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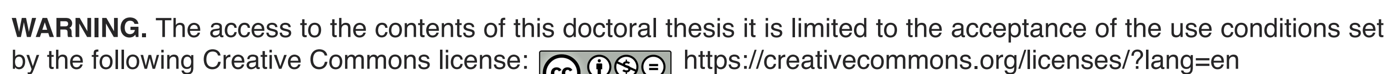
WARNING. The access to the contents of this doctoral thesis it is limited to the acceptance of the use conditions set by the following Creative Commons license:  https://creativecommons.org/licenses/?lang=en

2017

PhD Thesis/ Tesis doctoral

Development and investigation of a Self-Help Coaching exercise for improving body image beliefs in European young women

Desarrollo e investigación de un ejercicio de autoayuda en coaching para mejorar las creencias sobre la imagen corporal en jóvenes Europeas

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Abstract

The aim of this study was to develop and investigate the effect of a self-help coaching exercise on changing dysfunctional beliefs about appearance in European young women. A secondary aim was to investigate the effects of the proposed method on improving body image satisfaction (affective component). Derived from the model of BAAS (Spangler & Stice, 2001) and following the cognitive theory, a self-administrated exercise based on a Coaching approach was developed to bring innovation in the health field. The present study is an experiment with various stages following the process of development of the self-help coaching exercise, feedback and review of the exercise, pilot study and controlled trial in order to investigate the effectiveness of the approach. First, a pilot study was performed on an international sample (n=18) and then a controlled trial research design (n=50) on a national sample to test the effectiveness of the Self-help coaching exercise. Results of a non-parametric test, Mann-Whitney-Wilcoxo has revealed a significant effect in reducing body image dysfunctional attitudes in the international sample. Further *T-test* and ANOVA were computed to analyze the randomized control trial results. The Self-Help Coaching exercise indicated significant results in the experimental group, for the reduction of the dysfunctional beliefs about body image in European young women. Also, positive feedback and reactions have been recorded for the exercise format indicating a perceived utility of the exercise among the participants of different countries.

Introduction

According to epidemiological studies, eating disorders (ED) among college-age women it represents a significant problem in most developed countries. Survey findings indicate that ED may be preventable, given that modifiable risk factors have been identified to be responsible for ED onset and intervention have been tested to reduce these risk factors (Taylor et al., 2006).

In this context, the body image dissatisfaction is considered the main predictor of eating pathology (Stice, 2002). The prevention and treatment of the problems related to body image are relevant because of the important consequences for the physical and psychological health of the individuals. These consequences have negative effects not only for the personal health but also for other aspects of life, body image concerns being associated with emotional distress, low self-esteem, depression, substance abuse, obesity and stress (Stice & Shaw, 2002; Neumark-Sztainer, 2009).

Growing dissatisfaction with traditional programs based on education or persuasion in dealing with eating disorders risk factors and motivating behaviour change has resulted in calls for more collaborative approaches (Hayes & Kalmakis, 2007). Health coaching has been suggested in the scientific literature as being such an approach, and given the recent evidence of its use, a growing interest in the topic emerged in peer reviews and among practitioners (Hayes & Kalmakis, 2007).

The aim of the this study is to investigate a self-help method for reducing one of the most notable risk factors for eating pathology, body image dissatisfaction, using a health coaching approach. The method is based on the cognitive theory of eating disorders following the model of Beliefs About Appearance Scale (BAAS), Spangler & Stice, (2001) a validated measure of attitudes about appearance and perceived consequences of appearance for achievement, relationship, self-view, and feelings. To this, a coaching approach was added by introducing a person centered focus, reflectiveness, and enhancement of the characteristics and resources that an individual already has. Further, being self-administrated, the exercise gained a self-help character. The Self-Help Coaching exercise aims to challenge the dysfunctional beliefs of young women related to body appearance by changing their perspective regarding the implications of body image for their life success and happiness. The expectation for this research is that after completing the proposed

exercise, young college women will improve their perception regarding their body image, and will achieve better scores at beliefs about appearance and body satisfaction scales. All in all, the exercise shall be viewed as a positive psychological approach for self-worth enhancement in consolidating one's identity. Practically the exercise's first aim is to make young women aware about their personal-value based on other qualities different than body appearance (abilities, talents, attitudes etc.) and the influence of these qualities for their life achievements. According to some research, the presence of these characteristics might become powerful filters in protecting own self's body image of threats and internalization of dysfunctional beliefs and unrealistic ideals (Wood-Barcalow et al., 2010).

In order to assess the utility of the proposed intervention, we followed several steps, from the development and review of the method until the pilot study and randomized control trial. Our objectives were to develop a self-help coaching exercise for improving body image in college women and testing it during a pilot study and a randomized control trial.

The current paper begins with defining the most important concepts for the research and brings empirical evidence to be regarded as an innovative method for improving body image in young women. The research objectives are stated below:

1. To develop a Self-Help Coaching exercise that challenges the dysfunctional beliefs about body image in European young women

2. To test the efficiency of the Self-Help Coaching exercise in changing the dysfunctional beliefs about body image in European young women

- To conduct a pilot study in order to test the feasibility of the Self-Help Coaching Exercise intervention for European young women
- To conduct a randomised control trial in order to test the efficacy of the intervention

3. To study the effectiveness of Self-Help Coaching exercise for increasing body image satisfaction in European young women

Hypothesis

1. The Self-Help Coaching exercise will have a significant effect in changing the dysfunctional beliefs about body image in European Young Women

2. The Self-Help Coaching exercise will have a positive influence in improving body image satisfaction in European young women

1. Eating disorders

Definition of eating disorders. First, when we refer to eating disorders (EDs), we refer to a "persistent disturbances of eating or eating related behaviour that results in the altered consumption and absorption of food that significantly impairs physical health or psychosocial functioning" (APA, 2013; p.329). According to the five edition of Diagnostic and Statistical Manual of Mental Disorders, eating disorders main categories include: pica rumination disorder, avoidant restrictive food intake, anorexia nervosa, bulimia nervosa, binge eating and the atypical eating disorders. Further, we will define the most common disorders that we will make more often reference in the present study. Anorexia, is defined by the Diagnostic and Statistical Manual of Mental Disorders Five Edition (DSM-V) as 'a persistent energy intake restriction, intense fear of gaining weight and or becoming fat, or persistent behavior that interferes with weight gain, and a disturbance in the self-perceived weight shape' (APA, 2013, p. 339). In the case of bulimia, the diagnostic features are defined by 'recurrent episodes of binge eating, recurrent inappropriate compensatory behaviours to prevent weight gain, and self-evaluation that is unduly influenced by body shape and weight' (APA, 2013, p. 345). The rest are in the category of 'eating disorder not otherwise specified' a heterogeneous group of disorders which include partial syndromes of Anorexia and Bulimia, purging disorder and binge eating. Binge eating and purging are described by planned or unplanned episodes of binge eating meaning a rapid consumption of a large amount of food in a very short time followed by the efforts to undo the intake that was "too much". The diagnostic criterion for binge eating is that "it must occur in average at least one first week for 3 months" (APA 2013, p. 350).

Incidence and prevalence. A few decades ago eating disorders were associated mostly with Western cultures and industrialized societies. Given the worrying prevalence of EDs in

Spain, (3.43%, among adolescent and young adult scholastic population according to Fernandez, Labrador & Raich, 2007), the Unity for Evaluation and Intervention in body image (‘Unitat d’Avaluació i Intervenció en la Imatge Corporal’- UAIC, Universitat Autonoma de Barcelona), has done since 2003 considerable research on the topic. UAIC aimed to develop ED prevention programs for young women, focusing on body image satisfaction, with results recognized by the Catalonian Govern (‘Generalitat de Catalunya’) and the scientific world. In this centre has started the current research project.

After an extensive literature review, recent survey findings provided evidence of eating pathology emerging not only in the Western world but also in non-Western countries, once with the process of cultural transition, globalization and modernization (Makino et al., 2004). The media exposure promoting the Western beauty ideal had a significant influence in increasing the socio-cultural pressures regarding body image, which increased the incidence of eating disorders. Although few studies have been conducted in non-Western countries, Makino et al., (2004), argues that eating disorders and eating attitudes may present differences between Western and non-Western.

Even though assessing the incidence of eating disorders (meaning the number of new cases of a disorder in the population over a specified period) is hard in the absence of more extensive studies on specific populations, one recent review discusses the morbidity of eating disorders reporting that it has been an increase of eating pathology in the last decade (Smink, van Hoeken, & Hoek, 2012). According to the mentioned authors, eating disorders represent a serious problem because all of them have a high mortality risk. In addition, evidence suggests that eating disorders seem to be gendered, with more than 90% of the clinical diagnoses occurring in females, with higher incidence for the group between 15-19 years old (APA, 2000, p. 587). In the same source, it has been mentioned that eating disorders typically develop in adolescence, but females in the ages 15-45 represent the most vulnerable group. According to Taylor et al., (2006) approximately 2% to 4% of the young female population is identified with eating disorders symptoms (EDs) and according to a more recent study of Smink, van Hoeken, & Hoek, (2012), 2 % of them are diagnosed with anorexia or bulimia.

2. Body image

Definition of the body image. The theoretical framework of this study is the concept of body image. According to Cash (2004), a reference name in the research field, body image can be defined as a multidimensional construct focused on perceptions and attitudes related to individual's appearance such as thoughts, feelings, and behaviors. The body image can be defined as a mental representation that one has about his body at one specific moment and one specific context. In the 'Encyclopedia about body image and appearance', Cash (2012) defines body image as being 'the perception and cognitive appraisal of the body, and affective response to this appraisal; how we see and judge our body and how we feel about that judgment' (p. 282).

The researchers have identified two components of body image: one perceptual that refers to the accuracy of an individual's body size and shape and one attitudinal that refers to the emotions associated with these perceptions (Gardner, 2002). Theories suggest these two components of body image develop over time and become integrated, ideally forming a cohesive body image. For example, the psychoanalytic theory posits that these images began to form during infancy, as Freud asserts 'the ego is the first and foremost a bodily ego' (Freud, 1923, p. 26) being a crucial foundation of the self-concept (Kernberg, 2007).

Body image is a 'multidimensional construct' derived from personal and cultural factors: biological, psychological, and social factors (Borzekowski & Bayer, 2005). It has been metaphorically described as a reciprocally interactive causal loop suggesting that when we refer to body image, we have to take into consideration several factors and behaviours that interact all with each other. For example, the environment, the society, the personal factors, and experiences interact to form an individual's attitude and perception toward his body (Cash, 2002). Moreover, body image is conceptualized as the picture of one's body in one's mind, practically the way the body is seen or perceived by each person (Grogan, 2006) based on the factors that interact.

The components of body image. In the struggle of defining the concept of body image in and it's complexity, Healey (2014), presents an intuitive model in the book "Positive Body Image". An overview from the National Eating Disorder Collaboration, distinguishes four components to take into consideration when we refer to body image.

1. The perceptual component- The way one sees oneself

The perceptions that one has about his own appearance are influenced by the evaluation that derives from the positive to negative beliefs about their appearance. In this regard, we refer to the congruence or discrepancy between one's self-perceived physical characteristics and personally internalized and valued appearance ideals. The environmental factors play a large role in how people perceive their body. In this aspect, it is mentioned that social pressures to be thin and thin internalization can be reinforced by a person's family, friends, acquaintances, teachers and the media.

2. The affective component- The way one feels about the way one looks

It is also named the affective body image. One can experience positive or negative affect depending on the amount of satisfaction or dissatisfaction that experiences in relation to his appearance, size, weight, and shape. For example, feelings of shame, sadness or anger associated with the body, define the affective component of body image dissatisfaction. In this concern, (Cash, 2011 cited in Healey, 2014), suggested that affective distress can appear regarding appearance as these measures represent one's emotions related to appearance, including stress, anxiety, or discomfort. It is already well known that obese and overweighed individuals are more likely to develop body image dissatisfaction because of their negative affect toward the way they look. Poor body image can develop because of socio-cultural pressures to be thin or pressures to lose weight which in turn undermines psychological well-being and predispose individuals to negative affect (Stice, 2002),

3. The cognitive component- The thoughts and beliefs one has about one's body

The cognitive body image refers to the extent to which one individual has a positive or negative appraisal of his own appearance, or with other words the way one thinks about his body. For example, one individual may think that one part of his body is "too big" or "too small "and wish they were different, or others believe they would look better if they develop more muscles or become thinner. Another individual may think his body is good the way it is because of the many things that he is able to do with his body, for example, to do sports or to dance. The opinion one has about his own body refers to cognitive body image.

4. The behavioural component- The things one does in relation to the way one looks

This component includes the practices that one individual takes as a result of his beliefs about his own body image and comparison with others or beauty ideals. These practices

related with the body can refer to: monitoring and body-checking behaviours, disordered eating, and dieting, physical exercise for losing weight, efforts to change the shape or size of the body or even other extreme weight control behaviours. Some people may recur to the social isolation of themselves because they feel bad about the way they look and refuse to go out or interact with other people. In short, the behaviours in which one engage as a result of one's body image encompasses the behavioural body image.

2.1. Body image dissatisfaction

Body image has been frequently mentioned in the context of body image dissatisfaction as a normative of western societies (Grogan, 2006).

Definition of body dissatisfaction. Dissatisfaction with body image is known as "body image dissatisfaction", a term which has been used in many articles on public health and psychology. Studies report that body image dissatisfaction is usually related with specific weight-sensitive body areas, which can vary from an individual to another. The specific of dissatisfaction is the feeling of being unhappy or discontent about some element of body shape, weight, or size. With other words body dissatisfaction involves a preference for characteristics different from how a person perceives or thinks about his own body, and how his body currently appears to others. More specifically, body image dissatisfaction is seen as 'a negative subjective evaluation of one's physical body, such as figure, weight, stomach and hips' (Stice, 2002, p. 985).

2.1.1. Body image dissatisfaction and unhealthy behaviours

Body image dissatisfaction seems to affect a major part of young women at college age (Neighbors & Sobal, 2007). Worrying data are coming from different sources, for example in one study conducted on college women, half of the participants reported a negative body image or normative body image discontent (Williams, Cash, & Santos, 2004). It is considered that at younger ages there is an increased pressure to conform to a thin body shape for women which equates with attractiveness (McCabe & Ricciardelli, 2003). Therefore women prefer to be thin rather than normal or overweighed. Several studies have concluded that young women have an increased tendency to adjudge themselves as not

meeting the beauty ideals, partly because they internalize more than men the beauty standards promoted by the media and by popular icons. Moreover, studies reported that, even in the absence of obesity, young student women who do not need to lose weight according to medical standards consider themselves overweighed (Neumark-Sztainer et al., 1999). Unnecessarily concerned with their weight, they become vulnerable to engage in behaviours that include dieting, fasting, bingeing, and purging (Markey& Markey, 2005). In one study, a staggering 60%–80% of young students were dieting even in the presence of a healthy BMI (Ackard et al., 2002). The current findings are consistent with hypotheses from the cognitive theory which states that particularly in those persons who engage in dieting, bingeing, and purging, there is high retention of dysfunctional beliefs about appearance. A cross-sectorial study conducted among young women from a developing country, Mostafavi-Darani, Daniali, & Azadbakht (2013) demonstrated the direct relationship between body image dissatisfaction and unhealthy dieting behaviours. Young women reported their wish to lose weight even in the presence of normal weight. More exactly, 41.7% of thin or normal women who were participants in this study desired to lose weight, and 36.3% of normal-weight women thought about themselves they were "overweight". This demonstrates the importance of self-perception in self-evaluation of the own body and the fact that each person creates a mental image about her body appearance that can influence her behaviours and further her state of health.

Stice & Shaw (2002) reviews theory and practice regarding the consequences of body dissatisfaction. According to the authors, body dissatisfaction, is considered a factor that increase the risk for eating pathology through two central mechanisms. First, body dissatisfaction results in elevated dieting, which in turn increases the risk for onset and maintenance of anorexic and bulimic pathology. Second, Body dissatisfaction leads to dieting because of the commonly accepted belief that this is an effective weight control technique.

The implications of this review outline important guidelines for body image disturbances intervention that could be integrated also into the present study. First, findings suggest that interventions, which reduce sociocultural pressure to be thin and renders individuals more resilient to these pressures, may prove useful in reducing body dissatisfaction. Therefore, brief interventions that specifically help girls and women become more critical consumers of the media produce improvements in body satisfaction. Second, the results show that

interventions that result in decreased subscription to the thin-ideal should promote body satisfaction. In this concern, a dissonance-based intervention that reduces thin-ideal internalization was found effective in descreasing body dissatisfaction. Third, those interventions that are focusing on one risk factor produce positive outcomes, whereas universal programs focusing on a plethora of putative risk factors produce less desirable outcomes. Therefore, programs that address one specific factor, as body image satisfaction in our case, might have more positive results.

The most important conclusion of the study that could serve us as an argument for our proposed research project, is that eating disorder prevention programs might be strengthened by the inclusion of a module that decreases body dissatisfaction. Is already proved that cognitive behavioral interventions that were developed have been shown to effectively achieve this aim. To the knowledge of the authors, no prevention trial has specifically targeted this risk factor, therefore we are encouraged to consider it in our study.

2.1.2. Body image dissatisfaction and eating disorders

A significant increase in research about body image in women population was registered in the last 30 years. In the spectrum of eating disorders, theoretical and empirical evidence suggest that body image dissatisfaction is one of the most prominent and robust cognitive factors for the development and maintenance of clinical eating disorders among young women (Stice, Marti, & Durant, 2011). International research on adults shows that approximately 60% of women have a negative body image with a higher prevalence at college age, and these rates tend to remain stable across the lifespan (Tiggmann, 2004). By far, the majority of the studies investigating body image have focused on college age population (18-25 years) for various reasons. Young adulthood it is considered a key time for the body appearance concerns because it is the time when major changes appear in the life of the individuals. Most of them change their living place for going to college or university, and they have to adapt to a new society. Once with this transition, they are predisposed to make changes in their lifestyle and habits. A higher level of anxiety might be experienced because of the novelty and uncertainty of the new environment or because of the exam stressors, which can influence their eating habits and behaviours. At the social level, the interest for appearance increases and the interaction with new peers create new opportunities for appearance comparison, which can result in negative affect and lower self-esteem that places them at risk for eating disorders.

A great body of research based on the risk factors for the onset of eating pathology, has been done by Eric Stice. He has conducted several prospective studies, prevention trials, and treatment trials for eating disorders, offering important inputs for the future of successful interventions. In one prospective longitudinal study which implied surveys annually for 8 years for young girls, body dissatisfaction emerged as the most potent predictor for the onset of any eating disorder: "24% of adolescent girls in the upper 24% of body dissatisfaction showed onset of any eating disorder versus 6% of those with less body dissatisfaction" (Stice et al., 2011, p 625). The findings bring support for the eating disorders prevention programs that target young women with body image or weight concerns.

