



An Exploration of Dyadic Relationship Approach-Avoidance Goals and Relationship and Sexual Satisfaction in Couples Coping with Endometriosis

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Abstract

Endometriosis affects women of reproductive age and is associated with higher levels of sexual and relational distress. Despite the relational context of endometriosis, the research pertaining to dyadic relationship goals is lacking. An exploration of the relationship goals of couples coping with endometriosis can facilitate the understanding of potential protective mechanisms that mitigate the relational components of the condition. Guided by the approach-avoidance theoretical framework, the current cross-sectional study aimed to examine the role relationship goals play in sexual and relationship satisfaction in couples coping with endometriosis. Approach goals relate to the pursuit of a positive outcomes, whereas avoidance goals relate to the avoidance of negative outcomes. Women with endometriosis and their partners ($N = 61$) completed an online survey measuring relationship goals and relationship and sexual satisfaction. The study results indicated that, for women, their own and their partner's higher relationship approach goals were linked to higher sexual satisfaction. For partners of women with endometriosis, their own higher relationship approach goals were associated with their own higher relationship satisfaction. Higher relationship avoidance goals in both women with endometriosis and partners were associated with higher relationship satisfaction. The study's findings highlight relationship goals as relevant to the relational and sexual experience of couples coping with endometriosis. When treating women with endometriosis, the inclusion of partners and consideration of factors beyond the physical illness are important for a holistic management approach.

Keywords Endometriosis · Sexual satisfaction · Relationship satisfaction · Relationship goals · Couples

Introduction

Endometriosis is characterized by the ectopic presence of endometrial-like tissue, typically lining the uterus, occurring in other areas outside the uterus (e.g., attached to bowel, pelvic cavity/ligaments), resulting in dyspareunia, dysmenorrhoea, persistent pelvic pain, and infertility (Hudson et al., 2016; Wahl et al., 2020). This debilitating condition, affecting 5–15% of women globally, has been associated with lower quality of life, psychological health, sexual intimacy (function and satisfaction), relationship quality, employment,

and social interaction (Facchin et al., 2015; Melis et al., 2015; Pluchino et al., 2016).

Understanding endometriosis from both an individual and couple perspective will be beneficial in the effective management of the condition (Hummelshoj et al., 2013; Van Niekerk et al., 2020). Close and intimate relationships are arguably the most important aspect of life satisfaction and wellbeing (Biswas-Diener & Diener, 2006), and relationship difficulties can be a significant contributor to psychological distress and lower quality of life (Kuster et al., 2017; Rosen et al., 2017). The research to date has indicated that several factors related to the experience of endometriosis are negatively associated with both relationship and sexual satisfaction for women and their partners (e.g., separation; De Graaf et al., 2013; Rossi et al., 2020).

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Relationship and Sexual Satisfaction in Endometriosis

Relationship satisfaction has been operationalized as an individuals' emotional experience that results from the subjective judgement of their romantic relationship as either positive or negative (Lawrance & Byers, 1995). Significantly lower relationship satisfaction has been noted in women with endometriosis particularly when endometriosis is considered by partners as the 'woman's problem', leaving women with endometriosis feeling isolated and misunderstood (Rossi et al., 2020). Endometriosis-related consequences have also been associated with greater relationship distress in women with endometriosis and their partners (Huntington & Gilmour, 2005; Pluchino et al., 2016). Furthermore, the physical and emotional challenges that may exist when caring for a functionally impaired spouse with endometriosis may be negatively associated with relationship satisfaction (Fernandez et al., 2006), or factor in relationship breakdown (Facchin et al., 2018).

