

Deakin Research Online

This is the published version:

Hucker, Alice, Mussap, Alexander J. and McCabe, Marita M. 2010, Self-concept clarity and women's sexual well-being, *Canadian journal of human sexuality*, vol. 19, no. 3, pp. 67-77.

Available from Deakin Research Online:

<http://hdl.handle.net/10536/DRO/DU:30031226>

Reproduced with the kind permissions of the copyright owner.

Copyright : 2010, Sex Information and Education Council of Canada

Self-concept clarity and women's sexual well-being.

Print

Author: Hucker, Alice; Mussap, Alexander J.; McCabe, Marita M.

Article Type: Report

Geographic Code: 1CANA

Date: Sep 22, 2010

Words: 5863

Publication: The Canadian Journal of Human Sexuality

ISSN: 1188-4517

Abstract: The purpose of this study was to examine the role of self-concept clarity, a core structural aspect of self-concept, in women's sexual well-being. A convenience sample of 261 women aged 18 years and over ($M=25.8$, $SD=7.9$) completed an online survey that measured self-concept clarity, three aspects of sexual well-being (sexual self-efficacy, sexual self-esteem and sexual satisfaction), and four structural dimensions of sexual identity (commitment, synthesis/integration, exploration, and orientation identity uncertainty). A series of multiple mediation analyses, followed by post-hoc bootstrap tests of the difference between mediation effects, revealed that self-concept clarity is indirectly related to the measures of sexual well-being, and that these relationships are mediated by the two "investment-related" dimensions of sexual identity: commitment and synthesis/integration. These results suggest that women with a more broadly and coherently integrated sexual identity are also better able to make healthy and positive choices in the sexual domain and experience more satisfaction with their sex lives. More generally, the results highlight the potential importance of including structural aspects of self-concept in explanations of women's sexual well-being.

Introduction

Positive or negative sexual experiences are considered to be important contributors to women's subjective well-being (McCabe & Cummins, 1998). In order to better understand such experiences, it is necessary to examine the psychosocial factors that can influence women's sexual behaviours and attitudes. Among these factors, the processes that develop and maintain self-concept warrant particular attention (e.g., Moin, Duvdevany, & Mazor, 2009).

Self-concept content and structure

"Self-concept" refers to one's beliefs about oneself, including one's attributes, actions, and values (Campbell et al., 1996; Kihlstrom & Cantor, 1984). A distinction may be made between the content of self-concept and its structure. The content of self-concept includes self-knowledge and how it is evaluated, while the structure refers to how self-knowledge is organized and integrated (Campbell et al., 1996).

Self-concept clarity has been identified as a structural dimension of self-concept and refers to the degree to which one's self-beliefs are coherently defined, internally consistent, and stable over time (Campbell, 1990). Research has identified positive associations between self-concept clarity and various aspects of life such as coping styles (Smith, Wethington, & Zhan, 1996), decision making (Setterlund & Neidenthal, 1993) and body image (Vartanian, 2009).

Sexual self-concept

The content of self-concept has previously been researched in the sexual domain, primarily in relation to self-evaluations such as self-esteem and self-efficacy, and has been shown to be relevant to women's sexual well-being (e.g., O'Sullivan, Meyer-Bahlburg, & McKeague, 2006; Seal, Minichiello, & Omodei, 1997). For example, greater self-efficacy in the sexual domain has been related to greater condom use (Kalichman et al.; 2002). The structural aspects of women's self-concept have received comparatively little empirical attention and have not been examined in the sexual domain. This is despite recommendations that the stability of self-concept be incorporated into investigations of women's sexual well-being (Breakwell & Millward, 1997). Therefore, the purpose of the present study was to assess the role of self-concept clarity in promoting positive sexual well-being in women and/or in serving as a protective factor against negative sexual experiences and attitudes.

Sexual self-concept and the structural dimensions of sexual identity

Self-beliefs are specific to particular domains of life (e.g., Hailikari, Nevgi, & Komulainen, 2008; Oztas, 2010). It follows that the structure and organization of these beliefs may also vary across domains. If this is the case, then explanations of the psychological pathways from self-concept clarity to sexual well-being should focus on structural aspects of self-concept that are proximal to the sexual domain. In the present study, we focussed on the structure and organization of "sexual identity."

Marcia's (1966) model of identity development has been particularly influential in the sexual identity literature (e.g., Archer & Grey, 2009; Worthington, Navarro, Savoy, & Hampton, 2008; Worthington, Savoy, Dillon, & Vernaglia, 2002). This model, as applied to the sexual domain, proposes that sexual identity is developed and organized by both the degree to which one invests in a certain sexual self-definition and the degree to which one explores alternative sexual self-definitions. According to this model, sexual identity is organized according to four underlying dimensions: (1) commitment to a particular sexual identity; (2) synthesis/integration of all sexual self-knowledge (e.g., sexual values and preferences); (3) exploration of alternative sexual identities; and (4) sexual orientation identity uncertainty--the degree of uncertainty regarding sexual orientation (see Worthington et al.'s, 2008, Measure of Sexual Identity Exploration and Commitment [MoSIEC]). The current study proposes that it is through these structural aspects of sexual identity that general self-concept clarity may exert its influence on women's sexual experiences and attitudes.

