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Recommendations of the Polish Psychiatric Association for treatment of affective disorders in women of childbearing age. Part III: Approach to pregnancy loss and unsuccessful *in vitro* treatment of infertility

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Summary

This article presents recommendations of the Polish Psychiatric Association regarding approach to pregnancy loss and unsuccessful *in vitro* treatment of infertility. From the psychological perspective pregnancy loss and perinatal death are amongst the most stressful events in human life – carrying increased risk of developing affective, anxiety or post-traumatic stress disorders. Psychologists, physicians and the rest of the medical staff should provide integrated and individualized care which should be based on respect, empathy and expertise. The necessary phases of support for women experiencing pregnancy loss are: (1) physician providing exhaustive informational support regarding state of health, potential causes of fetal death, further approach and phases of induced labor of the fetus/pregnancy termination/procedure, (2) facilitating psychological consultation at any time and (3) providing exhaustive information on current legal standing (health insurance and labor law). Experiencing recurrent *in vitro* fertilization failures may result in the emotional consequences similar to those observed in miscarriages. The prolonged frustration may favor developing depressive

symptoms and escalate pathological anxiety. We present basic recommendations for psychotherapy and pharmacotherapy in pregnancy loss and unsuccessful *in vitro* infertility treatment.

Key words: pregnancy loss, infertility treatment, psychological support

Introduction

'Pregnancy loss' is a term defining unfavorable pregnancy outcome related to fetal death preceding delivery regardless of gestational age [1]. Term 'miscarriage' is used in cases of fetus expulsion below 22nd week of gestation or based on fetal weight – less than 500 grams. Approximately 15–20% of clinically recognized pregnancies end in miscarriage.

The World Health Organization reports that 60–80 million couples worldwide are permanently or temporarily infertile. In Poland, 15–20% of couples suffer from infertility, which translates into 1–1.5 million couples of reproductive age. Amongst them 0.2–0.5% requires assisted reproduction treatment. According to the European Society of Human Reproduction and Embryology (ESHRE), slightly over a dozen couples a year undergo *in vitro* fertilization procedure in Poland [2].

The following recommendations are based on the literature review on standards of care for pregnancy loss and failed infertility treatment prepared by scientific associations. The review is complemented with experience and knowledge of the experts. The search was conducted on Ebsco, Pubmed and ScholarGoogle databases with the use of the following key words: pregnancy loss, miscarriage, fetal death, *in vitro*, infertility, guideline, management.

Pregnancy loss

The Minister of Health Regulation of December 1st, 2015 introduces standards of care for patients with obstetric failure, which is defined as a "situation in which a patient will not return home with a healthy newborn due to: miscarriage, stillbirth, birth of a child unable to live or afflicted with fatal disease; situation in which a woman is expecting to deliver an ill child or a child with congenital defects" [3].

From the psychological perspective pregnancy loss and perinatal death are amongst the most stressful events in human life. Especially since almost half of the fetal deaths cases occurs in low-risk pregnancies with parents being unprepared for such outcome [4]. Both clinical practice and scientific studies indicate that pregnancy loss has a devastating impact on the expectant couple, especially on the mother. Women, who previously have been experiencing feelings of joy and satisfaction in relation to the concept of their future with babies, are forced to confront loss, experience strong emotions of sorrow, despair, anxiety, fear, loss of control of their life and quite frequently, feelings of guilt. These emotions may influence one's self-esteem as a parent and result in loss of faith in one's ability to sustain pregnancy and/or to deliver a healthy baby. They may also result in perceiving the world as a dangerous and distressing place.

The maladaptive process of coping with traumatic experience carries psychological consequences in the form of affective disorders such as depression, anxiety disorders and post-traumatic stress disorder [5]. Moreover, the exposure to traumatic factors is directly associated with the increased risk of post-traumatic disorder. Its occurrence is dependent on the type of traumatic event, the time of exposure as well as the individual adjustment resources. Interventions dedicated to pre – and peritraumatic resilience enhancement should be considered standard, when traumatization is predictable. This approach derives from the cognitive model of post-traumatic stress disorder which regards sense of self-efficacy as a belief system modifiable with psychotherapy.