Sexual satisfaction has been conceptualized as an individuals' emotional appraisal of their sexual relationship and fulfilment as either positive (i.e., higher sexual satisfaction) or negative (i.e., lower sexual satisfaction; Lawrance & Byers, 1995). Sexual satisfaction is being increasingly viewed as both an essential element of individual wellbeing (Štulhofer et al., 2010) and an important consideration for relationship quality and stability (Christopher & Sprecher, 2000; Young et al., 2000). Across the lifespan, higher sexual satisfaction has been associated with general wellbeing and quality of life (Flynn et al., 2017; Heiman et al., 2011), whereas lower sexual satisfaction has been associated with lower sexual function and psychological health (Davison et al., 2009). Furthermore, a sense of wellbeing, relationship quality, partner empathy and responsiveness, and relationship satisfaction seem to be positively linked to sexual satisfaction even if frequency of sexual activity is limited (Bois et al., 2016; Melis et al., 2015). While sexual satisfaction research pertaining to women with endometriosis has been scant, existing studies have revealed that lower sexual satisfaction is evident in these women compared to women without endometriosis (Giuliani et al., 2016; Montanari et al., 2013). Di Donato et al. (2014) examined sexual satisfaction in 182 women with endometriosis and 182 controls and found that the presence of endometriosis was associated with lower sexual satisfaction, including sexual desire and orgasm.

Given that endometriosis is associated with multiple life domains, including relationship and sexual satisfaction, understanding the role that interpersonal aspects may play in protecting these domains is important. Interpersonal variables such as effective communication, partner support

and empathic concern, and emotional intimacy have been associated with positive outcomes for women experiencing endometriosis and other forms of persistent pain associated with penetrative intercourse (Bois et al., 2013; Pazmany et al., 2014; Van Niekerk et al., 2020). The interpersonal variable of relationship goals has been found to have a unique association with relationship and sexual satisfaction in healthy samples and other forms of sexual/pelvic pain (Impett et al., 2010; Rosen et al., 2017). Interestingly, although the body of literature pertaining to the protective nature of relationship goals is well developed in healthy couples and other forms of pelvic pain, such as provoked vestibulodynia (PVD; vulvar pain provoked by touch and sexual activity that occurs in the absence of an identifiable cause; Henzell et al., 2017), an understanding of the protective nature of relationship goals in endometriosis is lacking.

While there are some similarities between PVD and endometriosis at an individual level (e.g., poor psychological health, dyspareunia; Facchin et al., 2017; Gates & Galask, 2001; Wahl et al., 2020) and couple level (e.g., sexual dissatisfaction; Di Donato et al., 2014; Rancourt et al., 2016; Smith & Pukall, 2011), there are also key differences. The pain associated with PVD is activated primarily during sexual intercourse and is relatively localized, whereas the pain associated with endometriosis occurs across multiple sites (e.g., abdomen, lower back, bowel) and exacerbations are multifaceted. While a shared understanding based on similarities across the various forms of persistent pelvic pain is useful, it is also important to examine these conditions within their own unique set of individual and relational components. An exploration of dyadic relationship goals may highlight potential protective factors for couples coping with endometriosis. This increase in knowledge could facilitate the individual and couple treatment pathways for those presenting with either individual or relationally based distress.

Relationship Approach and Avoidance Goals

An approach-avoidance theoretical framework of relationship goals, outlined by Gable (2006), posited that individuals behave in ways that either approach positive outcomes such as fun and intimacy, or avoid negative outcomes such as guilt or conflict within relationships. It is important to note that avoidance does not equate to inactivity/non-engagement, but rather activity that leads to the avoidance of unwanted situations and/or feelings. Furthermore, approach goals are predominantly associated with incentives and avoidance goals associated with threat (Elliot et al., 2006). While approach and avoidance are distinctly different, they can also operate in parallel (Gable & Impett, 2012). A person may have higher and lower approach and/or avoidance goals, depending on their desired outcome or motivation.

Higher relationship approach goals have been associated with growth and enhanced relationship satisfaction, greater feelings of physical and emotional intimacy, and higher responsiveness to partner needs (Impett et al., 2010). In addition, higher relationship approach goals may act as a buffer against other relationship difficulties such as the experience of dyspareunia or other pelvic pain difficulties (Rosen et al., 2017). Equally, higher relationship avoidance goals have been associated with lower relationship satisfaction, greater disconnection from one's partner, and greater probability of relationship breakdown (Impett et al., 2010). Impett et al. argued that intimate relationships built primarily on avoidance goals, even by one partner, are potentially vulnerable to relationship and sexual dissatisfaction, suggesting that for relationships to thrive and be fulfilling, both partners need to be invested in approach goals.