Sexual identity investment and crises

Collectively, sexual identity commitment and synthesis/integration constitute the degree of psychological "investment" into one's sexual identity (Marcia, 1966; Worthington et al., 2008). In the context of the identity development model, this investment takes the form of a more coherently-defined sexual identity, one that integrates sexual values, preferences and practices. We predict that greater investment in a sexual identity will generally have positive effects on women's sexual well-being by increasing the quality and resilience of sexual decision-making in the face of social pressures and partner expectations.

Taken together, exploration and sexual orientation identity uncertainty constitute one's level of sexual identity "crisis" (Marcia, 1966; Worthington et al., 2008). In the context of the identity development model, this crisis may take the form of uncertainty and confusion regarding Sexual preferences and sexual orientation. The pejorative "crisis" label reinforces the assumption that sexual identity exploration and confusion will impact negatively on sexual well-being. Although this may be true of most individuals, it should be noted that this "crisis" could be a positive and rewarding experience when the process of exploring one's sexual identity is accompanied by progressive and open-minded attitudes (Archer & Grey, 2009).

It should be noted, as Worthington et al. (2002) discuss, that most sexual identity literature focuses solely on sexual orientation and inappropriately uses the term sexual orientation interchangeably with sexual identity. Sexual identity refers to a much broader construct that includes sexual preferences, modes of sexual expression and sexual values and needs. It is the structure of sexual identity as a whole that is the focus of this study, not sexual orientation per se.

Positive sexual experiences and sexual well-being

In addition to a narrow focus on sexual orientation, sex research has focused primarily on risky/unhealthy sexual behaviour while neglecting the positive aspects of sexuality (Impett & Tolman, 2006). Therefore, in the present study, the implications of general self-concept clarity and sexual identity structure on women's sexual domain were examined in relation to three aspects of women's sexual well-being.

Sexual self-efficacy, reflecting a woman's confidence in her ability to make and implement healthy and generally positive sexual choices (Rotosky et al., 2008), was included in the study because of its relevance to safer-sex practices (Kalichman et al., 2002; Seal et al., 1997), sexual communication (Impett, Schooler, & Tolman, 2006) and sexual adjustment (Reissing, Laliberte, & Davis, 2005).

Sexual self-esteem, reflecting a woman's evaluation of her own worth as a sexual being (Buzwell & Rosenthal, 1996), was included because of its relevance to safer-sex practices, in particular condom use (Rotosky et al., 2008; Seal et al., 1997), positive intimate relationships and general life satisfaction (Mayers, Heller, & Heller, 2003).

Sexual satisfaction, reflecting a woman's tendency to evaluate the sexual aspects of their life as positive and rewarding, was included because of its relevance to successful romantic relationships, reduced sexual anxiety (Impett & Tolman, 2006), and general life satisfaction (Moin, Duvdevany & Mazor, 2009).

Aim and hypotheses

The aim & the present study was to measure women's general self-concept clarity, their investment in and crises regarding sexual identity, and their sexual well-being. The following hypotheses were tested:

Hypothesis 1: self-concept clarity will be positively associated with the three measures related to sexual well-being (sexual self-efficacy, sexual self-esteem, and sexual satisfaction).

Hypothesis 2: self-concept clarity will be positively related to the investment dimensions of sexual identity (commitment and synthesis/integration), and negatively related to the crisis dimensions of sexual identity (orientation uncertainty and exploration).

Hypothesis 3: relationships will exist between the four sexual identity dimensions and the three measures related to sexual well-being, with the investment dimensions expected to relate positively to these measures, and the crisis dimensions expected to relate negatively.

Hypothesis 4: the sexual identity dimensions will mediate the relationships between self-concept clarity and each of the three measures related to sexual well-being.

Hypothesis testing

To test these hypotheses, correlations were conducted between self-concept clarity, the dimensions of sexual identity, and the measures of sexual well-being. This was followed by a

series of multiple mediation analyses (after the method of Preacher & Hayes, 2008) in which the four sexual identity dimensions were tested, simultaneously and in parallel, as potential mediators of the relationships between the independent variable (self-concept clarity) and the three dependent variables (sexual self-efficacy, sexual self-esteem, and sexual satisfaction). Due to dearth of research in the area, we were limited to making predictions only about the direction of mediation effects, not their relative magnitude/importance, or the extent to which any mediation effects are shared between particular mediators.

