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Sexual rehabilitation after treatment for gynaecological cancer

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Cover Page



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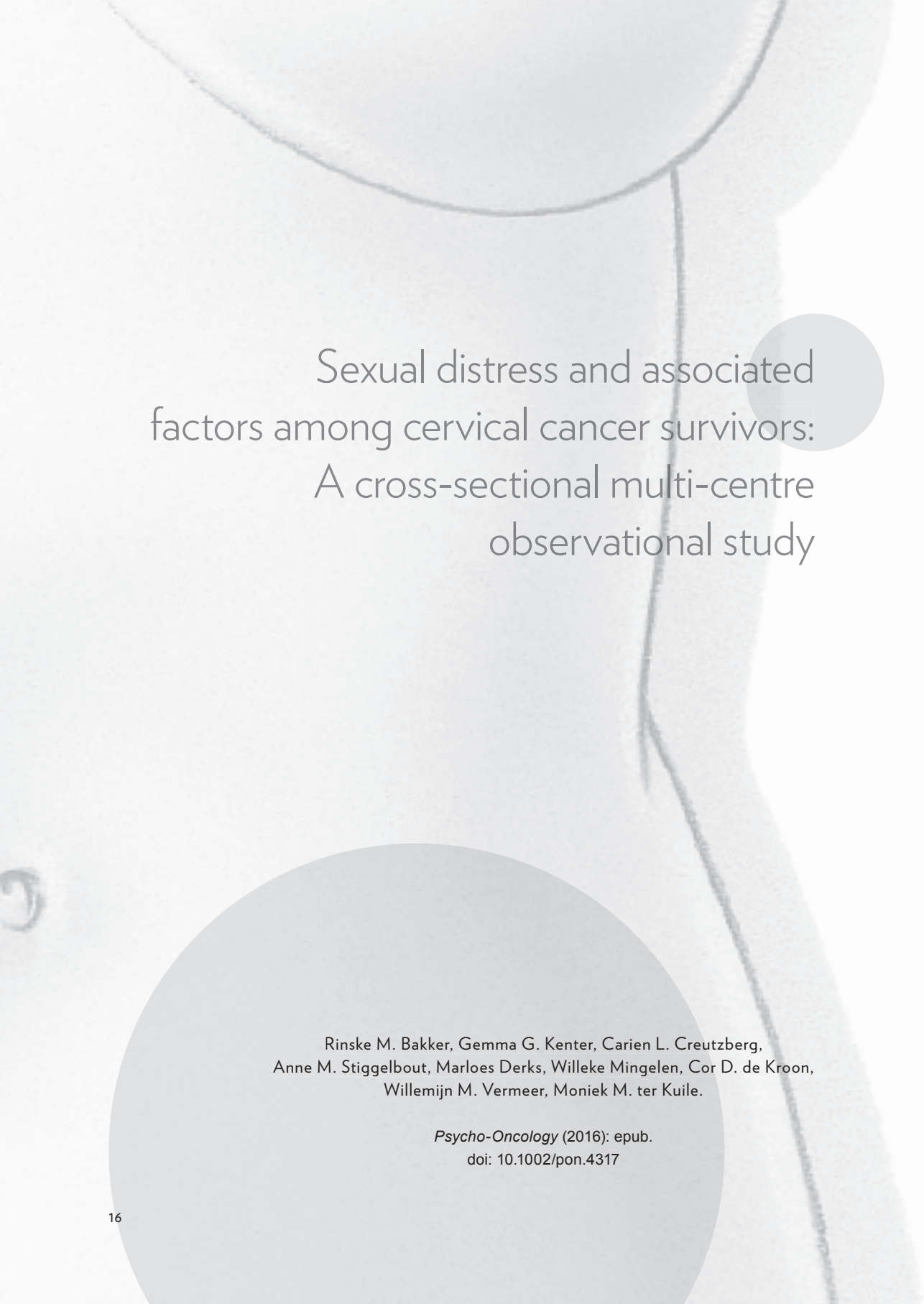


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Sexual distress and associated
factors among cervical cancer survivors:
A cross-sectional multi-centre
observational study

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Abstract

Objectives

To assess whether sexual distress among cervical cancer (CC) survivors is associated with frequently reported vaginal sexual symptoms, other proposed biopsychosocial factors, and whether worries about painful intercourse mediates the relation between vaginal sexual symptoms and sexual distress.

Methods

A cross-sectional study was conducted among 194 sexually active partnered CC survivors aged 25-69 years. Sexual distress, vaginal sexual symptoms, sexual pain worry, anxiety, depression, body image concerns, and relationship dissatisfaction, and the socio-demographic variables age, time since treatment, and relationship duration, were assessed using validated self-administrated questionnaires.

Results

In total, 33% ($n = 64$) of the survivors scored above the cut-off score for sexual distress. Higher levels of sexual distress were shown to be associated with higher levels of vaginal sexual symptoms, sexual pain worry, relationship dissatisfaction, and body image concerns. Furthermore, the results showed that sexual pain worry partly mediated the association between vaginal sexual symptoms and sexual distress, when controlling for relationship dissatisfaction and body image concerns.

