



# **Routine psychosocial care in infertility and medically assisted reproduction – A guide for fertility staff**

## **SUMMARY**

ESHRE Psychology and Counselling Guideline Development Group

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## LIST OF ALL RECOMMENDATIONS

### Psychosocial care in fertility clinics: patients' preferences

#### WHICH ASPECTS AND COMPONENTS OF PSYCHOSOCIAL CARE ARE IMPORTANT TO PATIENTS?

##### Staff characteristics

Fertility staff should be aware that patients value

- how staff relate to them.(A)
- staff showing understanding and paying attention to the emotional impact of infertility.(A)
- that both partners are involved in the treatment process.(A)
- being involved in decision-making.(A)
- receiving psychosocial care from sensitive and trustworthy staff members.(A)
- receiving attention to their distinct needs related to their medical history.(B)

##### Clinic characteristics

Fertility staff should be aware that patients value

- minimal waiting times, not being hurried in medical consultations, and continuity of care.(A)
- the professional competence of fertility staff and receiving personalized care.(A)
- the provision of opportunities for contact with other patients.(A)
- being in a clinic dedicated to infertility care.(A)
- the offer of specialized psychosocial care (infertility counselling or psychotherapy) before, during, and after IVF treatment.(B)

The guideline development group recommends fertility staff to be aware that

- patients expressing a need for emotional support value the offer of specialized psychosocial care (infertility counselling or psychotherapy).(GPP)
- patients may value the presence of a chaperone during medical examinations.(GPP)
- men value rooms designated for producing sperm samples.(GPP)

##### Psychosocial care components

Fertility staff should be aware that patients value

- written treatment-relevant information.(C)
- explanations about treatment results and treatment options.(C)
- understandable and customized (i.e., personally relevant) treatment information.(C)
- the provision of information about psychosocial care options (e.g., contact details of support groups, online support options, access to infertility counselling, or psychotherapy).(B)

Fertility staff should be aware that IVF patients equally prefer in-person or telephone consultation to discuss their treatment results and future plans.(C)

## Psychosocial care in fertility clinics: patient well-being

### WHICH CHARACTERISTICS OF FERTILITY STAFF AND CLINICS ARE ASSOCIATED WITH PATIENTS' WELL-BEING?

#### Staff and clinic characteristics

Fertility staff should be aware that

- receiving patient-centred care is associated with better patient well-being.(C)
- positive staff characteristics (communication, respect, competence, involvement, and information) are associated with better patient well-being.(C)
- positive clinic characteristics (information, competence of clinic and staff, and continuity) are associated with better patient well-being.(C)

### WHICH INTERACTIVE AND SELF-ADMINISTERED INTERVENTIONS ARE ASSOCIATED WITH PATIENTS' WELL-BEING?

#### Interactive interventions

Fertility staff should be aware that offering the currently available interactive complex interventions\* is not likely to affect patient individual and relational well-being.(B)

#### Self-administered interventions

Fertility staff should provide preparatory information about diagnostic procedures because it decreases infertility-specific anxiety and stress.(C)

Fertility staff should be aware that

- tailored online psycho-educational interventions may improve infertility-specific stress and self-efficacy, and the sexual and social concerns of particular groups of patients.(C)
- providing IVF patients with access to an internet-based personal health record is not likely to promote their emotional well-being (depression, anxiety, and self-efficacy).(C)

*\*Complex interventions integrate several psychosocial components (e.g., information provision, training in coping, or relaxation strategies) (Craig, et al., 2008).*

## BEFORE TREATMENT

### WHAT ARE THE NEEDS OF PATIENTS BEFORE TREATMENT?

#### Behavioural needs

*(lifestyle behaviour, exercise, nutrition, and compliance)*

Fertility staff should be aware that

- one in 10 patients referred for fertility treatment chooses not to start treatment.(C)
- the reasons patients state for not starting any type of recommended fertility treatment are: rejection of treatment (due to ethical objections, concerns about and lack of interest in treatment), personal reasons, relational problems, financial issues, and psychological burden of treatment.(B)
- the reasons patients on the waiting list to start ART treatment state for not starting recommended ART treatment are: relational problems, psychological burden of treatment, personal reasons, clinic-related problems, and financial issues.(B)
- a considerable number of patients have lifestyle behaviours that may negatively affect their general and reproductive health.(C)

