Chapter 4:

The Satisfaction with Relationship Status in Single and Partnered People:
The Role of Sexual Satisfaction, Body Image, and Self-Esteem

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*To talk about adults without talking about their sex drive is like talking about a window without glass.*

(Grace Metalious)
Abstract

This study was set out to examine factors that potentially contribute to the difference in satisfaction with relationship status between partnered and single people. We propose a trajectory of factors potentially influencing status satisfaction, where body image and self-esteem influence sexual satisfaction, which in turn is related to status satisfaction. All concepts were measured in a sample of 731 sexually experienced individuals. Partnered people reported considerably higher levels of sexual and status satisfaction, while self-esteem and body image were rather similar to single people. Structural equation modelling was used to test to what extent people’s self-perception was related to their sexual and status satisfaction, controlling for sexual frequency. The proposed model was found overall similar for partnered and single people, confirming that people’s self-perception is related to their sexual and status satisfaction. Our findings showed that a lower status satisfaction in singles, compared to partnered people, is associated with lower sexual satisfaction and lower sexual frequency. We also found sexual and status satisfaction more strongly associated in partnered people, supporting the notion that sex is a basic component of committed relationships and hence the satisfaction with it. In addition, we identified self-esteem to be only of significance for singles’ status satisfaction, implying that more confident people are also more likely to be happier singles. Future studies may investigate these aspects in both partnered and single people in a longitudinal design, taking changes in relationship status into account.

Keywords: sexual satisfaction, relationship status satisfaction, singlehood, self-esteem, body image
Introduction

We recently introduced and investigated people’s satisfaction with their relationship status (i.e. being single or partnered) enabling comparisons between both groups [1]. We found partnered people to be considerably more satisfied with having a partner than singles were with being single. While this was the case on a group level, relationship status satisfaction varied greatly within both groups. Therefore, the next important question is: What makes people more satisfied with either being in a relationship or being single?

The first important aspect, we propose, is sexuality. Partnered people are sexually more active [2, 3] and sexually more satisfied than singles [4-8]. Overall, partnered people may have to invest less in order to have sex (although not guaranteed), while single people need to put more effort into finding a sex partner. Single people may also experience less intimacy with their sexual partners, which could partly explain their lower sexual satisfaction. However, please note that previous studies often used the term ‘single’ to refer to the legal status rather than being partnered or not. Thus, single people in these studies are not married, but could be in a committed relationship. The sexual satisfaction of single people as defined in this paper, that is, as those who are unpartnered (i.e. not in a committed relationship) has not been investigated much. This is puzzling given this ever-growing group of single people due to rising divorce rates, less committed forms of relationships [9-12], and with this a change in lived sexuality that is less closely tied to committed relationships and marriage [12]. We propose that differences in sexual satisfaction lead to differences in status satisfaction between partnered and single people. This is supported by studies in partnered people that demonstrated the close connection of sexual satisfaction with relationship/ marital satisfaction [13-16]. We suggest that the same pattern holds for status satisfaction in both partnered and single people, but we will explore whether the magnitude of this association differs.

The second important aspect, we propose, is how people look at themselves. We will focus on two self-perceptional factors here: self-esteem and body image. Self-esteem is the general attitude of people toward themselves [17], while body image is more narrowly focused on people’s perceptions and feelings toward their own bodies [18]. Accordingly, both concepts are positively related [19-21], and a more positive body image and higher self-esteem were found to be related to higher sexual satisfaction [22-26]. In addition, both
self-perceptual factors were found positively related to marital satisfaction [27-31]. Therefore, we hypothesize that body image and self-esteem of both partnered and single people are related to status satisfaction via sexual satisfaction. Yet again, the strength of associations may differ between partnered and single people, which will be explored here.

In short, the purpose of this study was to examine factors potentially contributing to differences in relationship status satisfaction. Thereby, we focused on factors that could be relevant for both single and partnered people’s satisfaction with their respective relationship status. Based on previous research in couples, we hypothesized that sexual and status satisfaction are closely and positively related; and it was evaluated whether people’s self-perception (i.e. self-esteem and body image) is associated with their status satisfaction, either directly or indirectly through sexual satisfaction. More specifically, we hypothesized that body image is directly associated with sexual satisfaction (and indirectly with status satisfaction via sexual satisfaction), given the physical component of sexual encounters. Self-esteem, on the other hand, as a more general attitude, could be a relevant direct predictor for both sexual or status satisfaction, which was tested in two alternative models. The more suitable model was simultaneously tested in partnered versus single people, to verify whether the same pattern of associations is valid in both groups, while the strength of associations may differ.

