

# Effectiveness of an Internet-based, Functionality Focused Program for Improving Positive Body Image

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## To cite this article:

Egle Urvelyte, Aidas Perminas. Effectiveness of an Internet-based, Functionality Focused Program for Improving Positive Body Image. *Psychology and Behavioral Sciences*. Vol. 11, No. 1, 2022, pp. 37-41. doi: 10.11648/j.pbs.20221101.15

**Received:** January 9, 2022; **Accepted:** February 4, 2022; **Published:** February 16, 2022

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**Abstract:** This study tested body functionality based online program “Expand your horizon”. In the current study, we examined whether a positive body image program “Expand your Horizons” can be effective not only in modifying a positive body image but also such outcomes like body image quality of life. The program is designed to improve positive body image using writing assignments. One hundred and thirteen female students (M age – 22,08) were randomised to one week online programme “Expand your horizon” or control group. Body appreciation, body functionality, self-objectification and body image quality of life were measured at pretest and posttest. Participants in body image program experienced greater positive body image and body functionality compared to participants in control group. However, despite previous research that demonstrated relationship between body functionality and self-objectification or that focusing on body functionality could lead to lower level of self-objectification, in our study we do not confirmed that. Contrary to expectations no differences in body image quality of life and self-objectification were found between program participants and the control group. Also, there were no improvements in the control group over time. The result of the present study add to existing evidence that functionality based intervention can improve positive body image and body functionality in female students. Also it appears to be beneficial when delivered via internet.

**Keywords:** Female Students, Positive Body Image, Intervention

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## 1. Introduction

Body image is complex and multidimensional construct [1]. For a long time, all body image studies was focused on body image dissatisfaction and its risk factors. Yet a newer area of this research includes positive psychology [2]. It become important not only to understand the causes of negative body image and its risk factors, but also to understand and promote positive body image. Recent studies have shown positive correlations between positive body image and physical and psychological well-being [3]. In groups of adolescents, adult women and student athletes positive body image was positively associated with such positive outcomes as intuitive eating [4-6], and with a sense of compassion in the group of female students [7-8], higher life satisfaction [5], and greater sexual satisfaction [9].

## 2. Positive Body Image Program

### 2.1. Body Functionality

Body functionality refers to everything our body is capable of, including physical abilities (e.g., running), internal processes (e.g., digestion), body sensations (e.g., seeing), creative effort (e.g., drawing), communication with others (e.g., hugging) and self-care (e.g., eating) [10].

Focusing on body functionality is identified as one of the key factors associated with a positive body image, which means appreciating the body, respecting it for what it can do [11]. Focusing on body functionality is not limited to the perception of body functions (e.g., a person can focus on his leg muscles as he walks), but an important sense of gratitude

for body functions (e.g., a person is grateful to his leg muscles for allowing him to walk) [11]. It is also very important for a person to evaluate the functionality of their body regardless of their abilities and health [12].

Body image functionality is a new and important aspect of body image research, as it has so far focused on how people think, feel, and behave according to their body appearance or society's established beauty standards [13].

A trial conducted to find out how focusing on body functionality was associated with a positive body image. The results revealed that focusing on body functionality reduced the internalization of female body image ideals and was significantly associated with a more positive body image [14].

Interventions aimed at increasing focusing on body functionality have effectively improved women's positive body image [15].

### 2.2. The Current Study

The aim of the current study is to test internet-based, functionality focus body image program. We want to investigate whether a program "Expand your Horizon" [10], designed to teach women to focus on body functionality can increase positive body image and body image quality of life, and reduce levels of self-objectification.

Previous research has shown that participants who took part in the "Expand Your Horizon" body image program experienced higher levels of positive body image also functionality satisfaction, and lower levels of self-objectification. Participants also tended to feel greater appreciation for their body image [10].

Based on the previous studies we hypothesized that participants who receive the "Expand Your Horizon" program will experience: improvements in positive body image, an increase in body image quality of life, and a decrease in self-objectification, at posttest compared to control group.

