Walsh 2010)
 - b. Tricyclic antidepressants and monoamine oxidase inhibitors (MAOIs) have a more problematic side effect profile which makes them less useful than SSRIs (Broft, Berner, & Walsh 2010)
 - c. While bupropion, an antidepressant, has demonstrated a dramatic reduction in binge eating and purging for individuals with BN (Horne et al., 1988), it also has an unacceptably high rate of seizures. The FDA has issued a black box warning regarding the use of bupropion in patients with EDs, particularly those who are binge-eating and purging, and thus it is rarely used in the treatment of EDs.
- Topiramate, an anticonvulsant medication, has been found to be efficacious in the treatment of BN (Hedges et al., 2003; Hoopes et al., 2003; Nickel et al., 2005). However, it also has a more problematic side effect profile, including the side effect of weight loss, which may not be desirable in this group of patients.

Clinical Recommendations – Bulimia Nervosa

- CBT has been shown to be at least as effective as pharmacotherapy for the treatment of BN, and thus it may be appropriate to initiate a pharmacological approach in cases of patient preference, lack of full response to CBT, or unavailability of CBT
- If medications are being used, fluoxetine should be the medication of choice, which has demonstrated greater efficacy at a higher dose (60 mg/day)
 - Fluoxetine has demonstrated greater efficacy in the treatment of BN at higher doses (60 mg/day), and patients can begin treatment at this dosage or titrate to it quickly
- Due to their relatively benign side effect profile, other SSRIs or serotonin-norepinephrine reuptake inhibitors (SNRIs) should be used if fluoxetine is ineffective, but other antidepressant classes may also be considered
- If antidepressants prove insufficient, topiramate may be used.

EATING DISORDER NOT OTHERWISE SPECIFIED (EDNOS)

Although pharmacotherapy has been found to be better than placebo at reducing binge-eating symptoms associated with eating disorder not otherwise specified (EDNOS), it does not appear to add to the effectiveness of CBT, and medication alone has been found to be less effective than CBT alone. Thus, CBT is still considered the treatment of choice for reducing binge-eating symptoms associated with EDNOS.

Evidence

- Significant evidence to suggest that antidepressants, particularly SSRIs, can reduce the frequency of binge eating in the short term, but they do not appear to be associated with long-term significant weight loss.
 - a. When combined with CBT or other psychosocial interventions, antidepressants not appear to have added beneficial effects.
- Across three RCTs, sibutramine, an appetite suppressant, has consistently been associated with a greater decrease in binge-eating frequency and weight compared to placebo (Appolinario et al., 2003; Milano et al., 2005; Wilfley et al., 2008).
- Topiramate (McElroy, Arnold, et al., 2003; McElroy, Hudson, et al., 2007) and zonisamide (McElroy, Kotwal, et al., 2006), both anticonvulsant medications, have been found to be more effective than placebo in reducing frequency of binge-eating episodes and aiding weight loss, but are poorly-tolerated by patients.
- Atomoxetine, a norepinephrine reuptake inhibitor, was found to be superior to placebo in reducing frequency of binge-eating and weight, but ineffective in reducing depressive symptoms (McElroy, Guerdjikova, et al., 2007).

Clinical Recommendations – EDNOS

- CBT should be considered treatment of choice to reducing a range of binge-eating symptoms
- If treatment is primarily concerned with weight loss, appetite suppressants should be considered, as they have been shown to consistently reduce weight, and is most effective when combined with psychosocial treatments
- However, there is little evidence to suggest that medication alone should be considered the treatment of choice for binge-eating, given that CBT alone has been found to be more effective than medication alone in decreasing binge-eating symptoms
- Medications may be considered due to reasons of treatment availability, cost, preference, or alternative treatment goals, like weight loss or treatment of comorbid psychiatric disorders

CHILDREN AND ADOLESCENTS

Pharmacotherapy research for eating disorders has been conducted primarily in adult populations. As such, there is a general lack of evidence demonstrating the efficacy of pharmacotherapy for children and adolescents with eating disorders.

Evidence

- Currently, no RCTs exist examining pharmacotherapy for eating disorders amongst children and adolescents (Golden & Attia, 2011)
- Further study is required to determine whether medications shown to be efficacious in adult BN are also efficacious and safe when used in younger populations

Clinical Recommendations – Children and Adolescents

- Behavioural or family-based treatments are considered the first line of treatment for AN, BN, and EDNOS, given the lack of evidence for the efficacy of medication for children and adolescents with eating disorders
- Medication treatments should be used only in cases in which other approaches are ineffective and/or in which significant co-morbid conditions are present
- If medications are to be used as an adjunct to other treatments, those which have demonstrated efficacy in adults, and particularly those which have been safely administered in children with other psychiatric disorders, may be attempted
- Close monitoring of side effects is essential to pharmacotherapy for younger populations, due to the lack of established side effect profiles

GLOSSARY OF TERMS

Anorexia Nervosa (AN)

AN is marked by restricted food intake with or without purging behaviour, as well as a decrease in body weight (usually to 85 per cent or less of the ideal body weight) and preoccupation with fat, weight and shape. Amenorrhea is generally also present in postmenarcheal females. Subtypes of AN include restricting and binge-eating and/or purging.

Binge Eating Disorder (BED)

BED is currently included in the DSM-IV as a subcategory of EDNOS. It is the most common variety of EDNOS, involving uncontrollable binge episodes at least twice weekly for a minimum of six months.

Body Mass Index (BMI)

A statistical measure of weight according to height. BMI is calculated as kg/m^2 . The recommended healthy range for most adults is 19–25.

Bulimia Nervosa (BN)

BN is marked by recurrent and generally uncontrollable bingeing and purging (including vomiting; use of laxatives, diuretics or emetics; fasting; and/or exercise). Individuals with BN may be normal body weight or overweight, and usually present with psychiatric comorbidities.

Cognitive Behaviour Therapy (CBT)

A form of evidence-based psychotherapy that provides a structured intervention to assist with current problems. It may be delivered in a range of formats, individually and in groups, in person or through internet and computer technology.

Cognitive Behaviour Therapy-Enhanced (CBT-E)

CBT-Enhanced for eating disorders.

Day Hospital Programs

Hospital-based interventions that allow individuals to maintain some connection to their community while engaging structured and intensive treatment.

Dialectical Behaviour Therapy (DBT)

Developed by the psychologist Marsha Linehan, DBT follows four primary modules: mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness. DBT is delivered individually and in groups.

Eating Disorders (EDs)

The primary EDs defined in the DSM-IV are AN, BN and EDNOS.

Eating Disorder Not Otherwise Specified (EDNOS)

Individuals with EDNOS exhibit signs and symptoms of AN and/or BN but do not meet the full diagnostic criteria for either.

Eating Disorder Specialist

Care provider who has training to provide eating disorder specific treatment.

Eating Disorder Specialist Service

Service that provides treatment specifically tailored to the needs of individuals who have eating disorders.

Family Based Therapy (FBT)

Family based therapy is a treatment protocol developed at the Maudsley Hospital in London, England, that asks parents to take full responsibility for restoring the weight and/or eating pattern of a child with an ED.

Inpatient Treatment

Inpatient hospitalization is provided for individuals who are physiologically compromised and require intensive medical intervention and stabilization.

Interpersonal Therapy (IPT)

A form of psychotherapy that targets interpersonal skills and processes.

Non-Specialist Services

Mental health services that are not specifically tailored to the needs of individuals with eating disorders.

Readiness and Motivation

Based on a model of stages of change, a readiness and motivation approach encourages clinicians to meet individuals where they are in a change process in order to tailor treatment according to an individual's specific needs and build a strong therapeutic alliance. Readiness and motivation approaches are particularly beneficial when treating individuals with EDs who are, typically, ambivalent about recovery.

Residential Treatment

A service delivery model that targets medically stable individuals who require structured, intensive therapeutic care outside of a hospital setting.

Severe and Enduring Eating Disorders

Long-lasting or chronic EDs without substantial episodes of remission.

Short Treatment Allocation Tool for Eating Disorders (STATED)

The Short Treatment Allocation Tool for Eating Disorders can be used to determine appropriate level of care for an individual based upon three dimensions: medical acuity, life interference, and readiness for change/engagement.

Specialist Eating Disorder Services

Specialist services are inpatient and outpatient treatment centers that are resourced to offer specialized (as opposed to general mental health) treatment to ED patients.

Telehealth/Tele-mental-health

A range of technologies that enable a wider delivery of services, i.e. through video or teleconferencing or other methods.

APPENDIX: SERVICES OFFERED AT EACH LEVEL OF CARE

Prevention of Illness and relapse	Primary Care	Secondary Care	Tertiary Care
<ul style="list-style-type: none"> • Selective and targeted interventions to prevent illness from developing • Health literacy • Follow-up care and relapse prevention 	<ul style="list-style-type: none"> • Screening and early intervention • Primary care management • Supportive community programs 	<ul style="list-style-type: none"> • Specialized outpatient services • Intensive outpatient programs • Private practitioners • Mental health teams • ED community teams • Specialized residential services • Day program/day hospitalization • Acute care • Secondary inpatient hospitalization 	<ul style="list-style-type: none"> • Specialized inpatient services • Day program/ day hospitalization • Outpatient services • Case management (including ACT/ ICM as needed)

Definitions:

Prevention: Efforts to stop an eating disorder from developing or to prevent relapse following treatment. In terms of the former category, this report focuses on selective and targeted prevention, which is aimed at individuals considered to be at particular risk of becoming ill.

Primary screening and intervention: Screening, assessment, diagnosis and monitoring in a primary care setting, such as a family medical practice or supportive community program. A primary care physician may share care with mental health providers.

Specialized community-based services: Specialized treatment taking place in the community: e.g., therapists and/or psychiatrists in private practice, nutritionists, social workers, community treatment teams, and/or support groups.