Methods

Participants

Two hundred and sixty-one women participated in the study. They were aged between 18 and 67 years, with a mean age of 25.8 (SD = 7.9).

Procedures

The study was approved by the University Ethics Committee. Participants were recruited via advertisements for a study investigating self-beliefs and sexual experiences on web sites in a large metropolitan and regional university in Australia, university online discussion groups, online forums generally accessible to women (e.g., Facebook) and via e-mail snowball technique. Participation was voluntary and anonymous, with no reimbursement offered. Participants were asked to complete an online questionnaire with measures presented in the order in which they are described in the following section. After logging onto the questionnaire web site, participants read a plain language statement and gave informed consent by continuing to the questionnaire page. They then completed the questionnaire, with an expected completion time of less than twenty minutes. Participants were given contact details of the authors should they have any queries or concerns regarding the study.

Measures

Participants reported their age and both the number of and preferred gender of sexual partners: "Only men", "Mostly men", "Equally men and women", "Mostly women", "Only women". The measures employed in the questionnaire are described below.

The Self-Concept Clarity Scale (SCC Scale; Campbell et al., 1996): This 12-item scale measures the degree to which the contents of self-concept are coherently defined, stable over time and internally consistent. Participants respond to items on 5-point Likert scales (1 = "Strongly Disagree", 2 = "Somewhat Disagree", 3 = "Neither Agree nor Disagree", 4 = "Somewhat Agree", 5 = "Strongly Agree") with higher scores indicating greater self-concept clarity. The SCC Scale has been shown to possess adequate test-retest reliability, high internal consistency and adequate construct and criterion validity (Campbell et al., 1996).

The Measure of Sexual Identity Exploration and Commitment (MoSIEC, Worthington et al., 2008): This 22-item scale measures four sexual identity dimensions (commitment, synthesis/integration, exploration, and orientation identity uncertainty) associated with Marcia's (1966) sexual identity processes of investment and crisis. Participants respond to items on 6-point scales anchored between 1 ("Very Uncharacteristic of Me") and 6 ("Very Characteristic of Me"), with only number labels provided for the intermediate points on the scales. The four subscales of the MoSIEC (corresponding to the four sexual identity dimensions) have been shown to possess adequate test-retest reliability, internal consistency and construct validity (Worthington et al., 2008).

The Sexual Risk Behaviour Beliefs and Self-Efficacy scales (Basen-Engquist et al., 1996): These scales measure psychosocial variables related to sexual risk. Three of the 3-item

scales were used to measure sexual self-efficacy: self-efficacy in refusing sex, self-efficacy in communicating about condoms, and self-efficacy in using and buying Condoms. Participants respond to all items on 3-point Likert scales (1 = "Not sure", 2 = "Moderately sure", 3 = "Very sure") with higher scores indicating greater sexual self-efficacy. All three scales have been shown to possess adequate internal reliability, construct validity and concurrent validity (Basen-Engquist et al., 1999).

The Multidimensional Sexual Self-Concept Questionnaire (Snell, 1995): This scale measures 20 psychological aspects of sexuality: sexual-anxiety, sexual self-efficacy, sexual-consciousness, motivation to avoid risky sex, chance/luck sexual control, sexual-preoccupation, sexual-assertiveness, sexual-optimism, sexual problem self-blame, sexual-monitoring, sexual-motivation, sexual problem management, sexual-esteem, sexual-satisfaction, power-other sexual control, sexual self-schemata, fear-of-sex, sexual problem prevention, sexual-depression, internal-sexual-control. Only two of these 5-item subscales were used: sexual-esteem and sexual-satisfaction. In these subscales, participants respond to all items on 5-point Likert scales (1 = "Not at all characteristic of me", 3 = "Moderately characteristic of me", 5 = "Very characteristic of me") with higher scores indicating greater sexual self-esteem and greater sexual satisfaction. Both subscales have been found to possess adequate internal reliability and construct validity (Snell, 1995).

Results

Data screening and assumptions testing

Variables were created by averaging together internally consistent items (with item-total correlations $>.20$) from each scale. All variables possessed adequate internal consistency (Cronbach's $[\alpha]$ [greater than or equal to] 0.70; refer to Table 1) and less than 1% of each variable contained missing values across cases. Missing values were replaced with the variable mean. Variables were assessed for normality, linearity and both univariate and multivariate outliers. To improve normality, a logarithmic transformation was applied to orientation uncertainty, reducing its skew to 6.81 which was deemed acceptable in relation to sample size.

Descriptives

Descriptive statistics for each measure can be found in Table 1. In addition, it is worth noting that a total of 237 women (91%) in the sample reported experiencing at least one sexual relationship in their life and that 170 (65%) reported that they were currently in a relationship. In terms of their current and previous sexual partners--or preferred sexual partners in the case of the 24 (9%) women in the group who reported no sexual partners--218 (84%) responded "only men," 32 (12%) responded "mostly men," five (2%) responded "equally men and women", three (1%) responded "mostly women", and three (1%) responded "only women."

