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Effect of the Healthy Body Image Package and Cash Cognitive-Behavioral Therapy on Perfectionism in Adolescents with Body Dissatisfaction

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ABSTRACT

Aims Adolescents with body dissatisfaction require serious attention from therapeutic and educational communities. This research aimed to determine the effect of a healthy body image package (HBIP) and Cash cognitive-behavioral therapy (CCBT) on perfectionism in 12 to 15-year-old adolescents with body dissatisfaction.

Materials & Methods This semi-experimental research with three pre-test, post-test, and follow-up stages with a control group was done on 60 adolescents aged 12 to 15 years from high schools in Isfahan during the academic year 2022-2023 selected through purposeful sampling and based on the inclusion criteria. They were randomly assigned to two intervention groups and a control group (n=20 per group). Body dissatisfaction was assessed using a 9-item scale from the 68-item Multidimensional Body-Self Relations Questionnaire. The Multidimensional Perfectionism Scale was used to measure the dependent variable. The two intervention groups, HBIP and CCBT, received eight training sessions (90 to 120 minutes each), while the control group received no intervention. Data analysis was performed using repeated measures analysis of variance and Bonferroni's post-hoc test by SPSS 26 software.

Findings There was a notable distinction in perfectionism levels among adolescents with body dissatisfaction between the HBIP and CCBT groups compared to the control group ($p<0.01$). Furthermore, the results showed a significant reduction in perfectionism among adolescents with body dissatisfaction in the HBIP group compared to the CCBT group.

Conclusion The HBIP is more effective than CCBT in reducing perfectionism among adolescents with body dissatisfaction.

Keywords Body Image; Cognitive-Behavioral Therapy; Perfectionism; Body Dissatisfaction

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[1] Parents and peers in child and adolescent development: Preface to the special issue on additive ... [2] The examination the relationship between health-related physical fitness and Physical ... [3] Summary of psychiatry: Behavioral Sciences-Clinical ... [4] Cognitive behavioral therapy, body dismorphic ... [5] The mediating role of emotion regulation difficulties in the relationship between abuse experiences ... [6] Risk factors in body image dissatisfaction: Gender, maladaptive ... [7] Body dysmorphic disorder ... [8] Health consequences of bulimia ... [9] Bulimia nervosa and body dissatisfaction in terms ... [10] The relationship between the amount of time for brace wear and its psychological effects and the level of social ... [11] Relationship between self-esteem and maladaptive perfectionism with workaholism among health care ... [12] The comparison of maladjusted perfectionism, maladaptive cognitive emotion regulation and rumination in adolescents ... [13] Perfectionism and stress processes ... [14] An update on mental health problems and cognitive behavioral ... [15] Comparison of the effectiveness of interpersonal psychotherapy and cognitive-behavioral therapy on body image ... [16] Attitudinal body-image assessment: Factor analysis of the ... [17] The relationship between attachment styles and attitudes toward body image in high school girl students: The mediating role ... [18] Comparing the effectiveness of dialectical behavior therapy and metacognitive therapy on attachment styles and ... [19] Development of a Healthy Body Image Package for Adolescents Aged 12 to 15 with Body Image Dissatisfaction ... [20] Body image guide ... [21] Associations between body appreciation and disordered eating ... [22] Efficacy of body appreciation training on body image ... [23] The nature of positive body image: Examining associations between nature exposure ... [24] Appearance-based exercise motivation moderates the relationship between exercise frequency ... [25] Predictors and health-related outcomes of positive body image ... [26] Comparison the effectiveness of group therapy based on acceptance and commitment and cognitive-behavioral group therapy on the body image dissatisfaction ...

