

Gender Differences in Coping with Infertility among Couples Undergoing Counselling for *In Vitro* Fertilization Treatment

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ABSTRACT

Objective: To identify gender differences in coping responses and the association between coping and psychological distress in couples undergoing In Vitro Fertilization (IVF) treatment at the University of the West Indies (UWI).

Methods: All men and women ($n = 52$) who were offered psychological counselling prior to beginning IVF treatment between October 2003 and May 2004 were invited to complete questionnaires on their coping responses, self-reported distress and socio-demographic data. One female declined.

Results: Of the 51 participants, 52% had completed secondary education, 44% tertiary education, and 37% were 38 years or older; 42% of the couples were trying for more than seven years to have a child. Gender differences in coping included more women than men keeping others from knowing their pain ($p < 0.01$) and more women ruminating about what they did wrong to cause the infertility ($p < 0.01$).

These strategies were also associated with reports of heightened distress ($p < 0.05$). Talking to others to obtain information was associated with less negative feelings. Coping skills that were commonly used by both genders included seeking medical advice and engaging in wishful thinking.

Conclusion: Women coping with infertility may be at risk for self-depreciation and isolation because of their choice of coping strategies and the meaning they ascribe to the infertility. As a result, they are likely to experience more heightened distress than men who are also infertile. Counselling that is specific to gender-needs is indicated.

Diferencias de Género a la hora de Enfrentar Problemas de Esterilidad entre Parejas que Reciben Consejería para el Tratamiento de Fertilización *in vitro*

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RESUMEN

Objetivo. Identificar las diferencias de género en las respuestas de enfrentamiento, y la asociación entre la angustia (distrés) del enfrentamiento y la angustia psicológica en las parejas que reciben tratamiento de fertilización *in vitro* (FIV) en el Hospital Universitario de West Indies.

Métodos. A todos los hombres y mujeres ($n = 52$) a quienes se les ofreció consejería psicológica antes de comenzar el tratamiento de FIV entre octubre de 2003 y mayo de 2004, se les invitó a llenar cuestionarios sobre sus respuestas de enfrentamiento, auto-reporte de su angustia, y datos socio-demográficos. Una mujer rechazó la encuesta.

Resultados. De los 51 participantes, 52% habían terminado su educación secundaria, 44% la educación terciaria, y 37% tenían 38 años o más, en tanto que el 42% de las parejas había estado tratando de tener un hijo o hija por más de siete años. Las diferencias de género al enfrentar el problema de la infertilidad incluían más mujeres que hombres en cuanto a evitar que otros supieran del dolor ($p < 0.01$) y más mujeres rumiando que habrían hecho mal que provocó la esterilidad ($p < 0.01$). Estas estrategias estuvieron también asociadas con reportes de intenso distrés ($p < 0.05$), mientras que el hablar a otros para obtener información estuvo asociado con sentimientos menos negativos. Las habilidades de enfrentamiento usadas comúnmente por ambos géneros incluían la búsqueda de consejo médico y el juego a hacerse ilusiones.

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Conclusiones. *En su enfrentamiento al problema de la esterilidad, las mujeres pueden correr el riesgo de la auto-depreciación y el aislamiento debido a su elección de estrategias de enfrentamiento, y al significado que adscriben a la esterilidad. A consecuencia de ello, es probable que experimenten angustia con más intensidad que los hombres estériles. Se indica que la consejería debe realizarse en correspondencia con las necesidades específicas de cada género.*

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INTRODUCTION

Infertility or involuntary childlessness is a significant source of emotional trauma for several couples, with infertility rates being about 15% globally (1) and above 30% in some developing countries (2). Its emotional effects have been documented (3). Most clinical studies on the effects of stress related to infertility conclude that psychological intervention is needed that normalizes, predicts and addresses the related stresses and reactions by infertile couples (4, 5). Many *in-vitro* fertilization (IVF) centres worldwide offer psychological counselling and engage in research to identify ways to better meet the needs of their clients. Jamaica began its IVF programme in the year 2000 (6). Its services are accessed by persons within and outside the Caribbean. Psychological counselling was added to the programme in 2003.

