



ACHIEVEMENT MOTIVATION IN COUPLES PARTICIPATING IN IN VITRO FERTILIZATION PROGRAM

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ARTICLE INFO

Article History:

Received 26th November, 2016

Received in revised form 7th

December, 2016

Accepted 6th January, 2017

Published online 28th February, 2017

Key words:

Motivation, achievement motivation, in vitro fertilization, parenthood.

ABSTRACT

Speaking of parenthood motivation, especially in couples facing the sterility problem, it is necessary to consider the achievement motivation concept. The first theories dealing with the achievement motivation were defining this concept as a group of activities directed toward the achievement of success, or avoidance of failure.

The objective of this paper: to examine the achievement motivation in couples participating in IVF program.

Material and methods: The survey has been conducted with an experimental group of 200 couples participating in IVF program, as well as 200 fertile couples representing the control group at Gynaecology and Obstetrics Department of Clinical Centre of Vojvodina, Novi Sad. The survey was performed using the standardized MOP 2002 questionnaire.

Results: The total score of the achievement motivation was 62.79 ± 10.96 . The control group examinees showed an average achievement motivation of 63.24 ± 11.50 , and the examinees of the experimental group showed 62.34 ± 10.38 . There was no statistically significant difference between the groups ($t = -1.173$; $p = 0.241$). Men showed higher achievement motivation than women. However, the control group ($t = 2.886$; $p = 0.004$) and the total sample ($t = 3.336$; $p = 0.001$) showed a statistically significant difference.

Conclusion: Significant difference was found in regard to gender, i.e. in men and in the total sample as well as the control group, a better score for achievement motivation was reached.

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INTRODUCTION

The list of needs that drives an individual toward a certain activity includes a large number of motives. People express the achievement motivation in different ways, either through competition with others or by satisfying their own goals. From the attitude of the achievement motivation, the human behaviour can be explained in terms of wishing to attain success in a sphere of life. This kind of needs is acquired through the upbringing and education and in contrast to physiological needs it does not belong to innate motives. Man often sets himself very challenging goals requiring the investment of the huge amount of energy, and the achievement motivation represents the fundamental actuator in persevering in that activity.

The achievement motivation includes the following components:

- Competition with others
- Goal achievement as the source of satisfaction
- Perseverance in the goal achievement

- Orientation toward planning

The achievement motivation represents a social motive that develops through interaction with other people. Namely, if the invested effort results in the success it will inevitably represent the source of satisfaction, however, the motivation to persevere in achieving the goal is of high importance. That stimulus originates mostly from our immediate environment, primarily our family. That the motivation factor is not a new issue is evidenced by studies conducted in the 1970s and 1980s of the last century, the most important results of which will be summarized in this paper.

According to some authors, the achievement motivation is related to the ability to face the obstacles, the efforts invested in their overcoming, as well as considering whether the invested efforts are proportional to the achieved result (1). Some of the studies are also dealing with the problem of the connection between the orientation toward planning and the success in the achieving the set goals, as well as with the importance of the intrinsic motivation (2). According to the

results of studies that encompass six experimental groups, the estimation of the achievement results is in positive correlation with the invested efforts and in negative correlation with the degree of ability (3).

According to McClelland, the need for achievement reflects in a person's own efforts to achieve his own maximum. Efforts to achieve a goal reflect in personal affirmation, and not in an award that may follow. Persons with an increased need for power show the need to control others and their behaviour. The third group of needs, the least expressed one, is characterized by the need for people to connect and their inclination toward team work (4).

Speaking about the parenthood motivation in couples participating in IVF program, it is clear that the achievement motivation is of crucial importance because it will to a large extent determine their attitude toward the treatment, perseverance, and their wish to successfully complete the process. This topic is still insufficiently explored, especially in our region, which has been one of the motivators for the authors to conduct a more detailed research.

MATERIAL AND METHODS

The survey has been conducted based on a sample of 200 couples participating in IVF program, as well as 200 fertile couples representing the control group at Gynaecology and Obstetrics Department of Clinical Centre of Vojvodina, Novi Sad. Study was conducted with the approval of the ethics committee of Clinical Center of Vojvodina, as well as the ethical committee of the Medical Faculty in Novi Sad.

