Available online at www.sciencedirect.com

SciVerse ScienceDirect

Procedia - Social and Behavioral Sciences 30 (2011) 993 – 998

Procedia
Social and Behavioral Sciences

WCPCG-2011

Obesity and Quality of Life: The Role of Early Maladaptive Schemas

Maryam Bidadian[*a] , Hamid Bahramizadeh[a] , Hamid Poursharifi[b]

[a] *Endocrine and metabolism Science Research Institute, Obesityand Food Groupset, Tehran University of Medical Science, P. O. Box 11367-46911, Tehran, Iran*

[b] *Department of psychology , University of Tehran, , P. O. Box 14155-6456 Tehran, Iran*

Abstract

It is well accepted that obesity is costly to individuals and society in terms of financial costs, life years, and Quality of Life .This study examined the role of EMSs on Quality of Life in individuals with obesity. For this aim, sixty patients from Weight Loss Clinic of Sina Hospital were chosen. All participants completed the Young Schema Questionnaire-Short Form (YSQ-SF) and WHO Quality of Life-BREF (WHOQOL-BREF). Correlational analyses indicated that aspects of Quality of Life were negatively associated with EMSs. Regression analyses indicated that the EMSs such as Emotional Deprivation, Mistrust / Abuse, Enmeshment / Undeveloped self, Failure and Insufficient self-control / Self-discipline can predict Total Quality of Life (TQOL). Self-sacrifice and schemas can predict Psychological Health (PH). Social isolation / Alienation schema can predict individuals' Perception of Environment (POE). Emotional Deprivation, Failure, Unrelenting Standards / Hypercriticalness schemas can predict Social Relationship (SR). Implications of these findings are discussed.

Keywords: early maladaptive schemas; obesity; quality of life

1. Introduction

There is a high prevalence of obesity in hospital populations (Sharma, Braithwaite, Finer, & Harger, 2009; Aballay, Osella, Celi, & Diaz, 2009). Obesity represents one of the most important global public health issues which because of its rapidly increasing prevalence and association with a wide range of diseases warrant increased attention by physicians and other health care professionals (Manson, Skerrett, Greenland, & VanItallie, 2004). Obesity would be expected to be particularly prevalent in hospital populations through its association with diabetes, cardiovascular and respiratory disease, and in part because of its increased prevalence in an older population. The prevalence of obesity has been reported to be 32—34% in general hospital in-patients and 52% in patients with type II diabetes attending secondary care diabetes clinics (Davidson, & Smith, 2004; Daousi, Casson, MacFarlane, Wilding, & Pinkney, 2006).

It is well accepted that obesity is costly to individuals and society in terms of financial costs, Life years, and Quality of Life. The fact that in most cases obesity can be influenced by lifestyle choices, including diet and exercise regimes, makes it an extremely complex issue. The effect of being obese or overweight and how it

* Maryam Bidadian. Tel: +98-912-3570279; fax: +98-21-22951039.
E-mail address: Maryambidadian@yahoo.com.

doi:10.1016/j.sbspro.2011.10.193

decreases health-related Quality of Life (HRQOL) has been well documented (Yancy, Olsen, Westman, Bosworth, & Edelman, 2002; Kolotkin, Head, Hamilton, & Tse, 1995). Obesity and overweight in adulthood are associated with large decreases in life expectancy. Obese can expect 7.2 years less of Quality-adjusted life expectancy over their remaining lifetime (Kortt , & Clarke, 2005).

WHO defines Quality of Life as individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. Quality of Life is an important concept in the field of international development, since it allows development to be analyzed on a measure broader than standard of living.

There are many conditions and factors that have impact on individuals with obesity and their quality of life. For this reason current study aimed investigation of how EMSs have impact on quality of life in individuals with obesity.