#### Relational/social needs

*(relationship with partner, family, friends and larger social network, and work)*

Fertility staff should be aware that

- patients starting first-line or ART treatments do not have worse marital and sexual relationships than the general population.(B)
- patients in fertility workup do not present higher prevalence rates of sexual dysfunctions than the general population.(C)

#### Emotional needs

*(depression, anxiety, stress/distress, psychopathology, psychiatric disorders, general well-being, quality of life, etc.)*

Fertility staff should be aware that

- before the start of IVF treatment, patients are not more depressed than the general population or matched controls.(B)
- evidence about whether before the start of a first IVF cycle patients are more anxious (state and trait anxiety) than the general population is inconsistent.(B)
- before first-line or ART treatment, women do not show more psychiatric disorders or general psychopathology than the general population.(C)

#### Cognitive needs

*(knowledge and concerns)*

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- indicates the absence of recommendations for this aspect of psychosocial care.

## HOW CAN FERTILITY STAFF DETECT THE NEEDS OF PATIENTS BEFORE TREATMENT?

### **GENERAL RECOMMENDATION**

The guideline development group recommends that fertility staff

- offer patients the opportunity to have their needs assessed and be informed about their emotional adjustment before the start of treatment.(GPP)
- use the tools listed in Appendix 2 when assessing patients' needs.(GPP)

### **Behavioural needs**

*(lifestyle behaviour, exercise, nutrition, and compliance)*

Fertility staff should

- be aware that currently there are no reliable pre-treatment tools or predictors to identify patients who are not likely to start recommended fertility treatment.(B)
- not assume that patients fully self-report on risk factors for reduced fertility (e.g., eating disorders).(C)
- be aware that risk factors (e.g., smoking, alcohol use, and diet) for reduced fertility can be assessed with self-administered online tools.(C)

The guideline development group recommends that fertility staff consider explicitly screening risk factors (e.g., drug use, eating disorders) for reduced fertility.(GPP)

### **Relational and social needs**

*(relationship with partner, family, friends and larger social network, and work)*

Fertility staff should be aware that

- women experience higher social and sexual infertility-specific stress than men.(C)
- the ways patients deal with their fertility problems are associated with infertility-specific relational and social distress:
  - The use of meaning-based coping (e.g., thinking about the fertility problem in a positive light, finding other goals in life) seems to be associated with lower fertility-specific marital and social distress.
  - The use of avoidance coping strategies (e.g., avoiding being among pregnant women) seems to be associated with higher fertility-specific marital and social distress.(C)
- in couples, the way one partner reacts to the infertility condition/diagnosis is associated with how the other partner reacts.(C)
- couples who have different views on the importance of parenthood and social concerns may show lower relationship satisfaction than those who have similar views.(C)

### **Emotional needs**

*(depression, anxiety, stress/distress, psychopathology, psychiatric disorders, general well-being, quality of life, etc.)*

Fertility staff should be aware that

- women have higher levels of depression and infertility stress than men.(C)
- patients with a lower occupational status experience higher infertility stress and anxiety than patients with a medium or high occupational status.(C)
- women whose partner has male factor infertility experience higher anxiety than women with female factor, mixed, or unexplained infertility, whereas type of infertility diagnosis is not related to depression.(C)
- the way patients deal with their fertility problems is associated with their infertility distress:
  - The use of passive coping (e.g., rumination, withdrawal) seems to be associated with higher levels of infertility distress.
  - The use of active coping (e.g. goal-oriented problem-solving, thinking rationally about the problem) seems to be associated with lower infertility distress.(C)

