

Body Image and Women's Mental Health: An Evaluation of a Group Intervention Program

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Body image is a person's perception of how their physical body appears to them including feelings and attitudes towards it. A negative body image affects women's mental and physical health. A cognitive behavioral group intervention program was designed and implemented for women identifying as having body image concerns. It targeted risk factors important in the development and maintenance of body image dissatisfaction aiming to improve body image and self-esteem evaluated through pre-and post-intervention questionnaires. Results for the 19 participants showed improvements in body satisfaction and self-esteem and decrease in body image distress compared to the control group ($n = 28$) who showed no change in body image or self-esteem.

Keywords: body image, cognitive behavioral intervention, women's mental health, body distress, self esteem.

Body image includes a person's perceptions of, attitudes and feelings towards the physical body from head to toe (Cash, Fleming, Alindogan, Steadman, & Whitehead, 2002). Discontent with body image in women has been described as 'normative' in Western society due to the high number of women across the lifespan who report dissatisfaction with their body image (e.g. McLaren & Kuh, 2004; Rodin, Silberstein, & Striegel-Moore, 1984; Tiggemann & Lynch, 2001). This body dissatisfaction has been shown to occur in girls as young as seven years old (Tiggemann, 2001). The high level of body image discontent in women is problematic because body image distress and dissatisfaction has a significant negative impact on both physical and mental health. For example, longitudinal research indicates that body dissatisfaction predicts higher levels of dieting, unhealthy weight control behaviours (e.g. binge eating, laxative use,

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and purging), lower levels of physical activity, and eating disorders in women (Neumark-Sztainer, Paxton, Hannan, Haines, & Story, 2006; Stice, 2002). Body dissatisfaction is also correlated with lowered self esteem and high levels of depression and anxiety in women (French, Story, Remafedi, Resnick, & Blum, 1996; Johnson & Wardle, 2005; Stice, 2002).

Given the negative outcomes that body image dissatisfaction can lead to, it is important to intervene and improve the body image of people experiencing body dissatisfaction. An understanding of the development of body image is required to develop effective interventions for people experiencing body dissatisfaction. Cash's (2008) model of body image development proposes that sociocultural pressures, interpersonal experiences, physical characteristics and changes, and personality characteristics all effect the development of body image. Cash's model has been supported by research investigating the development of body image dissatisfaction (e.g. Carfi, Yamamiya, Brannick, & Thompson, 2005; Tiggemann & McGill, 2004; Yamamiya, Cash, Melnyk, Posavac, & Posavac, 2005). According to this model, socio-cultural pressures to be thin for women can lead to internalization of these cultural ideals and body dissatisfaction as they are often unable to achieve cultural ideals for appearance. This internalization begins from an early age even before puberty (Tiggemann, 2001).

Interestingly nonwestern societies such as Pakistan, although their women do indicate body dissatisfaction and concern about being 'fat' (Taqui et al., 2006), have been found to express lower weight concerns than Australians (Mahmud & Crittenden, 2007). However, a female is judged on her appearance in Pakistan and a high value is placed on attractiveness. Just like in Western societies, the importance placed on appearance in this culture has been shown to be related to body dissatisfaction and image concerns (Taqui et al., 2006). It is possible that culture including not adopting the 'thin' ideal body image for women may be a protective factor for women in these cultures. Therefore when designing intervention for women it is important to consider the critical role that idealization of the 'thin' ideal plays on body satisfaction.

Family, friends, and peers can also affect body image development, children may learn body image dissatisfaction by watching family members or friends complain about/emphasize their appearance. Research also indicates that being teased about appearance can have a negative impact on body image (Kostanski & Gullone, 2007). Physical changes such as acne, puberty, weight gain, and ageing also have an effect on an individual's body image.

Overweight women experience higher levels of body dissatisfaction and distress than average weight women (Annis, Cash, & Hrabosky, 2004). Personality characteristics such as having perfectionist traits and a low self esteem can predispose individuals to body dissatisfaction (Cash, 2008). Negative affect (e.g. stress and depressed mood) has also been identified as a risk factor in the development and maintenance of body dissatisfaction and eating disorders (Stice, 2002). Therefore, when designing intervention for women with body image concerns it is important to address where body image perceptions come from and how to challenge its relevance to adulthood and current body perceptions.

