

JAMANUOL JAMOITAMA3TMI DMA YOOJOHDY87 90 30M31280AU3M

Validation of the Revised Dyadic Adjustment Scale in Portuguese Women with Cervical Cancer

M. Graça Pereira¹, Gabriela Ferreira¹, Paula Sousa¹, José C. Machado², Margarida Vilaça¹, & Rosário Bacalhau³

- 1. Research Centre in Psychology (CIPSI), School of Psychology, University of Minho, Braga, Portugal.
- 2. Communication and Society Research Centre (CECS), Institute of Social Sciences, University of Minho, Braga, Portugal.
- 3. Portuguese Institute of Oncology Francisco Gentil, Lisboa, Portugal.

Corresponding Author: M. Graça Pereira, Ph.D **E-Mail Address:** gracep@psi.uminho.pt **Doi:** https://doi.org/10.56769/ijpn09301

Abstract

Background: Cervical cancer impacts not only women, but also the couple's dynamics. It is therefore important to assess the couple's adjustment to the disease. **Objective:** This study assessed the validity of the Revised Dyadic Adjustment Scale (RDAS) in a sample of 140 Portuguese women diagnosed with cervical cancer engaged in a romantic relationship. **Methods:** The sample included 140 women that answered the following instruments: RDAS, European Organization for Research and Treatment of Cancer (EORTC QLQ-C30), Satisfaction with Social Support Scale (SSSS), Index of Sexual Satisfaction (ISS) and Experiences in Close Relationships Scale Short-Form. **Results:** The content validity analysis indicated high levels of agreement between experts. Confirmatory factor analysis revealed a model that included all items saturating in the respective original subscales. Cronbach alphas ranged from acceptable to good (.73-.88), and both convergent and divergent evidence were also good. **Conclusion:** Overall, the Portuguese RDAS showed good psychometric properties corroborating the original factor solution, and may be considered a resource to assess couple's adjustment to cervical cancer, in research and clinical contexts.

Keywords: Dyadic adjustment, Psychometric Properties, Cervical cancer.



Introduction

Worldwide, cervical cancer ranks fourth in incidence (6.9%), as well as in cancer mortality (7.5%) in women (Arbyn et al., 2020). In Portugal, cervical cancer is the third most common cancer among women aged between 15 and 44 years, and the third leading cause of cancer deaths in women in that age range (Bruni et al., 2019).

Women with cervical cancer may report negative effects on psychological (e.g., anxiety and depressive disorders), dysfunction sexual (e.g., sexual and dissatisfaction) and social (e.g., relationships with partner, family, other groups) functioning, contributing to a decreased quality of life (QoL) (Iżycki et al., 2016; Ye et al., 2014).

The diagnosis of cervical cancer and its treatment has an impact not only on women, but also on their partners (Iżycki et al., 2016). In fact, marital status appears to play a crucial role in women with cervical cancer because being married has been independently associated with an earlier diagnosis of cervical cancer and a more favorable prognosis in American women (Ibrahimi & Pinheiro, 2017). However, the impact of the cervical cancer diagnosis on the marital relationship is a cause for concern given that there is an increased risk of divorce, probably due to the woman's young age at the diagnosis together with the fertility problems associated with treatments (Carlsen et al., 2007). Besides marital status, dyadic adjustment seems also to play an important role. The results of studies conducted in the general population suggested that dyadic adjustment was associated with better health, both physically and psychologically (Brandão et al., 2017; Robles et al., 2014). In fact, the literature has reported a positive association between dyadic adjustment and sexual functioning, emotional adjustment, and QoL, while poor

dyadic adjustment has been associated with psychological maladjustment, slower recovery, and worse physical health outcomes, in women (Brandão et al., 2017).

An important aspect of the marital relationship that contributes to marital functioning and general health is sexuality (Byers, 2011). Sexual satisfaction has been associated with better dyadic adjustment (Sprecher & Cate, 2004) and greater dyadic satisfaction (Butzer & Campbell, 2008), in the general population. However, as a consequence of cervical cancer treatment, women have reported several problems with sexual functioning (Grion et al., 2016), namely lower sexual interest and sexual satisfaction, as well as greater sexual dysfunction (Donovan et al., 2007) when compared with the general population (Ye et al., 2014).

addition In to the negative consequences of cervical cancer treatment, individual characteristics might influence the marital relationship, such as romantic attachment. According to Bartholomew and Horowitz (1991), in adult relationships, the romantic partner is considered an attachment figure. Higher attachment avoidance behaviors and anxiety have been associated with lower dyadic satisfaction in the general population (Brassard et al., 2009) and in women in both distressed and non-distressed couples (Mondor et al., 2011). In turn, secure adult attachment has been associated with higher satisfaction with the relationship (Berlin et al., 2008).

Interpersonal factors as social support also plays a direct and buffering role against psychological distress, in survivors of gynecologic cancer (Iżycki et al., 2016), being associated with better QoL (Osann et al., 2014). Longitudinal studies with women with breast cancer showed that higher social support was associated with better dyadic adjustment (Brandão et al., 2017). A study conducted in women at increased risk of



breast/ovarian cancer and their partners showed an association between greater perceived support and better dyadic consensus and dyadic satisfaction (Watts et al., 2011).

Considering the negative impact of cervical cancer on the marital relationship and the importance and benefits of dyadic adjustment to one's health, it becomes pertinent to assess dyadic adjustment among cervical cancer patients in order to enhance professional's interventions. health Α number of self-report measures have been developed to assess the quality of the romantic relationship, such as Marital Adjustment Scale (MAT), Dyadic Adjustment Scale (DAS), Kansas Marital Satisfaction Scale (KMSS), Quality of Relationship Marriage Index (QMI), Assessment Scale (RAS) or Couple Satisfaction Index (CSI) (Chonody et al., 2018). However, to our knowledge, there are no disease-specific scales to assess the relationship quality in women diagnosed with cervical cancer.