Correlations between measures of self-concept, sexual identity, and sexual well-being

It was hypothesized that self-concept clarity would be positively associated with the three measures related to sexual well-being, sexual self-efficacy, sexual self-esteem, and sexual satisfaction. The significant positive correlations between self-concept clarity and the measures of sexual well-being shown in Table 1 confirm this hypothesis. For example, it was hypothesized that self-concept clarity would be positively related to the investment dimensions of sexual identity. This hypothesis was confirmed by the positive correlations in Table 1 between self-concept clarity and the two investment dimensions of sexual identity, i.e., commitment and synthesis/integration. The hypothesis that self-concept clarity would be negatively related to the Crisis dimensions of sexual identity was similarly confirmed by the

negative correlation in Table 1 between self-concept clarity and orientation uncertainty, one of the two crisis dimensions of sexual identity. This hypothesis was not confirmed in relation to exploration, the second crisis dimension of sexual identity.

The pattern of correlations in Table 1 also confirms the hypothesis that the sexual identity dimensions would be correlated with the measures of sexual well-being. As predicted, the two investment identity dimensions correlated positively with these measures, and orientation uncertainty correlated negatively. Exploration was only correlated with two of the three well-being measures (sexual self-esteem and satisfaction) and these correlations were positive rather than negative.

Multiple mediation analyses

Mediation analyses are used to determine the extent to which a relationship between an independent variable and a dependent variable is indirect, that is, mediated via a third variable. Mediation analyses involve determination of the significance of the following paths: Path a--the path from the independent variable to the putative mediator; Path b--the path from the mediator to the dependent variable; Path c--the direct path from the independent variable to the dependent variable; and Path ab--the indirect path from the independent and dependent variables by way of the mediator variables. The statistical method used in the present study to evaluate indirect paths was the product of coefficients test. The Sobel version of this test was used. This test yields a z score corresponding to $ab/\sqrt{[b_{sup.2} * se_{sub.a.sup.2}] + [a_{sup.2} * se_{sub.b.sup.2}]}$, where the paths and their standard errors (se) refer to raw (unstandardized) coefficients. The reader is referred to MacKinnon, Lockwood, Hoffman, West, and Sheets (2002) for a detailed mathematical description and rationale.

In standard mediation analysis a single mediator is tested. However, in the present study, multiple mediation analyses were conducted in which four putative mediators were tested simultaneously and in parallel for each dependent variable in turn. This allowed us to determine if the mediators contributed together to yield a significant total indirect effect, and if they contributed individually to yield significant specific indirect effects. Self-concept clarity was the independent variable in each case; the four sexual identity dimensions--commitment, synthesis/ integration, exploration, orientation uncertainty--served as the mediators; and the three measures of sexual well-being--sexual self-efficacy, sexual self-esteem, and sexual satisfaction--were the dependent variables that were tested separately.

Post hoc inferential analyses were then conducted to compare the relative importance of each putative mediator, and thus disambiguate the results of significant multiple mediations. The analyses took the form of bootstrap tests (with 1000 samples) of the difference of the indirect effects. This is equivalent to conducting paired contrasts between each combination of indirect paths. The reader is referred to Preacher and Hayes (2008) for statistical details of this method.

Figures 1-3 show the multiple mediation models tested, including the total $[R_{sup.2}]$ and the direct standardized beta weights between the independent, mediator, and dependent variables. Readers may also contact the corresponding author for a more detailed description of these analyses that includes all component unstandardized beta weights, standard errors, and Sobel statistics.

[FIGURE 1 OMITTED]

Sexual self-efficacy

A total of 14% of the variance in sexual self-efficacy was explained by the model, $[R_{sup.2}] =$

.19, $F(5,255)=12.05$, $p<.01$ (see Figure 1). The direct path from self-concept clarity to sexual self-efficacy was significant, $z=3.93$, $p<.01$, as was the total indirect effect involving all the mediators, $z=2.97$, $p<.01$. However, the Sobel z values show that only the specific indirect effect involving synthesis was significant, $z=3.09$, $p<.01$. This was confirmed by post-hoc bootstrap analyses that showed that the synthesis-mediated path was significantly different from the others. This pattern of results provides partial support for the hypothesis that only the investment dimensions of sexual identity mediate the pathways from self-concept clarity to sexual self-efficacy. Inspection of the standardized beta weights in Figure 1 shows that self-concept clarity was associated with increased sexual identity synthesis which is, in turn, related to increased sexual self-efficacy.