Intensive outpatient programs (IOP): Intensive, specialized multidisciplinary treatment (may involve several appointments per week, as well as individual, family and/or group therapies) delivered on an outpatient basis. An individual may access this service model by engaging a multidisciplinary team within the community or through a secondary or tertiary hospital.

Specialized residential programs: Specialized residential services for EDs offer a level of care for individuals who are medically stable, and therefore do not meet the criteria for inpatient admission, but require more structured and intensive services than may be practical or available on an outpatient basis.

Day hospitalization programs (DHP): Secondary or tertiary hospitals with specialized ED treatment programs tend to offer services that are much like specialized inpatient treatment, but allow medically stable individuals to maintain greater or lesser degrees of autonomy and involvement in their normal life routines. Individuals in DHPs (interchangeably referred to as day programs, day hospitalization, and day hospitalization programs) typically spend nights in their own homes or a designated residence while engaging treatment in a hospital setting for at least four hours (sometimes upwards of eight hours), three to seven days per week. DHPs may be offered as a step down from inpatient hospitalization or a step up from an IOP or other community-based or secondary service.

Secondary or acute inpatient hospitalization: At times, an individual may require brief hospitalization to deal with the physical and/or psychiatric effects of her or his ED. She or he may access acute care services, or be admitted to a secondary hospital for monitoring and stabilization.

Tertiary inpatient hospitalizations (IP): Intensive inpatient services in a program designed specifically for treating EDs, generally reserved for individuals who are medically and psychologically unstable and require 24-hour care and monitoring as well as intensive treatment. Tertiary services may also include day programs or outpatient services for some individuals as a step down from higher levels of specialized care.

REFERENCES

- Agras, W. S., Walsh, T., Fairburn, C. B., & Kraemer, H. C. (2000). A multicenter comparison of cognitive-behavioral therapy and interpersonal therapy for bulimia nervosa. *Archives of General Psychiatry*, *57*, 459–466. doi: 10.1001/archpsyc.57.5.459
- American Psychiatric Association (2000). *Diagnostic and Statistical Manual of Mental Disorders, 4th edition, text revision*. American Psychiatric Association: Washington, DC.
- American Psychiatric Association. (2010). DSM-V development. Retrieved from <http://www.dsm5.org/Pages/Default.aspx>
- American Psychiatric Association (2006). Treatment of patients with eating disorders, third edition. *American Journal of Psychiatry*, *163*, 4–54.
- Anderson, B. (2007). Collaborative care and motivational interviewing: Improving depression outcomes through patient empowerment interventions. *The American Journal of Medical Care*, *13*, S103-S108
- Appolinario, J. C., Bacaltchuk, J., Sichieri, R., Claudino, A. M., Godoy-Matos, A., Morgan, C., Zanella, M. T., & Coutinho, W. (2003). A randomized, double-blind, placebo-controlled study of sibutramine in the treatment of binge-eating disorder. *Archives of General Psychiatry*, *60*, 1109–1116.
- Arcelus, J., Bouman, W. P., & Morgan, J. F. (2008). Treating young people with eating disorders: Transition from child mental health to specialist adult eating disorder services. *European Eating Disorders Review*, *16*, 30–36. doi:10.1002/erv.830
- Arkell, J., & Robinson, P. (2008). A pillow case series using qualitative and quantitative methods: Biological, psychological and social outcome in severe and enduring eating disorder (anorexia nervosa). *International Journal of Eating Disorders*, *41*, 650–656. doi:10.1002/eat.20546
- Attia, E., Kaplan, A. S., Haynos, A., Yilman, Z., & Musante, D. (2008, September). *Olanzapine vs. placebo for outpatients with anorexia nervosa*. Paper presented at the annual meeting of the Eating Disorder Research Society, Montreal, QC.
- Attia, E., & Walsh, B. T. (2009). Behavioral management for anorexia nervosa. *New England Journal of Medicine*, *360*, 500–506. doi:10.1056/NEJMct0805569
- Barker, D. (2010). Dietetics: The perspective of a dietician. In C. L. Birmingham, & J. Treasure (Eds.), *Medical management of eating disorders, 2nd ed.* (pg. 219–232). New York, NY: Cambridge University Press.
- BC Statistics. (2008). Population Estimates for BC: Age/Sex, 1971–2008. Using prevalence estimates from the BC Ministry of Health.
- Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1998). An inventory for measuring clinical anxiety. Psychometric properties. *Journal of Consulting and Clinical Psychology*, *56*, 893–897. doi:10.1037/0022-006X.56.6.893
- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Manual for Beck Depression Inventory–II*. San Antonio, TX: Psychological Corporation.
- Becker, A., Grinspoon, S., Klibanski, A., & Herzog, D. (1999). Current concepts: Eating disorders. *New England Journal of Medicine*, *340*, 1092–1098. doi:10.1056/NEJM199904083401407

- Bewell, C. V., & Carter, J. C. (2008). Readiness to change mediates the impact of eating disorder symptomatology on treatment outcome in anorexia nervosa. *International Journal of Eating Disorders*, *41*, 368–371. doi:10.1002/eat.20513
- Birmingham, C. L., & Treasure, J. (Eds.) (2010). *Medical management of eating disorders, Second Edition*. New York, NY: Cambridge University Press.
- Bissada, H., Tasca, G., Barber A, & Bradwejn, J. (2008). Olanzapine in the treatment of low body weight and obsessive thinking in women with anorexia nervosa: A randomized, double-blind, placebo-controlled trial. *American Journal of Psychiatry*, *165*, 1281–1288. doi:10.1176/appi.ajp.2008.07121900
- Blinder, B. J., Cumella, E. J., & Sanathara, V. A. (2006). Psychiatric comorbidities of female inpatients with eating disorders. *Psychosomatic Medicine*, *68*, 454–462. doi:10.1097/01.psy.0000221254.77675.f5
- Bohus, M., Limberger, M. F., Frank, U., Chapman, A. L., Kuehler, T., & Stieglitz, R. D. (2007). Psychometric properties of the Borderline Symptom List (BSL). *Psychopathology*, *40*, 126–132. doi:10.1159/000098493
- Bohus, M., Kleindienst, N., Limberger, M. F., Stieglitz, R.-D., Domsalla, M., Chapman, A.L., Wolf, M. (2009). The short version of the Borderline Symptom List (BSL-23): Development and initial data on psychometric properties. *Psychopathology*, *42*, 32–39. doi:10.1159/000173701
- Brambilla, F., Garcia, C., Fassino, S., Daga, G. A., Favaro, A., Santonastaso, P.,...Monteleone, P. (2007). Olanzapine therapy in anorexia nervosa: Psychobiological effects. *International Clinical Psychopharmacology*, *22*, 197–204. doi:10.1097/YIC.0b013e328080ca31
- Brewerton, T. (2009). Services for eating disorders: how comprehensive is comprehensive? *World Psychiatry*, *8*, 160–162.
- British Columbia Ministry of Health. (2005). Guide to the mental health act. Retrieved from <http://www.health.gov.bc.ca/library/publications/year/2005/MentalHealthGuide.pdf>
- Broft, A., Berner, L. A., & Walsh, T. (2010). Pharmacotherapy for Bulimia Nervosa. In C. M. Grilo & J. E. Mitchell (Eds), *The treatment of eating disorders: A clinical handbook* (pp. 417–427). New York, NY: Guilford Press.
- Brown, K. E., & Geller, J. (2006). Supporting friends and family members with eating disorders: Discrepancies between intentions and reality. *Eating Disorders: The Journal of Treatment and Prevention*, *14*, 215–228. doi:10.1080/10640260600638915
- Bruce, K., Israel, M., Steiger, H., Desjardins, L., & Sycz, L. (2011, April). *Effects of a collaborative weight-gain protocol on weight restoration in the context of a multimodal partial hospitalization program*. Paper presented at the meeting of the International Conference of Eating Disorders, Miami, FL.
- Bryant-Waugh, R., & Lask, B. (2010). Treatment of childhood eating difficulties and disorders. In C. M. Grilo & J. E. Mitchell (Eds), *The treatment of eating disorders: A clinical handbook* (pp. 417–427). New York, NY: Guilford Press.
- Bulik, C. M., Baucom, D. H., Kirby, J. S. & Pisetsky, E. (2010). Uniting couples (in the treatment of) anorexia nervosa (UCAN). *International Journal of Eating Disorders*, *44*, 19–28. doi: 10.1002/eat.20790
- Bulik, C., Sullivan, P., Joyce, P., Carter, F., & McIntosh V. (1998). Predictors of 1-year treatment outcome in bulimia nervosa. *Comprehensive Psychiatry*, *39*, 206–214. doi:10.1016/S0010-440X(98)90062-1
- Byford, S., Barrett, B., & Roberts, C. (2007). Economic value of a randomised controlled trial for anorexia nervosa in adolescents. *British Journal of Psychiatry*, *191*, 436–440. doi:10.1192/bjp.bp.107.036806