EMSs are a pervasive pattern composed of cognitions regarding oneself and one's relationships with others developed during childhood or adolescence, elaborated throughout one's lifetime and dysfunctional to a significant degree (Young, Klosko, & Weishaar, 2003). Young hypothesized that EMSS might be at the core of personality disorders, milder characterological problems, and many chronic Axis I disorders (Young, Klosko, & Weishaar, 2003). There is research evidence suggesting the presence of EMSS in restricting anorexia nervosa (RAN), binging/ purging anorexia nervosa (BPAN), and bulimia nervosa (BN) (Leung, Waller, & Thomas, 1999; Waller, Ohanian, Meyer, & Osman, 2000). EMSs are more strongly held by patients affected by eating disorders than by healthy controls. In different studies, different EMSs were found to effectively differentiate the eating disorder subgroups (Leung, Waller, & Thomas, 1999; Waller, Ohanian, Meyer, & Osman, 2000). In nonclinical adolescent girls with high and low symptom severity on eating disorders, as measured by the Eating Attitude Test (EAT), It has been reported that the high-EAT group had significantly higher scores than the low-EAT group on the Young Schema Questionnaire (YSQ) (Cooper, Rose, & Turner, 2006). In addition, strong associations were found between certain EMSs and specific cognitions reflecting eating behavior, such as weight and shape (Gongora, Derksen, & van Der Staak, 2004). The outcome of group cognitive-behavior therapy for BN on most indices was associated with pretreatment levels of EMSs (Leung, Waller, & Thomas, 2000). Based on schemas and previous research, we hypothesize that EMSs have association with the Quality of life in individuals with obesity, Emotional Deprivation, Social Isolation / Alienation in particular.

2. Method

1.1. Participants

Participants of this study were 60 patients from the Weight Loss Clinic of Sina Hospital. The mean age of the sample was 24.62 years (SD = 2.91); the mean age of male student was 25.71 (SD = 2.63), and for female student was 23.42 years (SD = 2.75). Age ranged between 19 and 37 years.

1.2. Measures

Young Schema Questionnaire–Short Form (YSQ-SF): The Young Schema Questionnaire–Short Form (YSQ-SF) measures 15 EMSs. The scales consist of the five items with the highest loadings on the 15 factors that emerged in a factor analysis of the long form of the SQ (Schmidt, Joiner, Young, & Telch, 1995). EMSs are grouped in five broad domains: disconnection and rejection (Abandonment, Mistrust, Emotional Deprivation, Defectiveness, Social Isolation), Impaired autonomy and Performance (Dependence, Vulnerability, Enmeshment, Failure), Impaired Limits (Entitlement, Insufficient self-control), Other-Directedness (Subjugation, Self-sacrifice, Approval-seeking), and Overvigilance and Inhibition (Negativity, Emotional Inhibition, Unrelenting standards, Punitiveness). Respondents are asked to rate statements on a six point Likert scale from ''completely untrue of me'' to ''describes me perfectly''. The SQ-SF has in different studies shown adequate reliability, validity in predicting psychopathology, and factor structure (e.g., Baranoff, Oei, Ho Cho, & Kwon, 2006; Calvete, Estevez, Lopez de

Arroyabe, & Ruiz, 2005; Hoffart et al., 2005; Lachenal-Chevallet, Mauchand, Cottreaux, Bouvard, & Martin, 2006; Riso et al., 2006; Stopa, Thorne, Waters, & Preston, 2001; Waller, Meyer, & Ohanian, 2001). In Iran, Yousefi et al. (2010) examined the validity and reliability of EMSs questionnaire on a sample of 579 people (in two stages of 394 and 185 people), and using split-half Cronbach' Alpha, the reliability for the whole sample, females and males was reported as 91% and 86%, 87% and 84%, and 84% and 81% respectively. The calculated Cronbach's Alpha for all factors was above 81%, and it was 91% for the whole questionnaire. The highest and lowest Cronbach's Alpha was calculated for Social isolation/ Alienation (α=91%) and Insufficient self- control/ Self-discipline (α=81%) respectively. Convergent validity of the total scores of questionnaire were assessed using measuring tools for psychological helplessness, positive and negative emotions, self-confidence, psychological vulnerability to depression, symptoms of personality disorders, and SCL90; reported correlation for these criteria was 0.37, 0.34, -0.40, -0.39, 0.35, 0.36, and 0.38 respectively.

