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Lin Lamnaouer

# ARTS-BASED THERAPY OF EATING DISORDERS IN YOUTH



**TURUN AMMATTIKORKEAKOULU**  
TURKU UNIVERSITY OF APPLIED SCIENCES

Lin Lamnaouer

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**Background.** Eating disorders (EDs) are highly prevalent in the general adolescent population. There are several of effective treatments, yet still unmet treatment exists. In recent years, arts-based therapies (ABTs) had been widely used along with traditional evidence-based therapies to treat various health conditions. (Swanson et al. 2011, 714—723.)

**Aim and task.** The aim of the project is to demonstrate the important role of ATBs in treatment of EDs by displaying general knowledge and information to adolescents who are affected by an eating disorder (ED). The task is to support youth with an ED under MIMO project's multiprofessional co-operation concept to regain a correct body image in order to cope better with EDs in their later lives.

**Empirical implementation.** MIMO is the commissioner of this project. Project was under supervision of Turku University of Applied Science teachers and commissioners. Seven groups of teen students age from 13—14 in Salo Hermann School participated. Posters and leaflets (See Picture 1—5) were made as tools of public education. Workshops were in form of creative bodymovement exercise. Face-to-face interview used in discussion. Video filming was available before which photo release papers were given and signed.

**Discussion.** This project is considered meaningful. Arts-based workshops have been seen to be appropriate to be implemented as a form of education and awareness.

**Conclusion.** Arts-based therapy (ABT), as one of uplifting methods, has been increasingly used in treatments and rehabilitations of an ED. It has shown a positive impact on ED. (Frisch, Franko and Herzog 2006, 2.)

### KEYWORDS:

Eating disorders; Arts-based therapy; Dance/ body movement therapy.

# **TABLE OF CONTENT**

## **LIST OF ABBREVIATIONS (OR) SYMBOLS**

<b>1 INTRODUCTION</b>	<b>6</b>
<b>2 EATING DISORDERS—BODY, FOOD OR MIND</b>	<b>8</b>
<b>3 TREATMENTS AND ARTS-BASED METHODS IN EATING DISORDERS</b>	<b>15</b>
<b>4 AIM AND TASK</b>	<b>22</b>
<b>5 EMPIRICAL IMPLEMENTATION</b>	<b>23</b>
<b>6 DISCUSSION</b>	<b>31</b>
<b>7 CONCLUSION</b>	<b>36</b>
<b>SOURCE MATERIAL</b>	<b>38</b>

## **PICTURES**

Picture 1. Poster 1.	25
Picture 2. Poster 2.	26
Picture 3. Poster 3 which is not in use.	26
Picture 4. One side of the leaflet for public education.	27
Picture 5. The other side of the leaflet for public education.	28

## LIST OF ABBREVIATIONS (OR) SYMBOLS

ABT	Arts-based Therapy
ADTA	American Dance Therapy Association
AN	Anorexia Nervosa
APA	American Psychiatric Association
APA	American Psychological Association
BED	Binge Eating Disorder
BN	Bulimia Nervosa
CAT	Creative Arts therapy
CBT	Creative-based Therapy
DSM IV-TR	Diagnostic and Statistical Manual of Mental Disorders, fourth edition, text revision
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, fifth edition
ED	Eating Disorder
EDNOS	Eating Disorder Not Otherwise Specified
EDs	Eating Disorders
NEDA	National Eating Disorders Association
NEDIC	National Eating Disorder Information Center
SAN	Subthreshold AN
SBED	Subthreshold BED

# 1 INTRODUCTION

It is good to firstly familiarize ourselves with the meaning of eating disorders (EDs). EDs refer to a group of conditions defined by abnormal eating habits that may involve either insufficient or excessive food intake to the detriment of an individual's physical and mental health. Anorexia nervosa (AN), bulimia nervosa (BN), and binge eating disorders (BED) are the most common specific forms. (Pratt 2004, 827.)

An eating disorder (ED) is one kind of food and weight preoccupations which leads to physical and emotional problems, even to death. It is related to thoughts, feelings and behaviors regarding food and weight management. People with an ED have distorted relationship with food, body weight, and body image. There are many factors which contribute to eating disorders, such as societal, familial, cultural, biological, individual factors, as well as traumatic events and some psychological illnesses. No matter what causes eating disorders, the consequences are significant. (National Eating Disorder Information Center 2008.)

EDs are highly prevalent in the general adolescent population (Swanson et al. 2011, 714). Nearly every second girl and every third boy in the United States of America are suggested to have an ED (Croll et al. 2002, 166—175). The impacts of EDs on teenagers were substantial. The effects were associated with psychiatry problems, role impairment, and suicidality. Even though, unmet treatments still existed. (Swanson et al. 2011, 714—718.) Incidence of consequences associated with EDs is dramatically high in AN and BN (Kaye and McCurdy 2011, 1). Additionally, individuals with EDs are difficult to assist with their disorders due to their denial and lack of awareness of their illness. Their resistance to the treatment may cause a high relapse rate. (Swanson et al. 2011, 719.) This is the main reason why this topic was chosen and why the focus will be on adolescents with anorexia and bulimia.

In the twenty-first century, creative arts therapies were firmly established to be important part of complementary medicine for psychological and physiologic illnesses. These therapies were present in every facet of medical practice in hospitals, hospices, and other health care institutions. (Pratt 2004, 827.) “Arts-based therapy is the used of art materials for self-expression and reflection in the presence of a trained art therapist”

(Edward 2004, 2). In recent years, arts-based therapies (ABTs) are used for EDs as experimental psychotherapies. They had been widely used along with traditional evidence-based therapies thanks to their uniqueness and effectiveness. Those therapies are used as ways of expressing specific emotional or physical issues. It helped patients to understand the connection between minds and body (Jacobson-Levy 2010). There are several ways included music, dance movement, drama, poetry, and photo therapies. For example, in many cases, dance movement therapy uses mirrors so that people could watch their bodies as they move; breathing exercises and played music during meal time help people relax; and meditation increases body awareness. (Kelty Mental Health Resource Centre, 2011.)

MIMO project has made great efforts on developing art based methods among youth. This project gathers all levels and areas of professionals to achieve common goals. Youth affected by EDs are certainly in need of such project like MIMO. In the light that MIMO project has reached to many countries, youth affected by EDs would be paid more attention and shall be cared world-widely.

The aim of the project is to demonstrate the important role of ATBs in treatment of EDs by displaying general knowledge and information to adolescents who are affected by an eating disorder (ED). The task is to support youth with an ED under MIMO project's multi-professional co-operation concept to regain a correct body image in order to cope better with EDs in their later lives.

## 2 EATING DISORDERS—BODY, FOOD OR MIND

### Eating disorders

An ED is one kind of food and weight preoccupations which leads to physical and emotional problems. It is related to thoughts, feelings and behaviors regarding food and weight management. People with an ED have distorted relationship with food, body weight, and body image. (NEDIC 2008.) Nagel et al. (1992) explained eating patterns that they “represent a constellation of syndromes that epitomize the interaction for all levels of human development in all its complexities between mind, body, family dynamic, social pressures, cultural norms and value systems”. American Psychiatric Association (APA) in 2000 defined EDs as “severe abnormalities in eating attitudes and behaviors in which the individual has a distorted image of their body shape and weight”. (Miller and Coverdale 2010, 441.) There are many factors which contribute to disordered eating behaviors, such as societal, familial, cultural, biological, individual factors, as well as traumatic events and some psychological illnesses. No matter what causes eating disorders, the consequences are significant. (NEDIC 2008.)