In a meta-analytic review of eating disorder prevention programs, Stice, Shaw & Marti (2007), provide insights for future directions in eating Disorder Prevention programs related to intervention, participants and methodological aspects as well as psychological approaches. First, the authors provide evidence that larger intervention effects occurred for programs that were selected rather than universal, interactive rather than didactic, multisession rather than single-session, solely offered to females rather than to both sexes, and delivered by professional rather than endogenous providers. Second, they recommend interactivity because this format facilitates a better engagement of the participants in the program, better acquisition of concepts and more efficiency in promoting attitudinal and behavioral change. Third, they provided evidence for interventions focusing on body acceptance being more effective than programs without this focus. Psychoeducational content was associated with weaker effects for all health outcomes, being ineffective in producing behavioral change. Forth, introducing cognitive dissonance content in prevention programs designed to reduce thin-ideal internalization produced larger effects. Also, greater use of persuasion principles from social psychology may prove useful in this regard, or school-wide interventions that challenge unhealthy norms. Fifth, greater attention should also be devoted to developing general prevention techniques that are independent of the specific content of the intervention, such as strategic self-presentation, motivational interviewing, and other persuasion techniques from social psychology. Sixth, greater attention should also be devoted to developing general prevention techniques that are independent of the specific content of the intervention such as strategic self-presentation, motivational interviewing and other persuasion techniques from social psychology.

2.1.3. Body image dissatisfaction in young women: sociocultural influences

When we refer to sociocultural influences, we mention especially media, a certain type of toys, parents and peers that may have a role in promoting certain values, beliefs, and trends related to body image in one specific cultural context. The sociocultural influences were studied in extensive research as a potential source of body dissatisfaction throughout both childhood and adulthood (Knafo, 2016). Problems begin to emerge even from the childhood, when the child has the first contact with the environment, provoking damages that could affect him during the entire life in the absence of any specific prevention. Since early years, women learn beauty is their main project in life and being thin is mandatory in order to be successful and to attract the interest of the opposite sex. The socio-cultural influences seem to have a crucial role in the internalization of beauty ideal. Also, some societies, are placing a great emphasis on the appearance of the women, because women, unlike men, are often evaluated for their physical appearance rather than for their abilities or achievements (Knafo, 2016).

From a feministic point of view, the greater incidence of body image dissatisfaction in the case of women can be partly explained by the objectification theory (Fredrickson & Roberts, 1997) which asserts that modern society created a context of the objectified female body. As a result, women are often evaluated for the way their body looks and how “hot” are they, being often the target for appearance discrimination and neglected for other personal characteristics, even in the context of career and employment. This phenomenon raises the risk for the development of mental health problems related to the body.

The Dual-Pathway Model. The dual pathway model developed by Stice, (2001), explains that sociocultural factors specifically social pressures to be thin and the internalization of thin ideal have a major contribution for body dissatisfaction because refer to some ideal that is unattainable. He explains the implications of these pressure for the development of bulimia nervosa. The high pressures to be thin coming from media, family, and peers fosters the development of body dissatisfaction by transmitting the message that that one it is ”not thin enough” to be acceptable or likable, and therefore promotes beliefs of insufficiency in individuals which creates discontent with their body.

Tripartite influence model. To understand better the sociocultural influences and define body image dissatisfaction, some authors introduced a theoretical approach, namely

the “tripartite influence model”. This model, originally suggested by Thompson, Coovert & Stormer (1999), and recently replicated in some studies (Shroff and Thompson, 2006) states that three influences are vital precursors in the development of body image dissatisfaction: peer, parental and media factors. The model suggests the existence of some mediating processes that lead to body image and eating disturbances and those are the internalization of appearance societal standards and the appearance comparison process.

Parents and peers. Parents and peers pressures are believed to have a both direct and indirect influence in the development of body image dissatisfaction by the messages they send and the attitudes and behaviours they display. However, it is important to acknowledge that not all the parents and peers are preoccupied about appearance. But, when this preoccupation exists certain weight related discussions and encouragements related to staying slim, lead to social comparison with thin ideal models, or other thin peers which can result in dissatisfaction in case that some deviations from the expected standards exist (Thompson et al., 1999). Indirectly, influences from the society and parents can occur in the life style of girls even since childhood. For example, Dittmar, Halliwell & Ive (2006), investigated the power of certain toys for the transmission of socio-cultural standards and found out that girls who were exposed to Barbie dolls, manifested lower self-esteem and an increased desire for thinness compared to a control group

Media. Cash 2002, has researched the influence of media for the body image dissatisfaction and concluded that body image it is not a stable trait, but it is influenced by the socio-cultural context such as exposure to media’s certain images and messages. The problem comes from the values promoted in the media regarding the importance of body image and beauty standards. The media promotes thin and beautiful models which are associated automatically with happiness, desirability, and success in life. In the same time, media show explicit procedures about how to look, how to lose weight, how to exercise, how to start dieting, or how to adjust your body by surgeries. Through this path, media is promoting the thin ideal and is convincing women that they can be thin and moreover they should be thin. It is worrying that a high percentage of the females figures promoted in the media or television program are thinner than the average, promoting an out of the norm model. The implications are multiple. It has been proved that women who view thin and beautiful media images are in more degree dissatisfied with their bodies than when viewing average, overweight or no body images (Groesz, Levine, & Murnen’s , 2002).

Western influences. Carraca (2011) was stressing that body-image concerns and dissatisfaction with physique are becoming increasingly prevalent in Western societies. However, this problem becomes more and more relevant once with the phenomenon of globalization and social media invasion. Pressures to emulated to the Western lifestyle is becoming widespread also in developing countries because of the bombardment with beauty ideals portrayed in the media, satellite advertisements, videos and movies, the Internet and other events (Mostafavi-Darani et al, 2013). It is well known nowadays that thinness became normative for developing countries like for the Western society - being 'thin' is regarded as a sign of attractiveness while being overweight or obese is considered an anti-norm. Because of the high emphasis placed on the pursuit of thin beauty ideal by the modern society, stigmatization or discrimination towards appearance for those that do not fit into the promoted beauty requirements, creates the ground for the development of a negative body image. In this context, body image satisfaction is a desirable goal, which could prevent young women from engaging in dieting or other unhealthy behaviour, that predispose to eating disorders (Stice & Shaw, 2002).

While the issue of dieting and body satisfaction has been investigated in the Western world, there are only a few studies in this regard in developing countries.

2.1.4. Body image implications for self-worth and identity

Several studies posits that body image is strongly connected to self-view and self-esteem. Cash (2012), explains that identify of an individual is based on 'internal self' which refers to inner characteristics and an 'external self' which encompasses the image that it is presented to the world and the others can see on a daily basis. Body image tends to encompass a large part of an individual's identity, this is why if one it is not satisfied with how he looks, is difficult to be satisfied with himself as a person. However, Wood-Barcalow et al., (2010) suggest that body image should include approximately 20-30% of one's identity, allowing 70-80% to a diverse identity based on other things such as skills, intelligence and ability to function and interact with others. Therefore body image should be just a functional sub-part and not the main part.

In the context of identity development, body image has an important role, and concerns related to it can appear even since adolescence when important transitions appear in one's life and young adulthood. In this period, the individuals may develop a different

preference for body features that according to the perceived severity can lead to mild or extreme actions of changing the body. Body image and its influence on the self -concept has been documented by Susan Harter's (2012), who explains that at younger ages we began to think about ourselves as others see us, in the looking glass (or mirror): "We gaze at ourselves in real mirrors and we anticipate the evaluations of others, as social mirrors" (p. 159). This is consistent with previous research, of James (1890) who describes that one's self-evaluation comes from various perspectives, from seeing the self both as a subject (own perspective) and an object (others perspective). Because the interaction with significant others is considered important in defining one's self, the author is introducing the term of "social self" which consists of two parts: the "Me- Self", which involves the awareness of the self as object, and the "I-Self", a subjective self –awareness. Psychoanalytical theories suggest that body image starts to develop since infancy and continues during the developmental states of the individual. The most important part in the development is the self-awareness pathway which later leads to self- conscious emotions (pride, shame, embarrassment) described as a metacognitive self-awareness and ultimately mentalization (Rochat, 2003). Since childhood the individual progress through cognitive and psychological developmental states, which defines self and body image, and influences the later development of self and body esteem. Harter (2000), assessed the relationships amongst various domains of self-esteem and body image and found that "at every developmental level, the evaluation of one's looks takes precedence over other domains as the Number 1 predictor of self-esteem" (p. 134).

Extensive previous research has found a significant connection between body image attitudes and psychosocial functioning and well-being. In this concern, body image dissatisfaction may lead to various psychosocial difficulties for both sexes including low self-esteem and depressive mood (Paxton, Neumark-Sztainer, Hannan, & Eisenberg 2006, Thompson & Stice, 2001). In clinical and nonclinical samples, women who perceive themselves as physically unattractive or more generally reported a negative body image have been found to have poor self-esteem, social anxieties and inhibitions, less secure general attachment, romantic intimacy anxiety, sexual difficulties, and vulnerability to depression (Cash & Pruzinsky, 2002). Besides these effects, cognitive behavioural theory sustains that part of the psychopathology of eating disorder is that body image dissatisfaction leads to over-evaluation of shape, size, and weight in determining one's self-worth (Fairburn et al., 2008) which can have major implications for the individual's psychological development.

These findings are consistent with Spangler & Stice (2001) who distinguish implications of appearance for relationships, work/achievement, self-view, and emotions.

Rivarola (2003) argues that body image dissatisfaction is associated with negative body image which affects mostly young women with a prevalence of 35% to 45% at college age. From an extensive perspective, the development of a negative body image is influenced by historical and proximal events. Historical events refer to moments from the past that influence the way an individual thinks or feels about his body and may be influenced by cultural socialization as well, while proximal events refer to immediate body image experiences and are influenced by social learning (Cash, 2002; Cash, Santos, & Williams, 2005). Cultural messages about physical appearance expectations and socio cultural attitudes toward appearance together with the pressures to be thin are often internalized and adopted as a reference in the evaluation of the body (Cash, 2002). These findings are important because the social pressures to be thin lead to an overvaluation of the appearance for the self-view and individual success and moreover this applies to young women who are targeted by the media as being responsive to ads and content about beauty standards and products. The part that causes more concern is that once internalized this importance of appearance, the body image becomes an essential feature of the individual self- concept and self-worth. Therefore, in this case, the body image dissatisfaction is affecting the self-worth of a person by provoking her feelings of being inadequate or "not being good enough".

In this aspect, what is necessary to take into consideration for our research, is that body plays a significant role in the development of self-concept and identity. When all is going well in the development, the representations that one has about his own body create a cohesive body image which in turn helps the individual to get a coherent sense of self (Buhl-Nielsen, 2006). Contrary, when the representations of one's body are fragmented, and the body image is considered as being disgusting or inadequate, the self will be defined as being disgusting and inadequate as well. Further, several studies certified that there is a clear link between body image and self-esteem, illustrating the importance of body for the overall evaluation. Harter (2012) explains why appearance is so frequently the subject of self-evaluation, writing that appearance "is an omnipresent feature of the self, it is always on display for others, or for the self, to observe, scrutinize, and judge" (p. 159).

These theories support the cognitive component of the body image also named the theory of mind, suggesting that in defining the sense of self, cognitive capacity has a significant influence and deserves increased attention.

2.1.5. Body image cognitive components

Many studies are focusing on the cognitive measures of body image; this is why in the scientific literature we can identify various terms associated: negative body image attitudes, body image investment, self-schemas, self-criticism and others. Further, we will explain some of these terms to understand better the multifaceted construct encompassing some aspects of how people cognitively experience their physical appearance.

- **Body image investment** refers to the importance that one gives for one's physical appearance and the fear of losing control over one's body image and shape (Fairburn et al., 2008). Moreover, the body image investment refers to the cognitive-behavioural importance of appearance in one's personal life, mood and sense of self, reflecting a dysfunctional behavioural response related to appearance, as opposed to more adaptive valuing and managing of one's appearance (Cash et al., 2004). There is evidence of increased concern about body image in females, also referring to excessive cognitive and behavioural investment in one's appearance in defining the sense of self (Cash et al., 2002).

- **Self-schemas**

  Markus (1977) explains that self-schemas are cognitive generalizations that individuals develop about themselves in order to define their identity, to cite his words self-schemas are "cognitive generalizations about the self, derived from past experience, that organize and guide the processing of self-related information contained in an individual's social experience"(p. 64). Body image self-schemas play a very important role because practically they reflect one's assumptions or beliefs about the importance and influence of appearance for personal life success and mood. The value of this model relies on the focus it has on the social factors that contribute to the formation of a stable sense of the self (Garfinkel & Garner, 1983). In this context, the physical appearance is considered one part of the self. These theories are reinforced by other researchers who believe that cognitive structures of appearance related to self-schema ''reflect one's core, affect-laden assumptions or beliefs about

the importance and influence of one's appearance in life, including the centrality of appearance to one's sense of self'' (Cash 2002, p. 42).

Appearance self-schemas result from one's personal and social experiences and are activated by and used to process self-relevant events and cues (Cash, 2002). As Jung et al., (2006) shows, if we refer to young women, self-schemas are expected to be developed by those women who place cognitive importance on appearance. These particularities can be recognised by having a greater preoccupation for their body characteristics such as weight and look and moreover at the behavioral level, where it can be observed frequently acts to control these characteristics. Appearance self-schemas are central and relevant for the evaluation of own self as well as of the others. When a woman has self-schemas about appearance, she is more likely to process the information about the others regarding the appearance domain and less other domains (hobbies, jobs, politics etc.). The cultural model of beauty promoted in media and idealised by many women promote some idealistic standards that are hard to achieve. These standards become normative for the women with self-schemas, and they start to be concerned that the others will perceive them out of these norms and therefore "not attractive", thus, they start to develop a negative self-image. Self-schemas on appearance are associated with some side effects, such as low self-esteem and negative mood (Jung & Lennon, 2003). Women with appearance self-schema place more importance on appearance related information than other information they receive as input and therefore are more likely to internalise beauty ideal standards. Also, these women are more likely to develop body image dissatisfaction than those without these self-schemas.

- **Self-criticism**

  It is seen as a characteristic of people with eating pathology because they have a high tendency to compare themselves negatively with others (Ferreira, Pinto-Gouveia, & Duarte, 2011). Self-criticism often develops because of an over sensitiveness of the individuals that are preoccupied about how they look in the eyes of the others and comparison with the others. Also, people with self-criticism assuming that others' evaluations towards them are *negative and condemning*. Moreover, self-criticism is seen as a defensive strategy applied by individuals from the need of feeling safe in a social context by *belonging to the social group*, avoiding rejection and criticism. In

this sense, they adopt self-criticism and the drive to meet excessively high levels of performance in order to be perfect (Gilbert, Durrant, & McEwan, 2006; Gilbert & Procter, 2006 cited in Ferreira, Pinto-Gouveia, & Duarte, 2011). This leads to a perfectionistic self-presentation which in combination with body image dissatisfaction and negative affect predicts eating psychopathology. Self-criticism can be described as a negative self-judgment followed by a punitive behaviour, related to own errors, faults or characteristics (e.g., physical appearance) that could become a risk for social disapproval or rejection. Interestingly, self-criticism can then be understood in connection with the self-concept. As the authors explain, self-criticism is a strategy to cope with an inadequate or inferior perceived self (Gilbert et al., 2004). Depending on the degree of self-criticism, the authors distinguish between two forms: **inadequate-self,** which refers to feeling inadequate and/or inappropriate (e.g., "I am easily disappointed with myself"); and **hated-self**, developed a powerful negative emotion such as a sense of disgust and anger with the self (e.g., "I have become so angry with myself that I want to hurt myself").
Research has revealed that self-criticism and the effect of the need to portray a perfect image I front of the others was mediated by higher levels of body image dissatisfaction.

- **The drive to be thin**- has received increase attention being a result of the perceived sociocultural pressure to be thin and the internalisation of the thin beauty ideal (Stice & Shaw, 2002; Thompson & Stice, 2001). Internalization of thin ideal refers to specific values promoted by the society which are incorporated to the point they become guiding principles for those that adhere to them and change their behaviour accordingly. As Thompson & Stice (2001) noted the internalisation of thin ideal is defined as ‘‘the extent to which an individual cognitively buys into societal norms of appearance, and they modify behaviour in an attempt to approximate these standards" (p.181). In the prevention of ED area has been demonstrated that internalisation may be a causal risk factor for the onset of eating and shape-related disturbances (Thompson & Stice, 2001).

2.2. Positive body image

Extensive research focused so far on identifying the causes and risks for body image dissatisfaction or negative body image while less it was outlined how women can develop a positive body image. In the struggle with preventing eating disorders, understanding how women develop a positive bod image or cope with body image concerns is essential for developing improved intervention and prevention strategies. Moreover "research on positive, adaptive, or healthy body image is crucial to the future of the field" (Smolak & Cash, 2011, p. 472).

Definition of positive body image. After a considerable research in the field, and following the previous contextualization of the concept, Tylkaa & Wood-Barcalow, (2015) defines positive body image as being: '(a) distinct from negative body image; (b) multifaceted (including body appreciation, body acceptance/love, conceptualizing beauty broadly, adaptive investment in appearance, inner positivity, interpreting information in a body-protective manner); (c) holistic;(d) stable and malleable; (e) protective; (f) linked to self-perceived body acceptance by others; and (g) shaped by social identities. '(p. 118).

Also, on the other side, in order to provide a more nuanced understanding of the concept, the authors elucidate that body image it is not: to be high satisfied about appearance limited to all the body part and excluding functionality of the body, to display vanitiy and narcicism, to offer false proofs of self-protection in front of body image threats, to be low in self care or dependent of others compliments and opinion regarding own appearance. Even the body image concept has a long history behind, many of the previous studies have been focusing on pathology, and aimed to understand the negative body image and how to alleviate it's symptoms without considering how to promote the positive body image (Smolak & Cash, 2011). In this situation, the insight of the researchers came to clarify that even if the negative body image symptoms are reduced, in the absence of positive body image enhancements, the best that it could be achieved is a neutral body image. (e.g., "I don't hate my body anymore. I merely tolerate it."). Moreover, it is considered that this approach might have limited the research toward a comprehensive understanding of the concept of positive body image, which could have had as a result poorly equipped clinicians to promote body well-being and therefore treat efficiently negative body image. The authors suggest that helping clients to adopt a positive body image, should be done by helping them to accept, respect,

celebrate and honor their bodies, which can have more lasting effects and efficiency in any kind of treatment.

