HEALTH PSYCHOLOGY REPORT · VOLUME 2(3), 2014
ORIGINAL ARTICLE

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Expectations towards medical personnel – a study with infertility clinic patients

BACKGROUND
Contacts with medical personnel are important for patients' experiences. The role of physicians' psychosocial competence was noted in Polish studies, but systematic analyses of infertile patients' expectations have not been conducted. This study was designed to learn about patients' views on relationships with medical personnel. It was assumed that: 1) staff involvement in infertility treatment would be reflected in expectations towards persons in different roles, 2) expectations might be related to patients' gender, duration of infertility, and type of treatment, 3) expectations of couples would be related.

PARTICIPANTS AND PROCEDURE
Fifty-one married couples filled in a purposely designed questionnaire. Items related to information, attitudes and support were divided into three sections – expectations towards physicians, other medical personnel, psychologists – and were scored on a scale of 1 to 5 points.

RESULTS
No gender effect of duration of treatment, type of infertility or treatment method on expectations was found. Partners expected the same level of information from physicians and the same level of emotional support from psychologists. Other expectations were consistently higher in women. There was a clear division of expectations towards different groups of personnel – the expectation to make the best medical choices was assigned to physicians, while the expectation to provide a supportive relationship and coping skills was assigned to psychologists, but all were expected to respect patients' privacy, choices and decisions.

CONCLUSIONS
The findings indicate the division of expectations towards different groups of personnel, with the tendency of women to articulate their expectations more clearly and strongly, but towards the same aspects of staff functioning as men do.

KEY WORDS
patient's expectations; infertility; doctor-patient communication; patient's satisfaction

ORGANIZATIONS — Institute of Psychology, University of Lodz, Lodz, Poland

AUTHORS' CONTRIBUTION — A: Study design · B: Data collection · C: Statistical analysis · D: Data interpretation · E: Manuscript preparation · F: Literature search · G: Funds collection

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TO CITE THIS ARTICLE — Redo, K., & Bielawska-Batorowicz, E. (2014). Expectations towards medical personnel – a study with infertility clinic patients. *Health Psychology Report*, *2*(3), 218–226. DOI: 10.5114/hpr.2014.44422

BACKGROUND

The diagnosis of infertility and the treatment following it impose great psychological and material costs on couples and individuals alike (Bidzan, 2010; Dembińska, 2014; Katz et al., 2011; Radkowska-Walkowicz, 2013; Redshaw, Hockley, & Davidson, 2007). These are related to effects of infertility, e.g. involuntary childlessness, social pressure to become parents, financial burden of treatment and lack of certainty for effectiveness of treatment – to name just a few. During diagnostic procedures as well as during medical treatment for infertility, contacts with medical personnel become an important part of patients' experiences.

The importance of the doctor-patient relationship for the quality of medical care has been noted and recently analyzed extensively (e.g. Bernhard et al., 2012; Butalid, Verhaak, Boeije, & Bensing, 2012; Jankowska et al., 2011; Makara-Studzińska & Iwanowicz-Palus, 2009; Talen, Muller-Held, Eshleman, & Stephens, 2011). This issue is also linked to patient compliance and as such is discussed in health psychology textbooks (e.g. Safarino, 2008). In the context of infertility treatment the doctor-patient relationship is considered important for the overall patients' satisfaction with care and with information provided (Dancet et al., 2010; Garcia et al., 2013; Morrison, Bhattacharya, Hamilton, Templeton, & Smith, 2007; Takabayashi & Shimada, 2010). Studies indicate, however, that patients have not received from medical personnel the support they required or the information they expected (Ayranci, Hassa, Metintas, Unluoglu, & Unsal, 2005; Grigoriou, Roupa, Salakos, & Sotiropoulou, 2004; Himmel, Ittner, Kochen, & Schroeter, 1999; Hemminki, Malin, Perälä, Räikkönen, & Sihvo, 2001; Forthofer & Schneider, 2005), especially when the treatment results were negative (Groh & Wagner, 2005). Patients' expectations differed with age and education, but the preference for open communication with a physician and sufficient time for discussion during medical consultation was universal across studies, as indicated in the recent systematic review by Dancet et al. (2010). Considering the unique social and psychological aspects of infertility the group of international experts proposed guidelines for counseling to be followed by professionals in the field (Boivin et al., 2001). Studies conducted after publication of these guidelines indicate, however, that patients still wanted to receive more patient-centered care and more information than they were given (Cunningham & Cunningham, 2013; Dancet et al., 2010; Greil, Slauson-Blevins, & McQuillan, 2010), be treated seriously by a well-informed professional (Dancet et al., 2010; Hinton, Kurinczuk, & Ziebland, 2012), receive information about treatment procedures (Leite, Makuch, Petta, & Morais, 2005), and be offered psychosocial support, including contacts with psychologists (Read, Carrier, Whiteley, Bond, & Zelkowitz, 2014). The findings also indicated that patient-centered care increased the wellbeing of women and men undergoing infertility diagnosis and treatment (Gameiro, Canavarro, & Boivin, 2013).

