A comparative study of body-self unity in young and middle-aged healthy women
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Summary

Purpose: To examine body-self unity and its interdependence with self-esteem and body-esteem in healthy young and middle-aged women.

Methods: The study has been performed among German women. The ‘Body Experience Questionnaire’ (BEQ), the ‘Rosenberg Self-Esteem Scale’ (RSES) and the ‘Body-Esteem Scale for Adolescents and Adults’ (BESAA) were utilized to assess respectively body-self unity, self-esteem and body-esteem of the participants.

Findings: No significant differences in body-self unity, self-esteem and body-esteem were found. Body-esteem and self-esteem showed a strong positive relation in both cohorts. The relations between body-self unity and the psychological variables were equally strong in young and middle-aged women.

Conclusion: A unity between body and self seems to exist and appears to be related to feelings about oneself and one’s body. Nevertheless, the measurability of a unity in healthy women with the existent questionnaire should be questioned. Further research would be necessary to allow drawing a conclusion about the complexity and interdependence of influencing variables.

Samenvatting

Doel: Het onderzoeken van lichaam-Zelf eenheid en de interactie met zelfwaardering en lichaamswaardering bij vrouwen van jonge en middelbare leeftijd.

Methode: Het onderzoek is uitgevoerd onder Duitse vrouwen. Lichaam-Zelf eenheid, zelfwaardering en lichaamswaardering worden telkens met de ‘Body-Experience Questionnaire’ (BEQ), de ‘Rosenberg Self-Esteem Scale’ (RSES) en de ‘Body-Esteem Scale for Adolescents and Adults’ (BESAA) gemeten.

Resultaten: Er zijn geen significante verschillen in de lichaam-Zelf eenheid, zelfwaardering en lichaamswaardering gevonden. Lichaamswaardering en zelfwaardering lieten een sterke relatie in beide leeftijdsgroepen zien. De relaties tussen lichaam-zelf eenheid en de psychologische variabelen waren op soortgelijke wijze sterk voor jongere vrouwen en vrouwen van middelbare leeftijd.

Conclusie: Een eenheid tussen lichaam en zelf blijkt te bestaan en gerelateerd te zijn aan gevoelens over zichzelf en het eigen lichaam. Desondanks blijft de meetbaarheid van een eenheid bij gezonde vrouwen door applicatie van de bestaande vragenlijst twijfelachtig. Verder onderzoek zou nodig zijn om een conclusie te kunnen trekken over de complexiteit en interactie van de influencerende variabelen.
1. Introduction

The relation between body and self has been the focus of many studies in recent years. The phenomenological philosopher Maurice Merleau-Ponty ascribes the role of acting as an intermediary between the world and the self to the body. Our self receives and delivers all information through the body. For this reason it cannot act in separation from the body (Merleau-Ponty, 1962, as cited in Gregory, 2007). As the self exerts a certain amount of control over the body but the perceiving and acting body is an equal precondition for interacting with the environment, this relationship can be described as one of interdependency (Kelly & Field, 1996).

Gadow (1980) asserts the existence of different levels to describe the relation between body and self. According to her, an integration of body and self in terms of a ‘unity’ exists, if a conscious distinction between them is not possible (“the lived body”). Their immediate relation is taken for granted in a way that a healthy body functions without any problems. The body remains in the background most of the time and only when it cannot be integrated naturally, e.g. through restricted functioning, it is dissociated from the self and moves into the foreground (“object body”; Gadow, 1980; Krueger, 2002). Gadow was not the only scientist who assumed this situation to result in tensions between body and self.

Charmaz (1983) examined individuals who suffered from a condition of chronic illness. Marked by profound constraints and developing limitations to the body, such a condition can cause an imbalance in the unity of self and body. Body and self are no longer experienced as a unity communicating with the world outside, but are felt to impair each other. The self is forced to engage in continuous adaptations, trying to handle the restrictions to feelings of control and independence caused by the body, in order to reintegrate body and self (Charmaz, 1995). If this adaptation does not succeed, meaning that the body wins the control over the self by determining all the decisions a person has to take, this results in losses for the controlling self and becomes apparent in a diminished self-esteem (Charmaz, 1983; Gadow, 1989; Hudak et al., 2004). Persons who suffer from developing physical limitations would have to deal with negative feelings about their body as well, indicating a low body-esteem (Taleporos, 2001).

Temporarily, a healthy person may also experience a feeling of imbalance in the generally immediate relation between self and body in situations of trying to exceed the capabilities of his or her bodily nature. However, such deteriorations in healthy people would not be comparable to a divergence between body and self caused by an uncontrollable disease,
because the self would at least have the chance to regain mastery over the body (Gadow, 1983).

Due to the little research that has been done on body-self unity in healthy persons, the present study aims at examining and comparing the existence of a body-self unity in healthy younger and middle-aged women, for the reason that this group is thought to be the most sensitive one to influences by any immediate relation between body and self. This assumption is illustrated as follows.

Generally speaking, a state of physical health, i.e. when a person’s self and body are in a harmonious relation with each other for most of the time, would have positive effects on any feelings about oneself. Moreover, feelings about oneself show a strong relation to feelings about one’s body in women (body-esteem; Henriques & Calhoun, 1996). The relation between body-esteem and body-self unity appears to be unexplored to date and would therefore be another aspect that has to be explored in this study. Consequently, the relation between body and self, feelings about oneself and one’s body form the central components of the conceptual model in this study (see Figure 1).

![Figure 1. Conceptual model: body-esteem and self-esteem linked to body-self unity in women](image)

In order to clarify the relations between the psychological variables, it is necessary to review the respective findings about them in the target group of younger and middle-aged women.

The question whether a harmonious relation between body and self can be linked to positive feelings about oneself in a healthy female population, requires the assessment of global ‘self-esteem’ as a relatively stable indicator of a person’s overall affective appraisal of his or her own worth (Rosenberg, 1965; Brown et. al, 2001). Contrary to a lack of research into the relation between body and self in women that would be in the focus of this study,
there are a number of studies that provide insight into self-esteem. As self-esteem arises as an important variable in the context of body-self unity, it is necessary to consult findings about self-esteem in both young and middle-aged women.

Robins et al. (2002) examined global self-esteem in individuals with an age span ranging from 9 to 90 years by using cross-sectional data to gain evidence of self-esteem in different phases of life. They found relatively high self-esteem in the youngest age group with a steady decrease during the progression of childhood. This decline of self-esteem continued into adolescence with an obvious discrepancy between genders in that on the average girls showed lower self-esteem than their male counterparts. After a continuous increase during adulthood, self-esteem reached a peak in late midlife years; more precisely the absolute peak-level was reached in the mid-60s. In persons beyond this age self-esteem declined again. The differences between men and women were present until old age when the gap became smaller. These findings have to be accepted with reservations due to the cross-sectional design and possible cohort effects of developmental influences within the individual. Nevertheless they provide information which leads to the expectation within this study that there is a difference in self-esteem between young and middle-aged women, with young women having lower self-esteem than middle-aged women (Hypothesis 1). Besides the hypothesized impact of an underlying harmonious relation between body and self on feelings one has about oneself, there are other influences on self-esteem in women.