2.2.1. Approaches to promote positive body image. Research on positive body image is flourishing in our decade (Tylkaa & Wood-Barcalow, 2015) several articles and books being available at the moment. Thomas Cash and his colleagues conducted the first study documenting positive body image as a unique construct (Williams, Cash, & Santos, 2004). After investigating the positive and negative impacts of body image on college women's quality of life Cash & Fleming (2002) found that most women dislike their bodies and body image adversely impacts their well-being. In this aspect, they studied positive rational acceptance, which entails adaptive mental and behavioural activities, such as positive self-care and rational self-talk. The study revealed that individuals high in positive rational acceptance can face better the different threats to body image which may include: being teased about weight, being exposed to media containing dieting messages and/or models who conform to society appearance ideals, being told to go on a diet, conversing with someone who begins to engage in body talk, being weighed at the doctor's office, or realizing an article of clothing has become tighter on the waist. The positive rational acceptance during the threats is believed to have a role in reminding to the individuals of their good qualities and help them to engage in positive self-talk, whenever they feel threaten. They can learn to tell themselves that the situation is not that important because other things are important for them and anyway the moment will pass. Indeed, positive rational acceptance was related to positive psychological functioning in other studies as well, especially for college women (Cash & Fleming, 2002).

Regarding the prevention of negative body image there are several theories that deserves our attention, so called Strength-Based Disciplines within Psychology, namely humanistic psychology and positive psychology.

Humanistic psychology. Initially shaped by Carl Rogers and Abraham Maslow, humanistic psychology has been recognized for emphasising the need for unconditional acceptance to promote well-being (Rogers, 1961). Applied to the study of body image, unconditional acceptance is a major factor that helps individuals perceiving that their bodies are accepted and loved by significant others (Avalos & Tylka, 2006). When women perceive that are accepted and loved by the significant others they become less preoccupied to change their appearance and start to focus on how they feel inside and how well their body are

functioning. This derives from the humanistic beliefs in the power of self-actualisation and transcendence of the person, an innate process that makes individuals to expand, extend and grow (Rogers, 1964). This implies moving beyond the physical shape and dimension of the body to its spiritual meaning (Jacobson, Hall, & Anderson, 2013). Therefore, the implication of the acceptance for the body image is that once they perceive that significant people in their lives accept their internal state and body appearance, individuals can align themselves with their actualiing tendency and value themselves more. As a result, they honour their body needs and are more likely to engage in healthy eating behaviours. In their study, Avalos & Tylka, (2006) stand for the appreciation of the body as a desirable goal, appreciation being correlated with positive eating behaviours such as intuitive eating (an innate capacity of being aware of the body needs and responding in natural way to the body signals like hunger or satiety signals). The authors developed a model of body acceptance and intuitive eating that predicts a higher level of psychological well-being.

Positive psychology. It is a theoretical concept introduced by Martin Seligman, a more recent strength-based discipline that shares many similarities with humanistic psychology presented above. This approach suggests that removing maladaptive characteristics in the absence of introducing positive and adaptive characteristics creates intermediate mental health defined by a lack of pathology and lack of vitality (Fredrickson & Losada, 2005; Seligman & Csikszentmihalyi, 2000). Indeed, from a therapeutical point of view fostering positive effect is more beneficial than simply lowering negative effect (Fredrickson & Losada, 2005). Thus, researchers in the field concluded that it’s imperative to study the positive body image and to promote it because descreasing negative body image alone it is not sufficient anymore.

In line with the positive psychology theories, strategies to prevent the onset of the eating disorders by fostering a positive body image were documented by Tylka, & Wood-Barcalow (2015). They stress that one of the key is to include self-worth and appreciation for a better functionality of the body (Tylka, & Wood-Barcalow, 2015). Different other strategies documented in their study to build positive body image, were yoga for nurturing body awareness and responsiveness (Cook-Cottone et al., 2013; Scime & Cook-Cottone, 2008 cited in Tylka, & Wood-Barcalow (2015) media literacy, in order to build skills to protect body image against unrealistic media appearance ideals (Cook-Cottone, Kane,

Keddie, & Haugli, 2013; Steiner-Adair & Sjostrom, 2006; Wilksch & Wade, 2009 cited in Tylka & Wood-Barcalow, 2015).

In addition, other studies (Stice & Presnell, 2007), provided evidence for the dissonance-based prevention programs which engage participants in activities where they have to speak or write positive things about their body qualities (e.g. physical, emotional, intellectual and social qualities)

Programs that build self-esteem. In the study conducted by McVey GL (2010), a prevention program designed to promote body satisfaction and reduce the internalization of the thin ideal was carried out with university students. The authors have used a life skills and media literacy approach to promote self-esteem and body satisfaction. The findings of the study supported once again that body dissatisfaction is one of the most consistent factors for eating pathology. But their approach was particular for a couple of reasons. Besides using questionnaires for measuring the effect of the intervention, the authors put in practice also a form of evaluating participant's satisfaction with the program. Thus, open-ended questions were used to solicit feedback from the participants about the content and process of the intervention (e.g. 'What did you like most about today's session?**', '**Is there anything you would change? **',**'What is your opinion about the materials presented in terms of suitability for students attending the university? ','Are there parts of the session that you would prefer hearing about or seeing online?', 'How satisfied were you with the length of the session?. The input of the participants was gathered at the end of each session.

In this concern, the authors provide some directions for future research. They offer arguments in favor of the interactive activities with multiple component even if this type of intervention often takes a much longer time to complete than others. They recommend to use control trials for an increased scientific rigor, in this case the control group being important for the comparison of the results, to find creative ways of developing meaningful relationship with the target population for sustainable results in the prevention research, and to test the readiness for change both individually and at the organizational level (this being an important factor of the effective coaching). The authors have outlined the importance of partnering with the research team and university staff in order to assess the *level of readiness* for the university personnel to carry out prevention activities and intervention services in the area of eating disorders. Creating sustainable partnership with the universities that can benefit from the results of the prevention program and disseminate the results inside the

university could bring enormous advantages. In their example, the university staff collaborated with the research team to find ways to disseminate the program content in curricula across some disciplines at the university level (e.g., courses in nutrition, biology, health sciences).

This study is relevant for the directions that is offering for future prevention programs as well as for the student approach of evaluating the satisfaction with the program among the participants. As we intend to solicit feedback from the participants in our study, at the end of each session, the questions addressed for evaluating participants' satisfaction with the health coaching program and presented in this study are relevant.

In line with this findings, particular self-esteem enhancement programs are regarded as having a protective role for the mental health of young people. The rationale behind, is that low self-esteem predict body image dissatisfaction or negative body image. Therefore, by improving how individuals feel about themselves overall increase their self-worth, and body image satisfaction should increase as well (Alleva et al., 2015). Concordance was found in O'dea, (2004) who developed and tested a self-esteem based program 'everybody is different' and found that self-esteem alone can reduce the body image concerns and eating problems in young adolescents. The author, stated that self-esteem can play a protective role in front of threats and negative influences and contributes to positive health and social behaviours. The techniques used in this intervention were promoting the appreciation of individual difference based on body shape or other aspects focusing on strengths (e.g. sense of humor, intelligence), talents (e.g. dancing, mathematics) and building interpersonal skills. In this aspect, high self-esteem was found to create a realistic view about oneself characteristics which brings satisfaction for a person coupled with increased self-worth. Moreover, an extensive review on prevention of body image and eating disorders suggest that activities that built self-esteem are considered successful elements for the prevention initiatives in university students and should be more often incorporated in such programs (Yager & O'dea, 2008).

Coping with body image concerns. In the arena of positive body image, we mention a study which reveals the most common techniques and their perceived effectiveness when coping with body image concerns, a topic which has rarely been studied. As a consequence of body image dissatisfaction Smith-Jackson et al., (2011) show in their study that individuals employ in certain coping behaviours to alleviate the pressure they feel related to "how should they look" dictated by the societal norms. These strategies are consciously or

unconsciously used by the individuals. Using an interview based qualitative research, Smith-Jackson et al., (2011), evaluated the coping strategies that women use to deal with the perceived pressures regarding appearance. In this study 30 college women (age 18-19) were engaged in a 45–75 min semi-structured interview, where they were asked about body image experiences. They received questions related to the behaviours they engage in when they do not feel good about the way they look and about how these actions help them to feel better. The findings summarized several techniques that young women use in order to cope with negative body image experiences. The most frequent one reported by the participants of the study was *exercising*. Because of the endorphins released by their body, they managed to improve their perceptions about their body and feel better. The second most used coping strategy is *changing appearance or shopping*. This strategy includes changing hair colour, clothing style, makeup style which seems to make girls feeling better about themselves just for the fact that they do something for themselves. Another reported technique is *talking or communicating with family or friends*, this not including talks about body image concern. *Spirituality or religion* was another coping strategy, understood as finding meaning to one's existence and feeling grateful for what one's has already. With practice, this grateful attitude helped young women to feel better about themselves. Next was *social isolation* or simply not getting out in moments when women feel dissatisfied with their body. On the opposite side, *getting out* can be also found as a coping technique, as a way to get a mood boost from social interactions, in those critical moments when one girl feels bad about her body image. This strategy also can be seen as a distraction from real body image concerns. *Self-acceptance* as a way of seeing yourself and accepting yourself just as you are without judging or criticising. This involves a positive self- talk and a positive attitude toward one self. These findings suggest that a positive approach to body image could bring important benefits for a healthy lifestyle.

Similarly, in a study conducted on black and white young-adult college women, Wood-Barcalow et al., (2010), described 9 characteristics of positive body image: *acceptance and appreciation* of certain things about the shape and functionality of the body, *unconditional acceptance from others* – or knowing that you are valued and loved for other things than the way you look, whether you succeed or not, just for being your own person, *spirituality or religion*- as a belief that a higher power designed each body to be special and wants you to accept your body as it is, *body acceptance and love*- learning to love yourself

first and your body even if it doesn't reflect back in the magazines or media, *taking care of the body* by engaging in healthy behaviors- listening to the body's needs and choosing healthy behaviors and food, *filtering information in a body-protective manner* by being aware of the unrealistic media images and create a filter to block out messages that could endanger positive body image, *finding others who are accepting of themselves*- making choices of surrounding oneself with others that have a positive body image, *inner positivity* - feeling good in own skin, choosing to be radiant and happy with who you are**,** *broadly conceptualizing beauty***-** having an attitude of respect and tolerance for the diversity of weights and shapes of peoples' body. These characteristics were conceptualized as powerful filters in protecting own self's body image of threats and internalisation of dysfunctional beliefs and unrealistic ideals. Moreover, when the information is filtered, body investment will contract and women get to focus on other aspects of their identity (e.g., education, stepping outside of the objectification limelight, making friends and having partners who are focused on inner characteristics). According to the described study, the students not reporting a full satisfaction with all their body parts were still found to have a positive body image. The authors of the study suggest that body satisfaction is only a narrow part of a positive body image.

The study suggests that interventions and prevention programs can be designed to target the positive body image characteristics that were uncovered. Arguments are articulated in favour of the cognitive approach: "positive body image can be achieved with patience and concerted effort and by choosing to reframe information in a self-preserving rather than a self-destructive manner" (Wood-Barcalow et al., 2010, p. 106-116). Self-preservation implies the presence of so called "cognitive filters" that helps in processing the external information in a manner of protection against social pressures and thin internalisation. Specifically, it has been suggested that cognitive interventions could help girls and women establish and maintain their protective filters.

These conclusions are important for the present study recommending an increased attention for the connection between rational thoughts practice and cognitive filters which impact body image satisfaction. Through cognitive approaches, young women could be helped to reframe information about the self and define their identity based on skills and personality characteristics rather than body appearance. Such approach could be based on creating a diverse self-identity and contraction of the body investment. To these conclusion

we add the citation from Levine & Piran, (2004) who suggests that 'prevention of negative body image is a very desirable goal'. (p. 57–70).

3. Approaches in the context of body image dissatisfaction

In the field of body image and eating disorder prevention, several approaches have been tested. A review of large, randomized and controlled health promotion programs for improving body dissatisfaction, and eating behaviors in college students, revealed that psycho-educational programs, didactic information based and cognitive-behavioral programs are less effective in preventing body dissatisfaction and eating disturbances than other approaches (Yager& O'dea, 2006). On the other side, the successful approaches identified by the authors of the review, were media literacy and dissonance based approaches, which involved health education activities for self-esteem enhancement, and computers and internet as a medium of delivery. Accordingly, a more recent review on 62 control trial interventions, solely focusing on programs for targeting the single factor, body image (Alleva et al., 2015) has shown that only small effect improvements in body image have been achieved. Moreover, it is outlined that the overall effect of the interventions might be inflated by biases and after correcting these biases only small to medium effects appear in case of body image interventions. Finally, it is outlined the need for large scale trials in this area.

Nevertheless, important conclusions could be outlined by analyzing and understanding both the less and more successful elements in the prevention and treatment of body image dissatisfaction. In addition, a short review of different types of intervention is provided further.

Dissonance based programs. Dissonance based approach introduced by Eric Stice and colleagues in the body image and eating disorders prevention is based on the cognitive dissonance concept. According to this theory, cognitive dissonance produces an uncomfortable misalignment between the beliefs that one poses and the behavior that he displays. In order to reduce this psychological tension, the individuals change their beliefs in order to become consistent and aligned with their behavior. Several trials provide evidence for the efficacy and effectiveness of the cognitive dissonance interventions. In one study (Stice et al., 2000) conducted on undergraduate students who responded to an advertising

message, 10 participants allocated in the intervention group and with high in body image concern were compared with 20 participants in the control group The intervention group attended a cognitive dissonance program, of three meeting for group discussions and role plays. The observed results indicated a significant decrease of the thin ideal internalization, and other negative eating behaviors symptoms, at both the end of the program and follow up.

Didactic information only programs. Considered one of the most traditional approaches, usually involves some psychoeducational content which is be provided on paper or through the internet to the participants. In one study conducted by Mutterperl & Sanderson (2002), involved 107 first year university students, into a randomized control trial in order to reduce the high perceived norms of dieting, disordered eating and exercise behavior. Both groups intervention and control received a psychoeducational content to read: 'Norm Misperception' intervention brochure' and a 'General Healthy Behavior' control brochure. The results showed no significant effects at post-test and 3 months follow up. Moreover, the control brochure was reported to be more self-relevant for the participants.

Psychoeducational programs. Usually, psycho-educational programs include information content regarding the meaning of a healthy lifestyle or education regarding negative body image causes and consequences. Also, this type of intervention could be combined with other additional activities to build self-esteem or exercise training interventions (Alleva et al., 2015). A psychoeducational eating disturbance trial intervention on undergraduate psychology female students from Texas University was conducted by Stice et al., (2006). The participants were young students who voluntarily enrolled into an eating disorders class. The intervention group (n=25) were matched with comparison students who formed the control group (n=70). The students from the intervention group attended 15 weeks, twice per week, 1,5h didactical presentations and group discussions. The class covered topics related to the descriptive pathology of eating disorders (e.g. anorexia, bulimia), risk factors for obesity, the sociocultural dimension of body image, prevention and treatment of EDs followed by therapeutic group discussion. The results, revealed decreased thin ideal internalization, body dissatisfaction, and dieting. However, limitations are considered such as the self-selection of the participants for the study, the small sample size of the intervention, the lack of randomization and the absence of follow up measures.

3.1. Cognitive-behavioral approach

Given the strong association between negative body image and psychological problems, a large number of intervention have been designed to improve the body image satisfaction, out of which one of the most empirically supported is cognitive behavioral therapy (Alleva et al., 2015). Broadly speaking, cognitive behavioral therapy (CBT) is based on modifying dysfunctional beliefs, feelings and behaviors involved in body image dissatisfaction. The techniques are various and may include cognitive restructuring, self-monitoring, exposure exercise and guided imagery or they could be part of other type of programs such as media literacy interventions, psychoeducational programs, self-esteem enhancement methods or exercise training (Alleva et al., 2015).

Cognitive-behavioral techniques have demonstrated therapeutic efficacy for a variety of conditions associated with negative body image. In a meta-analytical review aimed to examine the effectiveness of stand-alone cognitive behavioral therapy across nineteen similar interventions, CBT was highly effective in improving body image and psychological variables (Jarry &Ip, 2005). In addition, the authors evaluated which specific change techniques were most effective for body image improvements. In light of this findings, the techniques associated to significant effects included discussions regarding the role of cognitions in body image and learning the monitoring and cognitive restructuring of dysfunctional beliefs. Concordance was found with other similar studies which found cognitive-restructuring helpful in adapting to daily social situation, evoking strategies like positive self-talk in order to remind oneself that self-worth is not determined by physical appearance but by other factors (Bennett-Levy, 2003).

Other types of cognitive behavioral programs have proved their effectiveness in reducing body image related problems. In one study, conducted in college women, Taylor et al., (2006), hypothesized that an internet based structured cognitive behavioral program will reduce weight and shape concerns by enhancing body image. The study was a randomized control trial and the intervention, titled ‘Student body’, was a 8 week internet delivered programs where the participants were expected to read a content and complete some accompanying assignments (e.g. To participate in an online discussion group, self-monitoring and writing entries in a Body Image Journal). Results were found in favor of the Internet-based cognitive-behavioral intervention which led to significant improvements in weight and shape satisfaction in college-age women who were at high risk for developing

EDs. The results were sustained in time, as reduction in weight and shape concerns were maintained up to 2 years as well as a decreased risk associated with EDs.

3.1.1. Cognitive models

During the last decade, the cognitive-behavioral approach in the understanding and treating eating disorders has received increased attention, most of the models being derived from the Beck's cognitive –behavioral model of depression (Beck, 1987).

The cognitive theory posits that different forms of eating disorders may share in common dysfunction in the organization of cognitive schemas and processing but the content of dysfunctional cognitions for each disorder is theorized to be unique (Spangler & Stice, 2001). Beck states that each psychological disorder has a unique cognitive content (Beck, 1987). The beliefs about appearance are influenced by the attitudes about body appearance (i.e., body shape, weight, attractiveness, etc.) and beliefs about eating. Once formed, the beliefs about appearance influence how a person generates, attends to, processes, and interpret appearance-related information in determining personal worth or self-evaluation (Cooper, 1997 cited in Caraca, 2011).

Albert Ellis, in 1950, highlighted that emotional distress is caused by the beliefs about the activating event, and not by the event per se. Further, Beck (1976), described the existence of 'internal dialogue', which is described as an internal voice which can impact the self-esteem, self-efficacy (competence) and self-worth. Furthermore, Beck (1995) describes these beliefs as automatic thoughts that are created by the unhelpful cognitive "schema" and stay in the way of full potential development. The author refers to errors of processing, cognitive distortions or "thinking errors".

