Congruence of quality of life among infertile men and women: findings from a couple-based study

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Introduction

In many societies around the world, lack of pregnancy and the resulting childlessness are often highly stigmatizing, leading to profound social suffering for infertile couples (Sciarra, 1994; van Balen and Gerrits, 2001; Inhorn, 2003; van Balen and Inhorn, 2003). Rarely has infertility been acknowledged as a serious public health problem in overpopulated developing countries (WHO, 2002; Inhorn, 2003). As a result, few societies have incorporated the diagnosis and treatment of infertility into their family planning programs, meaning that state-sponsored infertility care remains marginal at best and generally does not include access to, or coverage of, assisted reproduction services (van Balen and Gerrits, 2001; Inhorn, 2003).

From an individual’s perspective, several reports have explored the experience of not being capable of conceiving a biological child. In general, the psychosocial impact of infertility is comprehensive (Greil, 1997), and infertility has been consistently associated with decreased scores in quality of life (QOL) domains. Briefly, the most affected domains are mental health, vitality, emotional behavior, psychological, environmental, physical functioning and social functioning (Fassino et al., 2002; Fekkes et al., 2003; Khayata et al., 2003; El-Messidi et al., 2004; Drosdzol and Skrzypulec, 2008; Lau et al., 2006).

BACKGROUND: It has been consistently demonstrated that infertility is associated with quality of life (QOL) impairments. Research to date has mostly focused on individual’s reactions to infertility (mainly women), without an examination of how the partner is reacting to the same condition. The few studies that assessed QOL among couples did not use couple-based analyses, consequently not considering the intra-couple effects. The objectives of this study were to explore the congruence of QOL perception within infertile couples and to estimate the effect of depression levels on the congruence.

METHODS: In total, 162 couples were interviewed in an assisted reproduction clinic cross-sectionally. Subjects completed a socio-demographic form, World Health Organization Quality of Life-BREF and the Beck Depression Inventory independently. The statistical strategy was guided to ensure that subjects would be explored within pairs at all times and not as independent groups. Paired t-tests were run, and Cohen’s effect was estimated. Depression levels were controlled by linear multiple regressions and repeated-measures ANCOVAs.

RESULTS: Out of the five QOL domain scores, only two showed a significant discrepancy between partners (psychological and social relationship domains). Male depression was a significant predictor for all five QOL difference scores, whereas female depression was associated with three (overall, psychological and physical). Moreover, it was demonstrated that, except for the psychological domain and for the female depression on the physical domain, the load of depression as a predictor of the QOL difference scores was markedly low, accounting for not more than 7.5% of the variance of congruence between men’s and women’s QOL.

CONCLUSION: Our findings suggest that QOL scores do not differ markedly between spouses. Since QOL seemed similarly affected in both men and women, consideration might be given to offering interventions to them as a dyad. These results are not in line with the previous non-paired studies, and further investigations are required to address this dissimilarity.

Key words: infertility / quality of life / dyad / couples / depression
Recent findings have shown that infertility is a shared condition, with infertile women seeming to demonstrate stronger and more extensive QOL impairment, compared with infertile men (El-Messidi et al., 2004; Ragni et al., 2005; Drosdzol and Skrzypulec, 2008; Rashidi et al., 2008).

Research has typically focused on individual’s reactions to infertility (mainly women), without an examination of how the partner is reacting to the same condition, or whether each partner’s experience is affecting the other partner (Greil, 1997). Family system theory suggests that individuals also should be examined in terms of the processes between people in relationships, rather than exclusively the individuals themselves (Peterson et al., 2003). Furthermore, it is hypothesized that one’s QOL is influenced by the QOL of one’s partner (Andrews et al., 1991; Greil, 1997). For example, there have been a handful of studies examining the impact of partner coping in couples experiencing infertility (Stanton et al., 1991; Mikulinčer et al., 1998; Berghuis and Stanton, 2002; Peterson et al., 2003, 2006a, b, 2008). These studies show that infertility is associated with effects in both members of the couple and that one partner’s coping impacts his or her partner’s individual response to infertility stress.