Consequently, it seems to be important to consider findings that self-esteem can generally be based on different contingencies. Crocker and Wolfe (2001) found evidence that younger women base their self-worth to a great extent on their bodily appearance and reactions of other persons, with low self-esteem appearing to be strongly associated with these factors (Crocker & Wolfe, 2001). Self-esteem seems to be strongly related to body concerns in female students (Grossbard et al., 2009). A minor shift in contingencies with aging people drawing more on internal resources of intrinsic nature seems to be observable. In general, the assumption that aging women still base their self-esteem on appearance persists (Crocker & Wolfe, 2001).

To evaluate the feelings that women in this study have about their bodies, we can refer to body-esteem studies carried out for example by Franzoi & Shield in 1984. The majority of empirical research found a relative stable dissatisfaction of women with their bodies across their lifespan (Tiggemann & Lynch, 2001). Drawing upon this evidence it can be expected that there are no significant differences in both age-groups of this study with regard to body-esteem (Hypothesis 2). Further findings about body-esteem should be reviewed with reference...
to self-esteem, due to the mentioned strong relationship between both variables in younger as well as middle-aged women.

With regard to younger women, a lot of research has been done on the influence of socio-cultural norms on the relation between self-worth and physical evaluation shaped through the media. Strahan et al. (2008) examined the question whether the creation of a beauty ideal would result in a stronger dependency of self-evaluation on outward appearance, and whether this would induce any higher dissatisfaction with the body. They found confirmative results that exposing female undergraduates to images representing the norms of thinness and attractiveness yielded them to base their self-worth to a greater extent on their appearance. As mentioned, these women felt more dissatisfied with their bodies and were more preoccupied with other persons’ evaluative perceptions.

Still, feelings about the body remain stable throughout life. A study by Webster and Tiggemann (2003) emphasizes a difference in the impact of bodily dissatisfaction on self-esteem in women of different age groups. They state that the relationship with self-esteem is considerably stronger with young women than with middle-aged women. Accordingly, the body plays a less central role in older women’s overall self-evaluation.

Body-esteem in middle-aged women has to be considered against the background of aging, which means being confronted with changing life-circumstances in areas that cover physical and psychological aspects (Kafanelis et al., 2009). Concerning physical changes, the menopause has some influence on the outward appearance, e.g. in the form of weight gain and decreased elasticity of the skin, caused by alterations of the hormonal system (Huston & Lanka, 1997). Such changes have a serious impact on women’s midlife perception of their bodies (Chrisler, 2007; Tiggmann, 2004).

To compensate for the increasing deviation from the beauty ideal, the relevance of bodily appearance seems to decrease with age (Tiggemann, 2004). Consequently there have to be some psychological factors or behaviours which change during the process of growing older and which have some kind of compensating effect (Tiggemann & Lynch, 2001). An explanation for the decreased strength in the relationship between bodily dissatisfaction and self-esteem in aging women might be a general increase in the perceptions of cognitive control (Webster & Tiggemann, 2003) and changes in the forms of cognitive control. Rothbaum et al. (1982) distinguish two types of control. ‘Primary control’ on the one hand refers to control processes which cover a person’s efforts and beliefs in the ability to actively change the world in line with his or her own needs. ‘Secondary control’, on the other hand,
involves strategies of accepting or adjusting less controllable situations to re-establish a certain extent of perceived control.

Thompson et al. (1998) examined the use and the effects of primary and secondary control in the context of age-related changes in appearance for young, early-middle-aged, and late middle-aged adults by means of a cross-sectional design. Changes in physical appearance involved in aging were supposed to cause a decreased sense of control. They detected that secondary control concerning age-related appearance was higher for late-middle-aged adults (between 55 and 64 years). The group of younger adults felt more control over changes in their appearance than the older group. Consequently, secondary control strategies are more adaptive for early- and late middle-aged individuals who have poor beliefs concerning their ability to control these changes.

Although physical attractiveness forms the basis of women’s bodily evaluation at any age, middle-aged women would be particularly preoccupied with this topic. As mentioned above, middle-age is a period in a person’s life when the first outward signs of aging become apparent and emerge as a reason for concern (Thompson et. al, 1998). Age-related limitations or changes do not result in a negative experience of the self for everyone (Bullington, 2006). Secondary control strategies can be implemented in the form of self-protective, positive reappraisals to maintain supporting emotional resources in cases of developmental losses or by lowering aspirations (e.g. shifting the importance attributed to the physical appearance) to adapt to the new circumstances (Wrosch et al., 2000). Applying these strategies may help to restore an overall feeling of control (Rothbaum et al., 1982) and have a positive impact on the subjective well-being of middle-aged and older persons (Wrosch et al., 2000).

In addition to emphasizing the assumption of lower self-esteem in younger women, these findings give reason to expect differences in the relations between self-esteem and body-esteem, with a stronger correlation between the psychological variables in younger women (Hypothesis 3). Furthermore, women’s dissatisfactory feelings about their bodies would raise a conscious distinctness of the body from the self. This suggests the theoretical connection between body-esteem and a body-self unity.

Literature offers possible explanations for the assumption that women are in general susceptible to influences on the evaluation of their self and body. The objectification theory devised by Fredrickson and Roberts (1997) may help to explain this instability caused by antecedent factors, such as the serious preoccupation with the body in younger women. This theory holds that in western societies a woman’s body is objectified in a way that the focus is on outward appearance and its continuous evaluation. Consequently women start to
internalize an objective perspective of their physical selves and treat themselves as an object through uninterrupted concern about their bodies and their outward appearance. This may lead to a conscious monitoring of their outward appearance, reduced mental capacity for other activities and especially to a decreased awareness of internal bodily states and bodily needs (Fredrickson & Roberts, 1997). A discrepancy between body and self is noticeable when the individual’s desired self-presentations do not comply with the bodily demands (Kelly & Field, 1996). Certain similarities between ‘self-objectification’ and an impaired relation between body and self emerge: if the younger women’s objectification of their bodies results in an alienation of the self from the body and decreased awareness of bodily demands, this would end in a divergence between body and self as well. A gap between body and self would be indicative for low scores on a measurement of body-self unity.

Concerning the concept of “self-objectification” in younger women, Tiggemann and Lynch (2001) were interested in age-related changes. By carrying out a cross-sectional study, they found that the older women become they are more likely to abandon their objectified perspective of their bodies and that the excessive preoccupation with their appearance is less. Based on other research, they concluded that this may be due to a weaker internalization of the observer perspective. Tiggeman’s and Lynch’s analysis revealed the highest extent of self-objectification in women in their 20s and 30s, a decline in middle-aged women in their 40s and 50s and the lowest score in women beyond this age. Since these findings support a lower self-objectification in middle-aged women compared to young women, the expectation of a lower body-self unity in younger women would be reinforced (Hypothesis 4). Additionally, more negative feelings about the body would be associated with a higher divergence between body and self in younger women than in middle-aged women. To say it more clearly, body-esteem is not only expected to relate more strongly to self-esteem but also shows a stronger relation with body-self unity in younger women (Hypothesis 5).

With reference to the expectation of a lower body-self unity in younger women, there would be reason to expect no determining differences in the strength of a relation between body-self unity and self-esteem, since young women in this sample are expected to have a lower body-self unity and lower self-esteem and middle-aged women are assumed to have a higher degree of both (Hypothesis 6).

