Coping with infertility: distress and changes in sperm quality

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Infertility represents a serious stressor for some patients as well as a risk factor for a decrease in sperm quality. The purpose of the present study was to identify coping strategies that went along with both better emotional and physical adjustment to infertility. The sample consisted of 63 patients who contacted an andrological clinic more than one time. Prior to clinical examination, patients filled out a questionnaire referring to the way in which they coped with their wives' previous menstruation. Participants also completed a scale assessing perceived distress due to infertility. Change in sperm concentration since baseline semen analysis and the level of distress were used to evaluate patient's adjustment. The better-adjusted patients showed less prominent overall coping efforts, and a higher proportion of distancing coping strategies. An improvement in sperm quality also was associated with a low cognitive involvement in infertility. Situational uncontrollability of infertility could be a moderator of the effectiveness of coping employed by the better-adjusted patients. In addition, the coping behaviour related to better adjustment could be due to a dispositional stress resistance factor. For clinical implementation of the findings, the attitudes of a patient and the expectations of his wife have to be taken into consideration.

Key words: coping/counselling/infertility/sperm concentration/stress

Introduction

‘Is infertility-problem stress different?’ (Andrews et al., 1992)–this was the topic of a debate several years ago focusing on the relationship of distress to marital factors as well as to variables of life quality (Andrews et al., 1992, 1993; Boivin, 1993). While it remained unclear whether infertility had a special impact on these aspects, the interaction between infertility and distress (Wright et al., 1989) is different from many other stressors. For example, former research suggests that there is a relationship between stress and sperm quality (Gilbin et al., 1988; Fukuda et al., 1996). Some well-controlled studies revealed that during in-vitro fertilization (IVF) treatment, the sperm quality of participants decreased, presumably caused by distress (Harrison et al., 1987; Ragni and Caccamo, 1992). Moreover, distress due to infertility has predictive value for changes in sperm concentration and motility (Pook et al., 1999). Although sperm quality is not seriously impaired in most of the cases, parameters essential to fertility (e.g. Irvine et al., 1994) may be affected by distress due to infertility.

Besides the empirical research on the consequences of infertility, theoretical considerations were proposed in regard to coping with infertility distress. (Callan and Hennessey, 1989) outlined a framework for coping with infertility, which was based on the stress concept of (Lazarus and Folkman, 1984). They suggested that infertile couples employ appraisal-focused, problem-focused, and emotion-focused coping. The use of appraisal-focused coping is essential for the patient to get information for judging his infertility as well as his behavioural possibilities. Elementary to the use of problem-focused coping is the patient’s belief that something helpful can be done. The strategies of problem-focused coping aim at establishing a solution or a viable alternative. In contrast, emotion-focused coping does not aim at providing a solution but at maintaining the patient’s psychological well being. This can be reached if the patient remains hopeful, if he accepts his infertility or if he distracts himself from it. For appraisal-focused, problem-focused and emotion-focused coping, Callan and Hennessey gave detailed examples of strategies employed by infertile couples (Callan and Hennessey 1989). Their considerations, however, are only descriptive, and provide little information about the benefit of the specific coping forms.

Since the work of Callan and Hennessey, several empirical studies have been carried out on the effectiveness of strategies for coping with infertility. More or less explicitly these studies were based on the assumption that the patient’s level of distress is mediated through his coping behaviour (e.g. Folkman and Lazarus, 1988). Studies on infertile males employing a specific measure of avoidance-coping consistently revealed a positive correlation between this coping behaviour and distress (Cook et al., 1989; Stanton, 1991; Stanton et al., 1992; Slade et al., 1992; Abbey et al., 1994; Morrow et al., 1995). The findings for other coping strategies of infertile males are less clear. One study (Stanton, 1992) revealed that confrontive-coping and self-controlling are also related to distress. In the same study positive reappraisal was positively correlated with well being. Another study (Sabatelli et al., 1988) revealed that reframing is correlated positively with adjustment to infertility and negatively with depression. The reverse pattern was found with passive appraisal. In addition, seeking help was correlated positively with both adjustments to infertility and depression. Other studies suggested that the use of active problem solving strategies (Abbey et al., 1994) or cognitive involvement in

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infertility (Pook et al., 1999b) could be related to higher distress for infertile males.