According to the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, text revision (DSM IV-TR), there are three main types of EDs which are AN (restricting type and binge eating/purging type), BN (purging type and nonpurging type), and Eating Disorder Not Otherwise Specified (EDNOS). (Franco 2012, Cleveland Clinic.) AN refers to a person who starves and strictly restricts food intake to lose weight. A person with BN ingests large amounts of food in a short time, meanwhile, purges or vomits food, exercises, or using laxatives immediately afterward to not gain weight. (Kreipe 2006, 1.) EDNOS is a very broad category of EDs. Whatever ED conditions that do not clinically meet the DSM IV-TR criteria of neither AN nor BN fall under EDNOS diagnosis, including BED. (Franco 2012, Cleveland Clinic.) However, BED will not fall under EDNOS with the official publication of the fifth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-5) in May 2013. At the contrast, it will be recognized as an independent diagnosis, according to DSM-5 Draft Criteria. (American Psychiatric Association 2012.) Meanwhile, in late 2011, American Psychological Association (APA) has already viewed BED as a single type of EDs, as major as AN and BN. (Brownell et al. 2011, APA) In addition, with the development of DSM-IV, the

Eating Disorders will be renamed as Feeding and Eating Disorders; EDNOS as Feeding or Eating Disorder Not Elsewhere Classified, which will include conditions such as atypical, mixed, or below-threshold presentations (Atypical AN, Subthreshold BN, and Subthreshold BED), other specific syndromes not listed in DSM-5 (Purging Disorder and Night Eating Syndrome), and insufficient information (other feeding or eating condition not elsewhere classified). (APA 2012)

### **Body image and body awareness**

In neuroanthropological aspect, a body image is a core-awareness of sensations formed in side of our body. We are not born with it; on the contrary, a body image develops over time. The formation of a body image is a process from a sensory perception to a dynamic body image. (Laughlin 1997, 1—27; California Department of Public Health 2000, 1.) This body image can also be acknowledged as body schema which is multisensory representations of our body parts and the bodily functions in the brain. (Maravita et al. 2003, R531—R539; Stamenov 2005, 21—43: 21.)

Body image, more often, refers to body awareness, is how one perceives his or her own body in his or her mind. Cash and Pruzunsky defined it as “the picture of our own body wish we form in our mind, that is to say, the way in which the body appears to ourselves”. (California Department of Public Health 2000, 1.) Social and cultural factors affect perceptual, conceptual, and emotional aspects of body image. However, it also varies from person to person in any particular culture, i.e. black culture and white culture. (Laughlin 1997, 1—27.)

EDs are conditions with distorted body image, body dissatisfaction, and alienation of mind and body (Miller 1991, 727—36). Body image involves perceptions, beliefs, and attitudes (Gallagher and Meltzoff 1996, 211—233: 215). Nowadays as many as 56% women and 43% men in general present some degree of body dissatisfactions (California Department of Public Health 2000, 1). Adolescents and teenagers are particularly vulnerable to these negative perceptions, beliefs and attitudes towards their body, leading to a high prevalence of disordered eating behaviors and attitudes (Kittler 2009, 6—7). And disordered eating generally related to later onset of symptoms of an ED (Killen et al. 1994, 227—238). More concerning of adolescents and relationships between body image disturbance and eating problems will be discussed further later in this paper.

### **Prevalence of EDs in a multicultural point of view**



In western countries, EDs present a high prevalence. They were long ago identified in western societies and such diseases were described in the international literature since the late 70's. A decade ago, EDs, particularly AN, were identified as "Western culture-bound syndromes". EDs drew more attention from society and clinicians in western world comparing to Asian lands, for example. It was obviously clear that there was a great difference in prevalence of EDs between western and non-western countries. Only one case of AN was documented in Japan in 1941. (Soh, Touyz and Surgenor 2006, 54—65.) AN was also not non-common among black women, for instance on the Caribbean island of Curacao there was no any AN reported. However, binge eating and purging among black women seemed as popular as among white women. (Willemsen and Hoek 2006, 353—355.) Black South African women are as likely as white women to develop an ED, ranging in age from 15—25, so do males in some cases. BN were shown particularly popular. Meantime, no ED was reported from other Africa countries. (Brooke 2007, 4.)

Western born subjects have higher body dissatisfactions comparing with non-western born (Lake et al. 2000, 83—89). White women are dreaming of a thin body, while black women are considering their bodies thinner than they actually are. There is less concern about weight and dieting among black women. However, EDs should not be confined to only AN or BN. Being overweight or obsessed could be a risk factor for EDs as well. There have been evidences showing that obesity and related health problems are very common among black women. Instead of An or BN, in black culture and some of other non-western culture, eating problems are more likely discovered in the form of compulsive eating, the consumption of high fat diets, and simple overeating which result in obesity. (Romney 1998, 1—4.)

Low prevalence of EDs in non-Western countries probably because EDs were not recognized in turn were less reported. Some protective factors, for example traditional social values (slimness and plumpness) and the collectivistic structure of family, contribute a low prevalence of EDs in non-Western countries. Risk factors led to the rising numbers of EDs cases in non- Western countries were including high level of acculturation to western culture, high level socio-economic status, low body image dissatisfaction, popularities of media, poor family structure and environment (disturbed family functioning, poor organized, overprotective environments, low level of family connectedness, etc.), control issues (lack of control over the individual's life and emotions, in-need of self-control, or control within a family setting). In case of BN, it is

more likely that family problem act as a bigger risk factor. (Grange and Schimide 2005, 587—597.) However, these risk factors were not seen to be universally suitable in every non- Western country and region (Soh, Touyz and Surgenor 2006, 54—65). For example, western acculturized Hong Kong-born subjects had almost equivalent eating attitudes and body image perception with more traditional Hong Kong-born (Lake et al. 2000, 83—89).

EDs are particularly popular among general adolescents, especially EDNOS. About sixty percent of children and adolescents with EDs are reported to suffer from EDNOS. (Lock 2010, 207—216.) The age of onset of all types of EDs generally ranges from 11- to 14 years old. The lifetime prevalence rates of EDs in adolescents ranging from 13 to 18 years old are, for example, SBED and BED ranked the highest rates (2.5% and 1.6%) among all diagnoses of EDs; in contrast, the rate of AN was 0.3% which was the lowest, followed SAN and BN (0.8% and 0.9%). (Swanson et al. 2011, 714—716.) It is hypothesized that the age of onset has dropped in the past of ten years if we look at Cooper and Goodyer's result back in 1997 which was between 15 to 16 years of age (Miller and Coverdale 2010, 441—448: 441).

### **Subclinical disordered eating behaviors and attitudes**

Adolescence is a period of time when many rapid physical and psychosocial changes occur. It is also a time when a teen starts to build up a relationship with and approval from peers. It is common for a teen to find it difficult to adjust to the changes. Directing their attention towards their bodies or appearance may become a strategy to avoid all the stressors from normal growing up. During this period, the influence of media and peer culture increases. Increased emphasis are placed on their body weight, body shape, or appearance, in turn, it may lead to a distorted or unrealistic perception of their own body or appearance, which is considered as subclinical body image disturbance. Such disturbances are those distortions of body image perception which do not meet criteria for an eating disorder, nonetheless causes a significant amount of distress. Distorted eating behaviors and attitudes can develop from negative factors from family environment and surroundings. Control issue can be developed when a direct expression of emotion is not allowed in families of origin. In such case one can replace control over food for an inner states control. (Hinz 2007, 276.) Subclinical body image disturbances can cause low self-esteem, impaired relationships with peers, and disordered eating behaviors (Kittler 2009, 6—7). EDs suffers also found it difficult to

trust people (Hinz 2007, 275). Other possible risk factors for disordered eating are cigarette smoking and alcohol use (Croll et al. 2002, 166—175).