Conclusions

Appropriate rehabilitation programs should be developed for CC survivors, to prevent and reduce not only vaginal sexual symptoms, but also sexual pain worry, relationship dissatisfaction and body image concerns, in order to reduce sexual distress.

Background

Improved screening and treatment options for cervical cancer (CC) have resulted in a substantial number of survivors.¹¹ Early-stage CC is mainly treated with radical hysterectomy with pelvic lymphadenectomy (RHL). In the case of adverse risk factors, postoperative radiotherapy, consisting of pelvic external beam radiotherapy (EBRT) sometimes combined with vaginal brachytherapy (BT) is recommended. More advanced tumours are treated primarily with EBRT/BT.⁵ Quality-of-life issues among CC survivors, such as impact of treatment on sexuality, have increasingly gained attention.¹²

Thus far, sex research has mainly focused on vaginal consequences of CC treatment. Results showed that CC survivors reported more vaginal sexual symptoms, such as a shortened and tightened vagina, vaginal dryness, and dyspareunia, compared to their pre-treatment situation as well as compared to healthy controls.^{18,22,30} Most studies showed that the negative effects were more pronounced when treatment included radiotherapy, as compared to RHL alone.^{15,29,49} Furthermore, questionnaire studies indicated that around one third of the CC survivors experienced distress and sexual dissatisfaction due to vaginal sexual symptoms, particularly dyspareunia.^{18,26,32,54}

Studies among the normal population have shown that sexual distress was related, not only to physical problems, such as vaginal symptoms, but also to psychological (e.g. anxiety or depression) and interpersonal problems (e.g. relationship dissatisfaction).^{53,83,84} This is in line with the biopsychosocial perspective that female sexuality is multidimensional.⁵¹ However, to date, very little research has considered biopsychosocial associates of sexual distress among CC survivors. Survivors reported more anxiety and depression than control groups, and these symptoms have been shown to be related to survivors' sexual distress.^{15,29,54} Furthermore, it is unknown whether the body image concerns, such as feeling less feminine and less sexually confident, or the relationship dissatisfaction that CC survivors reported after treatment, contributed to experiencing sexual distress.^{15,24,29,54}

It is important to note that vaginal sexual symptoms do not necessarily induce sexual distress among all CC survivors. Bergmark et al. (1999) showed that of all CC survivors reporting vaginal sexual symptoms, about half experienced moderate to severe distress about it.¹⁸ It is possible that some participants did not report distress because they were sexually inactive or did not position coital sex as their primary sexual activity, for example due to a homosexual orientation.⁸⁵ Another possible explanation is that the association between vaginal sexual symptoms and sexual distress is mediated by the amount of worry about sexual pain. According to the pain literature, women who respond with catastrophic worry when confronted with pain experience more distress.^{86,87} Identical results have been found among breast cancer and lung cancer survivors.^{88,89} In our earlier qualitative study some CC patients reported experiencing worrying about sexual pain as very distressing.⁹⁰

In this cross-sectional questionnaire study we expected that higher levels of sexual distress would be associated with the higher levels of physical (vaginal sexual symptoms), psychological (sexual pain worry, anxiety, depression, body image concerns) and interpersonal (relationship dissatisfaction) problems that have previously been reported by CC survivors. Secondly, it was expected that sexual pain worry among CC survivors would mediate the association between vaginal sexual symptoms and sexual distress.

Methods

Participants and recruitment

Eligible women were treated between January 2000 and June 2011 at Leiden University Medical Centre (LUMC) or Centre for Gynaecological Oncology Amsterdam, with either RHL (with or without adjuvant radiotherapy) or primary EBRT/BT. Women were excluded if they were not cancer free in the previous year, older than 70 years (see Supplemental Information 1, page 28), not able to complete a Dutch questionnaire, living abroad, or had received treatment other than RHL and/or EBRT/BT. Invitation letters were sent to all eligible women asking them to participate in a study investigating sexual functioning and quality of life after cervical cancer treatment. Women who did not respond within 1 month were sent a reminder and were contacted by telephone 1 week later.⁵⁷ The LUMC Medical Ethics Committee approved the protocol. The current study only investigated participants that were in a partner relationship.

Measurements

Higher scores indicated more symptom burden or dissatisfaction on all measures.

Sexual distress

Sexual distress was measured with the 12-item *Female Sexual Distress Scale* (FSDS).²⁸ Scores of ≥ 15 indicate sexually related personal distress. The FSDS has been used previously with cancer survivors.⁹¹ Cronbach's $\alpha = .97$ within the current sample.

Vaginal sexual symptoms

The four-item Sexual/Vaginal Functioning scale of the *European Organization for Research and Treatment of Cancer Quality of Life Questionnaire* (EORTC QLQ-CX24) was used to measure vaginal dryness, shortening or tightening, and pain during sexual intercourse (Cronbach's $\alpha = .85$ within this sample).⁹² The scale could only be completed by participants who reported having been sexually active during the previous 4 weeks. The items were converted to a 0–100 scale.