- Carter, J. C., McFarlane, T. L., Bewell, C., Olmsted, M. P., Woodwide, D. B., Kaplan, A. S. & Crosby, R. D. (2009). Maintenance treatment for anorexia nervosa: A comparison of cognitive behavior therapy and treatment as usual. *International Journal of Eating Disorders*, 42, 202–207. doi:10.1002/eat.20591
- Cassin, S. E., von Ranson, K. M., Heng, K., Brar, J., & Wojtowicz, A. E. (2008). Adapted motivational interviewing for women with binge eating disorder: A randomized controlled trial. *Psychology of Addictive Behaviors*, 22, 417–425. doi:10.1037/0893-164X.22.3.417
- Castro-Fornieles, J., Casulà, V., Saura, B., Martínez, E., Lazaro, L., Vila, M.,...Toro, J. (2007). Predictors of weight maintenance after hospital discharge in adolescent anorexia nervosa. *International Journal of Eating Disorders*, 40, 129–135. doi:10.1002/eat.20340
- Chen, E., Matthews, L., Allen, C., Kuo, J. R., & Linehan, M. M. (2008). Dialectical behavior therapy for clients with binge-eating disorder or bulimia nervosa and borderline personality disorder. *International Journal of Eating Disorders*, 41, 505–512. doi:10.1002/eat.20522
- Choate, L. & Schwitzer, A. (2009). Mental health counseling responses to eating-related concerns in young adult women: A prevention and treatment continuum. *Journal of Mental Health Counseling*, 31, 164–183.
- Claudino, A. M., Silva de Lima, M., Hay P. J, Bacaltchuk, J., Schmidt, U., & Treasure, J. L. (2006). Antidepressants for anorexia nervosa. *Cochrane Database of Systematic Reviews*, Issue 1 (Article No. CD004365).
- Cockell, S. J., Geller, J., & Linden, W. (2002). The development of a decisional balance scale for anorexia nervosa. *European Eating Disorders Review*, 10, 359–375. doi:10.1002/erv.463
- Cockell, S. J., Geller, J., & Linden, W. (2003). Decisional balance in anorexia nervosa: Capitalizing on ambivalence. *European Eating Disorders Review*, 11, 75–89. doi:10.1002/erv.493
- Cooper, Z. & Fairburn, C.G. (2010). Cognitive behavior therapy in bulimia nervosa. In C. M. Grilo & J. E. Mitchell (Eds.), *The treatment of eating disorders: A clinical handbook* (p. 243–270). New York, NY: Guilford Press.
- Cooper, P. J., Taylor, M. J., Cooper, Z., & Fairburn, C. G. (1987). The development and validation of the Body Shape Questionnaire. *International Journal of Eating Disorders*, 6, 485–494. doi:10.1002/1098-108X(198707)6:4<485::AID-EAT2260060405>3.0.CO;2-O
- Courbasson, C.M.A., Smith, P.D., & Cleland, P.A. (2005). Substance use disorders, anorexia, bulimia, and concurrent disorders. *Revue Canadienne de Santé Publique*, 96, 102–106.
- Crisp, A. H., Norton, K., Growers, S., Halek, C., Bowyer, C., Yeldham, D.,...Bhat, A. (1991). A controlled study of the effect of therapies aimed at adolescent and family psychopathology in anorexia nervosa. *British Journal of Psychiatry*, 159, 325–333. doi:10.1192/bjp.159.3.325
- Currin, L. & Schmidt, U. (2005). A critical analysis of the utility of an early intervention approach in the eating disorders. *Journal of Mental Health*, 14, 611–624. doi:10.1080/0963823050034793
- Currin, L., Waller, G., & Schmidt, U. (2009). Primary care physicians' knowledge of and attitudes toward the eating disorders: Do they affect clinical actions? *International Journal of Eating Disorders*, 42, 453–458. doi:10.1002/eat.v42:510.1002/eat.20636
- Dare, C., Eisler, I., Russell, G., Treasure, J., & Dodge, L. (2001). Psychological therapies for adults with anorexia nervosa: Randomized controlled trial of outpatient treatments. *British Journal of Psychiatry*, 178, 216–221. doi:10.1192/bjp.178.3.216

- Davis, R., McVey, G., Heinmaa, M., Rockert, W., & Kennedy S. (1999). Sequencing of cognitive-behavioral treatments for bulimia nervosa. *International Journal Eating Disorders*, *25*, 361–374. doi:10.1002/(SICI)1098-108X(199905)25:4<361::AID-EAT1>3.0.CO;2-#
- Derogatis, L. R. (1993). *Briefsymptom Inventory: Administration, scoring and procedures manual*. Minneapolis, MN: National computer Systems, Inc.
- Devlin, M., Jahraus, J., & Dobrow, I. (2005). Eating disorders. In J. L. Levenson (Ed.), *Textbook of psychosomatic medicine* (pp. 305–360). Arlington, VA: American Psychiatric Publishing.
- Dunn, E. C., Cockell, S. J., Srikameswaran, S., & Geller, J. (2011). *Motivational enhancement therapy manual: Group treatment for patients with eating disorders*. Vancouver, BC: St. Paul's Hospital.
- Dunn, E. C., Neighbors, C., & Larimer, M. E.. (2006). Motivational enhancement therapy and self-help treatment for binge eaters. *Psychology of Addictive Behaviors*, *20*, 44–52. doi:10.1037/0893-164X.20.1.44
- Eddy, K. T., Le Grange, D., Crosby, R. D., Hoste, R. R., Doyle, A. C., Smyth, A., Herzog, D. B (2010). Diagnostic classification of eating disorders in children and adolescents: How does DSM-IV-TR compare to empirically derived categories? *Journal of the American Academy of Child and Adolescent Psychiatry*, *49*, 277–287. doi:10.1097/00004583-201003000-00011
- Eisler, I., Dare, C., Hodes, M., Russell, G., Dodge, E., Le Grange, D. (2000). Family therapy for adolescent anorexia nervosa: The results of a controlled comparison of two family interventions. *Journal of Child Psychology and Psychiatry*, *41*, 727–736. doi:10.1111/1469-7610.00660
- Eisler, I., Dare, C., Russell, G., Szumckler, G., le Grange, G., & Dodge, E. (1997). Family and individual therapy in anorexia nervosa: A five year follow-up. *Archives of General Psychiatry*, *54*, 1025–1030.
- Eisler, I., Simic, M., Russell, G. F. M., & Dare, C. (2007). A randomized controlled treatment trial of two forms of family therapy in adolescent anorexia nervosa: A 5-year follow-up. *Journal of Child Psychology and Psychiatry*, *48*, 552–560. doi:10.1111/j.1469-7610.2007.01726.x
- Emmons, K.M., & Rollnick, S. (2001). Motivational interviewing in health care settings: Opportunities and limitations. *American Journal of Preventive Medicine*, *20*, 68–74. doi:10.1016/S0749-3797(00)00254-3
- Endacott, R., Kidd, S., Deacon-Crouch, M., Judd, F., Menzel, M., & Cornett, M. (2006). Developing new services for eating disorders: An evaluation study. *Australasian Psychiatry*, *14*, 57–62. doi:10.1111/j.1440-1665.2006.02246.x
- Erickson, J. D., Patterson, J. M., Wall, M., & Neumark-Sztainer, D. (2005). Risk behaviors and emotional well-being in youth with chronic health conditions. *Children's Health Care*, *34*, 181–192. doi:10.1207/s15326888chc3403_2
- Fairburn, C. G. (1981). A cognitive behavioural approach to the treatment of bulimia. *Psychological Medicine*, *11*, 707–711. doi: 10.1017/S0033291700041209
- Fairburn, C. G. (2011, April). *Cognitive behavior therapy (CBT-E) for anorexia nervosa: A three-site study*. Plenary session presented at the meeting of the International Conference of Eating Disorders, Miami, FL.
- Fairburn, C. G. (2005). Evidence-based treatment of anorexia nervosa. *International Journal of Eating Disorders*, *37*, 26–30. doi:10.1002/eat.20112

- Fairburn, C. G. (1995). *Overcoming binge eating*. New York, NY: Guilford Press.
- Fairburn, C. G., & Beglin, S. J. (1994). Assessment of eating disorders: Interview or self-report questionnaire? *International Journal of Eating Disorders*, *16*, 363–370. doi: 10.1002/1098-108X(199412)16:4<363::AID-EAT2260160405>3.0.CO;2-#
- Fairburn, C. G., & Cooper, Z. (1993). The eating disorder examination (12th edition). In C. G. Fairburn & G. T. Wilson (Eds). *Binge eating: Nature, assessment and treatment* (pp. 317–360). New York, NY: Guilford Press.
- Fairburn, C. G., Cooper, Z., Doll, H. A., O'Connor, M. E., Bohn, K., Hawker, D. M.,...Palmer, R. L. (2009). Transdiagnostic cognitive-behavioral therapy for patients with eating disorders: a two-site trial with 60-week follow-up. *American Journal of Psychiatry*, *166*, 311–319. doi:10.1176/appi.ajp.2008.08040608
- Fairburn, C.G., Jones, R., Peveler, R.C., Hope, R.A., & O'Connor, M. (1993). Psychotherapy and bulimia nervosa: Longer-term effects of interpersonal psychotherapy, behavior therapy, and cognitive behavior therapy. *Archives of General Psychiatry*, *50*, 419–428.
- Feld, R., Woodside, D. B., Kaplan, A. S, Olmsted, M. P., & Carter, J. C. (2001). Pretreatment motivational enhancement therapy for eating disorders: A pilot study. *International Journal of Eating Disorders*, *29*, 393–400. doi:10.1002/eat.1035
- Fichter, M., et al. (2008). Guided self-help for binge eating/purging anorexia before inpatient treatment. *Psychotherapy Research*, *18*, 594–603.; SG. doi:10.1080/10503300802123252
- Findlay, S., Pinzon, J., Taddeo, D, & Katzman, D. K. (2010). Family-based treatment of children and adolescents with anorexia nervosa: Guidelines for the community physician. *Paediatrics and Child Health*, *15*, 31–35.
- Franko, D. L., & Keel, P. K. (2006). Suicidality in eating disorders: Occurrence, correlates, and clinical implications. *Clinical Psychology Review*, *26*, 769–782. doi: 10.1016/j.cpr.2006.04.001
- Frisch, M. J., Herzog, D. B., & Franko, D. L. (2006). Residential treatment for eating disorders. *International Journal of Eating Disorders*, *39*, 434–442. doi:10.1002/eat.20255
- Fursland et al., (in press). Are motivation-focused sessions beneficial in the treatment of eating disorders? A sequential trial of Enhanced Cognitive Behaviour Therapy (CBT-E) with and without preceding Motivation Focused Therapy (MFT). *European Eating Disorders Review*.
- Gale, C., Holliday, J., Troop, N.A., Serpell, L., & Treasure, J. (2006). The pros and cons of change in individuals with eating disorders: A broader perspective. *International Journal of Eating Disorders*, *39*, 394–403. doi:10.1002/eat.20250
- Garner, D.M. (2004). *EDI-3 Eating Disorders Inventory – 3 Professional Manual*. Odessa, FL: Psychological Assessment Resources, Inc.
- Garner, D. M. (1997). Psychoeducational principles in treatment. In D. M. Garner, & P. E. Garfinkel (Eds.), *Handbook of treatment for eating disorders* (pp. 145–177). New York, NY: Guilford Press.
- Garner, D. M., Olmsted, M. P., Bohr, Y., & Garfinkel, P. E. (1982). The Eating Attitudes Test: Psychometric features and clinical correlates. *Psychological Medicine*, *12*, 871–878. doi:10.1017/S0033291700049163