Statistical analysis

The survey was performed using the standardized MOP 2002 questionnaire (5) by the authors Mirjana Franceško, Vladimir Mihi and Gustav Bala. The initial version of the scale included 70 items of which 55 were retained. Four factors have been extracted, of which the first one points to the tendency of a person to be more successful than others, the second one is defined as perseverance in goal achievement, the third one represents the goal achievement as the source of satisfaction, and the fourth one points to orientation toward planning. The scale shows very good metric characteristics, Cronbach being 0.912, and sampling adequacy have been expressed with KMO being 0.922. Both indicators of sampling adequacy (Kaiser-Mayer-Olkin and Kaiser-Rice) show that this measuring tool falls into the category of tools with the highest degree of sampling adequacy and that it has a satisfactory degree of homogeneity.

That said, the indicators point to the fact that application of this scale enables the generating of a large amount of information (5). The achievement motivation has been observed through the following components: competition with others, goal achievement as the source of satisfaction, perseverance in the goal achievement and orientation toward planning.

Statistically significant connection between the components of the achievement motivation has been obtained by Pearson's correlation analysis and the linear regression model.

RESULTS

Table 1 Competition with others

Table 1 Competition with others (total score per group and gender)							
	Group E		Group K		Total	Importance‡	
	Average	SD	Average	SD	Average	SD	
Men	50.66	17.51	52.97	21.95	51.81	19.86	ns
Women	47.13	19.21	41.88	17.94	44.50	18.75	**
Total	48.89	18.44	47.42	20.78	48.16	19.64	ns
Importance‡	ns		***		***		

‡ t - independence test; ** p < 0.01; *** p < 0.001 ns - no statistically significant difference

The score in "Competition with others" (Table 1) for the women from the control group ranged between 5.26 and 76.32 with the average of 41.88 ± 17.94 . The women from the experimental group achieved the score ranging between 14.47 do 100 with the average of 47.13 ± 19.21 . "Competition with others" component was statistically more indicative in the examinees from the experimental group ($t = 2.828$; $p = 0.005$). For the men, the component was more indicative in the control group, however, with a difference of no statistical value. "Competition with others" component was statistically more indicative for the men both in the total sample ($t = 5.353$; $p = 0.000$) and in the control group ($t = 5.534$; $p = 0.000$). The total score did not show any statistically significant differences in "Competition with others" between the two examined groups ($t = 1.061$; $p = 0.289$). The experimental group examinees had a higher score median for "Competition with others". There were neither extreme nor untypical values in any group.

Table 2 Goal achievement as the source of satisfaction

Table 2 Goal achievement as the source of satisfaction (total score per group and gender)							
	Group E		Group K		Total	Importance‡	
	Average	SD	Average	SD	Average	SD	
Men	79.60	14.39	79.24	15.93	79.42	15.16	ns
Women	77.81	14.71	82.53	10.85	80.17	13.12	***
Total	78.70	14.56	80.88	13.71	79.79	14.17	*
Importance‡	ns		*		ns		

‡ t - independence test; * p < 0.05; *** p < 0.001; ns - no statistically significant difference

The men from the experimental group had a slightly higher score in "Goal achievement as the source of satisfaction" than the men from the control group, with a difference of no statistical significance ($t = 0.234$; $p = 0.815$). Statistically significant higher values of the average score in "Goal achievement as the source of satisfaction" were obtained for the women from the control group compared with women from the experimental group ($t = -3.653$; $p = 0.000$). In the total sample, the women had a higher average score (80.17 ± 13.12) in "Goal achievement as the source of satisfaction" than the men (79.42 ± 15.16), however, without statistically significant difference ($t = -748$; $p = 0.455$). Within the examined groups, the gender-related difference was obtained in the control group to the benefit of women examinees ($t = -2.413$; $p = 0.016$). The average value in "Goal achievement as the source of satisfaction" in the total sample amounted to 79.79 ± 14.17 and it was statistically more significant ($t = -2.184$; $p = 0.029$) in the control group. A higher score median was obtained for the examinees from Group K 82.69 with an interquartile range of 16.82 (73.08 – 89.90). In the Group E, the median also had a very high score 80.77 with a higher IQR 21.15 (69.23 – 90.30). This points to the conclusion that 25% of the examinees in both groups had a very high score in "Goal achievement as the source of satisfaction", ranging from 90 to

100, and that a half of them had a score over 80. Only one examinee in the experimental group had a low score for “Goal achievement as the source of satisfaction”.