Thus, apart from avoidance-coping there is a variety of findings on the association between coping with infertility and adjustment. This variation could result for different reasons. For example, although the individual coping behaviour is fairly stable some situational factors will influence the type of coping behaviour used (Terry, 1994). Because the correlations of the coping strategies with adjustment were generally found to be small, even a little situational variability of coping could override such a correlation. Another reason for the variety of results could be the usage of different questionnaires. Moreover, even though findings from five out of eight studies cited were based on the tempool of the Ways-of-Coping questionnaire (Lazarus and Folkman, 1984), different factorial solutions were employed. As a consequence, scales that were named similarly consisted of different items and therefore represent slightly different aspects of coping.

The factor solution that was selected for the present study was that which was most frequently chosen in studies relating the coping behaviour of infertile males to adjustment. In addition, situational variability of coping was minimized. Participants of the present study were not asked to describe their coping behaviour in an optional situation related to infertility, but in a situation every male infertility patient knows: the last time he realized that his wife began her menstruation. This highly specific coping behaviour is set in relation to a specific measure of infertility distress as well as to the change in sperm quality since a previous semen analysis.

Materials and methods

Patients

The sample consisted of 63 male patients (mean age = 34.4 years, SD = 5.0, range 26–49) who had contacted the andrological clinic a second time or more for an infertility work-up. Four other patients had to be excluded from the study because of missing data (three filled out the questionnaires incompletely, one did not deliver a semen specimen on the day he filled out the questionnaires). One additional patient refused to participate. All patients had had a semen analysis performed at least 6 months prior. None of the patients showed azoospermia or a lack of ejaculation. In addition, there was no ovarian failure, complete occlusion of the oviducts or absence of the uterus diagnosed in any patient’s spouse. Thus, there was the possibility of natural conception for every patient. The patient knew this information on his fertility status when he returned to the andrological clinic for another fertility work-up. Physical examination revealed that none of the patients had an acute testicular dysfunction caused by an accident, an operation, a cytotoxic therapy, or similar causes since their former semen analysis. Most of the patients stated as the reason for contacting the andrological clinic once again that artificial reproductive techniques were planned in their spouses.

Variables

Participants completed the Infertility Distress Scale. The construction and validation of the scale is presented and discussed elsewhere (Pook et al., 1999a). The questionnaire consisted of eight items on five-point Lickert-scales regarding self-reported stress, different appraisals of and cognitive involvement in infertility (Table III). Reliability analyses of the data from the sample of the present study revealed good internal consistency (Cronbach’s = 0.88) and good split-half reliability (rH = 0.87).

Every participant also filled out an unpublished German version of the Ways-of-Coping questionnaire (WOC) which refers to his behaviour the last time he realized that his spouse had menstruated (response format: ‘does not apply and/or not used’ to ‘used a great deal’). A factor analysis of the 66 items of the WOC by Folkman et al. revealed eight scales, each consisting of four to eight items: confrontive coping (‘I expressed anger to the person(s) who caused the problem’), distancing (‘went on as if nothing had happened’), self-control (‘kept others from knowing how bad things were’), seeking social support (‘accepted sympathy and understanding from someone’), accepting responsibility (‘criticized or lectured myself’), escape-avoidance (‘refused to believe that it had happened’), problem solving (‘just concentrated on what I had to do next—the next step’), and positive reappraisal (‘rediscovered what is important in life’) (Folkman et al., 1986). Results of psychometric analysis of the used version will be presented and discussed elsewhere. The confrontive-coping scale was excluded from data analysis because of an insufficient Cronbach’s-coefficient. It is important to note, however, that the same pattern of results emerged regardless of whether confrontive-coping was included in the data analysis or not.

Procedure

When a patient met the characteristics described above, he was asked to fill out two questionnaires. All of the patients were able to complete the questionnaires during their waiting time prior to the appointment with the physician. After their physical examination the patient provided a semen specimen. The samples were analysed according to the guidelines of the WHO (1993).