- Garner, D. M., Rockert, W., Davis, R., Garner, M. V., Olmsted, M. P. & Eagle, M. (1993). Comparison between cognitive-behavioral and supportive-expressive therapy for bulimia nervosa. *American Journal of Psychiatry*, *150*, 37–46.
- Gavin, D. R., Ross, H. E., & Skinner, H. A. (1989). Diagnostic validity of the drug abuse screening test in the assessment of DSM-III drug disorders. *British Journal of Addiction* *84*, 301–307. doi:10.1017/S0033291700049163
- Geller, J. (2007, 2011). Continuous Quality Improvement Report (CQI). Paper presented at the meeting of the St. Paul's Hospital Eating Disorders Program, Vancouver, BC.
- Geller, J. (2002). Estimating readiness for change in anorexia nervosa: Comparing clients, clinicians, and research assessors. *International Journal of Eating Disorders*, *31*, 251–260. doi:10.1002/eat.10045
- Geller, J., Srikameswaran, S. & Brown, K. (2010). The Efficacy of a Brief Motivational Intervention for Individuals with Eating Disorders: A Randomized Control Trial. *International Journal of Eating Disorders*, Article first published online Sept 24, 2010 doi: 10.1002/eat.20859
- Geller, J., Brown, K. E., Zaitsoff, S. L., Bates, M. E., Menna, R., & Dunn, E. C. (2008). Assessing readiness for change in adolescents with eating disorders: The psychometric properties of the readiness and motivation interview – adolescent version. *Psychological Assessment*, *20*, 63–69. doi: 10.1037/1040-3590.20.1.63
- Geller, J., Brown, K.E., Zaitsoff, S.L., Goodrich, S., & Hastings, F. (2003). Collaborative versus directive interventions in the treatment of eating disorders: Implications for care providers. *Professional Psychology: Research and Practice*, *34*, 406–413. doi:10.1037/0735-7028.34.4.406
- Geller, J., Cockell, S. J., & Drab, D. L. (2001). Assessing readiness for change in the eating disorders: The psychometric properties of the readiness and motivation interview. *Psychological Assessment*, *13*, 189–198. doi:10.1037/1040-3590.13.2.189
- Geller, J., Drab-Hudson, D. L., Whisenhunt, B. L., & Srikameswaran, S. (2004). Readiness to change dietary restriction predicts outcomes in the eating disorders. *Eating Disorders: The Journal of Treatment and Prevention*, *12*, 209–224. doi:10.1080/10640260490490438
- Geller, J., & Dunn, E. (2010). Integrating motivational interviewing and cognitive behavior therapy in the treatment of eating disorders: Tailoring interventions to patient readiness for change. *Cognitive and Behavioral Practice*, *18*, 5–15. doi:10.1016/j.cbpra.2009.05.005
- Geller, J., Johnston, C., & Madsen, K. (1997). The role of shape and weight in self-concept: The shape and weight based self-esteem inventory. *Cognitive Therapy and Research*, *21*, 5–24. doi:10.1023/A:1021812124937
- Geller, J., Jones, M., Zelichowska, J., Dunn, E.C., Srikameswaran S., & Lockhart, A. (October, 2010). Barriers to collaborative social support styles: Investigating the discrepancy between beliefs and behaviours. Poster session presented at the annual meeting of the *Eating Disorders Research Society*, Cambridge, MA, USA.
- Geller, J., & Srikameswaran, S. (2006). Treatment non-negotiables: Why we need them and how to make them work. *European Eating Disorders Review*, *14*, 212–217. doi:10.1002/erv.716
- Geller, J., Williams, K. D., & Srikameswaran, S. (2001). Clinician stance in the treatment of chronic eating disorders. *European Eating Disorders Review*, *9*, 365–373. doi:10.1002/jclp.20817

- George, L., Thornton, C., Touyz, S. W., Waller, G., & Beumont, P. J. V. (2004). Motivational enhancement therapy and schema-focused cognitive behaviour therapy in the treatment of chronic eating disorders. *Clinical Psychologist*, 8, 81–85. doi:10.1080/13284200412331304054
- Golden, N. H., & Attia, E. (2011). Psychopharmacology of eating disorders in children and adolescents. *Pediatric Clinics of North America*, 58, 121–138. doi:10.1016/j.pcl.2010.11.001
- Goldner, E. M., Birmingham, C. L., & Smye, V. (1997). Addressing treatment refusal in anorexia nervosa: Clinical, ethical, and legal considerations. In D. Garner D., & P. Garfinkel P (Eds), *Handbook of treatment for eating disorders, 2nd ed* (pp. 450–461. New York, NY: Guilford Press.
- Goldstein, M., Peters, L., Baille, A., McVeagh, P., Minshall, G., & Fitzjames, D. (2011). The effectiveness of day program for the treatment of adolescent anorexia nervosa. *International Journal of Eating Disorders*, 44, 29–38. doi:10.1002/eat.20789
- Gowers, S. G. (2008). Management of eating disorders in children and adolescents. *Archives of Disease in Childhood*, 93, 331–334. doi:10.1046/j.0021-9630.2003.00309.x
- Gowers, S., & Bryant-Waugh, R. (2004). Management of child and adolescent eating disorders: The current evidence base and future directions. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 45, 63–83. doi:10.1046/j.0021-9630.2003.00309.x
- Gowers, S. G., Clark, A. F., Roberts C, Byford, S., Barrett, B., Griffiths, A., Edwards, V.,...Roots, P. (2010). A randomised controlled multicentre trial of treatments for adolescent anorexia nervosa including assessment of cost-effectiveness and patient acceptability— the TOuCAN trial. *Health Technology Assessment*, 14, 1–98.
- Gowers, S. G., Clark, A., Roberts, C., Griffiths, A., Edwards, V., Bryan, C., ... Barrett, B. (2007). *British Journal of Psychiatry*, 191, 427–435. doi: 10.1192/bjp.bp.107.036764
- Gowers, S., & Smyth, B. (2004). The impact of a motivational assessment interview on initial response to treatment in adolescent anorexia nervosa. *European Eating Disorders Review*, 12, 87–93. doi:10.1002/erv.555
- Gratz, K. L. (2001). Measurement of deliberate self-harm: Preliminary data on the Deliberate Self-Harm Inventory. *Journal of Psychopathology and Behavioral Assessment*, 23, 253–263. doi:10.1023/A:1012779403943
- Grover, M., Naumann, U., Mohammad-Dal, L., Glennon, D., Ringwood, S., Eisler, I., Schmidt, U. (2011, April). *An RCT of a web-based CBT skills package for carers of people with anorexia nervosa*. Paper presented at the meeting of the International Conference of Eating Disorders, Miami, FL.
- Gusella, J., Butler, G., Nichols, L., & Bird, D. (2003). A brief questionnaire to assess readiness to change in adolescents with eating disorders: its applications to group therapy. *European Eating Disorders Review*, 11, 58–71. doi:10.1002/erv.481
- Hall, A., & Crisp, A.H. (1987). Brief psychotherapy in the treatment of anorexia nervosa: outcome at one year. *British Journal of Psychiatry*, 151, 185–191. doi: 10.1192/bjp.151.2.185
- Harrison, A. Y., & British Columbia Ministry of Health Services. (2010). *A continuum of care for eating disorders service provision*. Vancouver, BC: BC Ministry of Health Services.

