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# Anorexia Nervosa and Motivation for Behavioral Change - Can it be Enhanced?

## Abstract

Anorexia Nervosa (AN) is a devastating psychiatric illness associated with high chronicity and it carries the highest risk of mortality among all psychiatric disorders. One of the main issues preventing recovery is the low motivation for change. The psychopathology behind this resistance is related to the egosyntonic nature of the disorder i.e. that at the same time, AN thoughts and behaviors leads to a sense of control but also to a limited sense of freedom leading to distress. It is in this dual and ambiguous state that opportunities for enhancing motivation for behavioral change lies. Motivational Interviewing and Motivational Enhancement Therapy are techniques to promote behavioral change in AN. Science is in the early stages and clear evidence of its efficacy, however strong the rationale may be for its use in Eating Disorders, is yet to be provided from well design scientific studies.

**Keywords:** Anorexia nervosa; Eating disorders; Motivation; Behavioral change

## Review Article

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**Abbreviations:** AN: Anorexia Nervosa; ED: Eating Disorders; MI: Motivational Interviewing; MET: Motivational Enhancement Therapy

## Introduction

Characteristic signs of Anorexia Nervosa (AN) are a restriction of food intake, an aversion to foods rich in fat, and excessive exercise resulting in low body weight and a low BMI [1]. The prevalence of AN is approximately 0.9% in women and 0.3% in men [2]. Although treatment is usually given for longer periods of time, recovery is slow and incomplete. Life-threatening medical complications often occur, and there is a high risk of suicide leading to the highest death rates (approximately 7%) of any psychiatric disorder [3,4]. Psychopathologically, AN is characterized by a fear of weight gain, and a distorted body image [1]. In addition, often described are signs of ineffectiveness, perfectionism, denial of hunger signals, interpersonal distrust, and lack of interoceptive awareness. Emotionally, patients with AN are often avoidant, dysregulated and anxious. A transactional model of emotion dysregulation in AN has been proposed that emphasizes emotion vulnerability and dysregulation, behavioral dysregulation (e.g., disordered eating behaviors), and invalidating environmental responses [5]. The model stresses the presence of an underlying temperamental disturbance in emotional processing that results in increased emotional arousal and an accompanied emotion dysregulation. Additional, associated symptoms are excessive dependency, developmental immaturity, social isolation, and obsessive-compulsive behavior. The disorder may be described as egosyntonic. In accordance with the emotional dysregulation described above, the patient achieves a state where the disorder becomes a multifunctional tool to reach control, to cope, to escape or to avoid negative situations and emotions, and also enables the patient to feel that they have "at least achieved something". The

disorder has also been described as a way of expressing emotion while being under control, a way of fighting puberty or punishing themselves or others [6]. However, there is a dystonic nature of the disorder as well and AN patients often present with ambivalence reflecting an inner conflict between the egosyntonic belief that anorexia will provide some sense of control, even enabling them to "endure life", and, the dystonic and distressing experience that the AN controls their thoughts and behaviours. Sometimes, this ambivalences grows stronger as these experiences develop into thoughts as to whether AN is a functional, controllable tool and therefore something to maintain, or whether it is a disorder or enemy that has taken control of them and thereby should be ceased. It is this ambivalence that creates an opportunity for change thereby becoming a target for motivational enquiry.

## Motivation

Personal motivation for change plays a fundamental role among psychological factors in modifying unhealthy behaviors and habits [7]. In recent years, the view among scientists of motivation has changed from viewing it as a inert trait to a psychological dynamic state that may change over time, being dependent on many interpersonal and intrapersonal factors. Consequently, motivation is viewed as an interpersonal accessible factor that may be modified during a change process [8]. Influencing motivation to change may enable further behavioral change via other psychotherapeutic methods.