QOL has increasingly emerged as an extremely relevant outcome in complex and multidimensional health conditions (Testa, 1996; Skevington and O’Connell, 2004; Chachamovich et al., 2007b). Among them, studies on infertility have benefited from the inclusion of QOL as an end-point, since it has made it possible to measure the impact of infertility in a broader way, comprehending outcomes beyond clinical symptomatology (Chachamovich et al., 2007b). Although the conceptualization of QOL is not consensual, the World Health Organization Quality of Life (WHOQOL) Group’s definition has been widely accepted (Calman, 1984; Cella and Tulsky, 1990; Leplege and Hunt, 1997; Skevington and O’Connell, 2004). The World Health Organization has defined QOL as ‘people’s perception of their position in life in the context of the culture and value systems in which they live in relation to their objectives, expectations, standards and concerns’, emphasizing the multidimensionality, subjective perception and presence of positive and negative dimensions in its theoretical conceptualization WHOQOL group (1994).

Even though several studies have recruited infertile couples to investigate QOL, results are only reported for women and men separately (Fekkes et al., 2003; Ragni et al., 2005; Drosdzol and Skrzypulec, 2008; Rashidi et al., 2008). To the best of our knowledge, no published studies have evaluated a couple as a unit (dyad). Investigating intracouple QOL (i.e. congruence) is clinically relevant for several reasons. Couple congruence refers to the way that the couple perceives a stressor and to their appraisal of its severity. Low levels of congruence are commonly related to lower levels of adaptation, marital satisfaction, and depression (Peterson et al., 2003). On the other hand, high levels of agreement between couples often reduce the stress and increase the ability to manage stressful events, including the experience of infertility (Snell and Rosen, 1997). Thus, knowing whether partners are equally affected by infertility can help determine whether individual or couple interventions are most needed to improve QOL.

Previous findings regarding coping strategies and perception of stress among dyads experiencing infertility showed that couples tended to agree on these outcomes (Peterson et al., 2003, 2008). Considering that infertility is a shared condition, we hypothesize that the QOL will also tend to be congruent within couples, as opposed to the individual-based findings. In addition, it is expected that depression symptoms may interfere with the level of QOL congruence, since the association of depression and QOL has been extensively shown (Chachamovich et al., 2008; Zimmermann et al., 2008).

**Methods**

**Subjects**

From April 2007 to December 2007, 163 couples seen at the assisted reproduction service of a university hospital in Porto Alegre, Brazil, were asked to participate in this prospective cross-sectional study. The 326 subjects (who were present with a scheduled appointment) were recruited consecutively and invited to complete a survey while waiting for their medical appointment. All respondents were informed about the objectives of the study and the confidentiality of the data. Subjects signed consent forms. Interviewers were particularly oriented to ensure that the instruments were completed individually and independently, in order to avoid interference in one another’s responses. The project was approved by the Research Ethics Committee of the Hospital de Clínicas de Porto Alegre, which follows the Helsinki Declaration of 1975 (sixth revision 2008). The sample came to 162 couples. Two subjects (one couple) declined to participate in the study.

**Procedures**

Research assistants approached the subjects in the waiting room, and carried out brief face-to-face interview to collect socio-demographic details. Following the interview, subjects were invited to complete QOL and depression instruments. These were self-reported, and interviewers were available at all times to give assistance when needed. The following instruments were used:

(i) A socio-demographic and clinical data form, which assesses marital status, length of relationship with the present partner, changes in dialogue with the partner (i.e. if the subject perceived improvements or deterioration in the dialogue with the partner after experiencing infertility), socio-economic status, age, educational level, perceived etiology of infertility, medical diagnosis of the etiology of infertility, duration of conception attempts, number of previous attempts at reproduction techniques, type of assisted reproduction technique and sexual satisfaction (if the subject perceived improvements or deterioration in the sexual satisfaction after experiencing infertility).

(ii) The WHOQOL-BREF, which is a generic QOL assessment instrument, developed by the WHO along with several countries representing different cultures (WHOQOL Group, 1998). It has been translated and validated into Portuguese (Fleck et al., 2000) and provides an overall score for QOL, as well as individual scores by domain. Higher scores mean better QOL. Its four domains are physical health (which includes items regarding energy and fatigue, sleep, pain and discomfort and mobility), psychological health (comprising items about positive and negative feelings, self-esteem and body image), social relationships (including items about interpersonal relationships, social support and sexual life) and environment (which includes items regarding financial situation, housing, opportunities to be involved in leisure activities and access to health care). A large number of studies have shown its suitability to assess QOL in several health conditions, including infertility (Chachamovich et al., 2007b).