The role of physicians' psychosocial competence for patients' compliance was noted in studies conducted in Poland, e.g. Bryl et al. (2012) reported on the effects of such competence in the treatment of osteoporosis. The importance of the patient's perspective in medical consultation for menopause was also considered (Bielawska-Batorowicz, 2004). The experiences during infertility diagnosis and treatment were analyzed from the anthropological (Radkowska-Walkowicz, 2013) and clinical (Bidzan, 2010) perspectives and discussed in popular publications (Pawelec & Pabian, 2012), but systematic analyses of patients' expectations have not been conducted. Therefore the study was designed to look in more detail at expectations of patients who undergo infertility diagnosis and treatment. Its main purpose was to obtain information on patients' views concerning relationships with medical personnel in the context of infertility clinics. It was assumed that: 1) patients understand personnel involvement in treatment, and thus express different expectations towards persons in different roles (e.g. physician, nurse, psychologist), 2) expectations might be related to gender, duration of infertility and type of treatment, 3) expectations within a couple are related.

PARTICIPANTS AND PROCEDURE

The study included 51 married infertile couples involved in treatment who were recruited either through an infertility clinic or through websites related to reproduction and infertility (e.g. *Nasz Bocian.pl*, *Staramy się.pl*, *Bobas.pl*, *Biomedical.pl*, *Dziecko-info.com, Rodzice.pl*, *MediWeb.pl*, *Rodzina.com, Gazeta.pl*). The age range, education, duration of infertility and methods of treatment were not related to the method of recruitment. Thus in subsequent analyses all the subjects were pulled together. Men were slightly older than women (59% of males in the age range of 30-39 years vs. 63% of females in the range of 20-29 years). The majority of participants (78% of men and women) held university degrees, were married for 3 to 6.5 years (57% of couples) and had been engaged in infertility treatment for 1 to 3 years (57%). Before the first contact with an infertility specialist 74% of couples had tried to achieve pregnancy for 1 to 2.5 years. The medical reasons for infertility included female factor (29%), male factor (18%), or both (8%), but 45% of couples claimed that their infertility was of unknown origin.

