Psychological distress before and immediately after attendance at a male sub-fertility clinic

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Summary

Where treatment options are limited, the role of clinical consultation in providing information and support becomes more important. This study examines the immediate impact of medical consultation on male sub-fertility clinic attender's anxiety, depression, self-blame, information appraisal and perceptions of future fertility. Data were collected pre- and immediately post-consultation. Clinical information and consultation details were recorded. Results showed that anxiety levels were high before consultation. Following consultation anxiety and self-blame were both reduced while depression increased. Despite information about poor prognosis being given during consultation, participants remained overly optimistic about their chances of achieving a pregnancy. It appears that the consultation has a distinct psychological impact and possible mechanisms underlying this are discussed.

Introduction

For many male patients with sub-fertility, treatment options are limited. Findings from a study of 933 male sub-fertility patients suggested that clinic attendance did not usually improve the chance of fertility. The authors concluded, however, that the consultation provides an important opportunity to offer accurate information on prognosis and supportive counselling[1]. Despite such findings, psychological outcomes of medical consultation, and understanding and appraisal of information by patients have not been fully investigated in this population. A preliminary study was performed to assess the immediate impact of medical consultation on patients' anxiety, depression, self-blame, information appraisal and perceptions of future fertility.

Patients and methods

Over a 3 month period all men attending a specialist sub-fertility clinic were asked to participate ($n=109$, refusal=6). Participants completed questionnaires before and immediately after medical consultation. Anxiety and depression were measured using the Hospital Anxiety and Depression (HAD) Scale[2], which has been validated as a state measure suitable for use to evaluate change in anxiety and depression in hospital out-patient populations[3]. Visual analogue scales were used to assess patients': (1) self-blame for fertility problems; (2) perception of quantity of information received, (3) perception of their understanding of information received; and (4) fertility expectations.

Fertility histories were taken and clinical examination performed by the consultant. Data were collected from the consultant immediately following each consultation including diagnosis and treatment options. Visual analogue scales were used to assess the consultant's estimate of: (1) the amount of information given; (2) participant understanding of the information; and (3) participant chances of pregnancy following treatment.

Wilcoxon tests were used to compare pre- and post-consultation means. Correlation co-efficients used to examine the relationship between consultant and participant data.

Results

The mean age of participants was 34.4 years with a mean of 30.5 years for partners. Mean time together was 8 years with mean 4.6 years trying to conceive. Mean time since first general practitioner consultation about fertility was 2.9 years.

Male sub-fertility clinic attenders were found to have already undergone extensive investigations (72% had given between one and four semen samples; 50% had special sperm tests; 67% had blood tests) over an extended period of time (mean 35 months). In addition many partners had multiple fertility investigations, for example 31% undergoing surgery.

Pre- and post-consultation scores for anxiety, depression, self blame and patient estimation of the chance of achieving a pregnancy are given in Table 1.

Before consultation these men were highly anxious. Fifty per cent scored within the range of caseness on the HAD as compared with a reported general population point prevalence of 11%[4] although for the majority (90%) depression scores were within normal limits. While anxiety levels were reduced following medical consultation ($z=-2.87$; $P<0.025$), there was a significant increase in depression ($z=-2.50$; $P<0.025$) (Table 1). Participant self-blame for not achieving a pregnancy was lower following consultation ($z=-3.18$; $P<0.025$).

Both clinician and participants rated the amount of information given in the consultation as high (participant mean=80, consultant mean=81; 0=no information, 100=a lot) and participant understanding of the information as good (participant mean=87, consultant mean=80; 0=no understanding, 100=full understanding). Before consultation, participants estimated their chance of pregnancy was 30% (mean) but expected it would improve to 51% (mean) following consultation ($z=-6.61$; $P<0.001$). Post consultation

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Table 1. Pre- and post-consultation scores for anxiety, depression, self blame and patient estimation of chance of achieving a pregnancy. Values are means (standard deviations)

Scale	*Pre-consultation*	*Post-consultation*	*z Value*
HAD Anxiety*	7.59 (3.49)	6.96 (3.54)	-2.87; $P<0.005$
HAD Depression*	3.41 (3.09)	3.57 (3.00)	-2.50; $P<0.025$
Self blame†	56.1 (35.78)	46.1 (36.27)	-3.18; $p<0.025$
Chance of pregnancy	29.9% (25.8)	45.5% (29.0)	-5.53; $P<0.001$

*A cut off score of eight was used, i.e. a score of eight and above is in a clinical range
†0=No blame; 100=total blame

they estimated the chance of conception to be 45% (mean) a significant increase from their pre-consultation estimate ($z=-5.53$; $P<0.001$). The patient post-consultation estimate compares with the consultant mean estimate of 34%. No relationship was found between participants' pre-consultation estimates of fertility and consultant estimates. Following consultation while participants continued to overestimate the chance of pregnancy, their estimates correlated well with those of the consultant ($r=0.40$; $p<0.001$).

Discussion

Changes in the levels of anxiety and depression immediately post consultation suggest that the consultation has an impact psychologically. The mechanisms underlying this effect remain unclear.

Male anxiety levels were high. Investigation of subfertility is lengthy - the mean time since first seeking help was 2.9 years. While no information is available about pre-attendance (as opposed to pre-consultation) anxiety levels, it is possible that chronically elevated anxiety may be a characteristic of this group given the protracted and intrusive nature of the fertility investigations. This would be consistent with findings that couples taking part in assisted conception programmes experience long-term raised anxiety[5].

The HAD scale is a useful measure of change in mood state but as it is a brief self administered scale, it might be expected that fluctuations over the course of a short time period would not be seen. That significant changes did in fact occur is, therefore, particularly noteworthy. The increase in patient levels of depression could reflect the beginning of a more realistic view of their situation or distress at the continuation of their uncertainty.

Participants have high expectations of the consultation, assessing that their chances of pregnancy will be greatly improved by it. While anxiety levels are not reduced to normal levels following consultation they are none the less reduced. During the consultation, information is given relating to possible treatment options and prognosis. While not removing uncertainty, this information enables patients to make decisions about how to proceed. For many this marks the end of a period of waiting and the beginning of the next stage in the process which may be to continue seeking treatment or to begin to adjust to life without a baby. The reduction in anxiety may be related to this aspect of the consultation. The reduction in self-blame which follows consultation may reflect a shift in participants' attributions about the origin of their fertility problems from internal to external causes. This may be achieved through highlighting the medical perspective of their difficulties.

Despite the report of the consultant that he gave information about poor prognosis during consultation, participants remained more optimistic than the consultant about their chances of achieving a pregnancy, thus fulfilling their pre-consultation expectations. This raises questions about the way in which individuals interpret prognostic information and the way in which it can most usefully be presented. Maintaining optimism may have a functional significance acting as a protective factor against distress or as a way of justifying continued treatment seeking.

It is clear that male sub-fertility clinic attenders experience a high level of psychological distress. Anecdotal reports suggest that they show a reluctance to attend psychological services and support groups. Attendance at the clinic may be the sole opportunity for contact and therefore provides a valuable chance to try to address psychological as well as clinical issues. Further research is needed to gain a clearer understanding of the psychological processes underpinning the experiences of men with fertility problems, in particular the way in which patients' pre-existing anxiety and depression levels, the nature of their attributions about fertility and their expectations of the consultation interact with the information given in the consultation. By gaining such understanding, it is to be hoped that the clinical consultation may be developed to maximize its potential for reducing distress in this population.

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