**Method**

**Participants and procedure**

Data were collected online by advertising a link to our survey on the homepage of a Dutch national radio station in December and January 2011/2012 and a part these data was published previously [1]. People who followed the link were introduced to our study. It was explained that the survey consisted of three parts and the entirely anonymous and voluntary character of their participation was stressed. Data presented here belonged to the part ‘relationships, singles, and sexuality’ which was completed by 841 participants. The online questionnaire was programmed in such way that participants could only proceed if they answered every item. We included people who reported being (or ever having been) sexually active, resulting in a sample of 736 people. In addition, we excluded five participants due to technical errors resulting in blank answers ($n=4$) and obvious fake answers by always choosing the most extreme category ($n=1$). This resulted in a final sample
of 731 people with prior sexual experiences aged 16 - 67 years ($M=38.6; SD=12.6$) with an almost equal number of men and women ($n=350$ and 381, respectively). The majority of this sample was in a relationship or married (63.2%), had followed a secondary vocational (38.6%) or higher education (22.2%), and was currently employed (71.1%).

**Measures**

**Status satisfaction.** The Satisfaction with Relationship Status Scale [1] has been developed to assess the relationship status satisfaction of both partnered and single individuals. Five items measure people’s general satisfaction and happiness with their current relationship status (e.g., *In general, how satisfied are you with your current status?*). These items are answered on a 4-point scale from *not at all* (0) - to a great extent (3) and higher scores indicate a greater status satisfaction. Guttman’s lambda ($\lambda_2$), a more accurate measure of reliability than Cronbach’s alpha [32], was found to be .93 in this sample.

**Sexual satisfaction.** The sexual satisfaction subscale of the Multidimensional Sexual Self-Concept Questionnaire [33] encompasses five items asking participants about the general satisfaction with their sex life (e.g., *The sexual aspects of my life are personally gratifying to me*). We could not identify a Dutch version of the MSSCQ and had the items translated back and forth by two independent Dutch and English native speakers affiliated to a commercial translation agency. Discrepancies were checked and resolved by the first and second author. People were asked to rate each item on a 5-point scale ranging from *not at all characteristic of me* (0) to *very characteristic of me* (4). Scores were summed up and higher scores indicate greater sexual satisfaction. Reliability analyses showed very good results with Guttman’s $\lambda_2=.92$.

**Self-esteem.** The 10-item Rosenberg Self Esteem Scale (RSE) is a widely used instrument to measure global self-esteem [34, 35]. It has been used worldwide in various samples and showed excellent psychometric properties regarding reliability and validity [36, 37]. Participants indicated their level of agreement on a 5-point Likert scale ranging from *strongly agree* (5) to *strongly disagree* (1) with higher scores indicating higher self-esteem. Reliability was very good in this sample with $\lambda_2=.89$.

**Body image.** To measure body image, we adapted the Body Image Scale (BIS) developed by Hopwood [38]. It was designed to measure alterations in body image after cancer diagnosis and treatment. However, we generalized the formulation of nine of the 10
items to make them suitable for the general population and refer to this scale as the modified Body Image Scale (mBIS). Items were reformulated in such a way that they generally asked about feelings and perceptions of a person’s body without relating it to cancer (e.g., *Do you find it difficult to look at yourself naked?*). Note that the item asking about feelings toward a scar was omitted, since it is not generally applicable. We kept the original answering format ranging from *not at all* (0) to *very much* (3). Items were recoded in such a way that higher scores indicate a more positive body image. Reliability analyses showed very good results with Guttman’s $\lambda_2 = .84$.

**Sexual frequency.** People were asked to indicate their level of sexual frequency within the past six months as *not at all, less than once a month, once a month, once a week,* or *several times a week/daily.*

**Statistical analyses**

First, descriptive statistics, correlations, and group differences between partnered and single people are presented. Second, structural equation modeling (SEM) was applied working with latent variable models in Mplus [39]. Analyses were based on a polychoric correlation matrix using weighted least squares estimation (WLS) in order to account for the fact that the indicators were based on dichotomous, ordinal, and continuous items. We tested two models, first whether body image and self-esteem have an indirect effect on status satisfaction via sexual satisfaction, controlling for sexual frequency and relationship status. In the second model, we altered the path of self-esteem directly predicting status satisfaction. Ultimately, the more suitable model was tested simultaneously in partnered and single people, and differences in the strengths of the paths were tested using the Wald test. Models were evaluated according to statistical ($\chi^2$) and descriptive fit indices (RMSEA and CFI, see Table 3). Values of the Root Mean Square Error of Approximation (RMSEA) below .08 and below .05 indicate reasonable and close fit respectively [40] while the Comparative Fit Index (CFI) should be close to .95 [41].

