EATING DISORDER NUTRITION COUNSELLING IN CANADA

by

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ABSTRACT

An eating disorder is considered a 'mental' or psychiatric disorder with potentially severe physical consequences. The optimal treatment for eating disordered individuals is multi-disciplinary and multi-dimensional. Nutrition counselling is an integral part of the eating disorder treatment process, but the actual practice of nutrition counselling has yet to be defined. American eating disorder dietetic manuals describe nutrition therapist as the optimal way to support this client group. A nutrition therapist would delve into process-oriented strategies whereas; a nutrition educator would work strictly with didactic and content-oriented strategies. Given the absence of information on Canadian eating disorder dietetic practice and how dietitians are being prepared to work in this area, this study aims to rectify these gaps in knowledge. The goals of this study were to ascertain the counselling practices and explore the educational needs of dietitians in Canada who worked with eating disordered individuals in order to optimize the treatment for this population group.

The literature for nutrition counselling was reviewed and a list of 50 counselling strategies was compiled. Surveys based on these 50 strategies were developed and mailed to 138 Canadian dietitians who worked with eating disordered individuals. The types of strategies explored in this study comprised of assessment, rapport building and behavioural change categories. Within the behavioural change group, strategies can be further divided into instructional, behavioural, cognitive behavioural or motivational strategies. Strategies may also be categorized with respect to being strictly content-oriented or being process-oriented.

Dietitians were asked to complete the dietitian survey and to pass the therapist survey on to the appropriate member of their eating disorder team. The dietitian

survey had a return rate of 56% while the therapist survey had a return rate of 34%. Assessment and rapport building strategies were used frequently by Canadian dietitians. The most frequently used behavioural change strategies tended to be content-oriented. Dietitians used strategies they were familiar with, strategies they considered useful and strategies within their perceived professional role boundaries. Therapists had a similar view as dietitians on which strategies were useful and which ones were appropriate. The four highest ranked strategies for usage and usefulness were the same. They were: using small increments in goal-setting, involving clients in decision-making, discussing barriers for behavioural change and reflective listening strategies. The strategy usage of Canadian dietitians seem to indicate that they worked in more of a nutrition educator role as opposed to a nutrition therapist role.

Overall, the most frequently used route for learning eating disorder nutrition counselling skills was reading. Strategies used in clinical practice were learned from dietetic training and intuition. Seventy-one percent of the dietitians surveyed were dissatisfied or very dissatisfied with the educational opportunities currently available, hence there is a definite need for continuing education opportunities in the area of eating disorder nutrition counselling. At this time, Canadian dietitians do not have access to routes of learning that have been recommended by the American Dietetic Association and dietitians who are leaders in the field of nutrition counselling and eating disorders. These recommendations include more intensive and formal modes of training such as courses and mentorship or supervision programs. Courses and mentorship were also the routes of learning most frequently requested by Canadian dietitians themselves.

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ACKNOWLEDGMENTS

When I applied for graduate school, I had no children, but I did have a supportive husband and quite a stable life. Now, four years later, I have two children, an extremely supportive family and a wonderfully chaotic life. I wish to dedicate this thesis to my family, Blaine, Ethan, Zachary, Mom (Gwen) and Dad (Victor) Cairns. I could not have done this without your support and encouragement all the way through. I thank God for all of you and feel very blessed in having the opportunity to complete this project.

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Chapter 1

INTRODUCTION

I. BACKGROUND

The treatment of individuals with eating disorders is a difficult, lengthy and often costly enterprise. Chronicity, impairment of lifestyle and even death ensues for a notable proportion of those who suffer from eating disorders. Due to the complexity of the problem, the acknowledged optimum treatment approach is multidisciplinary. With potentially severe consequences if left unchecked (American Psychiatric Association [APA], 2000), tremendous ambivalence (Vitousek, Watson, and Wilson, 1998) and sometimes shame in seeking treatment, identifying and retaining eating disordered patients in treatment is a challenge (Serfaty, Turkington, Heap, Ledsham, and Jolley, 1999). Many dietetic clinicians have noted the challenge of working with this population group (American Dietetic Association [ADA] 2001; ADA 2000; Schebendach and Reichert-Anderson, 2000; Herrin, 1999). The following letter published in a newsletter of the Eating Disorder Association (1999) illustrates many facets of the eating disorder dilemma, including ambivalence about seeking help, the process of developing an eating disorder, and the long-term perspective needed for this problem.

> *"Hi*
>
> *You don't know me but please read this letter because I need to tell someone who'll understand. I don't have a problem but things aren't too great.*

I'm 16 and I feel as if food has got complete control over my life. I guess everything started years ago. I was a fat kid and when I went to secondary school, I got bullied. I stopped eating lunch hoping I'd get thinner and often missed breakfast. I never lost weight because I never had any will power. I came home from school and just ate and ate. When I was 14, I started swimming a lot, I felt so self-conscious and fat. I managed to swim many lengths at a time. People started saying I'd lost weight, it felt really good and I wanted to lose more. But by then I'd started eating more junk food and figured that only way to be thin was to throw up. I did that for a while, but again I had no real will power.

Recently, I changed schools. For a while things went well but there is a candy and chips machine in the commons room. Even if I don't take money to school, I borrow it. I'm getting really fat. It sounds stupid, but I don't know what to do.

I just want to be thin. I wish it was OK not to be, I wish someone would tell me they love me any way, but they don't. Even if they did, I'd still want to be thin, but it wouldn't feel so desperately urgent. I just want everything to be normal. I wish food wasn't an issue and I'd never started messing about with it. I know I've not really got a problem and I've wasted your time by asking you to read this. I can't deal with this anymore, that's how stupid I am. I want help but if I went and spoke to anyone, I'd just be wasting their time, which they could be spending helping someone who does have a problem.

Congratulations, you've reached the end and can get back to doing important stuff. Thanks for reading this,

Jo

(Eating Disorder Association, 1999)"

II. NUTRITION COUNSELLING

Nutrition counselling is an established part of eating disorder treatment, and appears effective for decreasing bulimia nervosa [BN] symptoms (Beumont et al. 1997; Hall and Crisp, 1987; Hsu et al. 2001; Laessle et al. 1991; O'Connor, Touyz, and Beumont, 1988) and binge eating disorder [BED] (Laederach-Hofmann et al. 1999). There is no definitive treatment for anorexia nervosa [AN] clients, but nutrition counselling is typically part of a multi-disciplinary treatment approach that has shown some success for this group of clients (Brambilla, Draisci, Peirone, and Brunetta, 1995b; Brambilla, Draisci, Peirone, and Brunetta, 1995c; Eiger, Christie, and Sucher, 1996; Hall and Crisp, 1987; Waisberg and Woods, 2002). As strategy usage describes clinical dietetic practice, this study seeks to examine 50 counselling strategies that have been described in the literature which are most relevant to eating disordered clients. There are many different strategies found in the literature. They range from tradition dietetic-trained ones such as 24-hour recall to less traditional ones not usually taught in dietetics such as cognitive restructuring.

III. RATIONALE

The aims of this study are to ascertain the counselling practices and educational needs of dietitians in Canada who work with eating disordered clients. In order for dietitians to do the best job possible for this challenging client population, there is a need to ensure dietitians are optimally equipped to work in this unique area. Given the lack of research data on eating disorder dietetic practice in Canada, this study seeks to determine what counselling strategies are currently being used in clinical practice. To gain a perspective on the philosophy of care and the role dietitians have on the multi-disciplinary teams in Canada, eating disorder psychotherapists were surveyed on their perceptions on how dietitians should conduct nutrition counselling. To complete the picture of what is needed

in Canada to optimally prepare dietitians to work with this client population, information on how dietitians are learning about counselling strategies, how satisfied they are with the current educational opportunities, what dietitians want to learn more about and which routes of learning are preferred by the dietitians were also addressed.

IV. RESEARCH OBJECTIVES:

1. To determine what nutrition counselling strategies Canadian dietitians are using in the their eating disorder clinical practice.
2. To explore dietitians' and psychotherapists' perceptions of nutrition counselling strategies usefulness and appropriateness.
3. To describe how dietitians are learning about eating disorder nutrition counselling strategies.
4. To explore education issues in the area of eating disorder nutrition counselling regarding:
   a) satisfaction with currently available educational opportunities,
   b) what dietitians would like to learn more about and what they do not want to learn more about, and
   c) preferred learning routes of Canadian dietitians.

Chapter 2

LITERATURE REVIEW

I. INTRODUCTION

The purpose of this literature review is to provide the background information in order to understand the context of this study. First, the problem of eating disorders is described. Second, eating disorder treatment, the treatment team and the role of the dietitian are discussed. Third, nutrition counselling, strategies and research outcomes are explored. Finally, the issue of counselling education for dietitians is examined.

II. BACKGROUND ON EATING DISORDERS

A. The Eating Disorder Picture

The Diagnostic and Statistical Manual of Mental Disorders, 4th Edition [DSM IV] describes the criteria for eating disorders: Anorexia Nervosa [AN], Bulimia Nervosa [BN] and Eating disorder not otherwise specified [EDNOS] which is found in Appendix A (American Psychiatric Association [APA], 1994). "Although DSM IV criteria allow clinicians to diagnose patients with a specific eating disorder, the symptoms frequently occur along a continuum between those of AN and those of BN. Weight preoccupation and excessive self-evaluation of weight and shape are primary symptoms in both AN and BN behaviours (APA 2000)." The Manual of Clinical Dietetics describes AN in the following manner. "AN is characterized by a morbid fear of becoming fat and a relentless drive for thinness. Weight loss in anorexia nervosa may be rapid and dramatic or gradual and seemingly innocuous, yet both methods can result in equally deleterious low

body weights. Food restriction is the hallmark method for weight loss, which is frequently facilitated by excessive exercise and other purgative behaviours. Pursuit and maintenance of low body weight is accompanied by increasingly rigid and ritualistic behaviour typically expressed in food selection, eating behaviours and exercise regimens (American Dietetic Association [ADA], 2000)."

BN has been described as a state of dietary chaos where there are frequent periods of uncontrolled eating, often followed by a period of restrained food intake (Schebendach and Reichert-Anderson, 2000) and often purging. Moreover, food may take on symbolic meanings for bulimic individuals and be a way of expressing feelings of sadness, frustration, disappointment, anger, or boredom. Purging can be very addictive because it helps to release anxiety or built-up pressure from the restraint of food intake and consequential over-consumption of food. After a while, purging may be used to help decrease stress or anxiety from any source (ADA 2000).

EDNOS is a category where the eating disorder does not quite meet full criteria for AN or BN. Common reasons for being classified in the EDNOS category are those individuals who do not meet criteria for cessation of menses or the number of binges or purges in a specific amount of time. EDNOS is a common diagnosis and it includes the Binge Eating Disorder [BED] group. The EDNOS diagnostic category is given to nearly 50% of patients who present to tertiary care eating disorder programs (APA 2000) and more than half of all adolescent eating disorder clients (Kriepe and Dukarm, 1999).

Co-morbidities such as personality disorders and obsessive disorders are common in eating disordered individuals. Histrionic (13%) and borderline (40%) types of personality disorders are seen frequently in individuals who binge-purge (Marcus et al. 1990; Varner, 1999). Histrionic personality disorder is characterized by excessive emotionality and attention seeking. These individuals often seek an

inordinate amount of reassurance, approval and praise. Sessions with a histrionic client may be emotionally charged. Those with borderline personality disorders have an intense fear of being abandoned. At first, they may idealize the health professional working with them, but this may quickly turn to devaluing them if they feel the health care provider is not caring or giving enough (Varner, 1999). In the younger age group, obsessional behaviour and depression are commonly seen (APA 2000).

B. Prevalence and Incidence

There have been various reports of the epidemiology of AN. They indicate that the incidence of anorexia nervosa is 0.2-3.7% (APA 2000; Steinhausen, 1997). The disorder affects more women than men, with a female to male ratio of 10:1 to 6:1 ratio (APA 2000). A few British studies have indicated a higher incidence among males in children and younger adolescents (Lask, 2000).

Even though eating disorders usually start while clients are in their teens or twenties, earlier and later onsets have been reported. AN has been reported in elderly clients in their 70's and 80's where the illness has been present for 40 or 50 years (APA 2000). In some developed countries such as Canada, United States, England and Australia, the prevalence appears to have levelled off in the past decade (Steinhausen, 1997) but it continues to increase in Japan (Nadoka et al. 1996), Spain (Bosch, 2000; Toro et al. 1995), Argentina (Amusquibar, 2000) and Fiji (Bosch, 2000).

The incidence of BN in the general population is 1.1-4.2% (APA 2000) but for older adolescents, it is up to 5% (Kriepe and Dukarm, 1999). The peak incidence of BN is around age 18 (Kriepe and Dukarm, 1999). BED incidence in the general community was found to be 2% (Bruce and Agras, 1992), but among patients seeking obesity treatment at hospital-affiliated weight programs, the

incidence was 30% (Spitzer et al. 1992). BED is found much more frequently in adults than adolescents (APA 2000).

Eating disorders are the third most common chronic illness in female adolescents (Canadian Paediatric Society [CPS], 1998). Eating disorder symptoms are prevalent according to findings from large-scale adolescent health surveys. A study conducted in British Columbia of more than 25,000 high school students found 15% of the female adolescents binged at least two to three times a month while 25% binged up to once a month. Four percent of adolescent females purged at least two to three times a month and an additional 5% up to once a month (McCreary, 1998). The 1998 Minnesota Health Survey found that 30% of the 30,000 female adolescents surveyed reported binge eating, 12% reported self-induced vomiting and 2% reported using diuretics or laxatives to lose weight (Newmark-Sztainer, Story, Resnick and Blum, 1998). Even more alarming, the results from Britain indicated that 25% of adolescent females surveyed regularly engaged in self-induced purging to lose weight (Kriepe and Dukarm, 1999). In sum, eating disorder behaviours whether as part of a full-blown eating disorder or a partial one, are exceedingly common in the adolescent females.

C. Etiology

The cause of an eating disorder is not clear at this point in time. It is thought to be the result of a combination of psychological, familial, societal and personal factors. Examples of predisposing factors include stress, transition times, self-esteem difficulties and family conflict (APA 2000). Specific population groups at higher risk for developing an eating disorder include skaters, gymnasts, dancers, wrestlers and those participating in activities that focus on weight, shape or food (APA 2000). New data is also suggestive of a notable biological predisposition to both AN and BN (Kriepe and Dukarm, 1999).

D. Complications

Physical complications of eating disorders include cardiovascular dysfunctioning which has been associated with death in individuals struggling with AN. Congestive heart failure, reduction in heart mass, reduced blood pressure, reduced pulse rate and mitral valve prolapse have all been documented (Rock and Curran-Celentano, 1994; Schebendach and Reichert-Anderson, 2000). Some brain changes in adolescents with anorexia nervosa have been found (Katzman, Zipursky, Lambe, and Mukulis, 1997). Other depressed physical factors which reflect the semi-starvation state in AN include a dangerously low body temperature and a low leukocyte count. With the abuses of purging activities, severe electrolyte imbalances, rectal bleeding, esophageal tears, acute gastric dilatation or rupture, intestinal atony, dehydration, alkalosis, hypovolemia and dental enamel erosion may occur (Herrin, 1999; Schebendach and Reichert-Anderson, 2000). Although osteopenia is a concern at every age, early onset of the eating disorder most profoundly increases the risk osteopenia and osteoporosis. The estrogen deficiency, elevated glucocorticoid levels, low body weight, semi-starvation and inability to maximize their peak bone mass contribute to the potential vertebral compression and pathological fractures which may occur during the illness or later in life (Rigotti, Neer, Skates, Herzog, and Nussbaum, 1991).

Although amenorrhoea is part of the diagnostic criteria for an eating disorder and thus is a prominent consequence of an eating disorder, pregnancies have been known to occur. "A variety of obstetrical complications, including insufficient weight gain during pregnancy and low birth weight in infants have been reported in patients with active AN or BN. BN may increase the risk of miscarriage and AN may increase the risk of premature birth and prenatal death (Franko and Walton, 1993)."

The complications of BED are less acute and immediate but the long term sequelae of being overweight or obese are the risk factors. For example, there would be an increased risk of the following problems: diabetes, reactive hyperglycemia, hypertension, challenges in mobility, respiratory difficulties, higher surgical risks, menstrual problems and gall bladder disease (APA 2000).

E. Mortality

Eating disorders and substance abuse have the greatest mortality rate from natural and unnatural causes of all the psychiatric disorders (APA 2000). There have been reports of mortality rates for AN of about 5% (Steinhausen, 1997) to as high as 20% in very long term follow-up studies (Theander, 1985). A 1995 meta-analysis suggested a 5.6% mortality rate per decade (Sullivan, 1995). The most common causes of death are cardiac complications and suicide (Strober, Freeman, and Morrell, 1997). "There is some evidence that 'aggressive' treatment (ie. restoring weight to 90% ideal body weight) in young people with a specialized multimodal approach may reduce long term risk of mortality (Crisp, Callender, Halek, and Hsu, 1992)." In contrast to AN, both BN and BED have much lower mortality rates reported. Mortality rates of 0.3 to 1% have been documented in the literature for BN (Keel and Mitchell, 1997) and 1% for BED (APA 2000).

F. Prognosis

1. Anorexia Nervosa

Full recovery can be expected in about 45% -50% of those with AN although Strober (1997) showed that 76% of their intensively treated AN clients recovered. Four years after onset, 28% to 33% had outcomes somewhere between good and poor (APA 2000; Steinhausen, 1997) and approximately 66% continue to have morbid weight and food preoccupations after 4 years (APA 2000).

Strober et al. (1997) also found that nearly 30% of their intensively treated clients had relapsed following hospital discharge. The total time to recover ranged from

57-79 months depending on the definition of recovery. Among those who restricted their food at intake, nearly 30% developed binge eating within 5 years.

2. Bulimia Nervosa

Follow up studies for BN show a short-term success rate of 50-70% (Steinhausen, 1997; Keel and Mitchell, 1997). Relapse rates have been estimated to be 30-50% after 6 months to 6 years of follow up. Twenty-nine percent had an intermediate outcome and 10-20%, a poor outcome as defined by symptoms (APA 2000; Kreipe and Dukarm, 1999).

3. Chronic Sub-Group

Both Waisberg and Woods (2002) and Schebendach and Reichert-Anderson (2000) reported that approximately 20-50% of those diagnosed with an eating disorder will proceed to suffer from a chronic form of the disorder. This chronic form can extend for a decade or more where the individual is unable to maintain a healthy weight, suffer from chronic depression, obsessionality, and social withdrawal. Treatment for this subgroup may require repeated hospitalizations, partial hospitalizations, residential care, individual or group therapy (Garfinkel, 2002).

4. Binge Eating Disorder

In a six year study that followed intensely treated BED patients, it was found that 57% had a good outcome, 35% intermediate and 6% poor (APA 2000).

G. The Cost of an Eating Disorder

It can be very costly to treat eating disorder clients. Frequent visits to the physician, investigations and possibly lengthy periods of hospitalization along with unemployment and family strains all contribute to the high cost of an eating disorder (Crisp et al. 1991). The psychological, individual, familial, sociological burden, and emotional stress of suffering from an eating disorder is profound. Moreover, the cost of treating eating disorders is generally high because therapy is often lengthy due to the long term chronic subgroup and frequent relapses (ADA 1994; Whisenant and Smith, 1995). Figures from the American health care system suggest that AN generates the highest cost by diagnosis and has longer inpatient stays more consistently than any other psychiatric condition including schizophrenia (Wilson, Vitousek, and Loeb, 2000).

H. The Challenges of Working with Eating Disordered Clients

Not only is eating disorder treatment costly to the client, their families and the health care system; it is also a challenge for the dietitian. Stellefson (1999) and Reiff and Reiff (1992) both gave possible reasons for the difficulties in working with this population group. Some of the reasons relate to the client and others, to the dietitian. Aspects that relate to the client include the following. Clients are resistant in giving up their pursuit of thinness due to the nature of the disease hence low motivation and ambivalence is extremely common. Clients often have difficulties in trusting and may have histories of abusive or controlling relationships. The co-morbidities of depression, substance abuse or obsessive compulsive disorder are common and this makes eating disordered clients particularly challenging to work with. Aspects that relate to the dietitian include the following. If the dietitian is female, attractive and thin, the client may see her as a threat and a therapeutic alliance may not be formed. If the dietitian is male and the client has experienced a dominant or abusive relationship with a male, trust may never be established (Stellefson, 1999). Furthermore, Reiff and Reiff

(1992) maintain that there are challenges that reside within the relationship itself. Some eating disordered clients may want the nutrition professional to be responsible for their behaviour change. Due to the intensive nature of the relationships formed by eating disordered clients, limits and boundaries need to be stated at the outset. Finally, countertransference issues which "refer to the professional's own repressed feelings through identification with the patient's experiences may arise. Regular consultation with other team members or the dietitian's clinical supervisor when he or she is aware of feeling strong or irrational thoughts towards the client is essential (Reiff and Reiff, 1992)."

III. THE EVOLVEMENT OF A MULTIDISCIPLINARY APPROACH TO TREATMENT

A. Eating Disorder Treatment Descriptions

AN and BN were not recognized as a psychiatric disorder until the 1970's, although these disorders have existed for centuries. It was during this decade that inpatient eating disorder programs and care protocols emerged in hospitals (Eckstein-Harmon, 1993). Treatment for an eating disorder was primarily psychotherapy until the 1980's. In that decade, therapeutic interventions became more multimodal (Reiff and Reiff, 1992). Typical treatment now includes medical management, individual therapy, family therapy, nutritional interventions, and exercise management. The more severe the eating disorder, the higher the intensity of intervention and resources needed. Treatment modalities for AN and BN (APA 2000; Schebendach and Reichert-Anderson, 2000) range from inpatient treatment, partial hospitalization (day treatment programs), outpatient treatment, psycho-educational groups, support groups, self-directed or self-help books.

In the past two decades, the importance of re-nutrition and resolving the starvation state as quickly as possible has become very obvious. The result is

that AN mortality has decreased over time; but the most effective treatment for the long term is still under debate (Kaplan, 2002). Proven strategies for treating BN include nutritional counselling, psychosocial interventions, family intervention and medication (APA 2000). Laessle, Zoettle and Pirke's 1987 meta-analysis indicated that there is some evidence that treatment programs with nutritional counselling and management are more effective than those without. Strategies that have been useful in the treatment of BED clients include psychotherapy, nutritional counselling, medication, self-help guides and support groups (Fairburn, 1995, Laederach-Hofmann et al. 1999).

B. The Eating Disorder Treatment Team

Clinical practice guidelines for the treatment of eating disorders have been specified by various groups such as the American Psychiatric Association (APA 2000), the Canadian Paediatric Society (CPS 1998), the Society of Adolescent Medicine (Kriepe and Dukarm, 1999), and the American Dietetic Association (ADA 2000). All advocate the multidisciplinary team treatment of eating disorders due to the complex nature of the problem. The treatment team typically consists of professionals from medicine, nursing, mental health, occupational or recreation or exercise therapy and dietetics (Kriepe and Uphoff, 1992). Multidisciplinary teams can vary with respect to the division of responsibilities, role boundaries, disciplines represented, therapeutic philosophy and personalities of the team members (Reiff and Reiff, 1992). With a team approach, the possibility of inconsistencies in care can become problematic. Consequently, extra effort in communication is needed to prevent the "splitting" of professionals which has been described as pitting one caregiver against another (Landau-West, Kohl, and Pasulka, 1993).

C. Role of the Dietitian

In general, the historic role of a dietitian was the dispenser of special therapeutic meal plans. The issue of membership in treatment teams and attendance at medical rounds were in debate in the 1970's (Schiller and Vivian, 1974). Now treatment team membership is the norm and attendance at medical rounds is an established part of the clinical dietitian's routine. The current mandate for a clinical dietitian is to conduct nutrition assessment and nutrition counselling (ADA 2001).

In the specialty area of eating disorder treatment, the expansion of the role is notable. This is especially so in the past two decades. The traditional role of the eating disorder dietitian has been in the areas of evaluation, nutritional rehabilitation, and education of clients. In 1988, Omizo and Oda stated that the dietitian has a role in increasing the personal effectiveness and raising the self-esteem of eating disorder clients. In a 1989 editorial on the changing role of the eating disorder clinical dietitian, Krey and her colleagues stated that in the area of eating disorders, "the dietitian is responsible for prescribing, evaluating and monitoring dietary regimes and also is actively involved in assessing the individual's attitudes, beliefs and behaviours related to food, weight and exercise. The role of the dietitian has further evolved so that he or she can serve as a co-facilitator in group programs on assertiveness, body image, fitness, relaxation, problem solving techniques, anger management and other issues that relate to the nutritional management of the individual (Krey, Palmer, and Porcelli, 1989)."

In 1992, Reiff and Reiff stated that appropriate territory for the nutritionist to explore is anything that might impact food, eating and weight. In being a "therapist in disguise", the nutritionist can cover the territory of food-specific behaviour, so that the psychotherapist can be freed up to concentrate on the personal or interpersonal issues. A further expansion of the dietitian's role was noted in 1993 by Eckstein-Harmon in terms of self-expression, family counselling and body image work. The evolving and expanding role is dependent on the training and competence of the dietitian and division of responsibility according to the eating disorder team. Much of the literature describing nutrition counselling in the eating disorder area describes the work done by a nutrition therapist.

There is a large difference noted in the literature between dietitians who function as "nutrition therapists" and those who do not. Those who do not typically function as a nutrition therapist, would likely function as a nutrition educator. A nutrition educator (Helm, 1995) usually has more short-term interactions and nutrition sessions are solely content-based. The goal in education is to improve knowledge and skills and not necessarily behavioural change. In comparison, according to Reiff and Reiff (1992), a nutrition therapist would meet with the client over time and focus not just on content-based topics of food and eating, but go beyond that. The interactions are process and relationship-oriented. Counselling sessions focus on thoughts, feelings, and behaviours that relate to food and eating. The following has been used to define a nutrition therapist: "a nutritional professional who has special training in process-oriented counselling suited to working with clients with eating disorders (ADA 2000)."

D. Dietitian-Therapist Role Boundaries and Interface

The psychotherapist on the eating disorder team may be a social worker, psychiatric nurse, psychologist, psychiatrist, a licensed professional counsellor or

a masters level counsellor (ADA 2001). There is a delicate and complex interface between the role of the dietitian and the therapist in the treatment of eating disordered individuals. Agreed upon mutual expectations are needed to work effectively as a multi-disciplinary team (Saloff-Coste, Hamburg, and Herzog, 1993). The focus of psychotherapy is to work on personal and interpersonal issues pertaining to the eating disorder symptoms. The focus of the dietitian is on food-related issues. This may involve food-related behaviours, meal planning or education around the importance of healthful and adequate nutrition. "By covering the territory of food-specific behaviour, the dietitian frees the psychotherapist to concentrate on the underlying issues that surround the eating symptoms. The therapist is less likely to be sidetracked by the patient's often endless desire to discuss details of calories, meal plans or weekly weight (Saloff-Coste et al. 1993)." It is important that the dietitian acknowledges the limitations of his or her training and refers to the therapist issues that are beyond his or her competency. Table 1 depicts the five possible models for collaboration between the nutrition therapist and the psychotherapist according to Reiff and Reiff (1992).

In summary, dietitians and therapists need to work cooperatively to facilitate the recovery process in eating disordered clients. The boundaries of each profession vary depending on the unique characteristics of the dietitian, the psychotherapist and the clinical treatment team.

Table 1: Possible Models For Collaboration Between Nutrition Therapist and Psychotherapist (Reiff & Reiff, 1992)

NAME OF MODEL	DESCRIPTION
1. Continuous Contact Model	• Both team members work with the person with the eating disorder continuously, each focusing on different aspects of the recovery process. We believe that this is the most effective model of collaboration between the therapist and the nutrition therapist.
2. Food Plan-Only Model	• The nutrition therapist does a one or two-session consultation in which an individual food plan is devised and any specific questions the person with the eating disorder has at that time are answered. We view this as the least desirable alternative.
3. Education-Only Model	• The therapist refers the person with an eating disorder to the nutrition therapist for a six- to ten-session consultation in which nutrition education that is specifically pertinent to eating disorder clients is discussed.
4. Education/ Behavioural Change Only Model	• The therapist refers the person to the nutrition therapist for education about basic nutritional concepts relevant to eating disorders, then the person leaves nutrition therapy until the client and the therapist determines that she is ready to work intensively on changing food- and weight-behaviours.
5. Intermittent Contact Model	• The person with the eating disorder works with the nutrition therapist for a brief period of time and stops. Intermittent contact with the nutrition therapist continues throughout treatment as the client and her therapist see the need.

IV. NUTRITION COUNSELLING STRATEGIES

Nutrition counselling is an established part of eating disorder treatment (ADA 2001; APA 2000). General nutritional counselling has been described as a two-part process. The first phase involves the development of a strong, trusting relationship. The second phase involves developing possible behaviour change strategies. Both parts are needed for effective nutrition counselling (Danish, 1979). To build a good relationship, dietitians must develop the rapport-building skills as Rogers (1961) has described which are empathy, genuineness and unconditional positive regard (respect). To facilitate behaviour change, dietitians need to acquire the skills that promote the process of change (Laquatra and Danish, 1995).

Strategies used for changing behaviours can be considered one of three types. They may be strictly didactic educational strategies, content-oriented behavioural change strategies or process-oriented behavioural change strategies. From the nutrition education literature (Glanz and Eriksen, 1993; Lytle, 1995), we know that knowledge does not necessarily translate into action. Therefore, using strictly didactic or educational strategies alone is likely not sufficient. This was illustrated to the authors' surprise in Hsu et al.'s study (2001). In this study, the nutrition education group had the same outcome as the minimal involvement control group, which involved being part of a peer-led support group without any health care professional involvement. Nutrition education consisted of strictly didactic or educational strategies.

In other studies (Beumont et al. 1997; Laessle et al. 1991) where cognitive and behavioural strategies were used in nutrition counselling, significant improvements in BN symptom cessation was seen. According to Reiff and Reiff (1992) and Stellefson (1999), content-focused behavioural change strategies alone

are not sufficient. Recommendations to include process-oriented strategies in a dietitian's repertoire have been advocated by a variety of authors (ADA 2000; ADA 2001; Reiff and Reiff, 1992; Stellefson, 1999).

A. Eating Disorder Nutrition Counselling

Eating disorder nutrition counselling has been described as comprising of the following components: nutrition assessment, nutrition monitoring, a therapeutic relationship, nutrition education (the education phase) and possibly guidance in the experimentation of different nutrition, food and weight related behaviours (the experimental phase). All dietitians would be capable of conducting nutrition assessment, but the extent, depth and content would depend on the training and comfort level of the dietitian. Assessment strategies range from traditional dietetic strategies such as dietary recalls to more abstract concepts such as the meaning of the eating disorder to the client. All dietitians should also be able to be involved with nutrition monitoring, develop a therapeutic relationship and conduct the education phase of eating disorder nutrition counselling, but the experimental phase necessitates additional training or clinical supervision (ADA 1994; Reiff and Reiff, 1992). "The experimental phase of eating disorder nutrition counselling involves decoupling food and weight related issues from feelings and psychological issues, changing food behaviours in an incremental fashion, increasing or decreasing body weight as appropriate, and addressing social eating issues (Reiff and Reiff, 1992)."