Introduction

Over the past few decades, there has been growing interest in the rapid and noticeable physical, psychological, emotional, and social developments of adolescents. In other words, during the adolescent growth period, individuals possess the highest and fastest growth opportunities and, given the necessary conditions for growth, will achieve their optimal capabilities [1]. As mentioned, during this period, individuals undergo multifaceted changes resulting from the process of puberty, potentially impacting the adolescent's life significantly. Notably, adolescents naturally become particularly sensitive to their physical appearance during this phase [2]. While attention to appearance is a normal characteristic of every human being, excessive focus on certain body aspects can lead to numerous problems for individuals [3]. In other words, excessive attention to certain body aspects causes distress and dissatisfaction for the individual [4]. Body image serves as an internal representation of the physical aspects of the body. More precisely, body image is an individual's internal perspective on how they appear and what feelings they have about themselves [5]. Dissatisfaction with one's appearance (body image dissatisfaction) has become a global phenomenon, often accompanied by excessive behaviors to remedy perceived body issues [6].

Body dissatisfaction involves concerns and mental preoccupation with an imagined flaw in one's appearance or an exaggerated mental focus on a perceived minor defect. Researchers specify that during certain stages of adolescence, individuals may engage in obsessive behaviors (such as mirror checking and excessive grooming) or mental activities (like comparing their appearance to others), and this mental preoccupation can lead to significant emotional distress or noticeable impairment in functioning in critical life domains [7]. Adolescents typically do not seek help for body dissatisfaction in the early stages of adolescence, often due to feelings of shame, and it is less frequently reported as the primary complaint [2].

The consequences of body dissatisfaction are variable and encompass physical, psychological, and biological challenges from moderate to severe throughout one's [8]. For instance, individuals with body dissatisfaction may suffer from digestive problems, hormonal disorders, high blood pressure, diabetes, irritable bowel syndrome, fluid and electrolyte imbalance, and are more vulnerable to chronic physical and other mental health disorders. Moreover, due to negative body image and dissatisfaction with their appearance, they often experience emotional dysregulation and social anxiety, with diminished emotional regulation skills, and an increased inclination towards substance use [9]. Therefore, body dissatisfaction significantly disrupts daily functioning, leads to sleep problems, reduces the quality of life, and imposes economic and social burdens on affected individuals and society [10].

One crucial component related to the concept of body dissatisfaction is perfectionism, as it plays a vital role in an individual's self-perception [11]. Perfectionism is a complex concept involving striving for unrealistic personal standards, excessive self-examination focusing on mistakes during failures, and an extreme emphasis on organizational precision [12]. Hewitt and Flett suggest a significant correlation between perfectionism and mental disorders [13]. They distinguish three self-oriented, other-oriented, and socially prescribed perfectionism dimensions of perfectionism. Self-oriented perfectionism refers to a tendency to set unrealistic and unattainable standards for oneself, focusing excessively on flaws and failures. In this type of perfectionism, individuals intensely criticize themselves and experience anger and frustration if they cannot meet these criteria. Other-oriented perfectionism involves having excessive expectations and critically evaluating others. Individuals with this type of perfectionism become angry if they see that others cannot perform well and meet the set standards. Socially prescribed perfectionism refers to the need to meet the standards and expectations of significant others to gain their approval, fearing rejection or embarrassment if they fail to do so.

As these excessive standards are perceived as externally imposed by others, individuals may feel a sense of uncontrollability leading to feelings of failure, anxiety, anger, frustration, and despair, often associated with suicidal thoughts and depression [14].

In recent years, psychological interventions within the broad framework of cognitive-behavioral approaches, alongside integrative therapies, have garnered attention from researchers and therapists to assist individuals with body dissatisfaction, particularly adolescents. Alongside enhancing adolescents' capacities through promoting healthy body image to improve their psychological and emotional well-being and the need to enhance emotional, cognitive, and social developmental pathways in adolescents, "Cognitive-Behavioral Body Image Therapy" still holds a special place [15]. In essence, it's an applied individual or group method to help improve negative body image in clinical settings in the short term. Cognitive-behavioral therapy (CBT) is a combination of cognitive restructuring from cognitive therapy along with behavioral modification methods in behavior therapy [16]. The therapist in this intervention aims to make both the behaviors and thoughts causing distress explicit and then modify them to promote adaptive behavior [17].

