

The Role of Self-objectification in Women's Depression: A Test of Objectification Theory

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Abstract Objectification Theory (Fredrickson & Roberts, *Psychology of Women Quarterly*, 21:173–206, 1997) postulates that sexual objectification of women and girls in US culture contributes to women's mental health problems indirectly through women's internalization of objectifying experiences or self-objectification. The purpose of this study was to test the model proposed in Objectification Theory as it applies to depression in women. A path analysis revealed that self-objectification decreased with age and led to habitual body monitoring, which led to a reduced sense of flow, greater body shame, and greater appearance anxiety. Less flow, greater body shame, and greater appearance anxiety led to depression. No significant pathways were found for the theorized relationships between the self-objectification measures and internal awareness or between internal awareness and depression. In addition, we provide psychometric support for a newly created multiple-item Flow Scale to assess Csikszentmihalyi's (*Flow: The psychology of optimal experience*, Harper, New York, 1990) description of the common characteristics of peak motivational states and optimal experience.

Keywords Flow states · Peak motivational states · Body shame

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Feminist theorists have had a profound impact on the field of psychology, particularly with their infusion of the importance of gender, recognition that gender is socially constructed, and focus on the ways that contextual factors impact women's lives and the problems that they bring to therapy. Feminist models of women's psychological distress locate the problem centrally in the culture of patriarchy and encourage therapists to attend to socio-cultural factors, such as traditional gender role socialization, objectification experiences, and violence against women, which contribute to women's distress and to the ways that female clients may have internalized negative and limiting sexist attitudes (Brown, 1994; Enns, 2004; Worell & Remer, 2003). Thus, feminist theorists have encouraged mental health therapists to examine the many ways that external and internalized sexism impact women's mental health.

A recent development in feminist psychology has been the articulation of Objectification Theory by Fredrickson and Roberts (1997). This theory postulates that girls and women in US society are subjected to pervasive cultural practices (e.g., representations of women in the media, visual inspection of or "gazing" at the female body by some men, and sexual violence) that sexually objectify the female body and treat it as an object that exists for the pleasure of and use by others. The theory posits that sexual objectification of women is likely to contribute to women's mental health problems via two main routes. The first route is insidious and indirect and involves women's internalization of objectifying experiences or self-objectification. The second route is more extreme and direct and involves actual sexual victimization (e.g., rape, sexual assault, and sexual harassment).

Fredrickson and Roberts (1997) asserted that as a result of objectification experiences, women internalize this

outsider view of themselves to varied degrees and begin to self-objectify by treating themselves as an object to be looked at and evaluated on the basis of appearance. This self-objectification can then lead to habitual body monitoring (i.e., the experience of near continual monitoring of one's body as others in society may be seeing it), which in turn, can diminish awareness of internal bodily states (e.g., stomach contractions, heartbeat, and hunger), reduce opportunities for peak motivational states or flow, increase women's opportunities for body shame, and increase women's anxiety about physical appearance. Fredrickson and Roberts argued that women may lose sensitivity to awareness of internalized bodily states as a result of continued attentiveness to their outside appearance. Persistent focus on one's external form may diminish perceptual resources for awareness of internal body sensations, thereby reducing ability to match subjective experience with actual physiological states. Similarly, they asserted that constant body monitoring keeps one attuned to one's outside appearance thereby reducing the opportunity to get lost in flow or to increased concentration to the point of little or no focus on self. Shame occurs as a result of not being able to match up to the North American culture's ideal of an attractive female body type. Appearance anxiety results in women's belief that they need to check themselves continually to see how they look to others. Objectification Theory suggests that accumulation of such experiences may account for various mental health risks that disproportionately affect women, such as eating disorders, unipolar depression, and sexual dysfunction.

Researchers have found empirical support for Objectification Theory as it relates to eating disorders (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998; McKinley & Hyde, 1996; Morry & Staska, 2001; Muehlenkamp & Saris-Baglama, 2002; Noll & Fredrickson, 1998; Tiggemann & Kuring, 2004; Tiggemann & Slater, 2001); however, we identified only one study (Tiggemann & Kuring, 2004) that tested the mediational model proposed by Objectification Theory as it relates to depression. The purpose of our study was to extend previous research by further examining the role that self-objectification plays in women's depression.