The most popular cognitive model, which forms the base of many interventions, is the ABCD model of Albert Ellis (Ellis et al., 1997) whereby an individual typically assumes a direct link between A, the Activating event or an Awareness of a problem or issue, and C, the emotional and/or behavioral and/or physical Consequence, when in actuality this relationship is mediated by B, the Beliefs and perceptions about the activating event. D is about Disputing or examining the beliefs. The model is based on Albert Ellis's ABC model for Rational Emotive Therapy (Ellis et al., 1991) where A-Activating Events, B- Beliefs about these events, and C-emotional and behavioral Consequences of these Beliefs were considered to influence, include, and interact with each other. The ABC model is recognized

for its enormous contribution in the progress of cognitive-behavioral therapy, becoming one of the most popular interventions. Practically hundreds of controlled studies show that ABC helped clients overcome psychological disturbances more than other methods in a continuous manner for decades (Ellis, 1991).

Based on Albert Ellis' s rational-emotive and cognitive-behavioral therapy similar models for practicing rational beliefs for a good mental health were develop by Daniel David an 'Aaron T. Beck' professor of Clinical Psychology and Psychotherapy at the Babeş-Bolyai University, Cluj-Napoca, Romania. The model of David, (2006), includes the 'Ten Commandments of Rationality *To Follow' (i.e. it would be preferable that you succeed in everything you attempt, and do everything in your power for this to happen, but if you do not succeed it does not mean that you are worthless as a person, but that you've had a less desirable behavior, which can be improved in the future*) and "The Holy Trinity of Madness" to avoid: I must absolutely…, you/the others must absolutely… and life must absolutely…The model is titled self-help" psychological pills" and brings important contribution in therapy in the practice of the rational beliefs about life, significant others and the world. The model form is available online on the website of the Clinical psychology department of the Babes-Bolyai University in Cluj-Napoca and can be accessed by any person in need.

Similarly, a cartoon character (RETMAN) of rational –emotive and cognitive-behavioral therapy was invented at the Albert Elis institute in USA, for health promotion among children and adolescents (Merriefield & Merriefield, 1979). The model used as an intervention in therapeutically story telling was recently proved to have significant effect in reducing irrational child beliefs (Gavita & Calin, 2013). Meanwhile the research supported the importance of the cognitions in the development of negative body image, several cognitive measures for assessing body image schemas or dysfunctional beliefs were developed. Considerable work was made by Thomas Cash who can be recognized due to the several research publication related to body image assessments: Multidimensional Body-Self Relations Questionnaire (MBSRQ), an attitudinal body-image instrument – (Brown, Cash, & Mikulka, 1990), Assessment of Body-Image Cognitive Distortions (Jakatdar, Cash, & Engle, 2006), Assessment of body image investment: The Appearance Schemas Inventory (ASI) - (Cash & Labarge, 1996), Assessment of body image flexibility: Body Image-Acceptance and Action Questionnaire (BI-AAQ), (Sandoz et al., 2013). Most of these

assessments are measures of dysfunctional assumptions about the meaning and importance of one's appearance in one's life assessing the cognitive part of the body image satisfaction, under the specificity of the valuing and managing one's appearance. The interest for assessing the cognitive part of the body image, outlines the importance of this component for body image disturbances and eating disorders.

Support for the cognitive interventions comes from Carraça et al., (2011) who assumes that a solution could be one of simply helping women change how they think about their body because thinking about themselves differently could be useful to certain women. In his study, Carraça et al., (2011) recommends to include strategies to work on the investment component of body image, by encouraging individuals to question and gradually deconstruct their beliefs, interpretations, and thoughts about the importance of appearance in their lives and in defining their sense of self.

After consistent research Spangler & Stice (2001) validate the cognitive theory regarding the existence of dysfunctional beliefs about appearance. They developed an instrument Beliefs About Appearance Scale (BAAS) to measure dysfunctional beliefs about body image which could be used to assess these beliefs before and after a psychological intervention.

3.2. Coaching

Definition of Coaching. The word coaching comes from the English word '*coach'* and initially meant transporting people from the place to another, but more recently, it has meant helping a sports team to win a competition (Edelson, 2006). Currently, coaching is viewed as an example of applied ''positive'' psychology with a person-centered, humanistic philosophy for helping people who do not have clinically significant mental health issues or abnormal life stress to improve their personal and work lives (Edelson, 2006; Grant & Palmer, 2002; Stober, 2006). The International Coach Federation, defines coaching on their official website, as 'partnering with clients in a thought-provoking and creative process that inspires them to maximize their personal and professional potential'. Besides other practices, the psychological approach to coaching is focusing on self-actualization and growth rather than dysfunction, and it's based on the assumption that people are able to change themselves if they desire to do so (Stober, 2006). The coaching is considered a facilitation process for

helping individuals to discover their own solutions to their problems, articulate and achieve goals in a variety of life domains such as personal, professional or business development, skill acquisition, coping with illness, or managing life transitions. Coaching consists in a collaborative relationship and it is viewed as a customized process that enhances the client's potential for self-awareness, understanding the meaning of his or her unique situation, for planning change, and achievement of individual goals (Stober, 2006).

3.2.1. Cognitive behavioral coaching. A popular form of coaching is derived from the practice of cognitive behavioral therapy. The cognitive behavioral approach states that what we feel and how we react to a certain event it is mainly determined by our perception of that event, and not by the event per se. By examining, reviewing and changing some of the unhelpful perceptions about the events that happen to us with more helpful ones, individuals could manage to solve their issues or challenges. When used with non-clinical groups, cognitive behavioral therapy (CBT) is called cognitive behavioral coaching (CBC). According to Neenan & Dryden, (2002), CBC 'does not offer any quick fixes to achieve personal change or "magic away" personal difficulties; it does emphasize that sustained effort and commitment are required for a successful outcome to your life challenges' (p. 9). Coaching help individuals to achieve their life goals through a collaborative relationship and a guided discovery which is based on specific questioning technique. One of the most powerful is Socratic questioning, originate from Socrates, the early Greek philosopher, which is a method of exploring thoughts in deep and can be useful to challenge dysfunctional beliefs and change the client's unhelpful way thinking. The aim of these questions is to facilitate the insight of the client, to help him become aware of his situation and find his own answers and solutions toward decision making or problem-solving.

Even though several models of coaching exists, the application of cognitive behavioral and multimodal models to health coaching, can bring promising results for the health field (Palmer et al., 2003). Coaching as a process is time limited, goal and solution oriented, focused here and how, without exploring the past (eventually past events or materials are analyzed in order to identify lessons learned or successful pathways that could provide guidelines for the present or future behaviour). The ultimate goal of CBC is to empower the client to become their own coaches, thus to be able to self-help themselves.

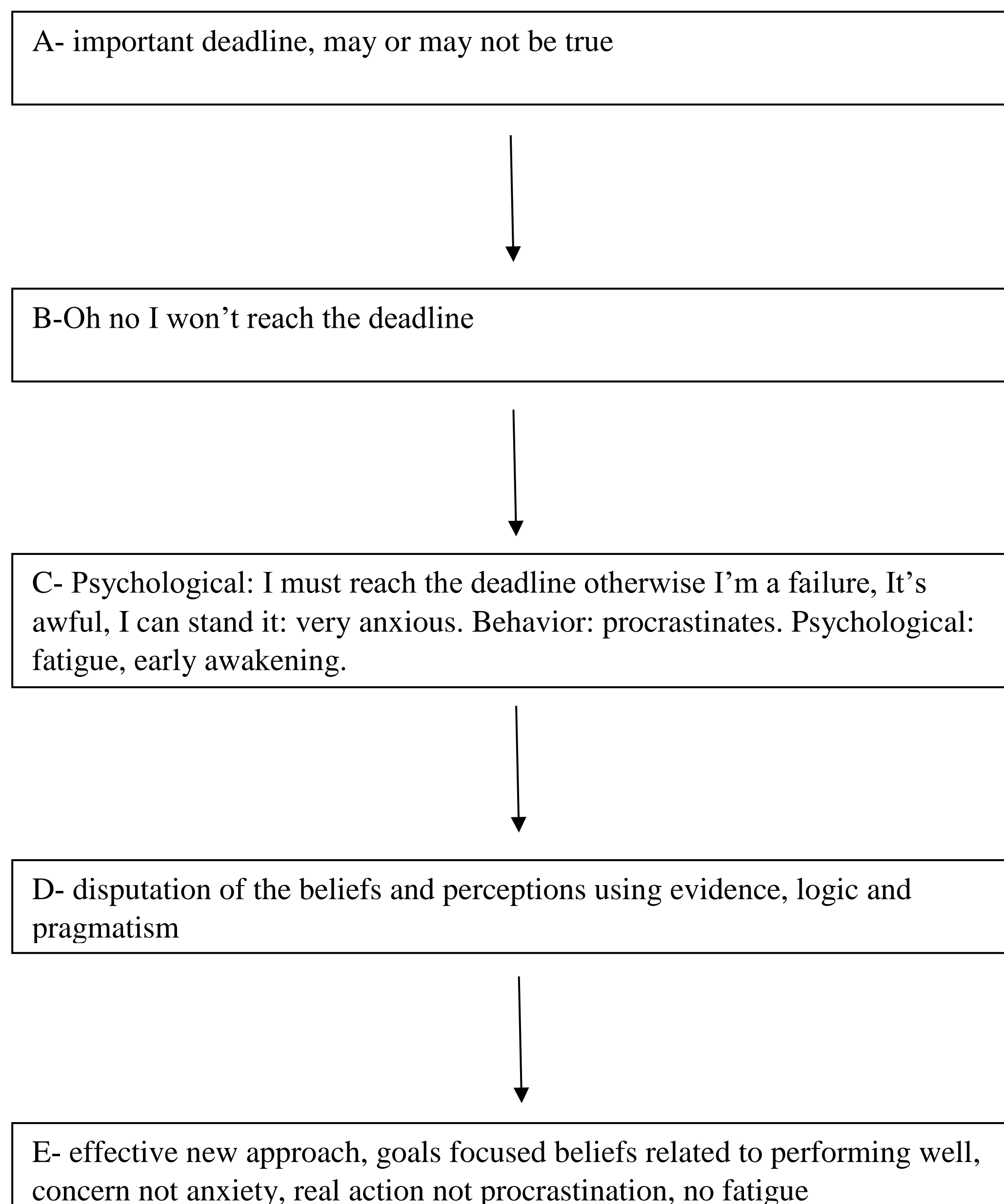
Several models of coaching already exist in the scientific literature. However one of the most popular and widely used is GROW model. GROW model was introduced by

Whitmore, in 1996 and used in a variety of fields thanks to its practical and flexible approach. Practically, the GROW model, it's an acronym which stands for GOAL, REALITY, OPTIONS, WILL (or WRAP-UP) (Whitmore 1996; 2004) and integrates the structure of a coaching conversation. In the first place, the client together with the coach set short and long term GOALS to achieve during the coaching process. Some specific questions are addressed by the coach in this stage, in order to help the client to articulate specific, measurable, attainable, realistic and time bounded goals. Once the goals are set, the REALITY check is needed, which means getting information about the current situation of the client regarding his goals, the facts, and feeling associated with or around the topic. In this phase, the most important thing in the process is to create awareness of the client about all the aspects of his current situation. Further to OPTIONS, the client has to think about his own ideas and solutions in order to move forward to his goals or to solve his issues. The client is asked to make his own choices from the possibilities that he has found. This phase is empowering for the client, as he discovers solutions to his issues/ challenges and he chooses by himself which one can work better in his case. In this phase, some obstacles may appear in finding or applying a solution, obstacles that usually are limiting beliefs. The coach then will have the role to address the right questions in order to unblock the client's mind and open it to real possibilities regarding what can be done. In the last phase, WILL comes to define the next things to do, or to accomplish. The client and the coach, agree about the next steps that are necessary to be taken in order for the client to reach his goal. Clear action planning regarding who, what, when, how and till when, are mandatory in order to make sure that something will happen after the coaching session. In practice, the GROW model has proved its applicability in problem-solving and goal setting in business and life coaching of today's world and it is considered one the best-known session structure model. One strength of the model lies in its simplicity because simplicity assures enough flexibility in responding to the requirements of any type of coaching session or given situation. Several cognitive-behavioral models of coaching developed from the field of cognitive and rational emotive therapy, emphasizing the importance of cognition, beliefs and perception (Palmer, 2007).

The well –known ABCD model of Beck (1987) became popular in the coaching practice under the ABCDE form, A – antecedents and B-, C- D- E standing for effective and new approaches. Moreover, ABCDE became ABCDEF model (Ellis, Gordon, Neenan, & Palmer, 1997; Palmer, 2002; 2009 cited in Cox, Bachkirova, & Clutterbuck, 2014) of the

rational emotive behaviour approach which allows the coach to facilitate a review of the event that triggers psychological disturbance for the coaching client, in order to identify unhelpful thinking patterns and replace these with more constructive thoughts and behaviours (Neenan & Palmer & Szymanska, 2007 cited in Cox, Bachkirova, & Clutterbuck, 2014). The ABCDEF model also includes F, representing a Future focus on personal work goals and the learning from ABCDE - 'what the client has learnt from the process to ensure that they are less likely to become stressed by a similar event in the future' (Palmer, 2002: 16) The ABCDEF framework is a model of stress, performance, coping and resilience depending upon its application. Figure 1 presents an example of the ABCDEF model in use for a coaching client as part of a stress management and prevention programme.

Figure 1. Client example using the ABCDEF model, (Source: Stephen Palmer, 2002 cited in Cox, Bachkirova, & Clutterbuck, 2014, p. 47)



F- focus remains on work goals, Future focus- learns not to rigidly demand a future “perfect” performance from self

In practice goals are developed early on in the process and this is often depicted as G-ABCDEF framework, where G-comes from the Goal. The coaching client is often, noting down his problem, beliefs, consequences, modified beliefs, effective new approach and future focus (Cox, Bachkirova, & Clutterbuck, 2014).

According to Cox, Bachkirova, & Clutterbuck (2014) goals and tasks of the cognitive behavioral coaching are to:

1) Facilitate self-awareness of underlying cognitive and emotional barriers for life improvements.

In order to achieve this, the coaching client is invited to explore the problem or the issue where he faces difficulties. Therefore, the client has to examine the evidence or the lack of evidence in the support of his own perspective about life challenges, and consider alternative perspectives, looking for new evidences. The coaching process per se is a questioning process used to be referred as 'Socratic' questioning, after the philosopher Socrates, and involves the coach asking a series of questions aimed at increasing awareness about one specific situation (Neenan & Palmer, 2001).

2) Equip the individual with more effective thinking and behavioural skills

Another role of the coaching is to train the thinking skills of the individual, defined as 'methods to help modify stress-inducing thinking' (Palmer & Cooper, 2007: 50 cited in Cox, Bachkirova, & Clutterbuck, 2014). In order to train the thinking skills the coaching client is challenged to decide whether their idea or belief is logical or has empirical support in reality but moreover to decide if that belief is helpful or not for himself (McMahon, 2007; Palmer & Szymanska, 2007 cited in Cox, Bachkirova, & Clutterbuck, 2014). It is of great importance for clients to reframe realistic and helpful thinking as positive thinking. Depending on the length of time over which the thinking errors have been established, the client persistence is needed in order to achieve change.

3) Build internal resources, stability and self-acceptance in order to mobilize the individual to their choice of action.

In the coaching process, self-acceptance is very important, and as Palmer & Cooper (2007) argues, self-acceptance can be summarized in a simple phrase 'I'm ok, just because I exist' (p.77). For the coaching client is important to foster self-acceptance of himself as he is, being aware about the various aspects of the self, including strengths and deficits in terms of skills, and rating these different parts of the self without globally rating himself as being good, bad, strong, weak as a person.

4) Enable the client to become their own self-coach.

Practically, the main goal of the coaching as process is to lead to self-improvement, which can be manifested in any area of one's life.

3.2.2. Health Coaching

Definition of Health coaching. To effectively measure coaching and its potential benefits in the health care, it is necessary to define and understand the concept. Stephen Palmer, president of the 'International Society of Coaching Psychology', defines health coaching as being: "the practice of health education and health promotion within a coaching context, to enhance the wellbeing of individuals and to facilitate the achievement of their health-related goals" (Palmer et al., 2003; p. 92). In his work, the author describes the emergence of the coaching in the health field and its benefits. He stresses that although health coaching it is not a well-defined practice among the mainstream of health education, the term is progressively entering into the general public awareness. Some professional public bodies already recognized this form of health intervention. Thus, The International Stress Management Association (UK) has recognized health coaching under the umbrella of health education, in the field of stress management. Because the term becomes more and more acceptable to the public, health coaching has more chances to be favorably received by clients instead of other traditional health programs.

In the practice, Palmer et al., (2003), posits that coaching could be useful in tackling the health related blocks to change known under the name of Health Inhibiting Beliefs (HIBs)

and Health Enhancing Beliefs (HEBs). Applied to eating disorders, Palmer, (2013) offers an example of HIB followed by HEB modification that could look as following:

‘ - HIB: *I’ve got to eat something to stop me being upset.*
- HEB: *I’m allowed to be upset, but what am I getting upset for? I can do this without bingeing.’ (p. 92)*

Thus, the author supports the introduction of standard cognitive techniques in the practice of health coaching and the spread of the approach. Accordingly, a survey conducted in 2010, concluded that cognitive- behavioral coaching approach was used by 62,5% of the coaching psychologists, followed by coaching based on strengths enhancement at 50% and behavioral coaching at 47,3% (Olsen, 2010).

Effectiveness of health coaching. Still, there is a lack of research that underpins the effectiveness of health coaching (Palmer, 2003).

Nevertheless, an increased number of studies on the topic of health coaching programs indicate a growing interest among health professionals for this practice. According to an integrative review that analyzed health coaching studies for effectiveness evidence, coaching was found to be effectively in improving healthy lifestyle behaviors for children and adults, with significant results in the area of improved nutrition, increased levels of physical activity, weight management, or medication adherence, in 40% of the studies included in the review (Olsen, 2010).

Apart of this health coaching brought promising result for many health changes like: changes in diet and exercise rate (Bennet et al., 2005), reducing emotional problems, reducing fat ingestion and weight loss (Ruiz et al., 2012). Further coaching has proved it’s efficacy for chronic problems as well.

Weight management. One-on-one lifestyle coaching for managing adolescent obesity delivered in a real-world settings, demonstrates that structured coaching interventions can have a positive, impact on weight management leading to short-term improvements in the obesity status of adolescents (Ball et al, 2011). More specifically, in this study was assessed the effect of motivational interviewing method (defined as a client centered counseling approach) and cognitive behavioral therapy for the efficacy of obesity management in

Canadian adolescents. The intervention sessions included report building with the health practitioner, counselling and communication strategies from motivational interviewing and cognitive behavioral therapy, goals setting and planning of the behavior, with a process adapted to participant's motivation and stages of change. The methods of the program led to short-term improvements in the obesity status of adolescents Ball et al., (2011) providing promising results for managing obesity in real-world larger samples of intervention.