The above research into body image development and maintenance highlight areas that may be effective in body image interventions including challenging cultural ideals and negative thoughts about body image, improving self-esteem, psychoeducation about healthy lifestyle and weight management, stress, and negative emotion management. Several intervention programs for adult women with body image concerns have been conducted that have used mainly cognitive behavioral techniques to help participants improve their body image. For example, Strachan and Cash's (2002) program involved Cognitive Behavioural Therapeutic techniques such as psychoeducation, self-monitoring, and challenging dysfunctional body image cognitions in a six-week self-help program. This program was effective in improving participants' satisfaction with their appearance and reducing their levels of physique anxiety. Another body image intervention program used psycho-education techniques to reduce the impact of media images on women (Posavac, Posavac, & Weigel, 2001). The results of these programs suggest that participants generally experience positive outcomes such as improvement in body satisfaction and self-esteem as well as reduced sensitivity to negative environmental influences on body image (e.g. Farrell, Shafran, & Lee, 2006; Jarry & Berardi, 2004; Posavac et al., 2001; Paxton, McLean, Gollings, Faulkner, & Wertheim, 2007; Strachan & Cash, 2002).

The research into body image improvement programs is in its infancy and more research is needed that targets aspects that are important in the development and maintenance of body image dissatisfaction such as negative affect and dieting behaviors. The aim of this study was to evaluate the effectiveness of a six-week cognitive behavioral based group program promoting and developing positive body image in adult women. The programs used in this study were based on previous body image research particularly research focusing on intervention and also used mainly Cognitive Behavioral techniques (e.g. Cash & Pruzinsky, 2004; Farrel et al., 2006; Posovac et al.,

2001). For example, the program included education about where perceptions about the body come from, cognitive challenging of appearance assumptions and education about behavioral strategies for appearance change and why they don't work and lead to unhappiness. However, unlike previous body image programs, the program used in this study targeted numerous factors that research has identified as important in the development of body image distress and eating disorders such as negative affect (stress, anxiety, and depression), and unhealthy weight management techniques.

Based on previous research indicating the effectiveness of body image programs, it was hypothesized that the program would improve the body image of participants by increasing their satisfaction with their overall appearance. It was predicted that participants' body image related to shame, surveillance, and distress would decrease as a result of participating in the intervention. Participants' levels of self esteem were also predicted to increase as a result of participating in the intervention. It was also hypothesized that participants would rate that body image had a more positive impact on various areas of life after the intervention as compared to before. These changes were not expected in the control group.

Method

Participants

Female participants identifying as having body image concerns (both control and experimental) were voluntarily recruited through advertisements placed on the University of Canberra, Australia, campus, local health centers, and in the local newspaper and radio in Canberra. The experimental group consisted of 19 female community members and 28 were in the control group age ranging between 18 to 62 years ($M = 28.60$, $SD = 11.3$ and $M = 24.81$, $SD = 11.33$, respectively). Several programs were run over two years with approximately six participants in each group. The control groups were measured at the same time points as the intervention groups were run. All intervention participants were charged \$25 to cover materials. Participants ($n = 20$) who were also first year psychology students received four hours of research credit for their participation whether in the control or experimental group. Participants in the control group also went into the draw for a \$50 voucher.

Instruments

Participants in both the control and experimental groups completed pre- and post-intervention questionnaires comprised of the following five sections measuring a broad range of cognitive and affective body image related concepts:

Demographics. General information asking participants' age, as well as reasons for participating in the Positive Bodies Program in the intervention group was taken.

Self-esteem. The Rosenberg Self-esteem Scale (RSES) measures participants' levels of self esteem (Rosenberg, 1965). This is a short measure of global self-esteem that consists of 10 items such as "I feel that I do not have much to be proud of". Participants respond to these statements on a four point scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). A higher score indicates higher levels of self-esteem). The RSES has a Cronbach alpha of .88 reported in the original sample as well as an acceptable test-retest reliability of .84 (Rosenberg, 1965).