In western countries, a thin body is considered desirable by many older teens and young women. Body weight and body shape concerns and disordered eating behavior appear common. Eighty percent of girls who are less than 18 years old think about losing some weight, though their body weight and shape are all normal. Twenty-seven percent of teens significantly dissatisfied with their body and appearance. (Kittler 2009, 6—7.) And the age of onset of this phenomenon tends to drop down with years (Jones et al. 2001, 547—552). Evidence suggested that weight concerns were closely related to the later onset of EDs symptoms and patient's survival time. The girls with high body weight concern level have a shorter survival time than those who less concern their body weight. (Killen et al. 1994, 227—238.)

Croll et al. reported a high prevalence of subclinical disordered eating behaviors among adolescents. Nearly sixty percent of female school teens have unhealthy eating behaviors in 9<sup>th</sup>- and 12<sup>th</sup>- grade and about 30% males. (Croll et al. 2002, 166—175.) Some extreme weight control behaviors such as vomiting or laxative use take up to 8% amongst adolescents, while other unhealthy weight control behaviors such as fasting, severely restricting food intake and smoking to remain thin are 45%. (Kittler 2009, 6—7.) Therefore, it is hypothesized that in the over past ten years the prevalence of disordered eating attitudes and behaviors has increased, compared the data according to literature review. Disordered eating attitudes and behaviors are normally benign and most physicians do not pay much attention to them, disordered eating behaviors increase the risks of clinical eating disorders. They are also associated with psychological and medical problems, and other health-compromising behaviors. Most (23%) of the girls age between 12 and 18 are on a diet to lose weight. Disordered eating of binge eating with loss of control is 15%. Eight percent of teenage girls are associated with self-induced vomiting and minority is in use of diet pills, laxatives and diuretics. (Jones et al. 2001, 547—552.) Such subclinical body image disturbances are also becoming more common among boys (Kittler 2009, 6—7).

Subclinical body image disturbance and eating behaviors often co-occur with some clinical conditions such as depressive or anxiety disorder. Depression triggers the ruminative thoughts and feelings of worthless or undesirable of an ED suffer, in turn it causes the feeling of hopelessness. Anxiety may lead to an impaired relationship with peers and cause withdraws from social interaction. Furthermore, depression or anxiety

influences appetite, causing weight loss. The encouragement from for example purposeful weight loss campaign or positive sense of control of oneself can further worsen disordered eating attitudes and behaviors. Such conditions can result in a dysphoric affect cycle. (Kittler 2009, 6—7.)

Increased attention and early intervention to these disordered eating attitudes and behaviors may promote a positive image of body and prevent later onset of clinical EDs (Jones et al. 2001, 547—552). However, “many adolescents are secretive about their body image concerns and eating behaviors”, thus there is a level of difficulties of early intervention (Kittler 2009, 6—7). Some protective factors were positive self-esteem, emotional well-being, school achievement, and family connectedness. It was suggested that being aware of risk factors and protective factors to disordered eating can do efforts on prevention and intervention. (Croll et al. 2002, 166—175.)

### **Impacts of an ED**

The impact of EDs on teenagers was substantial. Great deal of evidence shows that about 62% of adolescents with EDs suffer from more than two chronic physical health problems (Grange and Schmidt 2005, 587—597). Swanson et al. (2011) reported even a higher figure of percentage on co-existing psychiatric disorders with EDs. As many as 88% adolescents with BN are found with one or more comorbid psychiatric disorders; 83.5% with BED, 79.8% with SAN, 70.1% with SBED, and 55.2% with AN. There are even 27% of adolescents with BN and 37% with BED reported to be endorsed with 3 or more comorbid disorders. (Swanson et al. 2011, 716—717.) These psychiatry problems are especially anxiety related disorders (Waterhous and Jacob 2011, 3). Adolescents with EDs also suffer from role impairment and suicidality, for instance, BN might be associated with substance abuse, self-harm or shop-lifting (Grange and Schmidt 2005, 587—597). Most self-harm begins in adolescence (Dean 2007, 57). Incidence of consequences associated with eating disorders, i.e. functional impairment and suicidality, are dramatically high in AN and BN (97% and 78%), compared with others. Adolescents with AN and BN reported with severe impairment are 24.2% and 10.7%, which are still higher than other types of EDs. (Swanson et al. 2011, 717; Kaye and McCurdy 2011, 1.)

Suicidal behavior and mortality rates represent high especially in AN and BN. Suicidal behaviors is associated with all EDs. More than half of BN have suicidal ideation and

about 30% attempt to suicide, while BN and SAN are reported further associated with suicide plans and BN and BED suicide attempts. (Swanson et al. 2011, 717—718.)

The mortality from EDs have elevated in the past decade. Among all types of EDs, the mortality rates from BN and EDNOS were shown significantly elevated. Suffers age from 20—30 years old held the highest risks for mortality, followed by group age from 30—40 years. It was indicated that the mortality rate from EDNOS (5.2%) were slightly higher than that from AN (4.0%). These EDNOS were not specified in the report; however, BED was mentioned not to be subtyped under those. The mortality rate from BN was 1.7%. These figures might be lower than reality due to diminished severity of illness in the outpatient setting and the generalizability of this study's results is hard to measure since it was done at only one clinical site. However, they could be trustworthy for the duration of follow-up in this study. Medical causes ranked the most common cause of death for ED suffers, while suicide behavior stayed at the second. (Crow et al. 2009, 1342—1346.)

### 3 TREATMENTS AND ARTS-BASED METHODS IN EATING DISORDERS

Large evidences support the power of empirical psychological therapies in treatment of all kind of mental illness and conditions. Evidence-based therapies are the major options of treatments for EDs. The most effective and most used ones are including inpatient, residential care or day program, individual therapy, family therapy, and psychopharmacologic therapy. (Lock and Gowers 2005, 599—610; Grange and Schmidt 2005, 587—597.)

Inpatient care is effectively benefits adolescents with severe conditions. It provides a package of care in physical health monitoring, healthy eating habits introduction, intensive psychological therapies (i.e. nutritional rehabilitation, psychotherapeutic treatment and family therapy) and respite for the family. For patients have very low level of confidence and poor self-esteem, these hospitalized teens could get great support in daily living from hospital and facilities. However, the cost of hospitalization, missing from educational and social needs, and being away from home should also be evaluated. For example in considering with possible negative effects of inpatient care to AN, care during hospitalization is standardized by the UK National Institute for Clinical Excellence (NICE) back in 2004. Like otherwise, outpatient care is as effective as inpatient treatment in those adolescent with less severe conditions, to some extent. (Lock and Gowers 2005, 599—610; Grange and Schmidt 2005, 587—597.)