Due to the association between stress and sperm quality, not only emotional adjustment but also physical adjustment was taken into consideration. Therefore, two groups were formed based on the change in sperm concentration between the semen analysis performed at least 6 month previously and the actual semen analysis. One group consisted of patients showing improved sperm quality, while the other consisted of patients showing declined quality. Sperm concentration was chosen as the indicator for sperm quality, as distress related to infertility has been shown to decrease this parameter (Pook et al., 1999a). It has to be noted, however, that a patient could be assigned to one of the groups just because of the normal variation of sperm parameters, but not because of changes due to distress. Despite this source of error, it was found that infertility distress had predictive value for such a categorization of change (Pook et al., 1999a). Thus, the same kind of categorization was used in the present study.

Data analysis

After the patients were assigned to either the group of improved or to that of declined sperm quality it was tested whether a change in sperm quality was confounded by a change in pre-ejaculation abstinence. A two-way repeated measure analysis of variance (ANOVA) was therefore performed. Direction of change (improved versus declined) was the between-subject variable, time of assessment (first versus second) was the within-subject variable and days of abstinence was the dependent variable. The central point of interest was the interaction between direction of change and time of assessment.

For analysis of the WOC scales, both raw scores and relative scores were used. Raw coping scores are independent of usage of other coping strategies, whereas relative coping scores indicate a greater use of a particular coping strategy relative to one’s overall coping efforts. To estimate raw coping scores, item values for each scale were added. Relative coping scores were estimated according to previously published suggestions (Vitaliano et al., 1987). First,
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Table I. Correlations of raw coping scores with the Infertility Distress Scale and differences in raw coping scores (dependent variables) between men with improved and men with declined sperm quality (independent variable)

<table>
<thead>
<tr>
<th>WOC scale</th>
<th>Infertility distress</th>
<th>Declined sperm quality (n = 26)</th>
<th>Improved sperm quality (n = 37)</th>
<th>F (1,53)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distancing</td>
<td>0.05</td>
<td>3.00(1.72)</td>
<td>3.03(2.05)</td>
<td>0.00</td>
<td>0.956</td>
</tr>
<tr>
<td>Self-controlling</td>
<td>0.36**</td>
<td>6.12(2.53)</td>
<td>4.08(2.28)</td>
<td>11.09</td>
<td>0.001**</td>
</tr>
<tr>
<td>Seek social support</td>
<td>0.25*</td>
<td>6.81(2.87)</td>
<td>5.14(3.58)</td>
<td>3.91</td>
<td>0.053</td>
</tr>
<tr>
<td>Accept responsibility</td>
<td>0.42**</td>
<td>2.73(1.64)</td>
<td>1.54(1.54)</td>
<td>8.66</td>
<td>0.005**</td>
</tr>
<tr>
<td>Escape-avoidance</td>
<td>0.65**</td>
<td>3.73(2.46)</td>
<td>2.03(1.71)</td>
<td>10.55</td>
<td>0.002**</td>
</tr>
<tr>
<td>Planful problem solving</td>
<td>0.27*</td>
<td>4.77(2.32)</td>
<td>3.46(2.14)</td>
<td>5.32</td>
<td>0.024*</td>
</tr>
<tr>
<td>Positive reappraisal</td>
<td>0.11</td>
<td>5.12(3.53)</td>
<td>3.68(2.89)</td>
<td>3.16</td>
<td>0.080</td>
</tr>
</tbody>
</table>

WOC, ways of coping; *P < 0.05; **P < 0.01.

The association between both raw scores and relative scores with the Infertility Distress Scale was estimated using Pearson product-moment correlation. Differences in the Pearson correlation coefficients were tested according to established formula (Steiger, 1980). A multiple ANOVA (MANOVA) was conducted to compare patients showing improved sperm quality to patients showing declined sperm quality with respect to their raw coping scores. ANOVA were then performed for each of the scales. The procedure of computing relative coping scores led to linear dependence of the scores. Thus, it is not possible to compare patients showing improved sperm quality to patients showing declined sperm quality with respect to their relative coping scores in a MANOVA. Only ANOVA were performed for this purpose. One-way repeated-measure ANOVA and paired t-tests were used for comparison of the relative coping scores within each group.