B. Eating Disorder Nutrition Counselling Strategy Research

There has only been one study looking at the nutrition counselling strategies used by dietitians who worked with eating disordered clients (Whisenant and Smith, 1995). It was conducted in the United States. They found that 100% of the dietitians who worked in the eating disorder area conducted nutrition education. They also found that strategies used by dietitians treating inpatients or outpatients

differed considerably. A statistically significant difference for practice setting was found in the use of goal setting, problem solving, assertiveness training and relaxation management. All of these were used more frequently in the outpatient or a combination inpatient and outpatient setting. With regards to the strategies used in eating disorder nutrition counselling, Whisenant and Smith (1995) stated that, "some techniques are more specific or very specific to treating eating disorders and are used in the experimental (behavioural changing) phase of medical nutrition therapy only by dietitians who receive additional training in this specialty."

C. Nutrition Counselling Strategies

The literature describes a large number of counselling strategies that can be used in nutrition sessions. They range from educational ones and traditional dietetic strategies to more complex cognitive or cognitive behavioural strategies. Appendix B describes the 50 strategies used in this study and the research conducted using them. Originally, 70 strategies were identified through the literature search. Based on the researcher's clinical experience and after a series of peer debriefing sessions and consultation discussions, the final 50 strategies emerged as the most suitable to be used in the current research. The 50 strategies were decided upon to be explored in this study were the most prominent ones found in the literature that is pertinent to eating disorder nutrition counselling. Some have been based solely on clinical experience and others have been extensively researched but overall, the abundance of strategies available allows for potentially rich and varying nutrition counselling experiences.

D. Eating Disorder Nutrition Counselling Outcome Research

In contrast to the descriptions of eating disorder dietetic practice, the eating disorder nutrition counselling outcome literature is sparse. This is likely due to

the fact that it is difficult to isolate the nutritional counselling benefits in the context of a multidisciplinary, multi-modal treatment approach.

1. Anorexia Nervosa

In 1987, Hall and Crisp conducted a study comparing 12 sessions of dietary advice and 12 sessions of combined individual-family therapy. Dietary advice consisted of discussions on diet, mood and daily behaviour. The mean change in body weight at one year was similar for both groups. The net weight gain was statistically significant for the dietary advice group, but not the psychotherapy group. The limitation with this study was that neither approach was very 'pure'. A psychotherapist saw those in the dietary advice group four times for 15 minutes each and a dietitian saw those in the psychotherapy group for four 15 minute sessions. An additional limitation was that other treatments were received by two of the dietary advice patients.

A small randomized trial comparing cognitive analytical therapy and educational behavioural therapy for adult AN clients was conducted by Treasure et al. (1995). The educational behavioural therapy would be similar to the education phase of nutritional counselling. After one year, both groups had improved significantly but there was no significant difference between the two groups. The only factor that differed between the two groups one year later was the 'patient's subjective improvement score', where cognitive analytical therapy patients rated themselves as significantly better at that time. A major limitation in this study was the small sample size. Thirty participants started the study but with attrition, only ten remained in each group and not everyone completed. Thus, there was limited power to find a difference between the two groups if one existed.

Serfaty, Turkington, Heap, Ledsham, and Jolley (1999) compared nutrition counselling to cognitive therapy for adult AN outpatients. They used nutrition advice as the placebo control group. A caring, experienced nutritionist conducted

the nutrition counselling. She provided information regarding normal eating patterns, basic physiological information and worked with the client on modifying eating behaviours. All ten participants in the dietary counselling group had dropped out before the end of the six-month study period. In the cognitive therapy group, cognitive and behavioural techniques for pre and post-prandial anxiety and guilt, dietary plan, binge reduction strategies, meaning of weight gain, body image and self-esteem work was conducted. In this group, 23 of the original 25 participants were still attending therapy sessions at 6 months. All of those who attended the full six months had improved outcomes. There was no outcome reported for those who had dropped out. The authors surmise that engagement may be the rate-limiting step for AN clients to start the process of recovery.

A group for individuals with AN attending an outpatient eating disorder clinic was described by Waisberg and Woods (2002). A dietitian and a psychologist provided the group treatment that was designed to be an adjunct to individual psychotherapy. The intervention was didactic teaching and cognitive-behavioural work. Group discussion was facilitated. "The aim of the group was to improve dietary knowledge and skills while addressing cognitive and emotional barriers to change (Waisberg and Woods, 2002)." The significant outcomes found at the end of the eight-week treatment were lower EAT 26 scores and a mean weight gain of 1.6 kg. Statistically significant increases were also found in caloric, fat and protein intake from the beginning to the end. The combined treatment program appeared to be beneficial for AN outpatients according to the authors. This study did not aim to look at nutrition counselling in isolation, but nutrition intervention was part of a multi-modal treatment package. The limitations of this study were the absence of a comparison group and that the measured outcome was taken in the short term.

2. Bulimia Nervosa

A three and a half year study (Hsu et al. 2001) was conducted to dismantle cognitive behavioural therapy into nutritional counselling and cognitive therapy. One hundred participants diagnosed with BN underwent 14 weeks of treatment with nutritional counselling, cognitive therapy, a combination of nutrition and cognitive counselling or support group only, which was the minimal intervention group. The treatment groups were all one hour a week with the exception of the combination nutrition cognitive counselling group, which was two hours a week in total. One hour was for cognitive therapy and the other hour was for nutrition counselling. All groups including the minimal intervention group showed significant decreases in binge-vomit episodes. The combination nutrition and cognitive therapy group and the cognitive therapy only group were both significantly more effective than the minimal intervention group in participant retention and improvement in dysfunctional attitudes as measured by the Eating Disorder Inventory. A combination of the cognitive and nutritional counselling was superior to cognitive therapy alone for achieving abstinence of binge-vomiting and completion of the study, but nutrition counselling alone did not show any improvements over the minimal intervention group. Nutrition counselling in this study was strictly educational. Care was taken to not use cognitive strategies in the nutrition sessions. Limitations of this study involved the differing amount of time in treatment for the intervention groups and that the outcome measures used were solely based on self-report. Strengths of the study include the relatively large sample size, the distinctiveness of the different treatment groups and the ability to isolate the nutritional counselling component in the study design.

Nutrition group therapy was compared with stress management group therapy for 55 adult BN patients in Germany and Australia (Laessle et al. 1991). Nutritional management and stress management each consisted of 15 group

sessions over a three-month period. Both types of therapies were found to be effective in reducing bulimic symptoms but the nutrition management group saw a quicker eating improvement and a quicker reduction in binge frequency. All improvements were maintained at one year. Nutrition counselling consisted of educational, behavioural, and cognitive strategies aimed at modifying restrained eating.

Beumont et al. conducted a study in 1997, which showed that an intensive eight-week nutrition counselling program decreased bulimic episodes by 68% after three weeks into treatment and 75% by three weeks post treatment. The improvements in eating disorder symptoms were maintained three months post treatment. The authors stated that these outcomes were similar to those found with cognitive behavioural therapy, but "no direct comparison was made to any other psychotherapy technique, so no comment can be made about the unique effect of nutritional counselling (Beumont et al. 1997)." The nutrition counselling in this study consisted primarily of nutrition education with some behavioural strategies. For example, self-monitoring, stimulus control and reinforcement strategies were used, but there were no specific goals for cognitive restructuring or rectifying cognitive distortions.

O'Connor et al. (1988) conducted retrospective chart reviews to study the effectiveness of nutritional management for BN clients. An experienced dietitian used instructional, behavioural and cognitive strategies in the nutrition counselling sessions. Ten out of the 28 clients had dropped out after an average of 2.5 sessions. The other 18 completed an average of 9.5 sessions. Twelve of the 18 who completed the nutrition sessions had ceased all bulimic behaviours.

3. Anorexia Nervosa and Bulimia Nervosa

In 1995, Brambilla and his colleagues published three papers describing a short-term, four month outcome trial of a combination of cognitive behavioural

therapy, nutritional therapy and psychopharmacology for AN-restrictive type, AN-binge eating and purging type and BN. The authors concluded that a combination of cognitive behavioural therapy, nutritional therapy and psychopharmacology resulted in statistically positive results in body mass index, depression, anxiety and overall eating disorder severity scores for AN clients of both subtypes (Brambilla, Draisci, Peirone, and Brunetta, 1995 b; Brambilla, Draisci, Peirone, and Brunetta, 1995c). They found that for their BN clients, bulimic symptoms decreased while body mass index was normal and stable (Brambilla, Draisci, Peirone, and Brunetta, 1995a). Unfortunately, the different therapy components again were not examined separately so the contribution of the individual components of the treatment could not be isolated.

The questionnaire, "Are you Dying to Be Thin? (Reiff and Reiff, 1992)" was used as the outcome measure of a multimodal treatment program which included education, individual therapy, support group, body image group and nutrition counselling (Eiger, Christie, and Sucher, 1996). Before treatment, the clients tended towards AN or BN and after treatment, they tended towards BN or merely weight consciousness as opposed to the full diagnostic criteria of an eating disorder. Unfortunately, given the design of the research, there was no way to extricate the contributions of the different health disciplines. Another limitation was the non-standardized outcome variable used. Finally, the length of the treatment was not given and time is an important factor in the recovery process of an eating disorder.

4. Binge Eating Disorder

Laederach-Hofmann et al. (1999) found that diet counselling, psychological support and medication were effective in decreasing body weights of obese BED clients even six months post treatment. The nutrition counselling in this study consisted of biweekly sessions for eight weeks. Topics covered in the nutrition

sessions included food composition, eating patterns and binge frequency. Daily food records were kept and assessed. Behavioural strategies were also recommended as needed.

5. Conclusion

In sum, nutrition counselling has been a consistent part of eating disorder treatment. It was always educational, often relational and sometimes included behavioural or cognitive-behavioural strategies. In the few studies that isolated the nutritional counselling component, participant retention was found to be problematic. Although not sufficient in itself, as part of a multi-modal treatment plan, nutrition counselling was helpful in the eating disorder recovery process. This was especially so for BN clients.

V. COUNSELLING EDUCATION FOR DIETITIANS WHO WORK WITH EATING DISORDERED CLIENTS

A. General Nutrition Counselling Skills

From the 1970's to the 1990's, American authors have described the need to improve nutritional counselling skills for the dietetic practitioner. In the 1980's, the peer-reviewed literature included a proliferation of American articles addressing the issue of nutrition counselling (Cotugna and Vickery, 1989; Hauenstein, Schiller and Hurley, 1987; Omizo and Oda, 1988; Vickery and Hodges, 1986). In the United States, a number of programs were developed to enhance counselling skills for dietitians at internship and post-graduate levels. A 1990 survey found that American dietetic internship directors considered the curricula for nutrition counselling skills training adequate except in the area of behavioural modification and motivational strategies. A high percentage of internship programs received moderate or no coverage in learning theories, characteristics of adult learners, and motivational techniques (Sullivan, Schiller and Horvath, 1990).

Research on general nutrition counselling has shown that more complex motivational and behavioural strategies were not being used by dietitians (Brown, Hunt, and Tolman, 1998; Gilboy, 1994; Hauenstein et al. 1987; Stetson et al. 1992). This is especially so for the "more sophisticated strategies and those used by social scientists, such as cognitive restructuring, simulation, stimulus control and modeling, which are considered effective in achieving behavioural change (Brown et al. 1998)." Strategies for developing rapport and giving information were what dietitians in clinical practice tended to be more comfortable with (Brown et al. 1998; Hauenstein et al. 1987).

A study of dietetic students undergoing two different types of training for counselling skills was conducted in 1995 by Vickery, Cotugna and Hodges. The students who were only observing dietitians as opposed to being part of a didactic and demonstration program in nutritional counselling did not tend to use strategies such as contracting, reflective listening, re-languaging, assessing clients' commitment to change or encouraging client participation. Dietetic students whose training consisted mostly of observing dietitians resulted in significantly lower ratings. Vickery et al. (1995) pointed out that many dietitians who are training dietetic interns likely were taught in programs with even less focus on counselling than the current curricula, thus the trainers may not be adequately prepared themselves.

Rapaport (1998) stated that, "undeniably, many dietetic practitioners develop a certain amount of skills intuitively, but often, it is not linked to theory so its potential for efficacy is not optimized." In addition to Rapaport, many others continue to express concern over counselling skills for dietetic practitioners (Brown et al. 1998; Hauchecorne, 1994; Isselman, Deubner, and Hartman, 1993; Laquatra and Danish, 2001; Livacoli, 1995; Vickery et al. 1995).

The Fall 2000 issue of Dietitians of Canada's "Practice" reported on an informal survey of dietitians regarding their perspective of some nutrition counselling challenges (Traviss, 2000). The feedback received seems to indicate a need for enhanced nutrition counselling skills training in Canada. Traviss also cautioned that the dietitian role models may or may not be formally trained in counselling.

Internship competencies for nutrition counselling according to Dietitians of Canada are of a very general nature. As there was no information on Canadian dietetic training programs, this researcher conducted an informal email survey of Canadian dietetic internship directors on the status and nature of nutrition counselling education during internships (Cairns, 2001). The type and extent of nutrition counselling training varies greatly but on the whole, dietetic interns are expected to gain counselling skills during the internship and mostly by role modelling dietitians.

B. Eating Disorder- Specific Counselling Skills

Reiff and Reiff (1992) have observed that dietitians are trained in the medical model of patient care, which involves short-term intervention, a minimal relationship and the primary goal of knowledge attainment. Opinions on education needs for eating disorder-specific counselling skills have been described. "Nutrition therapists working with people with AN need skills not normally learned in dietetic training. The nutrition therapist needs to develop some psychotherapeutic skills and to some extent, must ignore the traditional philosophies of the profession (Reiff and Reiff, 1992)." According to one eating disorder dietitian specialist from the United States, counselling and psychological skills are not emphasized enough in traditional dietetic training (Yadrick, 1999). "In the training of a therapist, professional supervision lasts one year. During this time, the therapist learns about human relationship dynamics and therapeutic techniques and strategies (Reiff and Reiff, 1992)." This is not found in the usual

dietetic education. Clinical supervision for nutrition therapists has been advocated by a number of authors (Livacoli, 1995; Reiff and Reiff, 1992; Stellefson, 1999; Yadrik, 1999). As well, there have been suggestions made on how to augment the education of dietitians who work with eating disordered clients. Recommended learning routes have included graduate work, attendance at specialty conferences, reading extensively and gaining a lot of clinical experience (Livacoli, 1995; Reiff and Reiff, 1992, Yadrick, 1999).

VI. SUMMARY

In summary, an eating disorder is a serious, complex, potentially long-term and costly illness. A range of treatment settings and treatment modalities are currently being used. Nutrition counselling provided by dietitians is a well-established, commonly used intervention for treating eating disordered clients. While the value of having a nutrition professional on the treatment team is undisputed, the optimal role of the dietitian and his or her interface with the psychotherapist continues to be unresolved. As a result, how nutrition counselling is conducted varies widely.

Although the eating disorder nutrition counselling outcome literature is limited, nutrition counselling was generally found to be a useful therapeutic intervention for BN and BED clients. As part of a multimodal treatment package, nutrition counselling also appeared beneficial for AN clients. Nutrition counselling strategies used in the outcome studies range from purely educational strategies to more complex, cognitive behavioural ones. Nutrition counselling strategies shape the counselling sessions. A large number of strategies available for dietitians to learn about and potentially use are described in the literature. Fifty of them were explored in this study.

Counselling skills for dietitians have been a concern for decades. In the eating disorder area, where there is a need not just for counselling skills but also psychological skills, the traditional routes of learning are usually inadequate. Ideally, additional training beyond the basic dietetic training should be sought in order to work most effectively with this client population.

Given all this, information on what strategies Canadian dietitians are currently using will help identify if clinical practice can be improved according to the research in this area. It will also allow us to identify if there are areas that need improvement. This will thus guide the optimum training of Canadian dietitians to work with eating disordered clients.

Team philosophy is an important factor in determining the clinical practice of the dietitian. As psychotherapists play a key role on the treatment team and they are the team member with whom dietitian's role potentially overlaps, obtaining their views on nutrition counselling would provide valuable insight into the philosophical functioning of the team. This in turn, would impact eating disorder dietetic practice.

Finally, information on dietitian satisfaction with current education opportunities, preferred learning routes and desired education content will help answer the following questions. Are we adequately preparing dietitians to work in the eating disorder area? If not, how can we enhance dietitian training in order to optimally equip those who work or wish to work with this unique and challenging client population?

Chapter 3

METHODOLOGY

I. STUDY DESIGN

A cross-sectional descriptive survey design was used for this study. A mail survey was chosen as the research method due to the type of information desired and the large geographical dispersion of the target population. Gray and Guppy (1999) stated that a mail survey is the preferred route of data collection "when the interest is in the patterns of behaviour, not in exceptions or rare experiences." Mail surveys also allow participants time to reflect on the questions and to a give more precise and thoughtful answer.

Two self-administered surveys were developed; one for dietitians (Appendix C) who work with eating disordered clients and a second one for therapists (Appendix D) who do so. A combination of closed and open-ended questions was used. Close-ended questions allowed for quantitative analysis while open-ended questions permitted more in-depth exploration of the topic. Ethical approval was obtained from both the University of British Columbia and the Children's and Women's Hospital Research Ethics Committees. Certificates of approval are in Appendix E.

II. INCLUSION AND EXCLUSION CRITERIA

Dietitian participants were English-speaking, registered dietitians and who work or have worked in the treatment of eating disordered clients in Canada. Therapist participants were English-speaking eating disorder team members who conducted psychotherapy for eating disordered clients in Canada.

III. RECRUITMENT AND SAMPLING FRAME

The goal was to survey the whole population of Canadian eating disorder dietitians and each dietitian was to recruit an eating disorder psychotherapist who worked with them. The sampling frame was the Dietitians of Canada Eating Disorder Network membership list. There were 148 names on the list at the time of recruitment. Ten individuals pretested the survey, thus the remaining 138 dietitians were all invited to participate in this study. The dietitian participant was asked to recruit the therapist who saw the greatest number of his or her eating disorder clients and who had not yet participated in this study. The route of therapist recruitment was decided upon because it reflected therapists who actually had interactions with dietitians on eating disorder teams. Pragmatically, it was also done because there was no easily accessible list of eating disorder therapists in Canada.

IV. DEVELOPMENT OF RESEARCH INSTRUMENTS

A. Nutrition Counselling Strategies

A literature search was conducted to discover whether there were previously developed, suitable surveys on the topic of eating disorder nutrition counselling. As no suitable survey on the topic was found, a thorough review of the literature was done to obtain as many nutrition counselling strategies as possible. The literature search was conducted using Medline (1966- January 2001), PsycInfo (1986-January 2001), CINAHL(1966- January 2001), Embase (1998-January 2001), Healthstar (1966- January 2001), and CAB (1966- January 2001). Key words used included the terms "eating disorder", "nutrition counselling", "dietary counselling", "diet therapy" and "nutrition". Next, journals from the area of eating disorder, nutrition and counselling were examined manually. Ten years (1990 to 2000) of the International Journal of Eating Disorders, the Eating Disorder Review, the Journal of the Canadian Dietetic Association/ Canadian Journal of Dietetic Practice and Research, the Journal of the American Dietetic

Association, Health Education Research and the Journal of Nutrition Education were reviewed. Five years (1995-2000) of Eating Disorders, the Journal of Treatment and Prevention were reviewed. From this process, 70 nutrition counselling strategies were identified. Through a developmental process that consisted of series of reviews, peer debriefing, pretesting and an examination of the frequency of the strategy being discussed in the literature, the final 50 strategies resulted. To go from 70 to 50 strategies, items were either combined together or deleted. For example, cooking with clients, eating with clients and going grocery shopping with clients were collapsed into one strategy: "doing food-related behaviours with clients". Another example was deleting the empty chair technique as this was considered too specific and the more general strategy of imagery was left. Definitions of the strategies are given in Appendix F.

The resulting 50 strategies were categorized into assessment, instructional, behavioural, cognitive behavioural and motivational strategies to help participants think about the strategies. These categories were based on a combination of Glanz's 1979 work on dietary counselling strategies, the theories from which the strategy came from and three research studies conducted in this area (Whisenant and Smith, 1995; Hauenstein et al. 1987; Brown et al. 1998). With the exception of the assessment category, the groups were not mutually exclusive. Within the rapport building strategies, confronting could be considered a motivational strategy and reframing could be considered a cognitive behavioural strategy. Within the instructional strategies, group psycho-education and suggesting readings or videos could be cognitive behavioural strategies depending on the information provided. Although self-monitoring originated within the behavioural tradition (Corey, 1996), it is also a prominent part of cognitive behavioural therapy (Rosal et al. 2001). Finally, in additional to being a motivational strategy, motivational interviewing could also be considered a rapport building strategy.

B. Dietitian Survey

The dietitian survey is in Appendix C. Table 2 describes how the aims of the study are addressed.

Table 2: Questions to Address the Aims of the Study

Aims	Question
1. To determine what nutrition counselling strategies Canadian dietitians are using in their clinical practice for eating disordered clients.	Five point likert-type scale question asked of each of the 50 strategies: "To what extent have you used this strategy?" (circle one) 0=never; 1=rarely; 2= sometimes; 3=often; 4=always
2. To explore dietititans' and therapists' perceived usefulness of different nutrition counselling strategies and which strategies would be inappropriate for dietitians to use in nutrition counselling	Five point likert-type scale question asked of each of the 50 strategies: "How useful do you think this strategy is for nutrition counselling?" (circle one) 0=don't know/ have not used; 1=not useful; 2=somewhat useful; 3=quite useful; 4=extremely useful Open ended question: "In your opinion, are there specific strategies which would be inappropriate for dietitians to use in nutrition counselling sessions? Please explain."
3. To describe how dietitians are learning about eating disorder nutrition counselling strategies.	Closed ended question asked of each of the 50 strategies: "If you knew about this strategy, how did you learn about it?" (circle as many as applicable) 0=unfamiliar with strategy; 1=used intuitively; 2=from dietetic training; 3=read about; 4=learned at a conference; 5=took course; 6=learned from a mentor; 7= other, please explain on back of page

Aims	Question
4. To explore education issues around the area of eating disorder nutrition counselling regarding:	
(a) Satisfaction with current education and continuing education opportunities	One closed question asked: "How satisfied are you with the current continuing education opportunities for nutrition counselling skills?" (check one) very satisfied; satisfied; neutral; dissatisfied; very dissatisfied
(b) what dietitians would like to learn more about and what they would not	Two open-ended questions asked: "What are the top 3 strategies that you would most like to learn more about (if any)? "What are 3 strategies that you least want to learn more about?
(c) which learning routes were preferred by dietitians	Closed question: What is/ are your preferred route(s) for education opportunities to enhance nutrition counselling skills? (check as many as appropriate) none (not needed); reading; taking a course; watching a video; having a mentor; other (please describe)

At the end of the first section that addressed the 50 strategies specifically, participants were invited to comment in an open-ended fashion. Demographic information such as years of experience and type of work setting were asked in the final section of the survey.

C. Therapist Survey

The therapist survey is in Appendix D. Perceived usefulness was the only close-ended question asked of the 50 strategies. The same five-point scale used in the dietitian survey for perceived usefulness of strategies was used in the therapist survey. As well, the same open-ended question on appropriateness of strategy for use by dietitians in nutrition counselling was asked. Similar to the dietitian survey, the final section of the therapist survey contained demographic questions.

D. Pre-testing

The pretesting for both surveys were conducted in three stages: preliminary pre-tests, expert pre-tests and final pre-tests.

1) Preliminary Pre-Tests

The initial draft of the dietitian survey and strategy definition list was reviewed by an adolescent medicine researcher and two dietitians experienced in survey research methodology. A professor who taught survey design and a psychology graduate student experienced in survey research reviewed the initial therapist survey and strategy definition list. All five individuals were asked to look at the logic and layout of the survey. All individuals involved with this preliminary pre-test were familiar with research methodology but unfamiliar with the eating disorder area.

2) Expert Pre-Tests

The next stage of pre-testing involved asking an "expert" panel to examine the issue of content validity. Four "expert" eating disorder dietitians and four "expert" eating disorder therapists agreed to pre-test the surveys for content validity but only three dietitians and two therapists completed the process. All expert pre-testers were given the background and rationale for the survey. They were then asked to comment on representativeness, completeness of item set and relevance of questions to the goals of the research. They were also asked to comment on face validity and were given the pre-test questionnaire (Appendix G) to complete. Expert pre-testers gave both written and verbal feedback on the surveys. A description of the expert panel is given in Table 3.

Table 3: Description of the Expert Panel

Participants	Experience	Other Comments
Three Expert Dietitians	9-16 years of eating disorder experience	• All had Masters degrees in Nutrition • Leaders in national and international committees in the eating disorder field.
Two Expert Therapists	13-25 years of eating disorder experience	• Directors of Eating Disorder Programs in Canada • Published in refereed journals • Invited speakers for many international and national conferences

3) Final Pre-Tests

From the sampling frame, ten dietitians across Canada were asked to conduct the final pre-test on the dietitian survey. This was not a random selection as the goal was to obtain as much variety in location and work experience as possible. Dietitians were chosen to represent urban and rural areas. They were also chosen to represent different sizes of the health care facilities and community programs. Eight of the ten dietitian pre-testers chosen were more experienced. The expectation was that they would be able to verbalize more thoughts and opinions on the topic. Two dietitians were selected to represent those with less experience. All ten surveys sent to dietitians for pre-testing were returned. Only four of the ten dietitians were able to pass the therapist portion to an appropriate team member, therefore, additional therapists were asked to pre-test the therapist survey. The final number of eating disorder therapists who returned the pre-test survey was seven. Face validity was sought via comments on representativeness, completeness, clarity, readability and logic. Dietitians and therapists conducting the final pre-test were asked to complete the pre-test questionnaire (Appendix G). Table 4 shows the characteristics of dietitians and therapists who participated in the final pre-test.

Table 4: Characteristics of Final Pre-Testers

Participants	**Province**	**Years of Eating Disorder Experience**	**Practice Setting**
Ten Dietitians	-British Columbia= 5 -Alberta, Saskatchewan & Manitoba =3 -Ontario=1 -Atlantic Provinces=1	0- 4 years= 3 5-10 years= 4 11-15 years=1 16 + years=2	-Tertiary care setting= 7 -Community care setting = 3
Seven Therapists (Psychiatrist=1; Psychologist=4; Occupational therapist=1)	-British Columbia=5 -Ontario=1 -Quebec=1	0- 4 years= 4 5-10 years= 1 11-15 years=2	-Tertiary care setting = 3 -Community care setting = 4

4) Pre-Test Modifications

Changes to the survey were made after each set of pre-testing. All comments and suggestions at every stage were reviewed and incorporated into the survey as appropriate. The changes made from the pre-test consisted of question re-wording and deletions. The original dietitian survey contained a specific question on the role of the dietitian as this was thought to impact how nutrition counselling would be conducted. Through the pre-testing process, it became evident that the question was not sufficient to adequately address the scope of the issue; therefore it was deleted. A second deletion involved the question of whether dietitians were interested in learning more about each of the 50 strategies. It was deemed repetitive and too much work for respondents in return for the information received. Two open-ended questions inquiring about which three strategies dietitians most wanted to learn more about and which three strategies dietitians least wanted to learn about were used instead.

V. MAIL OUT PROTOCOL

A pre-notification was sent out one week before the initial mail out. It was sent via email for those with active email addresses and via postal mail for those who did not have email. The initial mail out packages contained a dietitian portion and a therapist portion. The dietitian portion was comprised of a six-page dietitian survey (Appendix C), a dietitian cover letter (Appendix C), a list of strategy definitions (Appendix F) and a stamped return envelope. The therapist portion included a five-page therapist survey (Appendix D), a therapist cover letter (Appendix D), the same list of strategy definitions and a second stamped return envelope. Surveys were coded to enable the confidential tracking of returns; otherwise, names and code numbers were kept separate. The timing of mail outs was in accordance with the recommendation that "successive reminders and mail outs be sent just after the peak of rates of return (Hoinville and Jowell, 1978)". Two weeks after the first mail out, the number of returns received per day started to decline, therefore a reminder notice was sent out via email and postal mail (Appendix H). About three weeks after the first notification, and five weeks after the first mail out, the return rate again started to decrease so the second mail out was sent to those who had not yet returned their surveys. The contents of the second mail out packages were the same as the first except for slightly modified cover letters. Three weeks later, a total of two months after the initial mailing, a final notice with the deadline for returning the surveys was sent in the same manner as previous notices. A deadline date was not given until this final notice because according to Hoinville and Jowell (1978), "giving respondents a deadline for completion is usually inadvisable: it may slow, rather than hasten response since they will wait for the deadline instead of returning it immediately and those who miss the deadline will just toss it."

VI. DATA COLLATION

Quantitative data was entered on to Statistical Package for the Social Sciences [SPSS], Version 9.0, Chicago, Illinois. Open-ended responses were collated, categorized and entered on to a word processing program. Data entry and analyses were double checked for accuracy.

VII. STATISTICAL ANALYSIS

All statistical analyses were conducted on SPSS. Descriptive statistics of means, ranges, frequency counts, percentages and ranks were used to describe participant demographic information, dietitian usage, dietitian familiarity, how dietitians learned and education issues. The categories of the strategies specified on the survey (assessment, instructional, behavioural, cognitive behavioural emotive and motivational) were not used for statistical analysis due to the categories not being mutually exclusive. Instead, dietitian usage percentages obtained by collapsing the scores of "3=often used" and "4=always used" was used for statistical analysis. This method of analysis was chosen because the dietitian usage data was not continuous and the 3 and 4 scores would give an indication of which strategies dietitians were routinely using in their clinical practice. Usage percentages were divided into four groups of 25% each, which made up Usage Groups I through to IV. As the dietitian usage parameter was considered key in describing clinical practice, all the other parameters were structured around usage percentages. All statistical tests were considered significant at $p<0.05$. Responses to open-ended questions were collated. An analysis of themes that arose from dietitians and therapists were reviewed and frequencies of similar responses were tabulated.

The Pearson correlation was used to look at the trends in the relationship between the Usage Groups with familiarity and Usage Groups with learning routes. The Chi-Square test for independence was used to examine whether

strategies commonly used by dietitians were associated with years of experience, education level, or caseload. This test was chosen because the dietitian usage data did not meet the homogeneity of variance assumption according to the Levene test. The Bonferroni correction was used to account for multiple significance testing. Collapsing the 3 and 4 scores was necessary to gain sufficient numbers to meet the minimum counts and assumptions for the Chi-Square statistical test.