Sexual pain worry

The single-item *Sexual Worry* scale of the QLQ-CX24 was used to measure “worries about painful sexual intercourse”.⁹² The items were converted to a 0–100 scale.

Anxiety and depression

Anxiety and depression symptoms were measured using the *Hospital Anxiety and Depression Scale* (HADS) containing the subscales Anxiety and Depression (Cronbach's α 's = .91, .87 and .85 respectively within the current sample).⁹³

Body image concerns

Body image was measured using the three-item *Body Image* subscale from the EORTC QLQ-CX24 (Cronbach's α = .88 within the current sample).⁹² The scales were converted to a 0–100 scale.

Relationship dissatisfaction

The 10-item subscale *Marital (Mal)adjustment of the Maudsley Marital Questionnaire* (MMQ) was used to measure relationship dissatisfaction (Cronbach's α = .94 within the current sample).⁹⁴

Socio-demographic and treatment variables

Items measuring socio-demographic characteristics that were included were sexual activity, relationship duration, and age. Treatment and disease data were gathered from participants' medical records. CC treatment modalities were grouped in four categories: treatment with 1) RHL alone; 2) RHL and adjuvant EBRT; 3) both RHL and EBRT/BT, or 4) primary EBRT/BT. The time interval between treatment and completion of the questionnaire in months was taken into account. Furthermore, the *International Federation of Obstetrics and Gynaecology* (FIGO) stages of the carcinomas were categorized as 1) stage IA; 2) stage IB and IIA; 3) stage IIB-IVA; 4) unknown.

Statistical analyses

Chi-square tests (χ^2) and independent samples t-tests were used to compare women who had declined participation with the participants for age, treatment modality, time since treatment, FIGO stage and medical centre. Furthermore, descriptive statistics of all participants with a partner were calculated and differences were determined between sexually active and inactive participants. Given the fact that the vaginal sexual symptoms scale was only completed by sexually active participants, the sexually inactive participants are described separately.

Analyses were conducted in several steps using IBM SPSS version 20 (Armonk, NY, USA). At step one, univariate statistics were conducted to describe whether sexual distress was associated with one of the treatment categories, psychosocial variables (vaginal sexual symptoms, sexual pain worry, anxiety, depression, body image concerns, and relationship dissatisfaction) or socio-demographic variables (age, relationship duration, and time since treatment). At step two, the variables that were significantly correlated with sexual distress ($p < .05$) were entered stepwise in a hierarchical multivariate regression analysis with sexual distress as the dependent variable.

At step three, mediation analyses were performed to assess whether sexual pain worry mediated the relationship between vaginal sexual symptoms and sexual dis-

tress. A (partial) mediation effect was expected and considered statistically significant at the probability level if at least: 1) the number of vaginal sexual symptoms was associated with sexual pain worry, 2) sexual pain worry was related to the amount of sexual distress, 3) when the mediation effects' 95% confidence interval did not contain zero as a value.⁹⁵ The SPSS macro developed by Preacher and Hayes was used to generate estimates for the mediated effects and the standard error of the mediated effect was bootstrapped taking 5000 bootstrap samples.⁹⁶ A significance level of 5% was used in all analyses.

Results

Participant selection

Out of 764 eligible women, 540 (71%) responded of whom 342 (63%) completed the questionnaire. The remaining 198 women declined participation because the topic was too intimate or confronting, or for other unstated reasons. Women who declined participation were significantly older (mean (M) = 51, standard deviation ($\pm SD$) = 10 years) than participating women ($M = 48 \pm 9$), $t(542) = -2.23$, $p = .026$. In total, 252 (74%) of the women reported being in a partner relationship and were selected to participate in the current study, see Figure 1 (page 22).

Participant characteristics

Sexual distress was reported by 38% of all participants according to the cut-off score ($n = 95$). On average, the total group of participants was treated 6 years previously (range: 1 to 12 years). Furthermore, 18% of the women were treated with primary EBRT/BT ($n = 46$). Of all women treated with RHL ($n = 206$), 82% were treated with RHL alone ($n = 157$), 13% received postoperative EBRT/BT ($n = 26$) and 11% EBRT ($n = 23$).

Among the 252 participants, 194 (77%) reported being sexually active. They were on average $46.2 (\pm 8.2)$ years old and in a relationship for $17.0 (\pm 11.7)$ years. Two thirds had completed secondary education ($n = 124$, 64%). Also, three participants (2%) completed a modified questionnaire for participants with a female sexual orientation. Sexually inactive participants reported significantly higher levels of sexual distress, according to the cut-off score, sexual pain worry and body image concerns compared to sexually active participants. Furthermore, sexually inactive participants were significantly older, in a relationship for a longer period of time, relatively more often diagnosed with FIGO stage IIB or higher, and treated with RT more often, than sexually active participants (see Table 1, page 22).