Individual therapies, including cognitive-behavioral therapy (CBT) and interpersonal psychotherapy (IPT), involve in a “one-to-one exploration of psychosocial aspects” of one’s difficulties. They improve patient’s self-efficacy, self-esteem, and self-mastery. (Lock and Gowers 2005, 599—610.) Of all, CBT is proved to be a promising approach for both AN and BN. Not otherwise, IPT might be less efficient to achieve a same result in the case of BN. (Lock and Gowers 2005, 599—610; Grange and Schmidt 2005, 587—597.)

Nutrition intervention, including nutritional counseling, is not considered as a form of psychotherapy, but it has been used as an important treatment for AN, BN, and other types of EDs. It is often combined with other treatments. It as a treatment alone is not

effective. Nutrition intervention is practiced by a registered dietitian (RD). RDs play essential roles in the treatment of EDs from identification and assessment to treatment, especially in outpatient settings when many physicians are not ED specialists. RDs that treat EDs are specialized in EDs and have a well understanding of the illnesses. (Lock and Gowers 2005, 599—610; Waterhous and Jacob 2011, 1—10.)

Family, as critical important support to adolescent with EDs, plays an essential role in treatment for EDs. In family therapies, family members are encouraged and consulted to prevent their children from dieting, purging, over exercise and other problems related to EDs. Family involvement achieves better in behavioral changing in case of AN (Lock and Gowers 2005, 599—610) than decrease BN sufferers' shame and guilt (Grange and Schmidt 2005, 587—597). To achieve better outcomes of behavior changing, family shall not be blamed as one of the cause of an ED. (Lock and Gowers 2005, 599—610.)

Besides these therapies above, medication is normally prescribed to adolescent with EDs in reduction of relapse, depression and anxiety. In AN, medication therapies might result in a rapid weight gain. However, there have shown some side effects of some medication treatments, i.e. on binge eating. (Devlin and Walsh 1995, 459—468.) The common psychotropic medications are for example antipsychotics and antidepressants (Lock and Gowers 2005, 599—610).

At last, the most effective treatment is not one single particular therapy. Multidisciplinary treatment which involves a multidisciplinary team, including physicians, physician assistants, psychiatrists, RDs, therapists, nurses, and often family members, is considered best practice in all treatment setting. It is effective, efficient and cost-saving. The team can also design a treatment plan targeted on EDs and co-existing psychological comorbid conditions, such as depression, anxiety, substance abuse, and so on. (Waterhous and Jacob 2011, 5.)

Kittler (2009) concluded the most essential elements which should be included in effective treatments of EDs and subclinical EDs. Cognitive behavioral therapy corrects misperceptions about appearance of oneself, reduce the distress from negative thoughts, and interfere behaviors resulted from disordered body image. Identification of how body image concerns contribute to depression and anxiety and education about healthy eating behavior should be also included into the treatment. A nutritional consultation would be necessary for adolescents with severe subclinical disordered eating conditions. (Kittler 2009, 6—7.)

There are still unmet treatments for EDs and among teenagers who undergo some treatments. Although majority of adolescents with EDs have received some treatments and of whom from a mental health specialty, there is only a minority (3—28%) of them have “specifically talked with a professional about their eating or weight problems”. (Swanson et al. 2011, 714—718; Kaye and McCurdy 2011, 1.) They often lack awareness of their illness or they often deny their illness and eating problems. It is called the nature of EDs to be resistant to treatment or may be deceptive. Reluctance to the treatments may influence decisions to come to treatments. It may be also caused by shame or stigma (Swanson et al. 2011, 719). Furthermore, people with EDs easily quit from their treatment could due to financial woes, family denial, and fear of weight gain, certain food, and body dysmorphia. It is indicated that almost half of Americans had stopped or skipped their medical treatment to minimize the cost. Their uncooperative attitude and behaviors often frustrate the clinicians and make treatment progress slow. More sadly, it is not easy to access to treatment for those with EDs. Long waiting period to treatments can worsen the conditions. (USA Today Magazine 2010, 9; Waterhous and Jacob 2011, 3—5.) Besides, it seems to be really true that professionals are lack of a common understanding of the illnesses and less frequently update their assumptions about the nature of the illnesses. So far it has been a big puzzle for professionals to treat each type of ED specifically and efficiently. (Waterhous and Jacob 2011, 1; Swanson et al. 2011, 719.)

Besides empirical evidence-based therapies, many experiential methods in treatments of eating disorders, for example arts-based therapies, are recognized. The effect of ABTs on EDs has been shown positive. (Frisch, Franko and Herzog 2006, 131—142.) Johnson (2008) said that adolescents and teenagers learn better from their experiences which they are engaged and interested in the subject matter. (Miller and Coverdale 2010, 441—448: 442.) What methods else would be any better than arts to interact with teenagers and draw their interest in order to achieve a therapeutic outcome?

Art is a powerful tool and can be used as a unique healing modality. Arts-based interventions play an important role in improving and enhancing public health and well-being in different cultures. They provide a healing process physiologically and psychologically. Arts and health have been closely related. They have been “at the center of human interest from the beginning of recorded history”. Arts-based therapy, alternatively creative arts therapies (CATs), as a profession has almost ten years of



history, since 1991. Such therapies have been used in treatment of some major mental illness, including schizophrenia, dementia, end-of-life issues (i.e. cancer procedure), and developmental disorders. (Stuckey and Nobel 2010, 254—263.)

Creative therapies involve four primary therapies, including music engagement, visual arts therapy, movement-based creative expression, and expressive writing. ABTs are applied in various contexts, such as dance-movement therapy, drama therapy, music, storytelling, drawing, art therapy, and so on. They have been used to treat patient with various conditions in hospitals and other clinical settings. (Stuckey and Nobel 2010, 254—263.)

CATs works fine with multicultural groups. There are big differences in values and preferences to therapies, for example an open discussion and non-Western cultures while in Western culture individualization is valued especially by young adult group. CATs are beneficial because they do not depend on language and verbal communication and culture gaps are filled by symbolic expression. (Hinz 2007, 280.) CATs help ED suffers to improve awareness of themselves and awareness of their inner psychological and physical process. Through art making suffer could be able to identify his or her feelings and needs in turn to master his or her actions; suffer learn easily to confront his or her psychological issues and develop a positive relationship with food. (Betts 2007, 21.)

High self-esteem is one of the protective factors which can reduced the prevalence of EDs (Croll et al. 2002, 166—175). In the research done by Coholic et al. (2009), authors concluded that ABTs work smoothly fine with young age people as many of them do not have access to and/ or reluctant to counseling. 35 children aged from 8 to 12 were conducted. Through arts-based therapies, participants were encouraged to be creative. It was an enjoyable process to most of students who participated in the study. Students felt less threatened than in counseling where one's feelings are discussed and shared with either other group members or therapists. After receiving ABTs over 6 weeks, most of participants were improved. They learned how to cope with their feelings and their self-esteem was increased. (Llewellyn 2011.)

It was also confirmed in Hartz and Thick's findings that ABTs do increase one's self-esteem. In their study (2005) participants were separated into two groups: art as therapy group and art psychotherapy group. Significant increase of self-esteem was shown from both groups. However, social acceptance was improved more in art as

therapy group comparing with the other. The limitation of this study was the lack of a control group due to that there was no other center where offers the same services. Self-esteem might be elevated through other therapies participants were receiving at that time. Therapies were like CBT and family therapy. (Llewellyn 2011.)