Considering that the lack of healthy body image can pose a challenging, unnatural, and stressful situation for adolescents, and acknowledging the role of supportive factors in educational interventions on body dissatisfaction, we assessed whether the HBIP

and Cash CBT (CCBT) based on the principles and rules of the CBT are effective in beliefs about appearance and perfectionism in 12 to 15-year-old adolescents with body dissatisfaction.

Materials and Methods

The present study employed a semi-experimental research method with a three-group design, comprising the healthy body image, CBT, and control groups. The research was conducted in three pre-test, post-test, and follow-up stages. The statistical population included all adolescents aged 12 to 15 in Isfahan's high schools during the academic year 2022-2023. The sample size was determined to be 20 individuals in each group based on similar studies [18], considering an effect size of 0.40, a confidence level of 0.95, a test power of 0.80, and a dropout rate of 10%. Consequently, 60 participants were selected as samples through purposive sampling according to the inclusion and exclusion criteria. They were then randomly assigned to the three groups using simple random sampling (lottery). However, two participants from the HBIP group and four from the CCBT group dropped out, reducing the respective group sizes to 18 and 16 participants.

Table 1. Brief description of the healthy body image package (HBIP) sessions

Session	Summary of sessions
First	Introduction, acquaintance, and setting practical and applied goals for the course. Implementation of pre-test. Basic familiarity with the concept, roles, and dimensions of healthy mindfulness. Group discussion on positive and negative body perceptions, behavioral aspects, and healthy nutrition based on members' experiences. Introduction to the cognitive aspect of healthy body perception and the possibility of enhancing it. Teaching techniques for internal awareness of body organs and their functions. Summary of the first session and assignment for home.
Second	Self-care training for responding to the body's perceived needs in a healthy manner. Mindfulness self-care techniques to enhance perception alignment with reality about one's body and its functions. Teaching awareness and absorption of supportive resources and expanding awareness levels regarding the body beyond appearance. Summary of the second session and assignment for home.
Third	Introduction to the emotional dimension of healthy body perception and methods to enhance it. Teaching self-compassion strategies regarding the body and its functions. Instruction on coping with shame and strengthening self-esteem. Summary of the third session and assignment for home.
Fourth	Teaching expressive and emotional writing about the body and body parts. Instruction on regulating negative and positive emotions about the body. Summary of the fourth session and assignment for home.
Fifth	Introduction and familiarity with the cognitive dimension of healthy body perception and methods to enhance it. Teaching mindfulness techniques to enhance healthy and positive body perception (coping with cognitive distortions and ineffective beliefs). Teaching positive self-talk about the body and appearance (replacing cognitive distortions and ineffective beliefs). Summary of the fifth session and assignment for home.
Sixth	Introduction and familiarity with the behavioral dimension of healthy body perception and methods to enhance it. Training behavioral planning readiness for action. Teaching behavioral self-monitoring comprehensively. Teaching behavioral exposure exercises. Summary of the sixth session and assignment for home.
Seventh	Teaching acceptance and gratitude strategies for the body and appearance to enhance healthy and positive body perception. Teaching conditional evaluation and cognitive restructuring techniques (continuation of replacing cognitive distortions and ineffective beliefs). Summary of the seventh session and assignment for home
Eighth	Stress management training and coping strategies with negative body perception. Teaching behavioral prevention of returning to dissatisfaction with body perception. Summary of the teaching sessions, presenting assignments for home, and conducting post-tests.