WHO Quality of Life-BREF (WHOQOL-BREF): The World Health Organization Quality of Life (WHOQOL) project was initiated in 1991. The aim was to develop an international cross-culturally comparable Quality of Life assessment instrument. It assesses the individual's perceptions in the context of their culture and value systems, their personal goals, standards and concerns. The WHOQOL instruments were developed collaboratively in a number of centres worldwide, and have been widely field-tested. The WHOQOL-BREF instrument comprises 26 items, which measure the following broad domains: physical health, psychological health, social relationships, and environment. The WHOQOL-BREF is a shorter version of the original instrument that may be more convenient for use in large research studies or clinical trials. In Iran, Bastami (2008) examined the validity and reliability of this questionnaire on a sample of 120 people. The calculated Cronbach's Alpha for all factors was above 0.86-0.91 for the whole questionnaire.

2.2. *Procedure*

At the beginning of lecture, patients were invited to participate in the study. It was emphasized that participation was not obliged. The patients who agreed to participate filled out an informed consent. Then the questionnaires were administered in a random order to avoid order effects in the data.

3. Results

Correlation coefficients were used to examine the association of the EMSs with the Quality of Life. Table 1 describes correlations between the variables of study. Correlational analyses showed that Emotional Deprivation has the most significant correlation with total Quality of Life, and this finding is consistent with our hypothesis. With the exception of Insufficient self-control ($p < 0.01$), results indicate that other EMSs have no significant correlation with Total Health. Only Insufficient Self-control schema is significantly associated with Physical Health. Defectiveness and Failure ($p < 0.01$) schemas have most significantly associated with Psychological Health. Also Emotional Deprivation ($p < 0.05$), Abandonment ($p < 0.05$), Dependence ($p < 0.01$), Enmeshment ($p < 0.05$), Self-sacrifice ($p < 0.05$), Entitlement ($p < 0.01$) and Insufficient self-control ($p < 0.01$) were negatively significantly associated with Psychological Health. Emotional Deprivation ($p < 0.01$), Failure ($p < 0.01$) and Entitlement ($p < 0.01$) have most significantly associated with Perception of Environment. Mistrust / Abuse ($p < 0.01$), Unrelenting Standards ($p < 0.01$) and insufficient self-control ($p < 0.01$) schemas have associated with Perception of Environment.

Table 1. Coefficients correlation between EMSs and Quality of Life

	Total Quality of Life	Total health	Physical health	Psychological health	Social health	Perception Of Environment
Emotional deprivation	-0.50**	-0.17	0.05	-0.33*	-0.23	-0.54**
Abandonment	-0.16	-0.16	-0.01	-0.27*	-0.08	-0.29*
Mistrust	-0.26	0.08	-0.06	-0.19	-0.22	-0.46**
Social isolation	-0.20	0.12	-0.20	-0.27	-0.04	-0.15
Defectiveness	-0.31**	0.16	-0.18	-0.54**	-0.32*	-0.33*
Failure	-0.28**	0.18	-0.15	-0.54**	-0.24	-0.53**

Dependence	-0.28*	-0.13	-0.19	-0.34**	0.07	-0.23
Vulnerability	-0.16	-0.27	-0.07	-0.31*	-0.10	-0.28
Enmeshment	-0.32*	-0.26	-0.22	-0.35*	-0.19	-0.31*
Subjugation	-0.14	-0.01	0.11	-0.14	-0.11	-0.15
Self-sacrifice	-0.05	0.03	-0.05	-0.28*	0.05	-0.24
Emotional inhibition	-0.26	-0.14	0.09	-0.11	0.10	-0.23
Unrelenting standards	-0.35*	-0.25	-0.01	0.08	-0.11	-0.44**
Entitlement	-0.29*	-0.34**	-0.08	-0.45**	-0.06	-0.51**
Insufficient self-control	-0.28*	-0.18	-0.27*	-0.48**	-0.15	-0.41**

*p<0.05 **p<0.01

To entering EMSs as predictors of Quality of Life, linear regression was conducted. The regression resulted in a significant overall model predicting approximately 90% of the variance in Total Quality of Life ($R^2 = 0.90$, $p < 0.05$). Based on schemas content, we hypothesized that the all EMSs schemas would independently predict a significant portion of Total Quality of Life; however only Emotional Deprivation ($\beta = -1.49$, $t = -2.22$, $p < 0.05$) Mistrust / Abuse ($\beta = 1.20$, $t = 2.05$, $p < 0.05$), and Insufficient self-control / Self-discipline ($\beta = -1.20$, $t = -2.28$, $p < 0.05$) schemas emerged as independent predictors of Total quality of life. The regression resulted in a significant overall model predicting approximately 61% of the variance in General Health ($R^2 = 0.61$, $p < 0.05$), 84% Physical health and 88% Psychological Health.