The Spearman correlation was used to ascertain whether there was a relationship between the dietitians' and therapists' rankings on usefulness of strategies, dietitian usage and perceived usefulness by dietitians and by therapists. The percentage of dietitians who reported "3=often" and "4=always" using the strategy determined the rank of usage. Similar to the dietitian usage ranking, the ranking for usefulness according to dietititans was determined by collapsing the scores of "3=quite useful" and "4=extremely useful". The percentage of dietitians who rated the strategy as either 3 or 4 determined the ranking of strategy usefulness. Due to the need to account for those who were unfamiliar with the strategy, the "0= not know or have not used rating" was excluded when percentages were calculated. Hence, the perceived usefulness ranking reflected only those individuals who were familiar with the strategy. The same procedure was used to rank strategy usefulness according to therapists.

Chapter 4

RESULTS

I. RETURN RATES

One hundred and sixteen of the 138 survey packages sent to dietitians were eligible. Reasons for ineligibility were as follows. Three packages were undeliverable and 19 were sent to individuals who did not work with eating disordered clients or worked only in eating disorder prevention. Sixty-five of the 116 eligible dietitian surveys (56%) were returned. Of the 116 dietitians, ten responded that they did not have a therapist to pass on the therapist survey. Thus, the maximum number of therapists surveyed was 106. Thirty-seven of the 106 therapist surveys (34%) were returned.

Table 5 describes the returns of the dietitian and therapist surveys by province. Ontario, British Columbia and Alberta had the highest number of returns for both surveys.

Table 5: Dietitian and Therapist Survey Returns

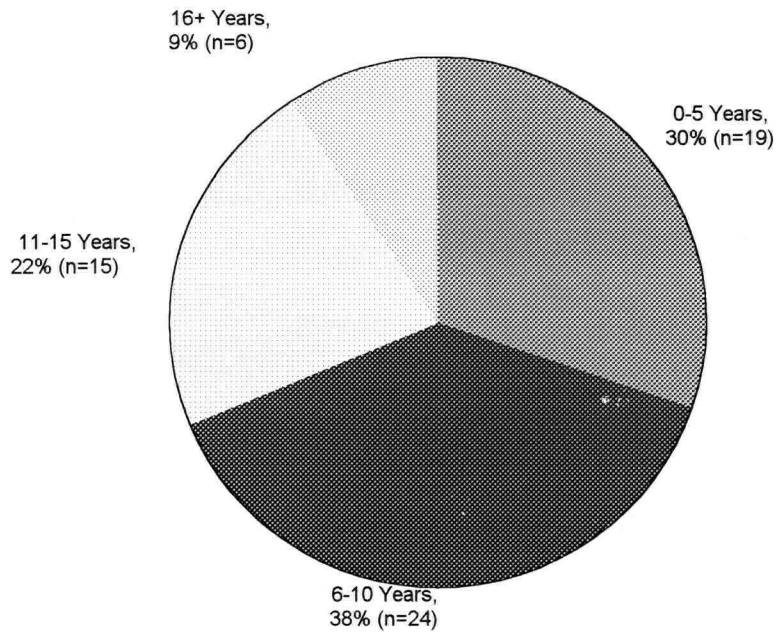
Province Or Territories	**Percentage of Total Dietitian Survey Returns** ***(number of surveys returned per province of total received Canada-wide) n=65***	**Percentage of Total Therapist Survey Returns** ***(number of surveys returned per provinceof total received Canada-wide) n=37***
British Columbia	25% *(16)*	22% *(8)*
Alberta	15% *(10)*	24% *(9)*
Saskatchewan	3% *(2)*	0% *(0)*
Manitoba	5% *(3)*	8% *(3)*
Ontario	40% *(26)*	38% *(14)*
Quebec	2% *(1)*	0% *(0)*
Nova Scotia	8% *(5)*	8% *(3)*
New Brunswick	3% *(2)*	0% *(0)*
Newfoundland and Labrador	0% *(0)*	0% *(0)*
Prince Edward Island	0% *(0)*	0% *(0)*
The Territories*	0% *(0)*	0% *(0)*

* The Territories includes Yukon Territory, Northwest Territory and Nunavut

II. DIETITIAN DEMOGRAPHIC INFORMATION

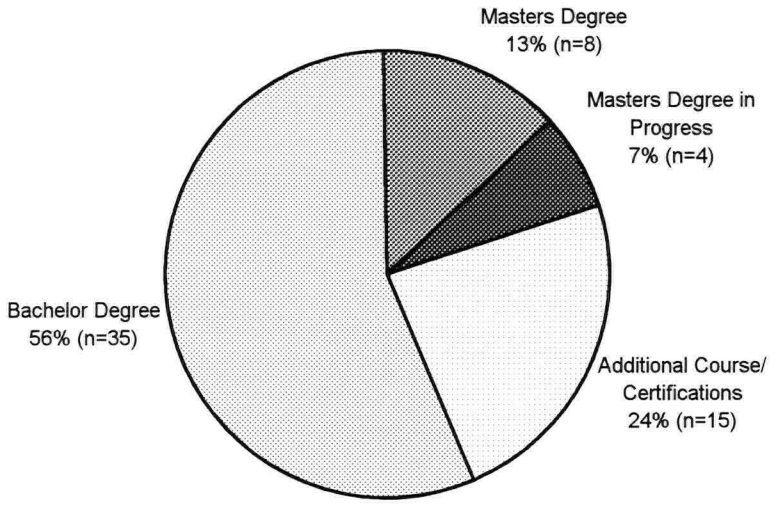
Years of eating disorder experience, education, work setting, caseload (number of clients seen per month) and the types of clients seen were used to describe dietitian respondents. The dietitians' years of experience in the eating disorder field ranged from less than 1 year to more than 16 years of experience (Figure 1). The majority of the respondents had their highest level of education as bachelor degrees. Just under one third (31%; 19/62) of dietitians who responded had additional certification or training in counselling or education (Figure 2). The majority of dietitians in this group were either certified as diabetes educators or pursuing a masters degree in nutrition or counselling. Thirteen percent (8/62) of the dietitian sample reported having a masters degree.

Figure 1: Years of Eating Disorder Experience of Dietitian Respondents*



*Results shown for n=64 dietitian respondents; data missing from 1 participant was excluded from the calculation

Figure 2: Highest Education Level Attained by Eating Disorder Dietitian Respondents*



*Results for n=62 dietitian respondents; data missing from 3 were excluded from the calculations

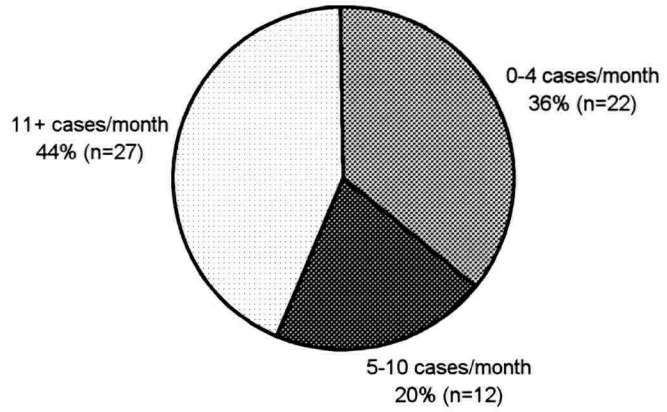
The work settings of the dietitians were primarily in hospitals. They tended to be in various combinations of inpatient, outpatient and day treatment settings. By far the most common combination of work settings was inpatient and outpatient hospital programs. Thirty percent (19/63) of the dietitians worked in this combination of settings. The next most frequently reported setting was working exclusively as an outpatient dietitian in a hospital (17%; 11/63). This was followed by working in a combination of inpatient, day treatment and outpatient settings (13%; 8/63). Eleven percent of dietitians (7/63) worked exclusively as an

outpatient dietitian in a community setting. Sixteen percent (10/63) of the dietitians worked in private practice; but only four worked exclusively in this setting. The other six in private practice also worked in established eating disorder programs.

The caseload or number of clients seen per month for dietitians is shown in Figure 3. Just less than half of the respondents had high caseloads (11+ per month). More than one third of the respondents had a very low caseload (0-4 cases per month).

The type of clients seen most frequently by dietitians were AN clients (median=32%; range=1-90%), followed by BN (median=25%; range= 0.5-75%). Dietitians reported seeing relatively few EDNOS clients (median=10%; range=0-94%) and even less BED clients (median=5%; range=0-78%). The data for the types of client seen by dietitians is not shown visually.

Figure 3: Caseload[1] of Eating Disorder Dietitian Respondents*



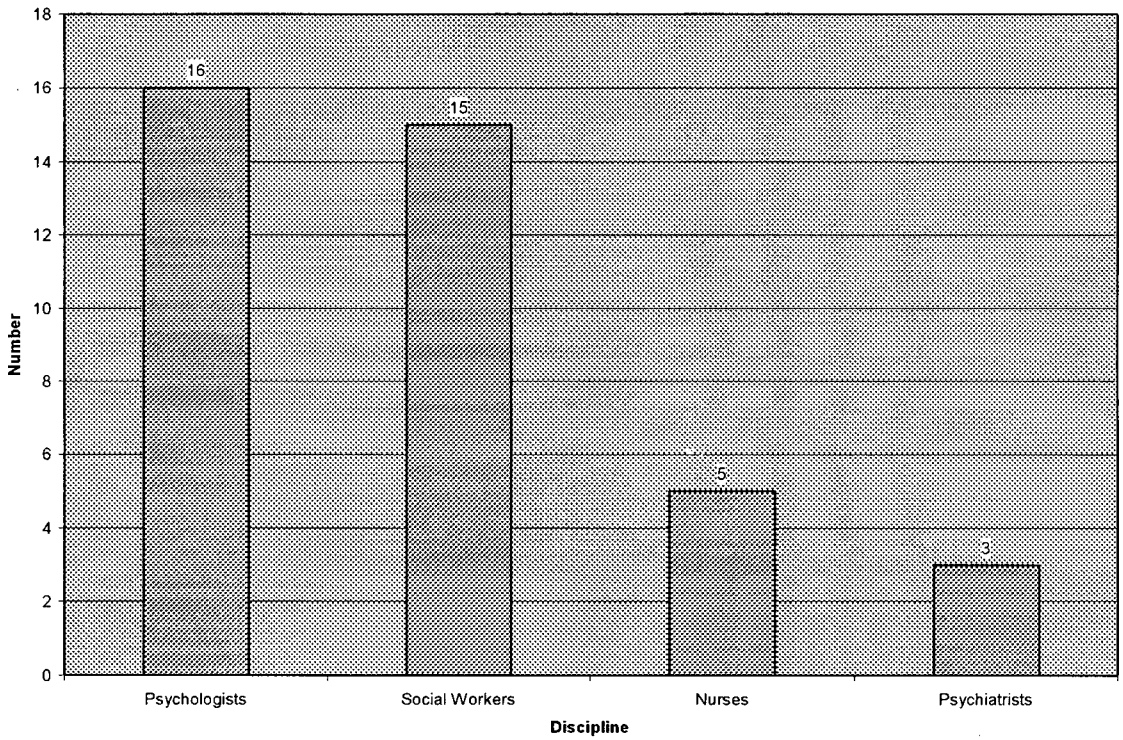
*Results from n=61; data missing from 4 respondents were excluded in the calculations

[1]Caseload is defined as the number of eating disorder client appointments seen per month
(1 case= 1 appointment)

III. THERAPIST DEMOGRAPHIC INFORMATION

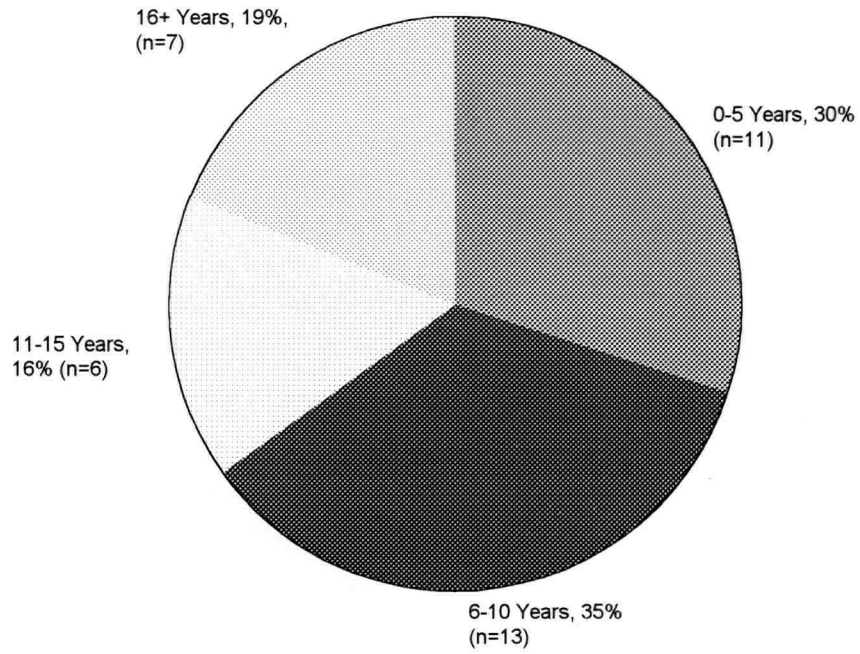
Therapist respondents were from four different disciplines but psychology and social work were the most prominent (Figure 4). Two of the 37 therapists were trained in both psychology and social work. Therapists' years of experience in the eating disorder field were distributed across the categories (Figure 5) and the majority of therapists (73%; 27/37) had some involvement with formal multi-disciplinary teams. The most frequent work setting for therapists was working exclusively in a community outpatient setting (32%; 12/37). Sixteen percent (6/37) worked in a step-wise continuum of care model with inpatient, day treatment and outpatient components. Fourteen percent (5/37) worked exclusively in a hospital outpatient setting and 11% (4/37) worked exclusively in a day treatment setting. All other therapists worked in various combinations of inpatient, day treatment, hospital outpatient and community outpatient settings.

Figure 4: Discipline of Eating Disorder Therapist Respondents*



*Results shown for n=37 eating disorder therapists who responded to the survey. Two out of the 37 respondents were trained in both psychology and social work

Figure 5: Years of Eating Disorder Experience of Therapist Respondents*



*Results shown for n=37

IV. NUTRITION COUNSELLING STRATEGIES

Nutrition counselling strategy usage by dietitians are shown in Tables 6 to 9. Strategies were divided into Usage Groups I to IV according to the percentage of dietitians who reported using the strategy regularly. Usefulness and familiarity results were structured around usage groups. Table 6 shows the nine strategies in Usage Group I where 75-100% of the dietitians reported "often" or "always" using these strategies. Table 7 shows Usage Group II consisting of the 17 strategies, in which 50-74% of the dietitians reported often or always using. Table 8 shows Usage Group III strategies, which comprised of the 12 strategies that 25-49% of the dietitians reported using regularly. Finally, Table 9 shows Usage Group IV, made up of the 12 strategies very few dietitians reported routinely using in their clinical practice. They were strategies that 0-24% of the dietitians reported using often or always.

The first column of Tables 6 to 9 show the dietitian usage rank. The second column describes the name of the strategy, percent usage and the actual number of dietitians who used the strategy routinely. The third column shows the dietitian familiarity percentages while the fourth and fifth columns describe the usefulness of the strategy according to dietitians and therapists respectively. The last row of the table gives the mean percentages of usage, familiarity and usefulness for the strategies in the group.

The nine strategies in Usage Group I are shown in Table 6. This group consisted of three assessment strategies (24 hour recall, social support assessment, exploring client's belief structure), three rapport building strategies (reflective listening, non-verbal cues and a person- centred approach) and three content-oriented behavioural strategies (using small increments, involving client in decision making, and discussing barriers for behavioural change). Appendix I lists all 50 strategies according to their category (assessment, rapport building,

didactic behavioural change, content-oriented behavioural change and process-oriented behavioural change) and their Usage Group.

Dietitian familiarity ratings were extremely high in this group (mean=97%; range 86-100%). The mean usefulness of Group I strategies was 87% according to dietitians and 84% according to therapists. The first four usage strategies, using small increments when goal setting, involving clients in decision-making, discussing barriers for behavioural change and reflective listening strategies all had 100% familiarity percentages and they were also the top four ranked for usefulness by both dietitians and therapists.

Table 7 consists of the 17 Usage Group II strategies. This group contained strategies from all categories from assessment to process-oriented behavioural strategies. There were three assessment strategies, one rapport building strategy, one strictly didactic strategy, seven content-oriented behavioural change strategies and five process-oriented behavioural change strategies (see Appendix I). The mean dietitian usage was 65% and the mean dietitian familiarity was 91%. Usefulness means in this group of strategies were 77% according to dietitians and 78% according to therapists.

Table 8 shows the same data for Usage Group III strategies. The mean usage of strategies in this group was 34% and the mean familiarity was 71%. The mean usefulness according to dietitians was 69% while the usefulness according to therapists was 65%. Group III contained strategies from most of the categories with the largest number from the process-oriented behavioural change category (see Appendix I).

Table 9 shows the data from the 12 strategies in Usage Group IV. These were the least used strategies. The mean usage for this group was 15%. Usage Group

IV (see Appendix I) contains two assessment strategies (recovery indicators, standardized self-reports of eating disorder severity), one rapport building strategy (self-revelation), three content-oriented behavioural change strategies (contracting, real-life performance based technique, operant conditioning) and six process-oriented behavioural change strategies (assertive training, modeling, parroting, imagery, relaxation training, behavioural role plays). Like Group III, the majority of the strategies in Group IV were process-oriented behavioural change ones.

Dietitians were least familiar with this group of strategies and these were also the strategies considered least useful. On the average, 67% of dietitians were familiar with Group IV strategies. Assessment based on recovery indicators was least familiar of all 50 strategies with a 31% familiarity percentage. The next least familiar strategies were modeling, operant conditioning and reality therapy.

Table 6: Usage Group I, Familiarity, and Usefulness of Nutrition Counselling Strategies

DIETITIAN USAGE[1]		DIETITIAN FAMILIARITY[2]	DIETITIAN USEFULNESS[3]	THERAPIST USEFULNESS[3]
Rank	**STRATEGY** *% (n)*	%	**Rank** *% (n)*	**Rank** *% (n)*
1	Use small increments when goal setting *100% (61/61)*	100%	1 *95% (61/64)*	2 *97% (36/37)*
2	Involve client in decision-making *97% (59/61)*	100%	3 *95% (61/64)*	1 *100% (37/37)*
3	Discuss barriers for behaviour change *93% (57/61)*	100%	2 *95% (58/61)*	3 *97% (36/37)*
4	Reflective Listening Strategies *92% (57/62)*	100%	4 *94% (61/65)*	4 *92% (34/37)*
5	24 Hour Recall *84% (51/61)*	100%	36 *62% (39/63)*	38 *59%(20/34)*
6	Explore client's belief structure on nutrition, food, weight or health *82% (51/62)*	95%	6 *92% (56/61)*	5 *89% (33/37)*
7	Social support assessment *77% (48/62)*	98%	15 *81% (52/64)*	28 *68% (25/37)*
8	Attending to clients' non-verbal communications *77% (48/62)*	98%	9 *86% (55/64)*	21 *73% (27/37)*

DIETITIAN USAGE[1]		DIETITIAN FAMILIARITY[2]	DIETITIAN USEFULNESS[3]	THERAPIST USEFULNESS[3]
Rank	**STRATEGY** *% (n)*	%	**Rank** *% (n)*	**Rank** *% (n)*
9	Person-Centered Approach *77% (48/62)*	86%	8 *86% (49/57)*	14 *78% (27/37)*
Group Means	**87%**	**97%**	**87%**	**84%**

[1]Dietitian Usage was the percent of respondents who reported "often" or "always" using the named strategy in their nutrition counselling
[2]Dietitian Familiarity was calculated by 100% minus the percentage of dietitians who reported being unfamiliar with the strategy
[3]Excludes respondents who were unfamiliar with strategy

Note 1: Missing data was excluded for all percentage calculations
Note 2: For Usefulness Rankings, percentages were taken to the 1st decimal place. In the event of a tie, the strategy with the highest number of highest rating (ie. 4=always used or 4=extremely useful as opposed to 3=often used or 3=quite useful) was used to break the tie

Table 7: Usage Group II, Familiarity, and Usefulness of Nutrition Counselling Strategies

DIETITIAN USAGE[1]		DIETITIAN FAMILIARITY[2]	DIETITIAN USEFULNESS[3]	THERAPIST USEFULNESS[3]
Rank	**STRATEGY** *% (n)*	%	**Rank** *% (n)*	**Rank** *% (n)*
10	Individualized Meal Planning *74% (46/62)*	100%	34 *64% (41/64)*	10 *83% (30/36)*
11	Work on promoting client self-efficacy *73% (43/59)*	83%	7 *90% (47/52)*	6 & 7 *89% (33/37)*
12	Mechanical Eating *73% (45/62)*	94%	19 *77% (47/61)*	15 *76% (25/33)*
13	Tailoring *72% (44/61)*	87%	12 *84% (47/56)*	22 *73% (24/33)*
14	Work on increasing client self-empowerment *72% (44/61)*	85%	5 *93% (50/54)*	9 *87% (32/37)*
15	Self-monitoring *69% (43/62)*	89%	16 *81% (47/58)*	13 *78% (29/37)*
16	Assessing the "Stages of Change" *69% (42/61)*	98%	20 *77% (46/60)*	11 *80% (28/35)*
17	Daily Food Records *68% (42/62)*	100%	29 *70% (45/64)*	18 *76% (28/37)*
18	Explore what the eating disorder means to the client *68% (42/62)*	97%	17 *77% (48/62)*	32 *65% (24/37)*
19	Reframing or "Re-languaging" *65% (40/62)*	97%	26 *72% (44/61)*	6 & 7 *89% (33/37)*
20	Stimulus or Environmental Control *65% (40/62)*	92%	30 *69% (40/58)*	30 *66% (23/35)*
21	Distraction/ Delaying *61% (37/62)*	88%	22 *76% (41/54)*	19 *76% (28/37)*

DIETITIAN USAGE[1]		DIETITIAN FAMILIARITY[2]	DIETITIAN USEFULNESS[3]	THERAPIST USEFULNESS[3]
Rank	**STRATEGY** *% (n)*	%	**Rank** *% (n)*	**Rank** *% (n)*
22	Humour *60% (37/62)*	100%	28 *70% (45/64)*	8 *89% (32/36)*
23	Shaping *57% (34/60)*	75%	13 *83% (39/47)*	17 *76% (25/33)*
25	Motivational Interviewing *53% (32/60)*	73%	11 *84% (37/44)*	12 *80% (29/37)*
26	Confronting *50% (31/62)*	97%	32 *66% (41/62)*	27 *68% (25/37)*
Group Means	**65%**	**91%**	**77%**	**78%**

[1]Dietitian Usage was the percent of respondents who reported "often" or "always" using the named strategy in their nutrition counselling
[2]Dietitian Familiarity was calculated by 100% minus the percentage of dietitians who reported being unfamiliar with the strategy
[3]Excludes respondents who were unfamiliar with strategy

Note 1: Missing data was excluded for all percentage calculations
Note 2: For Usefulness Rankings, percentages were taken to the 1st decimal place. In the event of a tie, the strategy with the highest number of highest rating (ie. 4=always used or 4=extremely useful as opposed to 3=often used or 3=quite useful) was used to break the tie

Table 8: Usage Group III, Familiarity, and Usefulness of Nutrition Counselling Strategies

DIETITIAN USAGE[1]		DIETITIAN FAMILIARITY[2]	DIETITIAN USEFULNESS[3]	THERAPIST USEFULNESS[3]
Rank	**STRATEGY** *% (n)*	%	**Rank** *% (n)*	**Rank** *% (n)*
27	Suggest Readings or Videos *47% (29/62)*	85%	37 *60% (33/55)*	33 *65% (24/37)*
28	Cognitive Restructuring Techniques *40% (24/60)*	74%	23 *76% (34/45)*	29 *67% (24/36)*
29	Pros and cons list *39% (24/61)*	85%	35 *63% (34/54)*	35 *64% (23/36)*
30	Include family in counselling *39% (24/62)*	95%	21 *76% (45/59)*	23 *71% (25/35)*
31	"Problem-Solving Counselling" approach *38% (23/60)*	63%	33 *66% (27/41)*	26 *69% (22/37)*
32	Group Psycho-education *38% (23/61)*	72%	10 *85% (34/40)*	20 *74% (26/35)*
33	Do food related activities with clients *30% (18/61)*	81%	14 *82% (32/39)*	16 *76% (25/33)*
34	Using Immediacy *28% (17/61)*	60%	39 *59% (23/39)*	40 *53% (19/36)*
35	Thought Stopping *26% (16/61)*	63%	31 *68% (26/38)*	36 *64% (23/36)*
36	Socratic Interview Style *26% (16/61)*	62%	27 *72% (28/39)*	25 *69% (20/29)*
37	Narrative Techniques *26% (16/61)*	61%	38 *60% (21/35)*	37 *61% (20/33)*

DIETITIAN USAGE[1]		DIETITIAN FAMILIARITY[2]	DIETITIAN USEFULNESS[3]	THERAPIST USEFULNESS[3]
Rank	**STRATEGY** *% (n)*	%	**Rank** *% (n)*	**Rank** *% (n)*
38	Reality Therapy Techniques *26% (16/61)*	57%	40 *58% (21/36)*	42 *51% (18/35)*
Group Means	**34%**	**71%**	**69%**	**65%**

[1]Dietitian Usage was the percent of respondents who reported "often" or "always" using the named strategy in their nutrition counselling
[2]Dietitian Familiarity was calculated by 100% minus the percentage of dietitians who reported being unfamiliar with the strategy
[3]Excludes respondents who were unfamiliar with strategy

Note 1: Missing data was excluded for all percentage calculations
Note 2: For Usefulness Rankings, percentages were taken to the 1st decimal place. In the event of a tie, the strategy with the highest number of highest rating (ie. 4=always used or 4=extremely useful as opposed to 3=often used or 3=quite useful) was used to break the tie

Table 9: Usage Group IV, Familiarity, and Usefulness of Nutrition Counselling Strategies

DIETITIAN USAGE[1]		DIETITIAN FAMILIARITY[2]	DIETITIAN USEFULNESS[3]	THERAPIST USEFULNESS[3]
Rank	**STRATEGY** *% (n)*	%	**Rank** *% (n)*	**Rank** *% (n)*
39	Self-revelation/ Self disclosure *23% (14/62)*	97%	47 *47% (28/60)*	50 *17% (6/36)*
40	Contracting *21% (13/62)*	89%	46 *50% (22/44)*	43 *46% (17/37)*
41	Assertiveness Training *20% (12/59)*	68%	42 *57% (21/37)*	40 *53% (19/36)*
42	Use Modeling *20% (12/61)*	58%	45 *51% (18/35)*	39 *54% (19/35)*
43	Real-Life Performance Based Technique *17% (10/60)*	61%	44 *53% (18/34)*	34 *64% (18/28)*
44	Parroting *16% (10/61)*	68%	43 *54% (19/54)*	48 *38% (12/32)*
45	Assessment based on recovery indicators *16% (10/62)*	31%	18 *77% (17/22)*	31 *65% (17/26)*
46	Standardized self-reported inventories of eating disorder severity scales (ie.EAT or EDI) *15% (9/62)*	60%	48 *42% (13/31)*	45 *41% (14/34)*
47	Operant Conditioning strategies *13% (8/61)*	57%	50 *24% (7/29)*	49 *24% (8/33)*
48	Imagery *8% (5/61)*	74%	41 *57% (24/42)*	44 *43% 15/35*
49	Relaxation Training *7% (4/61)*	74%	25 *72% (26/36)*	46 *39% (14/36)*

DIETITIAN USAGE[1]		DIETITIAN FAMILIARITY[2]	DIETITIAN USEFULNESS[3]	THERAPIST USEFULNESS[3]
Rank	**STRATEGY** *% (n)*	%	**Rank** *% (n)*	**Rank** *% (n)*
50	Behavioural Role Plays or Simulations *5% (3/61)*	67%	49 *41% (14/34)*	47 *38% (13/34)*
Group Means	**15%**	**67%**	**52%**	**44%**

[1]Dietitian Usage was the percent of respondents who reported "often" or "always" using the named strategy in their nutrition counselling
[2]Dietitian Familiarity was calculated by 100% minus the percentage of dietitians who reported being unfamiliar with the strategy
[3]Excludes respondents who were unfamiliar with strategy

Note 1: Missing data was excluded for all percentage calculations
Note 2: For Usefulness Rankings, percentages were taken to the 1st decimal place. In the event of a tie, the strategy with the highest number of highest rating (ie. 4=always used or 4=extremely useful as opposed to 3=often used or 3=quite useful) was used to break the tie

When group usage means were correlated with group familiarity means in each of the four Dietitian Usage Groups (Table 10), a significant correlation was found (r=0.986, p=0.014). When all 50 strategies were ranked for usage and usefulness according to dietitians (Table 11), a significant, positive correlation was found (rho=0.754, p=0.000). As well, dietitians usefulness and therapists usefulness rankings (Table 11) were significantly correlated (rho=0.837, p=0.000). Finally, what therapists considered useful was also significantly correlated to dietitian usage (Table 11) (rho=0.809, p=0.000).

Table 10: Dietitian Usage and Familiarity Group Mean Correlations

Usage Group	Dietitian Usage-Group Means	Dietitian Familiarity-Group Means
I	87%	97%
II	65%	91%
III	34%	71%
IV	15%	67%

r=0.896, p=0.014

Table 11: Dietitian Usage, Dietitian Usefulness and Therapist Usefulness Ranking Correlations

Ranking of all 50 Strategies	Spearman's Rho; p value
Dietitian Usage and Dietitian Usefulness	0.754; p=0.000
Dietitian Usefulness and Therapist Usefulness	0.837; p=0.000
Dietitian Usage and Therapist Usefulness	0.809; p=0.000

V. STRATEGY USAGE AND DEMOGRAPHIC INFORMATION

Chi-Square analyses were used to test for the association between usage of each of the 50 strategies (Table 12). Two strategies were strongly associated with usage by dietitians who had higher caseloads (11 or more nutrition counselling sessions per month): group psycho-education and distraction/ delay.

Table 12: Dietitian Usage and Demographic Factors Cross-Tabulations

Demographic Parameter	**Strategy**	**Pearson Chi-Square Statistic, p value**
Caseload	Group Psycho-education	17.302, p=0.000**
	Distraction/ Delay	15.793, p=0.000**
	Mechanical Eating	9.181, p=0.010*
	Narrative Strategies	8.155, p=0.017*
	Reframing/ Re-languaging	8.703, p=0.013*
	Self-revelation/ Self-disclosure	7.044, p=0.030*
	Pros and Cons List	6.164, p=0.046*
Education[a]	Explore What the Eating Disorder Means to the Client	5.727, p=0.017*
	Mechanical Eating	5.727, p=0.017*
	Individualized Meal Planning	3.832, p=0.050[c]
Years of Eating Disorder Experience[b]	No significantly associated strategies	

** denotes significance with Bonferroni correction, $p < 0.001$
*denotes significance, $p < 0.05$

[a]Education was divided by the highest level of education as bachelor only, additional education included those with masters degrees, certification or additional courses in counseling or education
[b]Categories for years of experience was assessed for each category and for the extremes of the categories, ie. comparing 0-5 years to 16 years plus
[c]Individual meal planning's Chi-Square statistic was approaching significance

As shown in Table 13, there was a significant difference (Chi-Square=17.3; p=0.000) in the use of psycho-education groups among those who saw an increasing number of eating disorder clients. Only 1 of the 21 dietitians (5%) who had 0-4 cases per month commonly used this strategy while 4 out of 12 dietitians (33%) with 5-10 cases per month commonly used this strategy. By far, the largest group of dietitians who routinely used this strategy was those with 11 or more cases per month. Seventeen out of 27 dietitians (63%) with higher caseloads routinely conducted psycho-education groups.