Currently, the Revised Dyadic Adjustment Scale (RDAS; Busby et al., 1995), a revised version of DAS, is one of the most widely used self-report measures in clinical and research contexts, mainly due its brevity, multidimensionality and empirical support (Anderson et al., 2014; Busby et al., 1995). The RDAS, a 14-item instrument that assesses three aspects of the dyadic adjustment (consensus, satisfaction and cohesion), has been translated and used in different languages as Bangla, French, Malay, Persian, Portuguese, and Spanish (Hamid et al., 2020; Hollist et al., 2012; Maroufizadeh et al., 2020; Mead et al., 2003; Nahar et al., 2020; Vandeleur et al., 2003). The original RDAS was validated to discriminate distressed from non-distressed clinical and non-clinical couples in populations (Anderson et al., 2014; Busby et al., 1995; Crane et al., 2000), and has been

used in different populations such as military couples (Farero et al., 2019), samesex couples (Costa et al., 2011), infertile patients (Maroufizadeh et al., 2020), and patients on hemodialysis (Assari et al., 2009). Although the RDAS has been used in studies with cancer patients and their partners/caregivers (McLean et al., 2013; Regan et al., 2014), its psychometric properties have not been analyzed in cancer patients' samples.

Given the adverse impact of cervical cancer on the marital relationship (Carlsen et al., 2007) and the need to assess the dyadic adjustment of women facing cervical cancer, this study analyses RDAS validity and reliability evidence in a sample of women diagnosed with cervical cancer.

Methods

Participants and procedure

This study used a cross-sectional design. The study was approved by the Ethical Committee of the major cancer hospital in southern Portugal, where data were collected (REF: 03/2015).

Eligibility criteria included cervical cancer diagnosis, being followed as an outpatient, age over 18 years, and having a romantic partner (regardless of marital status). The exclusion criteria was a diagnosis of psychiatric disorders (e.g., dementia, schizophrenia, or other psychosis) recorded in the clinical chart. Eligible participants were identified and invited by their physician, and those who accepted to participate, signed the informed consent after oral and written information regarding the aim and procedures of the study. From those invited, 5% of women declined to participate. A posteriori analysis was performed in order to assess the adequacy of the sample size to obtain a reasonable .8 level power. To perform this task, a Web-



available macro from Preacher and Coffman (2006) was used. Assuming a null hypothesis of close fit (H0: RMSEA = .068) and, as suggested by Preacher, Cai and MacCallum (2007),an alternative hypothesis of unacceptable fit (Ha: RMSEA = .10), a significance level of alpha = .05 and 74 degrees of freedom, the Web procedure indicated that the minimum sample size required to achieve the desired level of .8 power was 127 participants. Since the sample size of this study exceeds this minimum (140), the desired statistical power was achieved.

A total of eight experts (mental health professionals) with research and clinical experience in couple and family health were also recruited to test validity evidence based on content.

Measures

Demographic Clinical and Questionnaire. This instrument was developed for the purpose of this study and assessed women's age, education (years), marital status, time since diagnosis (months) and time post treatment (months), stage of disease according to the International Federation of Gynaecology and Obstetrics treatment regimens (FIGO) and (e.g., radiotherapy. chemotherapy, surgery, brachytherapy).

Revised Dyadic Adjustment Scale (RDAS; Busby et al. 1995). This scale measures dyadic adjustment and comprises 14 self-report items about marital functioning and relationship wellbeing. It is a concise measure that includes three subscales: consensus (measures the degree to which couples agree on matters of importance to the relationship, e.g., "How much do you and your partner agree on important decision-making?"); satisfaction (measures the degree to which couples are satisfied with their relationship, e.g., "How

often do you get angry with your partner?"); and cohesion (measures the degree of closeness and shared activities experienced by couples, e.g., "How often do you and your partner discuss something quietly?"). A global score of dyadic adjustment includes the sum of all items from the three subscales. According to the authors, all items are assessed on a 6-point Likert scale: Items 1-6 are scored from 5 (always agree) to 0 (always disagree); items 7 to 10 and 12-14 from 0 (all the time) to 5 (never) except item 11 that is scored in a 5-point Likert scale from 4 (everyday) to 0 (never). Overall scores range from 0 to 69, with higher scores indicating better dyadic adjustment/greater relationship satisfaction. In the original version, the cutoff value is 48 with scores of 48 and above indicating a non-distressed dyadic relationship and scores below denote relationship distress (Anderson et al., 2014; Crane et al., 2000). In the original version, Cronbach's alphas were .81 for consensus, .85 for satisfaction and .80 for cohesion subscales, and .90 for the total scale.

European Organization for Research and Treatment of Cancer (EORTC) -Quality of Life Questionnaire Core-30 (QLQ-C30; Aaronson et al.. 1993: Portuguese version by Pais-Ribeiro et al., 2008). This is a 30-item cancer-specific questionnaire for assessing the general OoL of cancer patients. The questionnaire assesses five functional subscales (15 items: physical, role, emotional, social; cognitive functioning), nine symptom subscale/items items: fatigue, pain, nausea and (13)vomiting, dyspnea, sleep, appetite loss, constipation, diarrhea, and financial difficulties) and a global health status (2 items). Items are scored using a 4-point Likert scale, except for the global health status that presents a linear analogue scale ranging from 1 to 7. Higher scores indicate higher QoL. According to Hinz et al., (2012), the sum of all items is considered a



total measure of QoL. In their study, the Cronbach's alpha for the total scale was .94, while in the present study it was .88.

Satisfaction with Social Support Scale (SSSS: Pais-Ribeiro 1999). This is a self-report scale, consisting of 15 statements that allow the respondent to select in which degree the statement applies or not to his/her individual situation. The SSSS has four subscales - satisfaction with friendships; satisfaction with family; intimacy; social activities; and also provides a total score. All items are scored on a Likert scale from 1 to and higher scores indicate greater 5 satisfaction with social support. In the original version, a Cronbach's alpha of .85 was found for the total scale, and in the present study, was .88.

Index of Sexual Satisfaction (ISS; Hudson 1998; Portuguese version of Pechorro et al., 2009). This is a onedimensional scale that assesses sexual satisfaction in the context of the couple relationship. The original scale contains 25 items that are scored on a 7-point Likert scale, but the Portuguese validation only includes 20 items with a Cronbach's alpha of .95. Higher scores indicate higher sexual dissatisfaction. In the present study, the Cronbach's alpha was .92.

Experiences in Close Relationships Scale – Short-Form (Wei et al., 2007; Portuguese Version of Bacalhau, 2017). This scale assesses the attachment style in romantic relationships through 12 items, of which six measure avoidance, and the remaining measure anxiety. Items are scored on a 7-point Likert scale and higher scores in each subscale indicate more avoidant or anxious attachment style, respectively. In the original version, Cronbach's alpha was .78 for the anxiety attachment subscale and .84 for the avoidance subscale, while in the present study it was .77 for both subscales.