Table 2. Brief description of the Cash cognitive-behavioral therapy (CCBT) sessions

Sessions	Summary of sessions
First	Introduction to the therapist and group members, evaluation of body perception, explanation of rules and expectations. A brief overview of the cognitive-behavioral approach, followed by an introduction to the cognitive therapy approach through participant self-assessment of body image levels using questionnaires.
Second	Review of the previous session's assignment, exploration of visible and mental reflections in the mirror regarding secondary sexual characteristics resulting from puberty changes, and learning the ABCs of body image.
Third	Review of the previous session's assignment, creating satisfying reflections and discovering emotional body perceptions, teaching relaxation and desensitization with the mirror.
Fourth	Review of the previous session's assignment, establishing logical doubts about the harmed body, therapist's emphasis on negative assumptions, and challenging irrational thoughts through cognitive reconstruction techniques and listening to their new inner voices. Presenting D and E in the ABC model.
Fifth	Review of the previous session's assignment, correcting private body conversations by corrective thoughts (D), and presenting examples of corrective thoughts in group sessions, based on adolescents' statements.
Sixth	Breaking self-destructive behaviors about their bodies and facing situations they avoid and worry about, evaluating situations related to body dissatisfaction.
Seventh	Focusing on the rights of the body, and paying attention to positive aspects of the body, the therapist encouragement to give a gift to themselves. Discussing goals and future plans in adolescents' lives to gain a new perspective on their body after physical changes due to puberty and presenting solutions to overcome some removable barriers.
Eighth	Protecting positive body perception (preventing relapse) group members expressing their achievements, a summary of concepts discussed in each session, and summarizing discussions.

Inclusion criteria included willingness to participate in the research, absence of psychological disorders such as body dysmorphic disorder, eating disorders (e.g., binge eating and anorexia nervosa), depression, anxiety, or chronic physical disorders, not being under psychiatric treatments (medication), age range

of 12 to 15 years, and obtaining a maximum score of 30 on the Body Satisfaction Questionnaire. Exclusion criteria included non-cooperation or unwillingness to continue participating in sessions, failure to complete assigned tasks, and absenteeism of more than two sessions during the intervention sessions. Ethical considerations encompassed maintaining confidentiality, using data solely for research objectives without disclosing names, providing complete freedom for individuals to withdraw from continued participation in the study, accurately notifying research results upon participants' request, obtaining written informed consent from participants, obtaining ethical code (IR.IAU.KHUISF.REC.1402.025) from the Ethics Committee, offering post-training for the control group upon participants' request in a condensed form, and ensuring participants' dignity and perfectionism.

Study tools

1- Body Areas Satisfaction Scale (BASS): To measure body image dissatisfaction, a 9-item scale from the 68-item questionnaire assessing individuals' attitudes towards various dimensions of their body image, developed by Cash *et al.*, was used [16]. This scale is suitable for individuals aged 12 and above and with satisfactory reliability and validity. The scale evaluates satisfaction with different body areas, including the face, upper body, mid-torso, lower torso, muscle tone, weight, height, and overall appearance. Participants self-report their satisfaction level on a 5-point Likert scale ranging from "Very Satisfied" to "Very Dissatisfied". The score range is from 9 to 45, with lower scores indicating increased satisfaction with various body areas. Brown *et al.* reported internal consistency reliability with a coefficient of 0.86 [16]. In a study by Hashemian *et al.*, Cronbach's alpha was used to assess the reliability of the Body Image Attitude Questionnaire and its subscale, resulting in a Cronbach's alpha of 0.92 for the body satisfaction subscale [17]. Considering that Cronbach's alpha value exceeds 0.70, this questionnaire demonstrates desirable reliability.

2- The Multidimensional Perfectionism Scale (MPS): MPS was developed by Hewitt and Flett [13]. It has been standardized and validated in Iran by Borjali. This 30-item scale assesses three dimensions of perfectionism, including self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism. Answers are scored on a 5-point Likert scale (completely disagree to Completely Agree). The score range is from 30 to 150, with higher scores indicating higher levels of perfectionism. In the preliminary validation of the Iranian version of this scale, Cronbach's alpha was 0.90 for self-oriented perfectionism, 0.83 for other-oriented perfectionism, and 0.78 for socially prescribed perfectionism. These coefficients indicate the high internal consistency of the scale.

