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**“WHAT AM I RUNNING AFTER SO SHORT OF BREATH?”
THE PSYCHOSOCIAL CHARACTERISTICS AND
THERAPEUTIC POSSIBILITIES OF AGE-RELATED INFERTILITY**

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I. INTRODUCTION

The focus of the present study is on a specific subset of fertility problems, age-related infertility, which has become a public health problem worldwide and therefore psychosocial aspects it involves should be seriously considered from a health psychology perspective (Macaluso et al., 2010; Somigliana et al., 2016). While at the attitudinal level couples rank the importance of having children high on their list of priorities, the realization often does not occur until around the age of 30 (Kapitány & Spéder, 2018). At the same time, the prevalence of fertility problems increases with age (Committee Opinion [CO], 2014; Harper et al., 2017), reaching almost 50% among women over 35 expecting their first child (Borsos & Urbancsek, 2007). In such cases, however, we are not talking about organ or hormonal “dysfunctions”, but simply about the natural ageing process of reproductive organs and hormonal function (Harper et al., 2017; Somigliana et al., 2016). As a consequence, more and more women are facing fertility problems and need to seek assisted reproductive treatments past the age of 30.

Age-related infertility can be caused by a number of socio-cultural and psychological factors. These include a lack of knowledge about reproductive health, which makes it difficult to make timely and informed decisions about having children. This means that women and men of reproductive age are often unaware of the basic concepts of fertility and infertility, the nature of biological phenomena, and therefore it is an important task for professionals to raise fertility awareness among those concerned (Bunting & Boivin, 2008; Pápay, 2013; Pápay & Gellért, 2015).

Although assisted reproductive treatment often raises hope, it is accompanied by a number of psychological challenges: it is characterized by a constant experience of failure and loss, it can induce chronic stress, it violates the intimacy and sexuality of couples, and it places the couple living an otherwise healthy and active life in a “patient” status (Pápay, 2013; Szigeti et al., 2015). The clinic itself is often a source of stress due to poor communication and non-person-centered care (Boivin, 2009). Therefore, couples need effective infertility-specific coping strategies. The cognitive restructuring of

the situation (e.g. finding alternative life goals) or emotional approach strategies (e.g. peer support or strong relationship cohesion) (Schmidt et al., 2005; Terry & Hynes, 1998) both count as adaptive coping.

Cognitive representations also strongly determine coping styles, as well as attitudes and emotional responses to treatment (Leventhal et al., 1984; Pápay & Gellért, 2015). Infertility can appear as an “enemy” to be defeated, in which case the emotional response is angry opposition; as a loss, which can trigger grief reactions and be associated with a depressive mood; as a punishment, which can imply feelings of fear, of self-abandonment; as shame, which can reinforce feelings of stigmatization in the person (Benyamini et al., 2004).

In addition, it is worth drawing attention to the crucial role of representations of motherhood/parenthood, as mapping these can help predict later reproductive behavior, which can also help us better understand age-related infertility. Several important factors may play a role in the development of attitudes towards parenthood, such as early socialization (family patterns) or culturally shaped beliefs (Pápay et al., 2014; Vajda & Kósa, 2005).

Finally, I would like to briefly highlight the therapeutic methods that have been shown to be particularly effective in reducing infertility-specific distress based on research findings (Boivin, 2003; Pápay, 2015).

- a. Relaxation techniques: having productivity problems, it is necessary to practice relaxation techniques to help in a variety of distress situations. Examples include breath monitoring, progressive relaxation, or autogenic training, which can also improve self-knowledge (Domar, 2002; Linden, 1994; Pápay, 2015).
- b. Guided imagination. It is beneficial to integrate relaxation techniques with imagery work. Birman and Witztum (2000) found that guided imagination helps the process of becoming pregnant by processing negative emotions and blockages related to motherhood through imagery techniques.
- c. Reframing maladaptive thoughts: the infertility life situation can invoke a number of maladaptive thought patterns that lead to distress. Reframing can help reduce infertility-specific distress and increase psychological well-being (Domar, 2002).
- d. Schema Therapy: Schemas can be used to understand and systematize persistent life problems, so maladaptive patterns associated with infertility can also be revealed (Young et al., 2003). Through schema therapy, couples can practice self-reparenting and self-care, and can experience the self-power of the healthy adult part of themselves.

In conclusion, in the case of age-related infertility, mental balance can be most effectively addressed within the holistic, bio-psycho-socio-spiritual framework of health psychology. A complex therapeutic toolkit can also help to maintain long-term mental health, even for those who have to give up on childbearing definitively.