The lack of clinical recommendations for psychological and psychotherapeutic care in cases of pregnancy loss is especially apparent due to the existence of evidence for the increased risk of exhibiting psychopathological symptoms in such cases. The above-mentioned Minister of Health Regulation merely passes on general recommendation for "providing information and then enabling a patient to get psychological help and support from her loved ones, according to her wishes" [3].

Recommendations for psychological approach to pregnancy loss

Studies conducted with qualitative methods on parents experiencing pregnancy loss indicate six essential points summarizing these needs of a couple which should be considered in order to provide psychological and medical care:

1. Emotional support during the last contact with a child and confrontation with its death.
2. Emotional support in experienced chaos.
3. Emotional support during the grieving process.
4. Informational support in explaining causes of pregnancy loss.
5. Help in organizing care after hospitalization period.
6. Understanding the nature of experienced grief [6].

Clinical psychologists, physicians and the rest of medical staff should be aware of the specific needs of patients and their families in order to provide them integrated and individualized care. The individual potential of initiating the adjustment process of coping with loss in each patient needs to be taken into account, with particular consideration of biopsychosocial factors underlying such potential (Figure 1). Exhibiting psychopathological symptoms as a result of pregnancy loss is more likely in the presence of [7, 8]:

- current or previous depression, anxiety disorder or other types of mental illness;
- neurotic personality traits;
- lack of social support;
- previous pregnancy loss.

Clinical experience implies that insufficient informational support regarding biomedical issues and the current situation of a patient from a treating physician constitutes additional relevant risk factor.

The above factors have to be considered in order to evaluate the emotional state and the individual capability of coping with pregnancy loss during consultations/psychological or psychiatric intervention.

Clinical practice points out the essential phases of providing support for patients experiencing pregnancy loss:

1. Patient should be given comprehensive informational support by a treating physician regarding: (a) state of her health; (b) potential causes of pregnancy loss; (c) further approach and phases of induced labor of the fetus/pregnancy termination/procedure; (d) information debunking the common myths regarding causes of pregnancy loss; (e) frequency of pregnancy loss in population.
2. Patient should be offered psychological consultation: (a) at the moment of diagnosis; (b) before induced labor/procedure; (c) after labor/procedure; (d) after hospital discharge; (e) before another pregnancy.
3. Patient should be given comprehensive information on current legal standing (health insurance and labor law) regarding her situation.

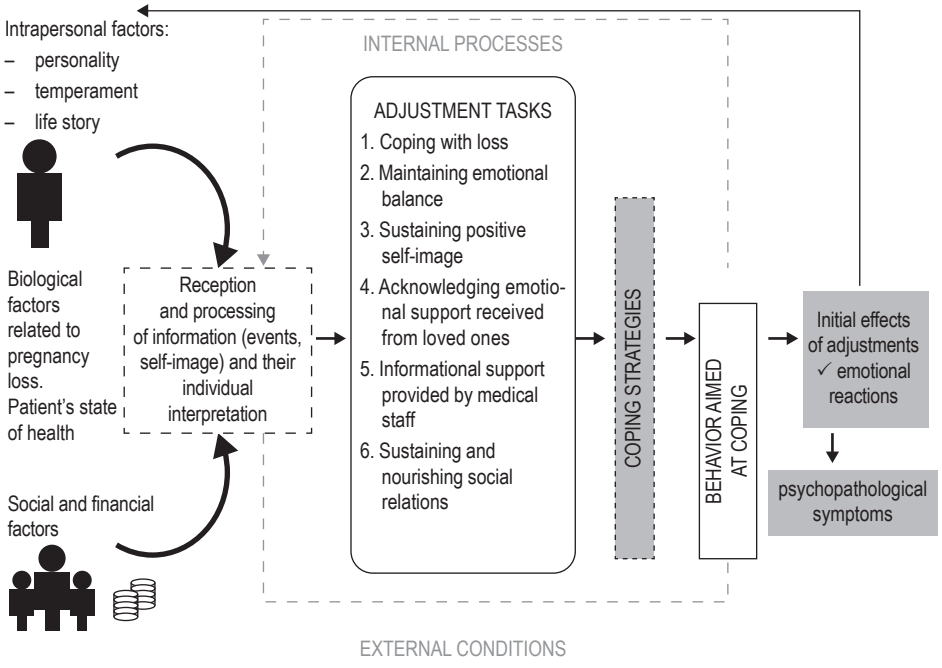

Figure 1. **Model of the adjustment process of coping**

Fatal fetal defects

Lethal congenital anomalies define each anatomical abnormality present at birth in which prognosis of survival is poor [9]. In spite of recent advances in the field of medicine, lethal anomalies are associated with no efficacious methods of treatment. Diagnosing lethal fetal anomaly is associated with a number of negative emotional consequences for parents. Physicians are required to approach this situation in a specially empathic and sensitive manner, particularly while conveying the information to parents. In order to help physicians during this difficult task SPIKES protocol has been proposed (Figure 2). It allows clinicians to achieve four essential goals: gather information from patients, convey medical information, provide support for patients, and encourage them to collaborate in making decisions on further strategy [10].