(iii) Beck Depression Inventory (BDI): It is one of the most commonly used instruments to measure the intensity of depression (Trentini et al., 2005). It has been validated in different languages, including
Statistical analyses

Data were analyzed with a couple as the unit of analysis. In order to conduct the analysis, the data were structured so that each row contained data for one couple (i.e. the couple was the subject).

The clinical and socio-demographic variables were described through descriptive statistics, and comparisons of means and proportions were run by paired t-tests and χ² tests, respectively. The QOL scores were compared between infertile men and women by paired t-tests. Cohen’s effect size coefficients were also reported.

Since depression levels were statistically different between men and women, further analyses were carried out. It has been widely demonstrated that even mild subclinical symptoms of depression are intrinsically related to QOL outcomes in distinct clinical and non-clinical samples (Chachamovich et al., 2008; Ohaeri et al., 2008; Revicki et al., 2008; Schweikert et al., 2009; Zimmermann et al., 2008). Thus, to examine whether distinct levels of depressive symptoms were related to men–women differences, we conducted linear multiple regressions. Depression levels were included as independent variables. The dependent variable was the difference of QOL scores between the man and woman within couples. In order to indicate congruence or incongruence, these difference (delta) scores were converted to absolute values, such that 0 represented perfect congruence, and increasing delta scores reflected increasing incongruence. Thus, significant β-coefficients indicated a significant relationship between the independent variables (depression) and QOL congruence scores for that domain. In addition, repeated-measures analyses of covariance were conducted, in order to quantify the load of depression symptoms on the outcome (congruence). Instead of using repeated measures ANCOVA to investigate changes at two distinct stages separated by time, we considered the different perceptions of the same phenomenon. As such, we were particularly interested in the within-subject results. Men and women’s responses for each QOL domain and the overall score were compared within pairs at all times, and not as independent samples. Statistical significance was set at P < 0.05.

Results

Demographics

The sample comprised 162 infertile couples. Table I describes the characteristics of the sample. Briefly, the sample included subjects (mean age of men 36.1 ± 7.69; women, 32.11 ± 5.8; P < 0.001) with no previous children (23.5 and 16.7% of men and women, respectively, had children; P = 0.165) and with no previous assisted reproduction attempts (84% of the couples). Most subjects had an intermediate educational level (71 and 72% had <12 years of formal schooling among men and women, respectively), with a current relationship (mean duration of 9.13 ± 4.7 years) and trying to conceive (46.8% had tried for >5 years, mean of 5.23 ± 3.59 years). Concerning socio-economic status, most of the couples belonged to social class B (medium class).

Table I: Socio-demographic and clinical characteristics of the sample (n = 162 couples)

<table>
<thead>
<tr>
<th>Variables and domains</th>
<th>Men, mean (SD) or n (%)</th>
<th>Women, mean (SD) or n (%)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>36.1 (7.69)</td>
<td>32.11 (5.8)</td>
<td>&lt;0.001†</td>
</tr>
<tr>
<td>BDI</td>
<td>4.74 (5.19)</td>
<td>6.23 (6.60)</td>
<td>0.01†</td>
</tr>
<tr>
<td>Already have children</td>
<td>38 (23.5)</td>
<td>27 (16.7)</td>
<td>0.165††</td>
</tr>
<tr>
<td>Educational level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;9 years</td>
<td>47 (29)</td>
<td>44 (27.1)</td>
<td>0.908</td>
</tr>
<tr>
<td>9–11 years</td>
<td>68 (42)</td>
<td>72 (44.5)</td>
<td></td>
</tr>
<tr>
<td>&gt;11 years</td>
<td>47 (29)</td>
<td>46 (28.4)</td>
<td></td>
</tr>
<tr>
<td>Socio-economic status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class A</td>
<td>11 (6.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class B</td>
<td>88 (54.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class C</td>
<td>63 (38.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration of infertility (years)</td>
<td>5.76 (3.64)</td>
<td>5.62 (4.72)</td>
<td></td>
</tr>
<tr>
<td>Previous attempts of assisted reproduction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>136 (84)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Once</td>
<td>14 (8.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twice or more</td>
<td>12 (7.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration of relationship (years)</td>
<td>9.13 (4.7)</td>
<td>7.69 (4.7)</td>
<td></td>
</tr>
</tbody>
</table>

Bold values indicate statistical significance at P < 0.05. BDI, beck depression inventory. †Paired t-tests; ††χ² test.