Summing up the analysed theoretical framework it would be interesting to reinvestigate body-esteem and self-esteem in conjunction with body-self unity. The model that represents the underlying connections of the separate variables is shown in figure 1. The first aim of the
A comparative study of body-self unity, body-esteem and self-esteem in two samples of healthy younger and middle-aged women. Even though a unity in healthy persons is assumed, there are a lot of possible factors that affect body-self unity, self-esteem and especially body-esteem in their interdependence. This may have consequences for the unity between body and self. A second aim is to investigate the latent connections between all those variables. The relation between body-self unity and self-esteem has to be explored. This connection is reflected in a harmonious or tense relation between body and self resulting in an either positive or negative self-evaluation. Furthermore, body-esteem has to be assessed to clarify the impact of bodily evaluation on the body-self unity in more detail. The following six hypotheses have to be examined:

Hypothesis 1: It is hypothesized that younger women have a lower self-esteem than middle-aged women.

Hypothesis 2: It is hypothesized that there is no significant difference between younger women’s and middle-aged women’s body-esteem.

Hypothesis 3: It is hypothesized that the correlation between body-esteem and self-esteem is higher in younger women than in middle-aged women.

Hypothesis 4: It is hypothesized that younger women have a lower body-self unity compared to middle-aged women.

Hypothesis 5: It is hypothesized that the correlation between body-self unity and body-esteem is higher in younger women than in middle-aged women.

Hypothesis 6: It is hypothesized that there is no significant difference in the correlation between body-self unity and self-esteem for younger and middle-aged women.
2. Methods

2.1 Procedure and Participants

125 paper-printed questionnaires were distributed in postage-paid envelopes among women of both age-groups with the request to return them within three weeks. The majority of respondents were recruited in the examiner’s own social network with a certain number of women who redistributed the questionnaire to other social contacts. There was a response rate of 88.8 percent.

The sample of 111 women was categorized into two groups based on age: 52 participants were included in the group of ‘younger women’ ranging from 19 to 26 years of age and 59 participants were assigned to the group of ‘middle-aged women’ with an age range between 44 and 60. All participants had German citizenship. The demographic characteristics and indications of the subjective health status, actual treatment and the BMI can be retrieved in table 2.1.1.

In the group of younger women most were single and had finished secondary school. More than half of the middle-aged women was married or lived with a partner. Referring to their educational level approximately half of the middle-aged participants had a university degree. Concerning the subjective health status most of the young women indicated to feel ‘good’ or even ‘very good’ at that moment. The Body mass index (BMI) of this subgroup was in the normal weight range for 80.8 percent. The majority of middle-aged women scored with ‘good’ on the subjective-health question and a high number even scored from ‘very good’ to ‘excellent’. With reference to the BMI in this group most of the participants were in the normal-weight category but nearly one quarter had to be assigned to the overweight category.

To warrant a healthy sample there was one item asking for current treatment. If the answer was ‘yes’, they were asked to indicate the reason. Five participants in the younger women’s group were excluded from further examinations because of the treatment factor\(^1\). In the group of middle-aged women, there were nine women in total who were excluded because their current treatment could have interfered with the measures\(^2\). The final size of the analysed sample contained 96 female participants.

\(^1\) There were two participants with psychological problems, two participants with the chronically inflammatory Crohn’s disease and one person had an acute illness.

\(^2\) There were two participants with thyroid-diseases, two participants with cancer, two with neurological diseases, one participant with psychological problems, one with physiological problems, one with serious menopausal problems and borreliosis and a last one with a chronic disease.
**Table 2.1.1** Demographics, subjective health status and treatment of the entire sample

<table>
<thead>
<tr>
<th></th>
<th>Younger women (n=52)</th>
<th>Middle-aged women (n=59)</th>
<th>Younger women</th>
<th>Middle-aged women</th>
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<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>M (SD)</td>
<td>M (SD)</td>
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<tr>
<td><strong>Educational level¹</strong></td>
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<td>primary</td>
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<tr>
<td>secondary</td>
<td>44 (84.6)</td>
<td>24 (40.7)</td>
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<tr>
<td>higher</td>
<td>8 (15.5)</td>
<td>28 (47.5)</td>
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<td>53 (89.8)</td>
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<tr>
<td>obese</td>
<td>1 (1.9)</td>
<td>3 (5.1)</td>
<td></td>
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</tr>
</tbody>
</table>

N = 111

¹ educational level: primary= no education, Hauptschule; secondary= vocational school, Realschule, Gymnasium (with university entrance qualification); higher= college of higher education, university

² Subjective health status: well= excellent, very good, good; unwell= suboptimal, bad

³ BMI: < 18.5= underweight; 18.5 – 25= normal; >25= overweight; >30= Obese Class I
2.2 Measures

2.2.1 Body-self unity

For the assessment of the body-self unity the ‘Body Experience Questionnaire’ (BEQ; Van der Heij, 2007) was utilized. Since there was only a Dutch version available, the questionnaire had to be translated in a process of forward-translation into German language and a back-translation by a Dutch native speaker to obtain a valid German version.

The questionnaire consists of 10 items which have to be answered on a 4-point Likert scale ranging from 1 (‘strongly disagree’) to 4 (‘strongly agree’). There are 2 subscales, one composed of 6 items measuring the extent of divergence between body and self (e.g. ‘It feels as if my body doesn’t belong to me’ to indicate alienation) and the other one formed by 4 items representative of a unity between both components (e.g. ‘I am sensible to my body’ to indicate harmony). The total scores of the individual subscales ‘Harmony’ and ‘Alienation’ are calculated by summing up the scores of the separate items. A high score on the ‘Harmony’ scale means that the person lives in a balanced and harmonious relationship with his or her body, a high score on the ‘Alienation’ scale represents an alienated connection with the body. To obtain a total score of ‘Body-self Unity’, the negatively formulated alienation items have to be reversed and are added to the harmony scores because a higher score on the whole scale represents a higher body-self unity.

The scale was originally developed to assess body-self unity in a patient population with physical diseases. In this context a reliability analysis resulted in adequate values of Cronbach’s alpha (items measuring ‘alienation’ from the body, $\alpha = 0.84$; items measuring the extent of living in ‘harmony’ with the body, $\alpha = 0.76$).

Within the framework of the present study Cronbach’s alpha reached a value of 0.70 regarding the items measuring ‘alienation’ and a value of 0.68 concerning the items indicating the degree of ‘harmony’. The internal consistency of the whole scale was acceptable with an alpha of 0.74.

2.2.2 Self-esteem

Global self-esteem was measured by means of the German Rosenberg Self Esteem Scale (RSES; Rosenberg, 1965). The scale includes 10 items about self-evaluative propositions which are differentiated into five positively phrased items (e.g. ‘On the whole, I am satisfied with myself’) and five negatively phrased items (e.g. ‘I feel I do not have much to be proud of’). The statements have to be rated on a 4-point Likert scale with answer
options ranging from 1 (‘strongly disagree’) to 4 (‘strongly agree’). The scores have to be summed up over the items (using the reversed negatively worded items) with higher scores representing a higher self-esteem.

Various studies show a good internal reliability of the RSES with Cronbach’s alpha levels between 0.72 and 0.87 (Wylie, 1989). The German version of the Rosenberg Self-Esteem scale used in this study fulfilled the reliability norms over a range of validity studies as well and is an adequate instrument for assessing global self-esteem in this context (Roth et. al, 2008). In this study a suitable value of Cronbach’s alpha was reconfirmed with a value of 0.79.