Table 3 Perseverance in the goal achievement

Table 3 Perseverance in the goal achievement (total score per group and gender)							
	Group E		Group K		Total		Importance‡
	Average	SD	Average	SD	Average	SD	
Men	63.30	9.48	67.10	13.84	65.20	12.00	***
Women	62.35	10.86	65.37	7.40	63.86	9.41	***
Total	62.82	10.20	66.23	11.12	64.53	10.79	***
Importance‡	ns		ns		ns		

‡ t - independence test; * p < 0.05 ns - no statistically significant difference

The Table 3 shows that the highest average score in “Perseverance in the goal achievement” was obtained for the men from the control group (67.10 ± 13.84), and the lowest score for the women from the experimental group (62.35 ± 10.20). Statistically significant higher average score was obtained for the men (t = - 3.204; p = 0.001) and (t = -3.245 p = 0.001) for the women from the control group. The men had the higher average score in “Perseverance in the goal achievement”, however, the difference was not statistically significant (p > 0.05). The average score in “Perseverance in the goal achievement” in the total sample amounted to 64.53 ± 10.79 and it significantly higher both in the control group (t = - 4.519; p = 0.000) and for the men. However, the gender difference was not statistically significant (t = 1.760; p = 0.079). The score median in “Perseverance in the goal achievement” within the group K was 66.23 with IQR 13.33 (60 -73.33). In the group E, the median was lower 61.67 with the IQR being 11.25 (58.33 - 69.58). In the group E, there were three examinees with an extremely low score of 25 and three examinees with atypically low values. Eight examinees had atypically high values, of which four examinees had the score 100. In the group K, three examinees had extremely low score value of 20.

Table 4 Orientation toward planning

Table 4 Orientation toward planning (score per group and gender)							
	Group E		Group K		Total		Importance‡
	Average	SD	Average	SD	Average	SD	
Men	59.53	14.35	60.21	21.06	59.87	18.00	ns
Women	58.31	14.23	56.67	11.45	57.49	12.93	ns
Total	58.92	14.29	58.44	17.02	58.68	15.71	ns
Importance‡	ns		*		*		

‡ t - independence test; * p < 0.05 ns - no statistically significant difference

The highest average score in “Orientation toward planning” was obtained from the examinees of the male gender in the control group, and the lowest score of 56.67 ± 11.45 was obtained for the women in the same group. The men showed better “Orientation toward planning” in both groups, but in the control group, the difference is statistically significant (t = 2.084; p = 0.038). In the total sample, the average score in “Orientation toward planning” for the men was 59.87 ± 18.00, and for the women it had statistically significant lower values 57.49 ± 12.93 (t = 2.144; p = 0.032). The total score in “Orientation toward planning” was 58.68 ± 15.71 and did not show any significant difference between the two examined groups (t = 0.436; p = 0.663). The score median in “Orientation toward planning” was the same for both groups 56.25. In the group E, the IQR was 15.63 (50 – 65.63), and in the group K, it was 18.75 (53.75 – 68.75). In both groups, there were examinees with atypical values.

The achievement motivation

Table 5 The achievement motivation - score per groups and gender

Table 5 Total score per groups and gender							
	Group E		Group K		Total		Importance‡
	Average	SD	Average	SD	Average	SD	
Men	63.27	9.52	64.88	14.38	64.07	12.21	ns
Women	61.40	11.11	61.61	7.28	61.51	9.38	ns
Total	62.34	10.38	63.24	11.50	62.79	10.96	ns
Importance‡	ns		**		***		

‡ t - independence test; ** p < 0.01; *** p < 0.001; ns- no statistically significant difference