R-DAS Translation

The translation process was based on Bradley's guidelines (1996). The original R-DAS was independently translated to Portuguese by one of the researchers and simultaneously by an independent translator that subsequently confronted the two versions and agreed on a preliminary Portuguese version. Another independent researcher conducted the retroversion process, not knowing the original English version. The preliminary Portuguese version and the original English version were, then, confronted with the purpose of assessing the identity of the items and confirm there were no relevant changes. Finally, the preliminary version was tested within a community sample of 12 women who were asked to fill the questionnaire while "thinking aloud" regarding the adequacy and comprehension of the items. Since there were no major concerns regarding the instructions and comprehension, the Portuguese items research version of the RDAS was considered ready to be used in the present study.

Data analysis

The analysis was conducted in four steps. In the first step, the evidence based on content was tested by experts rating each item for its relevance using a 4-point scale (1 = not relevant, 2 = somewhat relevant, 3)= quite relevant, 4 = highly relevant). Subsequently, a content validity index (CVI) was calculated for each item (I-CVI) and for the overall scale (S-CVI), (Sireci & Faulkner-Bond, 2014). To obtain the I-CVI, the number of experts who scored each item as 3 or 4 was divided by the total number of experts, while the S-CVI corresponded to the average I-CVI across items. Item and scale CVI scores were considered appropriate if they were higher than .78 and .90, respectively (Polit et al., 2007). In the second step, a confirmatory factor analysis



(CFA) using structural equation modeling on a polychoric correlation matrix and maximum likelihood estimation was used to evaluate the factorial structure, validity, and reliability. Polychoric correlation technique measures the agreement between two theorized continuous latent variables, from two observed ordinal variables, being considered the most consistent and robust estimator when using factor analysis to test the construct validity (Holgado-Tello et al., 2010). The model fit was assessed using several goodness-of-fit indexes including the chi square/degree of freedom ($\gamma 2/df$), the comparative fit index (CFI), the root mean square error of approximation (RMSEA), and the standardized root mean residual according Kline's (SRMR), to

recommendations (2015). Values of $\chi 2/df < 5$, CFI > 0.90, and RMSEA and SRMR < .08 indicate adequate fit of a specific model to the data (Hair et al., 2010). In the third step, to evaluate convergent and discriminant evidence, Pearson correlations were performed. Finally, one-way ANOVA and Pearson correlation were used to assess dyadic adjustment according to the patients' age, disease stage and disease duration.

Results

Sample characteristics

The sample included 140 patients with cervical cancer, whose characterization is presented in Table 1.

Table 1.

Sociodemographic and clinical characterization of patients.

| Patients ($N = 140$) | | n (%) / $M \pm SD$ |
|------------------------|---|----------------------|
| Age (years) | | 48.21 <u>+</u> 11.56 |
| | < 40 | 32 (22.9) |
| | 40-49 | 46 (32.9) |
| | 50-59 | 40 (28.6) |
| | > 60 | 22 (15.7) |
| Education (years) | | 9.36 ± 4.10 |
| Marital status | Single | 5 (3.6) |
| | Married | 129 (92.1) |
| | Divorced | 4 (2.9) |
| | Widow | 2 (1.4) |
| Disease stage | 0 | 40 (28.6) |
| | 1 | 36 (25.7) |
| | 2 | 56 (40.0) |
| | 3 | 1 (.7) |
| | 4 | 7 (5.0) |
| Treatments | Surgery | 68 (48.6) |
| | Surgery and radiotherapy | 6 (4.3) |
| | Surgery, radiotherapy and brachytherapy | 12 (8.6) |
| | Surgery, radiotherapy and chemotherapy | 5 (3.6) |
| | Surgery, radiotherapy, chemotherapy and brachytherapy | 4 (2.9) |
| | Radiotherapy | 3 (2.1) |
| | Radiotherapy and brachytherapy | 3 (2.1) |
| | Radiotherapy and chemotherapy | 21 (15.0) |
| | Radiotherapy, chemotherapy and brachytherapy | 18 (12.9) |
| Disease duration | | 23.64 <u>+</u> 15.37 |
| Time after treatment | | 19.11 <u>+</u> 15.03 |



Content evidence

The eight experts evaluated all 14 questions. The I-CVI was .88 for seven out of 14 questions (items 1, 5, 6, 7, 8, 9, 10) and 1 for the remaining questions (items 2, 3, 4, 11, 12, 13, 14), while the S-CVI was .94, indicating good content validity.

Factorial analysis

In the present study, the original factor model that includes three subscales (consensus, satisfaction and cohesion) revealed a good adjustment, as evidenced by

statistics and the adjustment indexes obtained for the initial and retained model: $X^2/df = 1.638$; CFI = .949; SRMR = .057; RMSEA = .068. All items presented factor loadings higher than .60, except for item 1 (.43) and item 11 (.31). However, since both items theoretically make sense in the respective subscales and, globally, the trifactorial solution presented good fit to the data, items 1 and 11 were retained (Figure 1). The correlation between consensus and satisfaction was .616 (p < .001); for consensus and cohesion .441 (p < .01); and for satisfaction and cohesion .411 (p < .01).



Figure 1. Three factor model of RDAS in a sample of cervical cancer patients

Descriptive statistics

The mean score for the total RDAS was 52.43 (SD = 11.03). Regarding the subscales, consensus presented the highest mean score (M = 25.10, SD = 5.23), compared to satisfaction (M = 15.67, SD = 3.73) and cohesion (M = 11.67, SD = 5.38) subscales (Table 2). According to the previously established cutoff value of 47 (Anderson et al., 2014; Crane et al., 2000),

23.9% of the participants revealed marital distress.

Reliability

In the present study, the internalconsistency reliability of the global scale was .85 and the alpha for the consensus, satisfaction and cohesion subscales were .86, .88 and .73, respectively. Moreover, Composite Reliability (CR) was calculated for each factor. The CR was .88 for the first



factor, .88 for the second factor and .74 for the third factor.

Convergent and Divergent Evidence

A significant association between the consensus subscale and QoL (r = .235, p <.01), social support (r = .456, p < .001) and sexual dissatisfaction (r = -.339, p < .001) was found. Higher consensus was associated with better QoL, greater satisfaction with support and lower social sexual dissatisfaction. Higher dyadic satisfaction was associated with better QoL (r = .216, p< .01), greater satisfaction with social support (r = .489, p < .001) and lower sexual dissatisfaction (r = -.351, p < .001). The cohesion subscale was only associated with social support (r = .320, p < .001) and sexual dissatisfaction (r = -.283, p < .01), thus higher cohesion was directly associated with greater satisfaction with social support and lower sexual dissatisfaction (Table 2).