The participants, after giving their informed consent, received the questionnaire designed for the study. The first part of the questionnaire included participants' general demographic data (i.e. age, education, duration of marriage), and basic information concerning their infertility diagnosis and treatment, while the second part included a set of items related to expectations towards medical personnel. The second part was prepared in female and male versions and partners were expected to express their views independently. This part of the questionnaire was divided into three sections – expectations towards 1) physicians (finally 37 items), 2) medical personnel such as nurses (10 items), 3) psychologists (29 items). The initial list of expectations was created after the analysis of research literature and pilot interviews with infertile patients. It was later analyzed by expert judges who helped to exclude items with similar content, rephrase some of them and classify items into relevant sections. Items were phrased in such a format that responses indicated whether a participant expressed a particular expectation. All items were scored on a Likert type scale with 1 described as "definitely yes" and 5 as "definitely no". Thus a lower score indicated higher expectations in a particular category. In the "physician" section expectations were related to information provided, relationship/attitude towards the patient and professional actions/decisions, while in the "medical personnel" section expectations were related only to information provided and relationship/attitude towards the patient. In the "psychologist" section expectations towards emotional, informational and instrumental support were included. The data from the questionnaire allow one to calculate the score for each type of expectations and for different personnel groups. Thus the scores were calculated for: a) information from physicians (InfPhy), b) relationships with physicians (RelPhy), c) physicians' actions/decisions (ActPhy), d) information from personnel (InfPer), e) relationships with personnel (RelPer), f) emotional support from psychologists (EmPsy), g) informational/instrumental support from psychologists on how to cope with emotions (InfCopePsy), h) how to relate to others (InfRelPsy), i) to make decisions related to infertility (InfDesPsy). Due to uneven numbers of items the scores were standardized and as such used in these analyses where expectations towards personnel were compared.

The analyses included Wilcoxon's test for matched pairs and UNIANOVA. The IBM SPSS Statistics 19 package was used for all calculations. In all analyses $p < .050$ was considered significant.

RESULTS

A series of UNIANOVA analyses was performed to look at interaction effects of gender and duration of treatment (2-23 months, 24 months and more), gender and the type of infertility factor (male, female, both, unknown), gender and the method of treatment (pharmacotherapy, laparoscopy, artificial insemination, *in vitro* fertilization with intracytoplasmic sperm injection – IVF/ICSI). Table 1 gives the scores for each type of expectations, gender and duration of treatment. Although it can be seen that both male and female participants who were treated for a lon-

Table 1

Mean scores (and standard deviations) for expectations towards medical personnel in relations to participant's gender and duration of treatment (p for interaction effect in UNIANOVA analyses)

Type of expectations	Gender				*p*
	females		males		
	2-23 months	≥ 24 months	2-23 months	≥ 24 months	
InfPhy	27.48 (9.65)	25.74 (10.17)	24.25 (7.16)	23.25 (6.17)	.828
RelPhy	47.96 (13.65)	43.00 (13.47)	50.46 (14.26)	44.71 (13.90)	.888
ActPhy	7.30 (2.16)	7.26 (3.36)	6.88 (2.66)	7.63 (3.57)	.507
InfPer	6.85 (2.17)	5.85 (2.88)	7.33 (2.39)	4.74 (2.21)	.125
RelPer	20.96 (6.97)	18.19 (7.82)	21.33 (5.90)	15.63 (3.76)	.249
EmPsy	27.44 (6.87)	23.26 (7.99)	29.00 (7.66)	23.96 (4.83)	.758
InfCopePsy	20.19 (7.20)	14.78 (5.04)	22.38 (5.82)	14.75 (5.50)	.351
InfRelPsy	13.78 (5.98)	11.48 (4.85)	16.88 (5.65)	13.46 (6.16)	.619
InfDesPsy	15.11 (5.18)	14.93 (8.16)	18.83 (4.49)	15.79 (5.33)	.234

Note. InfPhy – information from physicians, RelPhy – relationships with physicians, ActPhy – physicians' action, InfPer – information from personnel, RelPer – relationships with personnel, EmPsy – emotional support from psychologists, InfCopePsy – informational/instrumental support from psychologists on how to cope with emotions, InfRelPsy – informational/instrumental support from psychologists on how to relate to others, InfDesPsy – informational/instrumental support from psychologists for making decisions related to infertility

Table 2

Comparisons of females' and males' expectations towards medical personnel – results of matched pairs Wilcoxon's test