Asthma care. In his study Swerczek et al., (2013) tested the effect of nurse telephone coaching based on the Transtheoretical model of behavior change (Prochaska, Redding et al., 1994; Prochaska, Velicer et al., 1994 cited in Sweczek et al., 2013). Been used as a cognitive vs. action oriented coaching improved the self-management behaviors in parents and children with asthma (asthma is considered one of the most common chronic disease of childhood, which due to the variable nature of the disease can be hard to manage by parents and children). Therefore, the work presented in this paper has brought important guidelines for the health care approach in case of asthma, recognized by the National Asthma Education Prevention Program (NAEPP) whose guidelines containing specific recommendations for effective self-management behaviors fail to succeed. According to the Trans theoretical model approached in the mentioned study, there are four stages that describe the motivational readiness of an individual in order to engage in positive health related behavioral change:

- Pre-contemplation – I won't/I can't.
- Contemplation – I may.
- Preparation – I will.
- Action – I am.
- Maintenance – I still am.

According to each stage, the coaching model used in this study, targeted four behaviors to be changed: 1. using controller medications as prescribed, 2. having and using an up-to-date asthma action plan, 3. using rescue medications at the child's first symptoms of an acute exacerbation. 4. the collaborative partnership with the child's pediatrician, including regular asthma planning visits at least every 6 months. For each behavior, specific staging questions according to the Transtheoretical model of behavior change have been targeted. The coaches were pediatric nurses and had to adapt their questions to the particular change stage of the

client. The coaches involved in this intervention had to address each of the four behaviors at least once with every family engaged into the program during an established period of 1 year. The coaching intervention was provided by telephone calls of around 10 minutes each depending on the parent's level of attentiveness and availability. Each coached manage a total of 12 to 17 families during 1 year of the intervention period. The study was a randomized control trial. Overall, the final evaluation showed a significant improvement of the positive behaviors of the parents in managing their child asthma for the telephone coaching condition. More specifically, at termination of the coaching intervention, compared to a control group, the parents who benefit from coaching reported a better asthma quality of life, a reduction in their child's asthma symptom and less activity limitations. Also, important improvements were remarked regarding the progression of the parents to late stages of behavioral change. Furthermore the findings suggest that not only the parents' knowledge and understanding of effective asthma management behaviors increased, but also their self-confidence has increased. The parents became more aware about the importance of asthma for them and for the others, and they acknowledged that they need to be proactive and not reactive in order to control and prevent the asthma symptoms. The parents felt empowered and were finally highly satisfied with the program.

In conclusion, the cognitive vs action oriented approach based on coaching seems to have positive results in promoting self-management behaviors in parents of children with asthma, having a high impact on self-confidence, empowerment, proactive attitude and quality of life. The study provides promising results for coaching as an intervention used in wide health settings for chronic conditions and could serve as an example of how to use a coaching approach based on the medical model of behavioral change.

3.2.3. Self-Help approach

In order to support the present intervention of this study in the self-help framework, we recall some models of intervention that were used in the health field as powerful approaches for self-help in overcoming health related problems.

First of all, evidences exist in favor of self-help interventions in different areas of behavior change (e.g gambling, drinking, and weight management). In a meta-analysis, which compare self-help interventions with no treatment controls it has been revealed that self –help approaches are significantly more effective than are controls. Moreover, compared to the same programs delivered by therapists or practitioners, self-help interventions were not found significantly less effective (Gould & Clum, 1993 cited in Hodgins et al., 2001). Usually the self-help interventions consists in workbooks, which may be an accessible, attractive and cost –effective alternative than attending one to one treatments or group meetings. More effectiveness for this approach has been found in females rather than males. In addition, regarding the self-help applied in the coaching field, the last objective of any coaching process is to empower the clients to become able to self-coach themselves (Palmer 2003). In fact, the coaching process could be regarded as a self-help intervention, because it requires self-discovery, involves personal insight and decision making that activate the personal resources of the individual. Mainly the coach, has the role of facilitating the process of goal achievement, but in the end the responsibility for the achieved goals relies on the client.

In a review conducted by Ylvisaker (2006) on self-talk interventions, the authors presents self-coaching as a metaphor for self-regulation and self-talk. In addition, self-coaching is regarded as being similar to cognitive behavior therapy, and should be referred as daily routine as part of the self-regulation process. Moreover, the study explores the effects of self-coaching intervention in everyday contextual reality among individuals after traumatic brain injuries (TBI). In this case, various conditions of self-coaching were used as a method to address common obstacles after TBI: low emotional control, ineffective social interaction, emotional difficulties in interaction with the others, difficulty managing everyday routines, problems at work or school, personal goals related to money management, hygiene, weight loss and others. In this study, self-coaching theatre plays

(including self-regulatory self-talk scripts) and self-coaching videos of self-regulation or interaction, were found effective to solve specific problems related to TBI.

Self-help coaching and body dissatisfaction. A self-help exercise to identify, monitor, and dispute 10 dysfunctional "appearance assumptions" was developed by Strachan & Cash (2002). In this study the participants (young women that experienced body image dissatisfaction) were engaged into an 8-steps cognitive behavioral self-directed program meant to develop a more mindful, accepting and satisfying relationship with the body. This intervention was based on self-assessments to ascertain one's body image strengths, difficulties and vulnerabilities, to identify the impact of body image on its functioning and on quality of life followed by setting specific goals for change. The cognitive component consisted in identifying, monitoring, disputing and correcting cognitive distortions (e.g., "If people saw my real look, they would dislike me") combined with self-monitoring A-B-Cs (activators, beliefs, and consequences) of dysphoric body-image emotions.

Being a long intervention designed to be carried out by their own, the participants had difficulties in commitment showing insufficient self-efficacy for change. The suggestion of the authors for self-help interventions is to attend individual differences in mediating attitudes toward self-help and motivate to enhance the compliance with self-directed programs (Cash, 2002). This could involve for example, to check levels of motivation at the beginning, middle or ending phases of a session (e.g. Mackintosh, 2005 cited in Strachan & Cash, 2002) or to ensure that any barriers to change have been addressed (e.g. Smith, 1998 cited in Strachan & Cash, 2002).

In a recent study, a writing intervention conducted by Przezdziecki& Sherman, (2016) was used to change the affective and cognitive response of women regarding adverse bodily changes in cancer. In the study were involved female breast cancer survivors from Australia who were considered at risk of deep body image disturbances as a result of the surgery they had to take for healing. The authors, introduced in this study two interesting variables that were expected to have a positive effect in helping the females to recover: mindfulness as a protective factor for body image concerns and self-compassion to foster a sense of care and tenderness toward the self. The participants were randomly assigned to an experimental (self-compassion-focused condition) or control condition (unstructured writing description of their experiences of body image difficulties after cancer treatment). The intervention used in this study was based on a paper writing exercise. The self-compassionate

writing condition involved writing about the negative body experience designed to induce a personal self-compassionate perspective. The exercise was divided in several parts with a major focus on adopting a mindfully perspective of the situation. Final results revealed positive results for the experimental group compared to control. Writing condition resulted in lower negative affect and grater self-comparison attitude during the exposures to difficult memories regarding body image. These finding are important because they provide evidence for the effectiveness of relatively simple and inexpensive intervention to address body image issues, with potential application of this model to many other body image disturbances.

In light of these findings, the presented approach it is relevant for the present study, as a self-help cognitive intervention aimed to change an emotional response to a negative experience, it puts in use an approach that focus on cognitive restructuring for women to see differently the same event, and invites to focus on aspects of common humanity. Even more, the study is notable for the simplicity of the approach, being a self-administered intervention. The results of the study show significant changes in the affect and cognitions, suggesting to pay more attention to this model in other health care contexts where difficulties related to body image may arise.

Cross cultural context. According to Palmer (2003), Cognitive Behavioral Coaching is a flexible approach which can be easily adapted to different cultures and languages. Many of the coaching models already have been adapted to specific cultural populations. This can foster the cross-cultural work of international organizations as well as in capital cities, where the multiculturalism is high. Cross-cultural context has become relevant because once with the phenomenon of globalization the cultural diversity increased in the personal and professional development of the individuals. In this situation, cross-cultural coaching began to emerge as a different practice (Cox, Bachkirova, & Clutterbuck, 2014).

However, applied to body image field, in a cross-cultural study Rodriguez, Marchand, & Stice (2008), explored the effects of participating in cognitive dissonance prevention program on changes in body dissatisfaction, and eating symptoms among different populations. The results show that effects of the Prevention Program are Similar for Asian American, Hispanic, and White Participants. The authors outlined the cultural sensitivity of measures which can moderate intervention effects. They suggest in case of variance, to consider groups for whom one intervention might be particularly effective and groups for whom one intervention might not be effective.

4. Pilot Study

4.1. Pilot study introduction

According to Dictionary of Epidemiology, Porta (2008) a pilot study is a test on a small-scale for the methods and procedures that will be used on a larger scale.

The fundamental purpose of conducting this pilot study is to examine the feasibility of the proposed intervention approach that is intended to be used in the larger scale study.

We intended to evaluate the feasibility, acceptability, and helpfulness of the intervention based on a Self-Help Coaching Exercise. More specifically the objectives of the pilot study were:

a) to study the feasibility of recruitment and randomization

b) to study the assessment procedures for the intervention

c) to study the feasibility of applying a new intervention approach in a cross-cultural group

d) to assess how a cross-cultural group reacts to this type of intervention

e) to study a possible effect of the intervention

4.2. Methodology

4.2. 1. Participants

The pilot study was conducted on an international sample of 18 college women, age between 18 and 26 years old from 9 different countries: Romania, Macedonia, Lithuania, Malta, Estonia, Bulgaria, Slovenia, Portugal, and Cyprus. The sample was selected from the group of participants of a project financed by the European Commission, an introductory training course on the topic of coaching, titled '*Coaching to unleash potential*', which took place in Bulgaria, between 8-16 July, 2016. The objective of this training was to develop the basic coaching skills of youth workers between 18-26 years old. The participants were youngsters from European countries, member or affiliate of a Non-governmental organization (NGO), interested in coaching as a method for developing others. The Self-

Help coaching exercise has been proposed during one workshop of coaching tools. The intervention was delivered by the conductor of this research, who is a PhD student, has studied coaching and works as a coaching professional. The participants have been informed about the objective of this study which is to improve the body image satisfaction for European young women. The 18 participants showed interest for the topic of the study and offered themselves volunteers to participate. Also, they were explained the steps of the intervention which referred to pre and post measures of beliefs about appearance and one written individual exercise (intervention).

The participants have been invited to ask as many questions as they need in order to understand completely the objectives of the study and the utility of their participation. In the first place, each participant signed an ethical consent acknowledging that he understands that his participation is voluntary, and he can give up whenever he wants, without giving an explanation, without any repercussion for the future. The confidentiality of the data was guaranteed by the researcher.

4.2.2. Instruments

Before and after intervention measures were taken using the instrument 'Beliefs About Appearance Scale' of Spangler & Stice, (2001).

BAAS Description

The Beliefs about Appearance Scale (BAAS), is an instrument designed to measure dysfunctional attitudes about bodily appearance. The reliability and validity of the BAAS were evaluated and replicated in three independent samples: college students, adolescent females, young females. It was proved to be an "internally-consistent, unidimensional measure that exhibited both construct and criterion-related validity" (Spangler & Stice, 2001; p. 813). The internal consistency was high in each sample with alpha levels ranging from 0.94 (n = 462) to 0.95 (n = 117). Test-retest reliability was established by conducting analyses after three weeks with one sample and 10 months with another.

The BAAS asks participants to indicate to what degree they agree with 20 statements on a five-point scale ranging from 0 (not at all) to 4 (extremely). For example, one of the statements is "*People will think less of me if I don't look my best"* Responses to each statement are given from zero to four (0 = Not at All, 1 = Somewhat, 2 = Moderately, 3 = A

Lot, 4 = Extremely). High scores indicate *dysfunctional attitudes about appearance* and greater emphasis on body appearance.

According to the authors the BAAS predicted eating disorder symptomatology over time and was sensitive to interventions designed to modify appearance beliefs. Also, more reduction in BAAS are expected for interventions designed for beliefs about appearance than any tangential intervention or control groups.

We chose this instrument because the findings support the BAAS' utility in assessing dysfunctional attitudes about appearance. In the validation studies replicated in there independent samples, it has been suggested that the instrument could be used clinically to identify dysfunctional attitudes about body image and could be administered in the beginning of cognitive-behavioral interventions in the case of eating disorders, in order to identify those individuals who persists in their dysfunctional beliefs patterns.

4.2.3 Procedure

During one workshop, 18 participants who volunteered to participate in the study were randomly divided into two groups. The randomization was assured by inviting the participants to pick up a number on a paper from a given amount of possibilities. According to the picked number, each participant was assigned whether to the intervention or control group. We had 10 participants in the intervention group and 8 participants in the control group. The intervention consisted in the self-administration of the Self-Help Coaching Exercise Version.1.0. (Annex 1). Each participant received clear instructions from the researcher, paper based exercise and pen in order to complete the task. The time allocated for the task was approximately 1h. The task of the control group was to list some challenge that women face nowadays in society. Both intervention and control group completed the questionnaire of BAAS which was used as a measure of the change in dysfunctional beliefs and attitudes related to body appearance pre and post intervention.

4.2.3.1. Development of the Self-Help Coaching Exercise

The Self-Help Coaching exercise has been developed as a short individual intervention. The exercise was derived from the single factor structure of BAAS of Stice & Spangler, (2001) following the rational cognitions model of Beck, (1987). Dysfunctional attitudes in the frame of cognitive theory refer to content which includes the belief that appearance determines self-worth and self-view. Thus, the rationale of this exercise is based on the assumption of BAAS which suggest that if individuals believe their appearance has implication for their self-view they are likely to believe that appearance has implication for other life domains such as relationship, mood or performance. While the BAAS is a self-report scale that assesses the degree of endorsement of beliefs about the perceived consequences of appearance for self-view and life domains we considered an exercise format that could offer guidelines to the individual towards finding other human qualities different than appearance, responsible in determining self-view and life success.

The Self-Help Coaching exercise aims to challenge the dysfunctional beliefs of young women related to body appearance by changing their perspective regarding the consequences of body image for their life and happiness. Therefore the beliefs measured in BAAS regarding the importance of body image in determining feelings, interpersonal success or performance were explored in a questioning manner in the self- help coaching exercise and the participants received instructions on how to correct these beliefs and replace them with more helpful ones. Practically, through these instructions, the participants are asked to think about their inner characteristics and their impact on determining their personal worth and life success. To this content, a coaching approach was added by introducing a collaborative approach, a person centered focus, reflectiveness, and enhancement of the strengths and resources that individuals already have. The exercise can be defined as a self-awareness process for defining one's identity based on inner characteristics and not appearance features. By completing this exercise one should become aware that he is valuable as a human being for his qualities and not for the way he looks.

Further, being self-administrated, the exercise gained a self-help character. The self-help exercise has been divided into three main parts: a) self-awareness of the personal strengths to help the individual to bring in his consciousness the abilities, talents, and attitudes he owns and impact his life success b) a short educational part related to ABC

cognitive model (e.g. activating a negative event related to body appearance to change old beliefs and emotions) c) an action oriented part for articulating actions/ behaviours for improving one's life, mood or relationships.

The exercise was designed according to the humanistic and positive psychology principles, to foster the strength in individuals and to remind them about their personal qualities for enhancing their self-confidence and self-worth. In order to be completed, the exercise is requiring a strong reflection of one-self and proactive attitude, as the last part of the exercise switches to actions that one can take in order to improve one's life. In this concern, the exercise creates awareness that relationships, life and mood could be changed by the action that one takes rather than some stable traits such as most of the appearance features (e.g. *'My life would be more rewarding if I would start/stop doing…','My relationships would improve if I would…', 'I would enjoy life more if...'*). In blanks, the participants have to fill in with information that fits with the received instructions below each items. One part of the exercise provides understanding according to the ABC cognitive model in order to help individuals learn about the connection between their beliefs and their feelings in the field of body image. In this section, the participants are asked to recall a moment when they felt negative about their physical look, to identify their self-talk, and then to reframe it into more positive self-talk, in order to feel better about the same situation. This part is considered, from a coaching perspective, the education of the client who needs the explanation regarding the theoretical model of the content. Also, ABC education is usually a part of the cognitive-behavioral therapy in clinical cases.

Following the cognitive model and research of Spangler & Stice (2001), the exercise, offers guidance for young women to reconsider the importance of appearance in their self-evaluations for relationship, work/achievement, self-worth and their ability to feel happy. Practically the final aim of the exercise is to make young women aware about their personal-value based on other qualities different than body appearance (abilities, talents, attitudes etc.).

This self-help coaching exercise was created for an international sample, therefore, the language used is English. The form was created by Andreea Munteanu - Ph.D. student in Clinical and Health Psychology at Autonomous University of Barcelona revised and completed by a Ph.D. student in clinical psychology from Romania, Babes-Bolyai University. The initial version was reviewed by a professor in Clinical and Health

Psychology (from Babes Bolyai University) and revised by a native English speaker from Tennessee.

The initial form passed through several reviews. Constructive feedback from the first group of participants was integrated and changes were made in the structure of the items: 1) three lines for all responses were added in order to make it clear when asking for three separate ideas 2) the simple statements without blanks to fill in were eliminated 3) the hard to understand questions were reviewed 4) the best questions were kept for creating a personal relevant focus (thirteen out of twenty).

The initial form of the exercise which was built on 20 items following the 20 items BAAS structure (annex 1), after the feedback of potential participants and Eric Stice, it was reduced to 13 items (annex 2). The 20 items structure was used in the pilot study Version 1.0, while the 13 items structure was applied in the randomized control trial as an intervention Version 2.0.

Feedback for the exercise format. Because we consider it an innovative intervention, in order to customize better the exercise format to the participants needs, we followed the suggestion of Eric Stice who encouraged the author of the thesis to solicit feedback from the participants and use their input for the improvement of the form. Thus, the first step was to ask for feedback for the 20 item exercise that we developed, within a group of 33 young participants in an international project financed by European Commission titled "Be a healthy youth, fight against obesity" who took place in Cluj-Napoca, Romania, in February 2016. The project aim was to teach youngsters how to have a healthy lifestyle. The group was gender mixed (25 females and 8 males) and culturally diverse: 12 participants from Slovakia, 13 participants from Romania, 12 participants from Spain. Their age ranged between 18 and 26 years old. The working language was international English (we mention international English because no native English speaker was present). Therefore during a workshop, the Self-Help Coaching Exercise was applied, aiming to evaluate: the understanding of the task, the understanding of the English form of the exercise, the perception of the utility of the exercise and compliance with the task. In order to test these aspects we asked the participants to answer to a number of targeted questions at the end of the task: ‘did you find anything difficult in completing the task?', ‘did you find difficulties in understanding the items?', ‘was this exercise helpful for you in any way?', ‘has anything changed after completing the exercise'? etc.