As expected, a negative association between the consensus subscale and the anxious (r = -.365, p < .001) and avoidant (r = -.291, p < .01) attachment subscales was found, i.e., higher consensus was associated with less anxiety and avoidant attachment. Also, higher satisfaction was associated with less anxiety (r = -.544, p < .001) and avoidant attachment (r = -.374, p < .001), and higher cohesion with less anxiety (r = -.333, p < .001) and avoidant attachment (r = -.420, p < .001) (Table 2).

The Average Variance Extracted (AVE) was .55 for the first factor, .66 for the second factor and .44 for the third factor. Although in the third factor, AVE was below .50, since CR was higher than 0.6, the construct shows satisfactory convergent validity (Fornell & Larcker, 1981).

Table 2.

RDAS' descriptive statistics and Pearson correlation coefficients.

| | Dependent Variables | | | | | |
|------------------------|----------------------|------------------|--------------|-------------------|--|--|
| Predictors | | | | | | |
| _ | Consensus | Satisfaction | Cohesion | Dyadic Adjustment | | |
| | | | | | | |
| Overall QoL | .235** | .297*** | .066 | .244** | | |
| | | | | | | |
| Social Support | .456*** | .489*** | .320** | .537*** | | |
| | | | | | | |
| Sexual Dissatisfaction | 339*** | 351*** | 283** | 412*** | | |
| A | <i>765***</i> | E 1 1 *** | 222*** | 5 10*** | | |
| Anxious attachment | 303*** | 344*** | 333*** | 519*** | | |
| Avoidant attachment | - 291** | - 374*** | - 420*** | - 469*** | | |
| | .271 | .574 | .+20 | | | |
| M (SD) | 25.10 (5.23) | 15.67 (3.73) | 11.67 (5.38) | 52.43 (11.03) | | |
| | | | (| | | |

Note. *** *p* < .001; ** *p* < .01; * *p* < .05; *M* = mean; *SD* = standard deviation.



global dyadic adjustment according to the

patients' age and disease stage, and no

significant correlation between disease duration and dyadic adjustment (Table 3).

Differences in Dyadic Adjustment according to Patients' Age, Disease Stage and Disease Duration

There were no significant differences in consensus, satisfaction, cohesion and

Table 3.

Comparisons between RDAS scores considering patients' age, disease stage, and disease duration

| | | Consensus | Satisfaction | Cohesion | D. Adjustment |
|------------------|----------------|---------------------|---------------------|---------------------|----------------------|
| | | M <u>+</u> SD | M <u>+</u> SD | M <u>+</u> SD | M <u>+</u> SD |
| | | 25.10 <u>+</u> 5.23 | 15.67 <u>+</u> 3.73 | 11.67 <u>+</u> 5.38 | 52.43 <u>+</u> 11.03 |
| Age group | < 40 | 23.88 <u>+</u> 6.16 | 15.25 <u>+</u> 3.68 | 11.13 <u>+</u> 4.50 | 50.52 <u>+</u> 10.41 |
| | 40-49 | 25.22 <u>+</u> 4.47 | 15.91 <u>+</u> 3.88 | 12.56 <u>+</u> 4.90 | 53.69 <u>+</u> 10.41 |
| | 50-59 | 25.41 <u>+</u> 5.59 | 15.15 <u>+</u> 3.90 | 11.82 <u>+</u> 5.73 | 52.38 <u>+</u> 12.36 |
| | > 60 | 26.09 <u>+</u> 4.55 | 16.68 <u>+</u> 3.11 | 10.36 <u>+</u> 6.72 | 53.14 <u>+</u> 10.93 |
| | p value | .443 | .402 | .415 | .592 |
| Disease stage | 0 | 25.29 <u>+</u> 3.33 | 15.88 <u>+</u> 3.27 | 12.48 <u>+</u> 4.76 | 54.25 <u>+</u> 8.79 |
| | Ι | 24.71 <u>+</u> 7.19 | 16.17 <u>+</u> 4.28 | 10.23 <u>+</u> 5.50 | 51.11 <u>+</u> 13.08 |
| | II | 24.64 <u>+</u> 5.15 | 15.09 <u>+</u> 3.82 | 11.89 <u>+</u> 5.58 | 51.62 <u>+</u> 11.34 |
| | p value | .479 | .373 | .172 | .404 |
| Disease duration | R | .079 | .129 | 036 | .063 |
| | <i>p</i> value | .355 | .132 | .672 | .460 |

Discussion

focused This study on the psychometric proprieties of the RDAS in a sample of Portuguese women with cervical cancer, through the assessment of content, reliability, construct, convergent and discriminant evidence. In this study, relationship distress was reported by 24% of women, which was lower than the distress

described by infertile patients (39%; Maroufizadeh et al., 2020) but close to distress reported by women facing breast cancer (27%; Kraemer et a., 2011). Considering that cervical and breast cancer are gynecological cancers, it makes sense that these patients experience similar relationship distress.

Content validity of the items ranged between .88 and 1 and was .94 for the total



scale showing that the majority of experts agreed. The confirmatory factor analysis supported the three-factor model and included all items of the original version, saturating in the respective subscales. The model achieved good fit indexes, which is consistent with the original RDAS research (Busby et al., 1995) and other validation studies (Costa et al., 2011; Maroufizadeh et al., 2020). Items 1 (the extent of agreement/disagreement for "religious matters") and 11 ("Do you and your mate engage in outside interests together?") got lower loadings compared with the remaining items, which was also found in the Maroufizadeh et al. study (2020). In fact, previous studies have shown that when facing life-threatening diseases patients tend to rely on external resources as religion (e.g., Büssing et al., 2009), especially women. However, inconsistencies between partners' engagement in religious matters may result in divergences (Yoshimoto et al., 2006), which may explain the results for item 1. Item 11, in turn, has shown to be problematic in previous studies (Farero et al., 2019), mainly because it does not seem to cluster with the other items of the cohesion subscale (three items that ask about the frequency that specific situations occur), and the response to this item differs from the remaining items. However, since both loadings were statistically significant items 1 and 11 were retained.