Self-esteem

A total of 48% of the variance in sexual self-esteem was explained by the model, $[R.\text{sup}.2] = .48$, $F(5,255)=47.33$, $p<.01$ (see Figure 2). Although the direct path from self-concept clarity to sexual self-esteem was non-significant, $z=1.88$, $p>.05$, the total indirect path was significant, $z=5.43$, $p<.01$. Significant specific indirect paths involving both investment dimension components of sexual identity, commitment and synthesis, but neither of the crisis dimension components, were also significant, $z=4.36$ and 3.84 , $p<.01$, respectively. In terms of the magnitude of the indirect paths, commitment and synthesis were not significantly different from each other. This pattern of results supports the proposition that only the investment dimensions of sexual identity mediate the pathways from self-concept clarity to sexual self-esteem. Inspection of the standardized beta weights in Figure 2 shows that self-concept clarity was associated with increased sexual identity commitment and synthesis, which are in turn related to increased sexual self-esteem.

[FIGURE 2 OMITTED]

[FIGURE 3 OMITTED]

Sexual satisfaction

A total of 36% of the variance in sexual satisfaction was explained by the model, $[R.\text{sup}.2] = .36$, $F(5,255)=28.16$, $p<.01$ (see Figure 3). Although the direct path from self-concept clarity to sexual satisfaction was non-significant, $z=1.51$, $p>.05$, the total indirect path was significant, $z=5.62$, $p<.01$. Significant specific indirect paths involving both investment dimension components of sexual identity, commitment and synthesis, but neither of the crisis dimension components, were evident, $z=4.07$ and 3.52 , $p<.01$, respectively. In terms of the magnitude of the indirect paths, commitment and synthesis were not significantly different from each other. This pattern of results supports the proposition that only the investment dimensions of sexual identity mediate the pathways from self-concept clarity to sexual satisfaction.- Inspection of the standardized beta weights in Figure 3 shows that self-concept clarity was associated with increased sexual identity commitment and synthesis, which were in turn related to increased sexual satisfaction.

Discussion

Women's sexual well-being was examined from the perspective of self-concept clarity. Self-concept clarity was found to be positively associated with three sexual well-being related measures: sexual self-efficacy, sexual self-esteem, and sexual satisfaction. These results highlight the relevance of a stable and coherent general self-concept to women's positive experiences in the sexual domain, and support the inclusion of structural components of self-concept in explanations of women's sexual health and sexual well-being.

The psychological bases of these relationships were then examined by testing four structural

dimensions of sexual identity as potential mediators. This was motivated by the assumption that self-concept clarity would exert its influence through structural identity dimensions more proximal to the sexual domain. In the present study both investment-related and crisis-related dimensions of sexual identity were explored. The results revealed significant mediation via the two investment-related dimensions - commitment and synthesis/integration. The pattern of results obtained is consistent with the propositions that women who possess a clear and integrated sexual identity are also more likely to achieve positive sexual self-efficacy, sexual self-esteem, and sexual satisfaction.

The results from this study have both theoretical and clinical implications for women's sexual health and well-being. By focussing the present study on structural aspects of general and sexual self-concept, rather than on content, individual differences in self concept organization have been shown to be relevant considerations in the large variety of positive and negative sexual experiences encountered by women. The results suggest that a more stable and internally consistent self-concept, generally and sexually, may act as a protective factor against risky sexual decision-making, negative sexual self-evaluations and unsatisfying sexual experiences. In the same way, the results suggest that greater self-concept clarity and sexual identity investment may actively promote more positive sexual experiences in women by improving their sexual decision-making confidence, recognition and prioritization of personal sexual needs and preferences, and positive appraisals of sexual self-worthiness.

Clinically, the results of this study have implications for both sexuality education and intervention. Sexuality education, whether in childhood or later life, commonly focuses on the anatomical aspects of sexuality and practical components such as how to buy and use condoms. By identifying internal factors that may make women vulnerable to negative sexual experiences and attitudes, the present study highlights the relevance of addressing these factors in sexuality education with an aim to clarifying sexual needs and preferences and encouraging personal growth in more general areas of identity formation and clarity. Regarding intervention, the findings from this study support the notion that issues in the sexual domain of women need to be approached using an integrative framework, addressing not only sexual concerns but also considering individual, cultural and relationship influences (McCabe et al., 2010). It should also be noted that preliminary evidence suggests that self-concept clarity can be enhanced via specific intervention (see Setterlund & Neidenthal, 1993), though longitudinal research is needed to assess this change over time.

