An Epidemiological Survey of Body Dysmorphic Concern And Its Treatment, Case Study: Chamran University Students

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ARTICLE INFO
Article history:
Received 23 January 2014
Received in revised form 19 April 2014
Accepted 6 April 2014
Available online 15 May 2014

Key words:
Body Dysmorphic Concern, Epidemiology, Narration Therapy

ABSTRACT
This study aimed to investigate epidemiology of body dysmorphic concern (BDC) and effectiveness of narration therapy by team group on its reduction among BA students of Shahid Chamran University based on gender during 2008-2009. The initial sample of the study was including 1520 patients being selected by multi-stage random sampling. Then, 40 patients of 212 people whose score in BDC inventory was a standard deviation higher than mean, were selected randomly for hypothesis test. These 40 people were divided randomly into experiment and control group (in each group 20). At first, of both groups, pre-test was used. Then, narration therapy was done during 10 sessions on experiment group. At the end of the final intervention session, post-test was performed on both groups. After two months, follow-up stage was done. The results of epidemiology showed that the BDC prevalence among total students, girl and boy students were 14%, 12.8%, and 15.6%. For hypothesis test, ANCOVA covariance analysis method was used. The results showed that narration therapy reduced BDC of experiment group compared to control group among girls and boys. The follow up was done after two months and showed the effectiveness of narration therapy on BDC in both genders.

INTRODUCTION

BDC is the obsessive concern of the defects in the appearance (bad form of nose, low hair, etc). These defects are not seen by others. If there is a defect, the obsession of an individual about it is extreme. Normally complaints of face and hair defects are common. This disorder is dangerous when it leads into high concern, frequent suicide attempts, avoiding social situations in the school or work, avoiding social activities and staying at home [14].

Indeed, appearance concern is a serious issue namely among young adults. Psychology in recent decades observed the emergence of increasing therapy methods. Health narration is post-modern and social constructionist. Narrative model root is in theory visions and clinical approaches of Michael White and David Epston [12].

BDC definition:
Frequent obsession with physical appearance, despite its natural nature creates extreme fear in a person to be unattractive [22].

Operational definition of BDC:
It is the score the subjects gets in Body Image Concern Inventory (BICI).

Conceptual definition of narration therapy:
Narration therapy is a therapy approach and it is based on this fact that People are the experts of their own lives. When they examine themselves they view their problems as separate from themselves. Within Narrative therapy, a person is not a problem, the problem is the problem. Narration therapy includes the understanding...
methods of people stories and re-authoring methods of these stories in the common work of therapist and an individual whose life is discussed [13].

Operational definition of narration therapy:

Using the principles of narration therapy is based on the framework of the sessions in therapy plan. Narration therapy during 10 sessions (90min) was performed weekly [23].³ Da costa et al, [7].

Methodology:

Review of literature:

Epidemiology is the science of studying distribution, occurrence, prevalence and the duration of diseases. Conroy et al [6] in his study reported BDD 6.3% among the patients in the hospital and 16% among ambulatory care patients. Cansever [4] in a study performed in Turkish students showed that, 43.8% of the subjects were dissatisfied with their appearance and 4.8% of all subjects were diagnosed with BDD. Bohne [3] reported BDD prevalence among psychology population 5%. 71.4% of the subjects were women. This study showed that disorder prevalence among non-clinical population was the same among men and women.

Narration therapy is applied in various kinds of problems including eating disorder, urinary incontinence, sexual abuse and coping with physical disease. Narration therapy is applied also for various clinical populations including children, couples, families and greater systems [7].

Da costa et al. [7] in a clinical case study on a 26-year-old woman suffering from BDD, being obsessing with her nose and lips, avoided social activities and used narrative therapy. The therapy was done in a 3-month period, four-stage. The results showed that therapy narration was an effective treatment for this disorder. Keeling and Bermudez [9] performed a narrative group intervention on a group of young girls involving with feeding, body and weight problems and were obsessed with some behaviors to avoid weight gain. After group evaluation by inventory, the members felt that they had the control of some of their life issues and they considered group experience as important. The results showed that team work not only was suitable for young girls, narration therapy when is done by a team has satisfactory results. In a study, the effectiveness of therapy narration was investigated among the children with child abuse. The results of this study showed the general effectiveness of this method [18]. Oconner [16] used the experience of narration therapy in an academic plan and taught as an academic plan to BA students.