Internal consistency was very good for the total scale, consensus and satisfaction subscales, and acceptable for cohesion subscale. Compared with the original version (Busby et al., 1995), alpha values in the present sample were higher for consensus and satisfaction subscales, and lower for the cohesion subscale and the total scale. The Crane et al. study (2000) also found a higher reliability coefficient (.90) for the total scale. The Brazilian version of the RDAS found an alpha for the total scale lower in the overall sample (.82), but similar in women in the field-testing of the RDAS (.85) (Hollist et al., 2012). Compared to other clinical samples, the validation of the RDAS using a sample of 254 Persian infertile patients (Maroufizadeh et al., 2020) found a similar coefficient for the total scale (.85) but lower values for the subscales (between .66 and .84). In another study using a sample of 135 patients on hemodialysis (Assari et al., 2009), Cronbach alpha for the total scale was .90. Although the use of a non-standardized clinical and sociodemographic questionnaire, in the present study, limits the comparison of results with previous studies, Chronbach's alphas obtained in this study were in line with the results from previous studies.

expected, As the convergent evidence analysis showed that higher consensus and dyadic satisfaction were with better QoL. associated greater satisfaction with social support and lower dissatisfaction although sexual the correlations were lower. The literature has suggested that dyadic adjustment is associated with better sexual functioning, QoL and social support (Brandão et al., 2017). Dyadic satisfaction, in particular, has been positively associated with OoL (Iżycki et al., 2016), sexual satisfaction (Butzer & Campbell, 2008), and constructive patterns of communication (Litzinger & Gordon 2005). Constructive communication, in particular, may be considered important for dyadic consensus and was also associated with higher sexual satisfaction (Litzinger & Gordon, 2005). Moreover, better dyadic consensus and satisfaction were associated with greater perceived support in women at increased risk of breast/ovarian cancer (Watts et al., 2011).

Higher cohesion was directly associated with greater satisfaction with social support and lower sexual dissatisfaction. Although, to our knowledge, the relationship between cohesion and satisfaction with social support in cervical cancer patients has not yet been studied, previous research on ovarian and breast cancer already suggested the association between cohesion and higher congruence regarding perceived social support (Watts et al., 2011), as well as between social support and higher levels of marital adjustment (Brandão et al., 2017). Also, overall dyadic adjustment has been associated with sexual satisfaction (Sprecher & Cate 2004).

Concerning divergent evidence. results showed that higher consensus, satisfaction, and cohesion were associated with less anxiety and avoidant attachment. In fact, in the general population, behaviors of avoidance and anxiety attachment were associated with lower dyadic adjustment (Martins et al., 2016), lower dyadic satisfaction (Brassard et al., 2009), and greater conflict (Brassard et al., 2009) which may negatively affect dyadic consensus. Cancer as a life-threatening disease is a threat to the couple's bonding that my trigger attachment behaviors (Burwell et al., 2006), i.e., the patient may be less available as an attachment figure and, according to the attachment style of each partner, the couple may seek proximity or distance to deal with the distress from the disease and its treatment (Burwell et al., 2006). After a diagnosis of cancer, when the couple is in an insecure attachment style (avoidant and anxious), difficulties coping with the disease such mav occur. as avoiding communication, adopting criticism, clinging and coercing (Burwell et al., 2006). These behaviors not only undermine attachment security, but also compromise the well-being of the patient and the quality of the marital relationship, in terms of consensus, satisfaction, and cohesion.

No differences were found in the dyadic adjustment considering the patients' age, as in the Brazilian study (Hollist et al.,

2012). Cancer stage and the diagnosis duration also had no impact on RDAS, contrary to what was expected (Carlson et al., 2000). However, the results found in the present study may be due to the characteristics of this particular sample that included 94.3% of women with cancer 0 and diagnosed stages between 2 years prior approximately two the assessment what may also explain the lower correlations between dyadic adjustment and Future research, including a more OoL. heterogeneous sample, is needed in order to determine the effect of sociodemographic variables on RDAS scores.

On average, as table 3 shows, participants reported dvadic better adjustment (total scale: M = 52.4, SD = 11.0; consensus: M = 25.1, SD = 5.2; satisfaction: M = 15.7, SD = 3.7; cohesion: M = 11.7, SD= 5.4) compared to the clinical sample of the original validation study (Busby et al., 1995; total scale: M = 41.6, SD = 8.2; consensus: M = 20.1, SD = 3.9; satisfaction: M = 12.2,SD = 3.1; cohesion: M = 9.3, SD = 3.3) and, in fact, similar to the non-clinical sample (total scale: M = 52.3, SD = 6.6; consensus: M = 24.2, SD = 3.1; satisfaction: M = 15.7,SD = 2.2; cohesion: M = 12.4, SD = 2.8). Nevertheless, it should be noted that the original study was carried out nearly 25 years ago. Also, future validation studies should include women with a longer diagnosis and in more advanced cancer stages. In comparison with the infertile patients' sample (Maroufizadeh et al., 2020; total scale: M = 49.3, SD = 9.3; consensus: M = 24.0, SD = 4.6; satisfaction: M = 15.5, SD = 3.3; cohesion: M = 9.8, SD = 3.9), dvadic adjustment reported in this study was worse, as expected since infertility is just one of many severe symptoms of cervical cancer that may impact the couple's relationship.

This study presents some limitations that need to be acknowledged. The sample



size is reduced and only comprised of women from one main oncological hospital in Portugal who were engaged in a heterosexual romantic relationship. Therefore, caution is required regarding the generalization of the results. Future research should consider the validation of RDAS in women diagnosed with cervical cancer for longer periods (more than two years) and evaluated in stages 3-4, as well as include their partners. Further research should also determine the cutoff points of the Portuguese version of RDAS in the current sample, as performed in previous studies (Anderson et al., 2014; Crane et al., 2000).

Conclusion

The Results of the Portuguese version of RDAS in women with cervical satisfactory cancer gathered validity evidence, specifically, (i) demonstrating content validity, (ii) presenting good reliability values, (iii) corroborating the original factor solution, and showed (iv) convergent and (v) divergent evidence, through a pattern of correlation with measures intended to assess related and distinct constructs, in line with theoretical predictions. Given that the RDAS has been widely used in the general population, but also in cancer patients, validity and reliability evidence of this scale in this specific population required. was Considering the impact of cervical cancer on the couples' relationship, as well as the importance of dyadic adjustment to patients' recovery, the RDAS validation in the cancer context is particularly necessary since it has the potential to function as a tool to help the oncological multidisciplinary care team to assess, intervene, and monitor the couples' adjustment to cervical cancer as the disease progresses. The Portuguese version of RDAS is an easy, valid and reliable instrument that enables a quick assessment

of the quality of the relationship in women with cervical cancer, and may be used in both clinical and research applications.