The low BDI mean scores indicated that the sample is predominately non-depressed. Depressive levels were minimal in 85.2% of men and 78.4% of women; mild for 12.9% of men and 15.4% of women; and moderate for only 1.9% of men and 6.2% of women. No cases of severe depression were present in the sample. However, depression scores were significantly higher among women than men (mean of 6.23 ± 6.60 versus 4.74 ± 5.19; P < 0.001). These scores are comparable to the ones reported by Peterson et al. (2003, 2006b). Nevertheless, some authors have reported consistently higher depression levels in distinct samples, such as Wischmann et al. (2009), Ramezanzadeh et al. (2004) and Khademi et al. (2005). These differences are probably due to cultural contexts and methodological issues.

Congruence of QOL within couples

The QOL overall and domain scores are presented in Table II. There are no normative QOL data available that could allow for comparisons. Compared with the subjects involved in the validation study of the WHOQOL-BREF in Brazil (Fleck et al., 2000), the QOL scores from the present infertile sample are lower than the ones obtained from the healthy controls in three domains (physical $\bar{x} = 83 \pm 10.5$ versus $77.3 \pm 13.4$, P = 0.07; psychological $\bar{x} = 78 \pm 10.5$ versus $72.8 \pm 12.2$, P = 0.08; social relationships $\bar{x} = 75 \pm 13.0$ versus $62.5 \pm 12.7$, P < 0.001) and higher than the environment domain

Portuguese (Cunha, 2001). The total BDI score is obtained from the sum of 21 items that assess both the cognitive-affective and the somatic performance aspects of depression (Gorenstein et al., 1999). Scores under 10 represent absence of depression; scores from 11 to 18, mild depression; from 19 to 29, moderate depression and above 30, severe depression (Beck et al., 1961).
Chachamovich et al. (2018) showed no significant difference in the psychological domain (t = 2.88, p < 0.01) when compared to the social relationship domain (t = 1.75, p = 0.089). The QOL scores in the social relationship domain were lower in the present sample compared to the psychological domain (t = 2.13, p < 0.05), with higher mean scores in men (74.71 ± 12.10) versus 71.01 ± 12.47 (Cohen’s d coefficient 0.301), whereas women had higher scores in the latter (76.39 ± 15.51 versus 72.50 ± 16.04; Cohen’s d coefficient 0.246). In the three domains without significant differences, men had a trend toward higher scores in two (physical and overall). Detailed results are presented in Table II.

A linear multiple analysis was carried out to explore whether (and to what extent) the male and female depression levels contribute to the QOL differences. Using the absolute values for the differences between men and women as dependent variables, results showed that male depression was a significant predictor for all five QOL difference scores. Three QOL difference scores (physical, psychological, and overall) presented association with female depression. Table III describes the results from the linear regression models. It is important to observe that the delta scores were generated by subtracting men’s QOL scores from women’s (in each domain). Standardized β scores of male depression are negative, whereas those of female depression are positive. It indicates that male depression is associated with a decrease in the QOL difference scores, and that female depression is associated with an increase in the QOL difference scores.

Since both male and female depressive symptoms showed a consistent effect on the difference (congruence) of QOL between men and women, further paired analyses were carried out. The repeated-measures ANCOVA corroborated the findings from the linear multiple regression analyses. Moreover, it demonstrated that, except for the psychological domain and for the female depression on the physical domain, the load of depression was markedly low, accounting for not more than 7.5% of the variance of congruence between men’s and women’s QOL. Women’s depression was responsible for 21.6 and 19.5% of the variance of congruence on psychological and physical domains, respectively. Men’s depression accounted for 11.3% of the

### Table II Paired t-tests and effect size between man and women (within-couple) (n = 162 couples)

<table>
<thead>
<tr>
<th>Domains</th>
<th>Men, mean (SD)</th>
<th>Women, mean (SD)</th>
<th>P-value</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical domain</td>
<td>78.39 (12.31)</td>
<td>76.27 (14.69)</td>
<td>0.075</td>
<td>0.156</td>
</tr>
<tr>
<td>Psychological domain</td>
<td>74.71 (12.10)</td>
<td>71.01 (12.47)</td>
<td><strong>0.001</strong></td>
<td>0.301</td>
</tr>
<tr>
<td>Environment domain</td>
<td>61.70 (13.56)</td>
<td>63.45 (12.27)</td>
<td>0.109</td>
<td>-0.135</td>
</tr>
<tr>
<td>Social relations</td>
<td>72.50 (16.04)</td>
<td>76.39 (15.51)</td>
<td><strong>0.012</strong></td>
<td>-0.246</td>
</tr>
<tr>
<td>Overall score</td>
<td>73.99 (14.34)</td>
<td>73.75 (13.12)</td>
<td>0.688</td>
<td>0.017</td>
</tr>
</tbody>
</table>

Bold values indicate statistical significance at P < 0.05.