Finally, the patients showing improved sperm quality and those showing declined sperm quality were compared with respect to their answers on the Infertility Distress Scale. According to established formulae (Cohen, 1988), the effect size d was computed for each of the items as the difference between the two groups’ means, divided by the pooled within sample estimate of the population standard deviation.

Results

When comparing actual and former semen analysis, 26 patients showed declined sperm quality while 37 showed improved quality. Repeated measure ANOVA was performed to test whether a change in sperm quality was confounded by a change in pre-ejaculation abstinence. No interaction was found between change in quality and abstinence at time of assessment ($F = 1.38, df = 1.58, P = 0.25$), indicating that changes in sperm quality could not be attributed to changes in abstinence. Patients showing increased sperm quality did not differ from those showing declined quality with respect to age ($t(61) = -0.63, P = 0.53$) or duration of infertility ($t(56) = 0.79, P = 0.43$).

In a first analysis of the WOC scales, raw scores were used (Table I). Correlating the raw coping scores with the Infertility Distress Scale, escape-avoidance coping was found to have a significantly higher correlation with infertility distress than any other coping scale. For example, this correlation differed significantly from that of infertility distress and accept responsibility coping ($z = 2.04, P < 0.05$) and from that between infertility distress and self-controlling coping ($z = 2.43, P < 0.01$). The raw scores of distancing-coping and positive reappraisal-coping seemed to be unrelated to perceived distress due to infertility. A multivariate analysis of raw coping scores revealed a highly significant difference between men with improved, and men with declined sperm quality (Pillai’s $F = 3.32, df = 8.54, P < 0.01$). Univariate analyses showed significantly or at least suggestively higher scores for the group with declined sperm quality on almost all coping scales. Only the mean score for distancing-coping was nearly equal in both of the groups. Therefore, analysis of raw coping scores indicated that men with improved sperm quality made less prominent overall coping efforts.

In the second analysis of the WOC scales, relative coping scores were used (Table II), correlating the relative coping scores with the Infertility Distress Scale only between avoidance-coping and infertility distress showed a highly significant correlation. This correlation, however, did not differ significantly from the significant association between accept responsibility-coping and infertility distress ($z = 0.58$, not significant). Only for distancing-coping a significant negative correlation with infertility distress was found. In contrast to raw coping scores it was not possible to compute an initial MANOVA for relative coping scores since the scores sum to 100 for every patient leading to linearly dependent variables. Univariate analysis of relative coping scores revealed a significant difference between men with improved and men with declined sperm quality only for distancing-coping. The difference indicated that the coping behaviour of men with improved sperm quality included a higher proportion of distancing.

It was analysed post hoc whether seeking social support was the most preferred coping strategy in both of the groups and whether avoidance coping was the least preferred. To do this, the relative scores were first compared within each group in a one-way ANOVA using type of strategy as a repeated measure with seven levels. Significant differences were found for the group of patients with improved sperm quality ($F = 10.96, df_{GG} = 4,145, P < 0.01$) as well as for patients with declined sperm quality ($F = 8.52, df_{GG} = 4,109, P < 0.01$). Following this, the relative scores of seeking social support and of avoidance-coping were compared to other coping strategies. The proportion of seeking social support was suggestively higher than that of self-controlling ($t(25) = 1.90$,
Table II. Correlations of relative coping scores with the Infertility Distress Scale and differences in relative coping scores (dependent variables) between men with improved and men with declined sperm quality (independent variable)