It is noteworthy that the severity of vaginal sexual symptoms reported by sexually active participants was found to significantly differ between the treatment categories ($F(3, 194) = 7.66$, $p < .001$). Post-hoc analyses indicated that participants treated with EBRT/BT reported significantly more vaginal sexual symptoms ($M = 38.71 \pm 32.46$) than participants treated with RHL ($M = 16.28 \pm 19.68$, $p = .004$) and RHL/EBRT ($M = 15.35 \pm 16.49$, $p = .008$), but not compared with those treated with RHL/

EBRT/BT ($M = 25.59 \pm 30.91$, $p = n.s.$). Participants treated with RHL did not report more or fewer symptoms than participants treated with RHL/EBRT or RHL/EBRT/BT (p 's = n.s.).

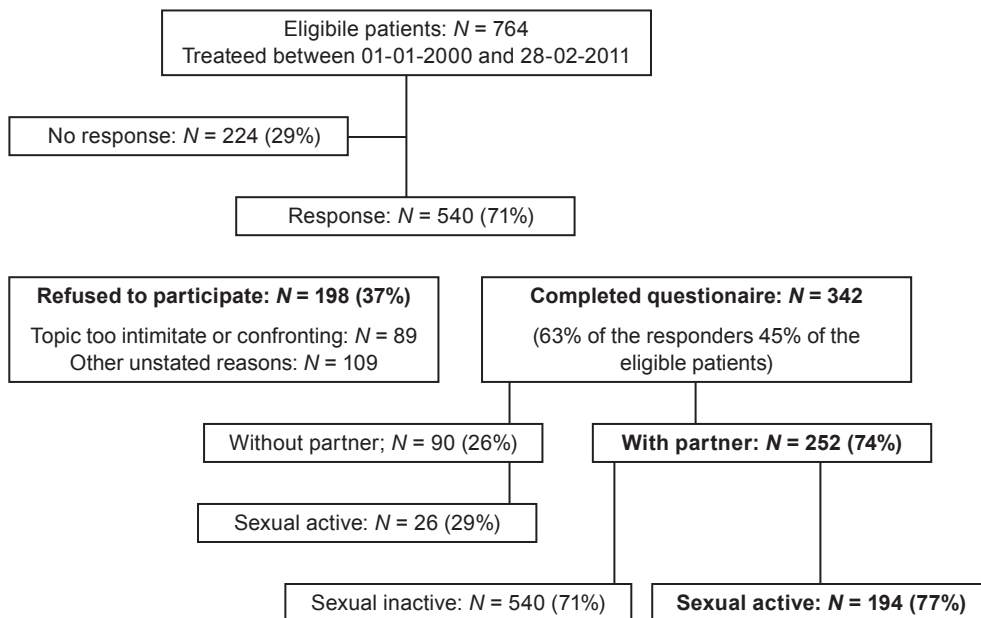


Figure 1. Flow chart of the participant selection.

Table 1

Descriptive characteristics of all participants with a partner.

		All women	Sexually active	Sexually inactive	
		n = 252	n = 194	n = 58	
Treatment-related					
		N (%)¹			χ^2 -value
FIGO stage ³	IA	5 (2)	5 (3)	0	8.47*
	IB-IIA	218 (87)	172 (89)	46 (79)	
	IIB-IVA	28 (11)	16 (8)	12 (21)	
Treatment ⁴	RHL	206 (82)	163 (84)	43 (74)	2.92
	RT	95 (38)	64 (33)	31 (53)	7.96**
	EBRT/BT	72 (29)	45 (23)	27 (47)	3.21
	EBRT	23 (9)	19 (10)	4 (7)	3.21

Socio-demographic characteristics					
	Mean (\pm SD) ²			t-value	
Relationship duration (years) (n = 247)	18.3 (12.2)	17.0 (11.7)	22.8 (12.8)	3.24**	
Age (years)	47.5 (8.6)	46.2 (8.2)	51.7 (8.6)	4.36***	
Time since treatment (years)	5.9 (3.1)	6.0 (3.2)	5.4 (2.9)	-1.34	
	N (%)			χ^2 -value	
Sexual orientation (n = 251)	Male	245 (98)	190 (98)	55 (95)	2.50
	Female	6 (2)	3 (2)	3 (5)	
Educational level (n = 248)	Primary	6 (2)	5 (3)	1 (2)	.16
	Secondary	162 (64)	124 (64)	38 (66)	
	Tertiary	80 (32)	61 (31)	19 (33)	
Biopsychosocial variables ⁵					
	Mean (\pm SD) ²			t-value	
Sexual distress cut-off score \geq 15	n = 95 (38%)	n = 64 (33%)	n = 31 (54%)	8.57** (χ^2)	
Sexual distress	12.7 (12.4)	11.1 (11.4)	18.5 (13.9)	6.13***	
Vaginal sexual symptoms		20.44 (24.1)			
Sexual pain worry	17.7 (29.0)	15.3 (25.9)	26.1 (37.2)	2.01*	
Anxiety	5.7 (4.3)	5.6 (4.4)	5.8 (4.0)	.36	
Depression	3.3 (3.6)	3.2 (3.6)	3.7 (3.5)	.97	
Body image concerns	20.5 (25.4)	18.7 (24.1)	26.6 (28.6)	2.09*	
Relationship dissatisfaction	14.3 (14.2)	14.0 (14.1)	15.3 (14.6)	.59	

¹N(%): number and percentage of participants to which characteristic is applicable. Due to rounding percentages may not add to one hundred.