		Mean rank	Sum of ranks	*p*
InfPhy	Negative ranks	48.54	2718.00	.760
	Positive ranks	55.11	2535.00	
RelPhy	Negative ranks	23.53	423.50	.001
	Positive ranks	56.42	4626.50	
ActPhy	Negative ranks	56.66	4816.50	.001
	Positive ranks	15.57	233.50	
InfPer	Negative ranks	56.10	4880.50	.001
	Positive ranks	13.04	169.50	
RelPer	Negative ranks	59.02	3718.50	.001
	Positive ranks	39.35	1534.50	
EmPsy	Negative ranks	51.48	2677.00	.866
	Positive ranks	51.52	2576.00	
InfCopePsy	Negative ranks	58.89	3886.50	.001
	Positive ranks	37.96	1366.50	
InfRelPsy	Negative ranks	56.02	4313.50	.001
	Positive ranks	28.93	636.50	
InfDesPsy	Negative ranks	58.01	4060.50	.001
	Positive ranks	32.98	989.50	

Note. Abbreviations: as in Table 1.

ger period of time expressed higher expectations, none of the interaction effects was significant. Similar – non-significant – results were obtained for the next two sets of UNIANOVAs. Thus the data indicate that duration of treatment, type of infertility factor and method of treatment have the same effect on expectations in female and male participants.

As partners undergo diagnosis and treatment together, and might influence each other's views, it was vital to look at the congruency of expectations within couples. Table 2 shows the results of the matched pairs Wilcoxon's test. The results indicate that only in two types of expectations, i.e. information from physicians (InfPhy) and emotional support from psychologists (EmPsy), partners share similar views, and thus expect the same level of information from physicians and the same level of emotional support from psychologists. In other types of expectations partners vary significantly in such a way that women's expectations are consistently higher in comparison to men's expectations toward personnel.

The next analyses were more qualitative in nature. The average standardized scores for each type of expectations were calculated to create "a hierarchy of expectations". Figure 1 shows the hierarchy of expectations based on standardized scores for female patients. The top part of the figure represents the expectations expressed most strongly, while the bottom part represents those less strongly expressed. Although male participants expressed lower expectations towards medical personnel, their hierarchy of expectations was similar to the one based on females' scores (data not presented).

The participants ranked their expectations towards each personnel group unevenly, as shown in Figure 1. The most important, as indicated by the lowest scores, were expectations towards physicians. Similar categories of expectations (i.e. information, proper relationships/attitudes) towards other medical staff were expressed less strongly. As far as psychologists were concerned, the most expected was their emotional support, less so information on how to cope with infertility-provoked emotions and how to relate to others in the context of infertility. Participants generally did not expect psychologists to help them with infertility-related decisions.

Within each type of expectations some issues were rated as more important than others. Table 3

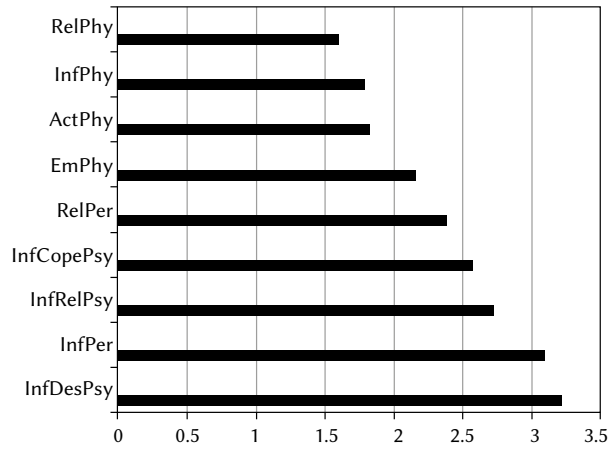

Figure 1. Hierarchy of expectations towards personnel – based on standardized scores of female participants (lower score indicates higher expectations)

Abbreviations: as in Table 1

gives a selected list of expectations that received the highest and the lowest position within all items in a particular section related to physicians and medical personnel, while Table 4 gives the same data related to psychologists. In both tables the selection was based on combined women's and men's answers.

As indicated by data presented in Table 3, physicians are first of all expected to provide full information about possible treatment and help with the best choice, and are expected to consider patients' privacy and decisions. The same is true for medical personnel, especially in relation to patients' privacy and decisions. The expectations towards psychologists concentrate on a truthful and trustworthy relationship, careful consideration of patients' views and opinions, and provision of skills that might help to cope with infertility-related stress. The respondents neither indicated their great need for help in finding a purpose in life that would replace parenthood nor expected psychologists to help them with infertility-related decisions. Thus one can see a clear division of expectations addressed towards different members of infertility clinics' personnel – the responsibility of physicians lies in making the best medical choices, while the responsibility of psychologists lies in providing coping skills and a supportive relationship. All members of personnel should respect patients' privacy, choices and decisions.