Group psycho-education was a Usage Group III strategy. It was not used very frequently in Canadian dietetic practice. This was a Usage Group III strategy. As indicated by Table 8, only a total of 38% of all dietitian respondents used it regularly. Seventy-two percent of dietitians were familiar with it and 85% thought it was useful. Seventy-four percent of therapists thought this strategy was useful.

Table 13: Chi-Square Contingency Table for Caseload and Usage of Group Psycho-Education

	0-4 Eating Disorder Nutrition Counselling Sessions/ Month	5-10 Eating Disorder Nutrition Counselling Sessions/ Month	11 or More Eating Disorder Nutrition Counselling Sessions/ Month	Total
Did Not Really Use[a] Group Psycho-Education	20	8	10	38
Definitely Used[b] Group Psycho-Education	1	4	17	22
Total	21	12	27	60
Comments	1/21= 5%* of dietitians with an eating disorder caseload of 0-4 cases per month definitely used group psycho-education	4/12=33%* of dietitians with an eating disorder caseload of 5-10 cases per month definitely used group psycho-education	17/27=63%* of dietitians with an eating disorder caseload of 11 or more per month definitely used group psycho-education	

Chi-Square=17.302; df=2

*These percentages are significantly different at $p < 0.001$ (the Bonferroni Correction cut off statistic)

[a] "Not really use" is defined as strategy ratings that were "0=never", "1=rarely" or "2=sometimes" used

[b] "Definitely used" is defined as strategy rated as "3=often" or "4=always" used

The second strategy that was highly associated with the number of eating disordered clients seen was distraction/ delaying (Chi-Square=15.8, p=0.000). Again as shown in Table 14, those with higher caseloads used this strategy. Eighty-five percent of the dietitians who conducted 11 or more eating disorder nutrition counselling sessions per month used distraction /delaying; compared with only 29% of those with 0-4 sessions per month. The in between group of 5-10 sessions per month had an in between usage of 58%.

Table 14: Chi-Square Contingency Table for Caseload and Usage of Distraction/ Delaying

	0-4 Eating Disorder Nutrition Counselling Sessions/ Month	5-10 Eating Disorder Nutrition Counselling Sessions/ Month	11 or More Eating Disorder Nutrition Counselling Sessions/ Month	Total
Did Not Really Use[a] Distraction/ Delaying	15	5	4	24
Definitely Used[b] Distraction/ Delaying	6	7	23	36
Total	21	12	27	60
Comments	6/21= 29%* of dietitians with caseloads of 0-4 cases per month definitely use distraction/ delaying	7/12=58%* of dietitians with caseload of 5-10 cases per month definitely use distraction/ delaying strategies	23/27=85%* of dietitians with caseload of 11 or more per month definitely use distraction/ delaying strategies	

Chi-Square=15.793; df=2
*These percentages are significantly different at $p < 0.001$
(the Bonferroni Correction cut off statistic)

[a] "Not really use" is defined as strategy ratings that were "0=never", "1=rarely" or "2=sometimes" used
[b] "Definitely Used" is defined as strategy rated as "3=often" or "4=always" used

In addition to these two strategies, five strategies were found to be significantly associated with usage at $p<0.05$, but did not meet the Bonferroni Correction criteria of $p<0.001$ (see Table 12). Mechanical eating (Chi-Square=9.181, p=0.010), narrative strategies (Chi-Square=8.155, p=0.017), reframing/re-languaging (Chi-Square=8.703, p=0.013), and pros/cons lists (Chi-Square=6.164, p=0.046) were all used more by dietitians with higher eating disorder caseloads. The Chi-Square contingency tables for these strategies are in Appendix J.

Mechanical eating, a uniquely eating disorder strategy that is behaviourally focused was used routinely by 88% of the dietitians with 11 or more sessions per month whereas it was only used routinely by 50% of those with caseloads of 0-4 per month. Seventy-five percent of the dietitians with 5-10 eating disorder client sessions per month regularly used this strategy. Narrative strategies were routinely used by 41% of the dietititans with 11 or more sessions per month and only 5% by those with 0-4 sessions per month. Again, the dietitians with in-between caseloads of 5-10 sessions per month, had an in-between usage percentage (25%). A pros and cons list was regularly used by 56% of those with caseloads of 11 or more sessions per month, but those with 0-4 and 5-10 sessions, routinely used it 24% and 25% respectively. Reframing/ Re-languaging was used regularly by 81% of those with 11 or more sessions per month, 41% with 0-4 sessions per month and 67% for those in between. Self-revelation/ self-disclosure (Chi-Square=7.044, p=0.030) exhibited a different association. It was used significantly less by dietitians with higher caseloads. Only 7% of dietitians who saw 11 or more cases per month regularly used this strategy. Thirty-three percent of dietitians with 0-4 cases per month and 42% with 5-10 cases per month routinely used this strategy.

With regards to associations between strategy usage and education, significant associations were found for exploring the eating disorder meaning (Chi-

Square=5.727, p=0.017) and mechanical eating (Chi-Square=5.727, p=0.017) as summarized in Table 12. Eighty-six percent (19/22) of those dietitians with more than a bachelor degree explored the meaning of the eating disorder as part of their usual clinical practice, while 56% (22/39) of those with a bachelor's degree only regularly used this strategy. Mechanical eating was used more by dietitians with only a bachelor's degree (82%; 32/39) and less by those who had more training (55%; 12/22). The association of individualized meal plan usage with education was approaching significance (Chi-Square=3.832, p=0.050). Those who had a bachelor degree as the highest level of education tended to use it more (82%; 32/39) than those who had additional education (59%; 13/22).

As indicated in the last line of Table 12, the years of eating disorder experience did not have any significant association with usage.

VI. APPROPRIATENESS OF STRATEGIES

Feedback on appropriateness of strategies for dietitians to use was solicited with an open-ended question. The most prominent themes that arose from this question about which specific strategies might be inappropriate for dietitians to use in nutrition counselling are given in Tables 15 and 16.

According to 12 of the 39 dietitian who answered this question, the most common reason given for strategy inappropriateness related to the concerns over role definition. This was the dominant theme that arose from this open-ended question. According to dietitian respondents, the role dietitians take on seemed to be affected by the adequacy of dietitian training, professional boundaries, workplace philosophy and time available to the dietitian. Regarding the appropriateness of strategies for nutrition counselling as it relates to the adequacy of dietitian training, one dietitian stated "adequate training would result in a comfort level for the dietitian to execute the strategy". Another dietitian stated that there was a "need for a thorough understanding of the strategy and how to

use it effectively and appropriately". Five dietitians stated that there are a wide variety of strategies needed to work with this client population. In addition, more than one dietitian thought the following strategies were inappropriate for dietitians to use during nutrition counselling: self-disclosure without boundaries, operant conditioning and specific eating plans. Two dietitians commented on rapport as an important issue in nutrition counselling.

Table 16 shows the major themes from therapists when they were asked to comment on what strategies would be inappropriate for dietitians to use in nutrition counselling. Again, role definition was the most prominent theme to emerge as it related to appropriateness of strategy usage by dietitians in nutrition counselling. Therapists echoed the first two themes noted by dietitians: role definition (commented on by 11 of 23 therapists who answered this question) and adequacy of dietitian training (commented on by 7 out of 23 therapists who responded to this question). An additional theme that arose from five therapists related to rapport and the working therapeutic relationship. Finally, three therapists commented on the possible overlap of responsibilities between a dietitian and a therapist.

Table 15: Dietitian Responses to the Question: "In your opinion, are there specific strategies which would be inappropriate for dietitians to use in nutrition counselling sessions? Please explain."

Major Themes	**Number of Responses** [a]	**Sample Quotes**
The need for role definition/ professional boundary	12	"Dietitians need to be careful about adopting a psychotherapist role, since patients are often eager to cast you in that role even when they already have one."
The need for sufficient training	7	" I believe that unless a dietitian is well-trained and competent, some of the above strategies should not be attempted."
A wide variety of strategies is needed	5	"These clients are so individual and resistant to change that a wide variety of strategies useful. Multiple strategies may be useful for one client. These may be inappropriate for another client which would be better treated with alternate strategies."
Inappropriate: self-disclosure without boundaries	5	"not appropriate to disclose to client personal life"
Inappropriate: operant conditioning	4	"only for formal inpatient treatment"
Inappropriate: specific eating plans	2	"specific diet plans- feed into disorder and perfectionistic thinking and behaviour – could make situation worse"
Rapport	2	[inappropriate] "to try to treat eating disorder with poor rapport"

[a] Of the 65 dietitian surveys returned, 60% (n=39) dietitians answered this question

Table 16: Therapist Responses to the Question: "In your opinion, are there specific strategies which would be inappropriate for dietitians to use in nutrition counselling sessions? Please explain."

Major Themes	**Number of Responses** [a]	**Sample Quotes**
The need for role definition/ professional boundary	11	"there needs to be some role separation with FOCUS" "this type of work (psychological techniques such as CBT, narrative therapy, thought stopping etc.) is within the psychologist's (realm), not the dietitian's role" "need to know the boundary between nutritional counselling and psychotherapy"
The need for sufficient training: theoretical foundation and supervised clinical experience to ensure effective or appropriate use	7	"Inappropriate to use strategies without a thorough grounding in potential risks" "any dietitians or therapists using the listed techniques would require sufficient training and supervised clinical experience to ensure the strategies are being used appropriately and effectively" "(some strategies) may involve too high a level of psychotherapy skills to expect of a dietitian"
Poor rapport; not responding to where the client is at; being very confrontative or being the "expert" and not allowing for client feedback	5	"using very confrontive strategies causes resistance and is disrespectful" "being unaware of the person's readiness to change can cause bad relationship- patient might not come back"
There are areas of overlap between a dietitian and a therapist	3	"some blurring of role with a consistent approach" "the need for both professionals with their unique body of knowledge and skills on an eating disorder treatment team"

[a] Of the 37 therapist surveys returned; 62% (n=23) therapists answered this question

VII. STRATEGY LEARNING ROUTES

Learning routes and continuing education issues for Canadian eating disorder dietitians were examined to assess needs in this area. Dietitian respondents indicated that they learned about nutrition counselling strategies from five main sources: reading, intuition, having a mentor, dietetic training and attending a conference. Taking a course and the "other" category were much less frequently reported. The most frequent learning route for Usage Group I strategies was intuition, followed by dietetic training. The most frequent learning route for Usage Groups II, III and IV was reading, followed by mentorship. The most frequently selected learning routes for unfamiliar strategies were informal routes: reading, mentorship and intuition.

The details of how dietitians learned about strategies are shown in Appendix K, where the learning routes for each of the 50 strategies are given. A summary of that data categorized within the four Usage Groups is given in Table 17. The first column of Table 17 shows the learning route titles, the second column, how dietitians were learning about Group I Usage strategies. There were a total of 990 endorsements from all the strategies in Group I. The percentage is presented as well as the actual number of endorsements over the total endorsements from each group. Columns two through to five gives the data for Usage Groups II, III and IV in a similar format as the second column. In Usage Group II, a total of 1620 endorsements were reported from the dietitians surveyed. Reading was first and intuition tied with mentorship for being the second most frequently endorsed learning route in Group II. A total of 816 endorsements were found with the Group III Usage strategies. Usage Group IV strategies had a total of 721 endorsements from all the learning groups. The total endorsements in each Usage Group varied because of the different number of strategies in each group, unfamiliar strategies and missing data. In the sixth and final column of Table 17,

learning route endorsements from all Usage Groups were shown and the total number of learning route endorsements from the survey was 4147. Overall, the most frequent routes endorsed from all strategies were reading (22%) and intuition (20%).

Table 17: Dietitian Learning Routes[a]

Learning Routes	Group I Usage Strategies	Group II Usage Strategies	Group III Usage Strategies	Group IV Usage Strategies	*All Strategies*
Reading[b]	18% (174/990)	22% (358/1620)	23% (191/816)	27% (197/721)	*22% (920/4147)*
Used Intuitively	26% (255/990)	18% (298/1620)	19% (156/816)	17% (125/721)	*20% (834/4147)*
Mentor[c]	15% (148/990)	18% (297/1620)	20% (163/816)	21% (155/721)	*18% (763/4147)*
Dietetic Training[d]	23% (224/990)	16% (262/1620)	12% (95/816)	9% (64/721)	*16% (645/4147)*
Conference	11% (104/990)	16% (255/1620)	15% (125/816)	12% (89/721)	*14% (573/4147)*
Course	7% (70/990)	7% (121/1620)	7% (61/816)	8% (55/721)	*7% (307/4147)*
Other	2% (15/990)	2% (29/1620)	3% (25/816)	5% (36/721)	*3% (105/4147)*
Total Number of Endorsement Per Usage Group	990	1620	816	721	4147
Dietitian Usage Percentage Means[b,c,d]	*87%*	*65%*	*34%*	*15%*	

[a]Excludes those unfamiliar with the strategy
[b]Pearson correlation r= -0.956, p=0.044
[c]Pearson correlation r= -0.978, p=0.022
[d]Pearson correlation r= 0.978, p=0.022

The dietetic learning route was positively and significantly correlated ($r=0.978$, $p=0.022$) with group usage means. No other learning routes showed this trend, but the opposite trend was found with reading ($r=-0.956$, $p=0.044$) and mentorship ($r=-0.978$, $p=0.022$).

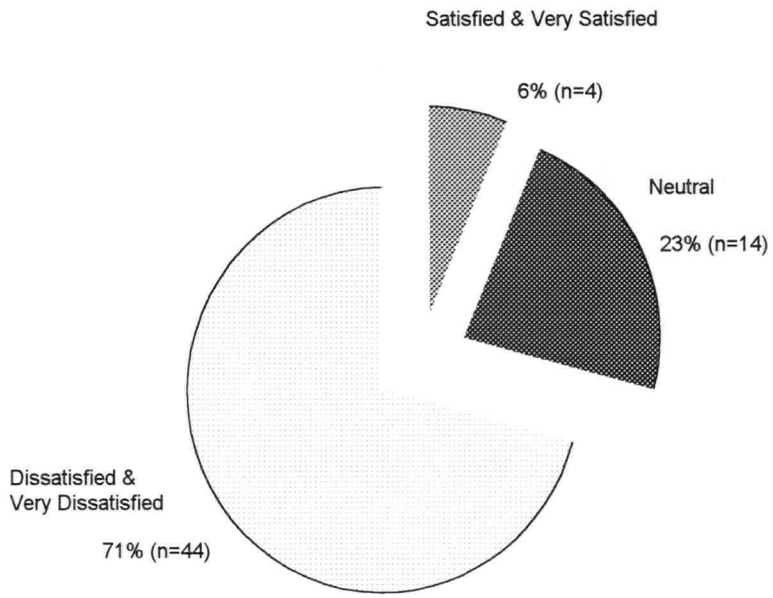
There were three uniquely dietetic-trained strategies: 24-hour recall, food records and individualized meal planning. More than 80% of the respondents endorsed this learning route for these strategies. Many dietitians responded that as part of the usual dietetic training, eating disorder nutrition counselling was not adequate. "I have had to train myself for the most part in this important area of practice" and "most skills I have developed for ED (eating disorder) outside nutrition domain [not from dietetic training or CE (continuing education) from Dietitians of Canada]". Many had the opportunity to work with a multidisciplinary team, thus learning came from colleagues. "Mentor means for me, learning from colleagues [other RD (registered dietitian), psychologists, psychiatrists, RNs (registered nurses), MDs (medical doctors)] who work within the area of ED (eating disorders)."

VIII. CONTINUING EDUCATION ISSUES

Two open-ended and two close-ended questions were asked to address the continuing education needs of dietitians who work with eating disorder clients. Seventy-one percent or 44 out of 62 respondents stated they were either dissatisfied or very dissatisfied with current educational opportunities for eating disorder nutrition counselling. Six percent (4/62) were satisfied or very satisfied and 23% (14/62) were neutral. Dissatisfaction with current continuing education opportunities was notable (Figure 6). There were no trends discernable by examining the satisfaction rating with demographic factors except that all dietitians who had a masters degree were either dissatisfied or very dissatisfied with current opportunities available. The two individuals who reported being

satisfied with the current continuing education opportunities had a bachelor degree as their highest level of formal education. Of the two individuals who were very satisfied with continuing education opportunities, one individual had additional training in counselling and the other individual had two bachelor degrees; one in dietetics and the other in a non-counselling, education area.

Figure 6: Dietitian Satisfaction With Current Continuing Education Opportunities
(n=62)



All dietitians stated that they would welcome continuing education opportunities. Six dietitians stated that "all, many or any education opportunities would be welcomed" and three stated that they would like to learn about strategies that were proven effective in the treatment of eating disorder clients. The preferred routes of learning for dietitians were either taking a course 87% (53/61), having a mentor 70% (43/61) or reading 57% (35/61). The strategies that dietitians most

wanted to learn more about were cognitive restructuring 23% (14/62), the transtheoretical model of change 18% (11/62) and motivational interviewing 16% (10/61). The strategies that dietitians did not want to learn more about were dietary assessment strategies 23% (14/62), operant conditioning strategies 10% (6/62), rapport building strategies 10% (6/62) and instructional strategies 8% (5/62). There were a number of reasons given for the lack of interest in learning about these strategies. The most common reason was that they already felt well-trained in the areas of dietary assessments, rapport-building and instructional strategies. Another reason for not wanting to learn more about a particular strategy was that the strategy was not appropriate for dietitians to use with respect to scope of professional practice. Examples of strategies that were considered to be out of the scope of practice of dietitians were assertiveness training and relaxation training strategies. The last reason given for not wanting to learn more about certain strategies was disagreement with the philosophy behind the strategy. For instance, operant conditioning was disliked because of the concept of punishment and self-revelation was thought to be "unnecessary and potentially distracting."

IX. SUMMARY

In sum, eating disorder nutrition counselling strategies used by dietitians related to familiarity, perceived usefulness and perceived appropriateness of strategies for dietitian use. Usefulness rating between dietitians and therapists were highly correlated. Canadian dietitians who worked with eating disordered clients were using a variety of nutrition counselling strategies learned via a number of different routes. Overall, the most common learning routes for eating disorder nutrition counselling strategies were informal ones such as reading, intuition and mentorship. Strategies learned from dietetic training tend to be well learned as evidenced by the usage reports and familiarity percentages. Interestingly enough, these strategies were often perceived as not that useful. Canadian dietitians

clearly wanted to have more extensive continuing education opportunities. According to dietitian respondents, currently, there is a great need for continuing education opportunities to help Canadian dietitians improve and expand their eating disorder nutrition counselling skills.

Chapter 5

DISCUSSION

I. OVERVIEW

The aims of this study were to identify the counselling strategies and education needs of dietitians who work with eating disordered clients in Canada. First, the return rates and demographic information of the participants are discussed. Second, the usage of nutrition counselling strategies, which describe eating disorder clinical practice, is characterized and compared with the literature. Third, potential barriers for recommended clinical dietetic practice from the outcome literature and clinician recommendations are explored. Fourth, dietitian professional boundaries and philosophy of care are discussed from the dietitians' and the therapists' perceptions of which nutrition counselling strategies are useful and appropriate. Fifth, the current dietetic education on nutrition counselling in Canada is addressed. Canadian dietitians' self-expressed education needs in the area of nutrition counselling are compared with what is described as recommended for content and learning route in the literature. Finally, conclusions and recommendations from this study are given along with limitations.

II. RETURN RATES AND DEMOGRAPHIC INFORMATION

A. Respondent Demographic Information

1. Response Rates and Geography of Respondents

The response rate for dietitians was 56%. This is not dissimilar to Whisenant and Smith's 1995 survey of American eating disorder dietitians, where the response rate was 59%. In this Canadian study, surveys were returned by dietitians from across Canada with the exception of Newfoundland, Prince Edward Island and

the Territories. Dietitians in the sampling frame from these areas were rather limited in that only two surveys were sent to each of these three areas. Overall, the highest number of dietitians who responded were from Ontario (40% of total responses), British Columbia (25% of total responses) and Alberta (15% of total responses). These were the same provinces where the majority of the therapists responded were from. Only 37 (34% of total responses) eating disorder therapists responded, but this is not atypical of the return rates of surveys that had a one-time request to complete (Schweigert, 1998).

2. Respondent Worksites

In Canada, services for eating disordered clients can be accessed via hospitals, community-based health units or mental health centres. Dietitians tend to work in hospitals, therefore, it is not surprising that the most common worksite for dietitian respondents was a combination of inpatient and outpatient hospital programs. A notable number of dietitians worked in day treatment or partial hospital settings, which has the advantage of being less costly and allow clients to integrate back to the home environment more easily. These dietitians would also likely be part of a dedicated eating disorder specialty team, as a dedicated team is needed to support a day treatment program. The day treatment dietitian's role might be more diffuse and expansive than the traditional dietitian's, "because the nutritionist is involved in activities such as leading the eating attitude group and the weighing group, which is focused not only on eating behaviour, there is an integration of nutritional issues into the other aspects of therapy (Winocur, 1990)." The majority of psychotherapist respondents were not from hospital-based programs, but rather from community-based outpatient programs. It is not known whether this fact skewed the findings as perhaps hospital-based or day treatment program dietitians have an increased opportunity to take on different roles within the eating disorder treatment team. The following quote from a dietitian respondent illustrates this point. "I learned from co-leading psycho-

education groups and before that, observed groups. (I) worked with psychiatrists, social workers and psychologists in the context of a day treatment program."

3. Types of Client Seen

The type of clients most frequently seen by dietitians were AN clients since these are the individuals who are at the highest nutritional risk and need the most resources. The next highest were BN clients, then EDNOS and the lowest were BED clients. This trend is likely due to the fact that eating disorder programs in Canada tend to focus on AN and BN clients as their mandates. Also, BED has only been identified relatively recently as a distinctive entity.

B. Dietitian Demographic Information and Strategy Usage

1. Caseload

Caseload appears to be an indicator for the generalist versus specialist eating disorder dietitian. Just under half the dietitian respondents to this survey had higher caseloads (11 or more nutrition counselling sessions per month). These respondents would most likely be dietitians working in a specialized eating disorder program, whether in a hospital or in a community outpatient program. Dietitians who had caseloads of 0-4 nutrition sessions per month made up just under one third of the dietitian participants and were likely generalist clinical dietitians who worked in primary care hospitals with eating disorder clients being just a small part of their job. The remaining respondents were an in-between group (5-10 nutrition sessions per month) and would be dietitians who were either part of a very small eating disorder program or from a worksite where some eating disordered individuals seek services.

Caseload was the demographic factor that had the most profound effect on what nutrition counselling strategies dietitians used. Group psycho-education and distraction/delay were strongly associated with caseload as indicated by meeting

the very conservative Bonferroni Correction criteria. The other caseload-associated strategies, mechanical eating, narrative style of counselling, reframing and using a pros and cons list were all strategies associated with higher caseloads but did not meet the Bonferroni criteria. The strategies associated with higher caseloads were all behavioural change strategies and have been written about at length in the eating disorder literature. They are also very specific for eating disorder treatment. Dietitians with higher caseloads would have more opportunities to fine-tune these eating disorder-specific nutrition counselling skills. They would also have more exposure to the psychotherapeutic work done on a multi-disciplinary team. More exposure to different philosophies and strategies of counselling would permit the higher usage of these associated strategies.

a) Strategies Used by Dietitians with Higher Caseloads

Group psycho-education was not a commonly used strategy, but nearly all the dietitians with higher caseloads routinely used it in their clinical practice. Group psycho-education would only be possible in specialized eating disorder programs because only these programs would have the needed number of clients to run groups. The literature seem to indicate that less severely effected BN clients could be helped by group psycho-education alone (APA 2000). Olmsted et al. (1991) reported on work done in a Canadian program that found that five 90-minute lectures emphasizing symptom management produced a 20% reduction in bingeing. This was as effective as more intensive treatments. Since psycho-education groups are considered an efficacious treatment for less severely affected individuals, it is worthwhile as a first line of treatment whenever there are a sufficient number of clients to form a group. Group psycho-education is a cost-effective mode of treatment, hence, likely a common part of the eating disorder dietitian's job description. Due to all this, it is not surprising that the

strategy of group psycho-education was so strongly associated with those with higher caseloads.

Distraction/delay was the other strategy strongly associated with dietitians with higher caseloads. It is an established, uniquely eating disorder-oriented strategy that is easy to use and behavioural in nature. This strategy has been written about in many self-help books (Fairburn, 1995; Hall and Cohen, 1992), cognitive behavioural therapy textbooks (Agras, 1993; Garner, Vitousek, and Pike, 1997) and nutrition counselling manuals (Helm and Klawitter, 1995; Stellefson, 1999). It has been described as a powerful strategy in helping decrease binge or purge behaviour (Hsu et al. 2001). Those with higher caseloads, again would likely have more exposure to this strategy and be more able to implement it. Those who rarely see eating disordered clients (0-4 cases/ month) would likely have less opportunity to be exposed to this strategy, which would limit dietitian confidence in using it.

Mechanical eating is also an established, uniquely eating disordered focused strategy that is a part of cognitive behavioural therapy. It is a content-focused, action-oriented strategy that has also been written about extensively in manuals (Fairburn 1995; Fraleigh et al. 1999; Garner, Vitousek and Pike, 1997). This strategy could be used at various levels. It can be strictly information giving, behavioural or more cognitive behavioural in nature. It is a well-known, often cited strategy in the field of eating disorders. It is relatively easy to use and utilizes skills that dietitians are typically trained in like meal plan construction and eating pattern analysis. Thus, it is particularly well suited for dietitians to use. Most of the dietitians (94%) in the present study were familiar with this strategy, but not all those who knew about mechanical eating used it. Seventy-three percent of the dietitians surveyed used this strategy. The higher the dietitian's caseload, the more they tended to use this strategy in their clinical practice.

Reframing or re-languaging was only routinely used by 65% of dietitians despite the familiarity percentage being 97% and usefulness according to dietitians being 72%. It is more of a process-oriented strategy related to cognitive behavioural therapy. These results seem to indicate that dietitians had heard of it, but did not feel confident enough to use this strategy in their everyday practice. Similar to mechanical eating, more of the dietitians who had higher caseload tended to use this strategy.

The use of a pros and cons list is a behavioural change strategy that is not action-oriented but is process-oriented. It is considered a motivational enhancing type strategy that is geared to help clients cognitively examine how the eating disorder is a plus or negative in their life. Eighty-five percent of dietitians were familiar with this strategy but only 63% thought it useful and even less (39%) actually used it regularly. The work on motivational enhancement (Garner, Vitousek, and Pike, 2001; Treasure and Schmidt, 2001) supports the use of this strategy but Canadian dietitians are not tending to use it routinely. Those who are using it tend to have higher caseloads.

The narrative style of counselling is a relatively complex, process-oriented strategy; hence, the low usage (26%) by dietitians is not surprising. This is despite 60% of dietitians considering it useful and 61% being familiar with it. This style of counselling has been used extensively in the eating disorder area in the last number of years (Lyon, 1996a; Lyon, 1996b, White and Epson, 1990). Exposure and education on this strategy also would be more available in specialized multidisciplinary teams, which could account for its association with dietitians having higher caseloads. However, without in-depth training, it is likely inappropriate for the dietitian to utilize this style of counselling.

b) Strategies Used by Dietitians With Lower Caseload

There was only one strategy in this category and it was self-revelation/ self-disclosure. This strategy is a controversial one. It was commonly used by 23% of the dietitians and considered useful by 47%. Familiarity was high; 97% of the dietitians knew about it. The need to set boundaries with eating disordered clients is important. One possibility is that the more specialized dietitians, that is those with higher caseloads, would be more able to appreciate the potential pitfalls of self-disclosure. Thus the very low percentage of those with 11 or more cases per month is not surprising. Only those with higher caseloads or those who were more specialized avoided using this strategy.

2. Education

Dietitians who worked with eating disordered clients in Canada mostly have a bachelor's degree as their highest degree. This is different from the American study (Whisenant and Smith, 1995) where 50% of the dietitians who worked with eating disordered clients had a masters degree. In the current study, only 13% of the dietitians surveyed reported having a masters degree. A substantial number were working on their degrees (7%) or had additional certification (24%). The most common certification was becoming a certified diabetes educator. This is readily accessible in Canada. Altogether, these statistics show that just less than half (44%) of the dietitians had sought or were seeking some type of formal education beyond the basic dietetic education.

Usage was associated with the education level of the dietitian in three strategies: exploring what the eating disorder means, mechanical eating and individualized meal planning. Exploring what the eating disorder means to the client was positively associated with higher levels of training while mechanical eating was associated with less formal training. Those with additional training may be more apt to use strategies other than the content-oriented ones. The third strategy,

individualized meal planning approached significance (p=0.050) and was associated with increased usage for those with less training, those with a bachelor degree as their highest degree.

In Brown et al.'s 1998 study, cognitive restructuring was associated with higher levels of training, but this was not found in this study. Gilboy (1994) found that strategy usage had the strongest correlation with self-efficacy, not education. This might explain the results seen in this study as higher eating disorder caseloads would understandably result in higher self-efficacy although this phenomenon was not specifically examined in the current study.

3. Years of Eating Disorder Experience

Years of experience was not found to be associated with use of any strategies in this study. This may be due to the fact that more than one third of the dietitian respondents saw only a very small number of eating disorder clients (0-4 cases per month). This large proportion of dietitians with very limited clinical experience would be a confounding factor in trying to assess strategy usage based on years of eating disorder experience alone. The experience accumulated by these generalist dietitians would be very different from more specialized dietitians; thus eating disorder clinical practice would get expressed differently.

III. EATING DISORDER CLINICAL PRACTICE OF CANADIAN DIETITIANS

A. Types of Strategies Used

1. Assessment Strategies

All assessment strategies were used by more than 50% of the dietitians on a regular basis except for the strategy of using standardized self-report inventories of eating disorder severity and assessment based on recovery indicators. The reasons for these two not being used as much was likely due to the familiarity

factor and role boundaries of a dietitian. Inventories such as the EDI or EAT necessitate extra training to administer and score, which is often considered beyond the usual role of the dietitian. For instance, regarding the "appropriateness" of using the EAT or EDI, one dietitian commented that: "therapists use this and I read the results" and another one stated "I don't administer but the program uses [them]".

Of interest was that, dietitians reported using traditionally taught, dietetic assessment strategies frequently despite the opinion of both dietitians and psychotherapists that such strategies were not considered that useful. For example, the 24-hour recall was "often" or "always" used by 84% of dietitian respondents (5th in usage rankings) but it ranked thirty-sixth out of a possible 50 for usefulness according to dietitians and thirty-eighth according to therapists.