One of the earliest studies to provide indirect support for Objectification Theory was done by McKinley and Hyde (1996). They found that habitual body monitoring was positively related to body shame and that both of these constructs were positively related to disordered eating in both undergraduate and community samples; however, they did not test the causal or mediational model that is proposed in Objectification Theory. In direct support of Objectification Theory, Fredrickson et al. (1998) manipulated self-objectification in a laboratory by having participants try on either a swimsuit or a sweater. They found that experimentally induced self-objectification in women (but not in men)

was associated with greater body shame and restricted eating and less flow, as assessed by performance on an advanced math test.

In survey research, Noll and Fredrickson (1998) found that body shame partially mediated the relationship between self-objectification and disordered eating (i.e., anorexic symptoms, dietary restraint, and bulimic symptoms) in undergraduate college women. Tiggemann and Slater (2001; Slater & Tiggemann, 2002) expanded on this research by suggesting that self-objectification and habitual body monitoring were related but conceptually distinct constructs and that self-objectification would lead to habitual body monitoring. Both studies showed support for this assertion. In addition, both studies expanded on previous research by including awareness of internal states, flow experiences, and/or appearance anxiety in their models to predict disordered eating.

Tiggemann and Slater (2001) found that, in a sample of 50 former dancers, self-objectification led to habitual body monitoring, which in turn led to less flow, greater body shame, and greater appearance anxiety. However, only body shame predicted disordered eating. In a sample of 51 undergraduate non-dancers, they found that self-objectification led to habitual body monitoring, which in turn led to greater body shame and greater appearance anxiety but not to less flow. In addition, only body shame mediated the relationship between habitual body monitoring and disordered eating. Contrary to the results of their earlier study, Slater and Tiggemann (2002) found that body shame and appearance anxiety partially mediated the relationship between self-objectification and disordered eating in a sample of 83 adolescent girls. Finally, Muehlenkamp and Saris-Baglama (2002) found that self-objectification in the form of habitual body monitoring and body shame had a significant direct relationship with restrictive eating and bulimia symptoms in undergraduate women. In addition, they found that internal awareness mediated the relationship between self-objectification and depressive symptoms and that depressive symptoms mediated the relationship between self-objectification and bulimia symptoms.

The lack of findings for some of the theorized relationships of internal awareness, flow, and appearance anxiety with disordered eating in Tiggemann and Slater's (2001) study may be due to the: (a) a lack of power and the small sample sizes used in their study; (b) low reliability of the measures used to assess some of these constructs, which might have attenuated the relationships among the variables; (c) possibility that these variables are related to depression and sexual dysfunction but not to disordered eating; and/or (d) possibility that these variables are not important in the prediction of the mental health concerns proposed by Objectification Theory. Thus, further testing of the components of Objectification Theory is warranted.

Only one study (Tiggemann & Kuring, 2004) examined the mediational model proposed in Objectification Theory as it relates to both disordered eating and depression. The researchers found that self-objectification led to habitual body monitoring, which in turn led to less flow, greater body shame, and greater appearance anxiety. However, only body shame and appearance anxiety predicted disordered eating and depressed mood. Internal awareness was not related to the self-objectification measures nor to disordered eating and depressed mood (as assessed by the Beck Depression Inventory; A. T. Beck & R. W. Beck, 1972). However, this study is limited by the use of a small segment of the population (i.e., undergraduates recruited from psychology classes at a university in South Australia) and low reliability and/or limited validity of some of the measures used to assess some of these constructs. Replication with different samples, better assessment methods, and different measures of depression is warranted. Thus, the purpose of the current study was to extend previous research by examining the proposed model of Objectification Theory as it applies to depression in women in a US sample with a different measure of depression (i.e., Zung, 1986, Self-Rated Depression Scale). In addition, we extended earlier research by the implementation of a new measurement of flow or peak motivational states developed for this study, and we provide information concerning its reliability and validity.

Method

Participants

Participants consisted of 217 women, who ranged in age from 18 to 63 years, with a mean age of 32.72 years ($SD=11.02$). Participants reported their ethnicity as follows: 10% African American/Black, 2% Asian American/Pacific Islander, 2% Hispanic/Latina, 84% European American/White, and 2% multiracial. Ninety-two percent of participants identified themselves as heterosexual, 2% as lesbian, 5% as bisexual, and 1% as questioning. Of the 217 female participants, 148 (68.20%) reported that they were currently students with the following statuses: 5% first year undergraduates, 5% sophomores, 12% juniors, 18% seniors, and 60% graduate students. Participants' total household income was reported as follows: 27% under \$29,999; 29% \$30,000–\$59,999; 23% \$60,000–\$89,999; and 21% \$90,000 or more.