In a Canadian study by Rosen et al. (2017), dyadic relationship approach and avoidance goals and relationship satisfaction were investigated in women with PVD and their partners. Women with higher relationship approach goals also reported higher levels of sexual satisfaction. Women and partners reported higher sexual and relationship satisfaction when their partner pursued more relationship approach goals. Higher partner relationship avoidance goals were associated with lower sexual satisfaction for women. The authors concluded that addressing relationship approach and avoidance goals in addition to sexual activity may enhance the efficacy of relationship interventions for PVD. The overarching results propose that relationship avoidance goals, by either partner, may be associated with a negative effect on relationship and sexual satisfaction.

As noted above, further research is required to determine whether the dyadic associations indicated between relationship goals and relationship and/or sexual satisfaction for couples coping with endometriosis is similar to that seen in other forms of pelvic pain (e.g., Rosen et al., 2017) and healthy samples (Impett et al., 2010). The approach-avoidance distinction is relevant to endometriosis as previous research using an 8-item measure of approach and avoidance social goals found that greater engagement in avoidance goals was associated with greater reports of poor physical health symptoms (Elliot & Sheldon, 1998; Elliot et al., 2006).

The Current Study

To further capture the intricacies of the effects of endometriosis within couples further dyadic research exploring interpersonal variables, such as relationship goals, is warranted. An exploration of the relationship approach and avoidance goals of couples coping with endometriosis can facilitate our understanding of potential protective mechanisms that may mitigate the relational components of the condition. As it is unknown whether relationship goals vary for couples

coping with endometriosis versus couples with other pelvic pain conditions (e.g., PVD: Rosen et al., 2017), investigating relationship goals in women with endometriosis and their partners is critical. Although pelvic pain conditions have some similarities, they also have key points of differentiation.

Overall, research in endometriosis to date has focused on qualitative studies of either the women diagnosed or their partner, with a dyadic and quantitative approach largely ignored. The current study therefore aimed to examine the role relationship goals play in sexual and relationship satisfaction for couples coping with endometriosis via a dyadic lens. It is hypothesized that an individual's relationship approach goals will be positively associated with their own and their partner's relationship and sexual satisfaction in couples coping with endometriosis. It is also hypothesized that an individual's relationship avoidance goals will be negatively associated with their own and their partner's relationship and sexual satisfaction in couples coping with endometriosis.

Method

Participants

A community sample of participants was recruited via social media sites, gynaecology practices, and pelvic floor physiotherapy practices. The inclusion criteria for women with endometriosis were set as (1) aged between 18 and 47 years, (2) currently experiencing symptomatic endometriosis, and (3) in a current sexual relationship. Symptomatic endometriosis was defined as experiencing a minimum of one endometriosis-related symptom in the previous 4-week period. Inclusion criteria for partners were limited to being in a current sexual relationship with a woman experiencing symptomatic endometriosis.

Eighty-three women responded to the advertisement with seventy-four women meeting the eligibility criteria. The remaining nine women were excluded due to age ($n = 2$), relationship status (single, $n = 2$) or had not engaged in sexual activity with their partner in the previous 4-week period ($n = 5$). Ten eligible women did not complete the online survey. Sixty-two partners completed the partner online survey. One partner's response was excluded as an incomplete dyad. The final sample in the current study comprised 61 couples (59 mixed-sex couples and two same-sex couples) who completed the full survey battery.

The mean age for women was 29.82 years ($SD = 6.25$) and 31.64 years ($SD = 7.60$) for partners. The mean relationship duration was 5.87 years ($SD = 5.44$). Fifty-nine women reported a diagnosis of endometriosis post laparoscopic surgery, and two women were awaiting laparoscopic surgery to

confirm diagnosis. Fifty-six couples resided in Australia and five couples in the United States of America.

Measures

Demographic information (i.e., age, relationship type and duration, education level, annual couple income), stage of endometriosis and endometriosis-related symptoms were gathered at the beginning of the survey. Combining questionnaires into a single survey increases the probability of capturing the nuances that may influence women with endometriosis and their partner's relationship goals and sexual and relationship satisfaction (Stephenson et al., 2011). The test battery used in the survey consisted of the following three questionnaires:

Relationship Goals

Relationship goals were measured with an 8-item questionnaire designed to assess approach (4 items) and avoidance (4 items) goals in close relationships (Elliot et al., 2006). The measure has been used in previous studies examining relationship goals in healthy and PVD samples (Impett et al., 2010; Rosen et al., 2017). Item examples include approach statements such as "I generally try to deepen my relationship with my partner" and avoidance statements such as "I generally try to avoid conflicts and disagreements in my relationship with my partner." Items were rated on a 7-point Likert scale ranging from 1–*not at all important* to 7–*extremely important*. Scores range from 4–28 for avoidance and 4–28 for approach goals. Higher relationship approach goals scores show stronger approach goals toward positive outcomes while higher relationship avoidance goals scores indicate stronger goals to avoid negative outcomes. The measure has been deemed to have adequate reliability and can be easily modified to reflect different targets (e.g., friendships, close relationships; Elliot et al., 2006). Cronbach's alpha for relationship approach goals was $\alpha = 0.83$ for women and $\alpha = 0.87$ for partners. Cronbach's alpha for relationship avoidance goals was $\alpha = 0.84$ for women with endometriosis and $\alpha = 0.84$ for partners.

Relationship Satisfaction

The Couples Satisfaction Index (CSI-16; Funk & Rogge, 2007), is a 32-item measure with a 16-item version measuring relationship satisfaction (e.g., our relationship is strong) in intact couples. Response scales include ordinal and Likert scale responses with higher scores showing greater satisfaction. The measure is valid and has good internal consistency. Cronbach's alpha was $\alpha = 0.96$ for women with endometriosis and $\alpha = 0.97$ for partners.

Sexual Satisfaction

The New Sexual Satisfaction Scale Short Form (NSSS; Štulhofer et al., 2011) is a 12-item questionnaire evaluating sexual satisfaction over the past six months across two subscales of satisfaction—individually (e.g., the quality of my orgasms) and with their partner (e.g., my partner's sexual creativity). Items use a 5-point Likert scale of 1 = *not at all satisfied* to 5 = *extremely satisfied*, with higher overall scores representing greater sexual satisfaction. The NSSS has been found to have satisfactory construct validity and reliability across different cultural groups and acceptable one-month stability (Štulhofer et al., 2010). Cronbach's alpha was $\alpha = 0.88$ for women with endometriosis and $\alpha = 0.91$ for partners.

Procedure

Potential participants were invited to email the chief investigator expressing their interest in the study. Eligible participants were provided with a unique access code and instructed to complete their survey without consulting their partner for answers. Further details regarding the procedure have been published in Van Niekerk et al. (2020). The data for the current study were collected as part of a larger online study examining emotional intimacy, empathic concern, psychological health, relationship, and sexual satisfaction in couples coping with endometriosis. Data relating to the larger study has been published previously, including a study examining the role of psychological health, emotional intimacy, and empathic concern in relationship satisfaction in 60 couples (Van Niekerk et al., 2020). The data relating to sexual satisfaction have not been published previously and an additional couple was added to the current sample.

Data Analysis

In line with previous studies in pelvic pain conditions (Rosen et al., 2017), dyadic data analysis was guided by the actor-partner interdependence model (APIM; Stas et al., 2018), which generates estimates of the effect of the actor (woman diagnosed, partner) and the partner effect (partner, woman diagnosed) on the outcome variables. The APIM assumes the data from each individual in the couple are not independent and therefore treats the dyad as a unit of analysis. The effects are estimated simultaneously while controlling for each member. Potential confounding variables of age, relationship duration, and symptom length were controlled for. The heterosexual and same-sex couples were analyzed as a homogenous group which is commensurate with the approach taken in published studies (Rosen et al., 2017). A preliminary review of the data indicated that inclusion of the same-sex couple and two unconfirmed cases resulted

in minimal changes to the outcome scores. For simplicity in reporting the results section, the terms “woman” and “women” refer to women with symptomatic endometriosis. The terms “partner” and “partners” refer to the other member of the couple (male or female).