The cultural-mixed group was open to complete the self-help coaching exercise and to provide feedback after it. Therefore: the majority of the participants declared they understand the task, the instructions and the English form of the exercise with some exceptions regarding some particular items which were not detailed enough. Mixing girls and boys brought some differences in the understanding of the body image concept and social pressures that arise because of the different roles that each gender has and different pressures that exist for each gender. In general, girls rated more positively the exercise than the boys.

The perception of the utility among the group was good, the majority of the participants, especially females, declared that something has changed after completing this exercise:

"It gave me new perspectives"

"I helped me to know what I should change and do better"

"I became aware of the high expectation I have regarding myself and others"

"For sure I will think differently about myself"

"If I have positive thought about myself, would be easier for others to deal with me"

"After this exercise, I will feel uncomfortable with myself two days per month, not five"

"I become more aware of the fact that not how you look matters most but other things about yourself that could last longer than a simple image"

"It changed a bit my opinion about body image"

As a result of this stage, based on our observations, some important directions for the future study were articulated. The hard to understand items of the exercise were reviewed. Also, we decided to use randomization for selecting the sample, to include a control group in the final study, to use more measures for the effect, and to apply it only in groups of females.

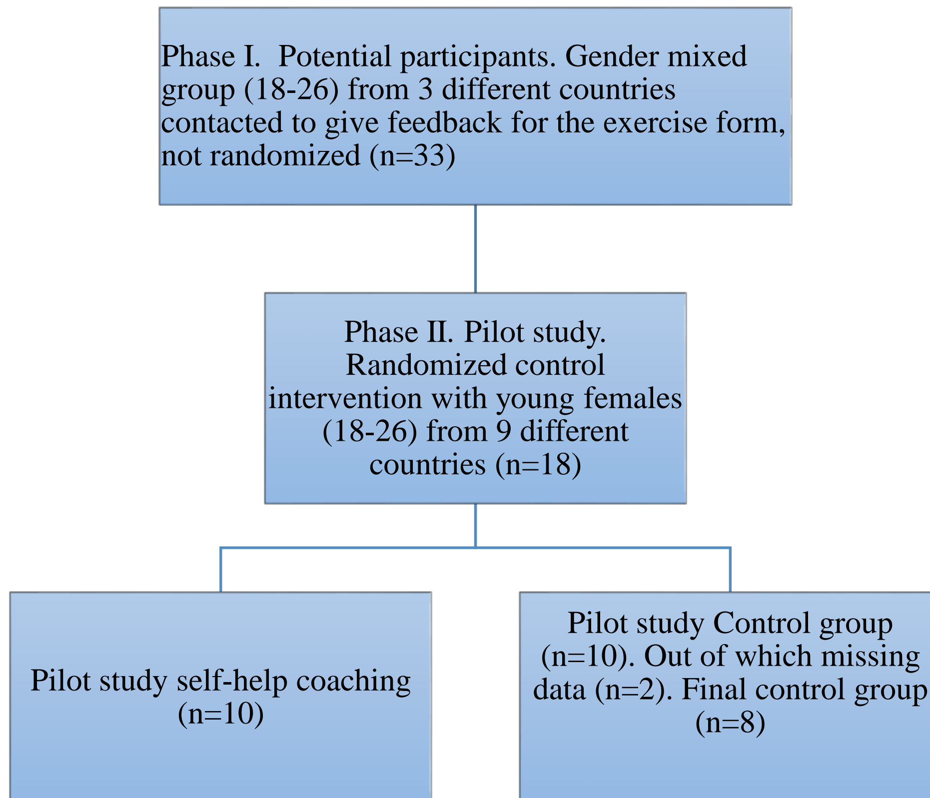
A great contribution in defining the final form of the Self-Help Coaching exercise was brought by Eric Stice, who supported the innovation of the idea and offered very punctual suggestions in the improvements of the intervention exercise form. According to Eric Stice's last suggestions, a final revision of the exercise has been made following to be applied in the main intervention of the study. Both versions of the Self-Help Coaching exercise are available in the annexes of this document.

The Self-Help Coaching intervention designed in this study aims to bring innovation in the health field. It is said that innovation usually is requiring experimentation. The experiment each time raise some risks because one can succeed or one can fail. This is the reason why in this study we performed various exploration at different moments in the process of the development and investigation and we performed various reviews of the method.

4.2.4. Design

A pilot study was made before the randomized control trial in order to test the Self-Help Coaching method and procedures on a small-scale first. The design of the pilot study is a controlled trial on a reduced international sample (n=18). Participants were assigned randomly to one of two conditions: intervention group and control. The participants from the intervention group agreed to independently complete an assigned written exercise based on a self-help coaching exercise that we previously developed. The control group received as a task to list their opinion regarding the challenges that women face in society. All the participants were informed about the study's objectives and were given all the necessary instructions to properly complete the exercise in a specific amount of time. Evaluation was made pre and post intervention. Due to the diversity of the sample, the program and the exercise were presented in English, as international speaking language. In Figure 1, we present the flow of the exercise development and pilot study.

Figure 2. Full chart of pilot study subjects' enrollment and study phases



4.3. Statistical analysis

In order to observe the tendency of the scores in reducing the dysfunctional beliefs related to body appearance, descriptive statistics (mean and standard deviation) of the two groups of the pilot study, intervention and control were analyzed Table 1. Because of the reduced sample, a non-parametric test was selected for both the control and intervention group. Mann–Whitney U is a test of the null hypothesis that it is equally likely for a randomly selected value from one sample to be less than or greater than a randomly selected value from a second sample. Using the R studio Inc., version 1.0.153 program and Wilcox test we created two matrix before and after for each intervention condition with different hypothesis and we compared the results. The final results are explained below.

Table 1. Descriptive statistics for pilot study participants: sum of scores, mean and std. deviation (n=18)

	N	Sum	Mean	Std. Deviation
P1interv_before	20	57.00	2.8500	1.18210
P1interv_after	20	45.00	2.2500	1.11803
P2interv_before	20	59.00	2.9500	1.73129
P2interv_after	20	59.00	2.9500	1.31689
P3interv_before	20	59.00	2.9500	1.39454
P3interv_after	20	46.00	2.3000	.92338
P4interv_before	20	51.00	2.5500	.68633
P4interv_after	20	49.00	2.4500	.51042
P5interv_before	20	37.00	1.8500	.87509
P5interv_after	20	34.00	1.7000	.73270
P6interv_before	20	69.00	3.4500	.68633
P6interv_after	20	34.00	1.7000	.73270
P7interv_before	20	50.00	2.5000	1.46898
P7interv_after	20	51.00	2.5500	1.50350
P8interv_before	20	50.00	2.5000	1.23544
P8interv_after	20	45.00	2.2500	1.16416
P9interv_before	20	34.00	1.7000	.80131
P9interv_after	20	30.00	1.5000	.82717
P10interv_before	20	68.00	3.4000	1.31389
P10interv_after	20	51.00	2.5500	1.09904
P1control_before	20	66.00	3.3000	.73270
P1control_after	20	75.00	3.7500	.44426
P2control_before	20	55.00	2.7500	1.06992
P2control_after	20	56.00	2.8000	1.10501
P3control_before	20	57.00	2.8500	.87509
P3control_after	20	48.00	2.4000	.94032
P4control_before	20	32.00	1.6000	.59824
P4control_after	20	26.00	1.3000	.47016
P5control_before	20	57.00	2.8500	1.18210
P5control_after	20	62.00	3.1000	1.07115
P6control_before	20	48.00	2.4000	1.31389
P6control_after	20	46.00	2.3000	1.12858
P7control_before	20	51.00	2.5500	.82558

P7control_after	20	46.00	2.3000	.86450
P8control_before	20	75.00	3.7500	.63867
P8control_after	20	59.00	2.9500	.88704
Valid N (listwise)	20			

Mann–Whitney U was computed for the *before* and *after* values in the *intervention group.* Two tests were performed in order to test two alternative hypothesis. It was considered *H0: the difference between before and after equals and* two tests for alternative hypothesis true location shift is not equal to 0 and true location shift is greater than 0. The computed values are shown below.

Intervention group

Test 1

```
> wilcox.test(int_before, int_after, paired = TRUE, exact = FALSE, correct = FALSE)


        Wilcoxon signed rank test


data:  int_before and int_after
V = 44, p-value = 0.01086
alternative hypothesis: true location shift is not equal to 0
```

Observed results on the test with the null hypothesis *H0: the difference between before and after equals 0*. Because p-value = 0.01086 < 5%, (10%), H0 is rejected for a significance level of 5% and we accept the hypothesis according to which the difference before and after is different of 0, thus a differences exist between *before* and *after* scores in BAAs for the intervention condition. This difference might suggest that the Self-help Coaching exercise has made an effect in reducing the BAAS scores.

Test 2

```
> wilcox.test(int_before, int_after, paired = TRUE, alternative = "greater", exact = FALSE,
correct = FALSE)
```

```
        Wilcoxon signed rank test

data:  int_before and int_after
V = 44, p-value = 0.005431
alternative hypothesis: true location shift is greater than 0
```

For the second test based on the null hypothesis, the results show that the alternative hypothesis is supported and the difference between *before* and *after* is greater than 0. Because p-value = 0.005431>> 5% (10%), we reject the H0 for a significance level of 5% and we accept the hypothesis according to which the difference is greater than 0, therefore differences exist between *before* and *after* in the BAAS scores for the *intervention condition* and the *before* scores are greater that *after* scores. Additionally, this difference might suggest that the Self-help Coaching exercise has made an effect in reducing the BAAS scores.

Control group

```
Test 1

> wilcox.test(ctr_before, ctr_after, paired = TRUE, exact = FALSE, correct = FALSE)

        Wilcoxon signed rank test

data:  ctr_before and ctr_after
V = 25, p-value = 0.3258
alternative hypothesis: true location shift is not equal to 0
```

For the first Mann–Whitney U test in the control group based on the null hypothesis, the p-value = 0.3258 >> 5% (10%) indicates that H0 is accepted for a significance level of 5%, and according to it, the difference before and after equals 0. Therefore the before and after scores are equal, with no observed difference between the two test moments. In this case, we might conclude that the control condition didn’t change the scores in BAAS.

```
Test 2
> wilcox.test(ctr_before, ctr_after, paired = TRUE, alternative = "greater", exact = FALSE, correct = FALSE)

        Wilcoxon signed rank test

data:  ctr_before and ctr_after
V = 25, p-value = 0.1629
alternative hypothesis: true location shift is greater than 0
```

The second test of Mann–Whitney U test with null hypothesis for the control group revealed that the difference between *before* and *after* is 0. Because p-value = 0.1629 >> 5% (10%), H0 is accepted for a significance level of 5% according to which the difference equals 0, therefore no difference is observed before and after scored in BAAS for the control condition.

4.4. Discussions

Overall, this pilot study offers feasibility and acceptability data for the Self-Help Coaching Exercise as a potential intervention for changing dysfunctional attitudes and beliefs about body image in young women. However, in interpreting the results several factors have to be considered. First, the objectives of the pilot study were mainly accomplished and important future directions are outlined for a larger scale study.

The positive ratings on program evaluations supported intervention feasibility and acceptability. Related to *the feasibility of recruitment and randomization*, we have to discuss the fact that the participants in this study were engaged in several workshops and activities related to the topic of coaching of a European project Training Course. As a result of an open call, they have been selected to participate in the European project according to a specific profile: their age (between 18-35 years old), member of an NGO and interested to use coaching as a method to develop others. Out of the total number of participants all the participating girls, have volunteered to complete the surveys. The randomization of the sample was made by generating numbers which were selected by each participant, and

according to it each was randomly assigned to the intervention group or control group. However, improvements could be suggested such as using a computing program for the future. The *second objective* of the pilot study, *to study the assessment procedures for the intervention,* was achieved by analyzing the degree to which, the instrument applied to evaluate the intervention effect was sufficient in order to outline conclusion regarding its effectiveness. As Spangler & Stice (2001) have stated, the BAAS instrument is sensitive to one-factor interventions, addressed to modify appearance beliefs. More reduction in BAAS is expected for interventions targeting beliefs about appearance than other tangential intervention. In light of this rationale, one single instrument was selected to be applied in the present study in order to measure changes in the appearance attitudes of the young women. While BAAS measures have indicated the presence of a possible effect, we consider for a larger sample to include additional measures, that could support the findings related to the improvement of beliefs about appearance. According to the cognitive theory, in the body image field, the beliefs about appearance are correlated with body image satisfaction, therefore in presence of functional beliefs about appearance we might expect positive body image. Therefore, we consider to include in a larger study, a body image satisfaction measure, to assess the degree of improvement in body image satisfaction of the intervention program.

Related to the *third objective* of the research, *to study the feasibility of applying a new intervention approach in a cross-cultural group* several aspects should be discussed. First, the innovation always can raise some risks, because it can result successful or can be a failure. So, a degree of risk was taken into account for both the method proposed as an intervention as well as for the group to which the intervention was applied. The sample was diverse from a cultural point of view and cultural differences might be taken into consideration in interpreting the final results. It is possible to think that a reduced sample of 18 young women but from 9 different countries (Romania, Macedonia, Lithuania, Malta, Estonia, Bulgaria, Slovenia, Portugal, and Cyprus) could have increased the diversity of the group to a level of heterogeneity. Differences between the way that body image is culturally conceptualized were not assessed. According to Makino et al., (2004), mentioned in the eating disorders chapter, eating attitudes may present differences between Western and non-Western. Critics might appear for mixing western countries with non-western ones in this case. But, if we categorize the 9 participating countries only one could be placed into the category of western country, which is Portugal, the rest fall into the category of non-western

countries, and this appears to show more homogeneity by creating a considerable majority. Health coaching as intervention is supported cross-culturally, however, some differences and adaptations into the approach might be considered when working with different populations. On the other hand, credits should be offered for the possibility of testing a method on such cultural diverse group of individuals from so many European countries. Also, being so diverse, the only possibility of communicating verbally with the participants, was in English. Additional explanations regarding how to fill in Self-Help coaching exercise, were needed at several times in the process. Also, some words were not familiar to some people, and even if all the misunderstandings that were declared were clarified with an additional explanation by the researcher, misfits might have been experienced by the participants but were not spoken. In this aspect, we have to think about how clear and easy to understand were the instructions for the participants and the items to fill in the self-help coaching exercise. Conversely, the group demonstrated openness and willingness to participate in this study and presented a collaborative attitude toward the assignment that was asked to complete. Regarding the forth objective, *assessing how a cross-cultural group reacts to this type of intervention*, in general, there were positive, both before and after the intervention. After presenting the study, the girls declared its an interesting topic for them and started to ask more questions. Also, after the intervention, a grateful attitude was observed from their part, as they came to thank and to say that they liked very much the exercise. One single girl refused to return the paper of Self-help coaching exercise she has completed because she didn't feel good about someone else knowing her answers. Anyway, the assignment was checked as completed and the wish of the girl was respected, so she kept the written assignment. Regarding the attitude that was observed in the group of participants, open and collaborative, it could have been a result of the intercultural context of the meeting and international approach they were expecting, in this sort of project. Some time after the intervention took place, one college women participant from Slovenia, send an invitation to the author of this work to participate in a international project regarding the improvement of body image in Slovenian females, and asked for approval of using the Self-Help Coaching exercise as a method into the project. So, we can conclude that in general the Self-Help Coaching exercise received positive reactions.

Theoretically, the results showed a better effect for the intervention group than for the control. The final result could be interpreted as an effect of the openness and wiliness to

collaborate. Taken into consideration all these discussions important conclusions could still be outlined.

4.5. Conclusions

Because health coaching programs for body image have been less investigated so far, this preliminary study makes an important contribution for the field of cross-cultural health coaching. Even if it is a small scale study, is can still be referred as a guideline regarding the application of a health intervention on a cultural diverse population. Although the sample size was relatively small in this study, to our knowledge this is the first controlled test of a body image health coaching intervention that has provided evidence of a significant reduction in dysfunctional body image beliefs in a cross-cultural European sample. Thus, an important achievement of the study might be the possibility of testing a health coaching method on so many European countries.

Accordingly, Mann–Whitney U test has proved to be useful in providing preliminary results for the effectiveness of Self-help coaching exercise. Compared to the control condition in terms of effect in reducing body image dysfunctional beliefs, the conclusion is that more positive results were observed in case of the intervention group. Significant difference has been shown between pre and post-test measures in case of the Self-Help Coaching Exercise, indicating a greater probability for the intervention to show an effect than the control, for the investigated variable. Also, as discussed above, the objectives of the pilot study were mainly accomplished and important future directions could be extracted for a larger scale study in the future.

All in all, the pilot study, keep his merits in providing evidence regarding a self-help method to improve body image beliefs on an international sample.

4.6. Future directions

Future direction should target body image dissatisfaction, using health coaching interventions. While the results of the pilot study are promising in showing the presence of an effect of the self- help coaching exercise intervention in the final BAAS scores, future investigation is needed with larger samples and control condition for establishing the utility of the approach.

As we stated above, the international sample that participated in the pilot study, might have presented some inconsistencies in order to extract accurate conclusions regarding the utility of the Self-Help Coaching exercise. Considering those limitations, more research regarding the cultural sensitivity of the measures and of the Self-Help Coaching exercise format should be considered. As stated by Marchand, & Stice (2008), is possible that for some groups the intervention to have an effect while for others to not be efficient, even though for this particular cross-cultural group of participants, as it could be observed, the intervention did made a difference. Nevertheless, the possibility of testing the proposed method on a larger and national sample could bring important insight regarding the utility of the intervention across one specific population. In addition, by testing the method on one cultural population, biases related to cultural sensitivity could be reduced. Also, important observations could be made, and particular cultural adaptation of the materials of the study could be indicated according to the needs of each cultural group of participants.

5. Randomized control trial

5.1. Participants

A larger study has been conducted on a sample of 50 young women, age between 19 and 26 years old, students at Faculty of Political Sciences, Administration and Communication, at Babes-Bolyai University in Cluj-Napoca, Romania. The students were registered in the English line of study therefore their level of English was advanced and the intervention has been made in English. Anyways they were asked about their level of English and asked to put questions whenever they do not understand something. They responded to the invitation to participate in the study voluntary encouraged by their class professor who collaborated

with the researcher of the study. The intervention took place, during one regular class of gender studies. The participants were asked about age, nationality, gender and e-mail address.

5.2. Measures

Before and after intervention measures were taken using the instruments below.