**Fertility staff should be aware that**

- **individuals who perceive their partner to be available and responsive experience lower infertility stress than individuals who perceive their partner to be avoidant and non-responsive.(C)**
- **in couples, each partner's depressive symptoms are associated with their own and their partner's infertility-specific distress.(C)**
- **the SCREENIVF is an infertility-specific validated tool designed to be used before the start of treatment, to assess risk factors for emotional problems after a treatment cycle.(B)**

**The guideline development group recommends that fertility staff use the SCREENIVF before the start of each treatment cycle to assess patients' risk factors for emotional problems after the cycle.(GPP)**

**Cognitive needs**

*(knowledge and concerns)*

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*- indicates the absence of recommendations for this aspect of psychosocial care.*

## HOW CAN FERTILITY STAFF ADDRESS THE NEEDS OF PATIENTS BEFORE TREATMENT?

### **GENERAL RECOMMENDATION**

The guideline development group recommends that fertility staff refer patients at risk of experiencing clinically significant psychosocial problems to specialized psychosocial care (infertility counselling or psychotherapy).(GPP)

#### **Behavioural needs**

*(lifestyle behaviour, exercise, nutrition, and compliance)*

Fertility staff should

- provide preparatory information about medical procedures because it promotes compliance.(B)
- be aware that weight-loss programmes based on diet and exercise offered pre-ART treatment may be effective in reducing weight and body mass index (BMI).(B)

The guideline development group recommends that fertility staff

- consider providing patients with information about lifestyle behaviours that may negatively affect their general and reproductive health.(GPP)
- support patients in changing lifestyle behaviours that negatively affect their general and reproductive health, as well as their chances of treatment success.(GPP)

#### **Relational and social needs**

*(relationship with partner, family, friends and larger social network, and work)*

The guideline development group recommends that fertility staff

- offer additional psychosocial care to patients at risk of experiencing increased infertility-specific relational and social distress. (GPP)
- actively involve both partners of the couple in the diagnosis and treatment process.(GPP)

#### **Emotional needs**

*(depression, anxiety, stress/distress, psychopathology, psychiatric disorders, general well-being, quality of life, etc.)*

Fertility staff should provide preparatory information about medical procedures because it decreases infertility-specific anxiety and stress.(C)

The guideline development group recommends that fertility staff

- refer patients identified by the SCREENIVF as being at risk of emotional problems to specialized psychosocial care (infertility counselling or psychotherapy).(GPP)
- actively involve both partners of the couple in the diagnosis and treatment process.(GPP)

#### **Cognitive needs**

*(knowledge and concerns)*

Fertility staff should provide preparatory information about medical procedures because it increases patient knowledge.(C)



## DURING TREATMENT

### WHAT ARE THE NEEDS OF PATIENTS DURING TREATMENT?

#### Behavioural needs

*(lifestyle behaviour, exercise, nutrition, and compliance)*

Fertility staff should be aware that

- around 1 in 12 patients and 1 in 5 patients do not comply with first-line and ART treatment, respectively.(A)
- the reasons patients state for discontinuing recommended first-line treatment are: postponement of treatment (i.e., stopping treatment for at least 1 year), logistics and practical reasons, rejection of treatment, perception of poor prognosis, and the psychological burden of treatment.(A)
- the reasons patients state for discontinuing recommended treatment after one failed IVF/ICSI cycle are: financial issues, the psychological and physical burdens of treatment, clinic-related reasons and organizational problems, postponement of treatment (or unknown), and relational problems.(A)
- the reasons patients state for discontinuing a recommended standard ART treatment programme of three consecutive cycles are: postponement of treatment, the psychological burden of treatment, the physical and psychological burdens of treatment, and personal problems.(A)

#### Relational/social needs

*(relationship with partner, family, friends and larger social network, and work)*

Fertility staff should be aware that

- relational satisfaction of patients does not change from before they start an IVF/ICSI cycle to after the pregnancy test.(B)
- women report more intimacy with their partner during an IVF/ICSI cycle than during a normal menstrual cycle, in particular at the retrieval and transfer days of the cycle.(B)
- women experience lower sexual satisfaction after the pregnancy test than before the start of an IVF/ICSI cycle.(B)
- women report lower social support from significant others in the period between the oocyte retrieval and the embryo transfer of an IVF/ICSI cycle than during the equivalent period in a normal menstrual cycle.(B)
- during an IVF/ICSI cycle, 6 in 10 patients report treatment-related absences from work and, on average, patients miss 23 h of work.(C)