Results

Endometriosis-related descriptive statistics for women are presented in Table 1 and dyadic descriptive statistics are presented in Table 2. A mean of 9.90 current endometriosis-related symptoms were endorsed of a possible 17 by the current sample of women, with the most commonly endorsed symptoms being fatigue (96%), bloating or lower back pain when not menstruating (86%), abdominal pain (82%) and pain associated with bowel movements (72%). The average distress rating for current symptoms was 2.82 (0 = no distress and 4 = extreme distress), with difficulty conceiving (3.83), dysmenorrhea (3.20), fatigue (3.12) and dyspareunia (3.15) rated as causing the most distress. Women reported using a wide range of treatments to manage the symptoms of endometriosis with only 8 percent indicating that they were not actively engaged in any form of treatment. The most cited treatments included gynaecology and over-the-counter medications (34%), pelvic physiotherapy, naturopathy (e.g., Chinese medicine, herbs), and simple analgesics (26%); psychology (24%), and non-steroidal anti-inflammatory drugs (20%).

A series of independent sample *t*-tests were conducted comparing women and partners mean scores for the outcome variables of relationship approach and avoidance goals, relationship satisfaction, and sexual satisfaction (see Table 2).

Table 1 Descriptive statistics for women with endometriosis

Characteristics	<i>M</i> (Range) or <i>N</i>	<i>SD</i>	%
Duration of endometriosis symptoms (years)	11.79 (0–27)	6.67	
Staging/grading of endometriosis			
I was never advised	13		21.3
Unable to recall stage	7		11.5
Minimal grade or stage I	2		3.3
Mild grade or stage II	6		9.8
Moderate grade or stage III	13		21.3
Severe grade or stage IV	20		32.8
Reproductive stage			
No symptoms of perimenopause	48		78.7
Symptoms of perimenopause	5		8.2
Surgical/medication induced menopause	8		13.1
Natural menopause	0		0

N = 61

Table 2 Sample demographics and descriptive statistics for women with endometriosis and their partners

Variable	Women with endometriosis <i>N</i> = 61	Partners <i>N</i> = 61	<i>t</i>
Age	29.82 (6.25)	31.64 (7.60)	
Education level			
High school or below	4.9%	9.8%	
Completed grade 12	24.6%	21.3%	
Vocational certificate	24.6%	21.3%	
Bachelor degree	23%	31.1%	
Postgraduate degree	23%	16.4%	
Couples relationship status			
Committed, living separately	14.8%		
Committed, living together	39.3%		
Married, living together	45.9%		
Couples shared annual income			
\$0–19,999	6.6%		
\$20,000–39,000	1.6%		
\$40,000–59,000	11.5%		
\$60,000–79,000	11.5%		
\$80,000 and over	60.7%		
Declined to provide	8.2%		
Relationship duration (Years)	5.87 (5.44)		
Relationship approach goals	6.21 (.91)	5.76 (1.02)	2.58**
Relationship avoidance goals	5.40 (1.38)	5.43 (1.38)	–0.10
Relationship satisfaction (CSI)	67.49 (11.48)	61.71 (14.370)	2.46*
Sexual satisfaction (NSSS)	33.41 (9.88)	37.25 (10.31)	–2.10*

Percentage values = % of total sample; Means and (SD); *CSI* Couple Satisfaction Index; *NSSS* New Sexual Satisfaction Scale; **p* < .05, ***p* < .01

While women had statistically significantly higher relationship approach goals compared to partners, with medium effect size ($d = 0.47$), the difference between relationship avoidance goals was non-significant. Women reported statistically significantly higher levels of relationship satisfaction than partners, with medium effect size ($d = 0.45$). Women reported statistically significantly lower levels of sexual satisfaction, with medium effect size ($d = 0.40$), than partners.

Bivariate Correlations for Couples and the Outcome Variables

Bivariate correlations were conducted for all outcome measures completed by women and their partners and are reported in Table 3. Within couples, higher relationship satisfaction in one member was associated with higher

Table 3 Standardized correlations between relationship goals and outcome variables for women with endometriosis and their partners

	1	2	3	4	5	6	7	8
1. Approach goals (W)	–	.29*	–.04	.01	.08	–.02	.37**	.06
2. Avoidance goals (W)		–	.05	.08	.25*	.17	–.02	.01
3. Approach goals (P)			–	.34**	.36**	.54**	–.11	.24
4. Avoidance goals (P)				–	–.01	.48**	–.31*	.17
5. Couple satisfaction index (W)					–	.39**	.29*	.27*
6. Couple satisfaction index (P)						–	–.06	.49**
7. New sexual satisfaction scale (W)							–	.47**
8. New sexual satisfaction scale (P)								–

(W) Women’s reports, (P) Partner’s reports, * $p < .05$. ** $p < .01$

relationship satisfaction for the other member. Higher sexual satisfaction for one member was associated with higher sexual satisfaction for the other member. Several positive associations were observed between relationship goals and the outcome measures for women including a significant link between relationship approach goals and sexual satisfaction. Several positive correlations were also revealed for the current sample of partners including a significant positive correlation between relationship approach goals and avoidance goals for relationship satisfaction.