<table>
<thead>
<tr>
<th>WOC Scale</th>
<th>Infertility distress</th>
<th>Declined (n = 26)</th>
<th>Improved (n = 37)</th>
<th>$F_{1,61}$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distancing</td>
<td>$-0.27^*$</td>
<td>10.08(5.89)</td>
<td>14.16(8.52)</td>
<td>4.45</td>
<td>0.039*</td>
</tr>
<tr>
<td>Self-controlling</td>
<td>0.06</td>
<td>17.49(8.15)</td>
<td>16.18(7.97)</td>
<td>0.40</td>
<td>0.528</td>
</tr>
<tr>
<td>Seek social support</td>
<td>$-0.04$</td>
<td>23.24(11.58)</td>
<td>23.16(13.62)</td>
<td>0.00</td>
<td>0.980</td>
</tr>
<tr>
<td>Accept responsibility</td>
<td>0.29*</td>
<td>12.31(7.12)</td>
<td>9.36(8.31)</td>
<td>2.15</td>
<td>0.148</td>
</tr>
<tr>
<td>Escape-avoidance</td>
<td>0.39**</td>
<td>8.89(5.26)</td>
<td>7.55(5.19)</td>
<td>1.01</td>
<td>0.318</td>
</tr>
<tr>
<td>Planful problem solving</td>
<td>$-0.10$</td>
<td>14.83(5.66)</td>
<td>16.18(10.95)</td>
<td>0.29</td>
<td>0.590</td>
</tr>
<tr>
<td>Positive reappraisal</td>
<td>$-0.17$</td>
<td>13.16(7.71)</td>
<td>13.48(8.13)</td>
<td>0.02</td>
<td>0.874</td>
</tr>
</tbody>
</table>

* $P < 0.05$; ** $P < 0.01$.

Table III. Differences in item values of the Infertility Distress Scale (dependent variables) between men with improved and men with declined sperm quality (independent variable)

<table>
<thead>
<tr>
<th>Item of Infertility Distress Scale</th>
<th>Declined (n = 26)</th>
<th>Improved (n = 37)</th>
<th>Effect-size</th>
<th>$F_{1,61}$</th>
<th>$P$</th>
<th>$d_i$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distress due to last menstruation</td>
<td>2.00(0.89)</td>
<td>1.38(0.72)</td>
<td>9.29</td>
<td>0.003**</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td>Distress due to infertility</td>
<td>2.08(0.80)</td>
<td>1.35(0.89)</td>
<td>11.07</td>
<td>0.001*</td>
<td>0.85</td>
<td></td>
</tr>
<tr>
<td>Importance of a child</td>
<td>2.77(0.95)</td>
<td>2.30(1.00)</td>
<td>3.55</td>
<td>0.064</td>
<td>0.48</td>
<td></td>
</tr>
<tr>
<td>Infertility as a challenge</td>
<td>2.42(1.06)</td>
<td>1.57(1.12)</td>
<td>9.28</td>
<td>0.003**</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td>Infertility as a threat</td>
<td>1.19(1.17)</td>
<td>0.59(0.93)</td>
<td>5.12</td>
<td>0.027*</td>
<td>0.59</td>
<td></td>
</tr>
<tr>
<td>Helplessness due to infertility</td>
<td>2.12(1.18)</td>
<td>1.32(1.11)</td>
<td>7.40</td>
<td>0.008**</td>
<td>0.70</td>
<td></td>
</tr>
<tr>
<td>Thoughts on infertility</td>
<td>2.08(0.74)</td>
<td>1.35(0.75)</td>
<td>14.30</td>
<td>0.001**</td>
<td>0.98</td>
<td></td>
</tr>
<tr>
<td>Desire for a child</td>
<td>3.08(1.02)</td>
<td>2.49(0.99)</td>
<td>5.31</td>
<td>0.025*</td>
<td>0.59</td>
<td></td>
</tr>
</tbody>
</table>

* $P < 0.05$; ** $P < 0.01$.

$P = 0.069$, and significantly higher than that of planful problem solving ($t(25) = 3.19, P < 0.01$) in the group of patients with declined sperm quality. The proportion of seeking social support was significantly higher than those of self-controlling ($t(36) = 2.41, P < 0.05$) and of planful problem solving ($t(36) = 2.24, P < 0.05$) in the group of patients with improved sperm quality. In the group of patients showing declined sperm quality the proportion of avoidance-coping did not differ from that of distancing ($t(25) = -0.70$, not significant) but from those of accept responsibility ($t(25) = -2.07, P < 0.05$) and of positive reappraisal ($t(25) = -2.14, P < 0.05$). In the group of patients showing improved sperm quality the proportion of avoidance-coping is significantly smaller than those of distancing ($t(36) = -4.70, P < 0.01$) and of positive reappraisal ($t(36) = -3.75, P < 0.01$), but not smaller than that of accepting responsibility ($t(36) = -1.05$, not significant). Overall, these results indicate that avoidance-coping is only used to a small extent while seeking social support is the most preferred coping strategy of the participants of the present study.