The results of their studies showed that teaching narration therapy for all the subjects in this plan was positive and challenging.

Neuner et al. [15] in a study on 43 patients with stress disorder after the trauma, classified them into three groups randomly and performed one of the therapy plans as four sessions narration therapy, 4 sessions supportive consultation or 1 session psychology education. One year after treatment only 29% of the people who received narration therapy, had post-trauma stress disorder, while 79% of the patients with supportive consultation and 80% of the patients who received psychology education had post-trauma stress disorder. Some of the ethnical studies showed the effectiveness of narration therapy from the view of clients. Also, Draucker [8] performed narration therapy for the women who were sexually abused in their initial relations and reported the significant reduction of excitation signs. Oconnor et al. [16] in a study investigated the perceptions of family members who participated in a narration therapy plan. In this study, eight families were investigated by ethnical research. These subjects considered the following items useful:

1) The discussions make the issues expressed.
2) Exchanging the stories based on unique events
3) Developing a person functionality
4) Creating an audience
5) A non-blaming therapy condition

All these items were major features of narration therapy. The results of the study showed that the clients who used this method for a long time, showed more reduction than the families show participated in a short time in this treatment.

Statement of the problem:

When women are dissatisfied with their physical appearance and imagine that the others evaluate their appearance negative, get depressed and they show weak social performance. Thus, the fear of body dysmorphic can form the social performance disorder and interpersonal sensitivity [17].

The results OF Bellino [1] study showed that the prevalence of fear of body dysmorphic or fear of body image among general population was about 62% and in psychology population 12%. The research findings showed that in adolescence, 60% of the girls and 30% of the boys are interested to create some changes in their physical appearance [20]. Based on the important features of narration therapy including implicit levels of reference experiences, and expressing the issues. It seems that this approach had high efficiency compared to
other approaches in reducing fear of people with body image. Thus, narration therapy is a new method being used to treat the fear of people of body dysmorphic in this study.

Narration means to narrate, stating a report of the event, sequential report of each set of events and storytelling. Narration approach refers to the inclination of a person to build his life events in the form of narration or story. The process by which we can reach integrated identity. In this theory, people are inclined to consider their life as a continuous significant narration. As to promote their future aims and expectations. This theory believed that what is more important than the events itself is the significant encounter of people with these events. The human being should be considered as meaning creators and narration is a process by which the meaning is formed and is interpreted. In narration, we are faced with some realities, various people by their special methods narrate them and these narrations are the result of people interpretation of their life experiences. The narration is consisting of recognition, attitude, excitation and people feeling to their life. Via narrations of people, we can achieve their feeling, excitement and attitudes. Human beings act based on their narrations and this process causes that they feel they can predict and control their life. Indeed, narration is following formation of people experience. When an experience is formed, excitement outcomes of it are controlled [2].

Narration therapy is identification of formation of some moments of life. The turning point, key relations and the special memories as alive over the time. Focusing on the goals, dreams and values guiding an individual life. Mostly, this process returns the stories being forgotten, the interesting stories talking about forgotten bravery and qualifications. Each of psychotherapy methods considered different aspect of life as main part of experience. For example, behavior therapy emphasizes on the behavior of an individual. Recognition therapy emphasizes on logical thinking. While systematic treatment focuses on family exchange as special unit. The stories guide how the people should act, think, feel and understand new experiences. The stories organize the data of the life of a person. narration therapy emphasizes on how these important stories can be re-authored or authored [21].

Narration therapies with flexibility cure people. In this method, the centrality is given to people and they consider as the main experts in their life [11]. Based on the review of literature, the BDC is relatively high among the youth, the question in the mind of researcher is such that how is the prevalence of BDC among the youth (students) of Iran based on cultural and social conditions. In addition, as it was said, many studies showed that narration therapy can be effective in treating most of psychological disorders. The researcher attempts to find a response to the question that whether narration therapy affects the reduction of BDC in both genders?

**Study hypotheses:**
1- Narration therapy by group method leads into the reduction of BDC among girl students.
2- Narration therapy by group method leads into the reduction of BDC among boy students.
3- Narration therapy by group method leads into the reduction of BDC among girl students, in 2-month follow-up stage.
4- Narration therapy by group method leads into the reduction of BDC among boy students, in 2-month follow-up stage.