Table 3

Expectations towards physicians and other medical personnel – the selected list of up to 2 items with the highest and the lowest position within a particular type of expectations (average standardized scores were used as the criterion for selection)

Type of expectations / items (the format: "I expect...")	Average score
Information from physicians (InfPhy)	
• Detailed information on the method of treatment	1.45*
• Detailed information on how to prepare for the examination / treatment	1.57
• Information on the effectiveness of the alternative methods of treatment	2.61
• What to do to cope with sadness related to infertility	3.61
Relationships with physicians (RelPhy)	
• Protection of my privacy during medical examination / treatment	1.57
• Respect for my privacy	1.59
• Promise that everything will go well	3.41
• Evaluation of my actions	3.73
Physicians' action (ActPhy)	
• Help to choose the best treatment method	1.55
• All that can be done will be done	1.55
• The complete cure for my infertility	2.08
• Help to decide whether to continue or to stop treatment	2.24
Information from personnel (InfPer)	
• Information about my situation	2.88
• Advice	3.41
Relationships with personnel (RelPer)	
• Lack of judgments related to my decisions	1.31
• Respect for my privacy	1.51
• Lack of routine	3.21
• Consolation and support	3.37

Note. *Lower scores indicate higher importance of particular expectations.

Table 4

Expectations towards psychologists – the selected list of up to 2 items with the highest and the lowest position within a particular type of expectations (average standardized scores were used as the criterion for selection)

Type of expectations / items (the format: "I expect...")	Average score
Emotional support from psychologists (EmPsy)	
• Atmosphere of trust during consultation	1.31*
• Careful listening to my opinions, my worries and doubts	1.33
• Promise that everything will go well	3.24
• Evaluation of my decisions and actions	3.86
Informational/instrumental support – how to cope with emotions (InfCopePsy)	
• To teach me how to cope with infertility-related stress	1.86
• To teach me how to cope with sadness	2.18
• To teach me how to enjoy life again	3.02
• Help to look for goals in life to replace parenthood	3.27
Informational/instrumental support – how to relate to others (InfRelPsy)	
• To teach me to react to comments on my childlessness	2.31
• Help to cope with crisis in my relations with partner	2.37
• Advice how to approach children and couples with children	2.53
• Advice on how to solve problems in sexual contacts with my partner	2.92
Informational/instrumental support – decisions related to infertility (InfDesPsy)	
• Will prepare me to cope with lack of treatment success	2.49
• Will talk with me about adoption	2.73
• Help me to make the best treatment choice	3.08
• Help me to decide whether to continue or stop treatment	3.23

Note. *Lower scores indicate higher importance of particular expectations.

DISCUSSION

The findings confirmed that patients understand a variety of personnel involvement in treatment, and express different expectations towards persons in different roles in the infertility clinic. Physicians are the ones to whom most of the expectations are addressed. These concern both proper information and proper actions as well as a positive attitude towards persons in infertility treatment. The expectations related to attitudes were placed on top of the list by both men and women. This is not surprising considering physicians' leading role in most medical procedures and the long duration of infertility treatment. The physician's professional competence contributes to treatment success, while psychosocial competence increases the patients' comfort. Psychological costs of infertility diagnosis and treatment are high (Dembinska, 2014); thus contact with an understanding physician whose attitude and behavior do not incur additional stress must be valued by those in treatment. The same mechanism might explain the relatively high position of expectations concerning relationships with other medical personnel (e.g. nurses, laboratory staff) whom infertile patients meet on many occasions during diagnosis and treatment. Such findings are in line with studies that indicated benefits of patient-centered care for the wellbeing of women and men undergoing infertility diagnosis and treatment (Gameiro et al., 2013).