Moreover, systematic review on this issue indicates that any information regarding potential congenital defects and their consequences should be conveyed to parents as soon as a physician obtains reliable data, and should be followed by the offer of psychological support (individual or in the form of support groups) [11]. Clinical practice implies that time plays a very important role in developing potential psychopathological symptoms. Long period of awaiting for information may result in frustration and as a consequence – mental decompensation in a couple, especially in a mother. On the other hand, too sudden/unconfirmed information on potential congenital defects is also of significance to the mental state.

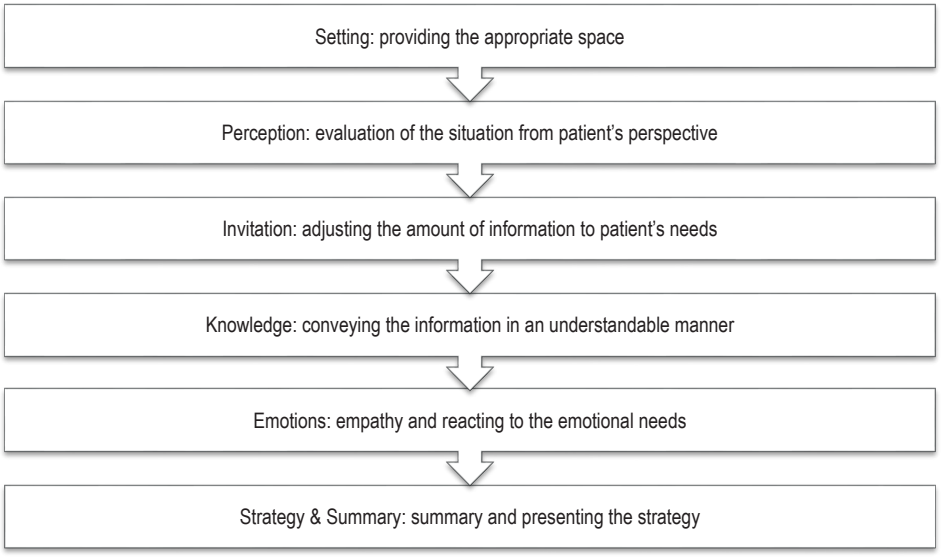

Figure 2. **SPIKES protocol in six steps**

Conveying information regarding fetal death

Conveying unfavorable information to patients is an extremely valuable skill for a physician. If a clinician finds his/her skills inadequate, he/she should ask a psychologist belonging to an interdisciplinary team for support. The important aspects of passing down such information to a pregnant woman include:

A. Obtaining comprehensive biomedical information regarding a diagnosed patient and her state of health in order to fully prepare for the conversation.
B. Ensuring adequate time and place are available to conduct the conversation in the conditions of confidentiality and privacy.
C. Conducting the conversation in the presence of a partner/loved ones, according to patient's wishes.
D. Conveying information in an understandable way, with the evaluation of patient's perception of her current situation, answering her questions and verifying doubts.
E. Showing empathic support in both verbal and non-verbal communication.
F. Summarizing all the essential information.
G. Working out further course of action in details [12, 13].

Confronting fetal death and farewell

Helping parents to confront fetal death and say goodbye is a very important aspect of providing psychological support. Offering the adequate help in this matter may result in the increased capability of coping with loss experienced by parents. The death gains real and irreversible character as a result of connecting with the lost child. This in turn prevents initiation of chronic mechanisms of denial or dissociation, which consequently lead to the prolonged grief period and developing psychopathological symptoms. The 12-year long prospective study showed that most of the parents who had experienced death of their child would have preferred to see their child for the last time in order to perceive this event more realistically [13]. The systematic review on this issue suggests that seeing a dead child allows to initiate the adjustment grieving process and decreases the likelihood of developing long-lasting psychological problems [14].