Acknowledgments: The authors want to thank all participants for their contribution to the present study.

Funding: This study was conducted at the Psychology Research Centre (PSI/01662), School of Psychology, University of Minho, supported by the Foundation for Science and Technology (FCT) through the Portuguese State Budget (Ref.: UIDB/PSI/01662/2020).

Declaration ethical approval: This study was approved by the Ethical Committee of the major cancer hospital where data were collected (REF: 03/2015).

Competing interests: The authors declare no conflict of interest.

References

- Aaronson, N. K., Ahmedzai, S., Bergman, B., Bullinger, M., Cull, A., Duez, N. J., Filiberti, A., Flechtner, H., Fleishman, S. B., & de Haes, J. C. (1993). The European Organization for Research and Treatment of Cancer QLQ-C30: a quality-of-life instrument for use in international clinical trials in oncology. *Journal of the National Cancer Institute*, 85(5), 365–376. https://doi.org/10.1093/jnci/85.5.365
- Anderson, S. R., Tambling, R. B., Huff, S. C., Heafner, J., Johnson, L. N., & Ketring, S. A. (2014). The development of a reliable change index and cutoff for the Revised Dyadic Adjustment Scale. *Journal of Marital and Family Therapy*, 40(4), 525-534. https://doi.org/10.1111/jmft.12095

ၜ႞ၛ

- Arbyn, M., Weiderpass, E., Bruni, L., de Sanjosé, S., Saraiya, M., Ferlay, J., & Bray, F. (2020). Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis. *The Lancet. Global health*, 8(2), e191– e203. https://doi.org/10.1016/S2214-109X(19)30482-6
- Assari, S., Moghani Lankarani, M., & Tavallaii, S. A. (2009). Revised dyadic adjustment scale as a reliable tool for the assessment of quality of the marital relationship in patients on long-term hemodialysis. *Iranian Journal of Kidney Diseases*, *3*(4), 242-245. https://www.sid.ir/EN/VEWSSID/J_p

df/116620090411.pdf

- Bacalhau, R. (2017). *Indicadores psicossociais da qualidade de vida no cancro do cólo do útero* [Psychosocial indicators of quality of life in cervical cancer] (Unpublished doctoral dissertation). University of Minho, Braga, Portugal.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, *61*(2), 226–244. https://doi.org/10.1037/0022-3514.61.2.226

Beckjord, E., & Campas, B. E. (2007). Sexual quality of life in women with newly diagnosed breast cancer. *Journal of Psychosocial Oncology*, 25(2), 19–36. https://doi.org/10.1300/J077v25n02_0 2 Berlin, L. J., Cassidy, J., & Appleyard, K. (2008). The influence of early attachments on other relationships. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research and clinical applications* (pp. 333–347). New York: Guilford Press.

- Brandão, T., Pedro, J., Nunes, N., Martins, M. V., Costa, M. E., & Matos, P. M. (2017). Marital adjustment in the context of female breast cancer: A systematic review. *Psycho-Oncology*, 26(12), 2019-2019. https://doi.org/10.1002/pon.4432
- Brassard, A., Lussier, Y., & Shaver, P. R. (2009). Attachment, perceived conflict, and couple satisfaction: Test of a mediational dyadic model. *Family Relations*, 58(5), 634-646. https://doi.org/10.1111/j.1741-3729.2009.00580.x

Bruni L., Albero G., Serrano B., Mena M., Gómez D., Muñoz J., et al. (2019, June 17). ICO/IARC Information Centre on HPV and Cancer (HPV Information Centre). *Human Papillomavirus and Related Diseases in Portugal*. Retrieved August 16, 2021, from http://globocan.iarc.fr.

- Burwell, S. R., Bracker, P. S., & Shields, C. G. (2006). Attachment behaviors and proximity-seeking in cancer patients and their partners. *Journal of Couple* & *Relationship Therapy*, 5(3), 1-16. https://doi.org/10.1300/J398v05n03_0 1
- Busby, D. M., Christensen, C., Crane, D. R., & Larson, J. H. (1995). A revision of the dyadic adjustment scale for use with distressed and nondistressed couples: Construct hierarchy and



multidimensional scales. *Journal of Marital and Family Therapy*, 21(3), 289–308. https://doi.org/10.1111/j.1752-0606.1995.tb00163.x

- Büssing, A., Michalsen, A., Balzat, H. J., Grünther, R. A., Ostermann, T., Neugebauer, E. A., at al. (2009). Are Spirituality and Religiosity Resources for Patients with Chronic Pain Conditions? *Pain Medicine*, *10*(2), 327– 339. https://doi.org/10.1111/j.1526-4637.2009.00572.x
- Butzer, B., & Campbell, L. (2008). Adult attachment, sexual satisfaction, and relationship satisfaction: A study of married couples. *Personal Relationships*, *15*(1), 141–154. https://doi.org/10.1111/j.1475-6811.2007.00189.x
- Byers, E. S. (2011). Beyond the "birds and the bees" and "was it good for you?": Thirty years of research on sexual communication. *Canadian Psychology*, *52*(1), 20–28. https://doi.org/10.1037/a0022048
- Carlson, L. E., Bultz, B. D., Speca, M., & St. Pierre, M. (2000). Partners of Cancer Patients. *Journal of Psychosocial Oncology*, *18*(3), 39-63. https://doi.org/10.1300/J077v18n02_0 3
- Chonody, J. M., Gabb, J., Killian, M., & Dunk-West, P. (2018). Measuring Relationship Quality in an International Study: Exploratory and Confirmatory Factor Validity. *Research on Social Work Practice*, 28(8),920-930. d