**Results**

**Preliminary results**

Descriptive statistics of all included variables are displayed in Table 1. Partnered people reported significant higher scores on all variables (all $p < .02$), although differences
Sexual and Status Satisfaction were large only for sexual and status satisfaction ($d=.93$ and 1.43 respectively) and negligible for self-esteem and body image (see Table 1). The distribution of sexual frequency differed to a considerable extent between both groups, with partnered people being sexually more active (see Table 1). Correlations among all concepts were positive (see Table 2).

Table 1: Descriptive statistics for the whole sample and stratified by relationship status

<table>
<thead>
<tr>
<th></th>
<th>whole sample</th>
<th>partnered</th>
<th>single</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n= 731)</td>
<td>(n= 462)</td>
<td>(n= 269)</td>
</tr>
<tr>
<td></td>
<td>mean (SD); range</td>
<td>d^*</td>
<td></td>
</tr>
<tr>
<td>status satisfaction</td>
<td>10.6 (3.9); 0-15</td>
<td>12.2 (3.1); 0-15</td>
<td>7.6 (3.4); 0-15</td>
</tr>
<tr>
<td>sexual satisfaction</td>
<td>10.9 (5.2); 0-20</td>
<td>12.6 (4.7); 0-20</td>
<td>8.2 (4.8); 0-20</td>
</tr>
<tr>
<td>self-esteem</td>
<td>31.9 (5.2); 12-40</td>
<td>32.2 (5.0); 12-40</td>
<td>31.3 (5.4); 14-40</td>
</tr>
<tr>
<td>body image</td>
<td>17.8 (4.3); 2-27</td>
<td>18.1 (4.2); 2-27</td>
<td>17.3 (4.3); 2-27</td>
</tr>
</tbody>
</table>

|                      | n, %                 | mean (SD)**          | n, %                 | mean (SD)**          | Δ*         |
|                      |                      |                      |                      |                      |            |
| sexual frequency‡    |                      |                      |                      |                      |            |
| not at all           | 234, 32.0%           | 119, 25.8%           | 12.0 (5.0)           | 115, 42.7%           | 6.5 (4.9)  | .39        |
| < once a month       | 104, 14.2%           | 38, 8.2%             | 7.7 (5.1)            | 66, 24.5%            | 7.1 (3.7)  |
| once a month         | 115, 15.7%           | 65, 14.1%            | 10.4 (4.0)           | 50, 18.6%            | 10.1 (3.8) |
| once a week          | 139, 19.0%           | 116, 25.1%           | 12.8 (3.4)           | 23, 8.6%             | 11.3 (3.6) |
| > once a week        | 139, 19.0%           | 124, 26.8%           | 15.7 (3.3)           | 15, 5.6%             | 13.9 (4.2) |

* Cohen’s d effect sizes ($d>.8$ indicate strong effect); ‡ sexual frequency in the past six months; ** descriptives for sexual satisfaction; * Cliff’s delta, an effect size for categorical data; a Cliff’s Δ of .44 is comparable to d=.8 [42]

Table 2: Pearson’s r and Spearman’s rho correlation between all constructs in this study

<table>
<thead>
<tr>
<th>(1) status satisfaction</th>
<th>(2) sexual satisfaction</th>
<th>(3) self-esteem</th>
<th>(4) body image</th>
<th>(5) sexual frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>r</td>
<td>.566</td>
<td>.264</td>
<td>.188</td>
<td>.318</td>
</tr>
<tr>
<td>(2) sexual satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>r</td>
<td></td>
<td>.263</td>
<td>.303</td>
<td>.438</td>
</tr>
<tr>
<td>(3) self-esteem</td>
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<tr>
<td>r</td>
<td></td>
<td></td>
<td>.579</td>
<td>.132</td>
</tr>
<tr>
<td>(4) body image</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) sexual frequency</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rho</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Note that we also tested gender and age differences: Men reported significantly higher scores on self-esteem and body image than women, but these differences were negligible because they concerned less than half a standard deviation (both $ds<.3$). Age was positively, but only weakly, related to self-esteem ($r=.23$, $p<.001$) and no other variables. Hence, gender and age were not included in further analyses.
Chapter 4