Regarding the sexual identity dimensions, it is important to note that the investment-related dimensions fully mediated the relationships between self-concept clarity and the sexual well-being related measures. This suggests that these investment-related dimensions constitute an important contributor to the relationships between self-concept clarity and sexual well-being. Of the two crisis-related dimensions of sexual identity--exploration and orientation identity uncertainty, only orientation identity uncertainty was found to be associated significantly and uniquely with general self-concept clarity. Furthermore, the relationships observed between general self-concept clarity and the sexual well-being related measures were not mediated by either crisis dimension. These null results are surprising given the focus on sexual identity crises in previous sex research, particularly those involving sexual orientation (Worthington et al., 2002). Taken at face value, the results certainly imply that sexual identity crises may not be particularly relevant to the sexual well-being of the individuals concerned. However, the null results may also reflect the inherently idiosyncratic and complex nature of identity crises in the sexual domain, in terms of their causes, underlying processes, and consequences to the individual (Archer & Grey, 2009). As noted in the Introduction, similar levels of sexual exploration and sexual orientation identity uncertainty may be experienced very differently by different individuals depending on their pre-existing attitudes to sexual diversity and behaviour.

Limitations and summary observations

Interpretation of these results is limited by several factors, including a reliance on self-report measures, a cross-sectional research design, and correlational analyses that preclude any causal inferences. While the path diagrams infer a direct causal pathway from self-concept clarity, through sexual identity, to the sexual well-being related measures, it is also possible that the relationships depicted are more complicated, perhaps with sexual experiences and evaluations feeding back into identity organization.

This problem is compounded by our use of independent and mediating variables that are conceptually related. Unfortunately, there is no relevant data from longitudinal or experimental studies that we could use to determine, a priori, the order of these variables in our mediation models. Nor is there relevant theory from which we could extrapolate. Instead, our rationale for the mediation models, particularly the decision to test the sexual identity dimensions as mediators of the effects of self-concept clarity, was based on the fact that self-concept clarity is a domain-general construct. The four dimensions of sexual identity development, while overlapping conceptually with self-concept clarity, are domain-specific and also conceptually more proximal to the measures of sexual well-being (the dependent variables of interest in the study). As for the conceptual overlap between the putative mediators, a particular strength of our approach was to analyze these variables in a competitive arrangement, within a series of multiple mediation analyses. This removed ambiguity in relation to deciding which mediator or mediators is/are relevant, and whether or not individual mediators are unique in the contribution they make. Of course, further research, experimental or longitudinal, is required to ascertain the extent to which identity states and processes actually cause specific behaviours and attitudes related to women's sexual well-being.

Another potential limitation is our inclusion of women who have never experienced sexual relationships with men (91%) in the analyses. This included 24 women (9%) who had reported never being in a sexual relationship and 3 women (1%) whose sexual preference was exclusively women. This raises concerns about the interpretability of these women's responses to sexual efficacy items, several of which contain specific reference to condom use. Clearly, such items would not have been directly relevant to these women, although it is important to note that these sexual efficacy items take the form of responses to hypothetical scenarios. To ensure that this did not bias the results, the regressions and multiple mediation tests were repeated without these 10% of women. No appreciable difference in results was observed.

Previous sex research has focussed primarily on individual differences in self-concept content rather than on the structure of self-concept (e.g., O'Sullivan et al., 2006; Rotosky et al., 2008). By focussing the present study on the structural aspects of women's self-concept-general self-concept clarity as well as four structural dimensions specific to sexual identity, we have been able to examine the sexual well-being implications of women's self-concept structure. The findings identified self-concept clarity as a potentially important psychological factor in relation to women's sexual well-being. The implications encompass women's satisfaction with sex, their evaluations of themselves as sexual beings, and their ability to recognize and prioritize their sexual needs and preferences within intimate relationships. In relation to the structural dimensions of sexual identity, it is noteworthy that the investment-related components appear to be more relevant to sexual well-being than are the crisis-related components, i.e., sexual orientation uncertainty and exploration. In other words, the positive contributions made by self-concept clarity appear to occur through its ability to promote a sexual identity that is explicit, coherent and integrated, and to which the individual is psychologically committed. This is an important observation because it is the crisis-related dimensions that have tended to attract more research attention. Overall, the findings reinforce, the need to include structural dimensions of identity, particularly those involving identity investment, into comprehensive models of women's sexuality and sexual well-being.