2.2.3 Body-esteem

To assess body-esteem in the present study the “Body-Esteem scale for Adolescents and Adults” (BESAA; Mendelson et al., 1997) was applied. To achieve an equivalent German version of the existing English version, the scale had to be evaluated in a forward-backward translation process. The scale involves 3 subscales with a total of 23 items that have response options ranging from ‘Never’ (0) to ‘Always’ (4).

The first subscale ‘BE-Appearance’ includes 4 positively and 6 negatively formulated items which deal with a person’s overall feelings about his or her outward appearance (e.g. “I like what I see when I look in the mirror.”). The scoring range for this subscale lies between 0 and 40.

The second subscale ‘BE-Weight’ is composed of 3 negatively and 5 positively phrased items and measures a person’s satisfaction with his or her weight (e.g. “I am satisfied with my weight.”). Scores between 0 and 32 can be reached. The third subscale ‘BE-Attribution’ contains 5 positively formulated items concerning the body- and appearance-related evaluations of a person’s own body with regard to other persons’ perceptions (e.g. “Other people consider me good looking.”). Respondents can score between 0 and 20.

To get the scores of the individual subscales and the total body-esteem score the nine items containing negations have to be recoded by reversing the scale. The respective subscale scores and the total score is obtained by summing up the results. A higher score represents a greater body-esteem regarding each subscale or the total body-esteem score which can reach a maximum of 92.

Mendelson and Mendelson’s (1997) reliability analysis revealed suitable values of Cronbach’s Alpha for the three subscales, with 0.92 (BE-Appearance), 0.94 (BE-Weight)
and 0.81 (BE-Attribution). The values of Cronbach’s Alpha in the present study were also within an acceptable range of reliability, with 0.85 (BE-Appearance), 0.94 (BE-Weight) and 0.79 (BE-Attribution) for the group of younger participants and 0.92 (BE-Appearance), 0.94 (BE-Weight) and 0.68 (BE-Attribution) for the middle-aged participants.

Mendelson et al. (2001) extended the original form of their scale for children to an adequate instrument for assessing body-esteem in adolescents and adults and acknowledge the use for people in adulthood. Referring to the reliability analysis one can conclude that the appearance subscale and the weight subscale are adequate for measuring body-esteem in middle-aged women. The attribution subscale with its lower Cronbach’s alpha value has a lower but still acceptable reliability. The internal consistency of the whole scale was good due to an alpha of 0.94.

2.3 Data Analysis

Both samples of women were described by means of descriptive statistics, which display the demographic variables, the subjective health state and the body mass index (BMI). In order to examine the distribution of the psychological variables the Kolmogorov-Smirnov test was used. The results revealed that all tested variables were normally distributed with the exception of the middle-aged women’s scores on the ‘Body-Experience Questionnaire’ (p<.05). Consequently the means of the scores on body-self unity (H4) were compared by using a non-parametric Mann-Whitney U test. The mean comparisons of self-esteem (H1) and body-esteem (H2) were executed by using a parametric t-test for two independent samples. Furthermore, three correlation analyses were used to examine the relationships between self-esteem and body-self unity (H6), body-esteem and body-self unity (H5) and body-esteem and self-esteem (H3) in both groups. All the correlation coefficients were indicated and compared based on Spearman’s rho. The statistical significance of an existing difference between the correlation coefficients of the two samples was calculated by utilizing a “Fisher’s Z transformation” with the statistical program “MedCalc” version 10.4. Any further data were analyzed with the recent SPSS (version 16.0), a computer program for statistical analysis. The data was analyzed in the order of the hypotheses.
3. Results

The first hypothesis predicted a lower self-esteem of younger women in comparison to their older counterparts. This expectation was not confirmed as there were no significant differences found in the mean scores of younger and middle-aged women (see Table 3.1).

Secondly, it was expected that there would be no significant differences in both groups’ scores concerning ‘body-esteem’. Indeed, the testing revealed no significant differences between younger and middle-aged women’s scores on body-esteem (see Table 3.1). Consequently, the hypothesis was accepted. Although there were differences in the scores of the subscales ‘Appearance’, ‘Attribution’ and ‘Weight’ (see Appendix D) which all together represent body-esteem, these differences did not finally have an impact on the comparison of the overall ‘body-esteem’.

The third hypothesis was examined to make a comparative statement on the correlation between ‘body-esteem’ and ‘self-esteem’ in both samples. It was expected that there would be a stronger positive correlation between both concepts in younger than in middle-aged participants. A correlation analysis revealed that both concepts were significantly correlated in younger participants as well as in middle-aged participants. However, a significant difference in the correlations between body-esteem and self-esteem in younger and middle-aged women was not confirmed (see Table 3.2), hence the hypothesis was rejected.

Table 3.1

Means, standard deviations, t/ Z-value and the statistical significance concerning the comparison of younger and middle-aged women’s scores on ‘Self-Esteem’, ‘Body-Self Unity’ and ‘Body-Esteem’

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (young)</th>
<th>Mean (middle-aged)</th>
<th>Standard deviation (young)</th>
<th>Standard deviation (middle-aged)</th>
<th>df</th>
<th>t/ (Z)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td>33.09</td>
<td>32.12</td>
<td>4.02</td>
<td>4.28</td>
<td>94</td>
<td>1.14</td>
<td>0.13</td>
</tr>
<tr>
<td>Body-Self Unity</td>
<td>34.34</td>
<td>34.48</td>
<td>2.87</td>
<td>3.86</td>
<td></td>
<td>(-1.03)</td>
<td>0.15</td>
</tr>
<tr>
<td>Body-esteem</td>
<td>54.13</td>
<td>59.10</td>
<td>13.24</td>
<td>14.95</td>
<td>94</td>
<td>-1.72</td>
<td>0.08</td>
</tr>
</tbody>
</table>

N = 96

¹one-tailed
²two-tailed
Table 3.2
*The respective correlations of ‘Body-Self Unity’ with ‘Self-Esteem’ and ‘Body-Esteem and the correlation of ‘Self-Esteem’ with ‘Body-Esteem’ for younger and middle-aged women*

| Correlation coefficient | young | middle-aged | z-statistics¹ | p
|------------------------|-------|-------------|---------------|---
| BEQ- SE²               | .28   | .55**       | -1.60         | .11(two-tailed)
| BEQ- BE³               | .46** | .64**       | -1.25         | .21(one-tailed)
| SE- BE⁴               | .55** | .43**       | 0.71          | .47 (one-tailed)

N = 96

** correlation (Spearman’s ρ) is significant at the 0.01 level (1- and 2-tailed)

¹ Fisher transformation: ‘z’ as statistical value of testing a significant difference between the correlation coefficients
² correlation between ‘Body-Self Unity’ and ‘Self-Esteem’
³ correlation between ‘Body-Self Unity’ and ‘Body-Esteem’
⁴ correlation between ‘Self-Esteem’ and ‘Body-Esteem’

The fourth hypothesis stated that younger women would score lower on body-self unity than middle-aged women. Likewise, there were no significant differences in younger and middle-aged women’s scores (see Table 3.1).