The total score for the achievement motivation was 62.79 ± 10.96. The control group examinees had an average achievement motivation score of 63.24 ± 11.50 and in the experimental group, it was 62.34 ± 10.38. There was no statistically significant difference between the groups (t = - 1.173; p = 0.241). The men reached a better achievement motivation score than the women. In the control group (t = 2.886; p = 0.004) and in the total sample (t = 3.336; p = 0.001), the difference was statistically significant. The median in the group E was 62.08 with IQR 11.23 (56.05 – 67.27), and in the group K it was slightly higher amounting to 62.78 with IQR 13.33 (56.59 – 69.92). In both groups, there were examinees with atypical values. In the experimental group, there were four women with the total score of 100. In this group, there were also examinees of both genders showing the positive significant relation between all the motivation components, in women, however, showing even stronger relation. The men in the control group showed stronger relation than the men in the experimental group. The least strong relation was found in the women of the control group, where the correlation of Competition was negative and weak compared with Goal and Perseverance. These women showed the strongest relation regarding Goal and Perseverance components.

The motivation components that indicate the way of the success defining were, with the statistical significance, positively related in the experimental group (r = 0.223;p=0.000) and also in the control group, where the relation was weaker (r = 0.101; p = 0.043). It means that the examinees that show higher competitive spirit also have higher goal achievement as the source of satisfaction.

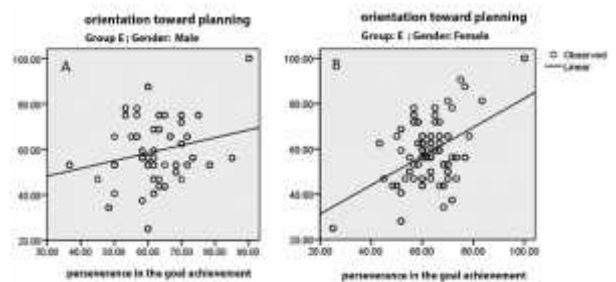


Chart 1- Relation of Orientation toward planning and Perseverance in the goal achievement in the experimental group in men (A) and women (B)

Orientation (Chart 1) toward planning and Perseverance in the goal achievement in the experimental group was more connected in women (r = 0.487; p = 0.000) than man (r = 0.223; p = 0.001). In the control group, Orientation toward planning and Perseverance in the goal achievement was significantly and positively related in both genders. In men (r = 0.530; p = 0.000), this relation was more important than in women (r = 0.196; p = 0.005). Orientation toward planning

and Perseverance in the goal achievement are related to instrumental behaviour forms important for the success achievement, and their relation in both groups is of statistical significance ($r = 0.364$; $p = 0.000$) and ($r = 0.459$; $p = 0.000$), in group E and group K respectively.

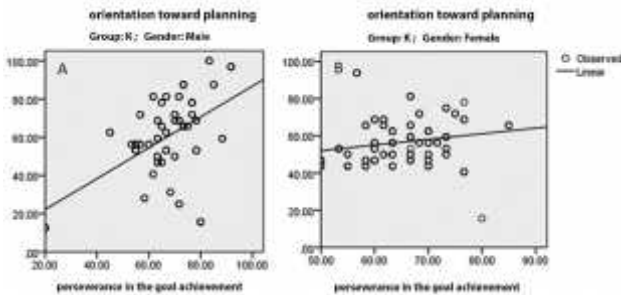


Chart 2 - Relation of Orientation toward planning and Perseverance in the goal achievement in the control group in men (A) and women (B)

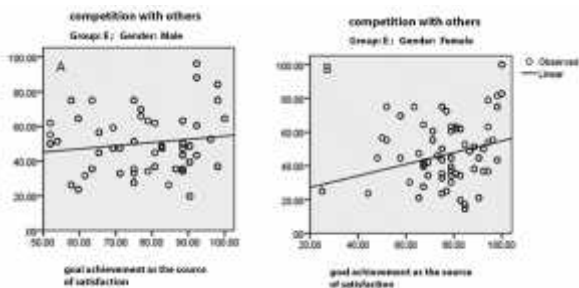


Chart 3 Relation of Goal achievement as the source of satisfaction and competition with others in the experimental group in men (A) and women (B)

Chart 3 shows that Goal achievement as the source of satisfaction and Competition with others are significantly positively related in the examinees of both genders of the experimental group. The relation is stronger in women ($r = 0.264$; $p = 0.000$) than in men ($r = 0.152$; $p = 0.032$).