Coping with or responding to infertility may be linked to societal attitudes towards childlessness. Family physicians who were surveyed in Germany were found to be judgemental of involuntary childless couples and attributed their childlessness to personal behaviour or way of life (7). In the Caribbean and elsewhere, involuntary childlessness has been attributed to an act of God, punishment for sins of the past, prolonged use of contraceptives, distinct dietary habits, and the result of witchcraft (8–10). Individuals who are thought to be infertile are generally ostracized and relegated to an inferior status in Jamaican society and stigmatized with labels such as mule, barren, not really a man or forsaken by God (11).

The existing negative attitudes and beliefs about infertility are bound to contribute to a couples' sense of despair, distress and morbidity. A review of the literature reveals that many of the studies examining stress associated with infertility have focussed on women who were infertile, and did not include either men or couples who were infertile in their population. These studies, using prospective data collecting design, have concluded that infertility is stressful for women (12), and when infertile men's reactions have been compared to women, less distress and negative effects have been reported (13, 14). Studies on the stress of infertility have also attempted to differentiate the grief experience for men and women and have found that women are more likely to blame themselves (1, 15) and to describe a greater sense of loss of control (16). On the other hand, men's responses tend to be related to their partner's self-esteem (17). Men may also engage in extra-marital affairs and are likely to experience sexual dysfunction manifested as erectile dysfunction, ejaculatory disorders, loss of libido and a decrease in the frequency of intercourse (18).

As demonstrated in the current study, those in the Caribbean who access IVF treatment are usually couples in a stable relationship who are older and educated. Disparities in health-seeking behaviour between the genders may therefore not be obvious. Nonetheless, research examining how men and women who have the same health condition respond to it may contribute to ongoing discussions on gender equity in health. Furthermore, investigating the social impact of infertility should help inform evidenced-based psychological services geared at helping this population.

While studies on psychological responses to infertility have been documented in Europe, the United States of America, countries in the East and Africa, a review of the literature did not identify published research on coping responses associated with stress related to infertility in an Afro-Caribbean population. The aim of this paper therefore is to report on gender differences in coping with infertility among Afro-Caribbean couples who have been diagnosed as infertile. Three main objectives were sought, that of: identifying coping strategies frequently used by couples struggling with infertility in a Caribbean population; describing gender differences in coping strategies and examining which coping strategies seem to be associated with self-reported feelings of despair and distress.

SUBJECTS AND METHODS

Participants

Of the couples enrolled for IVF treatment at the Fertility Management Unit, at the University of the West Indies, between October 2003 and May 2004, 52 were placed in a counselling programme, based on the random selection of one of every three couples who signed up to undergo IVF treatment during that period. As one female client declined to participate in the study, the sample consisted of 26 men and 25 women, 52% of whom had completed secondary education, 44% tertiary education, and 37% were 38 years and older. The majority of the couples had been trying for more than seven years to have a child (42%). Almost half of the men (46%, $n = 12$) had a child from a previous relationship and 11 women were presently in a relationship in which their partner had a child. On the other hand, 17% ($n = 4$) of the women had children from a previous relationship and one man reported that in his current relationship his partner had a child. A female-factor as the problem causing the infertility was identified by 39% of the participants and a male-factor by 33%, while 14% identified both partners as contributing and 14% claimed lack of knowledge.

Instruments

Two self-administered questionnaires were completed by all participants. One questionnaire consisted of socio-demographic data on, for example, age and level of education, and included open-ended questions eliciting fears about not having a child, medical and cultural explanations for the infertility. It also included questions on coping responses. The other questionnaire ascertained self-reports of psychological distress from participants.