2. Rapport-building Strategies

Canadian dietitians appear to be using rapport building strategies in their work with eating disorder clients. The high use of rapport-building strategies is encouraging as the outcome literature on eating disorder nutrition counselling has noted that attrition is a large problem (O'Connor et al. 1988; Serfaty et al. 1999), therefore, rapport-building is essential. Since remaining in treatment is a goal, Gallop, Kennedy & Stern (1994) looked at this phenomenon on an inpatient eating disorder unit. A working alliance inventory was used to examine the therapeutic alliance perceived by inpatients on an eating disorder unit. The inventory was completed at three weeks and eight weeks after admission. Clients perceived rapport or therapeutic alliance with staff to be significantly stronger among those who stayed in the program compared with those who left prematurely.

3. Behavioural Change Strategies

When the behavioural change strategies are divided into the Usage Groups, it is apparent that content-oriented strategies were being used by Canadian dietitians in their eating disorder clinical practice whereas process-oriented ones were not (see Appendix I). Seventy-six percent of the 13 content-oriented behavioural changes strategies were in Groups I and II, which meant more than half of the dietitians used these strategies routinely. Seventy-one percent of the 17 process-oriented strategies were in groups III and IV, which meant less than half the dietitians were using these strategies routinely.

Since process-oriented strategies are more in the realm of the nutrition therapist as opposed to the nutrition educator, Canadian dietitians currently appear to be working as nutrition educators and not nutrition therapists. The findings from this study agree with the findings from a study conducted with acute care dietitians (Dahlke, Wolf, Wilson, and Brodnik, 2000). Dietitians in that study were found to be comfortable being content experts. This may be acceptable in a strictly medical setting, but in the eating disorder area, where personality disorder and psychological issues are common, an appreciation of and familiarity with process-oriented strategies would be important. Given below are specific behavioural change strategies that have been previously studied.

a. Didactic, Educational Strategies

(i) Suggest Book or Video

The strategy of suggesting books or videos is extremely easy to use and didactic in nature. Written material, videos, and websites could be very beneficial for clients and families to access as an augmentation to nutrition counselling sessions. Despite this, only 47% of the dietitians in this study reported using this strategy routinely although 60% thought it was useful. Seventy-six percent of the diabetes dietitians in the study conducted by Hauenstein et al. (1987) thought this was useful and 54% reported using it. A more recent study conducted by Brown et al. (1998) showed that 95% of their diabetes dietitians thought it was useful and 86% used it. In recent years, it is likely that more multimedia or written resource material is available in the diabetes area. This may account for the difference seen between the Brown et al. (1998) and the Hauenstein et al. (1987) studies. Similarly, there may be differences in availability of materials in the eating disorder versus diabetes area. Finally, it is possible that Canadian dietitians are not familiar with what is available as eating disorder resources for their clients.

(ii) Include Family in Counselling

Including family in counselling sessions by dietitians most frequently involves providing eating disorder and nutrition information so that family members can support the eating disordered individual. This strategy was commonly used only by 39% of dietitians in eating disorder clinical practice whereas 76% of dietitians and 71% of therapists thought it was useful. Thus, in this study, nearly half of the dietitians who thought this strategy was useful did not actually use it. Without additional training, dietitians likely are not able to cope with the extreme nature of the family dynamics that often occur with eating disorder clients. Eighty-six percent of diabetes dietitians used it (Hauenstein et. al. 1987) and 95% thought it useful. The secretive nature and shame that is often associated with an eating disorder compared with that seen in diabetes might contribute to the difference

seen in the usage of this strategy between eating disorder and diabetes dietetic practice.

b. Content-Oriented Behavioural Change Strategies

(i) Involve Client in Decision Making

One hundred percent of the dietitians in the current study were familiar with this rapport building, action-oriented, content-based, easy-to-use strategy. Ninety-seven percent of the eating disorder dietitians used it in their clinical practice and 95% thought it was useful which is typical of what has been reported in the literature. For example, Hauenstein et al. (1987) found that 96% of the diabetes dietitians used this strategy and 100% thought it useful. Brown et al. (1998) found that this strategy was in the top five for usage.

(ii) Self-monitoring

Self-monitoring is a much written about strategy used in the eating disorder field (Beumont et al. 1997; Wilson and Vitousek, 1999), but only 69% of the dietitians surveyed in the current study used it regularly. This is a content-focused strategy and is fairly easy to use. Thus it was surprising that not more dietitians used it. Eighty-nine percent of the dietitians were familiar with it and 78% thought it was useful. These results are similar to Hauenstein et al.'s 1987 study, where 58% of their diabetes dietitians reported using this strategy and 78% thought it was useful. Mussell et al. (2000) looked at the counselling strategies used by eating disorder therapists. They found 69% of their therapists used the self-monitoring strategy. The therapist's theoretical orientation would impact this. For example, one who ascribes to the psycho-analytical approach to counselling would not be using this strategy whereas, one who operates in a cognitive-behavioural orientation would. Seventy-eight percent of the therapists in the current study thought this strategy was useful.

(iii) Stimulus Control and Distraction/Delay

Stimulus control and distraction/delay are content-based, action-oriented strategies. Stimulus control was described by Beumont et al. (1997) as part of the nutrition counselling program for BN symptom cessation. In the current study, 65% dietitians reported using stimulus control routinely and 61% reported using distraction/ delay routinely. In Mussell et al.'s (2000) study, 37% and 45% of eating disorder therapists used these two strategies respectively. The possible reason for more dietitians than therapists using these strategies could be due to the behavioural, action-oriented nature of these strategies. Since a therapist's mandate is to delve into the core issues internal to the individual and ambivalence is a common state for eating disorder clients to be in, it seems reasonable that therapists would be spending less time with these action-oriented, behavioural strategies.

(iv) Confrontation

Fifty percent of the eating disorder dietitians surveyed in the current study used this strategy regularly, 68% thought it useful and 97% were familiar with it. Those who thought it useful tended to be dietitians with lower caseloads. Hauenstein et al.'s study (1987) is an older one and they found 30% of diabetes dietitians used this strategy while 86% thought it was useful. From the work on motivational enhancement and motivational interviewing (Vitousek, Watson, and Wilson, 1995) it was found that a direct confrontational style from the therapist resulted in significantly more resistance and worse outcome. Resistance was affected by the therapist's approach. It was found to often follow confrontation (Treasure and Schmidt, 2001). More specialized dietitians in the current study appear to have heard about the possible pitfalls with confrontation.

(v) Contracting

Despite its discussion in the literature, respondents to this survey did not frequently use contracting, as only 21% of the dietitian respondents reported using it on a regular basis. Fifty percent thought it was useful and 89% were familiar with it. Although it is an established behavioural strategy, it is a relatively harder strategy to use, which may be why it was not used more frequently by dietitians. From this researcher's experience, finding the right contingency or "reward" for the contract to be successful can be hard to do. Even fewer diabetes dietitians used this strategy. Hauenstein et al. (1987) found that only 3% of their diabetes dietitians used it and 17% thought it was useful.

c. Process-Oriented Behavioural Change Strategies

(i) Motivational Enhancement Strategies

These strategies would include the transtheoretical model/stages of change model, motivational interviewing and using a pros and cons list. The first two strategies were in Usage Group II and they were routinely used by about half the dietitian respondents. The pros and cons strategy was in Usage Group III and it was commonly used by 39% of the dietitians. Motivational interviewing seems to work by reducing client negativity (Geller, Williams, and Srikameswaran, 2001; Treasure and Schmidt, 2001). It appears to be particularly useful for helping angry or ambivalent clients and many eating disorder clients fit this description. Motivational enhancement strategies are being actively researched (Blake et al. 1997; Geller, and Drab, 1999; Treasure and Ward, 1997) and facilitate a more egalitarian view of health care as opposed to the medical model of health care where a health care professional gives advice and expects compliance due to the expertness of that advice. Respect for "where the client is at" fits in with allowing clients to direct their own health care as long as it does not precipitate life-threatening situations.

(ii) Cognitive Restructuring

Forty percent of dietitian respondents from this study reported using the cognitive restructuring strategy regularly. Seventy-four percent were familiar with it and 76% thought it was useful. Mussell et al. (2000) reported a much higher percent of usage by their eating disorder psychotherapist respondents, where 72% of the eating disorder psychotherapists reported using this strategy. This difference appears reasonable, given the difference in role and focus between the two disciplines. This is one of the most contentious strategies with respect to professional role boundaries, which may account for the large difference between the usage and usefulness percentages. The role boundary issue may also account for the relatively low rating for usefulness of this strategy by therapist. Only 67% of the therapists in the current study stated that this strategy was useful for dietitians to use.

(iii) Behavioural Role-Play/ Simulation

Only 5% of dietitians in this study reported using this strategy routinely even though 41% of the eating disorder dietitians thought it useful. Behavioural role-play was the least used strategy among the 50 explored in the current study. Hauenstein et al. (1987) reported 35% of their diabetes dietitians used this strategy. The marked difference between the usage of this strategy by diabetes dietitians and eating disorder dietitians could be related to the fact that diabetes eating behaviours may be more easily discussed and enacted as opposed to the emotionally charged eating behaviour due to an eating disorder. Eating disorder dietitians' familiarity with this strategy was low which may also have contributed to the low usage.

B. Summary of Strategy Usage By Canadian Dietitians

In summary, Canadian clinical eating disorder dietetic practice only partially met the recommendations in the literature (ADA 2000; Fleck, 1998; Reiff and Reiff, 1992; Stellefson, 1999). The literature recommends rapport-building and behavioural change strategies that are not only to be strictly didactic, but process-oriented as well. Canadian dietitians working with eating disordered clients are using rapport-building strategies and mostly content-oriented behavioural change strategies in their eating disorder nutrition counselling sessions. Behavioural and cognitive strategies were also recommended for this client group by manuals (Reiff and Reiff, 1992; Stellefson, 1999; ADA 2000) and the ADA position paper (2001), but only some of the more specialized dietitians are using behavioural and cognitive strategies such as motivational interviewing and cognitive behavioural strategies routinely in their clinical practice. The next section will address some of potential reasons for the discrepancy between the recommendations and the actual clinical practice in Canada.

IV. BARRIERS TO RECOMMENDED CLINICAL DIETETIC PRACTICE

To examine potential barriers of dietitians using recommended nutrition counselling strategies, one needs to look at what impacts the dietitians' eating disorder clinical practice. A variety of factors can influence the clinical practice of dietitians. They range from personal factors within the dietitian to environmental factors pertaining to the climate where he or she practices. Personal factors include the dietitian's knowledge, perceptions of what is useful or important, experience, personality, and professional boundary perceptions. Environmental factors include team philosophy, team composition and the health care system. This study has focused on dietitian familiarity as a starting point of knowledge,

perceptions of usefulness and appropriateness of strategies which encompasses knowledge, dietitian role boundaries and philosophy of care.

A. Dietitian Knowledge and Perceptions

1. Familiarity with strategies

The results of this study indicate that usage was highly correlated to familiarity. This concurs with other studies on counselling strategies used by dietitians (Hauenstein et al. 1987; Gilboy, 1994; Stetson et al. 1992). Being familiar with a strategy does not necessarily mean that the dietitian is able to competently use the strategy, but it is a starting point. Furthermore, usefulness perceptions are dependent on the dietitian's knowledge of the strategy. Dietitians tend be familiar with strategies that are content-focused and action-oriented or rapport-building. For example, all of the dietitians surveyed knew about the following strategies: using small increments when goal setting, involving clients in decision-making, discussing barriers for change, reflective listening, meal planning, daily food records and humour. These are the same strategies dietitians were using regularly in their eating disorder clinical practice.

The least familiar strategies included: recovery indicators, operant conditioning, modeling, reality therapy, immediacy, self-report inventories of eating disorder severity. These strategies tended to not be used by dietitians. They tended to be more complex, process-oriented ones or strategies that are considered outside the traditional professional boundaries of the dietitian. Despite being described in one of the few resource manuals available for eating disorder nutrition counselling, assessment based on recovery indicators was the least familiar of all the strategies examined in this study. Only 31% of the dietitian respondents in the current study were familiar with it. Whisenant and Smith's 1995 survey of American eating disorder dietitians found that recovery indicators was one of the

most common topics for dietitians to request more information about; but as indicated in this study, not many Canadian dietitians appeared to have heard of it.

2. Perceived usefulness

Dietitians and therapists perceived the same strategies as useful. The top four strategies for usefulness (using small increments when goal setting, discussing barriers for behavioural change, involving clients in decision-making, reflective listening strategies) were the same for dietitians and therapists. They were also the top four that dietitians used in their clinical practice. This concurs with other studies (Brown et al. 1998; Hauenstein et al. 1987) where usefulness or importance was correlated with usage. Only four strategies were rated by less than half the dietitians as useful: behavioural role-play, operant conditioning, self-reported inventories of eating disorder severity, and self-revelation. These were also strategies that less than half the therapists thought were useful. Low usefulness percentages seem to be due to a combination of perceived dietitians' role boundaries as indicated by appropriateness of strategies and the actual usefulness assigned to the different strategies.

The high correlation between dietitians' and therapists' usefulness rankings showed that they shared a vision of what eating disorder nutrition counselling should look like. Whether this is an "unspoken" natural evolution of working together or whether the team actually dialogued on this topic of professional boundaries is unknown, but either way, in order to work together on an eating disorder team, there appears to be a commonality of expected professional boundaries as has been discussed by Saloffe-Coste et al. (1993). "Establishing a trusting relationship between nutritionist and therapist requires some initial effort and continued attention to careful communications but the connection offers immense dividends for both professionals and especially for the patient."

3. Perceptions of Dietitian Role Boundaries

Appropriateness was addressed with an open-ended question. Like the shared view of usefulness, the appropriateness of the strategies question was also answered similarly by dietitians and therapists. The same concerns surfaced as most critical from both dietitians and therapists. The most common response was the need for role definitions and professional boundaries. This issue is a complicated and delicate one. "Understanding boundaries refer to recognizing and appreciating the specific tasks and topics each team member is responsible for (ADA 2001)." Historically, dietitians in the 1970's were involved with interfacing with the kitchen and reviewing a therapeutic diet sheet. As time progressed, the dietitian's role evolved to being an educator. As it became evident that merely adding knowledge did not necessarily improve dietary behaviour, the role of dietitians further evolved in the late 1980's. At that time, dietitians had been described as behaviour change agents and behavioural strategies were advocated. The current American literature seems to indicate that eating disorder dietitians may be going beyond these roles and moving towards that of a nutrition therapist where behavioural and cognitive, process-oriented strategies are advocated (ADA 2001; Kiy, 1998; Livacoli, 1995; Reiff and Reiff, 1992). Despite the American literature that suggests the role of a dietitian moving towards that of a nutrition therapist, the results from this study indicate that very few Canadian dietitians or Canadian eating disorder teams accepted dietitians working in this manner. As indicated by the strategies considered useful and the responses on the appropriateness of strategies, both dietitians and therapists seemed to have assigned the more traditional educator role to dietitians at this time. Behavioural change is a goal, but the survey respondents advocated traditional content-focused strategies. Both dietitians and therapists voiced definite feelings on this issue. For instance, one therapist stated: "While there are certainly some areas of overlap between strategies that dietitians and psychologists use (eg. active listening, attending to verbal cues etc.), there are also

some areas of distinction between the two professions. Hence, the need for both professionals with their unique body of knowledge and skills on an eating disorder treatment team. As an illustration, I could read up on how to plan a diabetic patient meal plan, but it would be inappropriate (and not to mention unethical and unprofessional) for me to do so- there are far more complexities than I could appreciate in doing this kind of work. In addition, it would be outside my role as a psychologist to move into this realm. For me, the issue of dietitians using psychological techniques (such as CBT, narrative therapy, thought stopping) is akin to this example. In my opinion, this type of work is within the psychologist's, not the dietitian's role." In a similar manner, a dietitian stated the following, "I think it really depends on workplace boundaries and skills of dietitians. Where I work, I have been instructed to leave most counselling to counsellor/ psychologists. I am supposed to deal mainly with food and not address emotional, cognitive-behavioural strategies."

The second most common response to the question of appropriateness was the need for sufficient training in order to execute the strategies described in the survey. One dietitian stated that, it is "important to understand a strategy and how to use it; adequate training/ understanding and follow through etc." and another dietitian stated that "I believe unless a dietitian is well-trained and competent, some of the above strategies should not be attempted." Both the role boundary issues and adequacy of training are key issues for what shapes eating disorder clinical dietetic practice.

As indicated by the responses from usefulness and appropriateness of strategy questions, the majority of dietitian respondents in this study did not think dietitians who work with eating disordered clients should function as a nutrition therapist. Similarly, psychotherapists also did not think dietitians should take on the role of nutrition therapists. Neither group thought dietitians were adequately

trained to do so. The recruiting strategy for psychotherapists was aimed at those who had working relationships with dietitians. The premise was that since these therapists have exposure to what dietitians do, they might have a more expansive perception regarding the role of the dietitian on the eating disorder team. A definitive professional role boundary does not seem to exist. The literature does not clarify it. Three therapist respondents from the current study confirm this from the Canadian perspective. They stated that there are areas of overlap between a dietitian and a therapist and acknowledges the lack of clear boundaries between the two disciplines. Each eating disorder team and dietitian seem to need to define their own boundaries but overall, American teams and dietitians appear to define the dietitian's role more towards that of a nutrition therapist while the results of this study indicate that Canadian teams do not. Whether Canadian dietitians move into the role of nutrition therapists as many of their American counterparts have been doing, remains to be seen.

4. Philosophy of Care

The types of strategies dietitians employed in their clinical practice is indicative of the type of role they take on. Early studies that examined the type of counselling techniques used by dietitians and dietetic interns found that they tended to use behavioural strategies less frequently than "traditional" counselling or education strategies such as giving patients standardized eating plans to follow (Vickery and Hodges, 1986). Dietitians then went from strictly giving information, to using behavioural strategies for facilitating behavioural change. Now cognitive behavioural strategies are being recommended for dietitians to use (Livacoli, 1995; Laquatra and Danish, 1995; Rappaport, 1998; Stellefson, 1999).

A recent perspective by Kiy (1998), an American dietitian, proposed that dietitians need to look at the philosophical constructs of their clinical dietetic practice. She proposed that dietitians are moving towards the "client-centred

model" of care. This model encompasses all that is established with the traditional principles of dietetic practice, mental health counselling and education. Traditional dietetic practice includes the health and food connection based on biological sciences. Mental health counselling is premised on the fact that the relationship itself is therapeutic and rapport is crucial. The education focus is not simply providing information one way, from "expert" to learner, but that learning is concurrent and reciprocal between client and dietitian. It is more of an egalitarian stance. Professional Standards for Dietitians in Canada has the mandate of client-centred care, but according to Kiy's definition, Canadian dietitians who work with eating disordered individuals are not fully practicing in this manner. In fact, some dietitians and psychotherapists in Canada are strongly opposed to the role of nutrition therapist. As one dietitians stated, "...I am against (or do not support) the use of the term 'nutrition therapist' unless the dietitian has the appropriate education and training to do psychotherapy. I believe this term can be very confusing for clients." Likewise, a therapist stated, "psychological counselling strategies can and should be done by others trained in this skill who are not trained in nutrition."

Simple expert to learner information-giving would be how a dietitian who functions within the medical model conduct nutrition counselling. The following comments made by dietitians and therapists in the current study reflect the philosophy of moving away from the medical model. Inappropriate strategies described by a therapist include being the "expert" and a dietitian stated that "being authoritarian" is inappropriate. Another dietitian stated that an inappropriate strategy is where " the counsellor is the "teacher' only, and admonishes the client for eating disorder behaviours... this is more of an 'old-style' of counselling". These quotes give credence to a more egalitarian perspective as the underlying philosophy of client care and support the education focus portion of client-centred care according to Kiy (1998).

B. Summary

In summary, barriers to following recommended clinical dietetic practice in the area of eating disorder appeared to relate to adequacy of dietitian knowledge and perceptions of professional boundaries. Familiarity with strategies and knowledge of which ones are deemed useful according to the literature were limiting factors. Perceptions of the dietitian's role boundaries had an impact on strategy usage.

Some of the limiting factors can be addressed simply and directly. For example, dietitians can be thoroughly trained on certain strategies and on the philosophical underpinnings of counselling. This would help dietitians and therapists be more receptive to the strategies a dietitian can use beyond the strictly didactic, educational ones. The current perspective of what best practices are need to be widely disseminated to both specialists and generalists dietitians who work with eating disordered clients. On the other hand, changing the perception of role boundaries is more complicated. Proper and sufficiently trained dietitians would be a starting point and in-servicing of eating disorder teams on the potential benefits for the client of having the dietitian move beyond merely providing factual information might be beneficial.

V. EATING DISORDER DIETITIAN EDUCATION IN CANADA

A. Learning Routes

In this study, the most frequently reported learning route overall was reading; but more interesting information comes up when learning routes are examined per Usage Group. Group I Usage strategies (used by 75% or more of the dietitians), were learned predominantly by intuition and dietetic training. This is markedly different from Group IV strategies, (used by less than 25% of the dietitians) where the primary learning routes were reading and then mentorship.

From his extensive experience with teaching dietitians new counselling skills, Danish has described what he considered as the best way to learn at a 1994 presentation (Danish, 1994). The first step is to name and describe the strategy and the second, to understand the rationale for it. The third step is to demonstrate the strategy, and the fourth, to practice extensively under supervision (Danish, 1994).

Results from this study indicate that dietitians were not able to name and describe the strategy. To illustrate, a dietitian stated the following regarding some behavioural and cognitive strategies: "some of the strategies I don't know/ used by name but I use them as to what I believe they are when I see the client could benefit from the strategy". Two other dietitians commented that "I may use some of these strategies, but the language used may be slightly different from what I am familiar with" and " I have learned pieces of these strategies from eclectic sources (assertivess training/CBT [cognitive behavioural therapy], stage of change, self-efficacy) supervision, mentoring, reading and conferences, but a formal course would be great." This underscores the inadequacies of the current education in Canada to prepare dietitians to work in the eating disorder area.

1. Intuition

Intuition has been defined as knowledge learning through experience without formal guidance (Schweigert, 1998). This means that dietitians were using their intuition or instincts to guide their clinical practice. Intuition as a learning route figured prominently in the top five usage strategies. This raises the concern about the proper use of counselling strategies by dietitians.

2. Dietetic Training

Strategies learned from dietetic training were used in clinical practice. This is shown by the strong positive correlation between the strategies that are learned via this route and usage according to the four usage groups. Thus nutrition counselling training as a formal part of dietetic training would be advantageous.

It is interesting that dietitians did not seem to value what was learned in the current dietetic training curriculum. There were three strategies predominantly learned from dietetic training: 24-hour recall, individualized meal planning and daily food records. Usage ranks were much higher than usefulness ratings for these three strategies. Another example of this tendency was a comment made by a dietitian in the survey. "Any strategies learned in B. Sc. (Bachelor of Science) education is not that applicable."

3. Reading

Reading was the predominant learning route for Usage Groups II, III and IV. It was significantly and negatively correlated with the mean usage percentage for Usage Groups I through to IV. This seems to indicate that simply reading about a strategy was not enough to put it into clinical practice, but it was the most readily available learning route. Reading is strictly didactic and as Danish (1994) has stated, didactic teaching is important, but there needs to be more, such as demonstration and practice. One can conclude that reading is not adequate as a sole source of learning for dietitians to be able to conduct counselling strategies.

4. Mentorship

Like reading, this learning route was negatively correlated with the mean dietitian usage percentage of the four Usage Groups. Mentorship was the second most frequently endorsed learning route after reading for Usage Groups II, III and IV. This also agrees with dietitians' statements that they had to seek their own

alternate learning routes because the usual or traditional dietetic education Canada did not meet their needs. Colleague or peer supervision and mentorship has been advocated for dietitians in the literature (Fleck, 1998; Livacoli, 1995). The findings in this study concur with these recommendations.

5. Conferences

Dietitians in Canada are learning about eating disorder nutrition counselling strategies from conferences in a limited fashion. Conferences are available, but the depth to which learning can take place is superficial due to their nature. Conferences would only be able to touch on the surface of counselling skill development. Danish (1994) has recommended that the best way to learn a counselling strategy would be to include cycles of supervised practice and feedback. Revisions of the practice with feedback are how the counselling skill gets shaped over time. This cyclical process would not be possible at a conference.

6. Courses

Courses would be a more suitable forum to train dietitians in counselling skills as it permits learning to happen over time. Practice and revision of learned skills would be possible with this learning route. According to the findings in the current study, courses were very seldom reported as a learning route for a strategy. This is likely due to the fact that courses for eating disorder nutrition counselling are not available within dietetic-specific routes. Dietitians would need to access resources or courses from other disciplines, for example, from counselling or psychology programs. Hence, accessibility and availability are likely the reasons dietitians are not using courses as a route of learning in Canada. Intensive courses on eating disorder management and nutrition counselling skills are much more available in the United States such as at specialty eating disorder programs like the Renfrew Centre in Florida.

B. Preferred and Recommended Learning Routes

Dietitians' self-stated, preferred routes of learning were to take a course or have a mentor. Reading was a distant third. This concurs with the recommendations that, for example, "formal education in behavioural strategies for promoting dietary change needs to be emphasized in dietetic training and continuing education programs. Training should include the theoretical basis for counselling, observation of professionals with expertise in behavioural medicine, extensive role playing in conjunction with feedback from a behaviourist and application in clinical and community settings (Rosal et al. 2001)." A study by Doherty, Hall, James, Roberts, and Simpson (2000) found that reading was the least effective learning aid. Peer supervision and repeating workshops were rated as most useful. This agrees with the findings in this study. Currently, dietitians in Canada are not learning in the optimal way described above.

Currently, Canadian dietitians do not have access to recommended routes of learning recommended by experts in the field (ADA 2000; Danish, 1994; Livacoli, 1995). Recommendations include more intensive modes of training such as courses and mentorship programs. With the non-standardized, non-traditional learning routes dietitians are using and the emphasis on using strategies intuitively, the question regarding whether dietitians are using strategies appropriately is a concern.

C. Satisfaction with Current Education Opportunities

Nearly three quarters of the dietitian respondents were not satisfied with current educational opportunities in Canada for eating disorder nutrition counselling. These results were not unexpected given the scarcity of education opportunities on this topic currently available in Canada. Learning opportunities available might be a local conference, specialty conferences abroad or specialized training

in large eating disorder centres. Local conferences would be less costly but only sporadically available. The conference environment would provide no more than a superficial introduction to counselling techniques. Intensive training programs in the United States would enable dietitians to enhance their eating disorder counselling skills, but it would be very expensive. This would be prohibitive to many, especially for those dietitians who are not specialists. Mentors on multidisciplinary teams could potentially be a good source of education but there are no current guidelines on how to find or work with a mentor.

D. Education Content

The most common strategy Canadian dietitians requested more training in was cognitive restructuring; but the philosophical climate of eating disorder teams in Canada might be a deterrent against dietitians using this strategy. The transtheoretical model of change and motivational interviewing were the next most frequently requested strategies and are probably less contentious for dietitians to use with respect to professional boundaries. Dietitians did not want to learn more about dietetic assessment strategies as they felt already competent in the area and this was verified by the high usage of the 24-hour recall and daily food record strategies.

The results from the literature (ADA 2000; ADA 2001; Beumont et al. 1997; Fleck, 1998; Hsu et al. 2001; Laessle et al. 1991; Stellefson, 1999) lead us to conclude that using strategies that are purely information-giving or strictly didactic may not be sufficient in the eating disorder area. Ideally, it would be beneficial for a dietitian dealing with eating disorder clients to use not just didactic educational strategies, but also cognitive and behavioural strategies. These were not strategies that dietitians were commonly using in their clinical practice. Education for dietitians on the following behavioural change strategies might be beneficial according to the opinions of clinicians: self-monitoring (Wilson and

Vitousek, 1999), stimulus control (Helm, 1995), thought stopping (Helm, 1995), mechanical eating (Fraleigh et al. 1999; Garner, 1998;), parroting (Helm, 1995) and motivational enhancement strategies (Geller et al, 2001; Treasure and Schmidt, 2001). Education on issues around confrontation and self-revelation/ self-disclosure is also warranted.

VI. CONCLUSION

Canadian dietitians who work with eating disordered clients are using rapport building and content-oriented behavioural change strategies. Process-oriented strategies as recommended in the literature were not being used much. Barriers to using recommended strategies include dietitian knowledge, the perceived professional boundary of dietitians and the philosophy of care. With the current dietetic curriculum, Canadian dietitians need to find their own way to obtain adequate training to work as a nutrition therapist. Generally, Canadian dietitians and therapists who work with eating disorder clients do not support dietitians working in the role of a nutrition therapist but perceive the educator role as more appropriate.

Overall, dietitian participants in this study are learning about eating disorder nutrition counselling strategies by reading likely due to the lack of availability of other routes in Canada. The most frequent learning routes for strategies actually used in clinical practice were dietetic training and intuition. Seventy-one percent of dietitians surveyed were dissatisfied with the current educational opportunities available in eating disorder nutrition counselling. Dietitians would like courses or mentorship programs to be available. Specific topics requested by dietitians for education were on cognitive restructuring and motivational enhancement strategies; but caution needs to be taken in light of the role boundaries assigned to dietitians by eating disorder teams in Canada.

VII. RECOMMENDATIONS

The need to enhance counselling skills for dietitians has been documented for decades (Curry-Bartley, 1986; Vickery and Hodges, 1986) and the need is still present (Brown et al. 1998; Laquatra and Danish, 2001). It is clear that a more formalized structure for eating disorder nutrition counselling education in Canada is needed. What became evident in the course of this study was that nutrition therapy as described by American dietitians appears to be an advantageous way to treat eating disordered clients, but Canadian multidisciplinary teams may not be ready for dietitians to take on this role. The educator role is more traditional and readily accepted by eating disorder team members and by the dietitians themselves. In the continuing evolution of this specialty area of dietetics, there is a need to provide our fellow team members with information that show how dietitians who are adequately trained may be able to take on more than an educator role in helping this client population.

Current educational opportunities for dietitians are inadequate in the eating disorder nutrition counselling area. Results from this study support the following exhortation. "For dietitians treating or interested in treating persons with an eating disorder, advanced educational programs, workshops and materials that include these special techniques need to be available (Whisenant and Smith, 1995)."

Results pertaining to the strategies associated with the caseload of dietitians suggest that two levels of education may be beneficial. The first level would be for the generalist dietitian and a second level for the more specialized dietitian. The specialist could be intensively trained to delve into the realm of nutrition therapy and use more complex, process-oriented strategies. The generalist may be trained on relatively easy to use, content-focused, behavioural strategies such as stimulus control or distraction/ delay techniques, recommendation of videos

or books. However, both tracks should contain a basic didactic component of the theory and philosophy behind these counselling strategies.

Rapport-building and motivational enhancement strategies would be particularly advantageous for dietitians to use in their eating disorder clinical practice with AN clients. For BN clients, not just educational, but cognitive and behavioural strategies would be useful. An education program for these strategies would enable dietitians to understand and use these strategies to the benefit of the client. Courses for dietitians that include didactic teaching and practice would be preferred.