Measures

Self-objectification was assessed using the Self-Objectification Questionnaire (Noll & Fredrickson, 1998), which

consists of ten items pertaining to physical attributes that reflect the physical self-concept of the respondent. Five items concern attributes that are appearance-based (i.e., weight, sex appeal, physical attractiveness, firm/sculpted muscles, and measurements), and five items concern attributes that are competence-based (i.e., physical coordination, physical fitness level, energy level, health, and strength). Each item is rank ordered by the respondent from most important (rank 1) to least important (rank 10). Scores are computed by summing the ranks for the appearance and competence attributes separately, then computing a difference score. Higher scores reflect a greater emphasis on appearance, thus greater self-objectification. Validity was supported by correlating the Self-Objectification Questionnaire with measures of appearance anxiety, neuroticism, body dissatisfaction, body shame, and negative affect (Noll & Fredrickson; Miner-Rubino, Twenge, & Fredrickson, 2002).

Habitual body monitoring was assessed with the Body Surveillance subscale of the Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 1996), which consists of eight items that concern how frequently a woman watches her appearance and experiences her body according to how it looks. Example items are “I rarely think about how I look” and “I think it is more important that my clothes are comfortable than whether they look good on me.” Each item is rated on a 7-point Likert scale that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). Mean scores were used in the analyses; higher scores indicate more habitual body monitoring. McKinley and Hyde reported alphas of 0.76 (middle-aged women) and 0.89 (undergraduate women) for scores on the Body Surveillance Scale. Validity was supported by exploratory and confirmatory factor analyses and by correlating the OBCS with measures that assess body esteem, disordered eating, private self-consciousness, and social anxiety (McKinley & Hyde). Alpha for current sample was 0.81.

Internal awareness was assessed with the Private Body Consciousness subscale (PBC) of the Body Consciousness Questionnaire (Miller, Murphy, & Buss, 1981). The PBC consists of five items that reflect a level of consciousness of bodily sensation typically considered internal or private by the respondent. Example items are “I am sensitive to internal bodily tensions” and “I am quick to sense the hunger contractions of my stomach.” Each item is rated on a 5-point Likert scale that ranges from 0 (*extremely uncharacteristic*) to 4 (*extremely characteristic*). Mean scores were used in the analyses; higher scores indicate higher levels of internal awareness. Miller et al. reported an alpha of 0.64 for scores on the PBC subscale. Validity was supported by exploratory factor analysis and by correlating the PBC with measures assessing social anxiety, emotionality, and hypochondriasis, and an experiment on reaction

to caffeine ingestion (Miller et al.). Alpha for the current sample was 0.61.

Due to a lack of published measures to assess peak motivational states with the general population, we developed the Flow Scale for the present study. This scale includes 18 rationally derived items that represent Csikszentmihalyi's (1990) description of the common characteristics of peak motivational states and optimal experience, including intense concentration and involvement in an activity, lack of worry about problems, lack of self-consciousness, distortion of time, focus on intrinsic rewards, sensitivity to feedback concerning one's performance, having and developing skills to cope with challenges, and goal-setting. Example items are "I concentrate so intensely that I can't think about anything else" and "I get so caught up in what I am doing that I forget about the worries and frustrations of everyday life." Participants are instructed to rate how often each item is true for them when they engage in a task or activity that they enjoy. Each item is rated on a 5-point Likert scale that ranges from 1 (*never*) to 5 (*always*). Mean scores were used in the analyses; higher scores indicating greater experiences of flow.

Body shame was assessed with the Body Shame subscale of the Objectified Body Consciousness Scale (McKinley & Hyde, 1996), which consists of eight items that reflect how badly a woman feels if she does not meet cultural standards in regard to her body. Example items are "When I can't control my weight, I feel like something must be wrong with me" and "I feel ashamed of myself when I haven't made the effort to look my best." Each item is rated on a 7-point Likert scale that ranges from 1 (*strongly disagree*) to 7 (*strongly agree*). Mean scores were used; higher scores indicate more body shame. McKinley and Hyde reported alphas of 0.70 (middle-aged women) and 0.84 (undergraduate women) for scores on the Body Shame subscale. Validity was supported by exploratory and confirmatory factor analyses and by correlating the OBCS with measures that assess body esteem, disordered eating, private self-consciousness, and social anxiety (McKinley & Hyde). Alpha for current sample was 0.82.