Coping Responses

A discussion among the care-team of medical consultants, embryologist, nursing staff, psychologist and programme administrator at the Fertility Management Unit at UWI helped to identify coping strategies relevant to this affected population in Jamaica. Items from the Ways of Coping Checklist (19) were used to guide the discussion. As a result, 15 coping responses that allowed individuals to reflect on and/or share their feelings (emotion-focussed strategies), deny, fantasize or distract self from focussing on the experience (avoidance strategies) and actively seeking ways to solve or respond to the problem (active problem-solving strategies) were selected. Participants were asked to indicate how frequently they used each response based on a four point Likert scale ranging from 'not used' to 'used a great deal'. Cronbach's alpha coefficients of internal consistency was 0.78 for the present sample.

Psychological distress

The second questionnaire which participants were asked to complete was The General Health Questionnaire (GHQ-28) (20). Although this instrument is normed in the United Kingdom it is used in Jamaica by clinicians to assist in assessments. The GHQ-28 is comprised of four sections and for purposes of this paper, section D, with seven items measuring perception of hopelessness, despair and sense of worthlessness, was used to report psychological distress of participants. Participants were asked, for example, "Have you recently (over the past few weeks):

- * been thinking of yourself as a worthless person?
- * feel that life isn't worth living?"

They responded by rating their distress on a four point Likert scale indicating "Not at all", "No more than usual", "Rather more than usual", "Much more than usual". The items were analyzed individually and cut-off points were not used as references to define symptoms. Cronbach's alpha coefficient for items in section D was 0.94 for this study.

Procedures

All participants (n = 51) were asked to complete the two questionnaires anonymously at the beginning of the first of three counselling sessions. The gender of the participants and an identification number were affixed to each set of questionnaires. Participants' responses were discussed with

the couples in subsequent counselling sessions that were held jointly and individually. In the initial session, the couples were informed in writing that the data could be used for research purposes, and if they objected this would not in any way affect them being involved in the treatment procedure. While 52 persons received counselling, 51 participants provided informed consent and thus form the basis of this analysis. The study received approval from the Ethics Committee of the University Hospital of the West Indies.

Data Analysis

Quantitative data analyses were done using chi-square or, when the expected value was less than five, Fisher Exact test (FET) to obtain gender differences in coping strategies. Pearson Product Moment Correlation Coefficient was used to describe the relationship between self-reports of coping and psychological distress. All tests were considered significant at the 5% threshold ($p < 0.05$). Qualitative data derived from participants' written responses to open-ended questions and notes taken at follow-up interviews were grouped into themes and frequent themes identified. This method was used to analyze data on men and women's fears about not having a child and their cultural explanation for the infertility. Data were analyzed by means of the Statistical Package for the Social Sciences (SPSS, version 11.0).

RESULTS

No one attributed the cause of their infertility to folklore or cultural myths such as the result of witchcraft. Some persons however questioned whether the infertility was due to the advancing age of the woman or a previous abortion. Women's fears about not having a child were centred primarily on them not feeling complete as a woman and not having a child to look after them in their old age. Some women described, for example, a fear of '*being called barren*', or '*not having fulfilled my purpose as a woman, not giving husband a child*', and '*will have no one to take care of me*'. For men, their fears revolved around them having an incomplete family as well as concern for their partner's mental health ('*my wife will be sad, depressed*').

Reports of strategies used by the participants to cope with the stress of infertility are illustrated in Table 1. Seeking medical advice and engaging in wishful-thinking, namely, hoping for a miracle and fantasizing about the outcome were the strategies most commonly used by more than 75% of participants. The least reported strategies included '*avoiding being around pregnant women or children*' and '*eating, smoking or drinking more*'. When examined by gender, both men and women used wishful thinking strategies and seeking advice most often and to a lesser extent emotion-focussed coping (Table 2). Women generally used all three types of strategies more often than men. The strategies that men used more often were those that allowed them to avoid talking about their experience, namely '*keeping feelings to them-*

Table 1: Percentage distribution of the use of coping strategies (n = 51)