On the other hand, some studies underline potential negative consequences of seeing a dead child, such as increased risk of depressive and anxiety symptoms [15].

Clinical practice of the authors of these recommendations emphasizes the issue of farewell in the grieving process as the commencement of the adjustment mechanism of coping with a loss of a child. The opportunity to say goodbye remains important to both parents, since they provide reciprocal support for each other during the grieving process. Nonetheless, this decision needs to be made by a couple/mother who should be granted full freedom of choice.

Failed *in vitro* fertilization treatment

Recurrent *in vitro* fertilization failures may result in the emotional consequences resembling those observed in miscarriages. They are similar to loss of a loved one, result in mourning, feelings of loss and hopelessness about the ability to conceive [16]. Each consecutive *in vitro* procedure gives rise to ambivalent emotions. On the one hand it potentiates stress and concerns, and on the other it poses a chance to fulfill the desire of conception. The prolonged frustration may favor developing depressive symptoms and escalate pathological anxiety [17].

The European Society of Human Reproduction and Embryology (ESHRE) developed recommendations for good clinical practice for psychosocial support and medical care during infertility treatment. These guidelines provide framework for everyday work of interdisciplinary teams which offer psychosocial support during *in vitro* fertilization treatment. The recommendations focus on two axes: (1) time passed from the beginning of the treatment and (2) needs experienced by patients/couples during the treatment. The time axis distinguishes three stages: before, during and after the treatment. The axis of needs specifies conditions necessary for the patient to experience the treatment in a 'healthy' manner. These needs may be behavioral (lifestyle, physical activity, diet), emotional (anxiety, depression, quality of life), cognitive (concerns in the form of thoughts and knowledge) or concern relations (with a partner, family, friends, workplace) [18].

Regular analysis of specific needs at various stages of treatment and offering patients adequate psychological support minimizes frequency of negative emotional consequences in the form of psychopathological symptoms. However, it seems that psychological susceptibility of patients/couples to frustration stemming from failed treatments remains crucial.

It is recommended to apply a screening psychometric tool (SCREENIVF) in clinical practice in order to identify patients at risk of developing psychopathological symptoms. The SCREENIVF questionnaire is a standardized self-administered screening tool. It comprises of 34 positions and allows to identify patients at risk of developing symptoms. Studies show that SCREENIVF has 75% sensitivity for detecting patients likely to develop anxiety and depression while undergoing *in vitro* treatment [19]. English version of the questionnaire is enclosed to these recommendations with the consent of the author. The process of adapting it to Polish conditions is underway in Wroclaw.

Table 1 summarizes potential causes of psychological burden experienced during the treatment and recommendations for reducing it.

Table 1. **Optimization of *in vitro* infertility treatment [20]**

Causes of psychological burden	Recommendations
Psychological susceptibility of patients	using screening tools to identify patients at the increased risk of developing psychopathological symptoms conveying understandable information on how/where to obtain psychological support providing psychological support in daily medical care
Negative relations between staff and patients	trainings on interpersonal skills promoting transparent communication and collaborative decision making adjusting interventions to current needs of a patient monitoring needs
Prognosis of low treatment efficacy	raising awareness of fertility analyzing unhealthy lifestyle factors, pointing out interventions which minimize their influence supporting patients in accepting and coping with unrealized need to become a parent

Recommendations for psychotherapy

In cases of pregnancy loss or failed infertility treatment psychotherapy remains a largely neglected and niche field of clinical practice. In 2017, *Psychotherapy* editors decided to introduce a special section devoted to pregnancy loss as a result of a sudden necessity to obtain access to clinical and empirical literature in this discipline. The articles published in this section and clinical experience of the authors allowed to specify following clinical suggestions [21]:

1. Emotional experiencing and expressing feelings associated with sorrow and loss are crucial to the successful psychotherapeutic treatment. It is necessary to accept the assumption that these feelings may come in waves and that patients mourn multiple losses, including their child, the impossibility to realize their need to become a parent and frequently also the loss of close relations.
2. The feelings of shame, inadequacy and guilt experienced by patients are relevant obstacles in initiating the adjustment process of coping with loss.
3. Strong therapeutic alliance is of utmost importance for the efficacy of the therapeutic process. Patients are extremely vulnerable to feelings of shame, narcissistic injuries, rejection and criticism.
4. The therapeutic process should begin with analyzing the meaning of loss for an individual patient and the influence of loss on their thoughts, feelings and behavior.