Beliefs about Appearance. Using the Beliefs About Appearance Scale (BAAS**),** Spangler & Stice, (2001) we assessed dysfunctional beliefs about appearance and attitudes. This was the main variable that we assessed in the present study. According to the authors, the 20 item scale of BAAS predicted eating disorder symptomatology over time and was sensitive to interventions designed to modify appearance beliefs. We chose this instrument because the findings support the BAAS' utility in assessing dysfunctional attitudes about appearance. Also the instrument has been suggested as a "research measure to evaluate both the outcome and mechanisms of action of CBT for eating disorders and/or body image disturbances" (Spagler & Stice, 2001, p. 826). In the validation study replicated in there independent samples, it has been suggested that the instrument could be used clinically to identify dysfunctional attitudes about body image and could be administered in the beginning of cognitive-behavioral interventions such as CBT in the case of eating disorders, in order to identify those individuals who persists in their dysfunctional beliefs patterns. Finally, the BAAS could be used to evaluate key theoretical assumptions of the cognitive model of eating disorders and help guide theory (Spangler& Stice, 2001). According to Spangler & Stice (2001), BAAS is uncorrelated with BMI, being specifically related to body image investment measures rather than investment in one's physical health. Therefore the participants of the present study were not screened for BMI. A copy of the questionnaire is available in annex 3 of this document.

Body image satisfaction. In order to measure overall body image satisfaction we applied the Body Image Questionnaire- QUIC, translated into Spanish version by Penelo et al., (2012) of the original Catalan version "Qüestionari d'Imatge Corporal"(QÜIC) developed by Miró, (2006). This instrument was translated from Spanish version to English (annex 4). The QUIC contain 3 sections measures of body satisfaction, body problems, general physical appearance and conformity with weight and height. In the first part, on the basis of a feminine

figure the participants rated their level of satisfaction (0-10) with each of the 18 parts of the body presented in a drawing, this representing the emotional dimension. In addition, in a different column, the participants are asked about the cognitive dimension, whether each of this parts represent a problem for them (yes/no answers). Body image satisfaction is derived from the average scores of the body parts items while body image problems are obtained by summing the number of body parts that represent a problem for the respondent. In the second section of the questionnaire the participants rate their satisfaction level with their overall physical appearance ("In general, how do you score your physical appearance (0 to 10) compared to how others would rate them ("In general how do think others score your physical appearance?" (0-10). The higher the scores the better. The last part of the questionnaire is assessing the conformity with weight and height, participants were asked to choose one of the three options 'I would like to weigh more', 'I would like to weigh less', or 'I'm satisfied with my weight 'vs. 'I would like to be taller', 'I would like to be shorter', or 'I'm satisfied with my height'. Although several measures of body image satisfaction exist in the scientific literature we chose QUIC for being an attractive instrument, with more visual representation than other body image instruments, and more appealing to young ages. The questionnaire was chosen for the simplicity and the facile process of translation in other languages. For the present study, just the scale for body parts satisfaction representing the affective dimension was statistically analyzed.

5.3. Procedure

The procedure of evaluation followed the research principles for randomized control trial. First, the researcher (who is the first author of this study) explained the aim of this study which is to improve the body image satisfaction for European young women. Therefore they were said they will have to complete one part of the study which refers to the beliefs about appearance (BAAS) and one part that refers to body image satisfaction (QUIC).

The participants have been told they could ask as more questions as they need in order to be completely informed about the objectives of the study and its implications. In the first place each participant signed an ethical consent acknowledging that he understands that his participation is voluntary, and he can give up to the study whenever he wants, without giving an explanation, without any repercussion for the future.

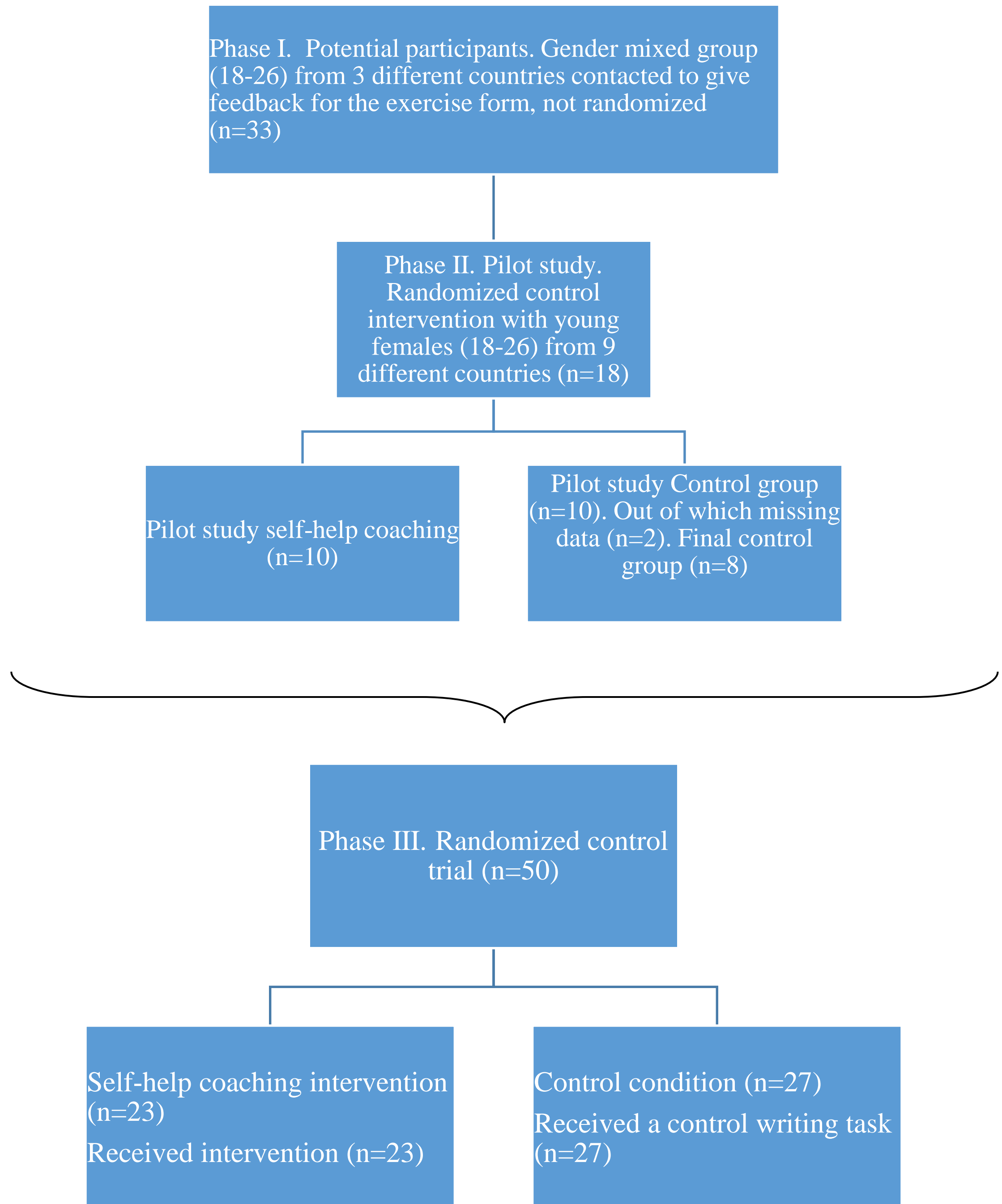
The confidentiality of the data was outlined and guaranteed. The participants were invited to choose a nickname for signing their questionnaires, in order to keep in secret their real identity.

In the first place, at pre-test the participants had to fill up the measures for Beliefs about appearance and body image satisfaction in English language. Then they were randomly split in two groups: intervention and control. In order to assure randomization the participants had to count from 1 to 2, starting randomly from one corner of the class. On the moment and randomly one group received to complete the control task and one to complete the intervention task Self- Help coaching exercise Version 2.0. Therefore they were allocated to either a self-help coaching exercise condition (intervention) or unstructured writing condition (control) regarding the most important challenges that women face in our society nowadays. They were blind to the condition to which they have been allocated.

5.4. Design

We present in Figure 3 the entire process of concept development and investigation of the Self-Help Coaching Exercise. The process can be summarized into 3 main phases: Phase I- Feedback for the Self-Help Coaching Exercise on international sample (n= 33), Phase II- Pilot study on international sample (n=18), Phase III- Randomized control trial on national sample (n=50).

Figure 3. The process flow for the development and investigation of the Self-Help Coaching Exercise



5.5. Statistical analysis

Analyses were performed using SPSS version 17.0 (IBM Corporation, USA). Multiple comparisons within and between groups are shown. T-test was selected to analyze the final results. The t test (called also "Student's t test,") is usually used to determine whether the mean value of a continuous variable in one group differs significantly from that in another group. In t-test, a common question is how large the sample should be for a t-test in order to give appropriate probabilities. According to Boos, & Hughes-Oliver (2000) "it depends" (p. 128).

Paired *t*-tests were used for outcomes within study and 2-sample independent *t*-tests for outcomes between studies. First, within comparison were made for each intervention and control group at baseline and at the end of the project using *t-test.* Intervention group was compared pre-to-post intervention according to the beliefs about appearance and body parts satisfaction scale variables (n=23). Control group was compared pre-to-post intervention according to the beliefs about appearance and body parts satisfaction variables (n=27). Second, measure of analysis of variance ANOVA was performed in order to evaluate whether intervention group achieved significant reduction in beliefs about appearance from baseline level. The hypothesized intervention effects would be supported in these measures ANOVAs show a significant effect.

5.6. Results

The data of 50 participants in the study intervention (n=23) and control (n=27) was analyzed. Significant differences were found within the groups at baseline measures when two-tailed, *t-tests* for independent samples were used. However, at the end of the coaching project, significant statistical differences in favor of the experimental condition were noted regarding both variables: beliefs about appearance and satisfaction with body parts.

Pre and post-test comparisons

Beliefs about appearance. The *Table 1* presents the descriptive statistics and *Table 2*, presents the *t-test* for the intervention group (n=23) at pre and post-test analyzed at a significance level of p<0.01.

Table 1 .Mean and standard deviation for the *intervention group*, (n=23)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	mean_before	2.8114	20	.46120	.10313
	mean_after	2.6686	20	.47615	.10647

Table 2. T –test between the scores at baseline (before) and end of the project (after) for the *intervention group*, (n=23*)*

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	95% Confidence Interval of the Difference Upper			
Pair 1	mean_before - mean_after	.14286	.16321	.03650	.06647	.21924	3.914	19	.001

H0: before scores are equal with after scores

H1: different scores after intervention

If sig < 0.01 then H0 is rejected and we accept H1

If sig > 0.01 we cannot reject H0 and the scores are equal before and after the intervention

T- test was computed for the intervention group in order to determine the probability of difference between pre-and post-intervention scores.

According to the results, the value of the *T-statistic* for the *intervention group* shows a significance value smaller than 1% *(p<0.01, p=.001).* This means that the Self-Help Coaching Exercise has made a difference in the scores at post -test compared to pre –test and

this difference is significant for a $p<0.01$. In this case we can reject H0 (equal scores before and after the intervention task) and accept H1 (different scores after the intervention task).

Table 3. ANOVA for the scores at baseline (before) and end of the project (after) for the intervention group, (n=23)

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.805	1	3.805	136.284	.000[a]
	Residual	.503	18	.028		
	Total	4.308	19			

a. Predictors: (Constant), mean_before

b. Dependent Variable: mean_after

According to the results, ANOVA shows a significance level of .000 which demonstrates the existence of a significant effect in the scores pre and post intervention for the experimental group. Therefore, the Self-Help Coaching Exercise made a positive difference in changing the dysfunctional beliefs about appearance in young European women for the sample investigated. The coefficients resulted from ANOVA show that the mean of the scores in BAAS after the intervention decrease with 3%.

Further pre and post test scores in the *control group* were analyzed. *T- test* was computed for the control group in order to determine the probability of differences between pre-and post-intervention scores.

Table 4. Mean and standard deviation in *control group*, (n=27)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	mean_before	2.3833	20	.47085	.10528
	mean_after	2.2200	20	.33655	.07525

Table 5. T –test between the scores at baseline (before) and end of the project (after) for the *control group*, (n=27)

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	**Std. Deviation**	**Std. Error Mean**	**Lower**	**Upper**	**t**	**df**	**Sig. (2-tailed)**
Pair 1	mean_before - mean_after	.16333	.27314	.06108	.03550	.29117	2.674	19	.015

According to the results, the value of the T-statistic for the control group show a significance value greater than 1% ($p>0.01$, $p=0.015$). This means that the control task has made a difference in the scores at post -test compared to pre –test but this difference is not significant for the 1% significance level. In this case we don't reject H0 and conclude that the scores are equal before and after the control task.

Body image satisfaction. The measure of QUIC was used for the satisfaction with body parts scale (the affective dimension). In this case, upper scores indicate higher level of satisfaction with body parts while lower scores show dissatisfaction with body image parts. Intervention group and control group were assessed at baseline and at the end of the project.

Table 6. Paired sample statistics for the satisfaction with body parts variable, in the *intervention group*, (n=23)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	meanbefore	8.7489	18	.51397	.12114
	meanafter	8.9420	18	.48277	.11379

Table 7. T-test statistics for the satisfaction with body parts variable, *intervention group*, (n=23)

		Paired Differences					**t**	**df**	**Sig. (2-tailed)**
		Mean	**Std. Deviation**	**Std. Error Mean**	**95% Confidence Interval of the Difference**				
					Lower	**Upper**			
Pair 1	meanbefore - meanafter	-.19313	.15946	.03759	-.27242	-.11383	-5.138	17	.000

T- test was performed for the intervention group in order to determine the probability of difference between pre-and post-intervention scores. According to the results, the value of the T-statistic for the control group show a significance value smaller than 1% ($p<0.01$, $p=.000$). This means that the Self-Help Coaching Exercise has made a difference in the scores for satisfaction with body parts after intervention and this difference is significant. In this case we can reject H0 (equal scores before and after the intervention task) and accept H1 (different scores after intervention task).

Table 8. Paired samples statistics for satisfaction with body parts in the control group, (n=27)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	meanbefore	8.6564	18	.51927	.12239
	meanafter	8.8066	18	.48566	.11447

Table 9. T-test for the satisfaction with body parts, control group, (n=27)

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	**Std. Deviation**	**Std. Error Mean**	Lower	Upper	**t**	**df**	**Sig. (2-tailed)**
Pair 1	meanbefore - meanafter	-.15021	.15322	.03611	-.22640	-.07401	-4.159	17	.001

T- test for the intervention group was used to determine the probability of the difference between pre-and post-intervention scores in the control group.

According to the results, the value of the T-statistic for the *control group* show a significant value smaller than 1% ($p<0.01$, $p=.001$). This means that the control task has made a difference in the scores for satisfaction with body parts after the control assignment and this difference is significant. In this case we accept H1 (different scores after intervention task).

Between groups comparisons

Dysfunctional beliefs about body image. Baseline differences between those who did completed the Self-Help Coaching exercise and control group were explored using independent samples *t* tests. Significant differences were found between the groups at the baseline measures when t-tests for independent samples were used. Also, at the end of the coaching project, significant statistical differences in favor of the intervention were noted regarding all variables: beliefs about appearance and body image satisfaction. Between-groups comparison of the change scores from baseline till end of project are shown in Table.

Satisfaction with body parts. No significant difference were found between the scores of the two groups (experimental and control) at pre-test or post-test. The absence of any difference at pre-test makes predictable the absence of the effect at the end of the project.

Table 10. Paired samples statistics in BAAS

	Variable: beliefs about appearance	Mean	N	Std. Deviation	Std. Error Mean
Pair 1	meanbefore_control	2.3833	20	.47085	.10528
	meanbefore_int	2.8114	20	.46120	.10313
Pair 2	meanafter_control	2.2200	20	.33655	.07525
	meanafter_int	2.6686	20	.47615	.10647

T-test show significant differences between the scores at pre-test for the intervention vs. control group, as well as at post-test between the two groups ($p<0.01$, $p=0.000$).

Table 11. Paired sample statistics in QUIC scale

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	meanbefore_control	8.6564	18	.51927	.12239
	meanbefore_exp	8.7489	18	.51397	.12114
Pair 2	meanafter_control	8.8066	18	.48566	.11447
	meanafter_exp	8.9420	18	.48277	.11379

Table 12. Comparisons between the *control* and *intervention* group at *baseline* and at the *end of the project*

Variable	**Baseline (before)**			**End of the project (after)**		
	Experimental (a) M±SD	Control (b) M±SD	t	Experimental M±SD	Control M±SD	t
Beliefs about appearance	2.8114± .46120	2.3833± .47085	-5.903*	2.6686±.47615	2.2200±.33655	-5.099*
Satisfaction with different body parts	8.7489 ± .51397	8.6564± .51927	-1.796	8.9420±.48277	8.8066±.48566	-1.804

For the beliefs about appearance variable lower scores denote more positive change in dysfunctional beliefs, while for the body image satisfaction variable higher scores indicate a positive change in body image satisfaction.

(a) n=23

(b) n=27

*p<0.01

Comparisons between the experimental and the control group at baseline and at the end of the project for both variables are shown in the Table 12. A significant difference in the scores before and after the intervention can be observed in BAAS, at both *baseline* and *end of the project*. The results indicate a significant effect in changing the dysfunctional beliefs about body image for a $p<0.01$. Further no significant difference between control group and intervention group for the satisfaction with body parts variable were found.

5.7. Discussion

For more than 25 years, researchers have studied alternative methods of motivating patients to make positive health-related behavioral changes in order to supplement traditional health education methods (Swerczek, 2013).

A review of large, controlled trials of prevention programs in body image satisfaction and eating disorders, found that approaches such as didactic, knowledge based, psychoeducational or cognitive-behavioral intervention weren't particularly successful (Yager, & O'Dea, 2008). Increased dissatisfaction with traditional interventions in health changes has resulted subsequently in calls for more collaborative approaches in this field.

One of these approaches is *health coaching*, a broader concept which developed from psychology for enhancing wellbeing and performance in work and personal life areas with normal, non-clinical populations, lying on the solid foundation of adult learning theory or psychological approaches (adapted Grant & Palmer, 2002). Although, it has a longer history in sports or business, coaching has emerged in the health field recently and little evidence exists regarding its effectiveness for achieving health related goals. Moreover, 'there is a lack of published research that underpins the effectiveness of health coaching' (Palmer et a1., 2003, p. 92) and little research has been made in health coaching, with randomized control trials.

The present study is an experiment with various stages following the process of a self-coaching exercise development, feedback and review of the method, pilot study and controlled trial. It is said that innovation usually requires experimentation. The experiment each time raises some risks because it can result successful or it can fail. This is the reason why in this study we performed various explorations at different moments in the process.