- Halmi, K. A., Agras, W. S., Crow, S., Mitchell, J., Wilson, G. T., Byson, S. W., & Kraemer, H. C. (2005). Predictors of treatment acceptance and completion in anorexia nervosa: Implications for future study designs. *Archives of General Psychiatry*, *62*, 776–781. doi:10.1001/archpsyc.62.7.776
- Halmi, K. A., Eckert, E., Marchi, P., Sampugno, V., Apple, R., & Cohen, J. (1991). Comorbidity of psychiatric diagnoses in anorexia nervosa. *Archives of General Psychiatry*, *48*, 712–718.
- Hay, P. P. J., Bacaltchuk, J., Claudino, A., Ben-Tovim, D., & Wong, P. Y. (2003). Individual psychotherapy in the outpatient treatment of adults with anorexia nervosa. *Cochrane Database of Systematic Reviews*, (4).
- Hausenblas, H. A., Cook, B. J., & Chittester, N. I. (2008). Can exercise treat eating disorders? *Exercise and Sport Sciences Reviews*, *36*, 43–47. doi: 10.1097/jes.0b013e31815e4040
- Heather, N., Smailes, D., & Cassidy, P. (2008). Development of a readiness ruler for use with alcohol brief interventions. *Drug and Alcohol Dependence*, *98*, 235–240. doi:10.1016/j.drugalcdep.2008.06.005
- Hedges, D. W., Reimherr, F. W., Hoopes, S. P., Rosenthal, N. R., Kamin, M., Karim, R., & Capece, J. A. (2003). Treatment of bulimia nervosa with topiramate in a randomized, double-blind, placebo-controlled trial, part 2: Improvement in psychiatric measures. *Journal of Clinical Psychiatry*, *64*, 1449–1454.
- Hilbert, A., Saelens, B. E., Stein, R. I., Mockus, D. S., Welch, R. R., Matt, G. E., & Wilfley, D. E. Robinson. (2007). Pretreatment and process predictors of outcome in interpersonal and cognitive behavioral psychotherapy for binge eating disorder. *Journal of Consulting and Clinical Psychology*, *75*, 645–651. doi:10.1037/0022-006X.75.4.645
- Holderness, C. C., Brooks-Gunn, J., & Warren, M. P. (1994). Eating disorders and substance use: A dancing vs a nondancing population. *Medicine and Science in Sports and Exercise*, *26*, 297–302. doi:10.1249/00005768-199403000-00005
- Holmbeck, G. N., Colder, C., Shapera, W., Westhoven, V., Kenealy, L., & Updegrave, A. (2000). Working with adolescents. In P. C. Kendall (Ed.), *Child and adolescent therapy: Cognitive-behavioral procedures*, 2nd ed (pp. 334–385). New York, NY: Guilford Press.
- Hoopes, S. P., Reimherr, F. W., Hedges, D. W., Rosenthal, N. R., Kamin, M., Karim, R., et al. (2003). Treatment of bulimia nervosa with topiramate in a randomized, double-blind, placebo-controlled trial, Part 1: Improvement in binge and purge measures. *Journal of Clinical Psychiatry*, *64*, 1335–1341.
- Horne, R. L., Ferguson, J. M., Pope, H. G., Hudson, J. I., Lineberry, C. G., Scher, J., & Cato, A. (1988). Treatment of bulimia with bupropion: A multicenter controlled trial. *Journal of Clinical Psychiatry*, *29*, 262–266.
- Hudson, J. I., Hiripi, E., Pope, H. G. Jr, & Kessler, R. C. (2007). The prevalence and correlates of eating disorders in the National Comorbidity Survey Replication. *Biological Psychiatry*, *61*, 348–358. doi:10.1016/j.biopsych.2006.03.040
- Hutchinson, J. W., & Stafford, E. M. (2005). Changing parental opinions about teen privacy through education. *Pediatrics*, *116*, 966–971. doi: 10.1542/peds.2005-0318
- Jackson, C. W., Cates, M., & Lorenz, R. (2010). Pharmacotherapy of eating disorders. *Nutrition in Clinical Practice*, *25*, 143–159. doi: 10.1177/0884533610362239
- Jacobs, M.J., Welch, R., & Wilfley, D. (2004). Interpersonal therapy for anorexia nervosa, bulimia nervosa, and binge eating disorder. In T.D. Brewerton (Ed) *Clinical Handbook of Eating Disorders: An integrated Approach*. Abingdon: Informa Healthcare.

- Johnston, O., Fornai, G., Cabrini, S., & Kendrick, T. (2007). Feasibility and acceptability of screening for eating disorders in primary care. *Family Practice*, *24*, 511–517. doi: 10.1093/fampra/cmm029
- Jones, A., Bamford, B., Ford, H., & Schreiber-Kounine, C. (2007). How important are motivation and initial body mass index for outcome in day therapy services for eating disorders? *European Eating Disorders Review*, *15*, 283–289. doi:10.1002/erv.736
- Junior MARSIPAN Group. (2011). MARSIPAN: Management of Really Sick Patients with Anorexia Nervosa – Report from the Junior MARSIPAN group. Retrieved from <http://sites.google.com/site/marsipannini/newsandupdates>
- Kaplan, A.S. & Noble, S. (2007). Management of anorexia nervosa in an ambulatory setting. In J. Yager & P.S. Powers (Eds.), *Clinical Manual of Eating Disorders* (pp. 127–147). Washington, D.C.: American Psychiatric Publishing.
- Kaplan, A.S., & Strasburg, K. (2009). Chronic eating disorders: A different approach to treatment resistance. *Psychiatric Times*, *26*(8). Retrieved from <http://www.psychiatrictimes.com/display/article/10168/1432278>
- Katzman, D. K., Kanbur, N. O., & Steinegger, C. M. (2010). Medical screening and management of eating disorders in adolescents. In W. S. Agras (Ed), *The Oxford handbook of eating disorders* (pp. 267–291). New York, NY: Oxford University Press.
- Kazdin, A. E. (1993). Psychotherapy for children and adolescents: Current progress and future research directions. *American Psychologist*, *48*, 644–657. doi:10.1037/0003-066X.48.6.644
- Keel, P. K., & Brown, T. A. (2010). Update on course and outcome in eating disorders. *International Journal of Eating Disorders*, *43*, 195–204. doi: 10.1002/eat.20810
- Keel, P. K., Dorer, D. J., Eddy, K. T., Franko, D., & Charatan, D. L., & Herzog, D. B. (2003). Predictors of mortality in eating disorders. *Archives of General Psychiatry*, *60*, 179–183. doi:10.1001/archpsyc.60.2.179
- Keel, P.K. & McCormick, L. (2010). Diagnosis, assessment, and treatment planning for Anorexia Nervosa. In C. M. Grilo, & J. E. Mitchell (Eds), *The treatment of eating disorders: A clinical handbook* (pp. 3–27). New York, NY: Guilford Press.
- Klostermann, B.K., Slap, G.B., Nebrig, D.M., Tivorsak, T.L., & Britto, M.T. (2005). Earning trust and losing it: Adolescents' views on trusting physicians. *Journal of Family Practice*, *54*, 679–687.
- Kouba, S., Hallstrom, T., Lindholm, C. & Hirschberg, A. (2005). Pregnancy and neonatal outcomes in women with eating disorders. *Obstetrics and Gynecology* *105*, 255–260. doi: 10.1097/01.AOG.0000148265.90984.c3
- Kuyken, W., Padesky, C. A., & Dudley, R. (2009). *Collaborative case conceptualization: Working effectively with clients in cognitive-behavioral therapy*. New York, NY: Guilford Press.
- Lask, B. & Bryant-Waugh, R. (2000). *Anorexia nervosa and related eating disorders in children and adolescents* (2nd edition). Hove: Psychology Press.
- Lask, B., Bryant-Waugh, R., Wright, F., Campbell, M., Willoughby, K., & Waller, G. (2005). Family physician consultations indicating high risk for early onset anorexia nervosa. *International Journal of Eating Disorders*, *38*, 269–72. doi:10.1002/eat.20163
- Lask, B., & Frampton, I. (2009). Anorexia nervosa – irony, misnomer and paradox. *European Eating Disorders Review*, *17*, 165–168. doi:10.1002/erv.933

- Le Grange, D., Crosby, R. D., Rathouz, P. J., & Leventhal, B. L. (2007). A randomized controlled comparison of family-based treatment and supportive psychotherapy for adolescent bulimia nervosa. *Archives of General Psychiatry*, *64*, 1049–1056. doi:10.1001/archpsyc.64.9.1049
- Le Grange, D., Eisler, I., Dare, C., & Russell, G. F. M. (1992). Evaluation of family treatments in adolescent anorexia nervosa: a pilot study. *International Journal of Eating Disorders*, *12*, 347–357. doi:10.1002/1098-108X(199212)12:4<347::AID-EAT2260120402>3.0.CO;2-W
- Le Grange, D., & Lock, J. (2011). *Eating disorders in children and adolescents: A clinical handbook*. New York, NY: Guilford Press.
- Le Grange, D., & Lock, J. (2010). Family based treatment for adolescents with bulimia nervosa. In C. M. Grilo & J. E. Mitchell (Eds.), *The treatment of eating disorders: A clinical handbook* (p. 372–387). New York, NY: Guilford Press.
- Le Grange, D., Lock, J., & Dymek, M. (2003). Family-based therapy for adolescent with bulimia nervosa. *American Journal of Psychotherapy*, *57*, 237–251.
- Linehan, M. M. (1993a). *Cognitive-behavioral therapy of borderline personality disorder*. New York, NY: Guilford Press.
- Linehan, M. M. (1993b). *Skills training manual for borderline personality disorder*. New York, NY: Guilford Press.
- Linville, D., Benton, A., O’Neil, M., & Sturm, K. (2010). Medical providers’ screening, training and intervention practices for eating disorders. *Eating Disorders: The Journal of Treatment and Prevention*, *18*, 110–131. doi:10.1080/10640260903585532
- Lock, J., Agras, W. S., Bryson, S., & Kraemer, H. C. (2005). A comparison of short- and long-term family therapy for adolescent anorexia nervosa. *Journal of the American Academy of Child and Adolescent Psychiatry*, *44*, 632–639. doi:10.1097/01.chi.0000161647.82775.0a
- Lock, J., Couturier, J., & Agras, W. S. (2006). Comparison of long-term outcomes in adolescents with anorexia nervosa treated with family therapy. *Journal of the American Academy of Child and Adolescent Psychiatry*, *45*, 666–672. doi:10.1097/01.chi.0000215152.61400.ca
- Lock, J., Le Grange, D., Agras, W. S., & Dare, C. (2001). *Treatment manual for anorexia nervosa: A family-based approach*. New York, NY: Guilford Press.
- Loeb, K. L., & Le Grange, D. (2009). Family-based treatment for adolescent eating disorders: Current status, new applications, and future directions. *International Journal of Child and Adolescent Health*, *2*, 243–253.
- Lundahl, B., & Burke, B. L. (2009). The effectiveness and applicability of motivational interviewing: A practice-friendly review of four meta-analyses. *Journal of Clinical Psychology: In Session*, *65*, 1232–1245. doi:10.1002/jclp.20638
- Maloney, M. J., McGuire, J. B., & Daniels, S. R. (1988). Reliability testing of a children’s version of Eating Attitude Test. *Journal of the American Academy of Child and Adolescent Psychiatry*, *27*, 541–543. doi:10.1097/00004583-198809000-00004
- Manley, R., Smye, V., & Srikameswaran, S. (2001). Addressing complex ethical issues in the treatment of children and adolescents with eating disorders: Application of a framework for ethical decision making. *European Eating Disorders Review*, *9*, 144–166. doi:10.1002/erv.413