4. Discussion

The findings of study indicates that a combination of the properties of Mistrust / Abuse, Emotional Deprivation, Insufficient self-control, Failure and Enmeshment maladaptive schemas are appropriate predictors of total Quality of Life, and given to negative correlation between these schemas and TQOL we can conclude that the existence of these schemas in a person is a threat to his Quality of Life and leads to an overall decline in his Quality of Life. For example typical behaviors include impulsivity, distractibility, disorganization, unwillingness to persist in boring or routine tasks, intense expressions of emotion, such as temper tantrums or hysteria, and habitual lateness or unreliability. All of these behaviors have in common the pursuit of short-term gratification at the expense of long-term goals. These behaviors decline the total Quality of Life.

Patients with Emotional Inhibition present as emotionally constricted and are excessively inhibited about discussing and expressing their emotions. They are affectively flat rather than emotional and expressive, and self-controlled rather than spontaneous. They usually hold back expressions of warmth and caring, and often attempt to restrain their aggressive urges. Many patients with this schema value self-control above intimacy in human interactions and fear that, if they let go of their emotions at all, they might completely lose control. Ultimately, they fear being overcome with shame or bringing about some other grave consequence, such as punishment or abandonment. Often, the over control is extended to significant others in the patient's environment (the patient tries to prevent significant others from expressing both positive and negative emotions), especially when these emotions are intense. For these behaviours, Emotional Inhibition schema is a useful predictor for a decline in or threat to a person's general health. Emotional inhibition includes excessive inhibition of spontaneous feelings and communications that frequently takes place in order to avoid being outcast, feeling ashamed and losing control of personal momentums. This inhibition includes inhibition of revealing fury and aggression, inhibition of positive momentums (such as happiness, kindness, sexual stimulation, and playing), inhibition of expression of vulnerability or blunt expression of personal feelings and needs, and excessive emphasis on rationality and taking no account of emotions. These inhibitions and suppression of feelings and momentums like fury and aggression direct a risk to one's health due to its impact on physiology and nervous system.

Results, also, suggested that Self-sacrifice be regarded as a risk factor for psychological health. Hence, it is obvious that persons with this schema have some traits that threat their Psychological health, and it is in line with the findings of this study regarding negative relation between these schema and Psychological health. Yet a notable issue has left; schemas, by definition, having some effect on data processing, and distorting data, absorb them. So, persons with Self-sacrifice schema may answer the TQOL in line with their schemas. In other words, they may give distorted, and not true, answers due to the influence of their schemas.

Results also suggested that Social isolation/Alienation is a risk factor that influences individual perception of

environment. For example, patients with this schema believe that they are different from other people. They do not feel that they are part of most groups and feel isolated, left out, or "on the outside looking in." Anyone who grows up feeling different might develop the schema. Examples include gifted people, those from famous families, people with great physical beauty or ugliness, gay men and women, members of ethnic minorities, children of alcoholics, trauma survivors, people with physical disabilities, orphans or adoptees, and people who belong to a significantly higher or lower economic class than those around them.

Results also indicate that Emotional Deprivation, Failure, and Unrelenting standards/Hypercriticalness influence Social Relationship. Also this association between Social Relationship with these schemas is consistent with the properties of these schemas.

