

Study of Body Image in Fertile and Infertile Men

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Abstract

Background: Body Image as a multidimensional entity is related to both physical and psychological aspects of the image one has of his or her own body. Lack/absence of an acceptable body image is one of the reasons of mental distress in infertile individuals.

Methods: In this study, an equal number (No=120) of fertile and infertile men attending Avicenna Infertility Clinic (AIC) were enrolled. The participants were compared in regard to body image variables based on the "Multidimensional Body-Self Relations Questionnaire (MBSRQ)" consisting of 10 subscales. Data was analyzed by SPSS, version 11.5, using Chi square and independent t-tests.

Results: Fertile men had a more positive body image as compared to infertile individuals. Significant statistical differences were observed when body image subscales were compared in both groups; in other words appearance evaluation, appearance orientation, Novy, health evaluation, health orientation, illness orientation, body satisfaction, overweight preoccupation and self-classified weight showed differences, while no significant difference was observed in regard to fitness orientation.

Conclusion: It seems that the ability and efficiency of body image is affected by infertility leading to dissatisfaction of one's body image.

Keywords: Body image, Infertility, Multidimensional Body-Self Relations Questionnaire, Self perception.

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Introduction

The first and most important point when encountering a person is his/her physical appearance. A person's sense of his/her physical appearance and self image is important in creating the concept of body image and one's identity as a "sole". Body image is the person's perception and experience of his/her own body (1). Although studies show that body image distortion is common among women (2), men also experience such body image dissatisfactions. Researchers have demonstrated that despite having less negative perception towards their bodies, men have strong motive for improving body appearance (3). Moreover, individuals with disease or physical defects (both visible and invisible) experience body image dissatisfaction. Scientists have shown that disease and sickness cause loss of body control and a sense of uselessness leading to a negative

body perception (4).

Infertility is defined as the inability to conceive after one year of regular sexual intercourse without using any contraceptives (5). This entity is considered as a physical disability and such couples feel as they suffer from a physical defect; therefore the question that infertility (similar to chronic diseases) could be related to body image distortions (6) arises.

A large number of studies have evaluated the relation between body image and chronic disorders such as cancer and AIDS (7). However, review of the literature shows the association between body image and some specific diseases, such as infertility, that are not directly related to the image have not been conducted on a large scales (8).

As 40% of the causes of infertility are due to

male factors and infertile men experience many problems in such circumstances conducting studies on this subject seems to be very important (9). There is little scientific knowledge emphasizing the relation between "body and self" in infertility and how one's conception of his/her body changes with infertility (10). Self image is the person's emotional, behavioral and cognitive perception of himself/herself. In addition, self image not only includes the physical appearance but also the physical ability and biological status (health/sickness) of an individual (11). One of the aims of the present research is to study body perception in infertile men.

Methods

The present study included 120 infertile men who had attended Avicenna Infertility Clinic (AIC) and 120 healthy fertile men with at least one child. The controls were selected from five geographical areas (north, south, west, east and center) of Tehran. The evaluation had two stages: in the initial stage three different week days were randomly selected (e.g. Sunday, Wednesday and Thursday); and in the second stage infertile men fulfilling the inclusion criteria were chosen among those attending the Clinic. The process included going to offices, shopping centers, institutes or public places and after giving a brief account of the study, selecting the interested individuals. Both the fertile and infertile groups were matched as much as possible in regard to age, duration of marriage and level of education.

The Multidimensional Body-Self Relations Questionnaire-MBSRQ was the basis of this evaluation. The questionnaire consisted of 69 questions dealing with the evaluation of one's self image (12). Prepared by Cash, the questionnaire aims to evaluate the level of body image satisfaction and dissatisfaction (13). The answers ranged from 1- "Completely disagree" to 4- "Fully agree" on Likert's scale. Based on alpha Chronbach's subscale, the values ranged between 0.77 to 0.91

for males and females, respectively. As it was the first time to be conducted in Iran, the questionnaires validity and reliability were determined too. Age and educational achievements were considered as potential confounders. The data were analyzed by SPSS (version 11.5) using Chi square and independent t-tests. P-values less than 0.05 were considered statistically significant.

Results

There were no statistical differences regarding age ($p=0.974$) and education ($p=0.284$) between the study groups. The descriptive data related to the participants, their age, duration of marriage, education and duration for infertility (infertile group) are presented in Table 1.

MBSRQ subscales in fertile and infertile groups are presented as (Table 2):

Appearance evaluation: Based on the results of the study, fertile men had greater mean scores (3.74 ± 0.59) in comparison to the infertile ones (3.53 ± 0.53). In other words fertile men felt more satisfied with their body image and felt they were more attractive physically ($p<0.01$).

Appearance orientation: Infertile men scored higher (3.23 ± 0.57 vs. 3.03 ± 0.59) showing the importance of this aspect in the group for improving their appearance ($p=0.01$).

Novy: Comparing the two groups demonstrated that fertile men had acknowledged a more positive attitude towards their physical capabilities. In contrast, infertile men classified themselves in lower levels of physical fitness and ability ($p<0.05$).

Fitness orientation: Although infertile men scored higher than their counterparts, but the values were insignificant. In order to improve their physical fitness and abilities, infertile men performed some specific activities.

Health evaluation: As compared to infertile group, fertile men felt they had healthier body and physique.