Coping Strategies	Total % Used	Used a Great Deal (%)
1. Sought medical advice	86	54
2. Hoped a miracle would happen	84	39
3. Had fantasies about how things might turn out	77	19
4. Tried to keep my feelings to myself	72	26
5. Wished the infertility would somehow go away	72	34
6. Talked to someone to find out more about infertility	63	19
7. Kept others from knowing my pain	55	16
8. Sought information from the internet	54	15
9. Talked to someone about how I was feeling	49	11
10. Went over in my mind about what I did wrong	47	10
11. Accepted sympathy and understanding from someone	36	0
12. Tried alternative medicine	22	4
13. Took out my feelings on others	14	0
14. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication etc.	10	2
15. Avoided being with pregnant women or families with young children	8	2

elves' and 'making self better by eating, drinking or smoking', along with the specific problem-solving strategy of using alternative medicine. In addition, although both gen-

ders seldom reported seeking sympathy from others, men were more likely to accept sympathy and understanding from others compared to women.

Gender differences were found to be statistically significant for two of the coping strategies. More women engaged in excessive self-blame than men (32% vs 4%, FET, $p = 0.01$). Also, significantly more women than men isolated themselves by keeping others from knowing their pain (44% vs 13%, FET, $p = 0.02$). It is noted that no one reported 'taking out their feelings on others', and while 17% of women reported avoiding encounters with pregnant women or young children, the men denied doing so.

Pearson correlation was used to correlate coping strategies of participants with reports of feelings of hopelessness, worthlessness and despair. Although only 15% of the participants reported distressing feelings, a direct relationship was found between persons who reported feeling psychological distress and those who ruminated about what they did wrong or kept others from knowing their pain ($p < 0.05$). Of note, all participants who reported high levels of distress were female except for one. Regarding the strategy of talking to persons to obtain information, an indirect relationship was found between this technique and levels of distress; the more persons engaged in seeking information the less negative was their affective response to infertility ($p < 0.05$). It is further noted that persons who reported talking to others about their feelings showed a distinct trend

Table 2: Percentage distribution of the use of coping strategies by males and females

Coping Strategies	Males (n = 26)		Females (n = 25)	
	Total % Used	Used a Great deal (%)	Total % Used	Used a Great Deal (%)
1. Sought medical advice	81	42	92	68
2. Hoped a miracle would happen	77	35	92	44
3. Had fantasies about how things might turn out	72	12	83	26
4. Tried to keep my feelings to myself	77	15	67	38
5. Wished the infertility would somehow go away	68	24	77	46
6. Talked to someone to find out more about infertility	54	19	73	18
7. Kept others from knowing my pain	46	8	64	24
8. Sought information from the internet	46	8	64	23
9. Talked to someone about how I was feeling.	42	8	57	13
10. Went over in my mind about what I did wrong	38	0	56	20
11. Accepted sympathy and understanding from someone	31	0	42	0
12. Tried alternative medicine	23	4	20	4
13. Took out my feelings on others	8	0	21	0
14. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication etc.	15	12	4	4
15. Avoided being with pregnant women or families with young children	0	0	17	4

of decreased sense of hopelessness, but this relationship did not meet statistical significance ($p = 0.08$).

DISCUSSION

The meaning or significance that men and women ascribe to infertility and the differences in how they attempt to cope may help to explain the gender differences in reactions that have been identified in the literature. In the present sample and others (21), men associate not having a child with not fulfilling their social role of establishing a family and of 'protecting' their wives, hence, the concern reported about their partners' well-being. Women, however, seem to view childlessness as integral to their acceptance of self (not being a complete woman) (1). The lack of fertility for men therefore seems to result in frustrations about their unfulfilled aspirations (21) and is less of an attack on their self-esteem as it is for women. The psychological significance of not being able to have a child may therefore be contributing to the greater level of distress reported by women (1).