2. CASE STUDY: FOCAL POINTS IN THE THERAPEUTIC WORK OF A WOMAN OVER 40 WITH FERTILITY PROBLEMS

The case presented here is fictive, i.e. it is composed of characteristics observed in several patient cases in order to get an overall picture of the main psychosocial concomitants of the age-related infertility problem in practice. Therefore, the common feature of the sources serving as the basis of the fictive case was that no inherent organ dysfunction underlying the fertility problem has been diagnosed and only the age (over 40 years, considered high for fertility) posed a risk factor in becoming pregnant.

Anna is a 42-year-old woman with fertility problems, who sought help for her anxiety problems, chronic fatigue and extreme mood swings. She and her partner decided to start consciously to have children six years ago, when she had already passed the age of 35. After a year and a half of unsuccessful attempts through natural means, they started assisted reproductive procedures; in the last five years, Anna has had six failed IUI (Intrauterine Insemination) treatments and five failed IVF (In Vitro Fertilization) treatments. They have also changed institutions twice over the years, because they felt they were not always getting personal attention. The series of losses took a heavy emotional toll on Anna, but she did not have the time or the means to grieve these losses properly. During the tests, no organ-related or hormonal abnormalities were found in either of them, and the infertility specialist simply pointed to Anna's age as a possible cause of her difficulty in conceiving. When I asked why they had waited so long to have children, Anna mentioned three factors:

- a. “The time for it has just come”. Anna and her partner married early and spent their time building their careers. Anna works in an executive post in a multinational company, and it took her some time to position herself properly in her profession. The years that followed were spent building up her existential security (securing her finances and building a house). Anna says that this was very important for them in terms of having children, but now she feels that they should have reversed the order, as she does not enjoy her job or the nice house without children.
- b. “We didn't think age would matter so much, that we would have to try so hard”. Anna and her partner are both have university degrees, which means they have a high socio-economic status. Surprisingly, they were not aware of the basic characteristics of reproductive function and the role of age in determining it. Research has also confirmed that couples tend to underestimate the risk factors related to their reproductive health (Pápay, 2013; Pápay & Gellért, 2015; Pedro et al., 2018). Anna's case confirmed that fertility awareness does not necessarily go hand in hand with the intention to have children, and even among highly educated couples, psychoeducation and timely information is needed to help couples make an informed decision.

- c. “We are believers, so for a long time we left it up to God to decide when the child would come to us.” Several studies have confirmed that in infertility, faith (regardless of denomination) can be associated with better coping and thus lower distress, as spiritual beliefs can help to cope with difficult life situations through meaning-making processes (e.g. Folkman, 1997; Schmidt et al., 2005). However, as we see in Anna's case, it can also become a hindrance in case it evokes the expectation of a miracle. The emotionally avoidant coping strategy (things will work out, I accept it) of persons with external locus of control can be associated with indecision and passivity (Rotter, 1990). On the other hand, it is worth considering that infertility is a low-control stress situation. As a consequence, we often find that people with internal locus of control (I'll deal with it) often experience intense distress due to their excessive need for control, as they cannot solve this situation by problem-solving strategies alone (Terry & Hynes, 1998). It is, therefore, necessary to hand over and release control to some degree, as there is no problem-solving method that can guarantee the arrival of the child. It is therefore worth optimizing the external and internal locus of control, identifying the activities that can be kept under control (e.g. appropriate health behavior, elimination of risk factors, decision-making about interventions, identifying alternative life goals, deciding on the final timing of treatments,) and letting go of control for the rest of the process (this is where beliefs can play a significant role).

2.1. PSYCHOSOCIAL EXPERIENCE OF INFERTILITY

I am going to consider Anna's infertility-specific psychic state in a holistic approach, in three dimensions: intrapsychic, relational and interpersonal.

2.1.1.

Intrapsychic: Anna was characterized by a narrow focus (I can't think about anything else, I only think about this), a persistently high level of distress (irritability, anxiety reactions) and a dominance of negative emotions (anger, sadness, feelings of hopelessness). The experience of infertility was most reminiscent of an emotional roller coaster, with emotional responses matching the rhythm of the menstrual cycle: initially positive emotions such as hope and optimism, and later, at the onset of menstruation, negative feelings of disappointment and failure. There were also feelings of self-blame and guilt (this is some kind of punishment, I must deserve it, I wouldn't be a good mother). Chronic infertility was associated with life cycle blockage and stagnation, as Anna was unable to take on the parenting role she wanted and therefore experienced an identity crisis. She could not fulfill her potential in caring for others or in productivity, she experienced that she was worthless, both in terms of her femininity and in her more general human quality (If I can't be a mother, I'm not worth anything, I'm not a real woman).

2.1.2.