Body satisfaction. The Body Areas Satisfaction Subscale (BASS) of the Multidimensional Body-Self Relations Questionnaire (Cash, 2000a) measures participants' satisfaction with their overall appearance, particular parts of their bodies and with their height, weight and muscle tone. The BASS consists of nine items that participants respond to on a five point scale ranging from 1 (*very dissatisfied*) to 5 (*very satisfied*); a higher score indicates higher levels of satisfaction. The BASS has a Cronbach alpha of .73 reported in the development sample and a test-retest reliability of .74 for females after a one month interval (Cash, 2000a).

Body-consciousness. The Body Shame and Surveillance Subscales from the Objectified Body Consciousness Scale (OBC) (McKinley & Hyde, 1996) measure participants' feelings of body shame and surveillance (viewing the body as an outside observer). The Body Shame subscale includes items such as "When I'm not the size I should be, I feel ashamed" whereas the Body Surveillance subscale includes items such as "During the day I think about how I look many times". Each subscale consists of eight items that participants respond to on a five point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), a higher score indicates higher levels of body shame and surveillance. Cronbach's alpha of .84 has been reported for Body Shame and .79 for Body Surveillance. The Body Shame and Surveillance subscales have a satisfactory test-retest reliability of .79 after a two week period (McKinley & Hyde, 1996).

Body image quality of life. The Body Image Quality of Life Inventory (BIQLI) measures the impact of body image on participants' psychosocial quality of life. The BIQLI consists of 19 items measuring the impact of body image on different areas of life such as "My experiences when I meet new people". Participants respond via a seven point scale ranging from -3 (very negative effect) to 3 (very positive effect). Higher scores on this measure indicate a more positive impact of body image on quality of life. The BIQLI has reported Cronbach alpha of .95 and an adequate test retest reliability of .79 after a three week period (Fleming & Cash, 2002).

Procedure

Prior to programs being advertised, approval from the University of Canberra's Committee for Ethics in Human Research was sought and granted. Advertisements were then distributed across the University of Canberra, on psychology websites and through the local media. Potential participants for the intervention group were asked to contact Dr. Vivienne Lewis (fully qualified psychologist coordinating the intervention) to register their interest in the groups. Those participants from psychology units received research credit. Participants in the program groups were administered the questionnaire at the first and last sessions although it was made clear that participation in the questionnaires was voluntary and not completing the questionnaires did not preclude participation in the program. All participants in the program agreed to complete the questionnaires. The group programs were facilitated by trained Clinical Masters students at the University of Canberra under the supervision of Dr. Vivienne Lewis. The facilitators were involved in the administration of the questionnaires but not the research itself.

Participants in the control group were advised of a time and a room number at the university and asked to come and complete the questionnaire. They were then advised of a time and room for the completion of the questionnaire six-weeks after the initial questionnaire. These participants were offered credit towards their research participation requirement following completion of the second questionnaire. Participants in the control group were sent a reminder the week prior to the second session. Informed consent forms were attached to the front of all questionnaires and completion of the questionnaire was assumed as consent. In addition, the researcher verbally explained to participants in the intervention group that completing the questionnaires is voluntary and not a requirement for

participation in the group program. Therefore women could participate in the intervention without completing the questionnaires. However, all participants volunteered to complete the research questionnaire components at pre and post intervention. The six-week intervention included the following components for each week:

Week 1. Education on what is body image and what influences its development including risk factors for body image concerns; examining participants own body image perceptions and their origins; personal goals of each participant were set.

Week 2. Healthy dieting and exercising behaviors and what this means; Discussion of why diets don't work and the influences on our behaviors in relation to our bodies such as parents and the media; Recognizing warning signs of negative consequences such as over exercising, reasons for exercise, dieting, checking behavior.

Week 3. Challenging thoughts about your body including challenging the media' portrayal of the female figure, and appearance assumptions. Media literacy. Also, challenging beliefs about the body that originate from teasing and bullying as children and adolescents.

Week 4. Feeling better about yourself through relaxation and body awareness; Body confidence through body soothing; self-esteem building; Physique anxiety and how to combat it.

Week 5. Eating disorders and other risky behaviors, warning signs and where to seek help; nutrition and physical exercise for a healthy body.

Week 6. Maintaining gains made in improving body image, goal striving; motivational enhancement; where to get additional help for eating disorders or body image concerns.