- Marlatt, G. A. (1996). Harm reduction: Come as you are. *Addictive Behaviors, 21*, 779–788. doi:10.1016/0306-4603(96)00042-1
- Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 68*, 438–450. doi:10.1037/0022-006X.68.3.438
- McElroy, S. L., Arnold, L. M., Shapira, N. A., Keck, P. E., Jr., Rosenthal, N. R., Karim, M. R.,...Hudson, J. I. (2003). Topiramate in the treatment of binge eating disorder associated with obesity: A randomized, placebo controlled trial. *American Journal of Psychiatry, 160*, 255–261.
- McElroy, S. L., Guerdjikova, A., Kotwal, R., Welge, J. A., Nelson, E. B., Lake, K. A.,... Hudson, J. I. (2007). Atomoxetine in the treatment of binge eating disorder: A randomized placebo-controlled trial. *Journal of Clinical Psychiatry, 68*, 390–398.
- McElroy, S. L., Hudson, J. I., Capece, J. A., Beyers, K., Fisher, A. C., & Rosenthal, N. R. (2007). Topiramate for the treatment of binge eating disorder associated with obesity: A placebo-controlled study. *Biological Psychiatry, 61*, 1039–1048. doi:10.1016/j.biopsych.2006.08.008
- McElroy, S. L., Kotwal, R., Guerdjikova, A. I., Welge, J. A., Nelson, E. B., Lake, K. A.,...Hudson, J. I. (2006). Zonisamide in the treatment of binge eating disorder with obesity: A randomized controlled trial. *Journal of Clinical Psychiatry, 67*, 1897–1906.
- McIntosh, V., Jordon, J., Luty, S., McKenzie, J. M., Bulik, C. M., Rampton, C. M. A., & Joyce, P. R. (2005). Three psychotherapies for anorexia nervosa: A randomized controlled trial. *American Journal of Psychiatry, 162*, 741–747. doi:10.1176/appi.ajp.162.4.741
- Mehler, P.S. (2001). Diagnosis and care of patients with anorexia nervosa in primary care settings. *Annals of Internal Medicine, 134* (11), 1048–59.
- Mehler, P. S. (2011). Medical complications of bulimia nervosa and their treatments. *International Journal of Eating Disorders, 44*, 95–104. doi: 10.1002/eat.20825
- Mehler, P. S. (2011, May). *Medical complications of anorexia nervosa and bulimia*. Workshop presented at the meeting of the International Conference of Eating Disorders, Miami, FL.
- Mehler, P.S. & Andersen, A.E. (2010). *Eating disorders: A guide to medical care and complications* (2nd edition). Baltimore, Maryland: John Hopkins University Press.
- Milano, W., Petrella, C., Casella, A., Capasso, A., Carrino, S., & Milano, L. (2005). Use of sibutramine, an inhibitor of the reuptake of serotonin and noradrenaline, in the treatment of binge eating disorder: A placebo-controlled study. *Advances in Therapy, 22*, 25–31. doi: 10.1007/BF02850181
- Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change*. New York, NY: Guilford Press.
- Mitchell, J. E., Raymond, N., & Specker, S. (1993). A review of the controlled trials of pharmacotherapy and psychotherapy in the treatment of bulimia nervosa. *International Journal of Eating Disorders, 14*, 229–247. doi:10.1002/1098-108X(199311)14:3<229::AID-EAT2260140302>3.0.CO;2-X
- Mizes, J. S., Christiano, B., Madison, J., Post, G., Seime, R., & Varnado, P. (2000). Development of the Mizes Anorectic Cognitions Questionnaire-Revised: Psychometric properties and factor structure in a large sample of eating disorder patients. *International Journal Eating Disorders, 28*, 415–421. doi:10.1002/1098-108X(200012)28:4<415::AID-EAT9>3.0.CO;2-Z

- Moos, R. H. and Moos, B. S., *Manual for the Family Environment Scale*. Palo Alto, CA: Consulting Psychologist Press, 1981.
- Morey, L. C. (2007). *Personality Assessment Inventory-Adolescent: Professional manual*. New York, NY: John Wiley.
- Morey, L. C. (1991). *The Personality Assessment Inventory: Professional manual*. Odessa, FL: Psychological Assessment Resources Inc.
- Mufson, L., Dorta, K. P., Moreau, D., & Weissman, M. M. (2004). *Interpersonal psychotherapy for depressed adolescents, 2nd ed.* New York, NY: Guilford Press.
- Naar-King, S. & Suarez, M. (2011). *Motivational Interviewing with Adolescents and Young Adults*. New York: NY: Guilford Press.
- National Center on Addiction and Substance Abuse at Columbia University (2003). *Food for thought: Substance abuse and eating disorders*. Retrieved from <http://www.casacolumbia.org/download.aspx?path=/UploadedFiles/uh21g4lm.pdf>
- NHS Quality Improvement Scotland (2007). *Eating Disorders in Scotland: Recommendations for Management and Treatment*. Edinburgh: NHS QIS.
- NICE (2004). *Eating disorders: Core interventions in the treatment and management of anorexia nervosa, bulimia nervosa and related eating disorders (clinical guideline 9)*. London, UK: National Institute for Clinical Excellence.
- Nicholls, D. E., Hudson, L., & Mahomed, F. (2011). Managing anorexia nervosa. *Archives of Disease in Childhood*, 96, 977–982. doi:10.1136/adc.2009.177394
- Nicholls, D. E., Lynn, R., & Viner, R. M. (2011). Childhood eating disorders: British national surveillance study. *British Journal of Psychiatry*, 198, 295–301. doi: 10.1192/bjp.bp.110.081356
- Nickel, C., Tritt, K., Muehlbacher, M., Pedrosa Gil, F., Mitterlehner, F. O., Kaplan, P.,...Nickel, M. K. (2005). Topiramate treatment in bulimia nervosa patients: a randomized, double-blind, placebo-controlled trial. *International Journal of Eating Disorders*, 38, 295–300. doi: 10.1002/eat.20202
- Noordenbos, G., Oldenhav, A., Muschter, J., & Terpstra, N. (2002). Characteristics and treatment of patients with chronic eating disorders. *Eating Disorders*, 10, 15–29. doi:10.1080/106402602753573531
- Nordbo, R.S., Espeset, E.M., Gulliksen, K.S., Geller, J., & Holte, A. (In press). Reluctance to recover in anorexia nervosa. *European Eating Disorders Review*.
- Ogg, E. D., Millar, H. R., Pusztai, E. E., & Thom, A. S. (1997). General practice consultation patterns preceding diagnosis of eating disorders. *International Journal of Eating Disorders*, 22, 89–93. doi:10.1002/(SICI)1098-108X(199707)22:1<89::AID-EAT12>3.0.CO;2-D
- Olmsted, M. P., Davis, R., Rockert, W., Irvine, M. J., Eagle, M., & Garner, D. M. (1991). Efficacy of a brief group psychoeducational intervention for bulimia nervosa. *Behaviour Research and Therapy*, 29, 71–83. doi:10.1016/S0005-7967(09)80009-0
- Olmsted, M. P., McFarlane, T. L., Carter, J. C., Trottier, K., Blake Woodside, D., & Dimitriopoulos, G. (2010). Inpatient and day hospital treatment for anorexia nervosa. In C. M. Grilo & J. E. Mitchell (Eds), *The treatment of eating disorders: A clinical handbook* (pp.198–211). New York, NY: Guilford Press.