²SD = Standard deviation.

³FIGO: *International Federation of Gynecology and Obstetrics*.

⁴RHL: radical hysterectomy with pelvic lymphadenectomy; RT: radiotherapy; EBRT: pelvic external beam radiotherapy; BT: brachytherapy.

⁵Measured with: FSDS: *Female Sexual Distress Scale*. *Sexual/Vaginal Functioning and Body Image* scales of the EORTC QLQ-CX24: *European Organization for Research and Treatment of Cancer Quality of Life Questionnaire* module CX24. Subscales *Anxiety and Depression* of the HADS: *Hospital Anxiety and Depression Scale*. Subscale *Marital (Mal)adjustment* of the MMQ: *Maudsley Marital Questionnaire*.

* $p < .05$, ** $p < .01$, *** $p < .001$

Univariate associated variables of sexual distress

Among sexually active participants, sexual distress correlated significantly with levels of vaginal sexual symptoms, sexual pain worry, anxiety, depression, body image concerns, and relationship dissatisfaction. See Table 2, page 24. Age, relationship duration and time since treatment were not associated with sexual distress ($r = .13$, $.07$ and $-.09$ respectively, p 's = n.s.). Furthermore, the four treatment categories

(RHL, RHL/EBRT, RHL/EBRT/BT and EBRT/BT) were also not associated with sexual distress ($F(3, 194) = 0.73, p = .534, M = 10.55 \pm 10.66, M = 11.06 \pm 14.36, M = 9.13 \pm 9.42, \text{ and } M = 14.25 \pm 13.46$ respectively).

Table 2

Univariate associations between sexual distress and biopsychosocial variables among sexually active CC survivors ($n = 194$)¹.

	Sexual distress	Vaginal sexual symptoms	Sexual pain worry	Anxiety	Depression	Body image concerns
Vaginal sexual symptoms ³	.48***	-				
Sexual pain worry ³	.48***	.60***	-			
Anxiety ⁴	.33***	.22**	.30**	-		
Depression ⁴	.39***	.23**	.34***	.66***	-	
Body image concerns ³	.41***	.21**	.25***	.33***	.35***	-
Relationship dissatisfaction ⁵	.36***	.11**	.13***	.30***	.41***	.32***

¹Pearsons correlation coefficients.

²Female Sexual Distress Scale (FSDS)

³Sexual/Vaginal Functioning, Sexual Worry and Body Image scale of the EORTC QLQ-CX24 (European Organization for Research and Treatment of Cancer Quality of Life Questionnaire module CX24)

⁴Hospital Anxiety and Depression Scale (HADS)

⁵Maudsley Marital Questionnaire Subscale Marital (Mal)adjustment (MMQ)

* $p < .05$, ** $p < .01$, *** $p < .001$.

Multivariate associated variables of sexual distress

Variables that were significantly correlated with sexual distress were added stepwise in a multivariate regression analysis. Variables associated with higher levels of sexual distress, and entered stepwise in the model in the following sequence were: higher levels of sexual pain worry ($\beta = .24, \Delta R^2 = .22, F(1, 188) = 54.70, p < .001$), relationship dissatisfaction ($\beta = .23, \Delta R^2 = .09, F(1, 187) = 24.15, p < .001$), vaginal sexual symptoms ($\beta = .27, \Delta R^2 = .05, F(1, 186) = 14.32, p < .001$), and body image concerns ($\beta = .22, \Delta R^2 = .04, F(1, 185) = 12.18, p < .001$). The model explained 40% of the total variance ($F(4, 189) = 31.14, p < .001$). Anxiety and depression did not make an additional and independent contribution to sexual distress in addition to the other variables ($\beta = .07$ and $.11$ respectively, p 's = n.s.). See Supplemental Information 2, page 28.

Sexual pain worry as a possible mediator in the association between vaginal symptoms and sexual distress

In order to test whether sexual pain worry mediated the association between vaginal symptoms and sexual distress, sexual distress was regressed upon sexual pain worry and vaginal symptoms. In this mediation analysis, the related variables - body image concerns and relationship dissatisfaction - were entered as control variables. When including the proposed mediator sexual pain worry in the equation, the asso-

ciation between vaginal sexual symptoms and sexual distress decreased in strength from $\beta = .40$ ($t = 6.80$, $p < .001$) to $\beta = .27$ ($t = 3.79$, $p < .001$). Bootstrapping the indirect effect of sexual pain worry on sexual distress, sexual pain worry proved to be a significant mediator of sexual distress, while controlling for body image concerns and relationship dissatisfaction. These findings indicate that the association between vaginal sexual symptoms and sexual distress is partly mediated by sexual pain worry (see Figure 2).