Education on the topic was provided in the form of a mini-lecture at the start of each group by the group facilitators for approximately 20 minutes followed by group discussion, then another concept was presented followed by group discussion. At the end of each, one and a half hour session homework tasks were set including practicing the techniques taught or challenging appearance assumptions as well as working towards individual goals. At the start of each session from week 2 onwards homework tasks from the following week were also discussed. The group facilitators were then available at the end of each session to answer any individual questions. Dr. Lewis, the coordinator was also available via phone in between sessions for individual assistance.

Results

All statistical analyses were conducted through PASW. Prior to the testing of specific hypotheses, data were screened individually for missing data, univariate outliers, and checked to ensure that all values were within normal and expected ranges. Missing data was replaced with the mean for that variable. No outliers were identified and all values were within expected ranges. Additionally all normality assumptions were met.

Descriptive Statistics

Prior to any analysis of data, descriptive statistics were examined for both the intervention and control groups (see Table 1). Participants' in the intervention group's mean level of self esteem before the intervention as measured by the RSES was fairly high and seemed to increase slightly after the intervention. As measured by the BASS, participants in the intervention group initially reported feeling somewhat unsatisfied with their bodies prior to the intervention and slightly less dissatisfied after the intervention. Participants in the program also reported moderate levels of body shame and surveillance at the beginning of the program, and higher levels of body surveillance and lower levels of body shame post intervention and as measured by the OBC. Overall, participants in the program rated that body image had a negative effect on their quality of life prior to intervention and a slightly increased effect on their life following intervention using the BIQLI.

Control group participants' self-reported self-esteem did not change over the course of the six-week period, and was slightly higher than that of the intervention group both on the initial questionnaire and at six-weeks. Body satisfaction also did not change greatly over the six-week period for the control group but was slightly higher in the control group than in the intervention group. Similar findings were evident for body surveillance with little change over time for the control group and overall higher means than the intervention group. Body Shame again did not change significantly over time for the control group and was at similar levels to the intervention group post-intervention. Finally, BIQLI scores appeared to remain stable over time for the control group and were again overall higher than the intervention group.

Table 1

Means and SD of Pre-and Post-Measures across Groups (N = 47)

Measures	Control (n = 19)		Intervention (n = 28)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Pre Self-esteem	3.15	.39	2.67	.66
Post-Self-esteem	3.12	.60	3.03	.57
Pre-Body satisfaction	3.37	.67	2.67	.85
Post -Body satisfaction	3.48	.60	3.22	.59
Pre-Body surveillance	4.47	.82	4.82	1.26
Post -Body surveillance	4.34	1.05	3.78	1.36
Pre-Body shame	3.48	.85	4.15	1.08
Post-Body shame	3.44	.84	3.52	1.02
Pre-Body image quality of life	1.13	1.08	-.69	1.49
Post-Body image quality of life	1.19	1.0	.29	1.29

As hypotheses contained both a between (group) and a within (pre and post measures) independent variable, a series of 2 x 2 mixed design factorial ANOVAs were conducted in order to compare the pre and post Self-esteem, Body satisfaction, Body surveillance, Body shame, and Body image quality of life across groups. Prior to the interpretation of the analyses, assumptions of mixed factorial ANOVAs were examined including the assumption of sphericity and homogeneity of intercorrelations, all assumptions were met. In addition, as 5 mixed design factorial ANOVAs were planned, a Bonferroni adjustment was applied to the alpha level to reduce the chances of Type 1 error. The Bonferroni adjusted alpha level was .01 (.05/5).

Table 2

Partial Eta² and Power Values for Variables ANOVA (N = 47)

Variables	η^2	δ
Self-esteem		
Group	.085	.510
Self-esteem	.152	.784
Group X Self esteem	.188	.878
Body satisfaction		
Group	.137	.733
Body satisfaction	.220	.932
Group X Body satisfaction	.147	.769
Body surveillance		
Group	.004	.068
Body surveillance	.241	.955
Group X Body surveillance	.158	.801
Body shame		
Group	.050	.319
Body shame	.131	.712
Group X Body shame	.108	.616
Body image and quality of life		
Group	.309	.991
Body image and quality of life	.212	.919
Group X Body Image and Quality of Life	.175	.847