#### Emotional needs

*(depression, anxiety, stress/distress, psychopathology, psychiatric disorders, general well-being, quality of life, etc.)*

Fertility staff should be aware that

- patients' emotional stress fluctuates during an IVF/ICSI cycle, with peaks at the oocyte retrieval, the embryo transfer, and the waiting period before the pregnancy test.(B)
- women's positive affect decreases during an IVF/ICSI cycle.(B)
- anxiety and stress are higher when patients are anticipating results (e.g., in the waiting period before the pregnancy test, between oocyte retrieval and embryo transfer).(B)
- patients experience high emotional distress when they are informed that the treatment was unsuccessful.(B)
- when they are informed that the treatment was unsuccessful, 1 to 2 in 10 women experience clinically significant levels of depressive symptoms.(B)
- after receiving the pregnancy test for their IVF/ICSI treatment, 1 in 4 women and 1 in 10 men have a depressive disorder. One in 7 women and 1 in 20 men have an anxiety disorder.(B)

**Cognitive needs**

*(knowledge and concerns)*

**Fertility staff should be aware that patients report moderate to high concerns about achieving pregnancy with a healthy live birth, that do not decrease across treatment.(C)**

## HOW CAN FERTILITY STAFF DETECT THE NEEDS OF PATIENTS DURING TREATMENT?

### **GENERAL RECOMMENDATION**

The guideline development group recommends the fertility staff use the tools listed in Appendix 2 when assessing patients' needs.(GPP)

#### **Behavioural needs**

*(lifestyle behaviour, exercise, nutrition, and compliance)*

Fertility staff should be aware that currently there are no reliable tools or predictors to identify patients not likely to comply with recommended treatment.(B)

#### **Relational/social needs**

*(relationship with partner, family, friends and larger social network, and work)*

Fertility staff should be aware that

- at the start of ovarian stimulation, at oocyte retrieval, and after the pregnancy test, men report lower perceived support than women.(C)
- men report higher social isolation than women during an IVF/ICSI treatment cycle.(C)
- patients with lower education level or physical or emotional complaints due to IVF/ICSI may take more treatment-related hours off work.(C)

#### **Emotional needs**

*(depression, anxiety, stress/distress, psychopathology, psychiatric disorders, general well-being, quality of life, etc.)*

Fertility staff should be aware that

- women are more likely to experience anxiety, depression, stress, and/or psychiatric morbidity than men.(B)
- the number of previous treatment cycles is not associated with depression, anxiety, or incidence of psychiatric disorders for men and women undergoing treatment.(C)
- patients undergoing mild stimulation IVF/ICSI (as opposed to standard stimulation) are more likely to experience negative emotional reactions at oocyte retrieval but less likely to experience these reactions during hormonal stimulation and after a treatment cycle cancellation or failure.(C)
- patients with a previous history of vulnerability to mental health disorders are more likely to experience depression, anxiety, and/or psychiatric morbidity during treatment.(C)
- the ways women deal with their fertility problems are associated with infertility-specific distress;
  - The use of avoidant coping (e.g., avoiding being amongst pregnant women) is associated with higher infertility-specific distress.
  - The use of emotional expressive coping (e.g., expressing feelings to significant others) is associated with lower infertility-specific distress.(C)
- patients with low acceptance of infertility and childlessness are more likely to experience anxiety and depression when they are informed that the treatment was unsuccessful.(C)
- patients who experience high helplessness regarding infertility and its treatment are more likely to experience anxiety and depression when they are informed that the treatment was unsuccessful.(C)
- in couples, the way one partner reacts to infertility and its treatment is associated with how the other partner reacts.(C)

#### **Cognitive needs**

*(knowledge and concerns)*

Fertility staff should be aware that currently there are no reliable methods or information about predictors of the concerns patients have about treatment.(C)