https://doi.org/oi:10.1177/1049731516 631120

- Costa, P., Pereira, H., & Leal, I. (2011).
 Desenvolvimento da Escala Revista de Ajustamento Diádico (RDAS) com casais do mesmo sexo [Development of the Revised Dyadic Adjustment Scale (RDAS) in same-sex couples].
 In A. S. Ferreira, A. Verhaeghe, D. R. Silva, L. S. Almeida, & S. Fraga (Eds.), Actas do VIII Congresso Iberoamericano de Avaliação/Evaluación Psicológica (pp. 1231-1238). Lisbon: Portuguese Society of Psychology.
- Crane, D. R., Middleton, K. C., & Bean, R. A. (2000). Establishing criterion scores for the Kansas Marital Satisfaction Scale and the Revised Dyadic Adjustment Scale. *The American Journal of Family Therapy*, 28(1), 53-60. https://doi.org/10.1080/019261800261 815
- Dizon, D. S., Suzin, D., & Mcllvenna, S. (2014). Sexual Health as a Survivorship Issue for Female Cancer Survivors. *The Oncologist*, *19*(2), 202–210. https://doi.org/10.1634/theoncologist.2 013-0302
- Donovan, K. A., Taliaferro, L. A., Alvarez, E. M., Jacobsen, P. B., Roetzheim, R. G., & Wenham, R. M. (2007). Sexual health in women treated for cervical cancer: Characteristics and correlates. *Gynecologic Oncology*, *104*(2), 428–434. https://doi.org/10.1016/j.ygyno.2006.0 8.009

El Ibrahimi, S., & Pinheiro, P. S. (2017).



The effect of marriage on stage at diagnosis and survival in women with cervical cancer. *Psycho-Oncology*, *26*(5), 704–710. https://doi.org/10.1002/pon.4070

- Farero, A., Bowles, R., Blow, A., Ufer, L., Kees, M., & Guty, D. (2019). Rasch Analysis of the Revised Dyadic Adjustment Scale (RDAS) with Military Couples. *Contemporary Family Therapy*, 41(3), 125-134. https://doi.org/10.1007/s10591-018-09486-2
- Ferlay, J., Soerjomataram, I., Ervik, M., Dikshit, R., Eser, S., Mathers, C., Rebelo, M., Parkin, D.M., Forman, D., & Bray, F. (2013). GLOBOCAN 2012: Estimated Cancer Incidence, Mortality and Prevalence Worldwide in 2012. Retrieved June 15, 2020, from https://gco.iarc.fr/
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, *18*(1), 39-50. https://doi.org/10.2307/3151312
- Grion, R. C., Baccaro, L. F., Vaz, A. F., Costa-Paiva, L., Conde, D. M., & Pinto-Neto, A. M. (2016). Sexual function and quality of life in women with cervical cancer before radiotherapy: A pilot study. *Archives* of Gynecology and Obstetrics, 293(4), 879–886. https://doi.org/10.1007/s00404-015-3874-z
- Hair, J. F., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate Data Analysis: A Global Perspective*. New Jersey: Pearson Education.

Hamid, N., Muhamad, R., Kueh, Y. C., Zahari, Z., Mohamad Nor, N., Abdullah, N., et al. (2020). Translation of the Revised Dyadic Adjustment Scale (RDAS) into the Malay language and its psychometric qualities among healthy married Malay women. *Journal of Pharmacy and Bioallied Sciences*, *12*(4), 444-448. https://doi.org/10.4103/jpbs.JPBS_265 _19

Hinz, A., Einenkel, J., Briest, S., Stolzenburg, J. U., Papsdorf, K., & Singer, S. (2012). Is it useful to calculate sum scores of the quality of life questionnaire EORTC QLQ-C30? *European Journal of Cancer Care*, 21(5), 677-683. https://doi.org/10.1111/j.1365-2354.2012.01367.x

Holgado–Tello, F. P., Chacón–Moscoso, S., Barbero–García, I., & Vila–Abad, E. (2010). Polychoric versus Pearson correlations in exploratory and confirmatory factor analysis of ordinal variables. *Quality & Quantity: International Journal of Methodology*, 44(1), 153-166. https://doi.org/10.1007/s11135-008-9190-y

Hollist, C. S., Falceto, O. G., Ferreira, L. M., Miller, R. B., Springer, P. R., Fernandes, C. L., et al. (2012). Portuguese translation and validation of the revised dyadic adjustment scale. *Journal of Marital and Family Therapy*, 38(1), 348–358. https://doi.org/10.1111/j.1752-0606.2012.00296.x



- Hudson, W. (1998). Index of Sexual Satisfaction. In C. Davis, W. Yarber, R. Bauserman, G. Schreer, & S. Davis (Eds.), *Handbook of sexuality-related measures* (pp. 512-513). Thousand Oaks, California: Sage Publications.
- Iżycki, D., Woźniak, K., & Iżycka, N.
 (2016). Consequences of gynecological cancer in patients and their partners from the sexual and psychological perspective. *Menopause* Review, *15*(2), 112-116. https://doi.org/10.5114/pm.2016.6119 4
- Juraskova, I., Butow, P., Robertson, R., Sharpe, L., McLeod, C., & Hacker, N. (2003). Post-treatment sexual adjustment following cervical and endometrial cancer: a qualitative insight. *Psychooncology*, *12*(3), 267-279. https://doi.org/10.1002/pon.639
- Kline, R. B. (2015). *Principles and Practice* of Structural Equation Modeling (4th ed.). New York, NY: The Guilford Press.
- Kraemer, L. M., Stanton, A. L., Meyerowitz,
 B. E., Rowland, J. H., & Ganz, P. A. (2011). A longitudinal examination of couples' coping strategies as predictors of adjustment to breast cancer. Journal of Family Psychology, 25(6), 963-972. https://doi.org/10.1037/a0025551
- Litzinger, S., & Gordon, K. C. (2005). Exploring relationships among communication, sexual satisfaction, and marital satisfaction. *Journal of Sex & Marital Therapy*, *31*(5), 409-424. https://doi.org/10.1080/009262305910 06719