Self-esteem

The hypothesis that the self-esteem of the participants in the intervention group would increase and that this increase would be greater than that of the control group was supported. The results showed a significant main effect for self-esteem, $F(1,44) = 7.89$, $p = .007$, partial $\eta^2 = .152$, suggesting there is a significant difference between mean pre- and post-self esteem measures. The interaction between Self-esteem and group was also significant, $F(1, 44) = 1.208$, $p = .003$, partial $\eta^2 = .188$, therefore the degree of change in Self-esteem significantly varied across group with the intervention group showing a greater increase in self-esteem than the control group. No main effect for group was found $F(1, 44) = 4.082$, $p = .049$, partial $\eta^2 = .085$. These results suggest that there is nonsignificant difference in

the mean levels of Self Esteem between the control and intervention group however there was a significant increase in self esteem for the intervention group post intervention. As shown in Table 2, the observed power of the interaction was high.

Body Satisfaction

The hypothesis that the Body Satisfaction of the participants in the intervention group would increase and that this increase would be greater than that of the control group was also supported. The results showed a significant main effect for Body Satisfaction, $F(1,44) = 12.43$, $p = .001$, partial $\eta^2 = .220$, suggesting there is a significant difference between mean pre- and post-Body Satisfaction measures. The interaction between Body Satisfaction and group was also significant, $F(1, 44) = 7.55$, $p = .008$, partial $\eta^2 = .147$, therefore the degree of change in Body Satisfaction significantly varied across group with the intervention group showing a greater increase in Body Satisfaction than the control group. There was also main effect for group $F(1, 44) = 6.965$, $p = .011$, partial $\eta^2 = .137$, suggesting that the mean Body Satisfaction scores varied between groups. Follow up independent samples t -tests however showed no difference in pre- or post-Body Satisfaction between the intervention and control group. As shown in Table 2, the observed power was high for all effects.

Body Surveillance

The third hypothesis that Body Surveillance measures of the participants in the intervention group would increase and that this increase would be greater than that of the control group was also supported. The results showed a significant main effect for Body Surveillance, $F(1,44) = 14.00$, $p = .001$, partial $\eta^2 = .241$, suggesting there is a significant difference between pre- and post-Body Surveillance measures. The interaction between Body Surveillance group was also significant, $F(1, 44) = 8.234$, $p = .006$, partial $\eta^2 = .158$, therefore the degree of change in Body Surveillance significantly varied across group with the intervention group showing a greater increase in Body Surveillance than the control group. No main effect for group was found $F(1, 44) = .159$, $p = .692$, partial $\eta^2 = .004$. These results suggest that there is nonsignificant difference in the levels of Body Surveillance between the control and intervention group however there was a significant increase in Body Surveillance scores for the intervention group post intervention. As shown in Table 2, the observed power of the interaction was high.

Body Shame

The hypothesis that the Body Shame of the participants in the intervention group would decrease and that this decrease would be greater than that of the control group was supported. The results showed a significant main effect for Body Shame, $F(1,44) = 6.62$, $p = .013$, partial $\eta^2 = .131$, suggesting there is a significant difference between pre and post Body Shame measures. The interaction between Body Shame and group was also significant, $F(1, 44) = 2.073$, $p = .026$, partial $\eta^2 = .108$, therefore, the degree of change in Body Shame significantly varied across group with the intervention group showing a greater decrease in Body Shame than the control group. No main effect for group was found $F(1, 44) = 2.312$, $p = .136$, partial $\eta^2 = .05$. These results suggest that there is nonsignificant difference in the mean level of Body Shame between the control and intervention group, however, there was a significant decrease in Body Shame for the intervention group post intervention. As shown in Table 2, the observed power of the interaction was moderate.