5. A therapist should pay close attention to symptoms of trauma such as anxiety/avoidance symptoms, aggression or hyperactivity. Providing the safe environment for a 'hurt' parent is necessary to achieve remaining therapeutic goals (mentalization or expression of feelings).
6. Validation, psychoeducation, normalization and empowerment are critical fundamental interventions which initiate the adaptive coping strategies during the grieving process and recovery of self-esteem.
7. During further stages of treatment a therapist should pay attention to the unconscious internalized images which concern feelings of insufficient support received from significant others and which are essential for patient's current inability to cope with situations characterized with anxiety.

In this place, a common clinical technique of psychological unburdening called debriefing needs to be addressed. The conducted studies did not prove its efficacy, while its use may increase the risk of developing post-traumatic stress disorders (PTSD) [22].

Recommendations for psychopharmacotherapy

All of the above discussed cases may result in developing adjustment disorders, a full-blown depressive episode, anxiety, anxio-depressive disorders or symptoms of PTSD. Depending on the evaluation of the type and intensity of the psychopathological symptoms, psychotherapy (mild episodes) or psychotherapy and pharmacotherapy (moderate and severe depressive episodes) should be implemented. Patient's preferences regarding the treatment should also be considered. The choice of the drug depends on the profile of symptoms and does not differ from the standards in the treatment of depressive episode or anxiety disorders. The most commonly used antidepressants are SSRI, SNRI, mianserin or mirtazapine. Moreover, the somatic state of a patient and additional medications need to be considered. Anxiolytics belonging to the benzodiazepine family (e.g., alprazolam, bromazepam, lorazepam) can be used during the short period before the antidepressants achieve effect (2–4 weeks). However, the studies conducted on PTSD patients showed efficacy of SSRI and lack of efficacy of benzodiazepines in preventing and treating PTSD. The risks of benzodiazepine use outweigh the short-term benefits [23, 24]. In cases of significant sleep disorders, hypnotics such as zolpidem (disrupted sleep onset) or zopiklon (nocturnal awakenings) may be briefly prescribed.

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Appendix

SCREENIVF English version1

Introduction for patients going to start fertility treatment.

Screening on distress in fertility treatment.

Fertility treatments are intensive treatment forms, which could affect all parts of your life. We would like to support couples during treatment in the best possible way, which is why we have developed a short screening questionnaire. The information you provide by filling in this questionnaire will help us to determine the possible emotional impact of the treatment for you. We will then be able to advise you as to whether you might benefit from additional support from a counselor (psychologist or social worker).

You will receive the results of the screening questionnaire by [*just indicate who will provide the result: by mail or by letter or via your doctor or nurse*].

If you have any questions or concerns, please contact [*just indicate your policy: e.g., a member of the reproductive team or our psychosocial team*].

Anxiety

Below you can find a couple of statements that people use to describe themselves. Read every item carefully and encircle the number next to the statement that most closely matches with how you felt during the last week. There are no right or wrong answers. Don't think too much, your first impression is usually best. So it is about how you felt *during the last week*.

	Nearly never	Sometimes	Often	Nearly always
I feel fine.*	1	2	3	4
I feel satisfied *	1	2	3	4
I worry too much about not really important things	1	2	3	4
I am happy *	1	2	3	4
I am troubled by disturbing thoughts	1	2	3	4
I feel safe *	1	2	3	4
I am pleased *	1	2	3	4
There are thoughts that keep haunting me	1	2	3	4
I take disappointments so seriously that I cannot get them out of my mind	1	2	3	4

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I get very nervous and worried when thinking about my current troubles	1	2	3	4

* reverse scoring, see instruction. Do not indicate asterisks on patient form

Depression

The next questionnaire consists of statements in a cluster together. Read every statement carefully. In each cluster select that statement that most closely matches with how you felt during the last week. Encircle the number before the line of the statement you chose. Be sure that you carefully read each statement before making a choice. So it is about how you felt during the last week.