### Table III Linear multiple regressions of the WHOQOL-BREF domains between men and women (within couples), controlling for depression levels (n = 162 couples)

<table>
<thead>
<tr>
<th>Model*</th>
<th>R²</th>
<th>t</th>
<th>Standardized-β</th>
<th>P-value</th>
<th>PESb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical domain</td>
<td>0.224</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI men</td>
<td>-3.830</td>
<td>-0.278</td>
<td></td>
<td><strong>&lt;0.001</strong></td>
<td>0.075</td>
</tr>
<tr>
<td>BDI women</td>
<td>6.292</td>
<td>0.456</td>
<td></td>
<td></td>
<td>0.195</td>
</tr>
<tr>
<td>Psychological domain</td>
<td>0.251</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI men</td>
<td>-4.506</td>
<td>-0.320</td>
<td></td>
<td><strong>&lt;0.001</strong></td>
<td>0.113</td>
</tr>
<tr>
<td>BDI women</td>
<td>6.652</td>
<td>0.473</td>
<td></td>
<td></td>
<td>0.216</td>
</tr>
<tr>
<td>Social relations</td>
<td>0.068</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI men</td>
<td>-3.193</td>
<td>-0.253</td>
<td></td>
<td><strong>0.002</strong></td>
<td>0.053</td>
</tr>
<tr>
<td>BDI women</td>
<td>1.891</td>
<td>0.150</td>
<td></td>
<td></td>
<td>0.021</td>
</tr>
<tr>
<td>Environment domain</td>
<td>0.065</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI men</td>
<td>-3.096</td>
<td>-0.246</td>
<td></td>
<td><strong>0.002</strong></td>
<td>0.053</td>
</tr>
<tr>
<td>BDI women</td>
<td>1.900</td>
<td>0.151</td>
<td></td>
<td></td>
<td>0.059</td>
</tr>
<tr>
<td>Overall score</td>
<td>0.279</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI men</td>
<td>-2.992</td>
<td>-0.236</td>
<td></td>
<td><strong>0.003</strong></td>
<td>0.052</td>
</tr>
<tr>
<td>BDI women</td>
<td>2.771</td>
<td>0.219</td>
<td></td>
<td><strong>0.006</strong></td>
<td>0.049</td>
</tr>
</tbody>
</table>

Bold values indicate statistical significance at P < 0.05. QOL, quality of life.

Dependent variables are QOL deltas (paired QOL man–QOL woman).

Partial eta square, calculated by repeated-measures ANCOVA.
variance of congruence on the former. Partial eta squares for the five domains are detailed in Table III.

Discussion

The present study aimed to explore the QOL of infertile couples from a dyadic perspective, rather than from an individual point of view. Even though infertility is especially a condition experienced by the couple, the studies regarding QOL have exclusively focused on men and women separately. In order to stress this objective, statistical approaches that keep matched pairs were selected. We aimed to verify whether men and women have comparable QOL scores within couples and whether the paired results are similar to the ones obtained by independent comparisons.

Paired t-tests within couples showed that only the psychological and the social relationship domains were statistically different. Men had better QOL on the former, but worse on the latter. Cohen’s effect size coefficients were considerably low for these domains, indicating that intra-couple QOL differences were not intense. Studies that have explored this issue through non-paired group comparisons tended to show statistical differences of QOL, with men having higher scores (Ragni et al., 2005). Interestingly, testing the present sample as independent groups (and thus using independent t-tests) resulted in higher P-values (data not shown), thus suggesting that the discrepancy between the present findings and the previously reported ones is not a statistical artifact, but may be a consequence of the matching process. The social relationship domain addresses interpersonal relationships, social support and sexual activity. Although previous research has repeatedly shown that infertile women experience higher levels of social stress than infertile men, we believe that the sexual component of this domain may account for the higher scores among women. It has been reported that men have more sexual dissatisfaction than women, because infertility is often understood as a failure or lack of potency (Nene et al., 2005; Ohl et al., 2009). It could be even more relevant in pro-natalist countries, where children are highly valued (Dyer et al., 2004). Moreover, the long duration of infertility in our sample may also be related to a decreased and less positive social network, as demonstrated by Pernace et al. (2007).