## HOW CAN FERTILITY STAFF ADDRESS THE NEEDS OF PATIENTS DURING TREATMENT?

### **GENERAL RECOMMENDATION**

The guideline development group recommends that fertility staff refer patients at risk of experiencing clinically significant psychosocial problems to specialized psychosocial care (infertility counselling or psychotherapy).(GPP)

### **Behavioural needs**

*(lifestyle behaviour, exercise, nutrition and compliance)*

The guideline development group recommends that fertility staff offer patients the opportunity to discuss uptake or not of recommended treatment and receive decisional support to deliberate their choice.(GPP)

### **Relational/social needs**

*(relationship with partner, family, friends and larger social network, and work)*

Fertility staff should be aware that

- offering the currently available interactive complex interventions\* is not likely to improve patient interpersonal relationships or sexual concerns.(B)
- providing IVF/ICSI-patients with access to an internet-based personal health record is not likely to improve their social support.(B)

The guideline development group recommends that fertility staff

- offer additional psychosocial care to patients with specific characteristics associated with social isolation or absence from work.(GPP)
- actively involve both partners of the couple in the treatment process.(GPP)

### **Emotional needs**

*(depression, anxiety, stress/distress, psychopathology, psychiatric disorders, general well-being, quality of life, etc.)*

Fertility staff should be aware that

- offering the currently available complex interventions\* is not likely to improve patients' depression levels.(B)
- providing IVF/ICSI-patients with access to an internet-based personal health record is not likely to improve their emotional well-being (anxiety, depression, and self-efficacy).(B)

The guideline development group recommends that fertility staff

- offer additional psychosocial care to patients with specific characteristics associated with negative emotional reactions.(GPP)
- actively involve both partners of the couple in the treatment process.(GPP)

### **Cognitive needs**

*(knowledge and concerns)*

Fertility staff should be aware that providing IVF/ICSI-patients with access to an internet-based personal health record is not likely to increase their knowledge about infertility and its treatment.(B)

The guideline development group recommends that fertility staff offer patients the opportunity to discuss and clarify their treatment related concerns.(GPP)

\*Complex interventions integrate several psychosocial components (e.g., information provision, continuity of care, training in coping, or relaxation strategies (Craig, et al., 2008).

## AFTER TREATMENT

### WHAT ARE THE NEEDS OF PATIENTS AFTER TREATMENT?

#### UNSUCCESSFUL TREATMENT

##### Behavioural needs

*(lifestyle behaviour, exercise, nutrition, and compliance)*

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##### Relational/social needs

*(relationship with partner, family, friends and larger social network, and work)*

Fertility staff should be aware that about 2 years after unsuccessful IVF/ICSI treatment patients are generally satisfied with their marital relationship.(C)

##### Emotional needs

*(depression, anxiety, stress/distress, psychopathology, psychiatric disorders, general well-being, quality of life, etc.)*

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##### Cognitive needs

*(knowledge and concerns)*

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#### PREGNANCY AFTER TREATMENT

##### Behavioural needs

*(lifestyle behaviour, exercise, nutrition, and compliance)*

Fertility staff should be aware that women who achieve pregnancy with fertility treatment practice lifestyle behaviours that are similar to women who conceive spontaneously.(C)

##### Relational/social needs

*(relationship with partner, family, friends and larger social network, and work)*

Fertility staff should be aware that the way patients relate to their foetus is similar whether the foetus is conceived with ART treatment or spontaneously.(C)

##### Emotional needs

*(depression, anxiety, stress/distress, psychopathology, psychiatric disorders, general well-being, quality of life, etc.)*

Fertility staff should be aware that

- women who conceived with IVF/ICSI do not experience more symptoms of depression, worse self-esteem or worse mental health during pregnancy than women who conceive spontaneously.(A)
- women who conceived with IVF/ICSI may experience more pregnancy-specific anxiety than women who conceived spontaneously.(B)

##### Cognitive needs

*(knowledge and concerns)*

Fertility staff should be aware that women with multiple pregnancies after IVF/ICSI may have higher maternal expectations than women with spontaneous multiple pregnancies.(C)

- indicates the absence of recommendations for this aspect of psychosocial care.