Music is viewed as the most accessible medium and art in this world. Briggs (2011) expresses music as a universal language which communicates unspoken messages emotionally, physically, mentally, and spiritually. Music has been widely used therapeutically in so many conditions, for example in purpose of improving old people's wellness and releasing pain in critical medical conditions (i.e. chronic cancer pain). Music therapy can be also used as a form of relaxation to reduce anxiety and restore emotional balance. The use to lead to a relaxation is called entrainment. (Briggs 2011, 184—187.) Music therapy combined with low frequency sound vibrations, called vibroacoustic therapy, is proved to enhance one's coping ability, to improve self-knowledge, and to lead to a self-reflection. (Rüütel 2004, 1—34.) Music's therapeutic effects are reported to be effective clinically (Stuckey and Nobel 2010, 254—263).

Dance movement therapy is a tool of expressing one's feeling nonverbally but physically. It has been a member of professional approach for many years. It does not require specific dance skills but just a body and physical movement through which emotions and body integrate. It connects one's body and mind. It improves well-being and quality of life, reduces stress and anxiety, and leads to some other benefits like enhance self-awareness as well. Dance movement therapies include group movement and individual sessions. Group movement engages many patients moving at the same time. Music might be used. The session normally starts with simple movements to warm up, after which more spontaneous flowing dance is followed. Session finishes up with a discussion of patient's experience, or without. It was indicated that such group dance movement develops a sense of trust and relationship with others. In an individual session, patient might feel uncomfortable to move him- or herself. This needs therapist's proper patient preparation. A discussion is not compulsory but a discussion was found useful to lead to a feeling exploration and awareness. (Stuckey and Nobel 2010, 254—263; La Torre 2008, 127—130.)

Comparing with dance movement therapy, drama therapy is involved in role playing and acting. Patients who have received drama therapy showed great improve on self-esteem, problem solving, and psychological well-being. (Stuckey and Nobel 2010, 254—263.)

Art therapy has been reported quite useful in cancer procedures to help patient release and explore their negative feelings and reconstruct a positive identity. Guillemin was one of the first who used art in their therapies to understand patients' health condition and illness. With ED patients, through art (i.e. paint, clay or other materials) one can express hidden and underlying feelings which are difficult to be expressed through verbal communication. (Stuckey and Nobel 2010, 254—263.) Dean (2007) talked about art therapy and its relation to self-harm behaviors in EDs. Self-harm could be symbolically acting out or a way of express the experiences which are difficult to articulate or even identify. Art therapy is efficient to help with management of self-harm behaviors and building self-esteem.

Mirroring activity is considered one type of ABTs. It helps in developing a sense of self-efficacy and in learning about the environment. Mirroring activity, as the name suggests, involves two people at the same time, one is "leader" while the other "mirror". "Mirror" re-enacts whatever "leader" does. Such kinesthetic exploration provides an opportunity to learn about our environment. As environment influences our perceptual, conceptual, and emotional aspects of body image, kinesthetic actions contribute in improvement of patient's body image. (Laughlin 1997, 1—27.) A discussion is followed to explore their feelings during that process. Through discussion self-awareness is heightened. (Betts 2007, 24.)

Evidence shows that expressive writing reduces hospital visit, improve physical health and immune system functions, influence stress hormone and a number of social, academic and cognitive variables. (Stuckey and Nobel 2010, 254—263) Keeping on a diary may increase awareness of one's eating patterns. It has positive effect on monitoring, in turn helping adolescents withdraw from existing unhealthy eating behaviors. (Nagel et al. 1992, 107.) At the contrast, poetic writing is a strong method for direct self-expression. The positive effects of health improvement are significant; however, the relationship between the writing and healing is still unknown. Little research is done so far to explain how and why expressive writing therapy produces positive outcomes. (Stuckey and Nobel 2010, 254—263.)

In addition, mindfulness-based skills may be used in preventing EDs, especially AN, BN and BED. Mindfulness-based interventions and techniques are applied to the treatment for EDs. Acceptance and Commitment Therapy (ACT), Dialectical Behavior Therapy (DBT) and Mindfulness-based Cognitive Therapy (MBCT) are the third

generation behavioral therapies which can be used to treat EDs. However, the effectiveness and efficacy is unsure. (Wanden-Berghe et al. 2010, 34—48.)

Although art have been applied into therapies for more than a century, in fact, there are only a few literatures existing which have contributed to the area of art-based therapy and creative activities contemporarily (Stuckey and Nobel 2010, 254—263).

## **4 AIM AND TASK**

The aim of the project is to demonstrate the important role of ABTs in treatment of EDs by displaying general knowledge and information to adolescents who are affected by an ED. The task is to support youth with an ED under MIMO project's multi-professional co-operation concept to regain a correct body image in order to cope better with EDs in their later lives.

## 5 EMPIRICAL IMPLEMENTATION

This project is ongoing and co-existing with our thesis work “Arts-based therapies of Eating Disorders in Youth”. The topic was chosen because of the high prevalence of EDs all around the world and teens are most likely to be affected by an ED. The name of the project is “Love you, Body. From the inside out.” As the logo says, we promote and encourage a high satisfaction towards our own bodies and a high self-esteem. This project is commissioned by MIMO project which develops arts-based methods for the use of social and youth work through various workshops carried in a multi-professional team work model. Commissioning paper is kept by thesis supervisors.

Through “Love you, Body. From the inside out.” project, we demonstrate the important role of arts-based therapies, especially dance/ body movement therapies, for EDs by introducing a dance/ body movement exercise to participants. We also display general knowledge about EDs and its connection with body image and body awareness, in order to encourage youth to gain a correct body image and body awareness to prevent the development of an ED.

Our project is mainly targeted on teenagers and youngsters age from 13 to 14. Salo Hermann School is the chosen location where our project is carried out. There are in total 7 groups chosen to participate in our project. A class of students is decided to be one group. Our project workshops are operated in three different days.

This project is a co-operation between Turku University of Applied Science and MIMO project. The organizers of this project are three graduating nursing students who are doing their thesis work on EDs right now and three dance students who are actually working on the field for workshop sessions based on the aim and purpose of this thesis work.

Before our thesis work started, we were introduced with MIMO project and its development in the meeting with MIMO workers and teachers. Thesis topic “Arts-based Therapies of Eating Disorders in Youth” was chosen by the thesis group based on MIMO project’s tasks and development. The topic was approved by MIMO project. By the final submission of project plan on 11.11.2011, thesis commissioning paper was given and signed by the commissioner and me.