The fifth hypothesis assumed that body-esteem and body-self unity would have a stronger positive correlation in younger than in middle-aged women. The correlations found showed significance in both groups of women. By comparing the correlation coefficients there was no significant difference found and the hypothesis had to be rejected (see Table 3.2).

The last hypothesis assumed that there would be no significant differences in the correlation of body-self unity and self-esteem for younger and middle-aged women. The correlation coefficients showed a higher correlation of both concepts in middle-aged women. After comparing the two coefficients, the hypothesis was confirmed due to results indicating that the higher correlation of body-self unity and self-esteem in middle-aged women did not differ significantly from the correlation in younger women (see Table 3.2). However, this non-significant difference can be associated with the sample size. There is a reason to expect significant differences in a larger sample.

Further intercorrelations of the psychological variables ‘Body-Self Unity’, ‘Body-Esteem’ and ‘Self-Esteem’ and their partly underlying components (Alienation, Harmony, BE-Appearance, BE-Attribution, BE-Weight) for younger and middle-aged women can be retrieved in tables and in the Appendix (see Appendixes A and B). The most prominent findings are mentioned in this section: the correlation of the subscale ‘Alienation’ with self-esteem was remarkably low for younger women in contrast to a significantly negative correlation in middle-aged women.
The correlations between ‘Alienation’ and body-esteem were significantly negative in younger and in middle-aged women, for younger participants especially with the factor ‘BE-weight’ and for the middle-aged participants with ‘BE-appearance’.

The ‘harmony’ subscale showed to be positively related to all the other factors examined in both age groups.

4. Discussion

The present study was conducted to examine the existence of a body-self unity in a population of healthy women and to compare findings of younger women to those of middle-aged women. Self-esteem and body-esteem were assessed as important psychological indicators that would help to explain findings about the relation between self and body. The results have confirmed some but not all the expectations that were partly based on previous findings.

The results showed that both younger and middle-aged women have similar feelings about themselves and their body. In contrast to the expectations, there was no difference in their experienced unity between self and body. Not only for younger but for middle-aged women as well, feelings about the body showed a strong relation with the existence of a body-self unity. The relationship between this unity and the women’s self-esteem was, in line with the hypothesis, similarly strong in the different age groups. The assumption of a strong interdependence between body-esteem and self-esteem was proven to be true for women in both age groups, contrary to the expectation that it would be stronger in younger participants.

First of all and previous to a more detailed discussion of the findings concerning the different variables in the conceptual model and their relations with each other, one relevant limitation of the present study should be mentioned. This limitation concerns the assessment of ‘Body-Self Unity’ as central variable of the model.

The ‘Body-Self Unity’ of the healthy women was measured with the ‘Body-Experience Questionnaire’. The internal consistency was acceptable concerning the individual subscales ‘Harmony’ and ‘Alienation’ and showed an adequate value for the whole scale, indicating a unity between body and self. Nevertheless, the conclusions concerning the body-self unity in this sample should be regarded with reservation. This reservation is supported by feedback from respondents who stated explicitly that they had had difficulties in identifying themselves with some of the items, especially with those which measured ‘Alienation’ (‘My body is unpredictable’, ‘I don’t feel complete’, ‘I feel betrayed by my body’, ‘My body is a burden to me’). So far, the questionnaire was only developed and evaluated for a population with
A comparative study of body-self unity in young and middle-aged healthy women. For prospective studies about ‘Body-Self Unity’ in healthy people, a questionnaire with more adequately formulated items for healthy people would help to validate the suitability of the present scale to measure body-self unity in healthy persons.

Although a cut-off score that either indicates a unity between self and body or an alienation from the body does not exist, an analysis of the mean scores was possible. The mean scores for younger and middle-aged women were within the upper half of the attainable score, which would represent a high body-self unity. By comparing the mean scores of the healthy female sample on the subscales ‘Alienation’ and ‘Harmony’ to the mean scores of a sample that consisted of female and male participants with rheumatism (Van der Heij, 2007; see Appendix E), a significant difference was found in the degree of ‘Alienation’. Healthy women scored significantly lower on the items of alienation. Concerning the overall high mean scores on ‘Harmony’, no significant difference was found. The reason for both healthy and ill persons scoring similarly on the ‘Harmony’-subscale is discussed elsewhere but it is certain that a high body-self unity was given with the women of the present study. It is indicated in a high score on ‘harmony’ and a low score on ‘alienation.’

A comparison of the ‘Body-Self Unity’ in younger and middle-aged women was the starting-point of this study. It was assumed that younger women would have a lower body-self unity than the middle-aged participants (Hypothesis 4). This expectation was based on empirical findings, which showed that a higher extent of self-objectification and an associated diminished awareness of bodily demands in younger women produced a higher discrepancy between body and self in that sample. Previous research revealed findings that especially women at an age that matches the young women of this study showed an extraordinarily high degree of self-objectification (Tiggemann & Lynch, 2001). In opposition to the hypothesis, the difference between younger and middle-aged women was insignificant. Possible explanations for these results can be associated with a lower self-objectification in this sample of younger women than expected. With reference to the introduction, self-objectification seems to be comparable to feelings of alienation from one’s body since both result in an increased awareness of the distinctiveness between body and self (Kelly & Field, 1996; Fredrickson & Roberts, 1997). However, the contribution of a high degree of self-objectification to a divergence between body and self is theoretically possible, but still speculative for the lack of empirical evidence. In order to discuss this point, it would have been necessary to additionally measure the extent of self-objectification.
As mentioned in the introduction, a divergence between self and body is experienced when the body cannot be integrated naturally. The example of a chronic disease was mentioned (Charmaz, 1995). It causes restrictions not only to the physical functioning of the body but to the regulating and supervising function of the self as well. This emphasizes the loss of control resulting from the disease.

Control seems to be an important issue in healthy women as well. In the age of an ultimate, almost unreachable thinness ideal, attempts to control the body are doomed to fail in most cases. As a consequence of self-objectification in women, the effort needed to retain disciplined control over the body would increase over time and could actually end in a lack of self-control in terms of an eating disorder (Johnston et al., 2004).

Certainly, a kind of limitation to one’s feeling of being able to control the body, which is based on influences from external factors (social norms) would not be comparable to absolute losses of control due to factors, such as disease, which arise from within a person. There is a difference whether a person experiences a loss of control due to a bodily disease or due to a mental disorder but in either case the self dissociates from the body. The boundaries between ‘healthy’ and ‘diseased’ are vague and it would be difficult for persons to consciously position his or herself on such a dimension. Even though the female participants of this study were assumed to be healthy (as controlled by use of items asking for subjective health and current treatment), unconscious and external influences on their body-self unity resulting in diminished feelings of self-control, may have been present.

Taking these differences contributing to losses of self-control into account, the additional assessment of perceptions of control would have some additional value to explain findings of body-self unity in women. The inability to exert control over change or maintenance of the physical appearance in accordance with the social beauty ideal causes a feeling of alienation from the body.