A meta-analysis (on studies done between 1966 to 1995) which examined gender differences in coping with infertility has revealed similarities with the present findings. Men and women will use a combination of escape-avoidance, seeking support and active problem-solving strategies and women will use all to a greater degree than their partners (22). Additionally, research has shown that couples cope effectively with the stress of infertility when they accept their condition and then take purposive action that helps them to adjust (23). Actively seeking information, a commonly used strategy in this sample was associated with decreased reports of psychological distress by participants and therefore seems to be one of the more effective strategies for coping with infertility.

There is a widely accepted stereotype that women experience emotions more readily and with less self-control than men (24) and that women feel emotions more intensely than men (25). It was anticipated therefore that more women than men in this study would use strategies that allowed them to vent their feelings. Although compared to other coping strategies, emotion-focussed strategies were not frequently used by women in this sample, the findings nonetheless indicate that women were more likely than men to talk about their feelings and significantly more women ruminated about their experience. On the other hand, men used techniques that may have helped them to avoid dealing directly with their feelings until they were better capable of doing so. This finding was also borne out in the interviews when men and women described their approach to the problem of infertility. The men reportedly would delay confirmation of the infertility, and it was generally the women who would not only talk about their feelings but request help from a medical practitioner and actively seek information from the internet and pass it on to their partners.

It is likely that participants' choice of coping strategies and response to infertility were influenced by social and

personal factors not examined in this study. For example, the fact that almost half of the men in the sample already had a child may well have contributed to their lower distress levels and the low-keyed role they took in actively seeking information. The small size of the sample and, in particular, the small percentage of participants who reported experiencing high levels of distress prevented meaningful analyses of such variables.

Despite women being the ones more likely to reflect on and share their feelings, as have been reported in other studies on infertility (21), the women in this Caribbean population were also more likely to prevent others from knowing their pain. In fact, only 4% reported frequently engaging in behaviour to receive sympathy, and strategies mainly employed by women such as blaming self and hiding their pain were associated with significant distress and a sense of hopelessness. Whether such strategies, cited also in other studies (15), were used because of the pervading sense of despair the women experienced or their use contributed to the sense of despair, women who are infertile may well be depriving themselves from fully utilizing the emotional support that is needed.

CONCLUSIONS AND IMPLICATIONS

Although previous studies have shown that socio-demographic factors such as age and the type of infertility problem are not related to the stress of infertility (26), the small sample size prevented the use of multi-factorial analyses that would have allowed for investigation into how additional factors such as having a child previously could have affected these findings. Nonetheless, implications for psychological counselling with couples who are infertile can be derived from these results.

The study found that while men and women both frequently use a combination of strategies to cope, namely, avoidance coping and active-problem solving, and to a lesser extent, emotion-focussed coping, there are gender differences in their choice and frequency of use. Coping strategies are not homogenous or gender-specific. Individuals may use different avoidance techniques, such as, fantasizing about the outcome to deal with some situations and avoiding talking about the problem to deal with others. Also, some may share their feelings with others at a particular stage of their grief experience but do more active problem-solving at other stages. While becoming actively involved in problem-solving is an effective strategy, dwelling on the experience (emotion-focussed coping) results in self-blame and isolation for some women, thereby, increasing their risk for heightened distress and despair. Future studies could investigate temporal factors influencing the efficacious use of coping strategies as well as compare gender differences in reactions to infertility with other stressful health situations to identify context-specific responses.

An appreciation of gender differences should be included in all investigations on the stress of infertility as well

as health behaviour in general. Such a focus would help to enhance an appreciation of gender perspective in healthcare. These findings highlight the need for counselling to emphasize infertility as a couple's issue as this may help to reduce the self-blame identified in women. Also, despite a third of the cause of infertility being claimed by men, men are not willing or able to readily talk about their experience. Promoting active problem-solving techniques may be better received by them than the sharing of feelings in counselling. Counselling services can be used to educate clients about effective ways of coping with the stress of infertility as well as gender specific responses that may or may not be helpful.

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