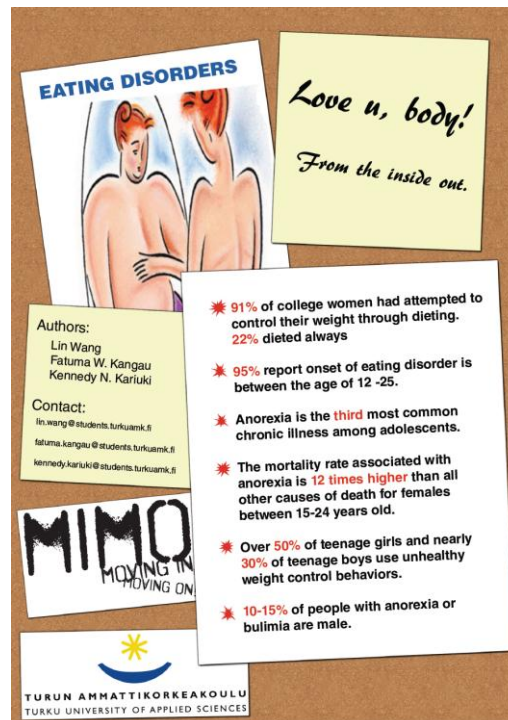
In our project, thesis group need to co-operate with dance students to design activities or workshops for teenagers. On 24.10.2011 thesis group first time encountered dance teachers and dance students who also participate in MIMO project in Turku. The meeting was about introducing of thesis topic and its aim and purpose to dance students and hearing from dance students what they can contribute to this project. In this meeting thesis group suggested a public dance performance on EDs for audiences in Turku on International No Diet Day (INDD) observed on May 6. This performance enacts relevant events of people with EDs and represents hidden feelings of a youth with ED. On 13.12.2011 thesis group and dance students had the second meeting in Turku; aim to exchange ideas on what should be done and how the performance should look like. Due to their tight school schedule, dance students could not complete the choreography of a dance performance in time; instead, they were more excited to create a dance/ body movement exercise through which there is close communication between project organizers and participants. By 16.1.2012, the last meeting between thesis group and dance students in Turku, the creative exercise was almost completed. For the necessary part of workshops—reception, thesis group decided to design a leaflet with relevant information in it as a small public education. Besides of these three meetings, there were also a lot of communications through emails.

### **Content of the posters and leaflets**

The content which was used in posters and leaflets are based on theoretical knowledge of this thesis work.

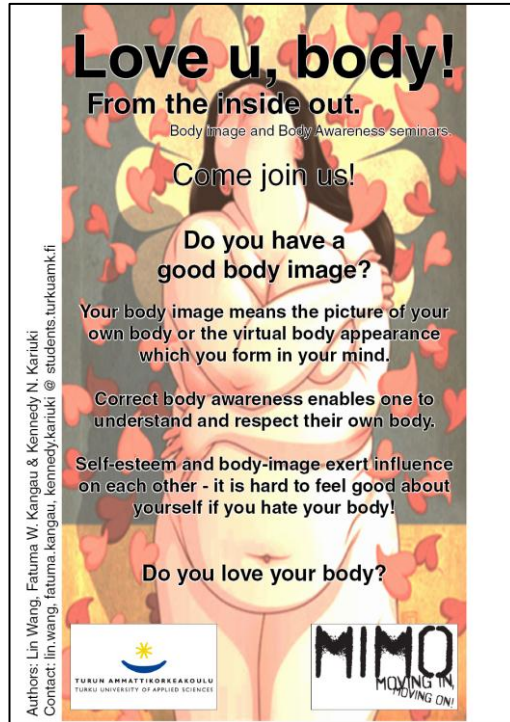
The posters' title is "Love U, Body! From the inside out." This title is designed to give audiences a straight message of what basically this project is trying to achieve. In each poster, the title is displayed, as well as the logo of Turku University of Applied Science, the logo of MIMO, and names of members of the thesis group who designed the posters and their contact information. Pictures used in all posters are found through Google Image search engine. Before the pictures were used, we made sure that they were not protected and they are allowed to be used by publics. The information used in posters are selected from articles we have read and websites we have visited for thesis work. One of the two principles of making posters is that the content in each poster is focusing on different concepts. On the other hand, there must be a proper picture in each poster to match with the content. Poster 1 (See Picture 1.) is about EDs. Its content is the prevalence of EDs worldwide and its picture illustrates an ED phenomenon. The second poster (See Picture 2.) focuses on body image and body

awareness. Its picture matches well with its title and also it's content. The third poster (See Picture 3.) is mainly about Dance/ Body movement therapy with a picture of a girl dancing as the background. This poster shows that the form of our workshop has adopted from Dance/ Body movement therapy. Dancing and body moving is going on throughout the whole workshop.



Picture 1. Poster 1.



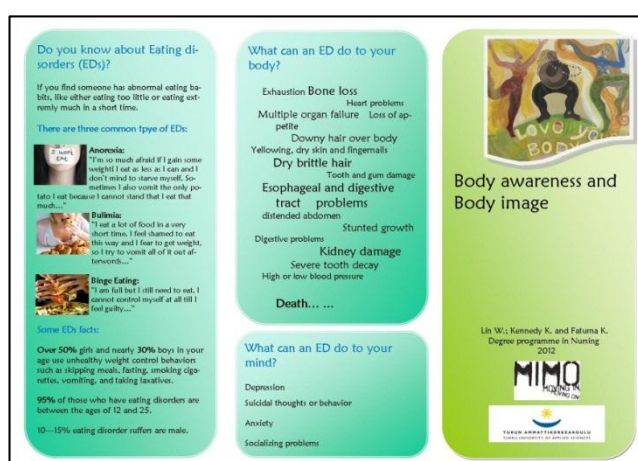


Picture 2. Poster 2.

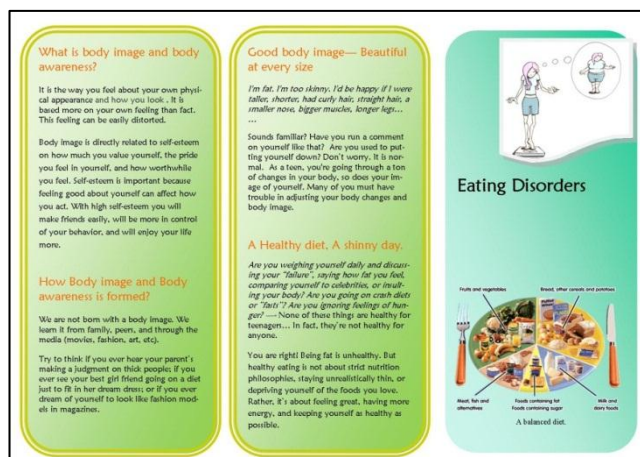


Picture 3. Poster 3 which is not in use.

Our leaflet is one double printed A4 paper. It including two sections: 1. Eating disorders; 2. Body awareness and body image (See Picture 4 and 5). In terms of vision, to separate these two sections, we used two different colours for each section: blue green for eating disorders section and grass green for body awareness and body image section. Green colour chosen as the main colours thought to be friendly, young, healthy, fresh, hope, and positive. In part of eating disorders, we used four pictures which clearly reflect EDs. The one picture in the cover page shows that a really thin girl with an ED thinks she weights too much. The other three pictures stands for three different types of EDs—Anorexia, Bulimia and BED. For this theme, we introduced the definition of EDs, types of EDs, the prevalence of EDs of youngsters, and the effects of EDs. They are the basic knowledge for teens to learn about EDs. Due to limited space, we were not able to put the symptoms of EDs and more details on EDS on the leaflet. In the other part's cover page, we put a picture of three dancing women with text "Love your body" in it. We chose this picture to demonstrate a good body awareness and body image to the audiences. In this section, we first simply talked about what is body image and body awareness. Furthermore, for teens it is necessary to know how body awareness and body image is formed in everybody's mind so that they could understand how a person's body awareness can be affected. At last, we proposed good body awareness and a true healthy diet to build a healthy relationship between food and your body. Because there is no enough space, we placed the figure of "A balanced diet" in eating disorders section.



Picture 4. One side of the leaflet for public education.



Picture 5. The other side of the leaflet for public education.

The reason why the leaflet is separated into these two parts is that we would like to emphasize the close relationship between EDs and one's body awareness. It also reflects the basic aim of this project, which is to lead to a healthy body and mind connection through body movements.

In addition, the names and the degree programme of our thesis group members, the year of this project is carried out, MIMO logo, Turku University of Applied Science are also listed in the leaflet.