Expectations concerning psychologists were related mostly to emotional support and less to training in coping with stress and effects of infertility for social relations. That might reflect lay persons' opinions on what a psychologist can offer and help with, as well as limited access to psychological services during infertility diagnosis and treatment. As other studies indicate, infertility patients do expect emotional support and contact with psychologists (Read et al., 2014). Our study shows that patients share some expectations towards psychologists and distinguish their different functions. Creating a supportive and trustworthy relationship was, for example, regarded as more important than facilitating decisions concerning infertility. It is possible that such decisions and discussions were left to consultations with physicians, and might have reflected the participants' experiences with traditions of medical services.

The hierarchy of expectations towards personnel involved in infertility diagnosis and treatment created by women was similar to that created by men. Nevertheless, the intensity of expectations was not the same. Although male and female partners shared the same views on the need for information from physicians and emotional support from psychologists, other types of expectations varied significantly.

Both in relation to attitudes of physicians and other personnel and different types of support from psychologists, women's expectations were consistently higher than men's expectations. It is possible that women are more sensitive and thus demand more attention and recognition of their emotional needs. It is also possible that the detected gender effects may be linked to differences in the involvement in infertility diagnosis and treatment, which might be more intensive for women. Even if the childlessness results from a male factor, the fertile female partner goes through such procedures as IVF with ICSI and, in social perception, might be regarded as responsible for the lack of a child. All these are additional stressors for women (van den Akker, 2012; Łepecka-Klusek, 2008). Therefore women are not only more susceptible to infertility-related stress but also more exposed to situations where professional misconduct might take place. If so, it is not surprising that their expectations towards medical personnel are much higher.

The differences in the intensity of expectations are important in the context of relationships within couples. Although women, in general, expressed more intense expectations, their order was similar to that created by men. As a result of that, partners' expectations might vary in detail, but are the same in a broader perspective, which might create a good background for mutual support and understanding. This line of reasoning is reinforced by other findings in this study. No interaction effects were detected as far as duration of infertility, medical factors and type of treatment were related to gender. Thus it can be concluded that both male and female partners were equally affected (or unaffected) by these factors. This was reflected in their expectations towards personnel. It can be regarded as positive that the medical context does not differentiate partners' expectations. Partners together undergo the experience of infertility, share all the burden related to it, and thus also share their expectations and might change them during the whole process in a similar way. If so, the quality of a couple's relations might be preserved.

The study reported here aimed to describe Polish infertile patients' expectations towards personnel involved in processes of diagnosis and treatment. As such, it revealed some interesting findings related to the hierarchy of expectations, differences in expectations towards physicians and other personnel, and similarities in the effects of duration and type of treatment on expectations expressed by women and men. It was conducted with couples; thus the effects of infertility on expectations towards personnel could be observed in the dyadic perspective and the congruence of expectations could be assessed. However, the study has some limitations. Firstly, it was conducted with a convenience sample of a relatively limited number of participants. Secondly, the design was not longitudinal and the effects of duration of treatment were assessed in cross-sectional analyses. Despite these limitations, the results give a good starting point for further investigations of patients' expectations, not only in the infertility context.

CONCLUSIONS

The findings indicate a clear division of expectations addressed towards different members of infertility clinics' personnel. The responsibility of physicians was related to making the best medical choices, while the responsibility of psychologists was related to provision of a supportive relationship and coping skills. One expectation was universal – all members of personnel should respect patients' privacy, choices and decisions. The study confirmed the important role of physicians, which was reflected in the most strongly expressed expectations addressed to this personnel group. It also showed the tendency of women to articulate their expectations more clearly and strongly but towards the same aspects of personnel functioning as men did. In cross-sectional analyses no interaction effects of gender and duration of treatment, type of treatment, and medical causes of infertility were found, which indicates that the medical context does not differentiate partners' expectations.

References

Ayranci, U., Hassa, H., Metintas, S., Unluoglu, I., & Unsal, A. (2005). Attitudes to and management of fertility among primary health care physicians in Turkey: an epidemiological study. *BMC Public Health*, *5*, 33-38.