Instead of the assessment of self-objectification, the theoretical model of this study included ‘Body-Esteem’. This psychological variable is more clearly dissociable from the concept of ‘Body-Self Unity’ than self-objectification. Its sensitivity for negative impacts based on various sources of bodily dissatisfaction was assumed to have an impact on a harmonious relation with the body, especially in younger women. Both age groups, with middle-aged women having a slightly, but not significantly higher body-esteem than younger
women, reached a little more than half of the attainable score, resulting in a moderate body-esteem.³

The assumption that the extent of body-esteem would not show any significant differences for the age groups was confirmed (Hypothesis 2). This confirms previous findings of relatively stable body dissatisfaction in women over their whole life-span (Tiggemann & Lynch, 2001). A negative evaluation of a woman’s own body was expected to have a stronger influence on the body-self unity in younger but not in middle-aged women. Accordingly, the correlation between ‘Body-Esteem’ and ‘Body-Self Unity’ was hypothesized to be stronger in younger women due to an expected lower mean-score on ‘Body-Self Unity’ (Hypothesis 5).

As already mentioned, a significant difference in ‘Body-Self Unity’ could not be found and the correlations between the two concepts were significantly positive in both samples without any significantly stronger relation in younger women. Referring back to the differences in ‘Body-Self Unity’ in the context of the relationship between body-self unity and body-esteem, another aspect becomes apparent, which could explain some of the findings of this study. This aspect concerns the female participants of this study. The younger women were possibly already too mature for being vulnerable to stronger feelings of alienation from the body caused by a low body-esteem. This is to say that preoccupation with appearance, weight and the impact of other persons’ attitudes to one’s own physical evaluation were not serious enough to cause a lower ‘Body-Self Unity’. In addition to this, the middle-aged women were possibly not mature enough to show a greater dissociation from a (still existing) strong focus on physical appearance and an associated stronger experience of a unity between their selves and their bodies. Therefore, it would be interesting to repeat the study with two samples through the life span. An interesting suggestion derives from the assumption that a person’s lifespan consists of defined phases which are connected to a specified occurrence of physical and psychological changes. A study of Johnston et al. (2004) emphasized the importance of comparing participants not only according to their age or developmental stage but simultaneously to their individual experiences and beliefs. This means the experience of the body beyond behavioural control. Factors such as ethnicity, influences of different social environments, bodily disposition and the subjective body experiences of a person may account for a remarkable heterogeneity within and between age groups (Johnston et. al, 2004). Apart from fixed age-categories there are other aspects influencing a person’s relation with

³ Younger women reached 58.8 percent and middle-aged women 64.2 percent of the attainable score. Due to a lack of appropriate norm groups for a comparison of the body-esteem scores, an established conclusion over the degree of body-esteem was not possible.
his or her body. Certainly some of these aspects cannot be assessed by means of quantitative but of qualitative data collection.

Prior to discussing the relationship of the third psychological variable ‘Self-Esteem’ with the central variable ‘Body-Self Unity’, the findings of self-esteem and the relation between self-esteem and body-esteem are considered in more detail.

Contrary to the hypothesis that younger women would have lower self-esteem than middle-aged women (Hypothesis 1), a significant difference in self-esteem was not confirmed. The younger women scored nearly similarly to their older counterparts, namely more than three fourths of a reachable total score. By referring to a recent study that examined self-esteem among women of western society, ages 21 to 69 years, the women of the present study had an averaged higher self-esteem than their comparison groups (Borzumato-Gainey, 2009). The higher-than average degree of self-esteem was more noticeable concerning the younger age-group. 4

According to several empirical findings that self-esteem depends on appearance and a body-related evaluation for younger women (Secord & Jourad, 1953; Crocker & Wolfe, 2001) there was reason to expect a lower ‘Self-Esteem’ for the younger cohort. Therefore the correlation between ‘Self-Esteem’ and ‘Body-Esteem’ was theoretically linked to the extent of ‘Self-Esteem’ in younger women. Consistent with the unexpected result that the younger participants did not have lower self-esteem but had levels of self-esteem equal to middle-aged women was the rejection of the hypothesis that the correlation of younger women’s self-esteem and body-esteem would be stronger (Hypothesis 3). The correlations were significantly positive for younger and middle-aged women and did not differ significantly from each other.

At this point, though mentioned above, it would be useful to reconsider the use of cognitive control strategies as a mediating factor between body-esteem and self-esteem, especially for the sample of middle-aged women. In addition to results found by Robin et al. (2002) that younger women have a moderate self-esteem in comparison to middle-aged women (who are reaching a peak of self-esteem in their second half of life), the hypothesis was based on findings that aging women have different perceptions of cognitive control (Tiggemann& Lynch, 2001; Rothbaum et al., 1982; Thompson et al. 1998). Middle-aged women were thought to make more use of secondary control strategies (e.g. acceptance and

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4 The younger women of the present study reached 82.73 percent of the attainable total score compared to younger women of the comparison group who reached 58.3 percent. The middle-aged women of this study got 80.3 percent of the reachable score, compared to their middle-aged comparison group that scored 67.3 percent on the average. Differences in ethnicity possibly had influence on the scores.
lowering aspirations), which are effective in less controllable situations (in this case ‘aging and bodily changes’). The use of those strategies was thought to buffer the direct effect of body-esteem on self-esteem. As mentioned in the introduction, Rothbaum et al. (1982) made a distinction between the use of ‘secondary control’ and ‘primary control’, referring to a person’s efforts and belief in the ability to actively change the world in conformity with his or her own needs. Thompson et al. (1998) ascribed such a feeling of control to younger adults.

There is evidence that younger women have a strong awareness and internalization of socio-cultural norms concerning the ‘ideal’ standards of outward appearance so that their own standards comply with these perceived norms (Clay et al., 2005). In order to achieve these internalized standards, younger women feel helpless because of problems to control their bodies in a way they want to. As the ‘beauty-ideal’ is increasingly harder to reach it would be a means of self-protection for younger women to adapt to secondary control strategies as well to regain feelings of mastery over the situation. Due to an increasing awareness of eating disorders over the last years (Johnston et. al, 2004), women at a certain age would possibly start to shift their appearance-related focus and base their self-esteem on something different from societal standards for their bodies. The results of this study with younger women having a high self-esteem may be an indication for these assumptions although the link is not proven. Maybe the cognitive control strategies of younger women start to change gradually if they feel the usefulness of strategies such as acceptance, but too little research has been done to have any certain evidence about this topic.

The hypothesis that there would be no significant difference in the relation between body-self unity and self-esteem (Hypothesis 6) was actually accepted but based on a different underlying assumption. The hypothesis followed originally from the alternative expectation that younger women have a lower ‘Body-Self Unity’ and lower ‘Self-Esteem’ than older women, who were expected to experience a higher degree of both concepts. Nevertheless, the results of the present study showed similarly high degrees of both body-self unity and self-esteem with a non-significant difference in the strength of this relation between the participants. The correlations between the concepts for participants in the present study tend to stand for a greater influence of body-esteem on feelings about oneself in younger women and a stronger impact of body-self unity on the self-esteem of middle-aged women. Feelings of alienation from the body were strongly related to self-esteem of middle-aged women but had almost no relation to the self-esteem of younger women. But the question, whether a positive self-evaluation of healthy women depends to a greater extent on body-esteem or a
given unity between self and body cannot be answered by evidence of these results and the causal connection should consequently be examined more explicitly in further research.