After conducting a pre-test and random assignment of participants to the HBIP, CCBT, and control group, the intervention sessions were implemented using the developed HBIP and CCBT over eight sessions lasting 90 to 120 minutes each [19, 20] (Table 1 & 2). The control group did not receive any intervention and remained on a waiting list. After completing the therapy sessions, a post-test was conducted for all three groups.

Data were analyzed using repeated measures analysis of variance (ANOVA) and Bonferroni's post hoc test by SPSS 26 at a 0.05 significance level.

Findings

Demographic variables, such as age, gender, the number of siblings in the family, and birth order were examined by the Chi-square test and the results indicated no significant differences among the three research groups regarding demographic variables (Table 3).

Table 3. Frequency of demographic variables among the Cash cognitive-behavioral therapy (CCBT), healthy body image package (HBIP), and control groups

Parameter		HBIP	CCBT	Control	p-Value
Age (year)	12	4(22.2)	5(31.3)	3(18.8)	5.352
	13	3(16.7)	3(18.8)	6(37.5)	
	14	8(44.4)	3(18.8)	4(25)	
	15	3(16.7)	5(31.3)	3(18.8)	
Sex	Male	12(6.67)	10(62.5)	10(62.5)	0.145
	Female	6(33.3)	6(37.5)	6(31.3)	
Number of siblings	1	4(22.2)	1(6.3)	1(6.3)	7.484
	2	10(55.6)	9(56.3)	9(56.3)	
	3	4 (22.2)	4(25)	3(18.8)	
	4	0(0)	2(12.5)	0(0)	
Birth order	First	6(33.3)	4(25)	9(56.3)	8.434
	Second	10(55.6)	6(37.5)	4(25)	
	Third	2(11.1)	3(18.8)	2(12.5)	
	Fourth	0(0)	2(12.5)	1(6.3)	

Table 4 displays the mean scores of perfectionism and its components in the groups in the pre-test, post-test, and follow-up stages. The results indicate significant changes in the HBIP and CCBT groups compared to the control group ($p<0.05$).

Table 4. Mean scores of perfectionism among the Cash cognitive-behavioral therapy (CCBT), healthy body image package (HBIP), and control groups in three stages

Parameters	Group	Pre-test	Post-test	Follow-up
Self	HBIP	33.28±6.52	18.72±5.06	18.88±4.87
	CCBT	33.94±6.82	24.12±6.61	24.43±6.62
	Control	32.81±6.31	33.12±6.13	32.93±6.23
Others	HBIP	33.00±6.18	11.61±2.81	11.66±2.80
	CCBT	32.31±6.43	21.00±6.86	21.06±6.88
	Control	33.19±7.79	33.43±7.89	33.31±7.84
Society	HBIP	30.39±6.60	9.83±2.14	9.83±2.282
	CCBT	31.06±8.26	20.87±6.76	21.18±7.10
	Control	29.56±5.96	29.87±5.95	29.75±5.98
Perfectionism (total)	HBIP	96.66±12.71	40.16±7.44	40.38±7.014
	CCBT	97.31±17.00	66.00±15.06	66.68±16.02
	Control	95.56±11.68	96.43±12.04	96.00±11.97

Before conducting repeated measures ANOVA, normality and homogeneity of variance were

assessed for perfectionism. The Greenhouse-Geisser statistic was applied when the sphericity assumption was violated. The results revealed significant differences in perfectionism and its components among the HBIP, CCBT, and control groups (Table 5). The between-group analysis revealed significant differences in perfectionism and its components among the HBIP, CCBT, and control groups. Regarding total perfectionism, time (F=919.66, df=1.073, and p<0.001) and the interaction of time and group (F=304.76, df=2.14, and p<0.001) indicated a significant difference (p<0.001). Also, the group effect showed a significant difference (p<0.001) between the experimental groups in all four components (p<0.001). Due to the significant effect of time and group interaction, the pairwise Bonferroni post hoc test was conducted to examine specific group differences (Table 6).