Bernhard, J., Butow, P., Aldridge, J., Juraskova, I., Ribi, K., & Brown, R. (2012). Communication about standard treatment options and clinical trials: can we teach doctors new skills to improve patient outcomes? *Psycho-Oncology, 21*, 1265-1274. DOI: 10.1002/pon.2044

Bidzan, M. (2010). *Niepłodność w ujęciu bio-psycho-społecznym* [Infertility in bio-psycho-social approach]. Kraków: Oficyna Wydawnicza „Impuls".

Bielawska-Batorowicz, E. (2004). Sposób prezentowania menopauzy a ocena związanych z nią zmian [The perception of menopause in relation to context of presentation]. *Przegląd Menopauzalny*, *3*, 24-30.

Boivin, J., Appelton, T. C., Beatens, P., Baron, J., Bitner, J., Corrigan, E., Daniels, K. R., Darwish, J., Guerra-Diaz, D., Hammar, M., McWhinnie, A., Strauss, B., Thorn, P., Wischmann, T., & Kentenich, H. (2001). Guidelines for counselling in infertility: outline version. *Human Reproduction*, *16*, 1301-1304.

Bryl, N., Horst-Sikorska, W., Ignaszak-Szczepaniak, M., Marcinkowska, M., Michalak, M., & Sewerynek, E. (2012). Influence of social competence of physicians

on patent compliance with osteoporosis medications – a study on Polish postmenopausal women. *Ginekologia Polska*, *83*, 511-516.

Butalid, L., Verhaak, P. F. M., Boeije, H. R., & Bensing, J. M. (2012). Patients' views on changes in doctor-patients communication between 1982 and 2001: a mixed-methods study. *BMC Family Practice*, *13*, 80. DOI: 10.1186/1471-2296-13-80.

Cunningham, N., & Cunningham, T. (2013). Women's experience of infertility – towards a relational model of care. *Journal of Clinical Nursing*, *22*, 3428-3437.

Dancet, E. A., Nelen, W. L., Sermeus, W., De Leeuw, L., Kremer, J. A., & D'Hooghe, T. M. (2010). The patients' perspective on fertility care: a systematic review. *Human Reproduction Update*, *16*, 467-487. DOI: 10.1093/humpd/dmq004

Dembińska, A. (2014). Psychological costs of life crisis in Polish women treated for infertility. *Journal of Reproductive and Infant Psychology*, *32*, 96-107.

Forthofer, M. S., & Schneider, M. G. (2005). Associations of psychosocial factors with the stress of infertility treatment. *Health & Social Work*, *30*, 183-191.

Gameiro, S., Canavarro, M. C., & Boivin, J. (2013). Patients centered care in infertility health care: Direct and indirect associations with wellbeing during treatment. *Patient Education and Counseling*, *93*, 646-654.

Garcia, D., Bautista, O., Venero, L., Coll, O., Vassena, R., & Vernaeve, V. (2013). Training in empathic skills improves patient-physician relationship during the first consultation in a fertility clinic. *Fertility & Sterility*, *99*, 1413-1418.e1. DOI: 10.106/j.fertnstert.2012.12.012

Greil, A. L., Slauson-Blevins, K., & McQuillan, J. (2010). The experience of infertility: a review of recent literature. *Sociology of Health & Illness*, *32*, 140-162. DOI: 10.1111/j.1467-9566.2009.01213.x

Grigoriou, O., Roupa, Z., Salakos, N., & Sotiropoulou, P. (2004). Family planning and psychosocial support for infertile couples. *European Journal of Contraception & Reproductive Health Care*, *9*, 47-51.

Groh, C. J., & Wagner, C. (2005). The art of communicating ART results: an analysis of infertile couples' experience. *Journal of Reproductive and Infant Psychology*, *23*, 333-346.

Hemminki, E., Malin, M., Perälä, M. L., Räikkönen, O., & Sihvo, S. (2002). What do women want? Women's experiences of infertility treatment. *Social Science & Medicine*, *53*, 123-133.