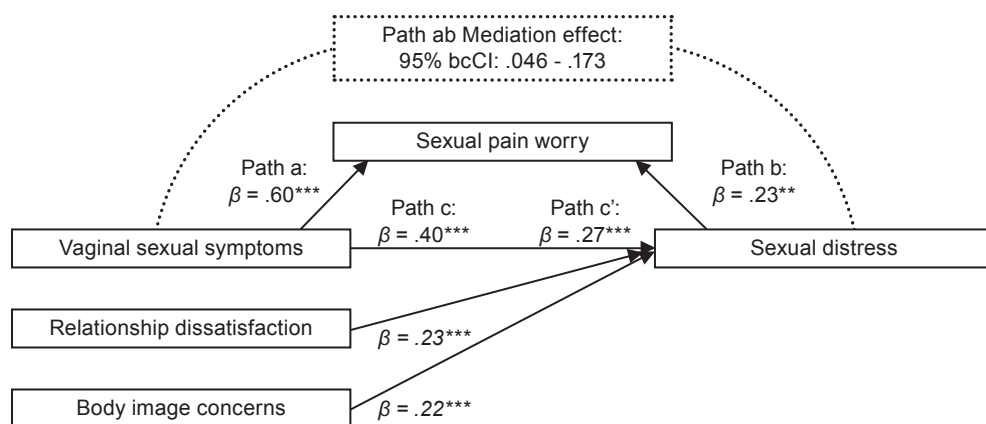


Figure 2. Model of sexual worry as a mediator in the relationship between vaginal sexual symptoms and sexual distress. Final mediation model: $R^2 = .40^{***}$. Note: the indirect effect is depicted in dotted lines. * $p < .05$; ** $p < .01$; *** $p < .001$

Discussion

In this study about one third of the sexually active CC survivors reported clinically relevant levels of sexual distress. Higher levels of sexual distress were associated with higher levels of vaginal sexual symptoms, sexual pain worry, relationship dissatisfaction, and body image concerns. Furthermore, the results contributed to those of previous studies by showing that the relation between vaginal sexual symptoms and higher levels of sexual distress was partly mediated by experiencing more sexual pain worry.

The number of CC survivors who reported clinical levels of sexual distress in this study was comparable to previous results.^{18,26,32} Furthermore, in line with the biopsychosocial approach, sexual distress was related, not only to the physical variable vaginal sexual symptoms, but also to the psychological variables sexual pain worry and body image concerns, and the interpersonal variable relationship dissatisfaction.^{15,24,29} However, the multivariate results showed that the psychological variables anxiety and depression did not account for a significant proportion of the amount of sexual distress. In contrast, the questionnaire study conducted by Bradford et al. (2015) suggested that depression was associated with sexual distress, over and

above relationship adjustment problems.⁵⁴ Also, the population-based studies indicated that the most important correlates of sexual distress were relationship function, anxiety and depression, over and above physiological symptoms.^{53,83,84} The mixed results concerning the contribution of anxiety and depression may be explained by the fact that, compared with the normal population, CC survivors are mostly distressed about the physical sexual symptoms and specifically anxious about painful intercourse (sexual pain worry). This may, despite the univariate correlation of anxiety and depression with sexual distress, explain why more general psychological variables did not make an additional and independent contribution to sexual distress. In line with this explanation, Bergmark found that CC survivors perceived higher levels of distress in relation to the physical sexual symptom dyspareunia, compared to an age-matched group of women without a history of cancer.^{18,32} Future research is encouraged to gain insight into relationship dynamics, for example by including partner variables, and concerns about body image since these factors seemed to be related to sexual distress across different kinds of populations.^{53,83,84}

In this study, higher levels of sexual distress among CC survivors with vaginal sexual symptoms depended on the amount of worry about sexual pain. These findings are in line with a proposed circular model of sexual pain for healthy women with sexual pain disorders.⁹⁷ In this circular model, it is assumed that worry about sexual pain may induce decreased sexual arousal during sexual activity and therefore results in increased vaginal dryness and/or inadequate pelvic-floor muscle tone. This reaction may lead to friction between the penis, finger(s) or other penetrative objects and vulvar skin, which can result in sexual pain or failed attempts.⁹⁸ Thus, over and above vaginal sexual symptoms, worry about sexual pain may have contributed to increased pain and/or failed attempts among CC survivors in this study.