**Study objectives:**
1- The investigation of the prevalence of BDC among the students of Ahvaz Chamran University.
2- The investigation of the effect of narration therapy on BDC among girl and boy students.

**Study questions:**
1- How is the prevalence of BDC among University students?
2- Does narration therapy affect BDC among girl and boy students?

**The significance of the study:**

The emphasis of the society and public media on appearance attractiveness, made people more sensitive to this issue. On the other hand, negative evaluation from others led into the dissatisfaction of appearance. The increase of this dissatisfaction makes a person susceptible to clinical disorders. BDC can create many problems in social and individual life in both genders. Following this issue and finding some solutions to reduce or treatment of it is of great importance. Based on the presence of the lack of statistical of epidemiology, this concern is shown among students, this is necessary.

**Statistical population, sample and sampling method:**

In the current study, to determine the epidemiology of BDC, 20% of total students (1520) of BA studying in year 2008-2009, were selected by multi-stage random sampling method. It is called initial sample. Of 1520 people, 212 people had high score in Body Image Concern Inventory (BICI) (a standard deviation of higher than mean) (this sample is called main sample). Among these people, 40 people (20 girls and 20 boys) randomly
were selected as final sample and for study hypotheses. The subjects of each gender were divided into two groups randomly. Finally, experiment and control groups were defined randomly.

**Study instrument:**

**Body Image Concern Inventory:**

This inventory is a self-report and consisting of 19 items being validated for the first time by Littleton et al. The aim of this inventory was evaluation of dissatisfaction of an individual of his appearance in some disorders as BDD and eating disorder or evaluation of similar symptoms models in clinical and non-clinical levels. The Littleton et al. findings on a sample of University students showed that reliability of this questionnaire by Cronbach’s alpha was 0.93 and matter-total correlation was ranging 0.32 to 0.73. Validity coefficient of this inventory via self-report scale correlation BDD was 0.83.

**Results:**

For data analysis, by SPSS (version 16), descriptive statistical methods (frequency, mean, min, max and standard deviation) and inference (one-variance covariance ANCOVA was used for hypothesis test). Statistical Significance Level was selected as 0.05.

**The results of epidemiology:**

It can be said that the subjects in BICI inventory, their score was one standard deviation higher than average, were recognized as people with Body Dysmorphic Concern BDC.

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Number</th>
<th>Frequency</th>
<th>Frequency percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1520</td>
<td>212</td>
<td>14</td>
</tr>
<tr>
<td>Girl</td>
<td>917</td>
<td>117</td>
<td>12.8</td>
</tr>
<tr>
<td>Boy</td>
<td>603</td>
<td>95</td>
<td>15.6</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 0.123 \quad p<0.05 \]

As is shown in Table 1, of total 1520 subjects being evaluated in terms of BDC, 212 people as 14% were recognized as BDC people. This table showed the distribution of frequency of girl and boys subjects. As is shown, boy subjects with 95 people were 15.6% and girl subjects with 117 people were 12.8%. Based on the study question, the prevalence of BDC in total subjects 1%, girls 12.8% and boys 15.6%. the comparison of the frequency of BDC people among girl and boy subjects was calculated via chi-square test and there was no significant difference. In other words, there was no significant difference between BDC in both genders.

**The results of study hypotheses:**

**Table 2:** The results of COVARIANCE analysis on the average of post-test test BDC of the girl subjects of experiment and control group.

<table>
<thead>
<tr>
<th>Change source</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Average of squares</th>
<th>F</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1761.441</td>
<td>1</td>
<td>1761.441</td>
<td>35.750</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Error</td>
<td>837.611</td>
<td>17</td>
<td>49.271</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>75049</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As is shown in Table 2, there is a significant difference between girl subjects of experiment and control group in terms of BDC variable at level p<0.001. Thus, narration therapy by group method leads into reduction of BDC among girl students in post-test stage and hypothesis 1 is supported.

**Table 3:** The results of Covariance analysis on the average of post-test scores of BDC of the boy subjects of experiment and control group.

<table>
<thead>
<tr>
<th>Change source</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Average of squares</th>
<th>F</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1855.099</td>
<td>1</td>
<td>1855.099</td>
<td>26.591</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>Error</td>
<td>1185.977</td>
<td>17</td>
<td>69.763</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51415</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As is shown in Table 3, there is a significant difference between experiment and control group among boy students in terms of BDC variable at level p<0.001. Thus, narration therapy by group method led into reduction of BC of boy students in post-test stage. Hypothesis 2 was supported.