Finally, there are some methodological limitations in the above study. The present study, as well as all the other studies reviewed which examined differences in age and influences of age on the examined psychological variables, were cross-sectional in design, which would have made results vulnerable to cohort-effects. The middle-aged women might have grown up with social beauty ideals different from those that girls and younger women experience today and they probably had to deal with other unity-threatening factors. With reference to the discussed complexity of variables that have an impact on body-self unity, feelings about oneself and the body and the mutual relations of these variables, the existence of influencing variables that lay beyond the detection of this study is verisimilar. Further research on the topic of ‘Body-Self Unity’ in healthy women would be necessary to allow a conclusion to be drawn about the complexity and interdependence of influencing variables.
5. References


## 6. Appendixes

### Appendix A

*Intercorrelations (Spearman’s rho) of the psychological variables ‘Body-Self Unity’ (BEQ), ‘Body-Esteem’ (BE) and ‘Self-Esteem’ (SE) and their partly underlying components (Alienation, Harmony, BE-Appearance, BE-Attribution, BE-Weight) in younger women*

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>H</th>
<th>SE</th>
<th>BEt</th>
<th>BEw</th>
<th>Beapp</th>
<th>BEattr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body-Self Unity</td>
<td>-.81**</td>
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<td>.28*</td>
<td>.46**</td>
<td>.52**</td>
<td>.25*</td>
<td>.25*</td>
</tr>
<tr>
<td>Alienation (A)</td>
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<td>-.37**</td>
<td>-.46**</td>
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<td>-.09</td>
</tr>
<tr>
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<td>.35**</td>
<td>.34*</td>
<td>.19</td>
<td>.30*</td>
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<td>.30*</td>
<td>.69**</td>
<td>.50**</td>
</tr>
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<td>.84**</td>
<td>.85**</td>
<td>.65**</td>
</tr>
<tr>
<td>BE-Weight (BEw)</td>
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<td>-</td>
<td>-</td>
<td>.53**</td>
<td>.31*</td>
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<tr>
<td>BE-Appearance (BEapp)</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>.67**</td>
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</table>

N= 47  
* p < .05 (two-tailed)  
** p < .01 (two-tailed)

### Appendix B

*Intercorrelations (Spearman’s rho) of the psychological variables ‘Body-Self Unity’ (BEQ), ‘Body-Esteem’ (BE) and ‘Self-Esteem’ (SE) and their partly underlying components (Alienation, Harmony, BE-Appearance, BE-Attribution, BE-Weight) in middle-aged women*

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>H</th>
<th>SE</th>
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<th>BEw</th>
<th>Beapp</th>
<th>BEattr</th>
</tr>
</thead>
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<tr>
<td>Body-Self Unity</td>
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<td>.55**</td>
<td>.64**</td>
<td>.52**</td>
<td>.69**</td>
<td>.41**</td>
</tr>
<tr>
<td>Alienation (A)</td>
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<td>-.39**</td>
<td>-.49**</td>
<td>-.53**</td>
<td>-.43**</td>
<td>-.58**</td>
<td>-.31*</td>
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<td>-</td>
<td>-</td>
<td>.35**</td>
<td>.52**</td>
<td>.42**</td>
<td>.55**</td>
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<td>.43**</td>
<td>.32*</td>
<td>.54**</td>
<td>.29*</td>
</tr>
<tr>
<td>Body-Esteem (BE)</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>.93**</td>
<td>.86**</td>
<td>.60**</td>
</tr>
<tr>
<td>BE-Weight (BEw)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.70**</td>
<td>.40**</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.42**</td>
</tr>
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</table>

N= 49  
* p < .05 (two-tailed)  
** p < .01 (two-tailed)
Appendix C
Correlations (Spearman’s rho) between the psychological variables and age and BMI of the two samples apart

<table>
<thead>
<tr>
<th>Measure</th>
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<th>BMI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Young</td>
<td>Middle-aged</td>
</tr>
<tr>
<td>Body-Self unity</td>
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<td>Alienation</td>
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</tr>
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<td>Harmony</td>
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<tr>
<td>Body-Esteem</td>
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<td>.06</td>
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<td>BE-Appearance</td>
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<td>BE-Attribution</td>
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<td>.10</td>
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<tr>
<td>Self-Esteem</td>
<td>-.14</td>
<td>.09</td>
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</table>

N= 96
** p< .01 (two-tailed)
* p< .05 (two-tailed)

Appendix D
Comparison between mean-scores of younger and middle-aged women on Alienation, Harmony, BE-Appearance, BE-Attribution and BE-Weight

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>df</th>
<th>t/ (Z)</th>
<th>p (2-tailed)</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>young</td>
<td>middle-aged</td>
<td>young</td>
<td>middle-aged</td>
<td></td>
</tr>
<tr>
<td>Alienation</td>
<td>8.64</td>
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<td>2.04</td>
<td>3.00</td>
<td>- (-.69)</td>
</tr>
<tr>
<td>Harmony</td>
<td>12.98</td>
<td>13.29</td>
<td>1.47</td>
<td>1.55</td>
<td>- (-.75)</td>
</tr>
<tr>
<td>BEapp</td>
<td>25.98</td>
<td>28.02</td>
<td>5.04</td>
<td>6.22</td>
<td>94 -1.76</td>
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<tr>
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<td>11.98</td>
<td>11.06</td>
<td>3.08</td>
<td>3.01</td>
<td>94 1.48</td>
</tr>
<tr>
<td>BEweight</td>
<td>16.17</td>
<td>20.02</td>
<td>7.69</td>
<td>7.78</td>
<td>94 -2.44</td>
</tr>
</tbody>
</table>

N = 96

A comparative study of body-self unity in young and middle-aged healthy women
## Appendix E
Comparison of means scores (t-test) between the healthy sample of the present study and a diseased sample on ‘Alienation’ and ‘Harmony’

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean healthy(^1)</th>
<th>Mean diseased(^2)</th>
<th>Standard deviation healthy</th>
<th>Standard deviation diseased</th>
<th>df</th>
<th>t-value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alienation</td>
<td>8.72</td>
<td>12.53</td>
<td>2.57</td>
<td>4.71</td>
<td>260</td>
<td>7.32</td>
<td>&lt; 0.0001</td>
</tr>
<tr>
<td>Harmony</td>
<td>13.41</td>
<td>12.92</td>
<td>1.51</td>
<td>2.43</td>
<td>260</td>
<td>-0.80</td>
<td>0.4235</td>
</tr>
</tbody>
</table>

\(^1\) N= 96

\(^2\) N= 164-166 (Van der Heij, 2007)
Appendix F

The questionnaire and the form letter

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48249 Dülmen

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Guten Tag,

mein Name ist Jana Pfitzenreuter und ich bin Psychologie-Studentin an der Universität Twente in Enschede, Niederlande.


Im Rahmen dieser Untersuchung werden drei kurze Fragebögen abgenommen: Der erste Fragebogen misst Körpererleben, der zweite ermittelt ein allgemeines Selbstbild und der dritte Fragebogen beinhaltet Fragen über die eigene Körperwertschätzung. Hinzu kommen einzelne Angaben über demografische Daten und den aktuellen Gesundheitszustand.

Da die Beantwortung der Fragen für den Erfolg meiner Studie von großer Bedeutung ist, wäre ich Ihnen sehr dankbar, wenn Sie sich etwas Zeit zum Ausfüllen der Bögen nehmen würden. Die Seiten sind beidseitig bedruckt, d.h. beim Ausfüllen bitte die Rückseite beachten. Die Beantwortung dauert ungefähr 5-10 Minuten. Im Anschluss folgt eine kurze Anleitung.