Table 5. Repeated measures ANOVA results for perfectionism

Variable	Effects	Sum of squares	df	Mean of squares	F	p-Value	η^2	Test power
Self	Time	211.03	1.10	1906.37	295.08	0.001	0.863	1
	Time×group	1251.74	2.21	565.19	87.48	0.001	0.788	1
	Group	2220.26	2	1110.13	10.46	0.001	0.308	0.98
Others	Time	3889.17	1.06	3646.24	373.27	0.001	0.888	1
	Time×group	2622.38	2.13	1229.28	125.84	0.001	0.843	1
	Group	5403.87	2	2701.93	24.25	0.001	0.508	1
Society	Time	3398.20	1.06	3207.13	260.95	0.001	0.847	1
	Time×group	2449.16	2.11	2255.72	94.03	0.001	0.800	1
	Group	4402.26	2	2201.13	23.69	0.001	0.502	1
Perfectionism	Time	27756.17	1.07	25871.61	919.66	0.001	0.951	1
	Time×group	18396.20	2.14	8573.57	304.76	0.001	0.928	1
	Group	34651.07	2	17325.53	38.63	0.001	0.622	1

Table 6. Bonferroni's test results for paired comparison of Cash cognitive-behavioral therapy (CCBT), healthy body image package (HBIP), and control groups on perfectionism

Parameter	Base group	Comparison group	Mean difference	Standard error	p-Value
Self	Pre-test	Post-test	8.01**	0.45	0.001
	Pre-test	Follow-up	7.92**	0.45	0.001
	Post-test	Follow-up	-0.09	0.12	1.000
	HBIP	CCBT	-3.87	2.04	0.193
	HBIP	Control	-9.32**	2.04	0.001
	CCBT	Control	-5.45*	2.04	0.038
Other	Pre-test	Post-test	10.81**	0.55	0.001
	Pre-test	Follow-up	10.81**	0.55	0.001
	Post-test	Follow-up	0.00	0.11	1.000
	HBIP	CCBT	-6.03*	2.09	0.018
	HBIP	Control	-14.55**	2.09	0.001
	CCBT	Control	-8.52**	2.15	0.001
Society	Pre-test	Post-test	10.14**	0.63	0.001
	Pre-test	Follow-up	10.08**	0.60	0.001
	Post-test	Follow-up	-0.06	0.12	1.000
	HBIP	CCBT	-7.69**	1.91	0.001
	HBIP	Control	-13.04**	1.91	0.001
	CCBT	Control	-5.35*	1.96	0.027
Perfectionism	Pre-test	Post-test	28.97**	0.95	0.001
	Pre-test	Follow-up	28.82**	0.93	0.001
	Post-test	Follow-up	-0.15	0.20	1.000
	HBIP	CCBT	-17.59**	4.20	0.001
	HBIP	Control	-36.92**	4.20	0.001
	CCBT	Control	-19.33**	4.32	0.001

*p<0.05; **p<0.001

Discussion

In this study, aimed at examining the effectiveness of the HBIP and CCBT for body image dissatisfaction, there was a significant difference between the HBIP, CCBT, and control groups. Specifically, the effectiveness of the HBIP in reducing body dissatisfaction among adolescents with body dysmorphic concerns was greater than that of CCBT. The study emphasized the impact of societal standards, media influence, and social networks on body image dissatisfaction among adolescents. The nature and functions of body image dissatisfaction, particularly in perfectionistic tendencies, were discussed.

Because HBIP was developed and validated by the researcher for the first time, it is clear that no research can directly compare the results of this study. However, these results can be in line with the research on the positive role of healthy body image and appreciation in body image dissatisfaction. Baceviciene and Jankauskiene report that appreciation of the healthy body brings about satisfaction with the body [21] and can be used to reduce concerns related to body image in overweight

adolescents [22].