In terms of their relationship, Anna said that the crisis has strengthened the bond with her husband. Although, there were low points, she and her partner never lost trust in each other. For them, infertility is a shared burden, they are both equally affected by it, so during the test tube baby treatments her husband always stood by her side and helped her in whatever way he could (e.g. by administering the hormone-stimulating injections). The main problem was their different coping strategies, i.e. while Anna was very emotionally involved and needed regular emotional sharing, her husband preferred to help her and engage in activities that were positive and recharging. These two needs were often in conflict. Anna also feared that if they remained childless, the relationship would become empty, and they would lose their common purpose. So, she saw childlessness as a destructive threat to their relationship in the long run.

2.1.3.

Most of the problems arose on the social level, as Anna felt stigmatized because of her infertility. She believed that childless couples were detested by their social environment and therefore thought of herself as a sinner, being rejected, who could not fulfill the role of a woman as expected by society. As a consequence, her basic communication strategy was secrecy. At work and among her friends, no one knew about her desire or attempts to have children. Even her close family did not know about the assisted reproductive treatments, and she only told her mother about the inseminations, but not about the test tube baby procedures. This confinement deprived her of social support and made her completely isolated. Her feelings of shame could not diminish because she did not receive external validation and acceptance from her loved ones. She thought of motherhood as an external expectation (extrinsic motivation), believing that if she did not have children, she would be considered worthless in the eyes of others, also by herself. This self-imposed pressure led to more anxiety and frustration. In addition, people around her, not knowing Anna's situation, would often make comments and ask the wrong questions, against which Anna was defenseless or became angry, which she was unable, or afraid to express. She forced herself into role-playing, which prevented her from being her true self.

2.2. THERAPEUTIC GOALS AND METHODS

Our therapeutic objective was primarily to reduce Anna's infertility-specific distress. It was also important to reframe her dysfunctional thoughts and to process her previous failed pregnancies and losses. In addition, I facilitated the formulation of alternative life goals of having children. We signed a contract for ten sessions, focused on problems related to infertility. In terms of methodological choices, we worked mainly with relaxation and imagination, cognitive behavioral and schema therapy techniques, in addition to supportive conversations.

3. KEY STAGES OF THE THERAPEUTIC PROCESS

3.1. AUTOGENIC TRAINING AND RELAXATION

In order to reduce the level of distress, we started to learn autogenic training exercises, which help the relaxation response of the body, furthermore have a self-knowledge development effect thanks to writing a journal regularly (Schultz, 1932). As a result of the training, Anna became increasingly able to recognize her own emotional states and dysfunctional thoughts. She realized that her body was constantly in a state of tension, as if she had to keep herself in a constant state of readiness. Through the use of progressive relaxation techniques, she was able to experience a sense of loosening up and taking control over her body. By the end of our work together, she was able to incorporate autogenic training into her daily routine, which will serve as a resource for her in the future.

3.2. GUIDED IMAGINATION

I used guided imagery to increase her self-efficacy, as it was important for Anna not only to receive reinforcement verbally but via other ways too. The imagery served to recharge her and to restore her sense of inner stability. The images chosen included the image of a safe place, the healing spring that strengthens the regenerative processes of the body, the 'my private garden' image that promotes growth, unfolding and self-care, or an imagination of the much anticipated guest that frames the helpless waiting of infertility in a positive way.

The safe place was a comfortable armchair, in which she rested, enrolled in a soft blanket. The tactile stimuli, the warmth, the calm, quiet environment, recharged and enhanced her sense of security. She experienced that she is able to relax and calm down. After the imagination, she expressed that such moments of relaxation were completely missing in her life, but she really needed them. In order to put this into practice, she had to choose an activity that gave her a sense of pleasure, and which was independent of the question of having children. She chose yoga and incorporated regular online yoga classes into her daily schedule, and thus also began to develop a more positive health behavior.

The healing spring was clear spring water with a pleasant consistency that came from a rocky gorge. Anna washed her hands, face, and whole body in it, feeling how it energized and recharged her body. She drank from it and experienced her internal organs being healed and refreshed. She concentrated particularly on her pelvic organs, ovaries, and uterus, as the feminine parts of her body image have been under a lot of strain due to her recent failed fertility treatments.

The image of my private garden was set up as an analogue experience of inner maternal impulses and caring. Anna's garden was a harmonious area, isolated from the

outside world, with trees, bushes, and flowers. In the imagination, she watered the plants, protected them from bugs and then watched them grow in the sun from a rocking chair. Following the imagination she reported feelings of inner peace and self-efficacy. She decided to plant five different trees in her own garden, commemorating her unsuccessful test tube treatments. It was the first time she had given space to her feelings of loss. Although she had previously thought the best strategy was to forget, she now sees things differently and wants to remember them.