Also needed is some way of dialoguing with our eating disorder teams on the role dietitians can take on. Dietitians might need to provide inservice education to their eating disorder team on the benefits of having a dietitian using process-oriented strategies as opposed to strictly education and content-focused strategies. The rationale would be as given by Saloff-Coste, Hamburg, and Herzog (1994) that it would free up the psychotherapist to work on more core, interpersonal issues surrounding the clients as opposed to working on food, weight and eating issues. Finally, a mentorship or supervision program for dietitians would facilitate specific discussions on day-to-day counselling topics and support dietitians who provide services to this client group.

VIII. LIMITATIONS OF STUDY

Limitations of the current study include the non-randomness of the samples, the exclusion of French-speaking dietitians, the non-response bias and that the 50 strategies studied was not the "universe of strategies". Every effort was made to elicit as many of the most pertinent strategies as possible from the literature and

the pre-testers. The external generalizability of this study is limited to English-speaking dietitians who work with eating disorder clients in Canada.

The number of dietitians in Canada who work with eating disordered clients is not large. The Eating Disorder Network of Dietitians of Canada was used as the sampling frame, but not every dietitian who worked with eating disordered clients was a member. Membership in Dietitians of Canada is a voluntary process. Approximately 80% of the dietitians in Canada are members of Dietitians of Canada; but it is not known what percentage of dietitians who work with eating disordered individuals are in the Eating Disorder Network.

IX. FUTURE RESEARCH NEEDS

From this study, we know that Canadian dietitians who work with eating disordered clients are not routinely using process-oriented behavioural change strategies. The question of whether Canadian dietitians are doing a disservice to eating disordered clients by not striving to work as nutrition therapists and not using process-oriented strategies as recommended, remains. More research is needed to clarify what is truly effective for eating disorder nutrition counselling world-wide. Specifically, for Canada, further research is needed to monitor how the dietitians' role on the eating disorder team is being realized. Also, if nutrition counselling education programs can be put in place in Canada, follow up evaluations of the eating disorder dietitians' counselling skills would be extremely valuable.

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APPENDIX A: DIAGNOSTIC CRITERIA FOR EATING DISORDERS

(Excerpts from the American Psychiatric Association's Diagnostic and Statistical Manual for Mental Disorders, 4th Edition)

EATING DISORDERS

This category of disorders in characterized by severe disturbances in eating behaviour. It consists of anorexia nervosa and bulimia nervosa which are symptomatically related. The salient feature of anorexia is a refusal to maintain a minimally normal body weight. Bulimia nervosa is characterized by repeated episodes of binge eating followed by inappropriate compensatory behaviours such as self-induced vomiting; misuse of laxatives, diuretics or other medications; fasting; or excessive exercise. An "eating disorders not otherwise specified" category is also provided for disorders that do not meet criteria for any specific eating disorder.

Anorexia Nervosa

Diagnostic criteria for anorexia nervosa:

A. Refusal to maintain body weight at or above a minimally normal weight for age and height (eg. Weight loss leading to maintenance of body weight less than 85% of that expected or failure to make expected weight gain during period of growth, leading to body weight less that 85% of expected).

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 one's body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.

D. Amenorrhea in postmenarchal women, that is, the absence of at least three consecutive menstrual cycles.

Specify type:

Restricting type: During the episode of anorexia nervosa, the person does not regularly engage in binge eating or purging behaviour.

Binge eating/ purging type: During the episode of anorexia nervosa, the person regularly engages in binge eating or purging behaviour.

Bulimia Nervosa

Diagnostic criteria for bulimia nervosa:

A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both the following: Eating in a discrete period of time, an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances, and a sense of a lack of control over eating during the episode.

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 three months.

D. Self-evaluation is unduly influenced by body shape and weight.

E. The disturbance does not occur exclusively during episodes of anorexia nervosa.

Specify Type:

Purging type: the person regularly engages in self-induced vomiting or the misuse of laxatives, diuretics or enemas.

Non-purging type: the person uses other inappropriate compensatory behaviours such as fasting or excessive exercise, but does not regularly engage in self-induced vomiting or the misuse of laxatives, diuretics or enemas.

Eating Disorder Not Otherwise Specified

This category is for disorders of eating that do not meet the criteria for any specific eating disorder. Examples include:

1. All of the criteria for anorexia nervosa are met except the individual has regular menses.

2. All of the criteria for anorexia nervosa are met except that, despite substantial weight loss, the individual's current weight is in the normal range.

3. All of the criteria for bulimia nervosa are met except binges occur at a frequency of less than twice a week or for a duration of less than 3 months.

4. An individual of normal body weight who regularly engages in inappropriate compensatory behaviour after eating small amounts of food.

5. An individual who repeatedly chews and spits out, but does not swallow large amounts of food.

6. Binge eating disorder; recurrent episodes of binge eating in the absence of the regular use of inappropriate compensatory behaviours characteristic of bulimia nervosa.

APPENDIX B: NUTRITION COUNSELLING STRATEGIES

DIETARY ASSESSMENT STRATEGIES

1. 24-Hour Recall

The 24-hour recall is a retrospective review of what was eaten in the past 24 hours but special considerations need to be taken into account when using this assessment strategy with eating disordered clients. Many eating disordered clients do not follow a typical routine with regard to their eating, so it is necessary to approach the issue of 24-hour recall with caution. A typical day may be easier for the client to describe. Among the typical days, 'good' and 'bad' days may be distinguished. Good days are usually equated with a very restricted intake and bad days are those when less control was maintained over eating or when binge eating occurred (Winocur, 1990).

2. Food Records

Daily food records or food diaries are used to keep track of food consumption, feelings, where and with whom eating takes place. Herrin (1999) stated that food records help solve mysteries such as why a patient isn't gaining weight or what eating pattern precipitates eating disorder symptoms. Three specific types of food behaviour to look out for in food records from eating disordered clients are: meal skipping, avoidance of specific forbidden foods and excessive restriction of total food intake. Identification of unstructured and disorganized eating habits, prolonged overeating or grazing patterns from food record are also extremely useful (Wilson and Vitousek, 1999). Food records can also be a powerful tool for a cognitive behavioural approach to eating disorder treatment. A food diary can be used to help clients identify behaviours, thoughts and behavioural patterns that trigger restricting, binge-eating or purging; but use of a food diary may be

contraindicated for clients with a high level of obsessionality or obsessive-compulsive disorder. It may increase their preoccupation with portion sizes, calorie counts and food selections (ADA 2000). Stang, Story and Zollman (1997) considers food records more accurate estimates of intake for the eating disordered population than retrospective methods such as the 24-hour recall.

3. Assess the 'Stage of Change'

Assessing the stage of change according to Prochaska and DiClemente's Transtheoretical Model of Change can be used to guide intervention or monitor progress. There have been different staging questionnaires constructed for use with the eating disordered population (McConnaughy, Prochaska and Velicer, 1983; Rieger et al. 2000). In the dietary assessment literature, the suggestion is that at the beginning of the counselling session, the dietitian explores where the client is at in a more informal manner. For example, the following questions can be used to assess the stage of change. "How do you feel about your current diet? Have you (ever) thought about making changes in your diet? What would you like to change about your diet now? What concerns do you have about changing your diet now? What reasons might you have to want to maintain your current diet? What would motivate you to maintain your current diet? (Rosal et al. 2001)"

4. Standardized Self-reported Scales of Eating Disorder Severity

Using a standardized measure of a self-report of eating disorder severity scale such as the Eating Disorder Inventory (EDI) or Eating Attitude Test (EAT) can be a useful tool as a measure of progress or outcome (Krey et al. 1989). For example, the EDI was used to assess the eating behaviour of patients in a nutritional consultant outpatient clinic in Italy (Iorio, Margiotta, D'Orsi, Bellini, and Boschi, 2000). Training on the appropriate use and scoring of these scales is essential (Kiy, 1998).

5. Explore Client's Belief Structure on Nutrition, Food, Weight and Health

This strategy necessitates going beyond the symptoms and what is on the surface. Focus is on clarifying the relationship between food and weight for the client. According to Saloff-Coste et al. (1993), "Safety and familiarity of the setting can allow the patient to express emotions concerning those changing belief structures. The nutrition appointment thus becomes a time for the patient to explore her world in relation to food and to feeding or nurturing herself."

6. Explore What the Eating Disorder Means To the Client

Exploring what the eating disorder means to the client looks at how the eating disorder is serving the client or examining the purpose of the eating disorder in the client's life. A contextual understanding of the client is helpful. Sometimes, the dietitian's job is not merely to take away the eating disorder symptom. For example, validation of what may lie beneath the inability to attain symptom cessation can allow the client to work through things at their own pace. According to Saloff-Coste et al. (1993), often discussing the meaning of eating disorder symptoms is appropriate in nutrition sessions; but a thorough discussion of them is in the realm of the psychotherapist.

7. Social Support Assessment

An assessment of the support networks available to the client can also be helpful. It has been listed as one of the factors that maintain dietary change (Snetselaar, 1997). There has been an association found between the social support received and well-being perceptions even amidst very stressful life events. Social support has been linked to adherence to medical regimes and the cessation of smoking (Sorensen, Stoddard, and Macario, 1998). Similarly, it may also be an important key to success for changing eating habits.

8. Assessment Based on "Recovery Indicators"

Reiff and Reiff (1992) developed a series of recovery indicators for food-weight-eating behaviours and separate ones for emotional-psychological-relational behaviours. Indicators of recovery from AN and BN in the area of food, weight and activity related behaviours are given in Table 18. Education on recovery indicators was frequently requested by dietitians who worked with eating disordered clients in the United States (Whisenant and Smith, 1995).

Table 18: Indicators of Recovery from AN and BN (Reiff and Reiff, 1992)

TOPIC	DESCRIPTION OF INDICATOR
1. Metabolic rate	• increased to genetically predetermined level
2. Variety of foods	• expanded when necessary to meet high quality protein, essential fatty acids, carbohydrate, minerals, vitamins, water and other nutrient needs
3.Food intake related body symptoms	• return to normalization of menstruation, thermoregulation, hair growth/health, skin health, dental health, energy availability, digestion/absorption functions
4. Non-tissue weight shifts	• acceptance of daily or weekly hydration changes resulting in temporary weight shifts
5. Food consumption patterns	• establishment of a pattern that results in controlled, healthful food intake
6. Hunger	ability to recognize hunger and respond by eating in an appropriate and timely manner

TOPIC	DESCRIPTION OF INDICATOR
7. Amount of time spent thinking about hunger, food, body and weight	• decreased to maximum total of 15-20% of conscious time per day
8. Exercise level	• light to moderate aerobic exercise as a maximum and without feelings of compulsion to maximize exercise as a method of purging
9. Caloric intake appropriate for weight goal and normalized metabolic rate	• as defined by basal energy expenditure and exercise factor formulas for weight maintenance, adjusted for weight gain or weight loss
10. Food fears	• ability to comfortably eat limited amounts of variety of food if desired, without fear, guilt or anxiety
11. Weight	• maintenance of weight within healthful range 90-120% Ideal Body Weight (adjusted for frame size) or between upper and lower set point thresholds.
12. Social eating	• person feels comfortable eating with family, significant others and friends and in others' homes or in restaurants when appropriate

RAPPORT BUILDING STRATEGIES

9. Reflective Listening Strategies

Reflective listening includes techniques such as clarifying, paraphrasing, affirming, interpreting, and practicing empathy. Empathy is defined as the skill for understanding another's meaning, not merely the ability to identify with a person's experience (Snetselaar, 2000). Active listening involves reflecting the

thoughts and feelings of the client without interpreting, giving solutions or providing information (Laquatra and Danish, 1995).

10. Person-Centred Approach

A person-centered counselling style had been advocated by Carl Rogers (1961). Rogers stated that the most important aspects of a therapeutic relationship are accurate empathy, unconditional positive regard and congruence. Accurate empathy means that there is correct interpretation of the client's feelings by the dietitian. Unconditional positive regard means that the dietitian accepts the client regardless of feelings expressed and congruency means that the dietitian is to be genuine and honest.

11. Attending to Client's Non-Verbal Cues

Attending to the client's non-verbal cues is an important part of "listening". It consists of many facets including: eye contact, tone of voice, facial expression, posture, touching, gestures, physical proximity, and even silence (Helm, 1995, Snetselaar, 2000). Messages communicated are 55% through body language, 38% through tone of voice and only 7% through words (Laquatra and Danish, 1995).

12. Reframing or Re-Languaging

Reframing or re-languaging is taking what the client has stated and giving it a new perspective. "With reframing, the counsellor changes the patient's interpretation of the same basic data, by offering a new one from another person's perspective. The counsellor repeats the basic observation that the participant has provided, and then offers a new hypothesis for interpreting the data (Snetselaar, 2000)."

13. Confronting

Confronting is the process of developing awareness of behaviours, thoughts and feelings that have been unnoticed or denied by the client. It is designed to identify barriers to change and it should not be adversarial. Confrontation has

been written about at length in the past. It was considered to be instrumental in promoting dietary adherence and was thought to be a high level counselling skill (Hauenstein et al. 1987). Tips and guidelines for confronting have been given by Engen, Iasello-Vailas, and Smith in 1983. They stated that mutual trust and empathy need to have been already established. The confrontation needs to be positive and constructive, not a negative or punitive response. The most effective confrontations involve specific behaviours, thoughts or feelings that the client can do something about. Despite this, in the more recent literature, confrontation appears to have gone out of favour as a counselling technique. Brown et al. (1998) found that 'constructive confrontation' was not ranked as effective by any of the diabetes dietitians they surveyed. Furthermore, Vitousek et al. (1998) stated that confrontive approaches often raises the client's resistance and in some instances, actually increase undesirable symptoms.

14. Humour

"Humour is a useful technique in nutrition counselling as a direct way of establishing rapport and as a confrontational technique. Using humour in a funny anecdote or other spontaneous funny comment can help break the ice at the beginning of an interview (Curry and Jaffe, 1998)." It can also be used to challenge cognitive distortions by extending the false cognition to the extreme degree (Corey, 1996).

15. Self-Revelation or Self-Disclosure

Self-revelation or self-disclosure is where the dietitian shares personal experience from the past or factual information about him or herself with the client. Snetselaar (1997) considered it a controversial communication skill. On the positive side, self-revelation or self-disclosure can help build the therapeutic relationship through shared experiences (Hauenstein et al. 1987) and it changes the relationship from an impersonal to a personal one (Laquatra and Danish,

1995). Self-revelation can also build rapport, increase the client's level of disclosure and close the distance between the health care professional and the client. When it is appropriately used, it could support behavioural change (Hauenstein et al. 1987). On the negative side, if not used judisciously, the dietitian could end up taking up most of the time talking about his or her experiences and learn nothing about the client (Laquatra and Danish, 1995). Another concern in the use of this strategy relates to more private individuals. Use of self-revelation too early in the counselling relationship could be problematic for them (Helm, 1995).

16. Using Immediacy

Using immediacy is the counsellor's reflection on a present aspect of a thought or feeling about him or herself, client or a significant relationship issue. "Verbal immediacy may include the listening response of reflection and summation, the active responses of confrontation and interpretation or the sharing response of self-disclosure (Snetselaar, 1997)."

17. Socratic Interview Style

The Socratic interview style uses a series of questions to help clients synthesize information and reach their own conclusions. It is friendly, curious and non-confrontational. The Socratic interview style is an egalitarian approach that is almost universally recommended for the treatment of eating disordered individuals. The method is premised on the principles that there is no single correct answer and that individual thinking is better than simply following along with the opinions of others (Vitousek et al. 1998).

18. Individualized Meal Planning

Individualized meal planning is a structured food guide using an exchange system to attain an appropriate caloric level. Usually, the eating is divided into regular eating times, for example, three meals with one to three snacks per day. Many sources have acknowledged that this strategy is useful for eating disordered clients, especially for those with binge-purge behaviours (ADA 2000; ADA 2001; APA 2000; O'Connor et al. 1988; Saloff-Coste et al. 1993). However, some authors (ADA 2000) state that meal planning would only be helpful if the client is action-oriented and committed to recovery.

19. Group Psycho-Education

"Psycho-education is the process of giving information about the nature of the disorder to foster attitudinal and behavioural change. Its principal objective is to educate clients and their families about the nature of eating disorders (Geist, Heinmaa, Stephens, Davis, and Katzman, 2000)." Typical topics include: the multidetermined nature of an eating disorder, physical and psychological sequelae, regulation of weight and consequences of dieting, normal growth and development, normal eating, body image, self-esteem, relationship issues and coping with change (Geist et al. 2000; Winocur, 1990).

Group psycho-education is often used as an adjunctive treatment for AN, but one must guard against clients competing to be the sickest or thinnest. In a group setting, there even may be some who become despondent and discouraged with seeing others suffer or go through such extreme struggles (APA 2000). BN psycho-education groups are widely used. With BN clients, the goal of psycho-education is the normalization of eating patterns, body shape and weight concerns through didactic instruction (Wilson et al. 2000). Group psycho-

education alone is thought to be effective for less severely affected BN clients (APA 2000).

20. Suggest Readings or Videos

Recommendation of certain readings or videos at home may help client increase their perspective on issues around their eating disorder. Steinhausen (1997) has stated that there are a relatively large amount of written materials available in the form of booklets and brochures written by experts in the eating disorder field. An example of the use of this strategy in nutrition counselling was given by Hsu and his colleagues. "At each session, the patient is given one or more articles to read as her homework assignment. The dietitian discusses these articles with the client at each subsequent session (Hsu, Holben and West, 1992)."

21. Include Family in Counselling

Instructing family members on issues such as the meal plan, the consequences of an eating disorder, the re-feeding process among other topics is important (Reiff and Reiff, 1992; Whisenant and Smith, 1995). In addition, "the treatment team should advise both the patient and family on the appropriate degree of parental or spousal involvement. This is critical for maintenance of appropriate boundaries, the containment of manipulative behaviours, and the avoidance of power struggles and control issues (Schebendach and Reichert-Anderson, 2000)."

22. Food Related Activity

A food related activity might involve eating out in a restaurant, cooking or going grocery shopping. Meal support provides useful information for the clinician to see first hand difficulties that a client may have with specific foods or eating rituals (APA 2000). Many eating disorder treatment programs have instituted food related activities as part of the regimen. Winocur (1990) reports that when clients are consuming a sufficient level of calories and are relatively free from their eating disorder symptoms of bingeing, purging or restricting, they start

going out to eat. Eating snacks out is the first step, then, weekly lunches are taken in restaurants. Whisenant and Smith (1997) reported that 32% of the eating disorder dietitians surveyed used "test meals" as part of their clinical practice.

BEHAVIOURAL STRATEGIES

23. Mechanical Eating

People with eating disorders have lost the ability to eat in a normal non-dieting fashion. Mechanical eating is a way of relearning to eat (Fraleigh et al. 1999). Mechanical eating involves having set time and amounts to eat regardless of emotions or fullness. "Food should be thought of as 'medication' prescribed to 'inoculate' the patient against future extreme food cravings and the tendency to engage in binge eating (Garner, Vitousek, and Pike, 1997)." Mechanical eating involves giving up personal dietary rules, eating by the clock, planning ahead, including forbidden foods and being persistent. Deviations from the eating plan, either under-eating or overeating is discouraged. This strategy tries to minimize the sense of virtue for not eating and guilt for eating. Clients are encouraged to appreciate that, urges, shifts in feelings and thoughts regarding whether or not they are to eat can not be trusted as yet. In time, when eating habits are 'normalized', internal sensations can be trusted again, but with an eating disorder, it could take months or years for appetite to normalize (Garner, 1997).

24. Contracting

Contracting involves a written agreement between the dietitian and the client. The agreement is signed by both parties and includes the client's agreement to carry out certain behaviours with rewards or punishments contingent on performance. There are differing opinions on the usefulness of this strategy. In one view, Rosal et al. (2001) stated that this strategy can help clients identify individual goals and therefore, increase the likelihood of attaining their goal; but

Reiff and Reiff (1992) do not consider behavioural contracts with agreed upon time limits to stop bingeing or purging effective in their clinical experience. Brown et al. (1998) found 59% of their diabetes dietitian respondents used contracting.

25. Operant Conditioning Strategies

Operant conditioning is based on the premise that behaviour is a voluntary process mainly controlled by consequences in the environment (Kiy, 1995). It may involve positive reinforcers such as praise, negative reinforcers such as exercise restriction or punishment such as bed rest. Current recommendations include operant conditioning strategies in hospital-based programs. The APA Clinical Guidelines stated "some positive and negative reinforcements should be built into the program (eg. required bedrest, exercise restrictions, or restrictions of off-limit privileges; these restrictions are reduced or terminated as target weights and other goals are achieved (APA 2000)." A recent dietetic textbook (Schebendach and Reichert-Anderson, 2000) described privileges of getting out of bed, using the telephone or receiving visitors being contingent on weight gain.

26. Stimulus or Environmental Control

Stimulus or environmental control is a behavioural strategy. It consists of an examination of the environment or stimulus for eating. Then plans are made for changing or eliminating cues or stimuli for the food-related behaviour (Vickery and Hodges, 1986). Environmental controls include the amount of food eaten, the pace of eating, with whom the eating takes place and where. An example of how this strategy can be used in nutrition counselling was given by Israel (1995). In nutrition sessions, clients could be asked to list all their eating disorder behaviours. Once the problematic behaviours are identified, then action-oriented problem-solving by the client and dietitian together can take place.

27. Self-Monitoring

Self-monitoring involves the recording by clients of changes in behaviour. It may not provide complete information on dietary intake, but it is useful in that it allows for the examination of eating and food behaviours in the natural environment (Wilson and Vitousek, 1999). Keeping track of weight, shape, or food circumstances, for example, may enable the client to identify triggers for eating disorder symptoms. Self-monitoring is widely recommended in the dietetic literature as an effective behavioural change technique (Baldwin and Falciglia, 1995; Kiy, 1995). It is also recommended in the eating disorder literature as a central part of a cognitive behavioural therapy treatment. Evaluating the client's self-monitoring records allows the dietitian to discuss in partnership with the client the potential triggers of eating disordered behaviour and areas of challenge (Rosal et al, 2001; Wilson and Vitousek). Whisenant and Smith (1997) found that 59% of dietitians who worked with eating disordered clients used this strategy.

28. Tailoring

Tailoring is the process of fitting new, desired behaviours to the client's daily life. The goal is to minimize the changes clients have to make to their usual routine (Snetselaar, 1989). In 1985, Glanz listed tailoring as a strategy important for maintaining a dietary change. Brown et al. (1998) found that 90% of their diabetes dietitian respondents reported "tailoring the diet to the client's lifestyle".

29. Shaping

Shaping is the gradual building of skills necessary to change behaviour. "The client proceeds in steps to achieve the set criterion and gradually reach full performance. It is considered a form of behaviour modification. Successive approximations of the desired response are rewarded until the new behaviour is learned. Research has shown that behaviour modification is useful in eliminating inappropriate behaviours and produce goal-directed responses (Snetselaar,

1989)." Reinforcement can take many forms. Examples of social reinforcement would be approval through verbal or nonverbal signs. Examples of tangible reinforcement would be money, clothes, or fun activities such as skiing (Snetselaar, 1989).

30. Modeling

Modeling is a form of imitation. It "occurs in four steps. A client should first observe the model's behaviour (ie. eating, speech, thought process) to a sufficient degree where some of how the model performs is remembered. Next, the client may reproduce the behaviour. Finally, clients should receive feedback on their newly learned behaviour. It is through the process of observation- remembering-reproduction and feedback that new behaviours are formed. Once achieved, new behaviours become part of the client's coping repertoire (Kiy, 1995)." Models can be from the environment or from the media. Through a largely unconscious process, people discriminate between models and choose the most desirable models available (Snetselaar, 1997). Most often, models share certain attributes such as age, sex, race, and attitude. Moreover, models are usually prestigious, competent and often work in distinguished, important positions (Kiy, 1995).

31. Behavioural Role Plays/ Simulation

Behavioural role play or simulation is where two or more people act out a situation that is a problem for the client. This enables the client to try out different responses. This strategy provides the client with an opportunity to practice new behaviours in a safe environment. For example, a client who was unable to say no to an undesired piece of chocolate cake without feeling guilty can practice saying 'no' in the safety of the dietitian's office (Kiy, 1995).

32. Imagery

Imagery is a process where the counsellor assists the client in recalling or thinking of a problematic situation, then dealing with it mentally. This strategy requires the client to think abstractly (Kiy, 1995). Warpeha and Harris (1993) stated that imaging techniques can be very helpful in difficult situations where eating disorder symptoms are triggered.

33. Real-Life Performance Based Technique

Real-life performance based technique is similar to role-playing but the strategy involves a newly learned behaviour that is conducted in the natural environment. This strategy can teach a client new ways of coping with high risk eating situations. Kiy (1995) gives an example of the use of this strategy. A client who tended to overeat at holidays noted that 'it's just not a holiday meal unless I am full'. After three months of rehearsing new behaviours, identifying triggers to eating, 'trying on new thoughts', he experienced an attitude change about holiday eating. He no longer felt the need to eat until overfull.

34. Relaxation Training

Relaxation training is used to decrease anxiety in tense situations. There are many techniques available. One example would be to have the client practice some deep breathing exercises by regulating their breathing muscles prior to going out to an anxiety-provoking restaurant meal (Curry and Jaffe, 1998). Twenty-one percent of eating disorder dietitians surveyed reported using this strategy (Whisenant and Smith, 1995).

35. Assertiveness Training

Assertiveness training increases the client's behavioural repertoire so that they can make the choice to behave assertively or not. A further goal in this type of training would be to teach people to express themselves in a way that reflect sensitivity to the feelings and rights of others. Providing skills and training in

addition to information was advocated for maintaining dietary change and assertiveness training was one of the skills recommended (Glanz, 1985). Twenty-five percent of eating disorder dietitians surveyed by Whisenant and Smith (1995) reported using this strategy.

COGNITIVE-BEHAVIOURAL/ RATIONAL EMOTIVE STRATEGIES

36. Distraction/ Delaying

Distraction uses alternate activities to keep clients from undesirable behaviours such as bingeing or purging. Examples of alternative activities may be reading a book, calling a friend or writing a letter. Before the urge is experienced, the client must compile a list of alternate behaviours, which may help distract the client from the undesirable behaviour. Delay can be used in combination with distraction. If the distraction list is not effective, the client might try to delay for 10-15 minutes. If the client is able to wait 10 minutes, often the urge to eat goes away (Kiy, 1995).

37. Narrative Techniques

The narrative approach has been described by White and Epston (1990). It involves externalizing or personifying the eating disorder. "This externalizing approach encourages clients to objectify or personify the problems that they experience. In this process, the problem becomes a separate entity and thus external to the person or relationship that was ascribed as the problem (White and Epston, 1990)." In nutrition counselling, objectifying the eating disorder could enable the client to separate themselves from the eating disorder in order to 'fight' against it. Separating the client's identity from the eating disorder can be a way to encourage helpful, healthful action changes or a way to challenge the client's beliefs about food, weight, shape or eating (Lyon, 1996a).

38. Thought Stopping

Thought stopping is a cognitive strategy where negative thoughts are identified and interrupted. Helm (1995) gives an example of how this strategy can be used in a nutrition counselling session. The client is asked to allow any thoughts related to the eating disorder behaviour to come to mind. When they notice a self-defeating thought, the client says: "Stop!" This is repeated until the client is able to avert self-defeating thoughts covertly. Another example of how this strategy may be used in nutrition counselling was given by Israel (1995). Clients are asked write down in one column all the negative thoughts result in devaluing the client, slowing progress or predicting certain failure. In the next column, the dietitian and the client, jointly come up with responses to stop that negative thought.

39. Parroting

Parroting is the strategy where the client repeats certain phrases to themselves to extinguish negative behaviours. "Parroting provides clients a forum to reprogram previously held maladaptive beliefs. These beliefs can only be reprogrammed when new, more adaptive statements are practiced and frequently repeated. For example, reciting statements such as: 'This is not hunger, go to sleep.' or 'Food will not help me feel less depressed or less anxious.' may be helpful (Kiy, 1995)."

40. Cognitive Restructuring Techniques

Cognitive restructuring techniques are used to facilitate different thinking patterns. Challenging distorted thinking is extremely useful in eating disorder counselling. Stellefson stated that there are three stages in restructuring thoughts. They include identifying the client's thoughts relevant to the disorder, checking their thinking for cognitive errors, and challenging those thoughts that lead to undesirable consequences. Once the client has learned to identify their distorted thinking, the client then can begin to see how this way of thinking effects their

emotions and behaviour. Examples of distorted thinking often seen in eating disordered clients are given in Table 19.

"The goal of the dietitian is to help the client dispute irrational beliefs and develop an awareness that such beliefs are absurd or unachievable. This might be accomplished by comparing facts with fantasies, observing real life phenomenon, trying out new behaviours and waiting for the 'horrible' event (Kiy, 1995)." In 1993, Saloff-Coste et al. stated that the nutrition counselling session was "a place to challenge cognitive distortions that lead to a dysfunctional relationship with food", but dietitians in general have not be using this technique unless they were working towards or had their doctorate degrees (Brown et al. 1998).

Table 19: Distorted Thinking (Stellefson, 1999)

DISTORTED THINKING	DESCRIPTION / DEFINITION
FILTERING	• Filtering is where the individual only takes part of the information and dwells on that. This distortion is characterized by tunnel vision. It is focusing on one element of a situation to the exclusion of everything else. A person with an eating disorder might be told that "she is too thin, except her thighs are big, like a runner". The client only hears that her thighs are big and never hears 'she is too thin'. She leaves the situation depressed about her big thighs. Filtering exaggerates all her fears, losses and irrational thoughts.
DICHOTOMOUS THINKING	• Dichotomous thinking is where everything is black or white. There are no in-betweens or moderations. For example, if you eat one cookie, then you might as well eat the whole box.
OVERGENERALIZING	• Overgeneralization is where the individual takes one situation and applies it in every instance whether appropriate or not. "One slip with eating means, for example, "I'll never to be able to control myself."
CATASTROPHIZING	• This error involves expecting the worst possible outcome as the most likely. It typically involves a major distortion like: "If I gain weight, I'll become obese and totally unattractive."
PERSONALIZATION	• The person is always comparing him or herself to others or perceiving they are the centre or cause of other's actions. ie. "My parents divorced because I could not keep them together."

DISTORTED THINKING	DESCRIPTION / DEFINITION
DISCOUNTING	• With this type of thinking, an individual can not give his or herself credit or accept positive feedback.
THE SHOULDS, OUGHTS AND MUSTS	• The person acts from a set of inflexible rules.

41. Reality Therapy

Reality therapy can be used in conjunction with a variety of other techniques. Although it has not been described in the eating disorder literature, it has been described in the nutrition counselling literature as a 'common-sense' approach to counselling. In explaining this approach, the originator, William Glasser describes the client as being unsuccessful in meeting their needs. Glasser postulates that individuals often select ineffective behaviours leading ultimately to failure. Reality therapy advocates ascertaining what an individual wants, needs and how the unfulfilled needs may be met (Vickery and Hodges, 1986).