Body Image and Quality of Life

Finally, the hypothesis that Body Image and Quality of Life of the participants in the intervention group would increase and that this increase would be greater than that of the control group was supported. The results showed a significant main effect for Body Image and Quality of Life, $F(1,44) = 11.814$, $p = .001$, partial $\eta^2 = .212$, suggesting there is a significant difference between mean pre and post Body Image and Quality of Life measures. The interaction between Body Image and Quality of Life and group was also significant, $F(1, 44) = 9.319$, $p = .004$, partial $\eta^2 = .847$, therefore the degree of change in Body Image and Quality of Life significantly varied across group with the intervention group showing a greater increase in Body Image and Quality of Life than the control group. There was also a main effect for group $F(1, 44) = 19.636$, $p < .001$, partial $\eta^2 = .991$ suggesting that the mean Body Image and Quality of Life scores were different across groups, however follow up independent sample t -tests showed nonsignificant difference between pre and post means across group. These results suggest that participants in the control group did not perceive a change in the impact of body image on their lives over the six-week period whereas those in the intervention group perceived that the impact of body image on their quality of life increased. Power for all effects was high as can be seen in Table 2.

Discussion

Consistent with research indicating that body image dissatisfaction is 'normative' in females (e.g. McLaren & Kuh, 2004; Rodin et al., 1984; Tiggemann, 2001) the results of the study show that all females in both the control and experimental groups experienced body dissatisfaction, body shame and surveillance, and indicated that they perceived that their body image impacted negatively on their quality of life. These results indicate that this sample is representative of the Australian female population in terms of body image concerns.

In terms of intervention effects, before the intervention these participants reported high levels of body surveillance and moderate levels of body shame indicating that they often felt anxious about their appearance and were concerned about others' perceptions of their bodies. Consistent with the hypotheses, the intervention group participants' satisfaction with their overall body appearance and with particular areas of their body including their weight, lower, mid and upper torso regions improved after the Positive Bodies Program, whereas there was no change for the control group. As predicted, the program was effective in lowering the levels of physique anxiety and body surveillance experienced by participants. This indicates that the Positive Bodies women's intervention helped to increase participants' satisfaction with the body and to reduce levels of perceived body image related distress.

The results also supported the hypothesis that participants would rate that body image had a more positive impact on their lives after the program as compared to before. No change was found for the control group. As predicted, the program was also effective in increasing participants' level of self-esteem. This is consistent with research showing that body image dissatisfaction is correlated with lower self-esteem (Johnson & Wardle, 2005). No such change was seen for the control group.

The effectiveness of the Positive Bodies program in increasing participants' satisfaction with their bodies and self esteem and reducing their body image related anxiety and surveillance is consistent with previous research indicating that body image interventions are generally effective in improving participants' satisfaction with their appearance and lowering the body image distress experienced by participants (e.g. Farrell et al., 2006; Jarry & Berardi, 2004; Posovac et al., 2001). The success of the Positive

Bodies program indicates that focusing on numerous risk factors (e.g. negative affect) that research has identified as important in the development of body image distress and eating disorders is an effective way of improving participants' body image. It is unclear whether the focus on these risk factors in the Positive Bodies program leads to better outcomes for participants than standard body image interventions that use mainly cognitive-behavioral techniques.

A limitation of the current study is that a comparison group was not used so it is not possible to determine which components of the intervention were helpful in improving participants' body image and reducing their physique anxiety. The change participants experienced may have been due to the group environment and reaping benefits from being around others with similar issues and therefore normalizing their concerns or expectancy effects. Comparing women in a group with no intervention vs. intervention would assist in answering this question. Future research could look at identifying which components are most effective in body image intervention.

As most women in the current study were young adults, it is unclear whether the intervention would also be effective for different populations such as adolescents, older adults, or males. Further research should evaluate the effectiveness of the Positive Bodies program in these different populations. It would also be useful to follow up participants six months to one year after the program finishes as it is not clear whether participants' improvements are maintained after the program finishes for quite sometime.

The concerns identified by these women in Australia are consistent with those found in Pakistani women in Australia and Pakistan in terms of weight and size concerns and related body image distress and dysfunction. This intervention program could indeed be trialed in Pakistan with women identifying as experiencing body image concerns that are distressing to them. Cultural considerations would need to be taken into account. However, research with Pakistani women indicates they are influenced by the same factors as women in Australia such as media, peers, parents, and relatives (Taqui et al., 2006). However, religious beliefs and the impact of cultural norms may be different.

The results of the current study show that the Positive Bodies program is effective in increasing adult women's satisfaction with their bodies and self-esteem and reducing their body image related anxiety and surveillance. Further research of this nature has the potential to assist numerous women with body image concerns and to stop discontent with body image from being 'normative' in women.

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