Alle erhobenen Daten werden selbstverständlich vertraulich behandelt und es wird kein Rückschluss auf die einzelne Person möglich sein, da die Daten auf Gruppenniveau ausgewertet werden.

Ich wäre Ihnen verbunden, wenn sie die ausgefüllten Fragebögen in dem frankierten und adressierten Briefumschlag bis spätestens zum 22. April 2009 zurückschicken würden.

Vielen Dank im Voraus,

mit freundlichen Grüßen

Rückseite beachten!
Bitte füllen Sie die folgenden Daten aus/ kreuzen Sie die zutreffenden Kästchen an!

**Alter:** ____ Jahre

**Staatsbürgerschaft:** ________________________________

**Familienstand:**
- O ledig
- O verheiratet oder mit Partner
- O geschieden/getrennt
- O verwitwet

**Höchste abgeschlossene Schulbildung:**
- O Keine Ausbildung
- O Sonderschulenunterricht
- O elementarer Berufsbildender Unterricht
- O Hauptschule
- O Realschule
- O Gymnasium (mit Abitur)
- O Fachoberschulwesen
- O Fachhochschule
- O Universitätsausbildung

**Wie beschreiben Sie Ihren derzeitigen Gesundheitszustand?**
- O ausgezeichnet
- O sehr gut
- O Gut
- O Weniger gut
- O Schlecht

**Sind Sie derzeit in ärztlicher oder therapeutischer Behandlung aufgrund einer Krankheit?**
- O Nein
- O Ja, wegen ________________________________
Fragebogen 1)


Inwiefern stimmen Sie mit den Fragen überein?
1 = stimme überhaupt nicht zu
2 = stimme eher nicht zu
3 = stimme eher zu
4 = stimme ganz entschieden zu

Beispiel:
Mein Körper fühlt sich vertraut an.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>X</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Ich stimme überhaupt nicht zu</th>
<th>Ich stimme eher nicht zu</th>
<th>Ich stimme eher zu</th>
<th>Ich stimme ganz entsch. zu</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Ich denke darüber nach was gut für meinen Körper ist. o o o o
2. Mein Körper fällt mir zu Last. o o o o
3. Es fühlt sich so an, als ob mein Körper nicht zu mir gehört. o o o o
4. Ich fühle mich nicht ganz. o o o o
5. Mein Körper lässt mich wissen was gut für mich ist. o o o o
6. Mein Körper ist unberechenbar. o o o o
7. Ich fühle mich durch meinen Körper verraten. o o o o
8. Ich würde gerne einen anderen Körper haben. o o o o
9. Ich spüre meinen Körper gut. o o o o
10. Mein Körper fühlt sich vertraut an. o o o o

Rückseite beachten!

A comparative study of body-self unity in young and middle-aged healthy women
Es folgen nun zehn Fragen über Ihr Selbstbild. Auch hier geben Sie durch das Ankreuzen der am zutreffendsten Aussage an, inwiefern Sie mit der Frage übereinstimmen. Antworten Sie ohne lange nachzudenken und kreuzen Sie die Antwort an, die Ihnen als erstes in den Kopf kommt. Es gibt keine falschen und keine richtigen Antworten - es wird nach Ihrem persönlichen Empfinden gefragt.

**Inwiefern stimmen Sie mit den Fragen überein?**
1= Ich überhaupt nicht zu
2= Ich stimme eher nicht zu
3= Ich stimme eher zu
4= Ich stimme ganz entschieden zu

<table>
<thead>
<tr>
<th>Frage</th>
<th>Antwort 1</th>
<th>Antwort 2</th>
<th>Antwort 3</th>
<th>Antwort 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Im Großen und Ganzen bin ich zufrieden mit mir selbst.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>2. Manchmal denke ich, dass ich für überhaupt nichts gut bin.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>3. Ich glaube, ich habe eine Menge guter Eigenschaften.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>4. Ich kann Dinge genau so gut machen, wie die meisten anderen Leute auch.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>5. Ich glaube, es gibt nicht viel, worauf ich stolz sein kann.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>6. Sicherlich fühle ich mich auch mal nutzlos.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>7. Ich glaube, dass ich eine geschätzte Person bin, mindestens auf demselben Niveau wie die anderen.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>8. Ich wünschte, ich hätte mehr Achtung vor mir selbst.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>9. Alles in allem neige ich zu dem Gefühl, dass ich ein Versager bin.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>10. Ich habe eine positive Einstellung zu mir selbst.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>
Fragebogen 3)


**Wie häufig stimmen Sie mit den folgenden Aussagen überein?**
0= niemals  
1= selten  
2= manchmal  
3= häufig  
4= immer

<table>
<thead>
<tr>
<th>Beispiel:</th>
<th>niemals</th>
<th>selten</th>
<th>manchmal</th>
<th>häufig</th>
<th>immer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ich denke, ich habe einen guten Körper.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>

1. Ich mag es wie ich auf Fotos aussehe.  
3. Ich bin stolz auf meinen Körper.  
4. Ich bin sehr damit beschäftigt, mein Körpergewicht zu verändern.  
5. Ich denke, dass mein Aussehen mir helfen würde einen Job zu bekommen.  
6. Ich mag was ich sehe, wenn ich in den Spiegel schaue.  
7. Es gibt viele Dinge die ich an meinem Aussehen ändern würde, wenn ich könnte.  
8. Ich bin zufrieden mit meinem Gewicht. 

*Rückseite beachten!
A comparative study of body-self unity in young and middle-aged healthy women

<table>
<thead>
<tr>
<th>Nummer</th>
<th>Frage</th>
<th>selten</th>
<th>manchmal</th>
<th>häufig</th>
<th>immer</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>Ich wünschte, ich würde besser aussehen.</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10.</td>
<td>Ich finde mein Gewicht genau richtig.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>11.</td>
<td>Ich wünschte, ich würde aussehen wie jemand anders.</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12.</td>
<td>Personen in meinem eigenen Alter mögen mein Aussehen.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>13.</td>
<td>Mein Aussehen macht mich traurig.</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14.</td>
<td>Ich sehe so gut aus wie die meisten Menschen.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>15.</td>
<td>Ich bin ziemlich glücklich über mein Aussehen.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>16.</td>
<td>Ich fühle, dass ich genau das richtige Gewicht habe für meine Größe.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>17.</td>
<td>Ich schäme mich dafür wie ich aussehe.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>18.</td>
<td>Mich auf die Waage zu stellen deprimiert mich.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>19.</td>
<td>Mein Gewicht macht mich unglücklich.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>20.</td>
<td>Mein Aussehen hilft mir Verabredungen zu bekommen.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>21.</td>
<td>Ich mache mir Sorgen über mein Aussehen.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>22.</td>
<td>Ich denke, ich habe einen guten Körper.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>23.</td>
<td>Ich sehe so gut aus wie ich gerne aussehen würde.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Zum Schluss bitte ich Sie noch um Angabe von Ihrem Gewicht und Ihrer Größe zur Berechnung des Body-Mass-Index (BMI)!

Gewicht: ______  Größe: ______  Vielen lieben Dank!

Auf der Rückseite ist Platz für Anmerkungen!