## HOW CAN FERTILITY STAFF DETECT THE NEEDS OF PATIENTS AFTER TREATMENT?

<p><b>GENERAL RECOMMENDATION</b></p> <p>The guideline development group recommends that fertility staff use the tools listed in Appendix 2 when assessing patients' needs.(GPP)</p>
<p><b>UNSUCCESSFUL TREATMENT</b></p> <p><b>Behavioural needs</b> <i>(lifestyle behaviour, exercise, nutrition, and compliance)</i></p> <p>Fertility staff should be aware that former patients who remain childless 5 years after unsuccessful IVF/ICSI treatment may use more sleeping pills, smoke more often, and consume more alcohol than former patients that become parents via adoption, or spontaneously.(C)</p> <p><b>Relational/social needs</b> <i>(relationship with partner, family, friends and larger social network, and work)</i></p> <p>Fertility staff should be aware that former patients that remain childless 5 years after unsuccessful IVF/ICSI treatment are three times more likely to separate than former patients that become parents via adoption, or spontaneously.(C)</p> <p><b>Emotional needs</b> <i>(depression, anxiety, stress/distress, psychopathology, psychiatric disorders, general well-being, quality of life, etc.)</i></p> <p>Fertility staff should be aware that</p> <ul style="list-style-type: none"> <li>• women who remain childless 10 years after unsuccessful IVF/ICSI treatment are not more likely to develop psychiatric disorders than women of the same age who never underwent fertility treatment.(C)</li> <li>• women with a persistent desire for pregnancy 3 to 5 years after unsuccessful treatment may experience more anxiety and depression than women who find new life goals or women who become mothers.(C)</li> </ul> <p><b>Cognitive needs</b> <i>(knowledge and concerns)</i></p> <p>-</p>

<p><b>PREGNANCY AFTER TREATMENT</b></p> <p><b>Behavioural needs</b> <i>(lifestyle behaviour, exercise, nutrition, and compliance)</i></p> <p>-</p> <p><b>Relational/social needs</b> <i>(relationship with partner, family, friends and larger social network, and work)</i></p> <p>-</p> <p><b>Emotional needs</b> <i>(depression, anxiety, stress/distress, psychopathology, psychiatric disorders, general well-being, quality of life, etc.)</i></p> <p>Fertility staff should be aware that</p> <ul style="list-style-type: none"> <li>• women who experienced multiple failed ART cycles or high stress during treatment may be more likely to experience symptoms of anxiety during pregnancy.(C)</li> <li>• patients with multiple pregnancies after ART are not more likely to experience poorer mental health than patients with a single ART pregnancy.(C)</li> </ul> <p><b>Cognitive needs</b> <i>(knowledge and concerns)</i></p> <p>-</p>
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- indicates the absence of recommendations for this aspect of psychosocial care.

## HOW CAN FERTILITY STAFF ADDRESS THE NEEDS OF PATIENTS AFTER TREATMENT?

### UNSUCCESSFUL TREATMENT

#### Behavioural - Relational/social - Emotional - Cognitive needs

The guideline development group recommends that fertility staff

- refer patients who, when ending unsuccessful treatment, experience or are at risk of experiencing (in the short or long term) clinically significant psychosocial problems to specialized psychosocial care (infertility counselling or psychotherapy).(GPP)
- offer additional psychosocial care to patients who, when ending unsuccessful treatment, are at risk of increased infertility-specific psychosocial distress.(GPP)
- offer patients the opportunity to discuss the implications of ending unsuccessful treatment.(GPP)

### PREGNANCY AFTER TREATMENT

#### Behavioural - Relational/social - Emotional - Cognitive needs

The guideline development group recommends that fertility staff

- refer patients who experience or are at risk of experiencing clinically significant psychosocial problems after successful treatment to specialized psychosocial care (infertility counselling or psychotherapy).(GPP)
- offer additional psychosocial care to patients at risk of increased infertility-specific psychosocial distress after successful treatment.(GPP)
- offer patients the opportunity to discuss their worries about pregnancy achieved with fertility treatment.(GPP)

## Reference

Craig P, Dieppe P, Macintyre S, Michie S, Nazareth I, Petticrew M, Medical Research Council G. Developing and evaluating complex interventions: the new Medical Research Council guidance. *Bmj* 2008;**337**: a1655.