Table 20: Eight Steps in Reality Therapy (Adapted from Vickery and Hodges, 1986)

EIGHT STEPS IN REALITY THERAPY	**EXAMPLE** **Client: 16 Year old female with bulimia nervosa**
1. Make friends	Get to know the teen in the context of her life, friends, family and school; not just the eating disorder.
2. Ask: What are you doing now?	Discuss the eating, weight, shape and bulimic issues
3. Ask: Is it helping?	Discuss whether the bulimic activities are getting her what she wants.
4. Make a plan to do better	If she is not satisfied with how things are going for her, look at what she wants to do. For example, if her daily bingeing and vomiting is making her isolate herself from her friends. Enquire whether the client wants to make a concrete plan to see a friend after school just once as a starting point.
5. Get a commitment	Have the client decide if she wants to try to not binge-purge one afternoon in order to go out with a friend.
6. Do not accept excuses	Failure is not recognized. The client merely tries again or tries something different.
7. Do not punish but do not interfere with reasonable consequences	Client may not be able to stop bingeing, but she may be able to stop purging.
8. Never give up.	The nutritionist is a 'stable' force who continues to have confidence that the client can do what she sets out to do.

(42) Work on Promoting Client Self-Efficacy

Self-efficacy is when a patient believes in his or her ability to carry out change in a specific situation. In a very recent perspective on dietetic practice, Lightfoot (2003) stated that by focusing on self-efficacy, counselling sessions can be more effective due to facilitating behaviour change and increasing positive health-related management strategies. This concurs with what Rosal et al. (2001) said about facilitating dietary change in some individuals. They stated that the lack of motivation to make behavioural change for some, will be due to low self-efficacy.

43. Work on Promoting Client Self-Empowerment

"The process of empowerment is defined as the discovery and development of one's inherent capacity to be responsible for one's own life. People are empowered when they have sufficient knowledge to make rational decisions, sufficient control and resources to implement their decisions and sufficient experience to evaluate the effectiveness of their decisions (Funnell et al. 1991)." Empowerment tools include counselling strategies that develop nutrition knowledge, disease knowledge, self-confidence, empathy, sensitivity, and flexibility (Curry and Jaffe, 1998).

MOTIVATIONAL STRATEGIES

44. Using Small Increments When Goal Setting

Many authors have described this strategy as an easy but essential one for behavioural change (Baldwin and Falciglia, 1995; Helm, 1995; Omizo and Oda, 1988; Stellefson, 1999). It is an action-oriented strategy which helps increase self-efficacy (Baldwin and Falciglia, 1995) and sets the client up for success.

45. Discuss Barriers for Behavioural Change

This strategy involves looking at factors that might prevent a client from making the desired behavioural change. For example, a barrier for entering into treatment might involve cost, transportation, childcare, shyness and time. Other less tangible roadblocks include comfort, sense of belonging, cultural appropriateness, fear of change (Snetselaar, 1997). This strategy also helps with rapport building. Brown et al.'s 1998 study found that 53% of diabetes dietitians surveyed used this strategy.

46. Involvement of Client in Decision-Making

Reiff and Reiff (1992) highly recommended this strategy. They described the process of asking the client to think of changes that they are able to make then adding suggestions from the dietitian as a process that works very well. Involving clients in decision-making seem to be a strategy dietitians are very comfortable in using. Nearly all (99.5%) of the dietitians surveyed by Hauenstein et al. (1987) reported using this strategy and 95.4% of those surveyed Brown et al. (1998) reported using this strategy. Brown et al. (1998) also found that the use of this strategy was dependent on practice setting. It was used less often by dietitians in hospitals. In the eating disorder area, one must keep in mind that the severity of the eating disorder and the treatment setting may limit the amount of decision-making possible by the client (ADA 2000).

47. Motivational Interviewing

Motivational interviewing has been recommended for use by dietitians in the dietary counselling literature (Ni Mhurchu, Margetts and Speller, 1998) and the eating disorder literature (Killick and Allen, 1997). "Motivational Interviewing is a technique used with some success in addiction counselling. This is a style of counselling which is designed to help build commitment to reach a decision to change. Motivational interviewing has five key components: express

empathy, avoid argument, roll with the resistance, develop discrepancy and support self-efficacy (Snetselaar, 2000)." It has also been considered a necessary first step with those who are unmotivated or ambivalent (Stellefson, 1999) and these states are typical of many eating disordered clients.

To date, there has been no reported studies assessing the effectiveness of the motivational interviewing style of nutrition intervention in eating disordered clients. However, a randomized, controlled trial comparing a motivational interviewing approach and a standard approach to dietary intervention was conducted for hyperlipidemia clients. There was no significant difference in outcome found between the two approaches but both groups achieved significant changes from baseline in reported dietary knowledge, behaviour and body weight (Ni Mhurchu et al. 1998). The authors theorized that the reason for the lack of difference seen in the outcome between the two approaches could be due to the fact that 80% of the clients were in the "action" stage. Therefore, less cognitive processes and more behavioural processes were likely needed by this group. Ambivalence did not appear to play a very big role for these clients. Upon review of the sessions, different strategies were found between the two approaches. In the motivational interviewing sessions, more reflective listening and non-judgemental giving of information was found. It was also significantly longer than the other approach. The standard nutrition intervention sessions contained more advice giving and patient resistance.

48. Pros and Cons List

The use of a pros and cons list appears to be a useful intervention strategy when the eating disordered client is not yet in an action-oriented frame of mind. It is considered a motivational enhancement strategy (Prochaska et al. 1994). For example, perceived advantages and disadvantages of AN symptoms are shown in Table 21.

Table 21: Perceived Advantages and Disadvantages of Anorexia Nervosa Symptoms (Adapted from Garner, Vitousek and Pike, 1997)

ADVANTAGES	**DISADVANTAGES**
I just like the way I feel when I am thin.	Being thin takes up so much time and energy
I get more respect and compliments.	My hair is falling out.
I like the attention.	I worry about being able to have children.
I like the clothes I can wear	I can't eat a lot of things I like.
Having fat on my body is really disgusting- now I don't have to put up with it.	I am so tired of being hungry.
I feel healthier and more energetic when I am low in weight.	I hate thinking about food all the time.
I feel more confident and capable when I am thin.	There is too much pressure in social situations where eating is expected.
I like the feeling of self-control.	People hassle me about it all the time.
I feel more powerful when I don't eat.	My mood is negative and unstable.
What everyone else tries to do, I am showing I can do better.	Sometimes I have a hard time concentrating.

49. Transtheoretical Model Change/ Stages of Change Model

The transtheoretical model of change was proposed by Prochaska and DiClemente (Prochaska, and DiClemente, 1984). It is a model that has been actively researched in the health care field in the past decade (Blake, Turnbull and Treasure, 1997; Geller and Drab, 1999; Ni Mhurchu et al. 1998; Ward, Troop,

Todd and Treasure, 1996). According to this model, there are five distinct "stages of change" (Table 22) and ten commonly used "processes of change" (Table 23). This model has been written about extensively in both the dietetic and eating disorder literature. It also had been successfully used in smoking cessation, weight control, dietary fat intake and exercise (Treasure and Schmidt, 2001).

Table 22: The Stages of Change (Sandoval, Heller, Wiese, and Childs, 1994)

STAGE	**CHARACTERISTICS**
PRE-CONTEMPLATION	• unaware, ignore, or do not acknowledge the potential risks in their behaviour
CONTEMPLATION	• individuals are seriously thinking about changing and anticipate doing so in the next 6 months • they are evaluating the pros and cons without yet reaching a decision that will lead them to action • plans are not well laid out and are usually ineffective and quickly abandoned • if individual gets stuck in this phase, it is called chronic contemplation
PREPARATION	• individual is taking small but significant steps toward the desired behaviour
ACTION	• individual is modifying their risky behaviour overtly and progressively
MAINTENANCE	• individual continues to work at the new behaviour to prevent relapse

Figure 23: The Processes of Change (Adapted from Sigman-Grant, 1996)

PROCESS (Stages Observed)	**DEFINITION**
CONSCIOUSNESS RAISING (Contemplation)	Increases information, understanding and feedback about self and problem
SELF RE-EVALUATION (Contemplation, Maintenance)	Assesses one's feelings about oneself with respect to the problem
DRAMATIC RELIEF (Contemplation)	Expresses and experiences feelings about one's problems and solution
ENVIRONMENTAL RE-EVALUATION (Contemplation, Maintenance)	Assesses how one's problems affect physical condition and social environment
SELF LIBERATION (Preparation, Action, Maintenance)	Consciously chooses and commits to act, believes in ability to change
HELPING RELATIONSHIPS (Action, Maintenance)	Is open and trusting about one's problems with someone who cares

PROCESS (Stages Observed)	**DEFINITION**
CONTINGENCY MANAGEMENT (REINFORCEMENTS) (Action, Maintenance)	Rewards self for making changes (or is rewarded by others for making changes)
COUNTER-CONDITIONING (Action, Maintenance)	Substitutes alternatives for problem anxiety-related behaviours
STIMULUS CONTROL (Action, Maintenance)	Avoids stimuli that produce problem behaviours
SOCIAL LIBERATION (Maintenance)	Increases available alternatives for non-problem behaviours in society

The transtheoretical model of change appears to be well suited for the eating disorder client because of the tendency for this population to be ambivalent about therapeutic interventions. "An eating disorder seems to be made up of a constellation of four components: bingeing, cognitive, restriction and compensatory (Geller and Drab, 1999)." Geller and Drab's study found that eating disordered clients are usually in action over the bingeing, in contemplation regarding the cognitive, and pre-contemplation over the restricting and compensatory behaviours.

Ward et al. (1996) found that the transtheoretical model of change was applicable in a severely affected inpatient eating disorder population. The authors suggest that the processes of change be split into two subcategories, one being "doing" or

behavioural processes and the other being "thinking" or cognitive and affective processes. Ward et al. (1996) also found that consciousness raising and self-re-evaluation were related to the contemplation stage. These two processes accounted for 58% of the variance found in that stage. Counter conditioning and stimulus control correlated with the action stage and those two processes accounted for 40% of the variance in that stage. Self re-evaluation was negatively associated with precontemplation and it was the most frequently used process to achieve change. Next was helping relationships, then consciousness raising. The least used processes were reinforcement management and stimulus control. These two strategies are mostly behavioural and they necessitate an action-oriented mindset. Interestingly enough, the same two processes were also the least used for self-changing BN clients (Stanton, Rebert, and Zinn, 1986). The most used process for BN clients was helping relationships (Stanton et al. 1986).

Blake et al. (1997) studied the transtheoretical model in a group of eating disordered outpatients. Some had AN and others had BN. Consciousness raising and dramatic relief were emphasized in the precontemplation stage. Self-liberation was emphasized between contemplation and action. Reinforcement management, counter conditioning, helping relationships and stimulus control were emphasized in the action stage. AN clients are unlikely to find their eating disorder-symptoms disturbing, on the other hand, BN and BED clients are more likely to be disturbed by their eating disorder symptoms. Hence, AN individuals may need more "thinking" strategies such as self-re-evaluation whereas BN and BED individuals are likely more ready for "doing" strategies such as stimulus or environmental control. Stellefson (1999) has suggested different counselling strategies for each stage of change (Table 24).

Table 24: Counselling Strategies Using the Stages of Change Model For Eating Disordered Clients (Stellefson, 1999)

STAGE	GOAL	COUNSELLING STRATEGY
Pre-contemplation	Personalize risk	1. Establish rapport and supportive atmosphere 2. Assess motivation 3. Assess nutrition knowledge 4. Assess physical and nutritional status 5. Explore costs and benefits of change
Contemplation	Increase self-efficacy	1. Discuss behaviours to change; prioritize 2. Identify barriers and coping strategies 3.Discuss food records 4. Identify support system 5. Review what to expect as the client changes their behaviour
Preparation	Initiate change	1. Use cognitive behavioural exercises 2. Discontinue or reduce frequency of purging practices, viewing in mirror, weighing self (inappropriate hyper-vigilant self monitoring)

STAGE	GOAL	COUNSELLING STRATEGY
Action	Commitment to change	1. Encourage more healthy eating, reinforce decision 2. Explore/ promote self-rewarding behavior 3. Discuss high-risk situations and regain control after a 'slip' 4. Reinforce self-confidence and abilities
Maintenance/ Relapse	Continued commitment	1. Discuss upcoming high-risk situations; strategies 2. Promote self-rewarding behaviours 3. Improve coping skills 4. Improve relapse prevention strategies 5. Schedule follow-up to maintain changes

Along with the many proponents of the transtheoretical model of change, problems with this model have also been articulated. Problems relate to the arbitrary chronological cut-offs to define stages (Povey, Connor, Sparks, James, and Shepherd, 1999; Treasure and Schmidt, 2001), fluidness of the stage of change during and between sessions (Treasure and Schmidt, 2001) and complexity of an eating disorder that is comprised of more than one behaviour (Treasure and Schmidt, 1999). Therefore, the idea that matching the stage of change to clinical intervention directed at the specific processes of change as dictated by the model may be more complex than anticipated.

50. Problem-Solving Counselling Approach

D'Zurilla and Goldfried originated the "problem-solving" approach as a form of behavioural modification in 1971. Subsequently, this approach was written about as an eclectic counselling model by Gilliland, James, and Bowman in 1989. Curry and Jaffe applied the "problem-solving" counselling approach to nutrition counselling in their 1998 textbook. The five steps in this approach described by Curry and Jaffe involve: building the counselling foundation, defining the problem multi-dimensionally, looking for client-generated alternatives, reaching a commitment, and evaluating the process.

ID# 9 ___

NUTRITION COUNSELLING STRATEGIES: DIETITIAN PERSPECTIVE

I. The Counselling Strategies

The following is a list of counselling strategies that have been described in the nutrition counselling or eating disorder literature. Some are more widely used than others. Please find enclosed a list of definitions for the strategies. If you work or have worked with eating disordered clients, please answer the following questions based on your most current nutrition practice in the eating disorder area; then return in the envelope provided. If you have never worked with eating disordered clients, please send the survey back blank. Thank you for your assistance with this project.

NUTRITION COUNSELLING STRATEGIES	-A- **To what extent have you used this strategy?** *(circle one)* *0=never 1=rarely 2=sometimes 3=often 4=always*	-B- **How useful do you think this strategy is for nutrition counselling?** *(circle one)* *0=don't know/have not used 1=not useful 2=somewhat useful 3=quite useful 4=extremely useful*	-C- **If you knew about this strategy, how did you learn about it?** *(circle as many as applicable)* *0=unfamiliar with strategy 1=used intuitively 2=from dietetic training 3=read about 4=learned at a conference 5=took course 6=learned from a mentor 7=other, please explain on back of page*
DIETARY ASSESSMENT STRATEGIES		**For use in assessing dietary patterns**	
1. 24 Hour Recall	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
2. Daily Food Records	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
3. Assess the "Stage of Change"	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
4. Standardized self-reported inventories of eating disorder severity scales (ie.EAT or EDI)	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
5. Explore client's belief structure on nutrition, food, weight or health	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
6. Explore what the eating disorder means to the client	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
7. Social support assessment	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
8. Assessment based on "Recovery Indicators"	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7

NUTRITION COUNSELLING STRATEGIES	*-A-* **To what extent have you used this strategy?** *(circle one)* *0=never* *1=rarely* *2=sometimes* *3=often* *4=always*	*-B-* **How useful do you think this strategy is for nutrition counselling?** *(circle one)* *0=don't know/have not used* *1=not useful* *2=somewhat useful* *3=quite useful* *4=extremely useful*	*-C-* **If you knew about this strategy, how did you learn about it?** *(circle as many as applicable)* *0=unfamiliar with strategy* *1=used intuitively* *2=from dietetic training* *3=read about* *4=learned at a conference* *5=took course* *6=learned from a mentor* *7=other, please explain on back of page*
RAPPORT BUILDING STRATEGIES	**Used early on in the dietitian-client relationship**		
9. Reflective Listening Strategies	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
10. Person-Centered Approach	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
11. Attending to client's non-verbal communications	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
12. Reframing or "Re-languaging"	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
13. Confronting	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
14. Humour	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
15. Self-revelation/ Self disclosure	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
16. Using Immediacy	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
17. Socratic Interview Style	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
INSTRUCTIONAL STRATEGIES	**For teaching nutritional concepts**		
18. Individualized Meal Planning	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
19. Group Psychoeducation	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
20. Suggest Readings or Videos	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
21. Include family in counselling	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
22. Do food related activities with clients	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*
BEHAVIOURAL STRATEGIES	**Based on theories related to behavioural therapy**		
23. Mechanical eating	*0 1 2 3 4*	*0 1 2 3 4*	*0 1 2 3 4 5 6 7*

NUTRITION COUNSELLING STRATEGIES	*-A-* **To what extent have you used this strategy?** *(circle one)* *0=never* *1=rarely* *2=sometimes* *3=often* *4=always*	*-B-* **How useful do you think this strategy is for nutrition counselling?** *(circle one)* *0=don't know/have not used* *1=not useful* *2=somewhat useful* *3=quite useful* *4=extremely useful*	*-C-* **If you knew about this strategy, how did you learn about it?** *(circle as many as applicable)* *0=unfamiliar with strategy* *1=used intuitively* *2=from dietetic training* *3=read about* *4=learned at a conference* *5=took course* *6=learned from a mentor* *7=other, please explain on back of page*
24. Contracting	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
25. Operant conditioning strategies	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
26. Stimulus or Environmental control	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
27. Self-monitoring	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
28. Tailoring	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
29. Shaping	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
30. Use Modeling	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
31. Behavioural Role Plays or Simulations	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
32. Imagery	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
33. Real-Life Performance Based Technique	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
34. Relaxation Training	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
35. Assertiveness Training	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
COGNITIVE-BEHAVIOURAL / RATIONAL-EMOTIVE STRATEGIES **Strategies based on theories related to "cognitive-behavioural therapies" or "rational-emotive-behavioural" therapies**			
36. Distraction/ Delaying	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
37. Narrative Techniques	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
38. Thought Stopping	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
39. Parroting	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
40. Cognitive Restructuring Techniques	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7

NUTRITION COUNSELLING STRATEGIES	*-A-* **To what extent have you used this strategy?** *(circle one)* *0=never 1=rarely 2=sometimes 3=often 4=always*	*-B-* **How useful do you think this strategy is for nutrition counselling?** *(circle one)* *0=don't know/have not used 1=not useful 2=somewhat useful 3=quite useful 4=extremely useful*	*-C-* **If you knew about this strategy, how did you learn about it?** *(circle as many as applicable)* *0=unfamiliar with strategy 1=used intuitively 2=from dietetic training 3=read about 4=learned at a conference 5=took course 6=learned from a mentor 7=other, please explain on back of page*
41. Reality Therapy Techniques	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
42. Work on promoting client self-efficacy	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
43. Work on increasing client self-empowerment	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
MOTIVATIONAL STRATEGIES	**Strategies related to changes in motivation**		
44. Use small increments when goal setting	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
45. Discuss barriers for behaviour change	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
46. Involve client in decision-making	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
47. Motivational Interviewing	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
48. Pros and cons list	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
49. Transtheoretical Model of Change	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7
50. "Problem-Solving Counselling" approach	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6 7

51. Comments or additional counselling strategies:

_____

_____

52. In your opinion, are there specific strategies which would be inappropriate for dietitians to use in nutrition counselling sessions? Please explain.

_____

_____

_____

53. What are the top 3 strategies that you would most like to learn more about (if any)?

_____

_____

_____

54. What are the 3 strategies that you least want to learn more about?

_____

_____

_____

55. How satisfied are you with the current continuing education opportunities for nutrition counselling skills? *(check one)*

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Neutral
- ☐ Dissatisfied
- ☐ Very dissatisfied

56. What is/ are your preferred route(s) for education opportunities to enhance nutrition counselling skills? *(check as many as appropriate)*

- ☐ none (not needed)
- ☐ reading
- ☐ taking a course
- ☐ watching a video
- ☐ having a mentor
- ☐ other (please describe)_____

II. Demographic Information

57. Degrees obtained *(check all that apply, and specify specialization)*

- ☐ Bachelor Degree _____
- ☐ Masters Degree _____
- ☐ Ph.D. Degree _____

58. Related licenses or certifications _____

59. Number of years working with eating disordered individuals:

- ☐ 0 to 5 years
- ☐ 6 to 10 years
- ☐ 11 to 15 years
- ☐ 16 years or more

60. If you have worked with eating disordered clients, approximately, what percentage of your eating disorder caseloads are/were:

(a) Anorexia Nervosa Clients _____%

(b) Bulimia Nervosa Clients _____%

(c) Eating Disorders Not Otherwise Specified _____%

(d) Binge Eating Disordered Clients _____%

61. Caseload: On average, how many eating disorder nutrition counselling sessions do you/were you conducting per month? *(please check one)*

- ☐ 0 –4
- ☐ 5-10
- ☐ 11 or more

62. If you have worked with eating disordered clients, is/was your eating disorder nutrition practice located in: *(check all that apply)*

- ☐ an inpatient setting
- ☐ a partial hospital or day treatment setting
- ☐ a residential setting
- ☐ an outpatient (hospital) setting
- ☐ an outpatient (community) setting
- ☐ none of the above, please explain _____

APPENDIX D: THERAPIST SURVEY AND COVER LETTER

ID #7 ___

NUTRITION COUNSELLING STRATEGIES SURVEY: PSYCHOTHERAPIST PERSPECTIVE

I. NUTRITION COUNSELLING STRATEGIES

The following is a list of counselling strategies that have been described in the nutrition counselling or eating disorder literature. Some are more widely used than others. Please find enclosed a list of definitions for the strategies. From your perspective as a psychotherapist, please indicate how useful each strategy would be for a dietitian to use in counselling eating disordered clients. After completion, please return survey in the envelope provided.

NUTRITION COUNSELLING STRATEGIES	**How useful do you think this strategy is for dietitians to use in nutrition counselling?** *0=don't know /not familiar with strategy 1=not useful 2=somewhat useful 3=quite useful 4=extremely useful*
Dietary Assessment Strategies **For use in assessing dietary patterns**	
1. 24 Hour Recall	*0 1 2 3 4*
2. Daily Food Records	*0 1 2 3 4*
3. Assessing the "Stages of Change"	*0 1 2 3 4*
4. Standardized self-reported inventories of eating disorder severity scales (ie.EAT or EDI)	*0 1 2 3 4*
5. Explore client's belief structure on nutrition, food, weight or health	*0 1 2 3 4*
6. Explore what the eating disorder means to the client	*0 1 2 3 4*
7. Social support assessment	*0 1 2 3 4*
8. Assessment based on recovery indicators	*0 1 2 3 4*
Rapport Building Strategies **Used early on in the dietitian-client relationship**	
9. Reflective Listening Strategies	*0 1 2 3 4*
10. Person-Centered Approach	*0 1 2 3 4*
11. Attending to client's non-verbal communications	*0 1 2 3 4*

NUTRITION COUNSELLING STRATEGIES	**How useful do you think this strategy is for dietitians to use in nutrition counselling?** *0=don't know /not familiar with strategy* *1=not useful* *2=somewhat useful* *3=quite useful* *4=extremely useful*
12. Reframing or "Re-languaging"	*0 1 2 3 4*
13. Confronting	*0 1 2 3 4*
14. Humour	*0 1 2 3 4*
15. Self-revelation/ Self disclosure	*0 1 2 3 4*
16. Using Immediacy	*0 1 2 3 4*
17. Socratic Interview Style	*0 1 2 3 4*
Instructional Strategies **For teaching nutritional concepts**	
18. Individualized Meal Planning	*0 1 2 3 4*
19. Group Psychoeducation	*0 1 2 3 4*
20. Suggest Readings or Videos	*0 1 2 3 4*
21. Include family in counselling	*0 1 2 3 4*
22. Do food related activities with clients	*0 1 2 3 4*
Behavioural Strategies **Based on theories related to behavioural therapy**	
23. Mechanical Eating	*0 1 2 3 4*
24. Contracting	*0 1 2 3 4*
25. Operant Conditioning strategies	*0 1 2 3 4*
26. Stimulus or Environmental Control	*0 1 2 3 4*
27. Self-monitoring	*0 1 2 3 4*
28. Tailoring	*0 1 2 3 4*
29. Shaping	*0 1 2 3 4*

NUTRITION COUNSELLING STRATEGIES	**How useful do you think this strategy is for dietitians to use in nutrition counselling?** *0=don't know /not familiar with strategy* *1=not useful* *2=somewhat useful* *3=quite useful* *4=extremely useful*
30. Use Modeling	*0 1 2 3 4*
31. Behavioural Role Plays or Simulations	*0 1 2 3 4*
32. Imagery	*0 1 2 3 4*
33. Real-Life Performance Based Technique	*0 1 2 3 4*
34. Relaxation Training	*0 1 2 3 4*
35. Assertiveness Training	*0 1 2 3 4*
Cognitive-Behavioural /Emotive Strategies **Strategies based on cognitive-behavioural therapies or rational emotive behavioural therapies**	
36. Distraction /Delaying	*0 1 2 3 4*
37. Narrative Techniques	*0 1 2 3 4*
38. Thought Stopping	*0 1 2 3 4*
39. Parroting	*0 1 2 3 4*
40. Cognitive Restructuring Techniques	*0 1 2 3 4*
41. Reality Therapy Techniques	*0 1 2 3 4*
42. Work on promoting client self-efficacy	*0 1 2 3 4*
43. Work on increasing client self-empowerment	*0 1 2 3 4*
Motivational Strategies **Strategies related to changes in motivation**	
44. Use small increments when goal setting	*0 1 2 3 4*
45. Discuss barriers for behaviour change	*0 1 2 3 4*
46. Involve client in decision-making	*0 1 2 3 4*
47. Motivational Interviewing	*0 1 2 3 4*

NUTRITION COUNSELLING STRATEGIES	**How useful do you think this strategy is for dietitians to use in nutrition counselling?** *0=don't know /not familiar with strategy* *1=not useful* *2=somewhat useful* *3=quite useful* *4=extremely useful*
48. Pros and cons list	*0 1 2 3 4*
49. Transtheoretical Model or Stages of Change	*0 1 2 3 4*
50. "Problem-Solving Counselling" approach	*0 1 2 3 4*

51. Comments or additional strategies:

_____

_____

_____

52. In your opinion, are there specific strategies which would be inappropriate for dietitians to use in nutrition counselling sessions? Please explain.

_____

_____

_____

_____

II. DEMOGRAPHIC INFORMATION

53. Number of years working with eating disordered individuals
(please circle appropriate letter)

(a) 0 to 5 years

(b) 6 to 10 years

(c) 11-15 years

(d) 16 years or more

54. What discipline do you belong to: *(circle all that apply)*

(a) Psychology

(b) Psychiatry

(c) Social Work

(d) Nursing

(e) Other, please specify_____

55. Are you part of: *(circle all that apply)*

(a) a formal multidisciplinary team (for example, a permanent team where the core members are consistent)

(b) informal eating disorder teams (for example, a temporary team, ad hoc team pulled together for a particular client)

(c) other, please explain _____

56. Is your Eating Disorder Practice in: *(circle all that apply)*

(a) an inpatient setting

(b) a partial hospital or day treatment setting

(c) an outpatient (hospital) setting

(d) an outpatient (community) setting

(e) none of the above, please explain

_____

DEFINITIONS OF NUTRITION COUNSELLING STRATEGIES

Dietary Assessment Strategies

1. **24 Hour Recall** = retrospective review of what was eaten in the past 24 hours or typical intake in a 24-hour period
2. **Daily Food Record** = food diaries to keep track of food consumption, possible purges, feelings, where and with whom eating takes place.
3. **Assess the "Stage of Change"** = as described by Prochaska and DiClemente in order to guide intervention or monitor progress (the "stages of change" include: pre-contemplation, contemplation, preparation, action and maintenance)
4. **Standardized self-reported scales of eating disorder severity (ie. EAT or EDI)** = is a measure of eating disorder severity based on self-reported eating symptoms; EAT is the Eating Attitude Test, EDI is the Eating Disorder Inventory
5. **Explore client's belief structure on nutrition, food, weight and health** = focus on clarifying the relationship between food and weight for the client; for example, use of Reiff and Reiff's "Belief Challenge Chart" published in their 1992 book, "Eating Disorders, Nutrition Therapy in the Recovery Process"
6. **Explore what the eating disorder means to the client** =for example, looking at how the eating disorder is serving the client or the purpose of the eating disorder in the client's life
7. **Social support assessment**= assessing the support networks available to client, ie. friends, family, etc.
8. **Assessment based on "Recovery Indicators"** = recovery indicators for food/weight/eating behaviours and emotional/psychological/ relational indicators as described in Reiff and Reiff's "Eating Disorders, Nutrition Therapy in the Recovery Process"

Rapport-Building Strategies

9. **Reflective Listening Strategies** = active listening, using techniques such as clarifying, paraphrasing, affirming, interpreting and practicing empathy (empathy is defined as the skill for understanding another's meaning, not merely the ability to identify with a person's experience)
10. **Person-Centered Approach** = according to Carl Rogers, a therapeutic relationship based on unconditional positive regard, being genuine and honest and expressing accurate empathy
11. **Attending to client's non-verbal cues** = for example, body language (arms crossed, direct eye contact), proxemics (where the client sits in relation to the counsellor), and paralinguistics (volume or pitch of client's voice)
12. **Reframing or "Re-languaging"**= re-wording things to show in a different light; strategy in which the counsellor changes the client's interpretation of the same basic data that he or she has given and offers a new viewpoint
13. **Confronting** = the process of developing an awareness of behaviours, thoughts and feelings that have been unnoticed or denied by client; designed to identify hindrances to change; it is not adversarial
14. **Humour** = a funny anecdote or other spontaneous humour can help break the ice at the beginning of an interview; can be used in challenging cognitive distortions

15. **Self-revelation or Self-disclosure** = a sharing response where the counsellor verbally gives information about themselves while maintaining professional boundaries
16. **Using Immediacy** = counsellor's reflection on a present aspect of a thought or feeling about self, client or significant relationship issue
17. **Socratic Interview Style** = uses a series of questions to help clients synthesize information and reach conclusions on their own; friendly, curious and non-confrontational. For example: "I wonder what would happen if..."