Dyadic Analysis of Relationship Goals and Relationship Satisfaction

As can be seen in Table 4, partners with higher relationship approach and avoidance goals reported higher levels of relationship satisfaction. When the partner pursued more relationship approach goals, women reported higher levels of relationship satisfaction. No other significant dyadic associations were indicated for relationship satisfaction. The inclusion of age as a covariate did not alter the level of significance for any of the dyadic results between relationship goals and relationship satisfaction (Women_{Age} = 0.01, $p = .97$; Partner_{Age} = 0.03, $p = .88$).

Dyadic Analysis of Relationship Goals and Sexual Satisfaction

The dyadic effects for relationship goals and sexual satisfaction are displayed in Table 4. Women with higher relationship approach goals reported higher levels of sexual satisfaction. When their partner pursued more relationship avoidance goals, women reported lower levels of sexual satisfaction. No other significant dyadic associations were indicated for sexual satisfaction. The inclusion of age as a covariate did not alter the level of significance for any of the dyadic results between relationship goals and sexual satisfaction (Women_{Age} = 0.22, $p = .29$; Partner_{Age} = 0.03, $p = .99$).

Discussion

The current study addressed the dearth of research exploring relationship goals and their association with relationship and sexual satisfaction in couples coping with endometriosis from a quantitative dyadic perspective. The results from this study show that relationship approach and avoidance goals can vary at an individual or dyadic level and differ regarding the outcomes of relationship and sexual satisfaction. Partial support was found for the hypothesis that relationship approach goals would be positively associated with relationship and sexual satisfaction in couples coping with endometriosis. Partial

Table 4 Dyadic effects examining the role of relationship goals and outcome variables

Outcome variable	Women’s relationship approach goals				Women’s relationship avoidance goals				Partner’s relationship approach goals				Partner’s relationship avoidance goals			
	<i>b</i>	<i>SE</i>	<i>r</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>r</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>r</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>r</i>	<i>p</i>
Women’s relationship satisfaction ^a	–.04	2.11	.05	.81	.21	1.49	.16	.19	.41	1.76	.43	.002	–.12	1.29	.05	.39
Partner’s relationship satisfaction ^a	–.05	2.29	.001	.76	.02	1.41	–.09	.99	.51	1.92	.59	.001	.31	1.44	.47	.03
Women’s sexual satisfaction ^b	.38	1.74	.26	.02	–.05	1.17	.07	.75	–.01	1.12	–.13	.93	–.28	.93	–.26	.03
Partner’s sexual satisfaction ^b	.04	1.84	–.004	.82	–.12	1.36	–.12	.53	.18	1.37	.21	.17	.06	1.09	.13	.68

Bold font indicates statistically significant result

^aCSI score; ^bNSSS score; *b* Standardized estimates; *SE* Standard Error; *r* Partial *r*

support was also indicated for the hypothesis that relationship avoidance goals would be negatively associated with relationship and sexual satisfaction in couples coping with endometriosis. The pursuit of relationship avoidance goals by both women with endometriosis and their partners was not associated with partners' sexual satisfaction.

Relationship Approach Goals and Relationship and Sexual Satisfaction

Women with endometriosis were found to pursue significantly more relationship approach goals than partners. For women with endometriosis, relationship approach goals were not significantly associated with their own relationship satisfaction but were with sexual satisfaction. This highlights the interplay of relational and sexual factors on relationship and sexual satisfaction which has also been observed in women with other pelvic pain (Brauer et al., 2014). This finding is consistent with women's relationship approach goals being unrelated to relationship satisfaction in the context of PVD (Rosen et al., 2017) and women with other pelvic pain having comparable relationship satisfaction when compared to healthy controls (Smith et al., 2013).