Another important aspect is the absence of clinically relevant depressive symptoms in the present sample. It has been shown that depression has a pervasive and deleterious effect on QOL (da Silva Lima and de Almeida Fleck, 2007; Chachamovich et al., 2008; Mann et al., 2008). Moreover, the prevalence of both clinical and subclinical depressive symptomatology is consistently higher among women when compared with men (Kessler et al., 2005). Since the vast majority of the previous studies focusing on QOL among infertile subjects have not included mental health assessments, it is possible that varying levels of depression may have contributed to lower QOL scores among women.

In our sample, the minimal levels of depression did not prove to be a strong variable in explaining the man–woman QOL congruence. In fact, the only domain in which depression played a considerable role was the psychological. The intrinsic and strong association of depression and the psychological domain has been demonstrated in several clinical contexts (Chachamovich et al., 2007a; Berlim et al., 2008; Chachamovich et al., 2008; Hwang et al., 2008). Although no previous study described the correlation between depression and the congruent perception of psychological QOL within couples, this is expected to some degree. Our results indicated that higher levels of male depression are associated with smaller psychological QOL difference scores. Conversely, lower levels of female depression are related to smaller differences. The effect of depression on psychological QOL tends to counterbalance the actual difference between male’s and female’s psychological QOL. We hypothesize that men with higher depression levels have decreased psychological QOL (consequently being more comparable to women’s QOL), whereas women with lower levels of depression have increased QOL (again being more similar to men’s).

On the other hand, the fact that depression (males’ and/or females’) has explained very little of the variance of the congruence is intriguing. Recent reports have shown that even mild depressive symptoms have a much larger role than other socio-demographical variables in predicting QOL in distinct samples (Chachamovich et al., 2008; Zimmermann et al., 2008). One factor that may help explain this finding is the relative small variance of depression levels, since the sample is predominately euthymic. Further studies with samples with higher levels of depression could eventually test this hypothesis.

One strength of the present study is the paired results. Contrary to the previous reports on QOL and infertility, we kept a couple (dyad) as the unit of the analysis at all stages. This approach limits the conclusions in an individual basis, but is a more powerful methodology to draw conclusions about the functioning of the couple experiencing infertility (Peterson et al., 2003). In addition, controlling for depression levels is mandatory in research on QOL, since depression often interferes extensively with QOL outcomes (Peterson et al., 2003; Chachamovich et al., 2008). Finally, the use of a well-known QOL instrument, whose psychometric properties have been widely validated, ensures the reliability of the present findings.

Potential limitations of the present study should also be taken into account. First, the conceptualization of QOL depends on cultural aspects, as clearly indicated by the WHOQOL definition of QOL (WHOQOL Group, 1995). Since this study was carried out with a Brazilian sample, it is possible that specific cultural factors may have had influence in the results. Further studies in distinct cultural settings are required to explore this issue. Second, there may be other factors (besides depression levels) that may act as confounders and thus should be controlled for. However, no other factor has been stressed by the literature as much as depression up to the present. Third, the current study is limited by a cross-sectional design. Because of this, we could not make causal inferences about the impact of infertility on the congruence or incongruence of QOL.

The present results could have clinical implications. Different approaches have been investigated to improve psychosocial aspects of subjects that face infertility and its negative effects. Psychotherapeutic interventions, counseling, cognitive behavioral therapy, psychoeducation and pharmacotherapy are among the tested individual-based strategies (Boivin, 2003; Faramarzi et al., 2008). In addition, a wide range of psychosocial interventions for infertile couples have been recently developed (Boivin, 2003). Couples that attend to these interventions tend to experience more personal, social and marital benefits than the ones that do not request them (Lemmens et al., 2004). Communication with the partner is a crucial factor to the positive effects of such interventions (Schmidt et al., 2005). The predominantly congruent
perceptions of QOL within the infertile dyad may reinforce the role of couple-based interventions to reduce the negative impact of infertility.

In summary, our findings suggested that QOL scores do not differ markedly within couples. Since these results are not in line with the majority of the previous non-paired studies, further investigations are required to address this dissimilarity. Moreover, studies exploring the clinical factors that may determine congruence or discrepancy between spouses are needed in the future.

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Congruence of quality of life within infertile couples


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