## The Change Process

In the early 1980s, James Prochaska and Carlo DiClemente were leading scientists in the development of a model to explain the process of change in individuals suffering from substance use (smoking and alcohol). Their research of 'self-changers' developed into the Stages-of-Change model, which forms part of

a broader conceptual framework known as the Transtheoretical Model [7-10]. This Transtheoretical model describes how people are in different stages of readiness for change. By identifying and mapping an individual's readiness for change in the change process, a therapist may either choose to work on enhancement of the readiness to change, or direct an individual to therapy aiming at behavioral change. The following stages of change are recognized:

- a. Precontemplation
- b. Contemplation
- c. Preparation
- d. Action
- e. Maintenance

In precontemplation, the individual is not seriously thinking about change. Individuals in this stage do not consider the need of change and are resistant to suggestions of change. In the contemplation stage, the individual is able to consider but is ambivalent about changing the behavior. In the preparation stage, the individual recognizes the cons of their behaviour and can accept that the pros of change outweighs the consequences of remaining in the behaviour, and is less ambivalent about the change, and may even have taken small steps towards a change. They also believe that change is necessary and the timing is imminent. In the action stage, the individual is taking steps towards a behavioral change, and is making progress. Their ambivalence may still be high, and it is in this stage that the individual is at the highest risk of relapsing into their unhealthy behavior. In the maintenance stage, the individual successfully avoids temptations to return to unhealthy behaviors, and have learnt to handle and avoid temptations, and is able to use new ways of coping. The individual may have a temporary slip into unhealthy behavior, but does not see this as a failure.

In this context of readiness for change, there is an additional theoretical perspective that help to describe and understand the background to motivation and resistance to change, and that is the self-determination theory [11]. This model distinguishes between different types of motivation or reasons underlying behavioral engagement [12,13]. According to the theory, the state in which an individual lacks intention to act is termed amotivation [14]. Individuals reporting being amotivated toward health behaviors are unable to identify the reasons why they act, and tend to have low intentions and poor uptake and adherence to health behaviors [15]. Some theorists have drawn parallels between the precontemplation stage and amotivated states [16] thereby providing a bridge between the two theories. In terms of the need to change unhealthy behaviour, none of the models provide unambiguous solutions on how to address individuals in amotivated and precontemplative states. Interventions based on the transtheoretical model for individuals in the precontemplation stage have tended to be limited to targeting the experiential processes of consciousness raising and striking relief that amounts to the information provision, both of which have shown to have limited effectiveness in changing behavior in those with low motivation [16-19].

## Motivation for Change in Anorexia Nervosa

An integrated feature in AN is the lack of motivation to gain weight and towards recovery. One reason for the resistance in treatment is the fact that many with AN do not perceive their behaviours as problematic mainly because of the egosyntonic and functional nature of their thinking and behaviors [20]. Many with AN even view their behaviors in a positive way, making it different from other mental health disorders. Treating AN thereby becomes challenging since patients often are unwilling to give up the positive aspects and rewards they get from their behaviors. Sometimes, they view their behaviors as the only way they can reach some degree of satisfaction. However, in spite of the egosyntonic nature of the disorder, patients with AN often acknowledge the negative effects, thereby leading to strong feelings of ambivalence. These ambivalent feelings are involved in the treatment resistance, and also underlie arrest in action and development. A number of qualitative studies have described ambivalence in patients with anorexia [21,22]. Various methods are used to identify ambivalence e.g. friend and foe letters, where patients write two letters, one to their friend Anorexia and another to the foe Anorexia, a process which helps enable patients with AN to identify these conflicting emotions [22]. Very often, ambivalence in AN is felt in relation to the level of control patients with AN experience [23]. Typically, AN may have started as a way of feeling in control but as the behaviours became more entrenched, the sense of loss of control e.g. of their restriction, emerges. Successively, AN patients experience this as being controlled by their behaviours. This often is the starting point for treatment seeking. There are also reports from AN patients [24], exemplifying how this ambivalence extends to interactions with health healthcare professionals, who sees AN as a disorder which needs to be treated and cured, while the patients favours or can't let go of the positive side of the disorder. Healthcare professionals benefit from acknowledging and addressing this 'egosyntonic nature of thinness and self-control' [20]. There are also examples of health care professionals who views AN as not problematic almost not as an illness (Gremillion 2003), which further emphasizes the risk AN patients run of being misunderstood by healthcare professionals.