Instructional Strategies

18. **Individualized Meal Planning** = a structured, food guide using an exchange system; caloric level which is divided into regular eating times (ie. 3 meals and 0 to3 or more snacks per day)
19. **Group Psychoeducation** = Groups where information about the nature of the disorder or problem for the purpose of fostering attitudinal and behavioural change; for example, information on the physical or mental urges around eating
20. **Suggest readings or videos** = recommend certain readings or viewing certain videos that may help client increase their perspective on issues around their eating disorder
21. **Include family in counselling** = instructing family members on issues such as the meal plan, the consequences of an eating disorder etc.
22. **Do food related activities with client** = for example: eat out in a restaurant, go grocery shopping or cook with client

Behavioural Strategies

23. **Mechanical Eating** = having set time and amounts to eat regardless of feelings, food is treated like "medicine"
24. **Contracting** = involves a written agreement between nutrition counsellor and client. The agreement is signed by both parties and includes the client's agreement to carry out certain behaviours with rewards and/or punishments contingent on performance.
25. **Operant Conditioning Strategies** = Positive Reinforcer are the methods by which new behaviours are rewarded, therefore, they are the means by which more appropriate behaviours increase in frequency; Negative Reinforcers increases a certain outcome by trying to avoid a negative outcome and Punishments serve to decrease the frequency of a particular behaviour
26. **Stimulus or Environmental Control** = discuss stimulus and environment for eating, for example, the amount of food eaten at once, pace of eating at with whom and where eating takes place, etc.
27. **Self-monitoring** = recording by client of changes in behaviour for example, keeping track of weight, shape or food circumstances; this can help identify triggers for eating disorder symptoms
28. **Tailoring** = the process of fitting the behaviour to the client's daily routine; minimizing the number of changes the individual must make
29. **Shaping** =gradual building of skills necessary to change a behaviour; client proceed in steps to achieve the set criterion and gradually reach full performance
30. **Use Modeling** = is a form of imitation; examples: environmental models (client, counsellor or others), symbolic models via audio or videotapes

31. **Behavioural Role Plays or Simulations** = (may be a behavioural or cognitive-behavioural-emotive technique) two or more people act out a situation that is a problem for the client; provides opportunities to try out responses
32. **Imagery** = (may be a behavioural or cognitive-behavioural/emotive technique) process by which a counsellor assists clients in recalling or thinking of a problematic situation, then mentally deal with it
33. **Real-Life Performance Based Technique** = similar to role playing but the treatment is to practice newly learned behaviours in their natural environment. (ie. conduct an 'experiment' with behavioural change in the client's day to day life)
34. **Relaxation Training** = used to decrease anxiety in tense situations
35. **Assertiveness Training** = (can be a behavioural technique or cognitive-behavioural technique) to increase people's behavioural repertoire so that they can make the choice to behave assertively or not. Another goal is to teach people to express themselves in a way that reflects sensitivity to the feelings and rights of others

Cognitive-Behavioural /Rational-Emotive Strategies

36. **Distraction/ Delaying** = well before urge to participate in any behaviour which is somehow undesirable, the client is to compile a list of alternate behaviours which may help distract the client from the urge, ie. Read a book, watch TV, call a friend, write a letter
37. **Narrative Techniques** = Approach as described by White and Epston, involves externalizing or personifying the eating disorder so that the client can "fight" against the eating disorder and "not comply with its demands"
38. **Thought Stopping** = appropriate positive thoughts are identified and can be used in place of negative thinking; For example: First the client allows any thoughts related to eating behaviour to come to mind. When the client notices a self-defeating thought, the client stops by saying: "Stop". This is repeated until client is able to avert self-defeating thoughts with only covert interruptions.
39. **Parroting** = client repeats certain phrases to themselves to extinguish negative behaviours
40. **Cognitive Restructuring Techniques** = used to facilitate different thinking patterns; eg. challenging distorted thinking; examples of distorted thinking= 1) filtering, 2) dichotomous thinking, 3)overgeneralization, 4) mind reading, 5) catastrophizing, 6) personalization, 7)discounting, 8) self-fulfilling prophecy, 9)"the shoulds, oughts and musts"
41. **Reality Therapy Techniques** = as developed by William Glasser; the steps include establishing rapport then asking what the client is doing right now, followed by asking if what they are doing is helping and if not, make a plan to do better
42. **Work on promoting client self-efficacy** = key concept of self-efficacy is when a patient believes in his or her ability to carry out change
43. **Work on increasing client self-empowerment** = Key concept of empowerment models include: 1) emphasis on the whole person, 2) emphasis on personal strengths rather than deficits; 3) client to select learning needs; 4) setting shared or negotiated goals; 5) leadership and decision-making transferred to client; 6) client generation of problems and solutions; 7) analysis of failures as problems rather than personal deficits; 8) discovery

and enhancement of internal motivation towards health; 9) emphasis on client-developed support systems

Motivational Strategies

44. **Using small increments when goal setting** = goal set with small steps, especially at the beginning of the nutrition counselling process
45. **Discuss barriers for behaviour change** = look at what might be some road block to making the desired change in behaviour
46. **Involve client in decision-making** = For example, in goal setting, invite the client to make short-term goals that are meaningful to them.
47. **Motivational Interviewing** = counselling style designed to achieve the willingness to change within a client; 5 key points: express empathy, avoid argument, roll with the resistance, develop discrepancy and support self-efficacy
48. **Pros and Cons list**= for eating disorder or eating disorder symptom; for example, a pro may be that the client feels powerful when she is thin but a con may be that it isolates her from her friends
49. **Transtheoretical Model of Change**= the goal is to match nutrition intervention processes to the client's "stage of change" (precontemplation, contemplation, preparation, action, and maintenance); for example, to give information only without expecting behaviour change when the client is a pre-action stage such as contemplation or pre-contemplation
50. **"Problem-Solving Counselling" approach** = An eclectic counselling method that combines elements from several theories of counselling as developed by Gilliland, 1989; Steps: 1. build the counselling foundation, 2. define the problem multi-dimensionally, 3. client to generate alternatives, 4. reach a commitment, 5. evaluate the process

APPENDIX G: PRE-TEST QUESTIONNAIRE

The Pre-test Response Form

1. How long did it take you to complete the survey?

2. Were the questions easy to understand? If there were difficult to understand questions, please list them and explain why.

3. Were the definitions hard to understand? Which ones?

4. Were there any "leading" questions (for example, you sensed that you knew what answer was desired)?

5. Did the 6 categories of strategies (rapport-building, instructional, assessment...) make sense? Is there a more logical grouping?

6. Were there strategies in the wrong category? (for example, motivational interviewing should be in cognitive-behavioural/ emotive strategies)?

7. Were there any possible responses that were missing from the questions?

8. Other comments?

Thank you for your help on this project.

APPENDIX H: PRE-NOTIFICATION AND REMINDER LETTERS

Cairns

Subject: A survey on Eating Disorder Nutrition Counselling from Jadine Cairns

Dear Eating Disorder Network Members:

I am writing to let you know that I will be sending out a survey which attempts to address the education needs of dietitians who work with eating disordered clients. This survey is part of my masters thesis and will be coming to you via the mail in the next few weeks. I am interested in what dietitians in Canada are currently doing with nutrition counselling for eating disordered clients and how they can best be supported in the challenging task of working with this client population. Your input on this survey would be greatly appreciated.

Sincerely,

Jadine Cairns, RDN

APPENDIX I: TYPES OF STRATEGIES ACCORDING TO USAGE GROUPS

The 50 strategies examined in this study consisted of eight assessment strategies, seven rapport-building strategies and 35 behavioural change strategies. Of the 35 behavioural change strategies, 5 were strictly didactic, 13 were content-oriented and 17 were process-oriented. Table 25 depicts the strategies according to type of strategies and usage group.

Table 25: Type of Strategies According to Usage Groups
*I, II, III, & IV refers to the Dietitian Usage Groups I= 75-100%, II=50-74%, III=25-49% and IV=0-24%.

ASSESSMENT STRATEGIES		
*I - 24-hour recall -social support assessment -explore belief structure *II - daily food records - explore eating disorder meaning -assess stage of change *IV- assessment based on recovery indicators - self-report indicators of eating disorder severity		
RAPPORT BUILDING STRATEGIES		
*I - reflective listening strategies - non-verbal communications - person-centred approach *II - humour *III -immediacy -Socratic interview style *IV -self-disclosure/ self-revelation		
BEHAVIOURAL CHANGE STRATEGIES		
Strictly Didactic Strategies	**Strictly Content-Oriented Strategies**	**Includes Process-Oriented Strategies**
*II- meal planning *III- recommend book or video - involve family in counselling -Group psycho-education - food related activity	*I- small increments when goal- setting -involve client in decision-making -discuss barriers for behavioural change *II- mechanical eating -self-monitoring -stimulus control - distraction/delay - shaping - confronting - tailoring *IV - contracting - real life performance technique - operant conditioning	*II – promote self-efficacy - increase self-empowerment - reframing - transtheoretical model of change - motivational interviewing *III- cognitive restructuring - pros and cons list - thought stopping - narrative techniques - reality therapy - problem-solving counselling *iV - assertive training - use modeling - parroting - imagery - relaxation training - behavioural role plays

APPENDIX J: CASELOAD AND USAGE CROSS-TABULATIONS

Table 26: Chi-Square Contingency Table for Caseload and Usage of Mechanical Eating

	0-4 Eating Disorder Nutrition Counselling Sessions/ Month	5-10 Eating Disorder Nutrition Counselling Sessions/ Month	11 or More Eating Disorder Nutrition Counselling Sessions/ Month	Total
Did Not Really Use[a] Mechanical Eating	11	3	3	17
Definitely Used[b] Mechanical Eating	11	9	24	44
Total	22	12	27	61
Comments	11/22=50%* of dietitians with caseloads of 0-4 sessions/month used Mechanical Eating	9/12=75%* of dietitians with caseloads of 5-10 sessions/ month used Mechanical Eating	24/27=88%* of dietitians of 11 or more sessions/ month used Mechanical Eating	

*These percentages are significantly different at $p < 0.05$
Chi-Square=9.181; df=2

[a] "Not really use" is defined as strategy ratings that were "0=never", "1=rarely" or "2=sometimes" used

[b] "Definitely Used" is defined as a strategy that has been rated as "3=often" or "4=always" used

Table 27: Chi-Square Contingency Table for Caseload and Usage of Narrative Strategies

	0-4 Eating Disorder Nutrition Counselling Sessions/ Month	5-10 Eating Disorder Nutrition Counselling Sessions/ Month	11 or More Eating Disorder Nutrition Counselling Sessions/ Month	Total
Did Not Really Use[a] Narrative Strategies	20	9	16	45
Definitely Used[b] Narrative Strategies	1	3	11	15
Total	21	12	27	60
Comments	1/21= 5%* of dietitians with caseloads of 0-4 sessions/month used Narrative Strategies	3/12=25%* of dietitians with caseloads of 5-10 sessions/month used Narrative Strategies	11/27=41%* of dietitians with caseloads of 11 or more sessions/month used used Narrative Strategies	

*These percentages are significantly different at $p < 0.05$
Chi-Square=8.155; df=2

[a] "Not really use" is defined as strategy ratings that were "0=never", "1=rarely" or "2=sometimes" used

[b] "Definitely Used" is defined as a strategy that has been rated as "3=often" or "4=always" used

Table 28: Chi-Square Contingency Table for Caseload and Usage of Pros and Cons List

	0-4 Eating Disorder Nutrition Counselling Sessions/ Month	5-10 Eating Disorder Nutrition Counselling Sessions/ Month	11 or More Eating Disorder Nutrition Counselling Sessions/ Month	Total
Did Not Really Use[a] Pros and Cons List	16	9	12	37
Definitely Used[b] Pros and Cons List	5	3	15	23
Total	21	12	27	60
Comments	5/21= 24%* of dietitians with caseloads of 0-4 sessions/month used Pros and Cons Lists	3/12=25%* of dietitians with caseloads of 5-10 sessions/month used Pros and Cons Lists	15/27=56%* of dietitians with caseloads of 11 or more sessions/month used Pros and Cons Lists	

*These percentages are significantly different at $p < 0.05$
Chi-Square=6.164; df=2

[a] "Not really use" is defined as strategy ratings that were "0=never", "1=rarely" or "2=sometimes" used
[b] "Definitely Used" is defined as a strategy that has been rated as "3=often" or "4=always" used

Table 29: Chi-Square Contingency Table for Caseload and Usage of Reframing

	0-4 Eating Disorder Nutrition Counselling Sessions/ Month	5-10 Eating Disorder Nutrition Counselling Sessions/ Month	11 or More Eating Disorder Nutrition Counselling Sessions/ Month	Total
Did Not Really Use[a] Reframing	13	4	5	22
Definitely Used[b] Reframing	9	8	22	39
Total	22	12	27	61
Comments	9/22= 41%* of dietitians with caseloads of 0-4 sessions/month used Reframing	8/12=67%* of dietitians with caseloads of 5-10 sessions/month used Reframing	22/27=81%* of dietitians with caseloads of 11 or more sessions/month used Reframing	

*These percentages are significantly different at $p < 0.05$
Chi-Square=8.703; df=2

[a] "Not really use" is defined as strategy ratings that were "0=never", "1=rarely" or "2=sometimes" used

[b] "Definitely Used" is defined as a strategy that has been rated as "3=often" or "4=always" used

Table 30: Chi-Square Contingency Table for Caseload and Usage of Self-Revelation

	0-4 Eating Disorder Nutrition Counselling Sessions/ Month	5-10 Eating Disorder Nutrition Counselling Sessions/ Month	11 or More Eating Disorder Nutrition Counselling Sessions/ Month	Total
Did Not Really Use[a] Self-Revelation	15	7	25	47
Definitely Used[b] Self-Revelation	7	5	2	14
Total	22	12	27	61
Comments	7/21= 33%* of dietitians with caseloads of 0-4 sessions/month used Self-Revelation	5/12=42%* of dietitians with caseloads of 5-10 sessions/month used Self-Revelation	2/27=7%* of dietitians with caseloads of 11 or more sessions/month used Self-Revelation	

*These percentages are significantly different at $p < 0.05$
Chi-Square=7.044; df=2

[a] "Not really use" is defined as strategy ratings that were "0=never", "1=rarely" or "2=sometimes" used

[b] "Definitely Used" is defined as a strategy that has been rated as "3=often" or "4=always" used

Table 31: Chi-Square Contingency Table for Education and Usage of Exploring Eating Disorder Meaning

	Bachelor Degree Only	More than Bachelor Degree	Total
Did Not Really Use[a] Explore Eating Disorder Meaning Strategy	17	3	20
Definitely Used[b] Explore Eating Disorder Meaning Strategy	22	19	41
Total	39	22	61
Comments	56% (22/39) of dietitians who had a bachelor degree only explored the meaning of the eating disorder with their clients	86% (19/22) of dietitians who had more than a bachelor degree explored the meaning of the eating disorder with their clients	

*These percentages are significantly different at $p < 0.05$

Chi-Square= 5.727; df=1; p=0.017

[a] "Not really use" is defined as strategy ratings that were "0=never", "1=rarely" or "2=sometimes" used

[b] "Definitely Used" is defined as a strategy that has been rated as "3=often" or "4=always" used

Table 32: Chi-Square Contingency Table for Education and Usage of Mechanical Eating

	Bachelor Degree Only	More than Bachelor Degree	Total
Did Not Really Use[a] Mechanical Eating	7	10	17
Definitely Used[b] Mechanical Eating	32	12	44
Total	39	22	61
Comments	82% (32/39) of dietitians who had a bachelor degree only used Mechanical Eating	55% (12/22) of dietitians who had more than a bachelor degree used Mechanical Eating	

*These percentages are significantly different at $p < 0.05$
Chi-Square= 5.294; df=1; p=0.021

[a] "Not really use" is defined as strategy ratings that were "0=never", "1=rarely" or "2=sometimes" used
[b] "Definitely Used" is defined as a strategy that has been rated as "3=often" or "4=always" used

Table 33: Chi-Square Contingency Table for Education and Usage of Individual Meal Planning

	Bachelor Degree Only	More than Bachelor Degree	Total
Did Not Really Use[a] Individual Meal Planning	7	9	16
Definitely Used[b] Individual Meal Planning	32	13	45
Total	39	22	61
Comments	82% (32/39) of dietitians who had a bachelor degree only used Individual Meal Planning	59% (13/22) of dietitians who had more than a bachelor degree used Individual Meal Planning	

*These percentages approach significance; Chi-Square= 3.832; df=1; p=0.050

[a] "Not really use" is defined as a strategy ratings that were "0=never", "1=rarely" or
"2=sometimes" used

[b] "Definitely Used" is defined as a strategy that has been rated as "3=often" or "4=always" used

APPENDIX K: LEARNING ROUTES ACCORDING TO DIETITIAN USAGE GROUPS

Table 34: Dietitian Usage Group I Learning Route of Nutrition Counselling Strategies

USAGE BY RANK Strategy Name *(%)*	**LEARNING ROUTES** *% (n)*						
	Used Intuitively	**Dietetic Training**	**Reading**	**Conference**	**Course**	**Mentor**	**Other**
1. Use small increments when goal setting *(100%)*	**57% (35/61)*	*39% (24/61)*	*38% (23/61)*	*20% (12/61)*	*10% (6/61)*	*34% (21/61)*	*3% (2/61)*
2. Involve client in decision-making *(97%)*	**53% (32/61)*	*46% (28/61)*	*43% (26/61)*	*28% (17/61)*	*12% (7/61)*	*33% (20/61)*	*2% (1/61)*
3. Discuss barriers for behaviour change *(93%)*	*46% (28/61)*	*31% (19/61)*	**49% (30/61)*	*25% (15/61)*	*13% (8/61)*	*38% (23/61)*	*3% (2/61)*
4. Reflective Listening Strategies *(92%)*	**40% (24/60)*	**40% (24/60)*	*37% (22/60)*	*23% (14/60)*	*27% (17/60)*	*25% (15/60)*	*7% (4/60)*
5. 24 Hour Recall *(84%)*	*8% (5/63)*	**94% (59/63)*	*10% (6/63)*	*2% (1/63)*	*8% (5/63)*	*13% (8/63)*	*0% (0/63)*
6. Explore client's belief structure on nutrition, food, weight or health *(82%)*	**55% (32/58)*	*17% (10/58)*	*41% (24/58)*	*26% (15/58)*	*10% (6/58)*	*31% (18/58)*	*5% (3/58)*
7. Social support assessment *(77%)*	**51% (30/59)*	*37% (22/59)*	*29% (17/59)*	*20% (12/59)*	*5% (3/59)*	*25% (15/59)*	*2% (1/59)*

USAGE BY RANK Strategy Name *(%)*	LEARNING ROUTES % *(n)*						
	Used Intuitively	**Dietetic Training**	**Reading**	**Conference**	**Course**	**Mentor**	**Other**
8. Attending to client's non-verbal communications *(77%)*	**62%* *(38/61)*	*39%* *(24/61)*	*20%* *(12/61)*	*21%* *(13/61)*	*18%* *(11/61)*	*25%* *(15/61)*	*2%* *(1/61)*
9. Person-Centred Approach *(77%)*	**61%* *(31/51)*	*27%* *(14/51)*	*27%* *(14/51)*	*10%* *(5/51)*	*14%* *(7/51)*	*25%* *(13/51)*	*2%* *(1/51)*

* Designates the most frequently chosen learning route for the strategy

Note 1: Excludes missing data
Note 2: Usefulness and Learning Route Data excludes respondents who were unfamiliar with strategy
Note 3: Learning Route results did not add up to 100% because learning routes were not mutually exclusive

Table 35: Dietitian Usage Group II Learning Route of Nutrition Counselling Strategies

USAGE BY RANK Strategy Name *(%)*	**LEARNING ROUTES** *% (n)*						
	Used Intuitively	**Dietetic Training**	**Reading**	**Conference**	**Course**	**Mentor**	**Other**
10. Individualized Meal Planning *(74%)*	*13% (8/60)*	**85% (51/60)*	*22% (13/60)*	*15% (9/60)*	*5% (3/60)*	*27% (16/60)*	*2% (1/60)*
11. Work on promoting client self-efficacy *(73%)*	*40% (20/50)*	*18% (9/50)*	**42% (21/50)*	*26% (13/50)*	*14% (7/50)*	*38% (19/50)*	*2% (1/50)*
12. Mechanical Eating *(73%)*	*10% (6/58)*	*24% (14/58)*	**55% (32/58)*	*45% (26/58)*	*5% (3/58)*	*43% (25/58)*	*3% (2/58)*
13. Tailoring *(72%)*	**53% (28/53)*	*40% (21/53)*	*17% (9/53)*	*15% (8/53)*	*8% (4/53)*	*26% (14/53)*	*0% (0/53)*
14. Work on increasing client self-empowerment *(72%)*	*34% (17/50)*	*14% (7/50)*	**46% (23/50)*	*32% (16/50)*	*18% (9/50)*	**46% (23/50)*	*2% (1/50)*
15. Self-monitoring *(69%)*	*22% (12/55)*	*40% (22/55)*	**49% (27/55)*	*31% (17/55)*	*7% (4/55)*	*36% (20/55)*	*4% (2/55)*
16. Assessing the "Stages of Change" *(69%)*	*8% (5/60)*	*13% (8/60)*	*52% (31/60)*	**57% (34/60)*	*20% (12/60)*	*18% (11/60)*	*3% (2/60)*
17. Daily Food Records *(68%)*	*6% (4/62)*	**89% (55/62)*	*16% (10/62)*	*5% (3/62)*	*8% (5/62)*	*18% (11/62)*	*3% (2/62)*
18. Explore what the eating disorder means to the client *(68%)*	**43% (25/58)*	*9% (5/58)*	*38% (22/58)*	*26% (15/58)*	*12% (7/58)*	*36% (21/58)*	*7% (4/58)*
19. Reframing or "Re-languaging" *(65%)*	*36% (21/59)*	*22% (13/59)*	*27% (16/59)*	*20% (12/59)*	*25% (15/59)*	**37% (22/59)*	*5% (3/59)*

Table 35: Dietitian Usage Group II Learning Route of Nutrition Counselling Strategies

USAGE BY RANK Strategy Name *(%)*	**LEARNING ROUTES** *% (n)*						
	Used Intuitively	**Dietetic Training**	**Reading**	**Conference**	**Course**	**Mentor**	**Other**
10. Individualized Meal Planning *(74%)*	*13% (8/60)*	**85% (51/60)*	*22% (13/60)*	*15% (9/60)*	*5% (3/60)*	*27% (16/60)*	*2% (1/60)*
11. Work on promoting client self-efficacy *(73%)*	*40% (20/50)*	*18% (9/50)*	**42% (21/50)*	*26% (13/50)*	*14% (7/50)*	*38% (19/50)*	*2% (1/50)*
12. Mechanical Eating *(73%)*	*10% (6/58)*	*24% (14/58)*	**55% (32/58)*	*45% (26/58)*	*5% (3/58)*	*43% (25/58)*	*3% (2/58)*
13. Tailoring *(72%)*	**53% (28/53)*	*40% (21/53)*	*17% (9/53)*	*15% (8/53)*	*8% (4/53)*	*26% (14/53)*	*0% (0/53)*
14. Work on increasing client self-empowerment *(72%)*	*34% (17/50)*	*14% (7/50)*	**46% (23/50)*	*32% (16/50)*	*18% (9/50)*	**46% (23/50)*	*2% (1/50)*
15. Self-monitoring *(69%)*	*22% (12/55)*	*40% (22/55)*	**49% (27/55)*	*31% (17/55)*	*7% (4/55)*	*36% (20/55)*	*4% (2/55)*
16. Assessing the "Stages of Change" *(69%)*	*8% (5/60)*	*13% (8/60)*	*52% (31/60)*	**57% (34/60)*	*20% (12/60)*	*18% (11/60)*	*3% (2/60)*
17. Daily Food Records *(68%)*	*6% (4/62)*	**89% (55/62)*	*16% (10/62)*	*5% (3/62)*	*8% (5/62)*	*18% (11/62)*	*3% (2/62)*
18. Explore what the eating disorder means to the client *(68%)*	**43% (25/58)*	*9% (5/58)*	*38% (22/58)*	*26% (15/58)*	*12% (7/58)*	*36% (21/58)*	*7% (4/58)*
19. Reframing or "Re-languaging" *(65%)*	*36% (21/59)*	*22% (13/59)*	*27% (16/59)*	*20% (12/59)*	*25% (15/59)*	**37% (22/59)*	*5% (3/59)*

USAGE BY RANK Strategy Name (%)	LEARNING ROUTES % (n)						
	Used Intuitively	**Dietetic Training**	**Reading**	**Conference**	**Course**	**Mentor**	**Other**
20. Stimulus or Environmental Control (65%)	25% (14/57)	25% (14/57)	*51% (29/57)	35% (20/57)	9% (5/57)	37% (21/57)	2% (1/57)
21. Distraction /Delaying (61%)	11% (6/53)	15% (8/53)	*66% (35/53)	32% (17/53)	13% (7/53)	42% (22/53)	6% (3/53)
22. Humour (60%)	*93% (57/61)	5% (3/61)	7% (4/61)	8% (5/61)	7% (4/61)	18% (11/61)	0% (0/61)
23. Shaping (57%)	*53% (24/45)	24% (11/45)	29% (13/45)	22% (10/45)	18% (8/45)	33% (15/45)	0% (0/45)
24. Transtheoretical Model or Stages of Change (54%)	14% (8/57)	16% (9/57)	*60% (34/57)	46% (26/57)	21% (12/57)	23% (13/57)	2% (1/57)
25. Motivational Interviewing (53%)	41% (18/44)	16% (7/44)	*48% (21/44)	34% (15/44)	11% (5/44)	32% (14/44)	5% (2/44)
26. Confronting (50%)	*42% (25/59)	8% (5/59)	31% (18/59)	15% (9/59)	19% (11/59)	32% (19/59)	7% (4/59)

* Designates the most frequently chosen learning route for the strategy

Note 1: Excludes missing data
Note 2: Usefulness and Learning Route Data excludes respondents who were unfamiliar with strategy
Note 3: Learning Route results did not add up to 100% because learning routes were not mutually exclusive

Table 36: Dietitian Usage Group III Learning Route of Nutrition Counselling Strategies

USAGE BY RANK Strategy Name (%)	LEARNING ROUTES % (n)						
	Used Intuitively	Dietetic Training	Reading	Conference	Course	Mentor	Other
27. Suggest Readings or Videos (47%)	*42% (21/50)	18% (9/50)	36% (18/50)	20% (10/50)	4% (2/50)	18% (9/50)	4% (2/50)
28. Cognitive Restructuring Techniques (40%)	11% (5/45)	13% (6/45)	*47% 21/45	27% (12/45)	20% (9/45)	38% (17/45)	4% (2/45)
29. Pros and cons list (39%)	30% (15/50)	12% (6/50)	*50% (25/50)	26% (13/50)	10% (5/50)	34% (17/50)	4% (2/50)
30. Include family in counselling (39%)	31% (17/55)	*33% (18/55)	24% (13/55)	22% (12/55)	7% (4/55)	25% (14/55)	9% (5/55)
31. "Problem-Solving Counselling" approach (38%)	32% (12/38)	32% (12/38)	*34% (13/38)	26% (6/38)	8% (3/38)	21% (8/38)	3% (1/38)
32. Group Psycho-education (38%)	12% (5/41)	27% (11/41)	*49% (20/41)	27% (11/41)	15% (6/41)	44% (18/41)	5% (2/41)
33. Do food related activities with clients (30%)	30% (15/50)	28% (14/50)	*38% (19/50)	32% (16/50)	2% (1/50)	26% (13/50)	10% (5/50)
34. Using Immediacy (28%)	*78% (28/36)	8% (3/36)	11% (4/36)	8% (3/36)	17% (6/36)	25% (9/36)	0% (0/36)
35. Thought Stopping (26%)	8% (3/37)	11% (4/37)	*51 (19/37)	35% (13/37)	16% (6/37)	38% (14/37)	5% (2/37)
36. Socratic Interview Style (26%)	*46% (17/37)	11% (4/37)	19% (7/37)	30% (11/37)	22% (8/37)	38% (14/37)	5% (2/37)

USAGE BY RANK Strategy Name (%)	LEARNING ROUTES % (n)						
	Used Intuitively	**Dietetic Training**	**Reading**	**Conference**	**Course**	**Mentor**	**Other**
37. Narrative Techniques (26%)	8% (3/36)	11% (4/36)	*58% (21/36)	36% (13/36)	19% (7/36)	44% (16/36)	3% (1/36)
38. Reality Therapy Techniques (26%)	*43% (15/35)	11% (4/35)	31% (11/35)	14% (5/35)	11% (4/35)	40% (14/3)5	3% (1/35)

* Designates the most frequently chosen learning route for the strategy

Note 1: Excludes missing data
Note 2: Usefulness and Learning Route Data excludes respondents who were unfamiliar with strategy
Note 3: Learning Route results did not add up to 100% because learning routes were not mutually exclusive

Table 37: Dietitian Usage Group IV Learning Route of Nutrition Counselling Strategies

USAGE BY RANK Strategy Name (%)	LEARNING ROUTES % (n)						
	Used Intuitively	Dietetic Training	Reading	Conference	Course	Mentor	Other
39. Self-revelation/ Self disclosure (23%)	*81% (48/59)	3% (2/59)	14% (8/59)	12% (7/59)	10% (6/59)	17% (10/59)	3% (2/59)
40. Contracting (21%)	9% (5/54)	17% (9/54)	39% (21/54)	33% (18/54)	7% (4/54)	*44% (24/54)	7% (4/54)
41. Assertiveness Training (20%)	25% (9/36)	8% (3/36)	*50% 18/36	8% (3/36)	17% (6/36)	39% (14/36)	8% (3/36)
42. Use Modeling (20%)	31% (11/35)	26% (9/35)	31% 11/35	20% (7/35)	3% (1/35)	*34% (12/35)	6% (2/35)
43. Real-Life Performance Based Technique (17%)	26% (9/35)	14% (5/35)	*49% 17/35	20% (7/35)	9% (3/35)	37% (12/35)	6% (2/35)
44. Parroting (16%)	10% (4/41)	17% (7/41)	*56% 23/41	20% (8/41)	10% (4/41)	24% (10/41)	5% (2/41)
45. Assessment based on recovery indicators (16%)	44% (8/18)	6% (1/18)	*67% 12/18	11% (2/18)	17% (3/18)	33% (6/18)	0% (0/18)
46. Standardized self-reported inventories of eating disorder severity scales (ie.EAT or EDI) (15%)	0% (0/37)	8% (3/37)	*51% 19/37	16% (6/37)	11% (4/37)	35% (13/37)	32% (12/37)
47. Operant Conditioning strategies (13%)	14% (5/35)	31% (11/35)	*57% 20/35	14% (5/35)	11% (4/35)	29% (10/35)	9% (3/35)

USAGE BY RANK Strategy Name (%)	LEARNING ROUTES % (n)						
	Used Intuitively	**Dietetic Training**	**Reading**	**Conference**	**Course**	**Mentor**	**Other**
48. Imagery (8%)	23% (10/42)	10% (4/42)	36% 15/42	29% (12/42)	14% (6/42)	*38% (16/42)	2% (1/42)
49. Relaxation Training (7%)	23% (10/43)	5% (2/43)	*49% 21/43	14% (6/43)	14% (6/43)	35% (15/43)	4% (4/43)
50. Behavioural Role Plays or Simulations (5%)	15% (6/39)	21% (8/39)	31% (12/39)	21% (8/39)	21% (8/39)	*33% (13/39)	3% (1/39)

* Designates the most frequently chosen learning route for the strategy

Note 1: Excludes missing data
Note 2: Usefulness and Learning Route Data excludes respondents who were unfamiliar with strategy
Note 3: Learning Route results did not add up to 100% because learning routes were not mutually exclusive