### 2.3. Intervention

The goal of the program is to start a more positive assessment of your body by paying attention to the functionality of the body. At the beginning, participants are briefly introduced to bodily functions and why this is important. An example list of various body functions is provided. Each of the three writing assignments focuses on two different aspects of body functionality. The first task focuses on the senses and physical aspects of the body, the second asks to focus on bodily functions related to health and creativity, and the third on self-care and communication with others. During the task, participants describe the functions their bodies perform and why they are personally important and meaningful to them. During the program, participants should: try to write for at least 15 minutes, do not stop writing, and read what they have written at the end. It is emphasized that participants should not worry about spelling or grammar and that the answers to each of them are unique because each person's body is different.

## 3. Method

### 3.1. Design

Invitations to participate in the study were sent by e-mail to various university lecturers with a request to share and also were posted on student groups on Facebook.

The entire study took place online using Google Forms, via which participants could electronically fill in the measures and type and submit their writing assignment responses. First, participants signed an electronic informed consent sheet and then completed the pretest measures. One day later participants completed first writing assignment. Two days later, participants completed the second writing assignment and two days afterward, they completed the third writing assignment and then they immediately completed the posttest measures.

### 3.2. Participants

A sample of 113 female students from three universities in Kaunas city, Lithuania, participated in this study with an age range of 18 to 35 years ( $M = 22.08$ ,  $SD = 2.48$ ); 60 were randomised to the functionality group ("Expand your Horizon" program) and 53 were randomised to control group.

The mean self-reported body mass index (BMI) was 22.34 ( $SD = 3.75$ ), which falls within the 'normal range' for adult women (World Health Organization, 2015).

### 3.3. Measures

*Body functionality* was assessed by The Functionality Appreciation Scale (FAS) [11]. Participants rated the FAS items (e.g., "I respect my body for the functions that it performs") on a 5-point scale ranging from 1 (strongly agree) to 5 (strongly disagree).

To assess *positive body image*, the 10-item Body Appreciation Scale-2 was used (Final Version) (BAS-2; [16]). The BAS's-2 items (e.g., "I respect my body") are rated on a 5-point scale ranging from 1 (never) to 5 (always) and averaged.

*Self-objectification* was assessed with the Body Surveillance subscale of the Objectified Body Consciousness scale (OBC; [17]). The subscale consists of 8 items rated on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree).

*Body image quality of life* was assessed with Body Image Quality of Life Inventory BIQLI [18]) is a 19-item scale designed to assess body image quality of life in various psychosocial domains. On a 7-point scale from +3 to -3, it assesses positive and negative impact of body image on quality of life and psychosocial functioning.

## 4. Results

A one-way analysis of variance (ANOVA) of repeated measures was performed to compare body functionality before and after the intervention. The results showed (Table 1) that the scores of body functionality were statistically

significantly different when comparing the primary and second measurements regardless of group type ( $F = 122.95$ ,  $p < 0.001$ ). Depending on the group (I; C), statistically

significant differences between the first and second measurement body functionality estimates were also found ( $F = 11.29$ ,  $p = 0.001$ ).

**Table 1.** Comparison of students' body functionality scores (first and second measurements) between groups.

Effect	Group	Pretest M (SD)	Posttest M (SD)	$\eta^2$	p
Measure		24,17 (5,85)	26,76 (4,64)	0,526	<0,001
Measure x group	I, N-60	24,50 (5,79)	27,81 (4,51)	0,092	0,001
	C, N-53	23,81 (5,96)	25,58 (4,54)		

\*I – intervention group; C – control group.

The results showed (Table 2) that the scores of the positive body image differed statistically significantly when comparing the primary and second measurements regardless of the group type ( $F = 84.45$ ,  $p < 0.001$ ).

Depending on the study group (I; C), statistically significant differences between the first and second measurement positive body image estimates were also found ( $F = 104.40$ ,  $p < 0.001$ ).

**Table 2.** Comparison of students' positive body image scores (first and second measurements) between groups.

Effect	Group	Pretest M (SD)	Posttest M (SD)	$\eta^2$	p
Measure		23,79 (7,33)	26,68 (7,33)	0,432	<0,001
Measure x group	I, N-60	24,58 (7,31)	30,28 (5,39)	0,432	<0,001
	C, N-53	22,90 (7,32)	22,06 (7,13)		

\*I – intervention group; C – control group.