### Content of the workshops

The project workshops are operated in Hermann School in Salo. The participants are all teenagers from Grade 8 age 13—14. The duration of each workshop is designed to be 60 minutes with 15 minutes break in-between of each workshop. There are 7 groups of participants and in each group there are about 20 students. All workshops are scheduled into three days. See Table 2 for more details on how the workshops are scheduled.

Posters are posted on the wall before the workshops start. To welcome all the participants, thesis group start the workshop with a brief reception and introduction which takes about 5—10 minutes. In the reception, introduction includes the knowledge about EDs for teens, the connection between EDs and body awareness, the aim of our project, and what is this workshop about.

The creative dance/ body movement exercises include three stages: big group section, small groups section and solo work section. The whole workshop involves various body movement exercises which require participants' creative mind and thinking. While participants are creating their unique body moves, they are fully participating in the workshop.

Creative body movement exercise starts with a warm-up exercise. Participants and dance students stand in a circle in a basic standing position. A simple body movement, for example turning the head to one side, is started from one person and pass onto the next one till the last person in the circle; and then the body returns to basic standing position one after one in a opposite order. The second part of the warm-up is that everyone starts and stops walking around the room at the same time with music background. In this section, the whole group works as a big group.

With the warm-up ending, participants are asked to stand in a queue one side of the room. The first person create a move at the same time walking to other side of the room, and the next person follows to walk and creates some moves derived from the move which is done by the person before. This exercise repeats at least two times. Music is playing along.

Followed the one-group workshop is small groups section. Participants are first divided into two groups. One group does the exercise while the other is the audiences. The group of students stands in a line side by side. They all need to place their hands at each side of their eyes to limit their vision into front of their face. The first student is asked to walk from this side of the line to the other, doing some movements s/he wants to do. The rest of the group copies whatever moves they see when s/he comes to in front of them. This section is end when everyone in line has practiced to create his or her own moves.

Participants are later divided into three groups. In each group there is a leader; leader is changed in turn while a instruction is given. This section is end till everyone in each group has played as a leader. Leaders are required to do some movements according to the given types of moves, such as slow moves, fast moves, light moves, heavy moves, and so on. The rest of the group copies whatever moves the leaders created. There is music background playing.

After all, participants are grouped into pairs to do "Mirror Yourself". In this part, one is creating moves while the other one is copying the moves; vice versa.

In the final part of the workshop, everyone is lying on the floor in a comfortable position with eyes closed. With soft music playing, they are guided to calm their mind and to feel each part of their body. The exercise ends as everyone wakes up softly.

Coming to the end of the workshop, participants and workshop organizers sit together discussing the good and the bad about the exercises. The leaflets are delivered to each of the participants.

For recording and filming of the workshops, thesis group booked from Turku University of Applied Science one video camera for filming and one photo camera for photos only. The filming was supposed to start from the first workshop. Since the photo release papers were not able to be delivered to those groups who came on the first two days, in turn we were not able to film on 12.3 and 19.3. Photo release papers were given to the students who come on 26.3. The papers should be taken home to their parents and signed with parents' permission. With photo release papers return, we were able to documenting the whole workshops on 26.3. We video recorded two workshop and photo pictured one workshop.

## 6 DISCUSSION

### Reliability

Every component of this project echoes with theoretical background, from project plan, field work, till project evaluation. Theoretical knowledge is the base to implement the project. Theoretical and systemic studying gives the reason why such project is carried out and what kind of achievement this project is expected to reach. The result of the project also applies back to theoretical work to look forward a future development of arts based methods in social and youth work.

Theoretical knowledge has been used through all the process of this project. According to our theoretical studying that teenagers are most likely to be affected by EDs (Swanson et al. 2011, 714—723). The target group of the project was very clear—teens aged from 13 to 14. Dance is the one of the most powerful tools to break down the barrier built up by your mind, directing to an emotional expression through your body. There is no doubt that dance/ body movement therapies are recognized as one of the most effective arts based therapies for various mental illnesses and it has been practiced as a complementary therapy in hospitals and comprehensive clinical cancer centres. (Aktas and Ogce 2005, 408—411.) For teens are the challenging group of people to approach, the form of workshops which is dance exercise with music background is seen as the most appropriate to be implemented.

Workshop takes up the majority of time; however, participants' preparation and reception plays the essential role in this project as there is an infusing process of necessary knowledge closely related to this project. Without an introduction to give a understanding of the background, the whole workshop seems to be tasteless and meaningless; and the introduction, either in its form of posters display, leaflets distribution or in its form of face-to-face educating, is fully supported by theoretical background and knowledge.

The themes and contents which were chosen to appear in posters and the leaflet demonstrate three focuses of this thesis work and project work—EDs as diseases, body awareness and body image, and dance/ body movement therapy. The idea of chosen title of our posters is from the concept of body awareness and body image,

which also corresponds with project's aim and task. Some basic knowledge about our focuses must be available to participants in paper form. Most of information for introduction, as well as for follow-up education, concentrates in leaflet, such as the definition of EDs, types of EDs, the prevalence of EDs among teens, the effects of EDs, definition of body awareness, body awareness formation, what is considered as a good body awareness, how teens should manage their body-food relationship in real life, and so on. Plenty of information was taken from earlier project plan and later theoretical literature review. Many articles and researches were reviewed. We found websites of some organizations useful, for instance, National Eating Disorder Association (NEDA). We believe information from such organizations is trustful and reliable.

In evaluation and analysis of this project, we used observation method and face-to-face group interview method. After close observation, there is no doubt that most of participants have enjoyed the workshop except some boys were not patient enough to stay in the workshop. In general every participant participated well. The atmosphere was good. This interview starts right after the workshop ends when participants are still excited. It is an appropriate way of evaluating because we are able to get a fresh and straight oral feedback from the students. On the other side of the coin, some students are shy to speak their opinions in front of their classmates or us. Most of participants liked this project and had their favorite parts in the workshop; however, there were a few showed that this project did not draw much interest to him or her (mostly girls according to our observations). In addition, it is very interesting but not surprising to find out that some teen students who join after-class activities, for example dancing class, are very cooperative during the workshop. They are observed to be less shy to participate, less reluctant to follow the instructions and more self-confident to express their feelings.

In short, this project is reliable thanks to the tremendous support from theoretical background and knowledge. In general creative body movement exercises have ensured an exciting atmosphere which further encouraged those participants who were either shy, reluctant, or lack of interest to participate in activities. We still cannot be sure of the reliability of evaluation by interview. Due to some teenagers are lack of great cooperative attitude, are reluctant to some events and activities which they think to be boring, or probably even lack of self-confidence, they might hide their true

feelings and opinions in public. Further youth work needs to be conducted if we would like to see a progressive achievement on youth health and well-being.

### **Ethics**

One of the weaknesses of this project is language barrier between nurse students and school teenagers. English language was mainly used to introduce the whole project to the object in reception part of each of our workshops, as well as on the leaflet and posters which are designed for public education. It is certainly unsure that how much information and knowledge the teens received after all, considered the fact that their mother tongue is Finnish. In addition, we do not know their attitude towards and their interest on reading materials in English language.

Videos and picture documentation is necessary. At beginning the documentation was not possible because the photo release paper were not given to students sign. For us to be allowed to film, the students had to sign the photo release paper at their home after discussing with their parents. Finally on the last day we got permission to make our own documentation. Among those three groups, majority of students agreed to be filmed, whilst, only one student did not agree to sign the photo release form and some others were not willing to publish their real names. Whole session of one group was photographed only and the two others were full video-recorded.