- Olmsted, M. P., Woodside, D. B., Carter, J. C., McFarlane, T., Staab, R., Colton, P. A., & Molleken, L. L. (2007). Intensive therapies for eating disorders. In G. O. Gabbard (Ed), *Treatments of psychiatric disorders, 4th ed* (pp. 709–721). Washington, DC: American Psychiatric Press.
- Palmer, B. (2006). Come the revolution. Revisiting: The management of anorexia nervosa. *Advances in Psychiatric Treatment, 12*, 5–12. doi:10.1192/apt.12.1.5
- Palmer, B. (2004). Pound for pound. *European Eating Disorders Review, 12*, 70.
- Palmer, R. L., Birchall, H., & Damani, S. (2003). A dialectical behavior therapy program for people with an eating disorder and borderline personality disorder – description and outcome. *International Journal Eating Disorders, 33*, 281–286. doi:10.1002/eat.10141
- Palmer, R.L., Birchall, H., McGrain, L., & Sullivan, V. (2002). Self-help for bulimic disorders: A randomized controlled trial comparing minimal guidance with face-to-face or telephone guidance. *British Journal of Psychiatry, 181*, 230–235. doi:10.1192/bjp.181.3.230
- Paul, T., Schroeter, K., Dahme, B., & Nutzinger, D. O. (2002). Self-injurious behavior in women with eating disorders. *American Journal of Psychiatry, 159*, 408–411. doi:10.1176/appi.ajp.159.3.408
- Perkins, SJ, Murphy, R., Schmidt, U & Williams, C. (2006). Self-help and guided self-help for eating disorders. Cochrane database systematic reviews. 2006. July 19; 3: CD004191.
- Pereira, T., Lock, J., & Oggins, J. (2006). Role of therapeutic alliance in family therapy for adolescent anorexia nervosa. *International Journal of Eating Disorders, 39*, 677–684. doi:10.1002/eat.20303
- Pike, K. M., Carter, J. C., & Olmsted, M. P. (2010). Cognitive behavioural therapy for anorexia nervosa. In C. M. Grilo & J. E. Mitchell (Eds.), *The treatment of eating disorders: A clinical handbook* (pp. 83–107). New York, NY: Guilford Press
- Pike, K., Walsh, B. T., Vitousek, K., Wilson, G. T., & Bauer, J. (2003). Cognitive behavior therapy in the posthospitalization treatment of anorexia nervosa. *American Journal of Psychiatry, 160*, 2046–2049. doi:10.1176/appi.ajp.160.11.2046
- Powers, P.S., & Santana, C.A. (2002). Eating disorders: A guide for the primary care physician. *Primary Care: Clinics in Office Practice, 29*, 81–98. doi:10.1016/S0095-4543(03)00075-7
- Prochaska, J. O., & DiClemente, C. C. (1983). Stages and processes of self-change of smoking: toward an integrative model of change. *Journal of Consulting and Clinical Psychology, 51*, 390–395. doi:10.1037/0022-006X.51.3.390
- Reid, M., Williams, S., & Hammersley, R. (2010). Managing eating disorder patients in primary care in the UK: A qualitative study. *Eating Disorders: The Journal of Treatment and Prevention, 18*, 1–9. doi:10.1080/10640260903439441
- Reiter, C.S., & Graves, L. (2010). Nutrition therapy for eating disorders. *Nutrition in Clinical Practice, 25*, 122–36. doi: 10.1177/0884533610361606
- Reynolds, C. R., & Kamphaus, R. W. (2004). *Behavior Assessment System for Children – Second Edition (BASC-2)*. Circle Pines, MN: AGS.
- Reynolds, C. R., & Richmond, B. O. (1978). What I think and feel: A revised measure of children's anxiety. *Journal of Abnormal Child Psychology, 6*, 271–280. doi:10.1023/A:1025751206600

- Ricca, V., Mannucci, E., Mezzani, B., Di Bernardo, M., Barciulli, E., Moretti, S.,...Rotella, C. M. (1997). Cognitive-behavioral therapy versus combined treatment with group psychoeducation and fluoxetine in bulimic outpatients. *Eating and Weight Disorders*, 2, 94–99. doi:10.1002/1098-108X(200012)28:4<387::AID-EAT6>3.0.CO;2-Y
- Rieger, E., Touyz, S., Schotte, D., Beumont, P., Russell, J., Clarke, S.,...& Griffiths, R. (2000). Development of an instrument to assess readiness to recover in anorexia nervosa. *International Journal of Eating Disorders*, 28, 387–396. doi:10.1002/1098-108X(200012)28:4<387::AID-EAT6>3.0.CO;2-Y
- Robin, A., Siegal, P, Moye, A., Gilroy, M., Dennis, A. B., & Sikand, A. (1999). A controlled comparison of family versus individual therapy for adolescents with anorexia nervosa. *Journal of American Academy of Child and Adolescent Psychiatry*, 38, 1482–1489. doi:10.1097/00004583-199912000-00008
- Robinson, P. H. (2006). *Community treatment of eating disorders*. Chichester, UK: John Wiley.
- Roehrig, J. P., & McLean, C. P. (2010). A comparison of stigma toward eating disorders versus depression. *International Journal of Eating Disorders*, 43, 671–674. doi:10.1002/eat.20760
- Roerig, J. L., Steffen, K. J., Mitchell, J. E., & Zunker, C. (2010). Laxative abuse: Epidemiology, diagnosis, and management. *Therapy in Practice*, 70, 1487–1503. doi:10.1002/10.0012-1487
- Rollnick, S. (1998). Readiness, importance and confidence: Critical conditions of change in treatment. In: W. R. Miller & N. Heather (Eds), *Treating Addictive Behaviours, 2nd Edition*. New York: Plenum.
- Rome, E. S., Ammerman, S., Rosen, D. S., Keller, R. J., Lock, J., Mammel, K. A.,...Silber, T. J. (2003). Children and adolescents with eating disorders: The state of the art. *Pediatrics*, 111, 98–108. doi:10.1542/peds.111.1.e98
- Rosen, D. S., MPH, & The Committee on Adolescence. (2010). Clinical report – Identification and management of eating disorders in children and adolescents. *Pediatrics*, 126, 1240–1253. doi:10.1542/peds.2010-2821
- Royal Australian and New Zealand College of Psychiatrists (2004). Australian and New Zealand clinical practice guidelines for the treatment of anorexia nervosa. *Australian and New Zealand Journal of Psychiatry*, 38, 659–670. doi:10.1111/j.1440-1614.2004.01449.x
- Royal College of Psychiatrists and Royal College of Physicians of London (2010) *MARSIPAN: Management of Really Sick Patients with Anorexia Nervosa – Report from the MARSIPAN group (College Report CR162)*. Royal College of Psychiatrists. Retrieved from <http://www.rcpsych.ac.uk/files/pdfversion/CR162.pdf>
- Rubak, S., Sandboek, A., Lauritzen, T., & Christensen, B. (2005). Motivational interviewing: A systematic review and meta-analysis. *British Journal of General Practice*, 4, 305–312.
- Russell, J., & Meares, R. (1997). Paradox, persecution and the double game: Psychotherapy in anorexia nervosa. *Australian & New Zealand Journal of Psychiatry*, 31, 691–699. doi:10.3109/00048679709062682
- Russell, G. F., Szmukler, G. I., Dare, C., & Eisler, I. (1987). An evaluation of family therapy in anorexia and bulimia nervosa. *Archives of General Psychiatry*, 44, 1047–1056.
- Safer, D. L., Telch, C. F., & Agras, W. S. (2001). Dialectical behavior therapy for bulimia nervosa. *American Journal of Psychiatry*, 158, 632–634. doi:10.1176/appi.ajp.158.4.632

- Sanchez-Ortiz, V. C. & Schmidt, U. (2010). Self-help approaches for bulimia nervosa and binge eating disorder. In C. M. Grilo & J. E. Mitchell (Eds.), *The treatment of eating disorders: A clinical handbook* (p. 359–371). New York, NY: Guilford Press.
- Schaffner, A., & Buchanan, L. (2008). Integrating evidence-based treatments with individual needs in an outpatient facility for eating disorders. *Eating Disorders, 16*, 378–392. doi:10.1080/10640260802370549
- Schmidt, U., Lee, S., Beecham, J., Perkins, S., Treasure, J., Yi, I.,...Eisler, I. (2007) . A randomized controlled trial of family therapy and cognitive behavioral therapy guided self-care for adolescents with bulimia nervosa and related disorders. *American Journal of Psychiatry, 164*, 591–598. doi:10.1176/appi.ajp.164.4.591
- Schmidt, M., Morgan, J. F., & Yousaf, F. (2008). Treatment adherence and the care programme approach in individuals with eating disorders. *The Psychiatrist, 32*, 426–430 doi:10.1192/pb.bp.107.018317
- Schnase, J. L., & Cunnius, E. L. (Eds.). (1995). Proceedings from CSCCL '95: *The First International Conference on Computer Support for Collaborative Learning*. Mahwah, NJ: Erlbaum.
- Schwartz, B. I., Mansbach, J. M., Marion, J. G., Katzman, D. K., & Forman, S. F. (2008). Variations in admission practices for adolescents with anorexia nervosa: A North American sample. *Journal of Adolescent Health, 43*, 425–31. doi:10.1016/j.jadohealth.2008.04.010
- Serpell, L., Neiderman, M., Haworth, E., Emmanuelli, F., & Lask, B. (2003). The use of the pros and cons of anorexia nervosa (P-CAN) scale with children and adolescents. *Journal of Psychosomatic Research, 54*, 567–571. doi:10.1016/S0022-3999(02)00464-6
- Serpell, L., Teasdale, J. D., Troop, N. A., & Treasure, J. (2004). The development of the P-CAN, a measure to operationalise the pros and cons of anorexia nervosa. *International Journal of Eating Disorders, 36*, 416–433. doi:10.1002/eat.20040
- Serpell, L., & Treasure, J. (2002). Bulimia nervosa: Friend or foe? The pros and cons of bulimia nervosa. *International Journal of Eating Disorders, 32*, 164–170. doi:10.1002/eat.10076
- Shirk, S. R. (1999). Developmental therapy. In S. W. Russ, & T. H. Ollendick (Eds.), *Developmental issues in the clinical treatment of children* (pp. 60–73). Needham Heights, MA: Allyn & Bacon.
- Skinner, H. A., Steinhauer, P. D., & Santa-Barbara, J. (1995). *Family Assessment Measure, Version III (FAM-III)*. Toronto, ON: Multi-Health Systems.
- Steinhausen, H. C. (1999). The long-term outcome of eating disordered patients. *European Psychiatry, 13*, 156s–156s(1). doi:http://dx.doi.org/10.1016/S0924-9338(99)80092-3
- Steinhausen, H. C. (2002). The outcome of anorexia nervosa in the 20th century. *American Journal of Psychiatry, 159*, 1284–1293. doi:10.1176/appi.ajp.159.8.1284
- Stice, E., Ng, J., & Shaw, H. (2010). Risk factors and prodromal eating pathology. *Journal of Child Psychology and Psychiatry, 51*, 518–525. doi:10.1111/j.1469-7610.2010.02212.x
- Stott, N., Rees, M., Rollnick, S., Pill, R., & Hackett, P. (1995). Innovation in clinical method: Diabetes care and negotiating skills. *Family Practice, 12*, 413–418. doi:10.1093/fampra/12.4.413
- Striegel-Moore, R.H., DeBar, L., Wilson, G.T., Dickerson, J., Rosselli, F., Perrin, N.,... Kraemer, H.C. (2008). Health services in eating disorders. *Psychological Medicine, 38*, 1465–1474. doi: 10.1017/S0033291707001833