References

- Archer, S.L., & Grey, J.A. (2009). The sexual domain of identity: Sexual statuses of identity in relations to psychosocial sexual health. *Identity: An international Journal of Theory and Research*, 9, 33-62.
- Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Basen-Engquist, K., Masse, L.C., Coyle, K., Kirby, D., Parcel, G.S., Banspach, S., & Nodora, J. (1998). The Sexual Risk Behaviour Beliefs and Self-Efficacy scales. In C.M. Davis, W.L. Yarber, R. Bauserman, G. Schreer, & S.L. Davis (Eds.), *Handbook of sexuality related measures* (541-544). CA: Sage Publications.
- Basen-Engquist, K., Masse, L. C., Coyle, K., Kirby, D., Parcel, G. S., Banspach, S., & Nodora, J. (1999). Validity of scales measuring the psychosocial determinants of HIV/STD-related risk behavior in adolescents. *Health Education Research*, 14, 25-38.
- Breakwell, G. M., & Millward, L. J. (1997). Sexual self-concept and sexual risk-taking. *Journal of Adolescence*, 20, 29-41.
- Buzwell S., & Rosenthal D, (1996). Constructing a sexual self: Adolescents' sexual self-perceptions and sexual risk-taking. *Journal of Research on Adolescence*, 6, 489-513.
- Campbell, J.D. (1990). Self-esteem and clarity of the self-concept. *Journal of Personality and Social Psychology*, 59, 538-549.
- Campbell, J.D., Trapnell, P.D., Heine, S.J., Katz, I.M., Lavalley, L.F., & Lehman, D.R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology*, 70, 141-156.
- Hailikari, T., Nevgi, A., & Komulainen, E. (2008). Academic self-beliefs and prior knowledge as predictors of student achievement in Mathematics: a structural model. *Educational Psychology*, 28, 59-71.
- Impett, E.A., Schooler, D., & Tolman, D.L. (2006). To be seen and not heard: Femininity ideology and adolescent girls' sexual health. *Archives of Sexual Behavior*, 35, 131-144.
- Impett, E.A., & Tolman, D.L. (2006). Late adolescent girls' sexual experiences and sexual satisfaction. *Journal of Adolescent Research*, 21, 628-646.
- Kalichman, S., Stein, J.A., Malow, R., Averhart, C., Devieux, J., Jennings, T., Prado, G., & Feaster, D.J. (2002). Predicting protected sexual behaviour using the Information-Motivation-Behaviour skills model among adolescent substance abusers on court-ordered treatment. *Psychology, Health and Medicine*, 7, 327-338.
- Kihlstrom, J.E., & Cantor, N. (1984). Mental representations of the self. *Advances in Experimental Social Psychology*, 17, 1-47.
- MacKinnon, D.E, Lockwood, C.M., Hoffman, J.M., West, S.G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7, 83-104.
- Marcia, J.E. (1966). Development and validation of ego-identity status. *Journal of Personality*

and *Social Psychology*, 5, 551-558.

Mayers, K.S., Heller, D.K., & Heller, J.A. (2003). Damaged sexual self-esteem: A kind of disability. *Sexuality and Disability*, 21, 269-282.

McCabe, M., Althof, S., Assalian, P., Chevret-Measson, M., Leiblum, S., Simonelli, C., & Wylie, K. (2010). Psychological and interpersonal dimensions of sexual function and dysfunction. *Journal of Sexual Medicine*, 7, 327-336.

McCabe, M.R., & Cummins, R.A. (1998). Sexuality and quality of life among young people. *Adolescence*, 33, 761-773.

Moin, V., Duvdevany, I., & Mazor, D. (2009). Sexual identity, body image and life satisfaction among women with and without physical disability. *Sexuality & Disability*, 27, 83-95.

O'Sullivan, L.F., Meyer-Bahlburg, H.F.L., & McKeague, I.W. (2006). The development of the sexual self-concept inventory for early adolescent girls. *Psychology of Women Quarterly*, 30, 139-149.

Oztas, F. (2010). Self-esteem, occupational self-esteem, and epistemological beliefs of Turkish university students. *Social Behavior and Personality*, 38, 321-326.

Preacher, K.J., & Hayes, A.F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879-891.

Reissing, E.D., Laliberte, G.M., & Davis, H.J. (2005). Young women's sexual adjustment: The role of sexual self-schema, sexual self-efficacy, sexual aversion and body attitudes. *The Canadian Journal of Human Sexuality*, 14, 77-85.

Rotosky, S.S., Dekhtyar O., Cupp, P.K., & Anderman, E.M. (2008). Sexual self-concept and sexual self-efficacy in adolescents: A possible clue to promoting sexual health? *Journal of Sex Research*, 45, 277-286.

Seal, A., Minichiello, V., & Omodei, M. (1997). Young women's sexual risk taking behaviour: Re-visiting the influences of sexual self-efficacy and sexual self-esteem, *international Journal of STD & AIDS*, 8, 159-165.

Setterlund, M.B., & Neidenthal, P.M. (1993). "Who am I? Why am I here?": Self-esteem, self-clarity, and prototype matching. *Journal of Personality and Social Psychology*, 65, 769-780.

Smith, M., Wethington, E., & Zhan, G. (1996). Self-concept clarity and preferred coping styles. *Journal of Personality*, 64, 407-434.

Snell, W.E. (1995). The Multidimensional Sexual Self-Concept Questionnaire. In C.M. Davis, W. L. Yarber, R. Bauserman, G. Schreer, & S.L. Davis (Eds.), *Handbook of sexuality related measures* (pp. 521-527). CA: Sage Publications.

Vartanian, L.R. (2009). When the body defines the self: Self-concept clarity, internalization, and body image. *Journal of Social and Clinical Psychology*, 28, 94-126.