This project has fully respected the privacy and confidentiality of all the participants. We keep every participant's name confidential. We do not publish our documentation online, for example YouTube.com. The materials of our documentation will be only used for school study purpose or MIMO project presentations.

Our project mainly targeted teenagers and youngsters age from 13 to 14. It is difficult to evaluate their co-operative attitude in this project (how much they are interested in our workshop, how much they enjoyed, how much percent they were willing to participate, if they read project leaflet afterwards, etc.) They may participate in this project under teacher's pressure or they may not fully participate. Therefore, it is not easy to analyze how much this project has affected its object. However, it seems that everyone has enjoyed the creative exercises according to our observation.

### **Findings**



Generally speaking, female gender is most likely to be affected with EDs than male gender, though a few studies have suggested that there might not be a big difference in prevalence between two genders contemporarily.

Although EDs are increasing all over the world among both men and women, there is enough evidence to suggest that it is women in the western world who are at the highest risk of developing an ED and the degree of westernization contributes the increasing risk to an ED exploration in non-western world. In turn, this paper hypothesizes that there could be biases among most of the researches and much efforts have been made on AN and BN due to the fact that AN and BN were long ago recognized as EDs and the severity of impacts of AN and BN is in fact significant. However, EDs shall not be confined to only AN and BN and the diagnosis criteria of EDs shall not emphasis only some extent of weight loss. Obesity and compulsory eating behaviors are rather common in non-western world, especially in black culture. Obese related health problems and conditions caused by EDs in non-western culture call for extra attention from world-wide organizations and researchers.

Development of an ED is a complex process involves the interactions between mind, body, family dynamic, social pressures, cultural norms and value systems. The precise cause of EDs is not entirely understood yet, but it seems to be sure that there is never only one single cause of an ED. However, there are the most factors which contribute to EDs, including societal, familial, cultural, biological, individual factors, as well as traumatic events and some psychological illnesses.

There are particular reasons why EDs are popular among teenagers and the age of onset is earlier than other psychiatric disorders. It is approved that weight concerns are closely related to the later onset of EDs symptoms. Adolescence is a period of time when teens go through a lot of changes physically and psychosocially. In this transition period from a child to an adult, a teen needs a relationship build-up, an approval from peers, and a take-over control of personal issues. Many found difficult to adjust all these changes and turn to be an enemy of their body under influence of some risk factors to an ED. As a result, it leads to a high prevalence of subclinical body image disturbance and eating behaviors among adolescents. These subclinical behaviors and attitudes are often not recognized by communities and families as early as possible to prevent a development of an ED and have increased in the past of ten years. They are such as vomiting, laxative use, fasting or restricting food intake, smoking, using diet pills, and so on.

EDs often link to other medical conditions and situations. More than half adolescents with EDs suffer from one or more comorbid psychiatric disorders and about one third of adolescents with BN and BED are found with 3 or even more comorbid disorders. Such psychiatric disorders are especially anxiety related disorders. Other impacts of EDs include depression, self-harm, physical health problems, role impairment, suicidality, abuse of substances, and so on. As a final result of all the impacts, mortality rates are high among adolescents with EDs, especially high in AN and BN. It is shown that in the past decade mortality rates among all types of EDs have raised.

An ED is not easy to treat, though there are many treatments are effective. Suffers often do not aware of their illness or show their denial. They may refuse to come to treatment because of shame or stigma. However, as the focus of this work, we do believe that art-based therapies may do the difference in the treatment of EDs. The use of music, art painting, drama, dancing, poetry may break the ice and help adolescents with EDs express their feelings freely verbally or non-verbally.

To our project, the task, however, was to better familiarize young adults with EDs because they are the most affected age group. As a simple eating disorder awareness programme such as leaflets with knowledge of signs and symptoms of EDs cannot longer draw teenagers' attentions and interest. Instead, in a form sending messages of body awareness, we adopted some elements from dance/ body movement therapy combining with music into our project. The project was successful. According to our observations, most of the school teens were interested in what we are offering and have enjoyed the body awareness exercises. They were fully engaged and participated in the project.

At last but not least, we believe that a chance of developing an ED is more likely smaller if teenagers engage more in some group activities during their leisure time. It is probably because such activities can reduce part of their stress, encourage communications with others, and prove relationships and communicating skills with different people.

## 7 CONCLUSION

The prevalence of EDs among adolescents is unclear; however, the statistics show that EDs are prevalent in the general U.S. adolescent population with almost equality at the point of genders. Among the main five types of EDs, SBED and BED ranked the highest rates (2.5% and 1.6%) among all diagnoses of eating disorders. In contrast, the rate of AN was 0.3% which was the lowest, followed BED and BN (0.8% and 0.9%). Unsurprisingly, incidence of consequences associated with eating disorders, i.e. functional impairment and suicidality, are dramatically high in AN and BN (97% and 78%), compared with others. (Swanson et al. 2011, 714—723).

Although the majority (73 to 88%) of teenagers with EDs are reported to have contact with service providers, for example mental health specialty care and school service, only a minority (3 to 28%) had talked with a professional about their eating or weight problems specifically. The reasons were suspected to be denial, shame or stigma, or others. Therefore, there is a large underrepresented young age group with ED actually existing but hidden in society. Furthermore, EDs are associated with significant comorbidity, functional impairment, suicidality, and health service usage. It is noted that early prevention and intervention is important for young age people with ED. (Kaye and McCurdy 2011, 1.)

Not only preventable interventions, but holistic treatments are also emerged to reduce mortality of eating disorders. The more efficient way to help adolescents with EDs is likely to understand their thoughts and behaviours. Often sufferers are found reluctant to or struggle to verbally express themselves. They may work hard to hide their feelings. Personality shifts may also occur from being isolated to being over positive with an attempt to hide the problem. (National Eating Disorders Association 2008.)

In recent years, many sorts of psychotherapies are widely in use of solving various problems including physical, mental diseases and social relationships. Previous researches reveal positively the significant impact of psychotherapies. Among these psychotherapies, an ABT is a burgeoning therapeutic approach involves painting, music, dance/movement, drama, theatre and other artistic activities. ABT has been adopted as an essential element in treatments of various diseases by many health care

institutions and clinics. Increasing numbers of health care professionals and ABT specialists become interested in the field and have contributed to integration of ABT and other mental health professions. (NEDA 2008)

ABTs, among those uplifting methods, have been increasingly used in treatments and rehabilitations of ED (Frisch, Franko and Herzog 2006, 2). Those types of therapies are vital and powerful in treating ED patients (Hinz 2007, 272). It provides an outlet for EDs teens to explore hidden feeling and to communication through silence. It is also a break for suffers from constant demand to talk about themselves in counselling.

Through empirical study and literature review, it has been becoming clearer and clearer that how much important ABTs are in not only treatments but also in preventions of EDs, though a few studies have been contacted in this field. This project emphasises on preventing adolescents from EDs. The outcome of this project is hardly evaluated because the participants are not reached out afterwards properly due to some limitations. There is no doubt that the effort this project can make is considered as a little. Therefore, this project suggests further studies and projects should be carried out on this filed in order to see a more significant result. A large sample of teenagers even younger groups by genders, ethnicities, locations (urban, suburban and rural), schools, cultural backgrounds, should be reached out.

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