Body image-related quality of life scores differed statistically significantly between the primary and second measurements regardless of group type ( $F = 27.95$ ,  $p < 0.001$ ). No statistically

significant differences were found between the first and second measurements of body image-related quality of life ( $F = 2.06$ ,  $p = 0.154$ ) according to the group (I; C) (Table 3).

**Table 3.** Comparison of students' body image quality of life scores (first and second measurements) between groups.

Effect	Group	Pretest M (SD)	Posttest M (SD)	$\eta^2$	p
Measure		-12,14 (21,55)	-11,08 (21,16)	0,201	<0,001
Measure x group	I, N-60	-11,38 (21,50)	-9,96 (21,32)	0,018	0,154
	C, N-53	-13,00 (21,79)	-12,18 (21,12)		

\*I – intervention group; C – control group.

Also, self-objectification scores did not differ statistically significantly when comparing the primary and second measurements regardless of group type ( $F = 0.276$ ,  $p = 0.601$ ). According to the study group (I; C), no

statistically significant differences were found between the first and second measurements of the body objectification expression estimates ( $F = 0.781$ ,  $p = 0.379$ ) (Table 4).

**Table 4.** Comparison of students' self-objectification scores (first and second measurements) between groups.

Effect	Group	Pretest M (SD)	Posttest M (SD)	$\eta^2$	p
Measure		31,38 (6,88)	31,66 (7,51)	0,002	0,601
Measure x group	I, N-60	31,30 (6,93)	31,96 (6,83)	0,007	0,379
	C, N-53	31,49 (6,89)	31,32 (8,25)		

\*I – intervention group; C – control group.

## 5. Discussion

In this study we evaluated the “Expand Your Horizon” program, which is designed to improve positive body image by training to focus on the functionality of the body. Compared participants who took part in the Expand Your Horizon program to control group, they experienced higher

levels of functionality satisfaction, positive body image. However, contrary to expectations, the program was not effective in improving the body image quality of life and decreasing self-objectification.

However these findings are in line with the prior studies that suggested that focusing on body functionality can have beneficial effects on body image [10].

Previous studies demonstrated a relation between focusing

on body functionality and higher levels of positive body image ([19]; [20]), our findings provides experimental support for these correlations.

In agreements with other research ([21]; [22]), our results revealed that when women appreciate their body functionality more than their appearance, they are more likely to have positive body image.

However, despite previous research that demonstrated relationship between body functionality and self-objectification or that focusing on body functionality could lead to lower level of self-objectification, in our study we do not confirmed that.

It is known that sexual objectification of women is ubiquitous in our culture and it could be that short time intervention could not change it and it will likely take time and extensive effort to change.

Also it is important to mention that the reductions of self-objectification in previous study [10] were found using different questionnaires. The divergence found in this study might be caused by the different aspects captured by each questionnaire.

There have been few correlation studies investigating the health-related outcomes of positive body image. [6] found that positive body image was positively associated with sun protection, and skin screening and negatively related to weight-loss behavior in women. The results of another study showed that positive body image was positively correlated with intentions to protect skin from sun damage and negatively related with dieting [23].

In the current study, we examined whether a positive body image program “Expand your Horizons” can be effective not only in modifying a positive body image but also such outcomes like body image quality of life.

Based on previous studies were better body image quality of life was related with higher body image satisfaction [24] we hypothesised that changes in positive body image could lead to better body image quality of life and functionality based intervention could be also effective on that point.

However, this hypothesis was not confirmed. It could be that program duration is too short to increase body image quality of life.

Also this study has few limitations, such as small sample which likely reduced the power to detect group differences. Also we tested only women between the age of 18 and 35, so it is an unanswered question whether the program will have similar effects in different samples, different age groups, or in men. It is also unclear whether the effects of the program are long-lasting, as we do not included a follow-up.

## 6. Conclusion

The results of this study showed that, compared to control group students in functionality based positive body image program experienced improvements in positive body image, and body functionality. Contrary than we expected, program did not lead to lower body objectification and greater body image quality of life.

Overall, “Expand your Horizon” program provides an Internet-based resource that may serve to promote positive body image for women in short term and it is also inexpensive and easy to administer, and requires less than one hour of participants’ time.

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