- Maroufizadeh, S., Omani-Samani, R., Hosseini, M., Almasi-Hashiani, A., Sepidarkish, M, & Amini, P. (2020). The Persian version of the revised dyadic adjustment scale (RDAS): a validation study in infertile patients. *BMC Psychology*, 8(1), 6. https://doi.org/10.1186/s40359-020-0375-z
- Martins, T. C., Canavarro, M. C., & Moreira, H. (2016). Adult attachment and dyadic adjustment: The mediating role of shame. *The Journal of Psychology*, *150*(5), 560-575. https://doi.org/10.1080/00223980.201 5.1114461
- McLean, L. M., Walton, T., Rodin, G., Esplen, M. J., & Jones, J. M. (2013). A couple-based intervention for patients and caregivers facing endstage cancer: Outcomes of a randomized controlled trial. *Psycho-Oncology*, 22(1), 28-38. https://doi.org/10.1002/pon.2046
- Mead, D., Thurber, S. L., & Crane, B. E. (2003). Spanish translations of a standard assessment battery for marital distress. *American Journal Of Family Therapy*, *31*(5), 409–412. https://doi.org/10.1080/019261803902 24003
- Mondor, J., McDuff, P., Lussier, Y., & Wright, J. (2011). Couples in therapy: Actor-partner analyses of the relationships between adult romantic attachment and marital satisfaction. *The American Journal of Family Therapy*, 39(2), 112–123. https://doi.org/10.1080/01926187.201 0.530163



Nahar, J., Islam, M., Syed, S., & Islam M. (2020). Adaptation and validation of the Revised Dyadic Adjustment Scale in Bangla (R-DAS Bangla). *Journal of Psychiatry and Psychiatric Disorders*, 4, 437-448. https://doi.org/10.26502/jppd.2572-519X0125

Osann, K., Hsieh, S., Nelson, E. L., Monk, B. J., Chase, D., Cella, D., & Wenzel, L. (2014). Factors associated with poor quality of life among cervical cancer survivors: Implications for clinical care and clinical trials. *Gynecologic Oncology*, *135*(2), 266– 272. https://doi.org/10.1016/j.ygyno.2014.0 8.036

Pais-Ribeiro, J. L. (1999). Escala de Satisfação com o Suporte Social (ESSS) [Satisfaction with Social Support Scale (SSSS)]. *Análise Psicológica*, *17*(3), 547-558. Retrieved May 12, 2020, from http://www.scielo.mec.pt/scielo.php?s cript=sci_arttext&pid=S0870-82311999000300010

Pais-Ribeiro, J., Pinto, C., & Santos, C. (2008). Validation study of the Portuguese version of the QLQ-C30-V.3. *Psicologia, Saúde & Doenças*, 9(1), 89–102. Retrieved May 12, 2020, from http://www.scielo.mec.pt/scielo.php?s cript=sci_abstract&pxml:id=S1645-00 8620080001000 08&lng=en&nrm=i

Pechorro, P., Diniz, A., Almeida, S., & Vieira, R. (2009). Validação de uma versão feminina do Índice de Satisfação Sexual (ISS) [Validation of a female version of the Index of Sexual Satisfaction]. *Laboratório de* *Psicologia*, 7(1): 45-56. https://doi.org/10.14417/Ip.685

Polit, D. F., Beck, C. T., & Owen, S. V. (2007). Is the CVI an acceptable indicator of content validity? Appraisal and recommendations. *Research in Nursing and Health*, 30(4), 459-467. https://doi.org/10.1002/nur.20199

Preacher, K. J., & Coffman, D. L. (2006). *Computing power and minimum sample size for RMSEA* [Computer software]. Available from http://quantpsy.org/

Preacher, K. J., Cai, L., & MacCallum, R. C. (2007). Alternatives to traditional model comparison strategies for covariance structure models. In T. D. Little, J. A. Bovaird, & N. A. Card (Eds.), *Modeling contextual effects in longitudinal studies* (pp. 33-62). Mahwah: Lawrence Erlbaum Associates.

Regan, T. W., Lambert, S. D., Kelly, B., McElduff, P., Girgis, A., Kayser, K., et al. (2014). Cross-sectional relationships between dyadic coping and anxiety, depression, and relationship satisfaction for patients with prostate cancer and their spouses. *Patient Education and Counseling*, 96(1), 120-127. https://doi.org/10.1016/j.pec.2014.04.0 10

Robles, T. F., Slatcher, R. B., Trombello, J.
M., & McGinn, M. M. (2014). Marital quality and health: A meta-analytic review. *Psychological Bulletin*, *140*(1), 140-187. https://doi.org/10.1037/a0031859



- Sireci, S., & Faulkner-Bond, M. (2014). Validity evidence based on test content. Psicothema, 26(1), 100-107. https://doi.org/10.7334/psicothema201 3.256
- Sprecher, S., & Cate, R. (2004). Sexual Satisfaction and Sexual Expression as Predictors of Relationship Satisfaction and Stability. In J. H Harvey, A. Wenzel, & S. Sprecher (Eds.), The handbook of sexuality in close relationships (pp. 235-256). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Vandeleur, C. L., Fenton, B. T., Ferrero, F. F., & Preisig, M. M. (2003). Construct validity of the French version of the Dyadic Adjustment Scale. Swiss Journal of Psychology, 62(3), 167-175. https://doi.org/10.1024//1421-0185.62.3.167
- Watts, K. J., Sherman, K. A., Mireskandari, S., Meiser, B., Taylor, A., & Tucker, K. (2011). Predictors of relationship adjustment among couples coping with a high risk of developing breast/ovarian cancer. Psychology & Health, 26(1), 21-39.

https://doi.org/10.1080/088704410035 92587

- Wei, M., Russel, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The Experiences in Close Relationship Scale (ECR)short form: Reliability, validity, and factor structure. Journal of Personality Assessment, 88(2), 187-204. https://doi.org/10.1080/002238907012 68041
 - Ye, S., Yang, J., Cao, D., Lang, J., & Shen, K. (2014). A systematic review of quality of life and sexual function of patients with cervical cancer after treatment. International Journal of Gynecological Cancer, 24(7), 1146-1157. https://doi.org/10.1097/IGC.00000000 00000207
 - Yoshimoto, S. M., Ghorbani, S., Baer, J. M., Cheng, K. W., Banthia, R., Malcarne, V. L., et al. (2006) Religious coping and problem-solving by couples faced with prostate cancer. European Journal of Cancer Care, 15(5), 481-488. https://doi.org/10.1111/j.1365-2354.2006.00700.x

How to cite this Article:

Pereira, M.G., Ferreira, G., Sousa, P., Machado, C. J., Vilaca, M., & Bacalhau, R. (2023). Validation of the Revised Dyadic Adjustment Scale in Portuguese Women with Cervical Cancer. International Journal of Psychology and Neuroscience, 9(3), 1-18. Doi: https://doi.org/10.56769/ijpn09301

Received: 11/11/2023

Revised: 09/12/2023

Accepted: 19/12/2023

Published online: 31/12/2023

ISSN: 2183-5829