## Motivational Interviewing May Enhance Readiness for Change

Previous studies have indicated that fewer than 50% of patients with AN who present for treatment are ready for active change [25]. The disparity between the AN sufferers ambivalence to change and the medical urgency with which change may be required poses many challenges [26]. It has been proposed that in order to improve intervention effectiveness for unmotivated individuals, one should start out with an analysis of the underlying reasons for being in an amotivated or precontemplative state, with regard to health related behaviors, and then identify how these may be specifically pursued in interventions [17]. Motivational Interviewing (MI) is a person-centred, collaborative therapeutic intervention [27,28] that originally was developed for dialogues concerning addictions but thereafter has expanded into a wide

field of behavioural interventions (Miller & Rollnick, 1991). Core features of MI include emphasising autonomy, empathy, and respect for the patients own beliefs and thoughts about change [29]. There is also a directive element guided by differentially eliciting and reinforcing change talk. Several systematic reviews have analysed and found evidence for a moderate effect size of MI and often long duration of effect in several disorders especially in addiction [18-29]. However, as yet, there are few studies done in ED [30] although at least one study describe a moderate to high effect size [31]. The MI model views resistance as a consequence of ambivalence towards change. The initial goal of MI is to facilitate an increase in the clients intrinsic motivation, commitment (Phase 1) and then preparation for change (Phase 2) [32]. Primarily, the therapeutic relationship is a partnership where the patients autonomy is respected [18]. The facilitation of change is based on subtle, gentle and responsive guiding, a process almost undetectable to an observer [18]. The use of open questions, affirmations, reflections, and summaries are integer parts of the process. In MI, there are four overlapping processes: engaging, focusing, evoking and planning. These are both sequential and recursive, and often illustrated in diagrams as stair steps, with engaging as the first step.

1. Engaging: the process of establishing a working relationship based on trust and respect. The client does most of the talking, and the counselor makes use of reflective listening throughout the process. Both make an agreement on treatment goals and on the tasks that will help the client reach those goals.
2. Focusing: the continuing process of pursuing and maintaining direction.
3. Evoking: stimulating the client's own motivations for change, while inducing hope and confidence.
4. Planning: the client makes a commitment to change, and together with the counselor, develops a dedicated plan of action.

### Motivational Enhancement Therapy In AN

Motivational enhancement therapy (MET) is a form of therapy that is based upon the Trans-theoretical Model of Change and involves and integrates a variation of Motivational Interviewing to analyze feedback gained from client sessions. MET makes use of motivational strategies to help clients use their own resources in the process of change. The primary ambition using MET is to determine which stage the patient is in, and thereafter to assist the patient to move through the next stages to reach the final goal of sustained change. The earlier stages of change, i.e. precontemplation, contemplation, and preparation, are in focus of MET (Miller et al., 1994).

### The Effect of MI and MET in Eating Disorders

A review by Knowles et al. [33] identified 8 studies that investigated the efficacy of MI and MET and found that these methods improve motivation to change bingeing and reduce actual bingeing behaviour, at the same level as Cognitive Behavioral Therapy (CBT). However, there was little support

for MI and MET in reducing or influencing for compensatory or restrictive behaviors.

### Conclusion

In spite of the compelling nature of the theoretical models, and their clear face validity in terms of explaining the process of change in individuals with ED, there is yet a lack of convincing results from efficacy studies in these disorders. These methods may improve motivation to change in non-clinical populations but the evidence in clinical populations is not convincing [33]. Furthermore, they may improve engagement in treatment. There may be an effect of MI on bulimic symptoms, possibly at the same levels as CBT, but the degree of evidence is yet weak. And MI and MET seem, as yet, to have minimal or no effects on compensatory and restrictive behaviours in ED [33]. Future research should focus on further evaluating MI and MET in larger populations of ED patients, and utilize properly designed studies to reach a conclusion on its efficacy and utility in ED.

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### Conflict of Interest

None.

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