Finally, the Infertility Distress Scale, which consists of items relating to different aspects of infertility, was further analysed to explore which of these aspects differentiate the two groups (Table III). Men with declined sperm quality showed significantly higher scores on seven out of eight items. For each of the items its effect size was computed. The effect size for the frequency of thoughts on infertility was $d_i = 0.98$. This finding indicates that the group means of an item regarding cognitive involvement in infertility differed by nearly one standard deviation. According to established formula (Cohen, 1988), an effect size of $d_i = 0.80$ has to be considered as large. The effect size of three more items exceeded this threshold. These items referred to two judgements of self-reported stress and to the appraisal of infertility representing a challenge.

**Discussion**

Based on the assumption that the level of distress is mediated through one’s coping behaviour and focusing on changes in sperm quality as well as on perceived distress due to infertility, the present study revealed three aspects that seem beneficial for males coping with infertility. Firstly, the less prominent overall coping efforts made, the more favourable. Secondly, the coping behaviour should include a high proportion of distancing. And thirdly, cognitive involvement in infertility should be low.

With respect to the questionnaire data, some methodological problems may have to be considered. For example, there could be some bias in recall of coping behaviour due to the passage of time or intervening events that were not assessed. However, we think our results fit together to form a coherent whole. In addition, we were able to replicate the correlation between avoidance-coping and distress as reported in former studies supporting the validity of our findings. Moreover, our findings are in line with other empirical and theoretical research. For
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example, a study (Takefman et al., 1990) revealed that patients encouraged to cope with problems related to infertility show a higher level of infertility distress. In this study two groups of couples undergoing infertility work-up were informed about both emotional and sexual problems related to infertility or only about the emotional problems. Both of the groups also received suggestions on how to cope with the problems that they were informed about. A third group received the same procedural information as the other two groups, but received no information on problems and their potential solutions. After follow-up, an interaction between group and time was found. The third group (procedural information only) showed a significant decrease in infertility distress after infertility work-up. This result is concordant with a former finding (Daniluk, 1988). In contrast, the two well informed groups did not show a decrease in infertility distress. Although Takefman et al. concluded that the theoretical explanation for this result remains unclear (Takefman et al., 1990), the fact that the group not encouraged to cope with infertility showed better adjustment supports our results that coping efforts such as planful problem solving or seeking social support should be made less prominent.

Moreover, the advantages of distancing could be due to the uncontrollable nature of infertility. This assumption is supported by studies aimed at testing the goodness of fit hypothesis. According to this hypothesis, the use of problem-focused coping like trying to change the stressor, should be adaptive in situations perceived to be controllable and maladaptive in uncontrollable situations. However, the hypothesis suggests the reverse pattern for emotion-focused coping aimed at maintaining one’s well being. It remains unclear under what circumstances the goodness of fit hypothesis applies due to contradictory results in empirical research (Forsythe and Compas, 1987; Vitaliano et al., 1990; Conway and Terry, 1992; Roberts, 1995). At least some studies revealed that problem-focused coping must not be related to better adjustment (Vitaliano et al., 1990), and can even be related to poorer adjustment (Forsythe and Compas, 1987). In addition, one study revealed that emotion-focused coping could be favourable if the stressor seems to be uncontrollable (Forsythe and Compas, 1987). Because distancing represents an emotion-focused coping strategy according to a previously published framework (Callan and Hennessey 1989), it seems possible that its effectiveness is moderated by the uncontrollability of infertility. It is unlikely, however, that for infertility an effect of the perceived controllability as proposed in the goodness of fit hypothesis could be identified. Similar to chronic illnesses (Felton and Revenson, 1984) an inherent uncontrollability of infertility has to be assumed (e.g. Edelmann et al, 1994). If a situation is uncontrollable per se perceived control could vary only in a small range. As a consequence, the inherent uncontrollability of the stressor can override the small variations in perceived control (Felton and Revenson, 1984). Thus, controllability of infertility as a moderator for the effectiveness of coping can only be assumed at present.