Despite theoretically-relevant findings some important study limitations warrant consideration. First, this study relied on self-report of schemas and self-report traits personality. Although the YSQ-SF is a well-validated measure, direct questions about schemas may not actually measure implicit aspects of cognitive processing relevant to personality traits. Second, this study used a cross-sectional design to examine the relationships between schemas and Quality of Life. Although the current study suggests that schemas may lead to declination of the total quality of life, longitudinal research is needed to establish temporal associations. Young et al. (2003) have stated that maladaptive coping strategies, such as avoidance and emotional inhibition, can maintain schemas that contribute to personality disorder severity; further research might examine the association of schemas, coping strategies, and personals. Another area for further investigation might involve examination of schema modes and the association of current contextual variables with schema activation. For instance, Stopa and Waters (2005) found that a depressed mood induction resulted in increased scores on Emotional Deprivation and Defectiveness schema scales.

References

Cooper, M. J., Rose, K. S., Turner, H. (2006). The specific content of core beliefs and schema in adolescent girls high and low in eating disorder symptoms. *Obesity Research & Clinical Practice*, 7, 27 - 35.

Davidson, I., Smith, S. (2004). Nutritional screening: pitfalls of nutritional screening in the injured obese patient. *Proc Nutr Soc*, 63(3), 421—5.

Daousi, C., Casson, I. F., Gill, G. V., MacFarlane, I. A., Wilding, J. P., Pinkney, J. H. (2006). Prevalence of obesity in type 2 diabetes in secondary care: association with cardiovascular risk factors. *Postgrad Med J*, 82(966), 280—4.

Gongora, C.V., Derksen, J. J. L., van Der Staak C. P. F. (2004). The role of core beliefs in the specific cognitions of bulimic patients. *J Nerv Ment Dis*, 192, 297- 303.

Kolotkin, R. L., Head, S. Hamilton, M., Tse, C. K., (1995). Assessing impact of weight on Quality of life. *Obesity Research & Clinical Practice,* 3, 49—56.

Kortt, M. A., Clarke, P. M. (2005). Estimating utility values for health states of overweight and obese individuals using the SF-36. *Qual Life Research*, 14, 2177—85.

Leung, N., Waller, G., Thomas, G. (1999). Core beliefs in anorexic and bulimic women. *J Nerv Ment Dis*; 187, 736- 41.

Laura, R., Aballay, L. R., Osella, A. R., Celi, A., & Diaz, M. P. (2009). Overweight and obesity: Prevalence and their association with some social characteristics in a random sample population-based study in Córdoba city, Argentina. *Obesity Research & Clinical Practice*, 3, 75—83.

Leung, N., Waller, G., Thomas, G. (2000). Outcome of group cognitive-behavior therapy for bulimia nervosa: the role of core beliefs. *Behav Res Ther* 38, 145 - 56.

Manson J. E., SkerrettP. J., Greenland, P., VanItallie T. B. (2004). The escalating pandemics of obesity and sedentary lifestyle: a call to action for clinicians. *Arch Intern Med*, 3, 249—58.

Sharma, V., Braithwaite, A., Harger, S., & Finer, N. (2009).Obesity remains under diagnosed in English hospital in-patients. *Obesity Research & Clinical Practice,* 3, 17—20.

Stopa, L., & Waters, A. (2005). The effect of mood on responses to the Young Schema Questionnaire: short form. Psychology and Psychotherapy: Theory, Research, and Practice, 78, 45–57.

Vitousek, K. B., Hollon, S. D., (1990). The investigation of schematic content and processing in eating disorders. *Cogn Ther Res*, 14,191 - 214.

Waller, G., Ohanian, V., Meyer, C., Osman, S. (2000). Cognitive content among bulimic women: the role of core beliefs. *Int J Eat Disord,* 28, 235 - 41.

Yancy, J. W. S., Olsen, M. K., Westman, E. C., Bosworth, H. B., Edelman, D. (2002). Relationship between obesity and health-related Quality of life in men. *Obesity Research & Clinical Practice*, 10, 1057—64.

Young, J. E., Klosko, J. S., Weishaar, M. (2003). Schema therapy: a practitioner's guide. *New York Guilford Publication*.

Yousefi, N., Etemadi, A., Bahrami, F., Ahmadi, A, & Fatehizade, M. (2010). Comparing Early Maladaptive Schemas Among Divorced and Non-divorced Couples as Predictor of Divorce. *Iranian Journal of Psychiatry and Clinical Psychology*, Vol. 16, No. 1, Spring 2010, 21-33.