Appearance anxiety was assessed with the short form of the Appearance Anxiety Scale (K. L. Dion, K. K. Dion, & Keelan, 1990), which consists of 14 items that reflect apprehension about different aspects of one's physical appearance and how others evaluate oneself. Example items are "I feel nervous about aspects of my physical appearance" and "I worry about how others are evaluating how I look." Each item is rated on a 5-point Likert scale that ranges from 1 (*never*) to 5 (*almost always*). Mean scores were used; higher scores indicate greater appearance anxiety. Reported alphas are 0.86 for the long form (Dion et al.) and 0.91 for the short form (Tiggemann & Slater, 2001). Validity was supported by correlating scores on the

Appearance Anxiety Scale with measures that assess other forms of social anxiety, self-esteem, shyness, and social desirability (Dion et al.). Alpha for current sample was 0.92.

Depression was assessed with the widely used Zung (1986) Self-Rating Depression Scale (SDS), which consists of 20 items that reflect four content areas: psychic-affective disturbance, physiological disturbance, psychomotor disturbance, and psychological disturbance. Examples of items are "I feel downhearted, blue, and sad," "I get tired for no reason," and "I feel that others would be better off if I were dead." Each item is rated on a 4-point Likert scale that ranges from 1 (*none or a little of the time*) to 4 (*most or all of the time*). Mean scores were used; higher scores indicate greater depression. Reported alpha was 0.92 (Zung). Validity was supported by exploratory factor analysis, correlating scores on the SDS with other measures of depression and having been prescribed anti-depressant medications, demonstrating that changes in item scores occurred with changes in depression, and discriminating between depressed and normal samples (Dugan et al., 1998; Kozeny, 1987; Powell, 2003; Zung). Alpha for the current sample was 0.85.

Procedure

Participants were recruited in the Midwest through the distribution of anonymous surveys at a (a) community college via introductory psychology courses, (b) large urban university via undergraduate business, educational psychology, and teacher education courses; graduate counseling and teacher education courses; sororities; and various student groups, (c) physician's office, (d) beauty salon, and (e) community athletic event. Those who expressed an interest were asked to distribute additional surveys to their female friends and colleagues, so that we could employ the snowball method. All surveys were distributed by the authors, except for the surveys distributed at the community college, which were distributed by a trained doctoral student.

Potential participants were instructed to complete the anonymous survey only if they were women at least 18 years old. Each survey packet included an information sheet, a demographic questionnaire, a business reply envelope, a tea bag as an incentive for participation, and measures that assessed self-objectification, habitual body monitoring, internal awareness, flow, body shame, appearance anxiety, and depression.

Of the 60 questionnaires distributed at the community college, 19 were returned for a response rate of 32%. Of the 482 questionnaires distributed via the large urban university, 174 were returned for a response rate of 36%. Of the 79 questionnaires distributed via the physician's office, beauty salon, and community athletic event, 24 were

returned for a response rate of 30%. Thus, a total of 621 surveys were distributed to yield an overall response rate of 35%. Because it was not certain that all surveys were actually distributed to potential respondents, this response rate may be an underestimate.

Results

Flow scale psychometrics

Internal consistency reliability and validity of the newly developed Flow Scale were examined via exploratory factor analysis, Cronbach's alpha, and theorized correlations between this scale and habitual body monitoring and depression. The significance of Bartlett's test of sphericity ($p < 0.005$) and the size of the Kaiser–Meyer–Oklin measure of sampling adequacy ($KMO = 0.83$) revealed that the Flow Scale was an excellent candidate for factor analysis. Five criteria were used to determine the number of factors to be extracted and rotated for the final solution: (a) Kaiser's criterion of eigenvalues greater than 1.0, (b) Cattell's scree test, (c) percentage of total variance

explained by each factor, (d) interpretability of the solution, with only items that loaded greater than 0.40 on one factor, and (e) a minimum loading of three items on each factor (Floyd & Widman, 1995; Tabachnick & Fidell, 2001; H. E. A. Tinsley & D. J. Tinsley, 1987).