Despite previous research examining relationship approach goals and relationship satisfaction in healthy women, which found a positive association between these factors (Impett et al., 2010), the current study failed to find the same significant association between these factors for women with endometriosis. This could indicate that, for women with endometriosis, approach goals may be the focus of accommodating their partner's pursuit of positive experiences at the expense of their own. Other factors over and above relationship approach goals such as an empathic partner, couple's emotion regulation, and sharing of daily responsibilities (Culley et al., 2017; Van Niekerk et al., 2020) may contribute to overall relationship satisfaction for women with endometriosis.

This study's results indicated that women with endometriosis' higher relationship satisfaction was associated with greater partner engagement in approach goals, which parallels findings from earlier studies in pelvic pain and community samples (Impett et al., 2010; Rosen et al., 2017) and aligns with Gable's (2006) approach-avoidance framework when applied to sexuality. Having a partner invested in the growth of the relationship and pursuit of positive outcomes, particularly with other stressors present (e.g., financial distress, maintaining the household; Hudson et al., 2020), appears to be linked to relationship satisfaction for women with endometriosis. Additionally, research comparing women with endometriosis who do and do not have a partner has indicated that partners may have a protective role in the perception and management of experiences related to endometriosis (Giuliani et al., 2016).

However, women with endometriosis' own approach goals were not linked to their relationship satisfaction, emphasizing partner relationship goals as a potential factor in relationship satisfaction.

Unlike women with endometriosis, partner relationship satisfaction was found to be associated with relationship approach goals. Partner's relationship approach goals were positively linked to their own relationship satisfaction, which is consistent with previous research with pelvic pain partners and healthy controls (Impett et al., 2010; Rosen et al., 2017). The current study found that women with endometriosis' approach goals had no significant association with their partner's relationship satisfaction, adding partial support for Gable's (2006) approach-avoidance framework. Although for women with endometriosis, pursuing more positive outcomes within the relationship was not linked to their partner's satisfaction, partner's own pursuit of positive experiences was linked to their own higher relationship satisfaction. Moreover, in this study, partners also reported significantly lower relationship satisfaction than women with endometriosis. In addition to encouraging relationship approach goals from both women with endometriosis and their partners, the validation of partner experiences (e.g., providing them with practical and emotional support) and enhancing emotional intimacy may facilitate partners relationship satisfaction (Bois et al., 2016; Rancourt et al., 2016; Van Niekerk et al., 2020). Further research is required to understand protective factors and ways that partners can build and maintain their relationship satisfaction, regardless of the level of approach goals engaged in by their partner with endometriosis.

Relationship approach goals were found to be positively associated with sexual satisfaction in women with endometriosis. More specifically, those who had higher relationship approach goals had higher sexual satisfaction, which is in line with previous research in women with pelvic pain disorders (Rosen et al., 2017). These results indicate that women with endometriosis may view sexual activity as more pleasurable and fulfilling when partners are interested in growing intimacy and fun in their relationships outside of the bedroom. In fact, the results support the argument that most women place a greater emphasis on relational factors when evaluating sexual satisfaction (Velten & Margraf, 2017).

Inconsistent with previous PVD studies (Rosen et al., 2017), the sexual satisfaction of the partners in the current endometriosis sample was not associated with their own or the woman with endometriosis' relationship approach goals, despite a noted positive correlation between relationship approach goals and sexual satisfaction. These outcomes suggest that other factors outside of relational goals may be contributing to the partners' perceptions of sexual satisfaction.

Relationship Avoidance Goals and Relationship and Sexual Satisfaction

The current study found that partner's own relationship avoidance goals were associated with higher levels of their own relationship satisfaction. In this case, and opposing expectations, engaging in relationship avoidant goals was linked to higher relationship satisfaction. This is contrary to studies in healthy couples and couples living with pelvic pain that have typically found relationship avoidance goals to be associated with relationship difficulties and lower satisfaction (Impett et al., 2010; Kuster et al., 2017). With no other studies that have investigated relationship avoidance goals in couples coping with endometriosis, a comparative explanation of this finding is not possible. A potential explanation may be that couples coping with endometriosis who actively avoid conflict, disagreements, and any events/situations that could potentially harm their relationship, view their relationships more positively. Additionally, couples coping with endometriosis may conceptualize their persistent avoidant goals (e.g., avoiding discussions about relationship issues) as relationship enhancing rather than ruining (e.g., thoughts of terminating the relationship). Couples may minimize the negative effects that the avoidant goal is having on their relationship as a means of coping with the complexities that endometriosis bestows on both members. This encompasses avoidance of potentially feeling rejected, insecure, lonely, and disappointed (Gable, 2006).