The aim of the much anticipated guest imagination was to reduce Anna's frustration about anticipation. Anna told us that regarding infertility it is very difficult for her that she has to be waiting all the time. It is a transitional state in which the plan to become a family gets stuck. In Anna's case, this stagnation has taken many forms: for example, the room that was originally intended to be the child's room has become a storage room for accumulated excess belongings, or they have not planned a trip abroad or a holiday for years not wanting to spoil the possibility of getting an appointment at the fertility center at the same time. In the imagination, the apartment had to be decorated for an expected guest in order to make the guest feel as comfortable as possible when they arrived. Anna decorated everything beautifully, cooked, made presents and then took care of herself, relaxing and listening to music. After setting up the picture, she said it was especially important for her to experience that waiting can be positive; it can be a time to recharge and regenerate. It's important to take care of yourself because it does matter what physical and psychological condition you will be in when you do get pregnant and have your baby. The imagination has led her and her partner to tidy up the room and put an end to its temporary nature. They have created a relaxing space where they can recharge by listening to music, or it can be used for meditation exercises or playing games.

3.3. SCHEMA THERAPY TECHNIQUES

In order to overcome Anna's feeling of worthlessness, I used schema therapy. Her dominant schemas were identified, and besides defectiveness, unrelenting standards and approval seeking schemas proved to be dominant. The latter was primarily responsible for the anxiety mobilized by the idea of childlessness. It turned out that, instead of developing a realistic self-image and self-care, conformity to others (compliant surrenderer schema mode), suppression of one's own needs and self-blame (critical parent schema mode) became the most important maladaptive coping strategies. Through empathic confrontation, we came to the realization with Anna that she needed to learn to be more forgiving of herself. We defined that first she has to learn to take care of her own inner child in order to be a good parent later on, so that she can take good care of others. Through schema-imagination, we explored the emotional needs of her vulnerable child part, and then through chair work (in which we visualize different sche-

ma modes and ego states by placing them on chairs, exploring their interconnectedness and communicating with them) we managed to strengthen the healthy adult part, reducing the influence of the critical parent part.

3.4. COGNITIVE REFRAMING

Anna had a number of maladaptive thoughts about infertility that needed to be reframed. We identified Anna's key phrases ("Without a child, I am worthless", "If I don't succeed with the last test tube, my marriage is over", "Childless couples are detested") and then tried to reinterpret them in an adaptive way.

"Without a child, I am worthless": as we have seen, Anna had always linked her own value to meeting external expectations (as she had done with motherhood). In the course of our discussions, she realized that she did not have to satisfy others, but she had to be prepared to accept herself, even if she ended up childless. Approaching it from a more realistic self-image, she was able to appreciate the positive qualities she already possessed, independent of motherhood (e.g. her conscientiousness, perseverance, reliability). In the end, she came to the conclusion that a child is of great value in life, something she still longs for, but she could use these positive and lovable qualities in other ways too.

"If I don't succeed with the last test tube, my marriage is over": the relationship aspects were discussed in a session that Anna and her partner attended together. It turned out that the husband is much less radical than Anna when it comes to having children. His wife's mental and physical health is very important to him, and he can only imagine having children, if their physical and mental health is maintained. He is a cheerful man, and thanks to him, they have many hobbies in common: hiking, sailing, dogs, and all of this can bring them joy even in a childless life. I also drew their attention to the fact that their relationship was strong even before they wanted children, and they planned and progressed through life together. I am sure this will be no different in the future. It is also important that they mutually accept each other's coping strategies. It is understandable that the husband cannot always focus on the emotions of infertility, it is also important for him to be able to step back and recharge, because he feels that this is how he can "hold the relationship together emotionally". However, this should not mean ignoring Anna's emotional needs. They have agreed to set aside regular times when they will focus specifically on feelings about infertility, which he will not trivialize, and also times when they will try to enjoy some kind of activity together, regardless of the issue of having a child.

"Childless couples are detested": the fear of peer judgement was very strong in Anna. A sense of guilt and shame about infertility is often still present in the public mindset, which may be reinforced by unsolicited, unsupportive interaction with the environment (e.g. trivialization, avoidance, scapegoating, Mindes et al., 2003). Since Anna's

social space was restricted, and she had a secretive communication strategy about her fertility problem, she had no chance to get the validation she needed from her environment. To do this, she had to open up and fundamentally change the way she communicated with family and friends. According to her, her mother has been very understanding in all the difficult situations she has faced in her life, so we got her to talk to her about their current situation. A more emotionally open and intimate communication has helped Anna to overcome her anxiety in social relationships.

As a result of our discussions, she also changed her communication strategy at work and shared her infertility with a childless colleague. It turned out that her colleague had a similar problem but was experiencing an earlier stage: she was just considering to take part in assisted reproductive treatment. The two women became closer during their conversations (“we shared our fate”). In addition, Anna was able to share her experiences and see that she herself can help others. As a result, she started to feel competent and useful again, and her self-esteem and self-confidence increased.