Four factors had eigenvalues greater than 1.0, and together they accounted for 55% of the variance. After inspecting the scree plot, we studied factor solutions of three and four factors using principal components analysis with varimax rotation. Initial eigenvalues and percent of variance accounted for by each of the first four factors were: Factor 1 (eigenvalue=5.20, 25.99% of variance); Factor 2 (eigenvalue=2.70, 13.52% of variance); Factor 3 (eigenvalue=2.07, 10.33% of variance); and Factor 4 (eigenvalue=1.05, 5.25% of variance). The four-factor solution was poorly defined, as two of the four items loaded greater than 0.40 on more than one factor. Thus, we selected the three-factor orthogonal solution to further analyze to simple structure.

To develop the final scale, we eliminated two items that had factor cross loadings greater than or equal to 0.40, which resulted in an 18 item measure. These final 18 items were factor analyzed using a principal-components factor

Table 1 Items, alpha, factor loadings, and corrected item–total correlations for each flow subscale.

Item number	Subscale and items	Factors			
		1	2	3	Item–total <i>r</i>
Factor 1 Intense concentration					
Five items; alpha 0.84					
4	I concentrate so intensely that I can't think about anything else.	0.83	0.08	0.07	0.72
6	I become so immersed in the activity or task that I don't see myself as separate from what I am doing.	0.77	0.05	–0.02	0.65
11	I am so involved in what I am doing that I lose touch with the rest of the world.	0.76	–0.04	0.02	0.60
1	I feel so involved that nothing else seems to matter.	0.74	0.08	0.17	0.41
3	I become so involved that I lose track of time.	0.73	0.16	0.14	0.40
Factor 2 Lack of worry					
Six items; alpha 0.77					
12	I worry how I look from the outside/how others are perceiving me.	–0.02	0.76	0.11	0.60
5	I often worry how I am doing.	–0.10	0.73	0.23	0.57
8	I find myself worrying about problems or concerns I am having.	0.07	0.73	–0.02	0.55
14	I have no worries of failure.	0.02	0.69	0.06	0.53
15	I get so caught up in what I am doing that I forget about the worries and frustrations of everyday life.	0.35	0.63	0.07	0.51
13	I am more focused on the intrinsic rewards of my activity rather than external rewards.	0.27	0.41	0.21	0.33
Factor 3 Feedback, skills, and goals					
Seven items; alpha 0.76					
17	I feel like I am developing my skills.	0.00	0.14	0.77	0.62
18	I set goals for myself.	–0.04	–0.14	0.73	0.48
7	I feel I am accomplishing or moving toward accomplishing a goal.	0.10	0.05	0.72	0.56
16	I know if I am accomplishing what I set out to do.	0.04	0.22	0.68	0.54
9	Times seems to pass quickly.	0.19	0.12	0.50	0.40
10	I know I if I am performing it well or not.	0.04	0.11	0.50	0.37
2	I concentrate without feeling self-conscious.	0.23	0.39	0.45	0.40

Table 2 Means, standard deviations, and inter-correlations among Objectification Theory variables and depression.

Variable	<i>X</i>	SD	1	2	3	4	5	6	7	8	9	10
1. Age	32.72	11.02	–									
2. Self-objectification	–	–	–0.22*	–								
3. Habitual body monitoring	4.71	1.11	–0.31*	0.52*	–							
4. Internal awareness	2.63	0.65	0.10	–0.05	0.04	–						
5. Flow	3.41	0.42	0.00	–0.33*	–0.36*	0.15*	–					
6. Intense concentration	3.02	0.69	–0.02	–0.15*	–0.15*	0.11	0.66*	–				
7. Lack of worry	3.13	0.63	0.00	–0.29*	–0.39*	0.02	0.76*	0.22*	–			
8. Feedback, skills, and goals	3.93	0.49	0.02	–0.27*	–0.21*	0.20*	0.72*	0.21*	0.34*	–		
9. Body shame	3.57	1.22	0.01	0.19*	0.39*	–0.01	–0.20*	0.13	–0.29*	–0.25*	–	
10. Appearance anxiety	2.84	0.80	–0.12	0.24*	0.50*	–0.12	–0.36*	–0.04	–0.36*	–0.37*	0.66*	–
11. Depression	1.89	0.43	–0.00	0.20*	0.21*	0.07	–0.38*	0.06	–0.43*	–0.44*	0.43*	0.44*