0 I do not feel sad.

1 I feel sad.

2 I am sad all the time and I can't snap out of it.

3 I am so sad and unhappy that I can't stand it.

0 I am not particularly discouraged about the future.

1 I feel discouraged about the future.

2 I feel I have nothing to look forward to.

3 I feel the future is hopeless and that things cannot improve.

0 I do not feel like a failure.

1 I feel I have failed more than the average person.

2 As I look back on my life, all I can see is a lot of failures.

3 I feel I am a complete failure as a person.

0 I get as much satisfaction out of things as I used to.

1 I don't enjoy things the way I used to.

2 I don't get real satisfaction out of anything anymore.

3 I am dissatisfied or bored with everything.

0 I don't feel disappointed in myself.

1 I am disappointed in myself.

2 I am disgusted with myself.

3 I hate myself.

0 I don't feel I am any worse than anybody else.

1 I am critical of myself for my weaknesses or mistakes.

2 I blame myself all the time for my faults.

3 I blame myself for everything bad that happens.

0 I don't have any thoughts about killing myself.

1 I have thoughts about killing myself, but I would not carry them out.

2 I would like to kill myself.

3 I would like to kill myself if I had the chance.

Social support

These statements are about your social relationships. We ask you to encircle the number of items that most closely match with how you feel about your social relationships. The questions refer to how you felt about your social relationships *the last six months*.

	Nearly never	Sometimes	Regularly	Often
When I feel tense or nervous, there is someone to help me	1	2	3	4
When I experience some nice things, there is someone with whom to talk about it	1	2	3	4
When I am in pain there is someone to comfort me	1	2	3	4
When I am sad there is someone with whom to talk about it	1	2	3	4
When I need help with a job I cannot carry out alone there is someone to help me	1	2	3	4

Cognitions regarding fertility problems

The next items are statements from people with fertility problems. We ask you to indicate to what extent you agree with the statements. You can do that by encircling the number next to the statement that most closely matches with what you think about the statement. Do not think too deeply, your first impression is usually best.

	Do not agree	Agree a little bit	Agree	Strongly agree
Because of my fertility problems I miss things that are most important for me	1	2	3	4
I can deal with the consequences of my fertility problems	1	2	3	4
I have learned to live with my fertility problems	1	2	3	4
My fertility problems control my life	1	2	3	4
My fertility problems sometimes give me the feeling of being useless	1	2	3	4
My fertility problems make my life incomplete	1	2	3	4
I have learned to accept my fertility problems.	1	2	3	4
My fertility problems affect everything that isimportant for me	1	2	3	4
I can accept my fertility problems	1	2	3	4
I think I can cope with my fertility problems,even if they are not solved	1	2	3	4
I often feel helpless because of my fertilityproblems	1	2	3	4
I can cope well with my fertility problems	1	2	3	4

Defining at risk

SCREENIVF is a screening instrument developed for the Dutch population of fertility patients. For English readers we developed an English version, however, this version is not validated.

SCREENIVF consists of 5 items on **state anxiety**, 5 items on **trait anxiety**, 7 items on **depression**, 5 items on **social support**, and 12 items on **cognitions regarding fertility problems**. Patients were defined as at risk when their scores on one of the five risk factors showed clinically relevant problems. Scoring anxiety subscale by recoding items 1, 2, 4, 6, 7 by reverse them: 1 = 4; 2 = 3; 3 = 2; 4 = 1; then counting the numbers circled on all items. **Cut-off = 24 and above**.

Scoring depression scale: Answer categories are 0 1 2 and 3. Counting the scores on each item. **Cut-off: 4 or above** following Beck et al. 1997.

The social support subscale is scored by counting the numbers circled.

The subscale cognitions consists of two subscales: Helplessness: count the numbers on items 1, 4, 5, 6, 8, 11, Acceptance: count the numbers on items 2, 3, 7, 9, 10, 12.

For the scores of helplessness, acceptance and social support, no norm scores were available. The cut-off scores were based on one standard deviation above the mean scores of IVF-patients in a previous study (Verhaak et al. 2005), resulting in a **cut-off of 14 and above for helplessness, 11 and less for acceptance** and **15 and less for social support**. Accordingly, SCREENIVF resulted in dichotomous scores on each of

the five risk factors: score 0 if the patient scored below the cut-off, and score 1 when scoring above or equal to the cut-off score.

The score range on SCREENIVF is 0 to 5: 0 indicating no risk factors and 5 indicating 5 risk factors.