## CONCLUSIONS AND CONSIDERATIONS

The evidence reviewed for the development of this ESHRE Guideline provides clear guidance for the incorporation of psychosocial care in routine fertility care.

- 1. Patients have clear preferences about the psychosocial care they receive at fertility clinics. Fertility staff should be aware of these preferences and consider addressing them.**

Patients value the contact with sensitive and empathic staff members who provide support for their individual needs, pay attention to the emotional impact of infertility, and involve both partners in the treatment process and all related decision-making.

Patients also value that fertility clinics ensure the professional competence of their staff members, minimal waiting times, continuity of care, and the opportunity to contact other patients and to access specialized mental health services in case of need.

The available evidence about the different psychosocial components that patients value is limited to information provision. It shows that patients value receiving written customized information about treatment options and explanations of results, as well as available psychosocial support options.

Further steps were taken to investigate whether these different aspects of psychosocial care have an actual impact on patient emotional well-being. Cross-sectional research showed that the different staff and clinic characteristics that patients value are indeed associated with higher emotional well-being. Information provision, in particular the provision of preparatory information, decreases patient infertility-specific anxiety and stress. In addition, tailored online psycho-educational interventions also improve the emotional well-being of specific groups of patients, for instance, highly distressed patients.

- 2. The needs of patients vary across treatment stages and therefore psychosocial support should be tailored accordingly. Fertility staff must be informed about the specific needs that patients experience at different treatment stages.**

**Before treatment,** patients' needs seem to be mainly related to behaviours that do not optimize their chances of pregnancy, namely non-compliance with recommended treatment and unhealthy lifestyle behaviour.

**During treatment,** patients have multiple needs. At the behavioural level, 1 in 12 patients do not start treatment and 1 in 5 patients do not comply with recommended treatment. At the relational level, women may lack adequate support from significant others and are absent from work due to treatment. Emotional and cognitive needs are related to the uncertainty about the outcome of treatment, and tend to peak just before the oocyte retrieval, embryo transfer, and the pregnancy test. Finally, patients experience intense distress when treatment is unsuccessful.

**During pregnancy,** the needs of previously infertile patients do not seem to differ from those of couples who conceived spontaneously. The most significant issue to highlight is that they tend to be more anxious about their pregnancy, especially when they underwent repeated treatment cycles that were perceived as very stressful.

The needs of patients who experienced **unsuccessful fertility treatment** are not documented. There are indications that individuals who were childless before treatment and therefore remain childless after treatment present worse emotional well-being than individuals with children.



**3. Some patients are more vulnerable to the demands of treatment and therefore need additional psychosocial support. Fertility staff must be aware of specific patient characteristics that indicate a risk of experiencing increased needs or problems before, during, or after fertility treatment.**

Certain patient characteristics are associated with or predictive of specific psychosocial needs or problems. These are described in Table II.1. Fertility staff must be aware of these patient characteristics and of the specific needs they predict.

Fertility staff should also use valid infertility-specific or generic assessment tools to assess patient needs. Appendix 2 of the current guideline provides a list of valid tools that can be used by all fertility staff for the purpose.

Before the start of treatment, fertility staff can use the SCREENIVF to identify those patients at risk of developing emotional problems after receiving notice of the treatment outcome.