The Self-Help Coaching Exercise that we proposed in this study represents an innovative approach for tackling body image dysfunctional beliefs derived from the Beck's cognitive –behavioral model of depression (Beck, 1987) and the model of BAAS (Spangler & Stice, 2001). The assumption of the study is that Self-Help Coaching could bring innovation in the health field by the simplicity and flexibility of the approach in challenging the dysfunctional beliefs related to body appearance in European young women. Regarding the objectives of this study, the majority of them were accomplished. The first hypothesis of the study was confirmed (1) *The Self-Help Coaching exercise has a significant effect in changing the dysfunctional beliefs about body image in European Young Women* at t-test and ANOVA. Reduction in the scores of BAAS at post-test, have been observed in the intervention group compared to the control group. The second hypothesis (2) *The Self-Help Coaching exercise has a positive influence in improving body image satisfaction in European young women*, was partially supported in statistical analysis. The instrument used to assess this hypothesis was first scale of QUIC, aimed to measure the satisfaction with body parts, the affective component of body image. Surprisingly, a significant change of the scores related to satisfaction with different parts of the body has occurred for both experimental and control group. Lower mean scores were visible at the post test for both conditions, control and intervention. In this case, the control task could have influenced the change of the scores at post-test compared to pre-test in a similar manner as the Self-help

Coaching Exercise. In order to explain these results, we might consider some hypothesis. *One* of them is that the effect might have appeared as a result of the collaborative approach which was stated between the researcher and the participants. Any Coaching approach involves a certain type of interaction with the client, and in this case, the researcher of the study displayed a positive attitude of acceptance and tolerance toward the participants when he applied the coaching method to the intervention group. In the control group, the researcher didn't take in consideration to make any changes in his attitude toward the participants, being blind of the effect of his style of interaction, and thus in the presence of the same attitude, the participants could have been made more positive evaluations. In both cases, the researcher offered information about the study, confidentiality and acted in a kind way in front of the participants. Even though the researcher didn't assist them in the task they had to do, while in the process, he created a friendly environment in order to make the participants feel comfortable, honest and open. This might have influenced them to be more responsive to the task and make more positive evaluations. *Secondly,* by completing the control assignment, and listing challenges that women face in nowadays society, the participants might have achieved a new level of awareness regarding the high demanding society's norms regarding women's appearance and might have decreased the demandingness level toward themselves regarding the way they look. Also, another possibility is that the participants of the control group, to have considered the task as being personal relevant, because they personally struggled with body image concerns or socio cultural pressures for appearance and thus, the task help them to change their perspective. Practically the task they had to do was an analysis of the norms that society dictates for young women, and to certain degree a critical one. By recognizing the unfairness of these norms related to women's role in society, who should be brilliant in all the areas of her life and also to look her best, the young women might have acknowledged the unfairness of the situation and reconsidered their aspirations for the idealistic body shape. In this case, lowered thin ideal internalization might have increased the body satisfaction. *Thirdly*, the instrument used to assess the change in the satisfaction with body parts after the intervention, was for the first time applied to the Romanian population, and to our knowledge first time applied in its English version. Even though, the main part of the questionnaire is based on a graphic (representing the female human body) we have to take into account some inconsistencies of the translation, application or level of understanding of the questionnaire that could have influenced the results. However, whilst satisfaction with body parts was greater in the

intervention group compared to the control group, both condition presented significant changes in body image satisfaction. Whilst this suggests that the Self-Help Coaching Exercise might have been better at increasing satisfaction with body parts than the control task, this cannot be claimed because the difference between the two conditions was not statistically significant. Nonetheless, any positive results of this study should be interpreted with caution. Positive effect of the intervention could have been influenced by expectancy effects. The participants have not been particularly told that we expect their scored in the questionnaires to change or body image to improve in any way after the exercise, therefore it seems unlikely that expectation theory to have produced the observed results. However, we have to consider that, at the beginning of the intervention, the study was presented as a study which aims to improve the body image in young women. This simple statement, could have made a difference in the expectancy of the participants. However, in order to exclude this alternative, a replication of the study would be needed with a placebo group condition. Also, the positive trend towards greater levels of body image satisfaction in the intervention condition warrants further investigation with a larger controlled sample.

Finally, we can still summarize the merits of the research. A Self-Help exercise based on a Coaching approach aiming to bring innovation in the health field was developed and tested. The innovative of the intervention in the eating disorders field relies in the coaching approach and self-help character, being an attractive and simple to use method, according to the participants’ feedback. Given that finally it was accompanied by positive outcomes at test, supports the probability of becoming useful in practice for people in need. In health coaching reviews, the practice of coaching is considered one of the most time and cost effective, thus, the method proposed in this study can be viewed as a time and cost effective method of improving body image beliefs in college women.

Important implication can be outlined for the cross-cultural context of investigation. The method has provided promising result in cross-cultural context, being regarded as a useful exercise in the international sample. Positive feedback and reactions have been recorded for the exercise format indicating a perceived utility of the exercise among the participants of different countries. They reported to be satisfied with the content and to understand easily the majority of the items. Also, the participants verbally declared that the exercise has brought a change in their perspective and they may think differently about the importance of their body image for the life success in the future. We cannot provide evidence that some changes in the behavior or attitudes of the people that completed the self-help

coaching exercise, but we can conclude that some changes did appear in their level of awareness and perceptions about the importance of the body for their self-worth.

The utility of the proposed method Self-help coaching exercise has been supported by both pilot study (international sample) and randomized control trial (national sample) to have an effect in producing positive changes in the beliefs and attitudes about body image in college women. In the pilot study, the observed results indicated a decrease of the BAAS scores in the intervention group compared to the control group, suggesting a significant improvement of body image beliefs and attitudes in European college women after taking the Self-Help Coaching exercise. The promising results of the pilot study has attracted more attention for the potential effectiveness of the method. Therefore, a randomized control trial was performed on a national sample in order to reduce cultural biases. Accordingly, in the experimental group a significant effect was found regarding positive changes in dysfunctional beliefs about appearance. Even, the sample was small, and the results have to be interpreted with caution, important implications can be outlined and directions for the future of coaching in the health field. Consistent with other studies with a reduced sample (Stice et al., 2000) the study should be considered for its strengths.

Discussions are made regarding the future implications of this study. The present work fills a gap in the literature on the psychological benefits of health coaching. Health coaching might have promising effects in enhancing the positive attitudes regarding appearance in European young women.

5.8. Conclusions

In the current study of investigating a health coaching method on improving body image beliefs in college women, we have found that the Self-help Coaching exercise proposed might produce positive changes in the cognitive appraisal of the body image and its perceived consequences for life and success. The utility of the proposed method Self-help coaching exercise has been supported by both pilot study (international sample) and randomized control trial (national sample) to produce positive changes in the beliefs and attitudes about body image in women at college age. Regarding the improvement of body image satisfaction, the hypothesis was partly confirmed by in the randomized control trial where it has been tested. Given, the comparable results between intervention and control conditions obtained in improving this variable, we might draw conclusions around the probability of the control assignment of producing a change in the body image perspective

of the participants by engaging them in a critical analysis (of the challenges that women have to face in the society now-days) that leads to descreased thin ideal aspirations in young women.

In this work a pilot study on international sample of European young women and a randomised control trial on a national sample of Romanian young women was integrated. Results regarding the effectiveness of the proposed intervention might be regarded from different point of view cross-cultural working versus national working.

However, the positive effects observed in the case of pilot study and further in the randomized control trial, invites to further investigation.

5.9. Future research

A replication of the study would be needed. At the end of the study, important improvements could be articulated for future research. The exercise intervention has been developed and tested and moreover has been accompanied by perceved utility among the paritcipants. Nevertheless, limitations of the study have to be considered when interpreting the results.

For example, considering that body image satisfaction variable was used as a measure of affective body image, with similar results in control and intervention group, we might think that the control task was not as neutral as we expected because some effect does exist. Therefore, in order to have more confluent data regarding the utility of the Self-Help Coaching exercise, we recommend for the future, the inclusion of a placebo group in the intervention design and clear difference between the style of the interaction with the participants, coaching way interaction or neutral should be considered. Suggestions for future research should incorporate measures in order to control better the variables of the study. Suggestions could be made regading the thin ideal internalization and sociocultural preassures to be thin especially for cultural mixed samples.

Further, the efficacy of health coaching exercise could be enhanced through its inclusion in a one to one or group coaching process. Therefore, the Self-Help coaching exercise could become a component of a more extensive coaching program that follows the steps of a certified coaching model such as GROW or ABCDE presented in the previous chapters of this work. In the same manner, the exercise, which may be viwed as a simplistic

intervention could be part of a more extensive prevention program targeting body image improvement.

An imediate and practical implication of this study, is that the method tested, could be used as a self-help psychological pill, in the same manner as the 'Ten Commandments of Rationality *To Follow'* (David, 2006), which is available on the internet, on the website of clinical psychology department of Babes-Bolyai University and can be easily accessed by any interested person. Being an exercise easy to be self-applied due to the guiding instructions incorporated in the its structure, it could be accessed by anyone in need. Also, in English version, the Self-Help coaching exercise, could be available to a large cross-cultural population.

However, larger controlled and prospective interventions should be conducted in order to have a better representation of the effect of the Self-coaching exercise. Also, investigating the method fuher on culturally different population could bring important insight about the specificity of the groups that can benefit from the method or the cross-cultural adaptation that the method needs in order to be more efficient.

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Annex 1

Exercise self-confidence

This is a self-help exercise in order to practice rational attitudes and healthy thinking about body appearance.
Take some time for yourself in reading each sentence and complete it with your personal reflections. Please write down your name at the beginning of the exercise before to start and try to keep an open mind toward the ideas expressed.
All the answers are confidential and will be used only for an investigation purpose.

1. The opinion others have about you could be influenced by your appearance at first sight, but when people get to know you, they will appreciate you for other things that define you.
……… *(name at least 3 things that define you and make you unique)*

2. The influence you have on others depends less on how you look and more on other things like certain behaviors, attitudes or values
……………………………………………………………………………………………………… *(name at least 3 things that have effect in influencing others)*

3. It´s preferable to always look your best, but people will not think less of you if you don´t look your best, because they will always appreciate you for being a human being…………………………………………………………………………………………………… *(name 3 personal values that you have as a human being*)

4. It is possible that some people will be more interested in you if you look better, but for sure most people are interested in you because of your personal qualities and how you make them feel.
…….. *(name 3 personal qualities that people appreciate you for)*

5. My relationships would improve if I would *(name 3 actions you can take)*

 …

 …

 …

6. The success of your future job depends upon your personal skills and competences like:

……… (name 3 personal skills that you have)

7. Your appearance cannot influence your ability to do things, as your ability to do things is influenced by:
……

(name 3 things that influence your ability to do things at your best)

8. Your performance in school/work cannot be influenced by the way you look, but rather by the way you do things.

…… (name at least 3 things that you can do at your best)

9. Your school/work performance would NOT improve if you look the way you want because your performance depends upon:
…… *(name at least 3 things that influence your performance)*

10. The opportunities that are available to you don't depend upon how you look but for sure depend on your …

11. It would be preferable to look the way you want but if you don't, it doesn´t mean that you are worthless as a person, because you have a unique value just by being a human being in this world.

12. How you feel about yourself is largely based on what you think about yourself.

13. It´s preferable to look the way you want, but if this doesn´t happen, you can accept it and go on enjoying life, even if it's more difficult in the beginning……………………………………………………………………………………………………
(name 3 personal qualities that are more important than appearance)

14. How you look is just one part of who you are as well as other parts like your personality, character, values etc.

15. It´s preferable to always look your best, but remember you are a human being and nobody is perfect, so it´s ok if you don´t look your best sometimes.

Please answer as honest as you can:
16. My ability to feel happy depends upon ….

17. What makes me feel good in life is…

18. My life would be more rewarding if …*(name 3 key actions that you can take)*

- ….

- ….

- ….

19. Your mood is influenced by the way you think about one certain situation or about yourself.

 Name one situation when you felt a negative emotion related with your physical appearance………………………………………………………………………………

 Identify the emotion you had………………………………………………………………………………

(Example: anxiety, anger, depression, shame, jealousy, guilt. Unhealthy negative emotions)
 Identify what you were thinking in that situation………………………………………

(Example: Is awful, I must…, I cannot accept, Me/life/the world is worthless)
Is this way of thinking helpful for you?
Are these beliefs confirmed in reality?
How can you change these thoughts in a positive way?

 What else can you say to yourself the next time you have that negative feeling?

………
(Example: I would like to…but it is not a MUST.
It is unpleasant but it's not the worst thing that can happen to me.
I don't like it but I can manage it and enjoy other things.
I accept myself because my value as a human being doesn't depend on the way I look)

 Thinking this way would make you feel…………………………………………………………

(Negative feelings but healthy: worry but not anxiety, upset but not anger, sadness but not depression, regret but not guilt)

20. I would enjoy life more if…*(name 3 key actions you can do to enjoy more life)*

 …

 …

 ….

Thank you!

And don't forget! You are beautiful just the way you are!

Annex 2

Self-help coaching exercise V 2.0.

This is a self-help exercise in order to practice rational attitudes related to body appearance. Take some time for yourself in reading each sentence and complete it with your personal reflections. All the answers are confidential and will be used only for an investigation purpose.

1. The opinion others have about you could be influenced by the opinion you have about yourself.

   ____

- ____
- ____

(name at least 3 things that you appreciate about yourself and others appreciate it as well)

2. It´s preferable to always look your best, but people will not think less of you if you don´t look your best, because they will always appreciate you for showing the good parts of you as human being.

- ____
- ____
- ____

(name 3 positive things about you as human being)

3. It is possible that some people will be more interested in you if you look better, but for sure most people are interested in you because of what you have to offer to them and to the world.

- ____
- ____
- ____

(name 3 things you have to offer to the world)

4. The success of your future job depends upon your knowledge, attitudes and skills like:

- ____
- ____
- ____

(name 3 of the things above that will help you in your future job)

5. Your performance in school/work cannot be influenced by the way you look, but rather by the motivation to learn or the talents that you have.

   ____

   ____ (name at least one situation when your motivation or talent helped you to have a high performance)

6. The opportunities that are available to you depend on:

- ____
- ____
- ____

(name at least 3 actions you can take to open opportunities for yourself)

7. It´s preferable to look the way you want, but if this doesn´t happen, you can accept it and go on enjoying other things about you.

- ____
- ____

- ____
  (name 3 personal qualities that are more important than appearance)

8. Your mood is influenced by the way you think about one certain situation or about yourself.

   - Name one situation when you felt a negative emotion related with your physical appearance: ____
   - What was that emotion? ____
     (Example: anxiety, anger, depression, shame, jealousy, guilt. Unhealthy negative emotions)
   - *W*hat you were thinking in that situation: ____
     (Example: Is awful, I must…, I cannot accept, Me/life/the world is worthless)

   Is this way of thinking helpful for you?

   - What else can you say to yourself the next time you have that negative feeling?

   ____

   (Example: It is unpleasant but it's not the worst thing that can happen to me/ I don't like it but I can manage it and enjoy other things/ I accept myself because my value as a human being doesn't depend on the way I look)

   - Thinking this way would make you feel

   ____
   (Negative feelings but healthy: worry but not anxiety, upset but not anger, sadness but not depression, regret but not guilt)

Please answer as honest as you can:

9. My ability to feel happy depends upon:

- ____

  (note what you should think about yourself, the others or the world in order to feel happy)

10. What makes me feel good in life is:

- ____
- ____
- ____
  (note at least 3 things that makes you feel good in life)

11. My life would be more rewarding if I would start/stop doing…

- ____
- ____
- ____
  (name 3 key actions that you can take to improve your life)

12. My relationships would improve if I would *(name a action you can take to improve your relationships)*

- ____

13. I would enjoy life more if…*(name a key actions you can do to enjoy more life)*

- ____

Annex 3

The Beliefs About Appearance Scale (BAAS)

This instrument is designed to measure your attitude about your body appearance. Please rate your agreement with the following items using a scale from 1 –not at all to 5- extremely.

There isn't any right or wrong answer. It's important you give an honest answer. All the answers are confidential and will be used only for research propose.

1. The opinion others have of me is based on my appearance.	1	2	3	4	5
2. The amount of influence I have on others depends upon how I look	1	2	3	4	5
3. People will think less of me if I don't look my best . . . . …..	1	2	3	4	5
4. People would be more interested in me if I looked better	1	2	3	4	5
5. My relationships would improve if I looked the way I wanted. . . . . …	1	2	3	4	5
6. The success of my future job or career depends upon how I look	1	2	3	4	5
7. My appearance influences my ability to do things	1	2	3	4	5
8. My performance in school/work is influenced by how I look . . . . …. .	1	2	3	4	5
9. My school/work performance would improve if I looked the way I want	1	2	3	4	5
10. The opportunities that are available to me depend upon how I look . . .	1	2	3	4	5
11. My value as a person depends upon how I look	1	2	3	4	5
12. How I feel about myself is largely based on my appearance	1	2	3	4	5
13. I would think more highly of myself if I looked the way I wanted.	1	2	3	4	5
14. How I look is a large part of who I am	1	2	3	4	5
15. It's difficult to feel good about myself when I'm not looking my best. .	1	2	3	4	5
16. My ability to feel happy depends upon how I look	1	2	3	4	5
17. Improving my appearance is one of the things that makes me feel good	1	2	3	4	5
18. My life would be more rewarding if I looked good.	1	2	3	4	5
19. My moods are influenced by how I look. . . . . ….	1	2	3	4	5
20. I would enjoy life more if I looked the way I wanted . . . . ….	1	2	3	4	5

Annex 4

Body image questionnaire

English version

Please make a self-evaluation of your body appearance. Choose a value from 0 to 10 for different parts of your body. 0 means you are unsatisfied about that part of your body and 10 means you are totally satisfied about that part of your body. Mark also an **X**, if that part of your body represents or not an esthetical problem for you.

Is this a problem for you?

		yes	no
Hair	___	☐	☐
Skin	___	☐	☐
Eyes	___	☐	☐
Nose	___	☐	☐
Mouth	___	☐	☐
Lips	___	☐	☐
Neck	___	☐	☐
Chest	___	☐	☐
Arms	___	☐	☐
Hands	___	☐	☐
Abdomen	___	☐	☐
Waist	___	☐	☐
Genitals	___	☐	☐
Buttocks	___	☐	☐
Hips	___	☐	☐
Muscles	___	☐	☐
Legs	___	☐	☐
Feet	___	☐	☐

Choose one option from each column that best describes you:

- ☐ I would like to be taller
- ☐ I'm satisfied with my height
- ☐ I would like to be shorter

- ☐ I would like to have more kilos
- ☐ I'm happy with my body mass
- ☐ I would like to have less kilos

In general, how do you think your friends evaluate your body appearance? (from 0 to 10)____

In general how do you evaluate your body appearance? (from 0 to 10)______