Another theoretical consideration that could be used to explain our findings includes a personality trait. It has been suggested that resistance factors like calmness (‘easygoing’) should be integrated into the theoretical framework of the stress and coping research (Holahan and Moos, 1990). They found that being ‘easygoing’ protects a person from distress (Holahan and Moos, 1986). This confirms our finding that distancing behaviour like ‘made light of the situation’ (WOC item 44) seems to be favourable in coping with infertility. Holahan and Moos supposed that there is a disposition for ‘easygoing’. In fact, there is evidence that personal factors are leading to some stability in coping behaviour (Terry, 1994). For example, (Kedem et al., 1994) found in a small sample of Israeli infertility patients highly significant correlations between coping with infertility and coping with distress due to missile attacks during the Gulf War, although perceived intensity of distress were uncorrelated. Therefore, the coping behaviour indicated in the present study as being adaptive could be an indication of the stress resistance factor ‘easygoing’.

Research suggests that the effectiveness of the coping of the better-adjusted men in the present study could be moderated by the situational uncontrollability of infertility along with a dispositional stress resistance factor. Thus, not only empirical results support our findings but also theoretical concepts. Given this background, the findings of the present study should be considered valid. That makes it necessary to think about clinical implications. Reviewing the negative impact of avoidance-coping in infertility, some authors recommend adopting more active forms of coping (e.g. Steward et al., 1992). However, our findings indicate that avoidance-coping is only used to a small extent. Seeking social support on the other hand is the most preferred coping strategy of the participants in the present study. Therefore, contrary to the recommendations of others, our findings could lead to the conclusion that patients should be encouraged to use more distance-coping with infertility issues. This would, however, not be appropriate because advice like that may lead to aversive cognitive dissonance (Festinger, 1957) for the patient who considers fathering a child essential. He would very probably ignore such advice to relieve cognitive dissonance. Thus, any therapeutic suggestion given to a patient should be compatible with his cognitive-affective system (cf. Tuschen and Fiegenbaum, 1997). Moreover, in infertility treatment not only the attitudes of the male have to be taken in consideration, but also the expectations of his wife. From clinical experience it is well known that in infertile couples the wife is often disappointed with her husband, as she feels he is not engaged enough in infertility (Wright et al., 1991). Compared to women, not only a smaller proportion of men seeks medical help for infertility (Olsen et al., 1996), but men also need more pressure to initiate investigation (McGrade and Tolor, 1981). Consequently, advising men to cope with infertility with more distance would either not be received well by the patient if becoming a father is a priority, or would bear the risk of increased marital distress because of his discontented wife.

Even if cognitive involvement seems to be disadvantageous, one cannot forget that feelings of helplessness are also related to infertility distress. Thus, while the long-term goal of therapeutic intervention should be to decrease coping with infertility, the short-term goal should be directed at reducing the patient’s feelings of helplessness. An aim like that will
most likely be more compatible with the needs, expectations and attitudes of infertile couples. In an intervention proposed by (Florin et al., 1999), couples were not just given advice on coping with infertility, but were trained to change their sexual behaviour and to modify negative cognitions related to infertility as means to overcoming helplessness. Participants also learned to overcome deficiencies in their knowledge about fertility and their marital communication skills were improved if necessary. An evaluation study (Tuschen-Caffier et al., 1999) revealed that the participants showed a reduction of thoughts of helplessness and a decrease in marital distress, along with an improvement in sperm concentration and an increased live birth rate. Moreover, at follow-up the couples who had not achieved a pregnancy seemed to look at infertility with an increased sense of distance due to a reduced cognitive involvement in infertility. Thus, both members of the couples demonstrated the specific behaviour suggested in the present study as being beneficial for males coping with infertility.

References


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