**Table II.1. Specific patient characteristics that indicate a risk of experiencing increased needs or problems before, during, or after the treatment period.**

Needs	Before treatment	During treatment	After treatment	
			Pregnancy	Unsuccessful
<b>Behavioural</b>				Being childless.
<b>Relational and social</b>	Being a woman and using avoidance coping strategies. In couples, having different views about the importance of parenthood and infertility related social concerns.	Being a man, having lower educational level and having treatment-related physical or emotional complains.		Being childless.
<b>Emotional</b>	Being a woman, having lower occupational status and using passive coping strategies (e.g., rumination, withdrawal). In couples, having an avoidant and non-responsive partner and (for women) having a partner diagnosed with male factor infertility.	Being a woman, having a previous history of vulnerability to mental health disorders, having low acceptance of infertility and childlessness, experiencing high helplessness regarding infertility and its treatment, and using avoidance coping strategies.	Having undergone multiple ART cycles or experienced high stress during treatment and having a multiple pregnancy.	Being childless and sustaining a child-wish.
<b>Cognitive</b>				

Blank cells indicate no information.

**4. *The most effective way to start incorporating psychosocial care in routine fertility care is by improving information at clinics.***

Providing preparatory information before the start of treatment increases compliance, reduces anticipatory anxiety and stress, and increases patient knowledge about treatment-related issues. Information provision is highly valued by patients and they have clear preferences about how they want to receive it.

Information should be provided in written format before the start of treatment, and it should be customized to the patient and should focus on treatment options and results, as well as available psychosocial support options. Immediate positive effects can be expected because preparatory information provision was shown to address multiple patient needs and to be highly valued by patients themselves. In addition, compared with other existing care components such as complex interventions or specialized mental health services, information provision should be fairly simple and feasible to implement and incorporate in routine care.

The GDG is confident that these four points summarize the way forward that fertility clinics should be aiming for. The recommendations listed in this document provide more detailed guidance on how to implement these measures. However, we are aware that the amount of guidance provided is limited. Indeed, several topics were found for which there is insufficient evidence to answer the key questions, in particular regarding efficient psychosocial interventions that staff can use to address patient needs and regarding the after treatment period. This is partly due to the absence of evidence from the primary research reviewed, on which the recommendations were based, and partly due to the methodological approach adopted in the review process.

Indeed, it has to be acknowledged that historically the field has not been focusing on the provision of routine psychosocial care by staff but on the specific tasks mental health professionals perform at fertility clinics, such as counselling and the validation of psychological interventions. In addition, it has mostly been focusing on optimizing patients' treatment experience but has neglected to some extent to consider that there is still a responsibility to support patients managing the implications of (successful or unsuccessful) treatment.

Furthermore, the available research is highly heterogeneous and lacks operational definitions and precision. For instance, well-being measures and risk factors considered in studies varied from anxiety and depression to optimism, self-efficacy, coping, etc., and were used interchangeably with no theoretical consideration of how they were expected to be related. Other methodological limitations of the research reviewed were the lack of clarity about sampling methods, low response rates, use of non-validated psychological assessment tools, small sample sizes that do not allow for the detection of small effect sizes, etc. Research on specific issues, such as patient preferences, has mostly been developed using what are considered low-quality methods such as interviews, focus groups, or surveys. Low-quality studies (29/488, 6%) were excluded from guidelines because they did not meet the evidence grade (D) for guidelines. More effort should be given to improving quality in future psychosocial studies.

Finally, the GDG made several conceptual and methodological decisions that also imposed constraints on the eligible evidence. The scope of the guideline had to be narrow so that the evidence-based approach advocated in the *Manual for ESHRE Guideline Development* could be implemented in the 2-year time-span advised in the Manual. It should be noted, however, that 12 different PICO questions were defined and 12 full systematic reviews implemented, which included published and non-published available evidence from 1990 to April 2014. The need to achieve specificity in relation to patient needs and treatment stages also led to the necessity to impose artificial boundaries regarding eligible studies. For instance, studies based on heterogeneous samples of patients at different treatment stages were not included. Additional inclusion criteria adopted, such as the use of validated psychological measures to assess patient needs, resulted in further exclusions.

Overall, the GDG is confident that the recommendations described in the current ESHRE Guideline are based on the best available evidence published in the field from January 1990 to April 2014. The gaps in the guidance provided should therefore be considered as a roadmap to guide future research. In appendix 5, we summarize the main topics for future research within the field and provide conceptual and methodological advice for its implementation.