The finding that women with endometriosis experienced lower sexual satisfaction if their partner had higher relationship avoidance goals parallels the findings of Rosen et al. (2017), who found that women with PVD, whose partner engaged in higher relationship avoidance goals, reported lower sexual satisfaction. Given that relationship avoidance goals typically have a negative association with relationship satisfaction (Impett et al., 2010), it is plausible to consider that a partner's focus on mitigating negative relational outcomes (e.g., conflict, disagreements, guilt) may lower the sexual satisfaction of women living with endometriosis.

Limitations and Strengths

There are limitations worth noting. As a cross-sectional study design was used, this limits the ability to identify temporal relationships between endometriosis, relationship goals and relationship and sexual satisfaction. The study used self-reported data for analysis of 61 couples. While this elevates the risk of response and recall bias (Vannier et al., 2017), variables of sexual and relationship goals are inherently subjective making alternate methods impractical. The sample size of 61 couples is relatively small but provides an opportunity for an initial exploration of dyadic relationship goals that can be further explored in a larger sample size. In addition, an

online study was used and reliant on self-reported endometriosis diagnosis and stage rather than a documented diagnosis by an examining healthcare professional. Despite including both mixed and same-sex couples, same-sex couples were few thereby impeding the generalizability of outcomes to diverse couples. The inclusion of more non-heterosexual couples in future research may offer a more balanced insight into how couples of different sexual orientation and gender experience endometriosis. The inclusion of a qualitative component in the study may have enriched the understanding of endometriosis from both an individual and couple's perspective over and above the standard quantitative measures used. Future research may include a mixed model design to examine additional factors associated with the experience of endometriosis that questionnaires fail to capture. Finally, no groups of either healthy couples or couples with other forms of pelvic pain were included for comparative purposes.

The current study has several strengths. The study's inclusion of women with endometriosis and their partners provides insight into the association between endometriosis and each person's relational and sexual wellbeing. It is the first known study to have examined relationship goals and subsequent associations with sexual and relationship satisfaction in couples coping with endometriosis. This allowed a more nuanced inspection of the relational dynamics in couples coping with endometriosis and provided potential points of similarity and differentiation between endometriosis and other forms of persistent pelvic pain. It is unlikely that non-response error would have impacted the results given the small proportion of participants who did not complete the survey in full. The study also used well validated measures that were generalizable across gender due to gender neutral language and/or validation of measures in both males and females. Finally, none of the women with endometriosis surveyed in the current sample were naturally menopausal, which meant the population most affected by endometriosis (i.e., women of reproductive age) was captured.

Clinical Implications and Conclusion

Relationship approach and avoidance goals were implicated in women with endometriosis and partners' sexual and relationship satisfaction. For women with endometriosis, their partners' relationship approach goals fostered higher levels of sexual satisfaction. Neither relationship approach nor avoidance goals were linked to the partners' sexual satisfaction, but relationship approach goals were linked to their own relationship satisfaction. Clinician's assisting women diagnosed with endometriosis, and their partners, are encouraged to investigate and facilitate engagement in relationship approach goals, particularly in relationships where women with endometriosis report lower levels of sexual satisfaction. Exploration of the potential protective mechanisms that some relationship

avoidance goals may have in women's sexual satisfaction may also highlight unique ways that partners develop to adapt to changes in the sexual relationship. Given the inter-relational nature of endometriosis, partners who engage in some relationship avoidance goals, by attempting to minimize negative experiences, may potentially validate their partners' endometriosis-related experience. Given that partners' relationship avoidance goals were also associated with their own level of relationship satisfaction, further exploration of the potentially protective nature of relationship avoidance goals is warranted.

Declarations

Ethical Approval Ethics approval was obtained from the University of Tasmania's Social Sciences Human Research Ethics Committee (Ethics Ref No: H0017516).

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