Previous studies among women with sexual pain disorder found a positive association between higher levels of sexual pain fear, sexual avoidance and sexual dissatisfaction.^{99,100} This may apply to CC survivors as well in view of our finding that the sexually inactive participants' had higher levels of sexual pain worry and sexual distress, compared with sexually active participants. The amount of worry about sexual pain among sexually inactive participants may have led to avoidance of sexual activity as a coping strategy and thus, subsequently, to higher levels of sexual distress.⁹⁹ This was in line with the previous qualitative result that worry about painful intercourse was a reason for CC survivors to avoid or discontinue sexual activity, and experience distress after treatment.⁹⁰ However, we have to keep in mind that the sexually inactive participants were treated with RT more often, so they may have experienced more treatment-related vaginal sexual symptoms as well. To investigate whether higher levels of sexual distress among sexually inactive CC survivors can be explained by more worry about sexual pain and/or vaginal sexual symptoms it is important for future research to address these issues. Prospective designs should be used to exclude alternative explanations e.g. being unable to renegotiate sexual practices to include less distressing non-penetrative sex, sexual inactivity long prior to treatment, inactivity due to more advanced tumours, treatment progress or relationship changes.

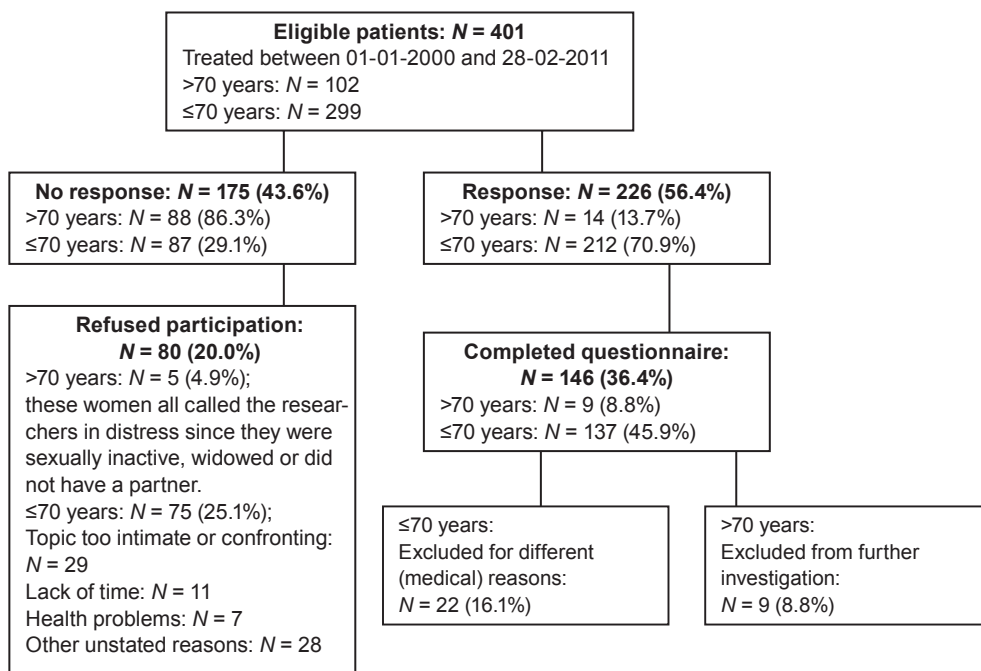
An important limitation of this study was that the measurements could not be compared to an age-matched group of women without a history of CC. Thus, we do not know whether our findings could be specifically attributed to CC (treatment). Also, no prospective or baseline measurements were conducted, which makes it impossible to draw conclusions about what factors predict future sexual distress. Furthermore, a selection bias may have occurred: in addition to finding the topic too intimate, women that had more negative experiences during sexual rehabilitation after treatment may have declined participation more often. Therefore, our study may underestimate the levels of sexual distress in CC survivors. Furthermore, even though the EORTC QLQ-CX24 is one of the most commonly used questionnaires to assess sexual functioning among CC survivors, the subscale regarding vaginal sexual symptoms excludes information from women that have been sexually inactive during the previous 4 weeks. Also, the item regarding sexual pain worry focuses on sexual intercourse, instead of all forms of sexual contact, and may exclude women practicing non-coital sex or with a female sexual orientation. In the current study, however, all women with a female sexual orientation completed this item.

Health care professionals should be well mindful of sexual distress among CC survivors. Also, it is important for professionals to allocate time and the privacy needed to address sexual distress irrespective of type of treatment and sexual activity.¹⁰¹ Furthermore, to prevent sexual distress among CC survivors, it may be particularly important to target and have due regard for vaginal sexual symptoms, for example by providing psycho-education and practical advice. Supplemental health care should aim to reduce worry about painful intercourse, decrease sexual avoidance, prevent relationship dysfunction and address concerns about body image. There are indications that psychological interventions addressing these issues, such as online psycho-educational support and mindfulness-based cognitive behavioural interventions, were able to reduce sexual distress among gynaecological cancer survivors with sexual problems.^{80,102,103} Further research was required to determine efficacy and generalizability.