Swami *et al.* also believe that because healthy body appreciation reduces focus on negative body image, it can be expected that body appreciation training has positive effects on improving body image [23]. In this context, Homan and Tylka note that enhancing body appreciation by placing less emphasis on self-worth tied to appearance and external validation can alleviate body image issues [24]. The study by Andrew *et al.* indicates that heightened body appreciation led to greater acceptance by others and decreased engagement with media portrayals, thereby reducing social comparisons. Internalizing healthy weight loss standards can aid in comprehending your body better [25].

According to our findings, interventions based on HBIP could prove advantageous by targeting emotional, cognitive, and behavioral facets to alleviate the adverse effects of body dissatisfaction. The techniques imparted across cognitive, emotional, and behavioral domains in HBIP were viewed as crucial resources capable of significantly influencing the outlook and perfectionistic standards of adolescents experiencing body dissatisfaction. These strategies diminish self-oriented, other-oriented, and socially-oriented perfectionism, thereby lowering the chances of a relapse into body dissatisfaction among adolescents.

The efficacy of CCBT for adolescents grappling with body dissatisfaction in this study resonates with findings concerning the effectiveness of acceptance and commitment-based group therapy and CBT therapy in addressing body dissatisfaction among women [26]. The rationale behind the effectiveness of CBT in this current research was linked to the deployment of strategies and techniques aimed at challenging unrealistic high expectations that bolster perfectionistic perceptions of one's body. Unrealistic high expectations tied to oneself and one's body played a pivotal role in exacerbating worries and discontentment regarding body image. CBT tackles these unrealistic expectations by targeting generalized attitudes, thoughts, and beliefs that are deemed unrealistic. Consequently, its objective is to reduce self-oriented and socially-oriented perfectionism by focusing on diminishing unrealistic high expectations associated with oneself and one's body. While investigating the superior effectiveness of HBIP over CCBT concerning perfectionism (excluding self-oriented perfectionism), it may be suggested that as the initial study comparing the efficacy of HBIP with CCBT on perfectionism, further scrutiny of the theoretical and practical rationales for this discrepancy is warranted.

Nevertheless, the focus on fostering positive self-oriented outlooks alongside emotional well-being and coping skills within the HBIP in this study likely played a role in transitioning from perfectionistic and irrational expectations tied to others and societal standards to cultivating positive self-oriented aspirations, expectations, and viewpoints. This transition could be regarded as a contributing factor to the heightened effectiveness of HBIP over CCBT in diminishing perfectionism among adolescents aged 12 to 15 experiencing body dissatisfaction in the current investigation.

Similar to other studies, the present research had specific limitations. The primary constraint was the restriction of the research population to adolescents aged 12 to 15 experiencing body dissatisfaction in high schools in Isfahan. The economic and educational backgrounds of the students were not evaluated or regulated in this study. Furthermore, random sampling was not employed, taking into account the characteristics of the statistical population. To improve the generalizability of the findings, it is advisable to replicate this study in other cities, consider monitoring the economic and educational statuses of students, and incorporate random sampling in the proposed research methodology. Given the proven efficacy of instructing HBIP and CCBT in alleviating adolescent perfectionism associated with body dissatisfaction, it is pragmatically recommended that educational institutions and planners engage counselors and counseling specialists within their organizational counseling centers and psychological services. Additionally, the utilization of seasoned psychologists specializing in body image issues and the adoption of an adolescent-centered approach to enhancing adolescents' perfectionism could have a beneficial influence on their personal development and academic progress.

Conclusion

The HBIP is more effective than CCBT in reducing perfectionism among adolescents with body dissatisfaction.

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Ethical Permissions: The research involving human subjects underwent review and approval by the Ethics Committee of the Islamic Azad University of Isfahan. The patients/participants provided written informed consent to partake in this study (IR.IAU.KHUISF.REC.1402.025).

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