**Table 4:** The results of Covariance analysis on the average of post-test scores of BDC of the girl subjects of experiment and control group.

<table>
<thead>
<tr>
<th>Change source</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Average of squares</th>
<th>F</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1424.807</td>
<td>1</td>
<td>1424.807</td>
<td>15.231</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Error</td>
<td>1590.235</td>
<td>17</td>
<td>93.544</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>61753</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Based on the results of Table 4, there was a significant difference between girl subjects of experiment and control group in terms of BDC at level p<0.001. Thus, third hypothesis was supported. In other words, narrative therapy by group method led into the continuance of reducing BDC of girl subjects in the follow-up stage.

Table 5: The results of COVARIANCE analysis on the average of follow-up scores of BDC of boy subjects of experiment and control group.

<table>
<thead>
<tr>
<th>Change source</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Average of squares</th>
<th>F</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>2075.825</td>
<td>1</td>
<td>2075.825</td>
<td>41.292</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>Error</td>
<td>854.617</td>
<td>12</td>
<td>50.272</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51639</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 5, there was a significant difference between boy subjects of control and experiment group in terms of BDC at p<0.001. Fourth hypothesis was supported. Thus, narration therapy by group method led into the reduction of BDC of boy subjects in follow-up stage.

Conclusion:

Based on the results of the study in Table 1, 212 people of students showed BDC. Its estimation in total population of students, boy and girl students were 14, 15.6, 12.8%. in the revised text of diagnosis guidance of mental disorder, DSM-IV-TR fourth edition, BDC was reported as about 5 to 40%. The results of this study were in consistent with Conroy et al., [6], Neziroglu et al. [14] and Lundgren [10] study. Probable determination about high prevalence of BDC can be related to the factors discussed. Various theories investigated the development of BDC. Behavioral-cognitive theories showed that cognitive distortions and challenging beliefs to self and appearance can be associated with dysmorphic disorder reason [19]. In epidemiological issue, we mentioned the role of culture and society in formation of people attitude about self and appearance and formation of BDC. Narration therapy is a therapy approach affected by culture. The treatment in this approach is based on mental models and structures. Indeed, when a person lives in a specific culture, by this culture, it has the mental background of culture and sub-culture. Thus, the vision by which a person looks at the world is inspired by that culture. As this approach is based on culture, it is better to know their clients and provide a good treatment for him. First to fourth hypotheses showed that narration therapy by group method led into the reduction of BDC among girl and boy students in post-test and follow-up stage. These results were in consistent with the results of Da costa et al., [7] and Hoper.

Da costa et al., [7] in a clinical case study on a women with BDD applied narration therapy. The results showed that narration therapy during the treatment and in follow-up stage had effective treatment for this disorder. They believed that narration therapy as the following reasons is a good model to treat BDC. First, this approach deals with socio-cultural factors and it is assumed that it is effective on the patients with BDC.

Second: Narration therapy was used successfully in treatment of anorexia, this disorder is occurred at the same time with BDC disorder.

Third: It is a method focused on an individual control and it is concentrated on strengths. It is an effective approach in treating BDC. Narration therapy is an alternative method to treat behavioral-cognitive therapy emphasizing on mental recognitions and resistance in therapy process.

BDC is an unpleasant experience affecting psychological, physiological and social aspects. In sum, we can say that BDC have negative role on mental and physical health of people and affect their individual and group performance. The results of Phillips et al. [17] and Carter et al. [5] reported that when people are dissatisfied with their physical appearance and imagine the other evaluate their appearance negative, get depressed and they show weak performance. Thus, BDC can form social performance disorder and interpersonal sensitivity. In determining the effect of narration therapy on the subjects by intervention, compared to the subjects not being under intervention, we can say that as in therapy sessions, special therapy relation and consideration is occurred for the therapy clients, positive expectation is created among them is focused on narration approach on BDC on negative effects of issues on people, it focuses on separate people not integration of issues with people (expressing the issue) or considering the issues as external issue of clients, behaving with any person as a person with unique stories. Avoiding labeling, etc caused that using narration therapy on subjects with BDC with narration intervention compared to the subjects with BDC not being under intervention, reduced BDC and improvement of subjects.

REFERENCES