Infertility leads to a sense of unhealthiness. Since infertility is thought to be the "malfunc-

Table 1. Demographic and descriptive findings of the study

Groups	Age (yr)	Duration of Marriage (yr)	Duration of Infertility Diagnosis (yr)	Duration of Treatment (yr)	Education		
					Below H.Sc.	Below B.Sc.	Higher than B.Sc.
	M $\pm$ SD	M $\pm$ SD	M $\pm$ SD	M $\pm$ SD	N (%)	N (%)	N (%)
Fertile (n=120)	35.12 $\pm$ 5.32	10.49 $\pm$ 6.28	--	--	15(6.25)	60 (26)	45 (19.2)
Infertile (n=120)	35.14 $\pm$ 4.37	8.65 $\pm$ 5.60	6.17 $\pm$ 5.57	2.72 $\pm$ 1.26	21(9.1)	55 (19.9)	44 (19)

tioning of the body and a disease", infertile men believed they are unhealthier ($p < 0.05$).

Health orientation: This evaluation showed that fertile men planned for a healthier life style as compared to the other group. They gave more importance to their health, while the infertile individuals did not pay much attention to this aspect and did not indulge in activities that improved their health ($p < 0.05$).

Illness orientation: As compared to the fertile group, infertile men scored higher in this subscale. In other words, infertile men were more concerned and worried about becoming ill and were more conscious about the clinical features of an illness. Since infertile men related their "sense of unhealthiness" to their "infertility", their reaction towards physical illness seemed to be stronger and more rapid compared to fertile men ($p < 0.05$).

Body satisfaction: Fertile men were more satisfied with their various body parts in comparison to the infertile group. Similar to appearance evaluation, scores of this subscale showed that fertile individuals had a better perception of their body parts ($p=0.001$).

Overweight preoccupation: There were significant differences in this case between the two groups. In fact, infertile men felt more anxious in gaining weight and thus tended to adopt weight control measures. Instead, infertile men were more preoccupied with weight losing diets ($p < 0.01$).

Self-classified weight: Although the difference between the two groups was significant, infertile men classified themselves as overweight. They believed they weighed more than their fertile counterparts and thus as mentioned above infertile men were more involved in weight-reducing diets ($p=0.001$).

Table 2. Data related to MBSRQ subscales in fertile and infertile men

Body Subscales	Infertile	Fertile	P-value
	M±SD	M±SD	
Appearance evaluation	3.53±0.53	3.74±0.59	0.004
Appearance orientation	3.23±0.57	3.03±0.59	0.010
Novy	3.23±0.79	3.45±0.79	0.036
Fitness orientation	3.24±0.84	3.19±0.49	0.436
Health evaluation	3.28±0.62	3.40±0.66	0.012
Health orientation	3.44±0.49	3.58±0.52	0.038
Illness orientation	3.55±0.78	3.30±0.87	0.021
Body satisfaction	3.59±0.63	3.88±0.71	0.001
Overweight preoccupation	2.81±0.86	2.48±0.81	0.004
Self-classified weight	3.41±0.81	2.95±0.84	0.001

Discussion

As compared to infertile men, fertile male participants had a more positive body image. It seems that although infertility does not directly affect the physical appearance of an infertile individuals, certain psychological aspects that are directly related to their body image could be affected leading to a sense of body image distortion (14).

Earlier studies on self-esteem have shown that self-concept, identity development, anxiety and depression are factors closely related to body image that could be affected by infertility and thus lead to a distorted body image in infertile individuals. Connolly (15) studied the psychological aspects of infertility and showed that infertile individuals suffered from high levels of anxiety and depression. Salter (16) and Daniluk (17) also demonstrated stages of depression in infertile men and women. On the other hand, other studies such as Gipson's (18) showed the relation between depression in different stages of life and body image distortion and confirmed the strong association between these two entities.

Cash (19) demonstrated that body image distortion in infertile men anticipated depression. Under the influence of cognitive distortions such as absolutist thoughts one can experience depression and anxiety. Such thinking draws is considered as the basis for cognitive distortions. In other words, the person firmly believes that any situation strongly correlates with another situation (20). It is possible that infertile individuals think that "having children is equal to owing everything in the world". Menning showed that for infertile couples "everything is futile in the absence of a child" (21). Such thoughts in infertile couples could lead to the development of various psychological distresses such as anxiety and depression. Once depressed, one can become self-conscious, as there is significant relation between these two entities (22). This could result in body image preoccupation (23, 24). The individual may continuously think about his/her body and is alert about it at all times. Similar to physical disease states, when an individual becomes more aware and alert of his/her body and is more mentally preoccupied, infertility, as a state of being unhealthy, could increase self-observance (25).

The limitations of the present study were as follows:

Inattention on behalf of the participants in answering the entire questionnaire consisting of 69 items.

Psychological disorders such as anxiety, depression, and obsessive-compulsive disorder or body image distortions were not evaluated earlier in both the fertile and infertile groups, as each of these could affect self body image.

Insufficient matching between the control and case groups.

Conclusion

Based on the result of this research, body image perception in infertile men not only reflects its distortion in the non-physical appearance dimensions such as health evaluation, health orientation, illness orientation and physical abilities, but also in items that are directly related to appearance such as appearance evaluation, appearance orientation, overweight preoccupation and self-classified weight.

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