Worthington, R.L., Navarro, R.L., Savoy, H.B., & Hampton, D. (2008). Development, reliability and validity of the Measure of Sexual Identity Exploration and Commitment (MoSIEC). *Developmental Psychology*, 44, 22-33.

Worthington, R.L., Savoy, H.B., Dillon, F.R., & Vernaglia, E.R. (2002). Heterosexual identity development: A multidimensional model of individual and social identity. *The Counseling Psychologist*, 30, 496-531.

Alice Hucker (1), Alexander J. Mussap (1), and Marita M. McCabe (1)

(1) School of Psychology, Deakin University, Melbourne, Australia

Correspondence concerning this article should be addressed to Alexander J. Mussap, School of Psychology, Deakin University, 221 Burwood Highway, Melbourne 3125, Australia. E-mail: mussap@deakin.edu.au

Table 1 Means, standard deviations, Cronbach's alphas, and bivariate correlations

| | 1 | 2 | 3 | 4 | 5 |
|--------------------------|--------|--------|--------|-------|--------|
| (1) Self-Concept Clarity | | .35 * | .38 * | -.03 | -.33 * |
| (2) Commitment | | | .51 * | .31 * | -.28 * |
| (3) Synthesis | | | | .11 | -.47 * |
| (4) Exploration | | | | | .17 * |
| (5) Orient Uncertain | | | | | |
| (6) Sex Efficacy | | | | | |
| (7) Sex Esteem | | | | | |
| (8) Sex Satisfaction | | | | | |
| Mean | 3.22 | 4.46 | 4.73 | 3.77 | 1.70 |
| Standard Deviation | .93 | .90 | .93 | 1.11 | 1.07 |
| Cronbach's alpha | .92 | .77 | .90 | 0.88 | .93 |
| | 6 | 7 | 8 | | |
| (1) Self-Concept Clarity | .35 * | .33 * | .32 * | | |
| (2) Commitment | .25 * | .61 * | .53 * | | |
| (3) Synthesis | .36 * | .54 * | .49 * | | |
| (4) Exploration | .10 | .34 * | .18 * | | |
| (5) Orient Uncertain | -.20 * | -.28 * | -.27 * | | |
| (6) Sex Efficacy | | .35 * | .29 * | | |
| (7) Sex Esteem | | | .79 * | | |
| (8) Sex Satisfaction | | | | | |
| Mean | 2.51 | 3.69 | 3.53 | | |
| Standard Deviation | .36 | .93 | 1.03 | | |
| Cronbach's alpha | .70 | .92 | .91 | | |

* $p = <.01$ (2-tailed); Synthesis = synthesis-integration; Orient Uncertain = orientation identity uncertainty; Sex Efficacy = sexual self-efficacy; Sex Esteem = sexual self-esteem; Sex Satisfaction = sexual satisfaction. Note that measures 1, 7 and 8 were scales from 1 to 5; measures 2, 3, 4 and 5 were scales from 1 to 6; and measure 6 was a scale from 1 to 3.

COPYRIGHT 2010 SIECCAN, The Sex Information and Education Council of Canada

Copyright 2010 Gale, Cengage Learning. All rights reserved.

The idea that women shouldn't be sexually empowered runs so deep that we often don't realize how much it influences us. Take the notion of the "slut" and the double standard it purveys. Explore your sexual identity so that you can get to know it better. As Amy discusses in our book, *The Feminine Revolution*, one of the ways she does this is by embracing her love of lingerie—a love that started for her, because it made her feel great and then if men appreciate it, even better. Your erotic self is defined by its connection to beauty and spirit in all forms, so being in touch with your erotic—and, by extension, sexual—power requires practicing appreciation of those things outside the sphere of sex and romance. Use your senses. A convenience sample of 261 women aged 18 years and over ($M=25.8$, $SD=7.9$) completed an online survey that measured self-concept clarity, three aspects of sexual well-being (sexual self-efficacy, sexual self-esteem and sexual satisfaction), and four structural dimensions of sexual identity (commitment, synthesis/integration, exploration, and orientation identity uncertainty). A series of multiple mediation analyses, followed by post-hoc bootstrap tests of the difference between mediation effects, revealed that self-concept clarity is indirectly related to the measures of sexual well-being, and that these relationships are mediated by the two "investment-related" dimensions of sexual identity: commitment and synthesis/integration. *Materialism, Self-Objectification, and Capitalization of Sexual Attractiveness Increase Young Chinese Women's Willingness to Consider Cosmetic Surgery*. Qingqing Sun*. College of Ideological and Political Education, Henan University of Economic and Law, Zhengzhou, China. Exploring the concept of perceived female sexual empowerment: development and validation of the sex is power scale. *Gend. Issues* 30, 39–53. doi: 10.1007/s12147-013-9114-6.