3.5. ALTERNATIVE LIFE GOALS

The discussion on alternative life goals was primarily aimed at relieving Anna's infertility-specific anxiety, as the success rate of test tube baby treatments decreases radically after 40 years of age, so it is important in all cases to have an alternative choice to having treatment. I reassured her that thinking about other things does not mean giving up the hopes of bearing a child, it may simply result in less anxiety during treatment if she has a viable Plan B up her sleeve. In fact, narrow, all-or-nothing thinking increases distress, high levels of which can even have a negative impact on the process of getting pregnant, so it is beneficial to reduce infertility-specific distress, not only for psychological well-being, but also for the chances of getting pregnant. So far, the obstacle to thinking about possible life paths and activities was that Anna had very strong expectations of herself in terms of motherhood (I can only be valuable if I become a mother), so that no other alternatives were acceptable to her. As cognitive therapy tools helped her reduce these expectations, she was able to look more closely at her real feelings about having children. I think that formulating her thoughts on this was one of the most important moments in the therapeutic process, as her mature, adult self was expressed in a responsible, yet self-accepting way through these sentences: What actually am I running after, so short of breath? Maybe it's no coincidence that I started thinking about this so late? When I think about it, there were a lot of other things in my life that were important that I prioritized over having children... Maybe I need to take responsibility for these past decisions and, without blaming myself, admit I what had happened. This train has left the station forever, rather than continuing to run after it like crazy until I am completely out of breath, destroying my body, my soul, my partner, our life together. In the last few years, I have hardly had a happy moment

in my life, which makes me think... It would be painful to let go, to mourn, because of course I am still longing for a child, but at the same time, it is possible that I have a better chance of being happy in another way, because the way I am living now, I am very much unhappy.

As an alternative life goal, Anna first mentioned her career. She said that her career had been stagnating for years because she had never dared to take a higher position, fearing that she would get pregnant at the same time. This stagnation has meant that she had not been enjoying her job for a long time, even though she had liked it originally. Now she was in a situation, where she had been offered a position in international relations, which would have involved a lot of travelling. She finally decided to accept the challenge. Anna was much more enthusiastic and motivated as a result, and later reported that she had less time and less desire to think about her infertility problem.

The other aim is taking care of animals. Anna said that she would love to work more intensively with dogs and training them if she had more time. But so far treatments have taken up all her free time. Finally, she decided that if the next test tube baby treatment didn't work out, she would start a course about dog training.

4. COMPLETING THE THERAPY

By the end of the 10 sessions, Anna's anxiety had decreased significantly. Her relation with her husband strengthened, and she began to trust her husband more and trust that they could have a happy life even without a child. She started to change her secretive communication strategy, sharing her problems with those close to her, and received more and more reassurance. Her tensions at work also reduced as she got a confidante there and began to enjoy her job again. She was able to reframe her dysfunctional thoughts about infertility. Her self-esteem increased and her attitude towards parenthood became more intrinsically motivated rather than conforming to external expectations.

5. DISCUSSION

As we have seen, age-related infertility is becoming increasingly common among fertility problems, and it is therefore necessary to better understand its psychosocial aspects and to develop and implement effective interventions to help those affected (Somigliana et al., 2016). Overall, what aspects should be considered when designing them? What are the future challenges in this area?

In this study, I have presented a number of infertility-specific psychological phenomena that outline the scope of this work. The tasks that have emerged can be divided into two broad groups: (1) one aimed at reducing infertility-specific distress, (2) the

other at shaping meaning and helping to find a new identity. The two sets of tasks certainly overlap, as the cognitive restructuring of infertility identity reduces distress and leads to a more positive psychological state (Folkman, 1997; Schmidt et al., 2005). What they differ in is rather the focus of therapy: in the first case, a new state of equilibrium is sought within the infertility life situation, while in the second case, the issue of infertility is placed in a broader context, and in addition, letting go and the formulation and acceptance of alternative life goals are supported. In the following summary, I will briefly show how it is possible to thematize these two tasks. Finally, I will also provide an insight into the preventive tasks related to age-related infertility.

5.1 TASKS TO REDUCE INFERTILITY-SPECIFIC DISTRESS

As we have seen, age-related infertility can have a wide range of emotional responses, so it is important to provide space for a diversity of emotions and ensure acceptance. Many of the negative emotional responses are also taboo in the social environment, e.g. feeling angry or jealous about someone else's motherhood is generally forbidden. If these emotions are made acceptable in the therapeutic space, it can significantly reduce the distress experienced by those affected.

Achieving psychological balance is essential not only within the individual, but also in her relationship and in the social space. In age-related infertility, strengthening relationship cohesion is particularly important, as the experience of belonging can provide an emotional base for processing many experiences of failure and loss (Schmidt et al., 2005b). The sustaining power of close family and friends is equally important. This requires the development of appropriate communication strategies. Secretive communication can lead to isolation and increased distress, overly open and permeable communication can lead to a loss of intimacy and increased vulnerability (Schmidt et al., 2005).