* $p < 0.05$.

analysis, three factors, and a varimax rotation. All items loaded greater than 0.40 on only one factor (see Table 1). This three-factor solution for the final 18 item scale accounted for 51% of the variance of the data. The first factor (eigenvalue=4.56) accounted for 25.32% of the variance and includes five items with factor loadings that ranged from 0.73 to 0.83. Factor 1 was labeled “Intense Concentration.” Factor 2 (eigenvalue=2.60) accounted for 14.42% of the variance and includes six items with factor loadings that ranged from 0.41 to 0.76. Factor 2 was labeled “Lack of Worry.” Factor 3 (eigenvalue=2.07) accounted for 11.49% of the variance and includes seven items with factor loadings that ranged from 0.45 to 0.77. Factor 3 was labeled “Feedback, Skills, and Goals.”

The internal consistency (alpha) for scores on the full Flow scale was 0.82. Alphas for scores on the Flow Scale subscales were good: Intense Concentration, 0.84; Lack of Worry, 0.77; Feedback, Skills, and Goals, 0.76. Corrected item-total correlations for each Flow subscale are presented in Table 1.

The inter-scale correlations ranged from 0.21 to 0.34 (see Table 2). The subscales are internally consistent, but have low correlations with each other, which supports the three subscales as distinct but related dimensions. Correlations between the total and subscale scores ranged from 0.66 to 0.76. Construct validity of the Flow Scale was supported via theorized significant correlations between the Flow Scale and habitual body monitoring, $r = -0.36$, $p < 0.05$, and depression, $r = -0.38$, $p < 0.05$.

Correlations between Objectification Theory variables and depression

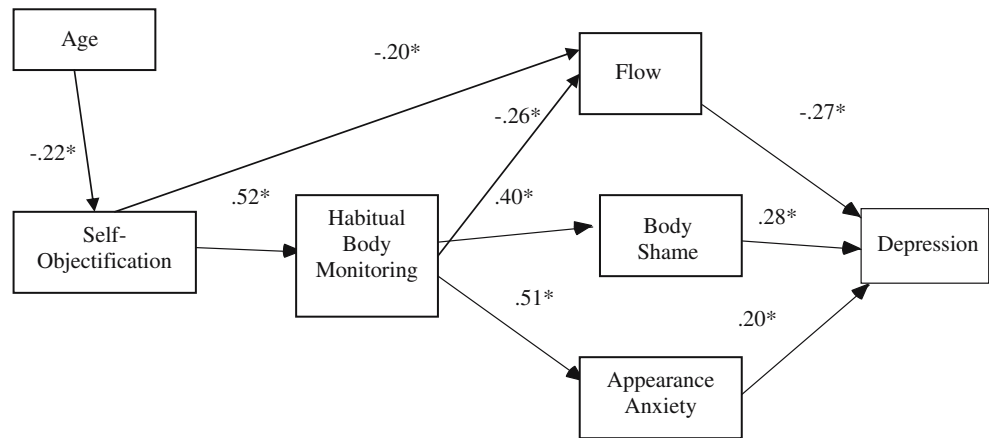
As shown in Table 2, depression was significantly correlated with self-objectification, $r = 0.20$, $p < 0.05$, habitual body monitoring, $r = 0.21$, $p < 0.05$, flow, $r = -0.38$, $p < 0.05$, body shame, $r = 0.43$, $p < 0.05$, and appearance anxiety, $r = 0.44$, $p < 0.05$. Depression was not significantly correlated with age or internal awareness.

Table 3 Beta values (partial regression coefficients) for pathways in the causal model.

Variable	Beta
Age–self-objectification	–0.22*
Self-objectification–habitual body monitoring	0.52*
Self-objectification–flow	–0.20*
Self-objectification–body shame	–0.03
Self-objectification–appearance anxiety	–0.03
Self-objectification–depression	0.09
Habitual body monitoring–flow	–0.26*
Habitual body monitoring–body shame	0.40*
Habitual body monitoring–appearance anxiety	0.51*
Habitual body monitoring–depression	–0.14
Flow–depression	–0.27*
Body shame–depression	0.28*
Appearance anxiety–depression	0.20*

* $p < 0.05$.

Fig. 1 The role of self-objectification in women's depression. Note: $*p < 0.05$.