Himmel, W., Ittner, E., Kochen, M. M., & Schroeter, M. (1999). The many facets of involuntary childlessness in general practice. *Scandinavian Journal of Primary Health Care*, *17*, 25-29.

Hinton, L., Kurinczuk, J. J., & Ziebland, S. (2012). Reassured or fobbed off? Perspectives on infertility consultations in primary care: a qualitative study. *British Journal of General Practice*, *62*, e438-445. DOI: 10.3399/bjgp12X649133

Jankowska, A. K., Pałagan, I., Dylewska, K., Grześk, E., Wysocki, M., & Sadowska-Krawczenko, I. (2011). Komunikacja lekarz-pacjent a jakość opieki medycznej [Doctor-patient communication and the quality of medical care]. Polskie *Stowarzyszenie Zarządzania Wiedzą, Seria: Studia i Materiały*, *54*, 199-207.

Katz, P., Showstack, J., Smith, J., Nachtigall, R. D., Millstein, S. G., Wing, H., Eisenberg, M. L., Pasch, L. A., Croughan, M. S., & Adler, N. (2011). Costs of infertility treatment: results from an 18-month prospective cohort study. *Fertility & Sterility*, *95*, 915-921. DOI: 10.1016/j.fertnstert.201.11.026.

Leite, R. C., Makuch, M. Y., Petta, C. A., & Morais, S. S. (2005). Women's satisfaction with physicians' communication skills during infertility consultation. *Patient Education and Counseling*, *59*, 38-45.

Łepecka-Klusek, C. (2008). *Postawy życiowe partnerów w sytuacji niezamierzonej bezdzietności* [Partners' Life Attitudes in the Situation of Childlessness]. Lublin: Wydawnictwo Czelej.

Makara-Studzińska, M., & Iwanowicz-Palus, G. (eds.). (2009). *Psychologia w położnictwie i ginekologii* [Psychology in obstetrics and gynaecology]. Warszawa: Wydawnictwo Lekarskie PZWL.

Morrison, C., Bhattacharya, S., Hamilton, M., Templeton, A., & Smith, B. (2007). Initial management of infertility: an audit of pre-referral investigations and exploration of couples' views at the interface of primary and secondary care. *Human Fertility*, *10*, 25-31. DOI: 10.1080/14647270600939937

Pawelec, B., & Pabian, W. (2012). *Niepłodność. Pomoc medyczna i psychologiczna* [Infertility. Medical and psychological suport]. Sopot: Smak Słowa.

Radkowska-Walkowicz, M. (2013). *Doświadczenie in vitro. Niepłodność i nowe technologie reprodukcyjne w perspektywie antropologicznej* [Experience of in vitro. Infertility and new reproductive technologies in anthropological perspective]. Warszawa: Wydawnictwo Uniwersytetu Warszawskiego.

Read, S. C., Carrier, M-E., Whiteley, R., Bond, S., & Zelkowitz, P. (2014). Psychosocial services for couples in infertility treatment: What do couples really want? *Patient Education and Counseling*, *94*, 390-395.

Redshaw, M., Hockley, C., & Davidson, L. L. (2007). A qualitative study of the experience of treatment for infertility among women who successfully became pregnant. *Human Reproduction*, *22*, 295-304.

Safarino, E. P. (2008). *Health psychology. Biopsychosocial interactions* (6th ed.). Hoboken: John Wiley & Sons, Inc.

Takabayashi, C., & Shimada, K. (2010). Support for infertility treatment in Japan: differences in perceptions between female clients and staff. *Nursing*

and Health Sciences, *12*, 80-86. DOI: 10.1111/j.1442-2018.2009.00493.x

Talen, M. R., Muller-Held, C. F., Eshleman, K. G., & Stephens, L. (2011). Patients' communications with doctors: a randomized control study of a brief patient communication intervention. *Families, Systems & Health*, *29*, 171-183. DOI: 10.1037/a0024399

van den Akker, O. B. A. (2012). *Reproductive health psychology*. Chichester: Wiley-Blackwell.

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