Another important social scene is the medical environment, the place of assisted reproductive treatment. Research has shown that client-centered care in clinics can reduce infertility-related distress. From a health psychology perspective, effective training of the medical environment in the practice of supportive communication is of paramount importance. It has been proven that age-based infertility requires a more accepting, less directive, partnership-like attitude on the part of medical staff (Palmer-Wackerly et al., 2019).

In order to reduce distress, it is crucial to develop appropriate coping strategies: to increase the frequency of emotion-expressing and meaning-seeking coping styles aimed at reassessing the situation, while decreasing avoidance and the expectation of miracles (Pápay et al., 2013; Schmidt et al., 2005; Terry & Hynes, 1998). Working with couples, it is worthwhile to bring the coping strategies of the partners closer together: to teach couples how to accept when they are not coping with fertility problems in the same way. Overall, it is essential to increase flexibility and resilience, as a narrowed

emotional focus, all-or-nothing thinking, and the emotional burden of “last chance” is largely responsible for negative emotional responses.

It is also important for couples to learn to optimize situations of letting go and control. On the one hand, we should promote personal control where it is possible: in health behaviors (e.g. healthy eating, avoiding harmful addictions, exercising to improve fertility) or in decision-making situations (appropriate choice of doctor and institution). On the other hand, we should help those concerned to let go of situations over which they have no control. Closely related to letting go is also the need to allow space for processing losses, as in age-related infertility, many forms of loss can occur, often in a blocked form due to negative self-protection mechanisms (I did not want it to hurt, so I preferred not to think about it) and time pressure (I felt I had no time to stop).

Finally, it is also important to emphasize that an individual's dysfunctional emotional states may not only be of intrapsychic origin but may also result from the wider socio-cultural context in which the problem is embedded (Pápay, 2013). Therefore, we need to address the socio-cultural pressures on people with infertility, the expectations of parenthood, the stigmatizing effects of infertility and the negative impact of these on self-image (Covington & Burns, 2006).

5.2. TASKS TO HELP FIND MEANING AND A NEW IDENTITY

In the case of age-related infertility, it is particularly important to put the life situation into a broader context. This requires looking outside, questioning many of the aspects that seem obvious. For example, the definition itself; is age-related infertility really infertility? If we approach this question from the perspective of representations of health and disease, it raises very special dilemmas. Indeed, from a medical point of view, there is no real disease; reduced fertility potential can be interpreted as a natural biological event, as the body proves to be fertile only during a certain time interval in human life (Somigliana et al., 2016). Around the age of 40, women's reproductive functioning reaches this biological limit, so it is perfectly natural (and healthy, evolutionarily adaptive) for the reproductive window to close at this time. On the other hand, thanks to assisted reproductive techniques, this biological limit becomes much more flexible, so that often even after the age of 40, couples choose artificial insemination in the hope of a possible pregnancy. And as medical treatment begins, images of the body and health change: positive perceptions are replaced by various representations of illness (“my ovaries, my uterus are shameful, I have been abandoned”, “I can't produce enough eggs, I am not a real woman”). In addition, hormone stimulation can often lead to real secondary physical problems (e.g. cysts, fibroids), which can reinforce the perception of physical dysfunction and the development of the identity of infertility in the affected individuals. Previous beliefs about the body (e.g. my body is healthy, it func-

tions well) change and take on negative emotional meanings (I can't trust my body, my body is against me, what is most natural for others is not for me) and the couple who previously considered themselves to be perfectly healthy take on a “patient” status. Considering all this, cognitive reframing and facilitation of decision situations is of great importance. Cognitive reframing can affect self-image, body image, sexuality, and attitudes towards having children. For the latter, it is necessary to explore family patterns and understand internal representations of motherhood/parenthood, as these very often provide the psychological characteristics of attitudes towards having children, and may be responsible for anxious or depressive emotional responses (Pápay et al., 2014). Age-related infertility often combines the motive of consciously preparing for motherhood (Create an existence before the child arrives) with the motive of meeting expectations (Becoming a mother is mandatory). The former is responsible for the postponement of having children, the latter for strong feelings of guilt, shame and anxiety. As the client in the case study put it: I am actually running after a train that is already about to leave. While it was on the platform, I didn't really care. Once you manage to get rid of feelings of guilt, it is easier to turn to alternative life goals. Finding a new resting place is in fact based on the realization that, in the end, any life situation is more acceptable than the temporariness of infertility. It is likely that any alternative choice will be associated with a higher psychological well-being, whether it be adoption or a childless lifestyle – the point is that it must ultimately fit systemically with the individual's redefined needs. And finally, any successful adaptation requires that we can take responsibility for our choices, even if this sometimes involves painful renunciation.