Supplemental Information 1

Flow chart of the participant selection at the first medical centre stratified between women older than 70 ($n = 102$), and 70 years or younger ($n = 299$). N.B. Percentages are based on the total number of eligible participants.

Due to the results, and in consultation with the Medical Ethics Committee, women older than 70 were excluded in the current study to avoid distressing the survivors, low response rates and blank questionnaires of women who were not sexually active anymore.

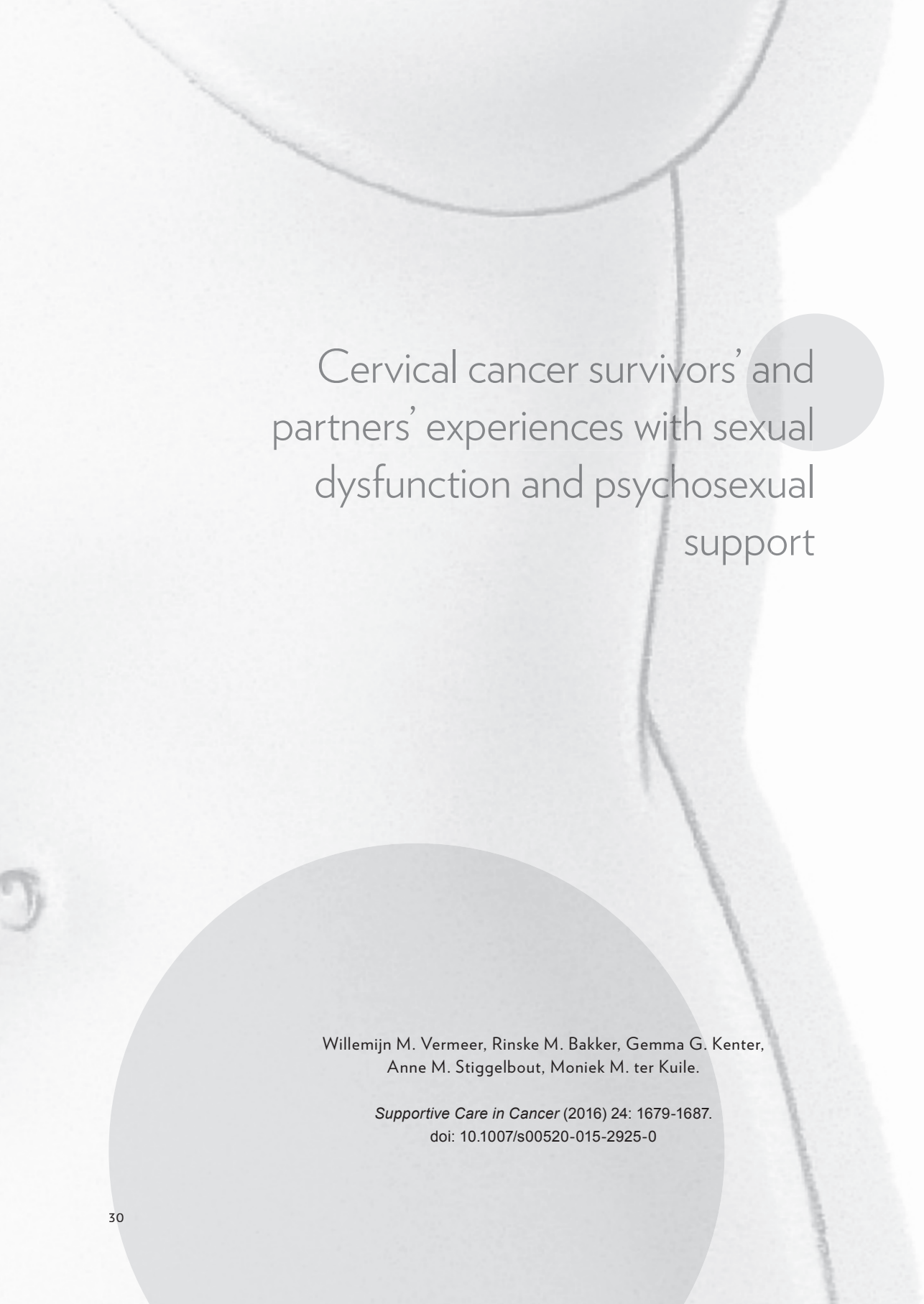
**Supplemental Information 2**

Final model of the stepwise hierarchical regression of biopsychosocial variables associated with sexual distress among sexually active CC survivors ($n = 190$).

	<i>B</i>	<i>SE B</i>	β	ΔR^2
Sexual pain worry	.17	.05	.24**	.22***
Relationship dissatisfaction	.27	.07	.23***	.09***
Vaginal sexual symptoms	.21	.06	.27***	.05***
Body image concerns	.16	.05	.22**	.04***

SE: Standard error. $R^2 = .402$, $F(4, 189) = 31.14$, $p < .001$.

* $p < .05$, ** $p < .01$, *** $p < .001$.



Cervical cancer survivors' and
partners' experiences with sexual
dysfunction and psychosexual
support

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