Path analysis of the mediating model proposed in Objectification Theory

Objectification Theory postulates that self-objectification has its effects on depression via internal awareness, flow, body shame, and appearance anxiety. The relationships between these proposed mediating variables and self-objectification and habitual body monitoring are shown in Table 2. It can be seen that all variables (except internal awareness) were significantly correlated with both self-objectification and habitual body monitoring.

A path analysis was conducted with multiple regression to assess the model proposed by Objectification Theory in predicting depression. In path analysis, path coefficients are estimated from regression equations using a least squares approach. For each equation, a variable is regressed on all variables that are assumed to be casually prior (Pedhazur, 1997). Direct and indirect pathways are estimated in order to test the proposed effects.

In accordance with Objectification Theory, a causal ordering of variables was established, such that self-objectification was theorized to lead to habitual body monitoring, which was theorized to lead to less flow, greater body shame, and greater appearance anxiety, which in turn would lead to depression. Due to the lack of relationship between internal awareness and self-objectification, habitual body monitoring, and depression in the correlational analyses, internal awareness was not included in the path analysis. Fredrickson and Roberts (1997) postulated that younger women are most often targeted for objectification; thus, women experience fewer objectification experiences as they age, which allows them to relinquish the internalized observer's perspective on themselves. Alternatively, it may be that more complex processes occur with age, such as women developing more emotional, cognitive, and /or social resources to buffer themselves from objectification experiences as they grow older. In support of these assertions, Tiggemann and Lynch (2001) found that self-objectification decreased with age. Thus, we included in

our model a direct path from age to self-objectification. A full saturated model with all possible direct and indirect pathways was estimated in order to test the mediating effects. The resulting path coefficients (standardized partial regression coefficients) are presented in Table 3. It can be seen that several non-significant pathways were close to zero and thus can be eliminated from the model. The significant pathways are displayed in Fig. 1. In support of Objectification Theory, self-objectification decreased with age and led to habitual body monitoring, which led to less flow, greater body shame, and greater appearance anxiety. Less flow, greater body shame, and greater appearance anxiety led to depression. No significant direct pathways were found between self-objectification and depression or between habitual body monitoring and depression, which indicates complete mediation. The regression analysis with self-objectification, habitual body monitoring, flow, body shame, and appearance anxiety predicting depression was significant and accounted for 30% of the variance, $F(5, 207) = 17.37, p < 0.001$.

Discussion

In the present study we aimed to extend earlier research on Fredrickson and Roberts' (1997) Objectification Theory by examining their proposed model as it applies to depression in women. Consistent with Objectification Theory and previous research on self-objectification and disordered eating (Fredrickson et al., 1998; McKinley & Hyde, 1996; Noll & Fredrickson, 1998; Slater & Tiggemann, 2002; Tiggemann & Kuring, 2004; Tiggemann & Lynch, 2001; Tiggemann & Slater, 2001) and depressed mood (Tiggemann & Kuring, 2004), our findings revealed that self-objectification decreased with age and led to habitual body monitoring, which in turn led to less flow, greater body shame, and greater appearance anxiety. These three variables led to depression. The results of our study are consistent with Fredrickson and Roberts' assertions that women's mental health is negatively

affected by cultural practices of sexually objectifying women.

Contrary to Objectification Theory, our findings revealed no significant relationships between the self-objectification measures and internal awareness or between internal awareness and depression. These findings are consistent with Tiggemann and Slater's (2001) and Tiggemann and Kuring's (2004) findings of non-significant relationships between internal awareness and habitual body monitoring and both disordered eating and depression but inconsistent with other research that demonstrates that internal awareness was positively correlated with depression and that depression mediated the relationship between self-objectification and depressive symptoms (Muehlenkamp & Saris-Baglama, 2002; Parker, Bagby, & Taylor, 1991). These inconsistent findings may be due to the differences in the way internal awareness was operationalized in the various studies. Consistent with Objectification Theory, the current study and both Tiggemann and Slater's and Tiggemann and Kuring's studies internal awareness was defined as difficulty identifying bodily sensations, whereas, the Muehlenkamp and Saris-Baglama and Parker et al. studies defined it as difficulty identifying feelings (i.e., alexithymia). It may be that emotional awareness is more important than awareness of bodily sensations in predicting depression. It could also be that the low reliability of the Private Body Consciousness subscale (Miller et al., 1981) that was used to assess internal awareness in the current study and both Tiggemann and Slater's and Tiggemann and Kuring's studies attenuated the relationships between internal awareness and habitual body monitoring and depression. Future research is needed to explore the relationships among these three constructs more fully.