5.3. PREVENTIVE TASKS CONCERNING REPRODUCTIVE HEALTH

The analysis of the psychosocial aspects of age-related infertility has also highlighted the need for health psychologists to develop effective psychoeducational programs in the field of reproductive health to enhance fertility awareness (Bretherick et al., 2010; Bunting & Boivin, 2008; Pedro et al., 2018). Considering the biological aspects of fertility outlined above, it is essential that knowledge about fertility, infertility and reproductive health behavior is imparted in young adulthood, facilitating timely and informed decision-making about having children. The target age group is therefore between 18 and 25 years. However, an important dilemma regarding the target group is the question of motivation, especially for young people in their early twenties. At this age, the idea of becoming a parent is in most cases not yet in the foreground, which is why such a program on infertility or its risk factors may be irrelevant for them. Taking all these factors into account, the message of the fertility awareness program must be very carefully formulated so that participants do not perceive it as pressure or expectation, as this could lead to considerable resistance, which could even

mobilize behavior that could be counterproductive. On the other hand, the implementation of the program also requires professionals who can think about reproductive health in an interdisciplinary way, who are familiar with the medical-biological background, the psychological aspects and the social context. Health psychologists may be particularly suited to this task, as they have a holistic approach, especially if their knowledge is complemented by appropriate knowledge of fertility and infertility. If young people can be made more aware of reproductive health and their knowledge of fertility can become more accurate, the next generation may have fewer age-related infertility problems to deal with and less suffering because of not having made the right decisions in time. A preventive health promotion program with the objective of increasing fertility awareness could be the right direction to start on this path.

REFERENCES

- Benyamini, Y., Gozlan, M., Kokia E. (2004). On the Self-Regulation of a Health Threat: Cognitions, Coping, and Emotions Among Women Undergoing Treatment for Infertility. *Cognitive Therapy and Research*, 28(5), 577–592.
- Birman, Z., Witztum, E. (2000). Integrative Therapy in Cases of Pregnancy Following Infertility. *Journal of Contemporary Psychotherapy*, 30, 273–287.
- Boivin, J. (2003). A review of psychosocial interventions in infertility. *Social Science and Medicine*, 57, 2325–2341.
- Boivin, J. (2009, June 30). Helping Patients Achieve Success: Managing Patient Stress and Discontinuation. Optimizing success in ovarian stimulation protocols. *25th ESHRE Annual Meeting*.
- Borsos A., Urbancsek J. (2007). A női nemi szervek élettani működése és funkcionális zavarai [Physiological Functioning and Disorders of the Female Genital Organs]. In Z. Papp (szerk.), *A szülészeti-nőgyógyászati tankönyv [Textbook of Obstetrics and Gynaecology]* (75–105. o.). Semmelweis Kiadó.
- Bretherick, K. L., Fairbrother, N., Avila, L., Harbord, S. H. A., Robinson, W. P. (2010). Fertility and aging: Do reproductive-aged Canadian women know what they need to know?. *Fertility and Sterility*, 93, 2162–2168.
- Bunting, L., Boivin, J. (2008). Knowledge about infertility risk factors, fertility myths and illusory benefits of healthy habits in young people. *Human Reproduction*, 23(8), 1858–1864.
- Committee Opinion, No. 589. (2014). Female age-related fertility decline. *Fertility and Sterility*, 101, 633–634.
- Covington, S. N., Burns, L. H. (2006). Psychology of Infertility. In S. N. Covington, L. H. Burns (Ed.), *Infertility Counseling* (1–20. o.). Cambridge University Press.
- Domar, A. D. (2002). *Conquering Infertility*. Penguin Books.
- Folkman, S. (1997). Positive psychological states and coping with severe stress. *Social science & medicine*, 45, 1207–1221.