Model testing

**Model A.** Testing whether body image and self-esteem directly predicted sexual satisfaction which, in turn, predicted relationship status satisfaction (controlling for sexual frequency and relationship status) yielded very good results in terms of RMSEA = .047 and CFI = .969 (see also Table 3). However, the path from body image to sexual satisfaction just failed to reach statistical significance \((p=.068)\), probably due to its moderate correlation with self-esteem (.641). This finding suggested an indirect effect of body image on sexual satisfaction mediated by self-esteem, which was confirmed in a simple mediation analysis (data not shown).

**Model B.** In order to disentangle the impact of body image and self-esteem on the two types of satisfaction, we tested a second model: body image predicted sexual satisfaction and self-esteem predicted status satisfaction, while both self-perceptual factors were still correlated (and controlling for sexual frequency and relationship status). The model fit indices were very good and all specified paths were significantly positive, indicating a higher level of the predictive variables (self-esteem and body image) to be associated with higher levels of the respective type of satisfaction (see Table 3 and Figure 1). Most importantly, sexual satisfaction was a strong predictor for status satisfaction, and the indirect effect of body image on status satisfaction (via sexual satisfaction) was also demonstrated.

![Figure 1: Model B with standardized path coefficients in the whole sample \((n=731)\); variance explained in sexual satisfaction: 43.9%; variance explained in status satisfaction: 52.7%; * reference category: not at all; + binary variable (single vs. partnered, reference category: partnered)]
Sexual and Status Satisfaction

Note that the control variables showed the expected effects: being single was associated with lower sexual and status satisfaction, while a higher sexual frequency predicted higher sexual satisfaction. However, also note that a low sexual frequency (i.e. less than once a month) was associated with lower sexual satisfaction compared with having had no sex in the previous six months (see also Figure 1).

Table 3: Model fit indices

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>p</th>
<th>RMSEA [95%CF]</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model A</td>
<td>1352.34</td>
<td>512</td>
<td>&lt;.0001</td>
<td>.047 [.044; .050]</td>
<td>.969</td>
</tr>
<tr>
<td>Model B</td>
<td>1405.27</td>
<td>512</td>
<td>&lt;.0001</td>
<td>.049 [.046; .052]</td>
<td>.967</td>
</tr>
</tbody>
</table>

simultaneous multigroup analysis (Model B): partnered vs. single

1960.55 1053 <.0001 .049 [.045; .052] .965

RMSEA: Root Mean Square Error of Approximation; 95% CF: confidence interval; CFI: Comparative Fit Index

**Model B in partnered and single people.** In order to confirm that the above associations were valid for both partnered and single people, while the strengths of associations may differ, we tested model B simultaneously in both groups (see Table 3 and Figure 2). Overall, similarities were revealed. A higher sexual frequency and more positive body image predicted higher sexual satisfaction in both groups. This, in turn, was related to higher status satisfaction. Hence, the fact that singles reported considerably lower levels of sexual frequency and sexual satisfaction presumably led them to also report lower levels of status satisfaction. In addition, the path from sexual to status satisfaction was significantly stronger in partnered than single people (.379 / .279, $W(1)=8.547; p=.003$; see also Figure 2). Please also note that the observed opposite effect for low sexual frequency predicting lower sexual satisfaction (as compared with having had no sex) was valid in partnered, but not single people (see Figure 2). Apparently, partnered people who reported having had no sex were sexually more satisfied than partnered people with a very low sexual frequency (see also Table 1). Finally, in singles but not partnered people, a higher self-esteem predicted higher status satisfaction.
Figure 2:
Model B in single and partnered people; standardized path coefficients are presented in the order single / partnered; variance explained in sexual satisfaction: 35.1% / 35.0%; variance explained in status satisfaction: 37.8% / 28.1%; *reference category: not at all (overall sexual frequency predicted sexual satisfaction differently in partnered people (W(4)=29.10, p<.0001)); ** paths differed significantly between the two groups (p<.05) using the Wald test

and single people (W(4)=29.10, p<.0001)); ** paths differed significantly between the two groups (p<.05) using the Wald test

Discussion

This study showed that body image, self-esteem, and sexual satisfaction explain people’s satisfaction with their relationship status, i.e. being single or being in a relationship. We used structural equation modelling in a large population-based sample to demonstrate similar patterns of associations in both groups, but found partnered people to be considerably more satisfied with their sex lives and relationship status. Sexual aspects might be an underlying explanation for this finding, since singles reported considerably lower sexual frequencies potentially leading them ‘to function’ on a lower level of sexual and status satisfaction on average. In general, the identified positive associations among all concepts are in line with indications from previous research. However, this is the first study to test the relevance in partnered and single people simultaneously, with the help of our previously introduced concept of status satisfaction.