A secondary purpose of our study was to extend research on the measurement of the common characteristics of peak motivational states, or flow, as originally defined by Csikszentmihalyi (1990). The findings of our study support the reliability and validity of the new Flow Scale. Structural validity was supported via exploratory factor analysis. Construct validity was supported by the theorized negative correlations between the Flow Scale and habitual body monitoring and depression. Although the results of the present study appear promising, additional support for the reliability and validity of scores on the Flow Scale is warranted. Future research is needed to examine the test-retest reliability of scores on the Flow Scale. Additional support for structural validity could be accomplished through confirmatory factor analysis and cross-validation. Further support for construct validity of the Flow Scale could be established by demonstrating that it is not related to social desirability and by correlating it with measures that assess constructs that have been theorized to relate to flow, such as optimism, well-being, coping styles, relationship quality,

and psychological distress. In addition, future researchers might ask participants to complete the Flow Scale in the context of both solitary and interpersonal/observed contexts.

The present study is limited by the use of self-report measures; a convenience sample that was highly educated, primarily White, and mostly heterosexual; a low response rate; and cross-sectional data. As is true with all self-report data, participants may not have responded honestly to survey items. Generalizability is hampered by the lack of racial/ethnic, educational, and sexual orientation diversity in the sample. Our return rate of 35% was low; however it is typical of many published survey studies (Heppner, Kivlighan, & Wampold, 1999). Women who participated in our study may be different than non-participants in some meaningful way unknown to us. The cross-sectional nature of the present study precludes definitive answers about the causal sequence proposed by Objectification Theory. It is possible that alternative models might also be consistent with the data. For example, it could be that depression is a mediator of the relationship between self-objectification and habitual body monitoring and flow, body shame, and appearance anxiety. In addition, it is important to acknowledge that the mediational relationship found here might not have been evident if other variables that cause flow, body shame, appearance anxiety, and depression had been included in the model.

The findings of our study and of previous research (Fredrickson et al., 1998; McKinley & Hyde, 1996; Morry & Staska, 2001; Muehlenkamp & Saris-Baglama, 2002; Noll & Fredrickson, 1998; Tiggemann & Kuring, 2004; Tiggemann & Slater, 2001) provide empirical support for most of the tenets of Objectification Theory as it relates to depression and eating disorders; however, no researchers have tested the causal or mediational model that is proposed in Objectification Theory as it relates to sexual dysfunction. Future research to extend Objectification Theory to women's sexual behavior is encouraged. In addition, future research to examine concurrently the roles of self-objectification and actual sexual victimization experiences, such as child sexual abuse, sexual harassment, and sexual assault, in the prediction of disordered eating, depression, and sexual dysfunction is warranted. Research is also needed to test the model proposed in Objectification Theory with different samples, such as those composed of racial/ethnic minority women, sexual minority women, and women with lower educational levels.

Consistent with feminist theory, the results of our study illustrate the importance of attending to external/socio-cultural factors that contribute to women's mental health, in addition to internal factors, when developing treatment and prevention interventions. Our findings suggest that therapists need to be able to detect the variety of ways that self-objectification manifests in female clients, to link these

internalized messages to the larger sexist context in which women live, and to assist female clients in seeing how their internalization of objectifying experiences may be related to their presenting problems and psychological well-being. Those who work with women or girls who experience depressive symptoms, dysthymia, or major depression should consider the implications of self-objectification in their clients' difficulties. The results of our study encourage therapists to challenge the role of appearance in defining girls' and women's self-worth, to describe the emotional and psychological dangers of self-objectification, to facilitate self-acceptance among female clients, and to assist girls and women to develop non-appearance-related competencies, such as interpersonal skills, critical thinking, and athletic ability (Noll, 1996; Noll & Fredrickson, 1998). Our results also suggest that therapists advocate for critical thinking concerning the narrow images of women in the mass media as sexually objectified and ultra-thin and call for a diversification of such images (Noll, 1996).

In conclusion, the results of the present study support Objectification Theory and feminist theorists' assertions that the sexual objectification of women is related to poorer mental health among women. In addition, the findings of our study support the use of the Flow Scale as a research tool to further our understanding of flow or peak motivational states.

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