- Harper, J., Boivin, J., O'Neill, H. C., Brian, K., Dhingra, J., Dugdale, G., Edwards, G., Emmerston, L., Grace, B., Hadley, A., Hamzic, L., Heathcote, J., Hepburn, J., Hoggart, L., Kisby, F., Mann, S., Norcross, S., Regan, L., Seenan, S., Stephenson, J., Walker, H., Balen, A. (2017). The need to improve fertility awareness. *Reproductive Biomedicine and Society Online*, 2017(4), 18–20.
- Kapitány, B., Spéder, Zs. (2018). Gyermekvállalás [Childbearing]. In J. Monostori, P. Őri, Zs. Spéder (szerk.), *Demográfiai Portré [Demographic Portrait] 2018* (47–64. o.). KSH – NKI.
- Leventhal, H., Nerenz, D. R., Steele, D. J. (1984). Illness representations and coping with health threats. In A. Baum, S. E. Taylor, J. E. Singer (szerk.), *Handbook of psychology and health* (219–252. o.). Lawrence Erlbaum Associates.
- Linden, W. (1994). Autogenic Training: A narrative and quantitative review of clinical outcome. *Biofeedback and Self-regulation*, 19, 227–264.
- Macaluso, M., Wright-Schnapp, T. J., Chandra, A., Johnson, R., Satterwhite, C. L., Pulver, A., Berman, S. M., Wang, R. Y., Farr, S. L., Pollack, L. A. (2010). A public health focus on infertility prevention, detection, and management. *Fertility and Sterility*, 93(1), 16e1–16e10.
- Mindes, E., Ingram, K., Kliewer, W., James, C. (2003). Longitudinal analyses of the relationship between unsupportive social interactions and psychological adjustment among women with infertility problems. *Social Science and Medicine*, 56, 2165–2180.
- Palmer-Wackerly, A. L., Voorhees, H. L., D'Souza, S., Weeks, E. (2019). Infertility patient-provider communication and (dis)continuity of care: An exploration of illness identity transitions. *Patient Education and Counseling*, 102(4), 804–809.
- Pápay, N. (2013). *A reprodukív egészség és a termékenységi problémák pszichoszociális kontextusa [Psychosocial context of reproductive health and fertility problems]* [Doktori disszertáció, ELTE, Pszichológia Intézet].
- Pápay, N. (2015). Terápiás lehetőségek termékenységi problémákban [Therapeutic possibilities of fertility problems]. In N. Pápay, A. Rigó (szerk.), *Reprodukív egészségpszichológia (Reproductive Health Psychology)* (297–317. o.). ELTE Eötvös Kiadó Kft.
- Pápay, N., Gellért, F. (2015). Termékenység és meddőség mentális reprezentációinak szerepe a reprodukív egészségmagatartás alakulásában [The role of mental representations of fertility and infertility in reproductive health behaviour]. In N. Pápay, A. Rigó (szerk.), *Reprodukív egészségpszichológia [Reproductive Health Psychology]* (189–209. o.). ELTE Eötvös Kiadó Kft.
- Pápay, N., Rigó, A., Nagybányai Nagy, O. (2013). A meddőségspecifikus distressz alakulása a megküzdési stratégiák és egyéb pszichoszociális változók függvényében [Alteration of Infertility-Specific Distress in View of Coping Strategies and Further Psychosocial Variables]. *Magyar Pszichológiai Szemle [Hungarian Journal of Psychology]*, 68(3), 399–418.
- Pápay, N., Rigó, A., Nagybányai Nagy, O., Soltész, A. (2014). A gyermekvállalási attitűdök pszichoszociális meghatározói [Psychosocial determinants of childbearing attitudes]. *Mentálhigiéné és pszichoszomatika [Mental Health and Psychosomatics]*, 15(1), 1–30.
- Pedro, J., Brandao, T., Schmidt, L., Costa, M. E., Martins, M.V. (2018). What do people know about fertility? A systematic review on fertility awareness and its associated factors. *Upsala Journal of Medical Sciences*, 123(2), 71–81.
- Rotter, J. (1990). Internal versus external control of reinforcement: A case history of a variable. *American Psychologist*, 45(4), 489–493.

- Schmidt, L., Holstein, B. E., Christensen, U., Boivin, J. (2005). Communication and coping as predictors of fertility problem stress: cohort study of 816 participants who did not achieve a delivery after 12 month of fertility treatment. *Human Reproduction*, 20(11), 3248–3256.
- Schmidt, L., Holstein, B. E., Christensen, U., Boivin, J. (2005b). Does infertility cause marital benefit? An epidemiological study of 2250 women and men in fertility treatment. *Patient Education Counseling*, 59, 244–251.
- Schultz, J. H. (1932). *Das Autogene Training*. Georg Thieme Verlag.
- Somigliana, E., Paffoni, A., Busnelli, A., Filippi, F., Pagliardini, L., Vigano, P., Vercellini, P. (2016). Age-related infertility and unexplained infertility: an intricate clinical dilemma. *Human Reproduction*, 31(7), 1390–1396.
- Szigeti, F. J., Pápay, N., Perczel Forintos, D. (2015). Az asszisztált reprodukció pszichológiai kihívásai [The psychological challenges of assisted reproduction]. In N. Pápay, A. Rigó (szerk.), *Reproduktív egészségpszichológia [Reproductive Health Psychology]* (247–275. o.). ELTE Eötvös Kiadó Kft.
- Terry, D. J., Hynes, G. J. (1998). Adjustment to a low-control situation: reexamining the role of coping responses. *Journal of Personality and Social Psychology*, 74, 1078–1092.
- Vajda, Zs., Kósa, É. (2005). *Nevelélektan [Educational psychology]*. Osiris Kiadó.
- Young, J. E., Klosko, J. S., Weishaar, M. E. (2003). *Sématerápia [Schema Therapy]*. Vikote.