As proposed, sexuality played an important role for status satisfaction. One may assume that sexual contacts and intimacy are a basic need for any person and as soon as they are fulfilled, people are also happier with their respective status. In line with this, sexual frequency turned out as crucial for sexual satisfaction. Singles who have sex more often are sexually more satisfied, while this was of less influence in partnered people. On
the contrary, in partnered people a low sexual frequency (i.e. less than once a month) was associated with lower sexual satisfaction than having had no sex at all in the past six months. Hence, it seems worse for partnered people’s sexual satisfaction to have sex very infrequently than not having sex at all. This could mean that if partnered people’s expectation of sexual frequency may not be met, they are less satisfied, while singles are happier, the more sex they get.

However, we found the association between sexual and status satisfaction to be stronger in partnered people. One function of having a committed relationship is having sexual, but also emotional intimacy. Therefore, having a partner and enjoying sexual encounters with this person may be more important for partnered people’s status satisfaction. At the same time, sexual problems might be more negatively affecting partnered people’s satisfaction with their status than such problems would affect singles’ status satisfaction. On the other hand, for singles, other factors might weigh more in their satisfaction with their relationship status, such as for example, independence [11].

The role of self-perception, our second hypothesized important factor, was also examined in our two alternative latent models. Self-esteem was important in both models, i.e. being positively related to sexual satisfaction (model A) as well as status satisfaction (model B). However, in model A it suppressed the effect of body image as it appeared to be a mediator between body image and sexual satisfaction. Meaning that a part of the positive association between how people feel about their body and their sex life is determined by their self-esteem. This finding was not surprising, given the close relationship between how people feel about themselves and how they feel about their bodies [19-21]. More importantly, in model B we demonstrated the direct effect of self-esteem on status satisfaction, and the indirect effect of body image on status satisfaction via sexual satisfaction. These associations were valid in both partnered and single people, with one exception: self-esteem was related to status satisfaction in singles only. Self-esteem might be a more important factor for singles’ status satisfaction, since standing ‘strong’ or relying on yourself is of more importance in singlehood than partnerships. Presumably, those singles who are confident enough (or choose) to be alone are also more satisfied and happier singles, while those who are less confident are also less comfortable with singlehood. Besides, partnered people may think more in terms of ‘we’ [43, 44] and
therefore an individual factor, such as self-esteem, could be of less importance for their status satisfaction. Body image, on the other hand, was significant in both groups, underlining the physical component of sexuality and how feelings about the body are related to sexuality [24-26] and in turn to status satisfaction.

While this is the first study examining self-perception, sexual and status satisfaction in both partnered and single people, some limitations need to be addressed. First, our data was collected online resulting in a self-selected sample, which might be seen as less credible. However, we carefully examined the data for illogical cases and excluded such from the analyses. In addition, online sampling enabled the collection of a large amount of data on a sensitive issue such as sexuality, which would presumably have been much more difficult to obtain in a less anonymous setting (e.g., a face-to-face interview). Second, and owing to our cross-sectional study design, we cannot make inferences on the direction of associations, although conventional terminology used in structural equation modelling (e.g. predicting, direct effect on, etc.) may give that impression. Longitudinal studies may support our suggested direction of associations from self-perception, via sexual satisfaction to status satisfaction. Thereby, these studies could also take into account the potential effects of changes in relationship status, as previous research suggested different levels of well-being, for example, for first-time married versus second-time married people [8]. Similar aspects in singles might be found, since ever-singles may be differently satisfied than those with changing partners; and overall relationship history should be taken into account.

To conclude, our results indicate that people who look more positively at themselves (i.e. their sense of self and body) are also more satisfied with their sex lives and their relationship status. We identified sexual frequency and sexual satisfaction as crucial factors in differences between partnered and single people, presumably leading partnered people to function on a higher level of status satisfaction. In addition, a more individual factor, such as self-esteem, seems more essential for single’s status satisfaction.
References


Chapter 4


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