- Svirko, E & Hawton, K., (2007) Self injurious behavior and eating disorders: the extent and nature of the association. *Suicide & Life Threatening Behaviour*, 37, 409–421. doi:10.1521/suli.2007.37.4.409
- Tanofsky-Kraff, M., Wilfley, D. E., Young, J. F., Mufson, L., Yanovski, S. Z., Glasofer, D. R., & Salaita, C. G. (2008). Preventing excessive weight gain in adolescents: Interpersonal psychotherapy for binge eating. *Obesity*, 15, 1345–1355. doi:10.1038/oby.2007.162
- Tantillo, M., Nappa Bitter, C., & Adams, B. (2001). Enhancing readiness for eating disorder treatment: A relational/motivational group model for change. *Eating Disorders: The Journal of Treatment & Prevention*, 9, 203–216.
- Telch, C. F., Agras, W. S., & Linehan, M. M. (2001). Dialectical behavior therapy for binge eating disorder. *Journal Consulting and Clinical Psychology*, 69, 1061–1065. doi:10.1037/0022-006X.69.6.1061
- Thornton, C., Beumont, P., & Touyz, S. (2002). The Australian experience of day programs for patients with eating disorders. *International Journal of Eating Disorders*, 32, 1–10. doi: 10.1002/eat.10059
- Thornton, C.E., & Russell, J.D. (1995, May). Evaluation of an integrated eating disorders day program. Paper presented at the 2nd international conference on eating disorders, London.
- Touyz, S. W., & Carney, T. (2010). Compulsory (involuntary) treatment for anorexia nervosa. In C. M. Grilo, & J. E. Mitchell (Eds), *The treatment of eating disorders: A clinical handbook* (pp. 212–224). New York, NY: Guilford Press.
- Touyz, S., Thornton, C., Rieger, E., George, L., & Beumont, P. (2003). The incorporation of the stage of change model in the day hospital treatment of patients with anorexia nervosa. *European Child and Adolescent Psychiatry*, 12, 65–71. doi:10.1007/s00787-003-1109-5
- Treasure, J., Gavan, K., Todd, G., & Schmidt, U. (2003). Changing the environment in eating disorders: working with carers/families to improve motivation and facilitate change. *European Eating Disorders Review*, 11, 25–37. doi:10.1002/erv.485
- Treasure, J. L., Katzman, M., Schmidt, U., Troop, N., Todd, G., & de Silva, P. (1999). Engagement and outcome in the treatment of bulimia nervosa: First phase of a sequential design comparing motivational enhancement therapy and cognitive behavioural therapy. *Behaviour Research and Therapy*, 37, 405–418. doi:10.1016/S0005-7967(98)00149-1
- Treasure, J. & Schmidt, U. (2001). Ready, willing and able to change: Motivational aspects of the assessment and treatment of eating disorders. *European Eating Disorders Review*, 9, 4–18. doi:10.1002/erv.390
- Treasure, J., Smith, G., & Crane, A. (2007). *Skills-based learning for caring for a loved one with an eating disorder: The new Maudsley method*. London, UK: Routledge.
- Treat, T. A., McCabe, E. B., Gaskill, J. A., & Marcus, M. D. (2008). Treatment of anorexia nervosa in a specialty care continuum. *International Journal of Eating Disorders*, 41, 564–572. doi: 10.1002/eat.20571
- Troop, N. A., Serpell, L., & Treasure, J. L. (2001). Specificity in the relationship between depressive and eating disorder symptoms in remitted and nonremitted women. *International Journal of Eating Disorders*, 30, 306–311. doi:10.1002/eat.1089
- van Son, G., van Hoeken, D., van Furth, E.F., Donker, G.A., & Hoek, H.W. (2010). Course and outcome of eating disorders in a primary-care based cohort. *International Journal of Eating Disorders*, 43, 130–138. doi: 10.1002/eat.20676

- Vandereycken W. (2003). The place of inpatient care in the treatment of anorexia nervosa: questions to be answered. *International Journal of Eating Disorders*, 34, 409. doi:10.1002/eat.10223
- Vandereycken, W. (in press). Can eating disorders become 'contagious' in group therapy and specialized inpatient care? *European Eating Disorders Review*. – checking ref doi:10.1002/erv.1087
- Vandereycken, 1993 – Beumont, P. J., & Vandereycken, W. (1998). Challenges and risks for health care professionals. In W. Vandereycken, & P. J. Beumont (Eds), *Treating eating disorders: Ethical, legal and personal issues* (pp. 1–29). London, UK: Athlone Press.
- Vitousek, K., & Manke, F. (1994). Personality variables and disorders in anorexia nervosa and bulimia nervosa. *Journal of Abnormal Psychology*, 103, 137–147. doi:10.1037/0021-843X.103.1.137
- Vitousek, K., Watson, S., & Wilson, G. T. (1998). Enhancing motivation for change in treatment-resistant eating disorders. *Clinical Psychology Review*, 18, 391–420. doi:10.1016/S0272-7358(98)00012-9
- Wade, T. D., Treasure, J., & Schmidt, U. (in press). A case series evaluation of the Maudsley Model for treatment of adults with anorexia nervosa. *European Eating Disorders Review*.
- Waller, G., Cordery, H., Corstorphine, E., Hinrichsen, E., Lawson, R., Mountford, V., & Russell, K. (2007). *Cognitive behavioural therapy for eating disorders: A comprehensive treatment guide*. New York, NY: Cambridge University Press.
- Whitelaw, M., Gilbertson, H., Lam, P., & Sawyer, S. M. (in press). Does aggressive refeeding in hospitalized adolescents with anorexia nervosa result in increased hypophosphatemia? *Journal of Adolescent Health*. doi:10.1016/j.jadohealth.2009.11.207
- Wiederman, M. W. & Pryor, T. (1996). Substance use among women with eating disorders. *International Journal of Eating Disorders*, 20, 163–168. doi: 10.1002/(SICI)1098-108X(199609)20:2<163::AID-EAT6>3.0.CO;2-E
- Wilfley, D. E., Crow, S. J., Hudson, J. I., Mitchell, J. E., Berkowitz, R. I., Blakesley, V., & Walsh, T. (2008). Efficacy of sibutramine for the treatment of binge eating disorder: A randomized multicenter placebo-controlled double-blind study. *American Journal of Psychiatry*, 165, 51–58. doi: 10.1176/appi.ajp.2007.06121970
- Wilfley, D. E., Dounchis, J. Z., and Welch, R. R. (2000). Interpersonal psychotherapy. In K. J. Miller, & J. S. Mizes (Eds), *Comparative treatments for eating disorders* (pp. 128–282). New York, NY: Springer Publishing.
- Williams, K. D., Dobney, T., & Geller, J. (2010) Setting the eating disorder aside: An alternative model of care. *European Eating Disorders Review*, 18, 90–96. doi:10.1002/erv.989
- Wilson, G. T., & Fairburn, C. G. (1998). Treatments for eating disorders. In P. E. Nathan & J. M. Gorman (Eds.), *A Guide to Treatments that Work* (pp. 501–530). New York, NY: Oxford University Press.
- Wilson, G. T., Fairburn, C. G., Agras, W. S., Walsh, B. T., & Kraemer, H. (2002). Cognitive behavior therapy for bulimia nervosa: Time course and mechanisms of change. *Journal of Consulting and Clinical Psychology*, 70, 267–274. doi:10.1037/0022-006X.70.2.267
- Wilson, G., Grilo, C. M., & Vitousek, K. M. (2007). Psychological treatment of eating disorders. *American Psychologist*, 62, 199–216. doi:10.1037/0003-066X.62.3.199

- Wilson, G. T., & Schlam, T. R. (2004). The transtheoretical model and motivational interviewing in the treatment of eating and weight disorders. *Clinical Psychology Review, 24*, 361–378. doi:10.1016/j.cpr.2004.03.003
- Wilson, G. T., Vitousek, K. M., & Loeb, K. L. (2000). Stepped care treatment for eating disorders. *Journal of Consulting and Clinical Psychology, 68*, 564–572. doi:10.1037/0022-006X.68.4.564
- Wissow, L.S., Brown, J.D., & Krupnick, J. (2010). Therapeutic alliance in pediatric primary care: Preliminary evidence for a relationship with physician communication style and mothers' satisfaction. *Journal of Developmental and Behavioral Pediatrics, 31*, 83–91. doi: 10.1097/DBP.0b013e3181cda770
- Yager, J. (2007). In J. Yager & P. S. Powers (Eds), *Clinical manual of eating disorders* (p 40739). Arlington, VA: American Psychiatric Publishing.
- Zahniser, J. H. (2005). Psychosocial rehabilitation. In C. Stout, & R. Hayes (Eds.), *The evidence-based practice: Methods, models and tools for mental health professionals* (pp. 109–152). Hoboken, NJ: John Wiley.
- Zaitsoff, S. L., & Taylor, A. (2009). Factors related to motivation for change in adolescents with eating disorders. *European Eating Disorders Review, 17*, 227–233. doi:10.1002/erv.915
- Zeeck, A., Herzog, T., & Hartmann, A. (2004). Day clinic or inpatient care for severe bulimia nervosa. *European Eating Disorders Review, 12*, 79–86. doi:10.1002/erv.535
- Zipfel, S., Reas, D. L., Thornton, C., Olmsted, M. P., Williamson, D. A., Gerlinghoff, M.,...Beumont, P. J. (2002). Day hospitalization programs for eating disorders: A systematic review of the literature. *International Journal of Eating Disorders, 31*, 105–117. doi:10.1002/eat.10009