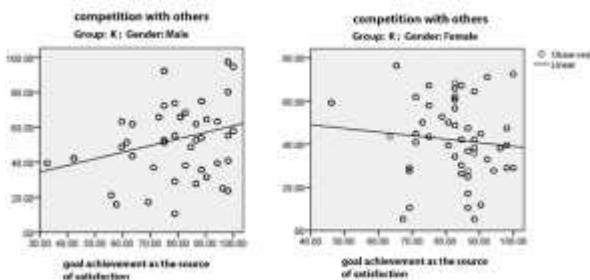


Chart 4 Relation of Goal achievement as the source of satisfaction and Competition with others in the control group in men (A) and women (B)

In the control group, the relation of Goal achievement as the source of satisfaction and Competition with others is weaker than in the experimental group for both genders. In men it is positive and important ($r = 0.274$; $p = 0.000$), while in women it is weak and negative ($r = -0.100$; $p = 0.158$).

DISCUSSION

The achievement motivation has been analysed through the following components: competition with others, goal achievement as the source of satisfaction, perseverance in the goal achievement and orientation toward planning. The results obtained for “Competition with others” point to the following: competition with others shows statistically higher significance in women of the experimental group. In men, however, this

component is more expressed in the control group, but the difference is not statistically significant. Competition with others shows statistically higher significance in men both in the total sample and in the control group. The total score does not show any statistically significant differences for Competition with others between the two examined groups.

The obtained data show that Goal achievement as the source of satisfaction is higher in women than men, but the difference is not statistically significant. Similar results were obtained in the Study by M. Franceško *et al*, where also women show higher satisfaction after the goal achievement (6).

Perseverance in the goal achievement is the component with a higher score reached by men, but the difference is not statistically significant. The above-mentioned Study by M. Franceško *et al* shows in this segment a higher score for women compared with men (6). If we take into account the results of a Study that show a higher degree of responsibility in women during the IVF treatment and a higher perseverance, we could expect women to achieve a higher score in this achievement motivation component (7).

The highest average score for Orientation toward planning has been achieved by the male examinees from the control group, and the lowest average score by the women in the same group. The men are better in Orientation toward planning in both groups, but in the control group, the difference is statistically significant. In the total sample, the average score for the men in Orientation toward planning amounts to 59.87 ± 18.00 , and for the women it is significantly lower 57.49 ± 12.93 ($t = 2.144$; $p = 0.032$). The total score for Orientation toward planning is 58.68 ± 15.71 and it is not significantly different between the two examined groups ($t = 0.436$; $p = 0.663$). The obtained data show that in this achievement motivation component, the men have significantly higher results than the women. A Study that was dealing with the gender-related difference in the achievement motivation, obtained a higher score for this component in the female gender, and the difference of our results obtained in this study could be explained in terms of the specific samples in both cases (8).

The total score for the achievement motivation is 62.79 ± 10.96 . The examinees of the control group had an average achievement motivation of 63.24 ± 11.50 , and the experimental group 62.34 ± 10.38 . There was no statistically significant difference between the examined groups ($t = -1.173$; $p = 0.241$). The men had a better achievement motivation score than women. In the control group $t = 2.886$; $p = 0.004$ and in the total sample ($t = 3.336$; $p = 0.001$) the difference was statistically important. The above-mentioned Study by M. Franceško *et al*, did not find any statistically significant gender-related difference in the total achievement motivation score, however, it found, based on the analysis of the components, a higher perseverance in the goal achievement in women, as well as their higher perception of satisfaction in the goal achievement. (6). A Study conducted on a sample of male and female students of the Faculty of Sport and Physical Education found a significant gender-related difference in the above-mentioned score, where the female students reached a higher score in the total achievement motivation score. We should also consider the fact that the achievement motivation correlates with cognitive, as well as conative and emotional personality traits (9).

The examinees of both genders in the control group show a positive significant relation between all components, with women, however, showing a stronger relation. The men in the control group show the stronger relation than the men in the experimental group. The weakest relation has been found in the women of the control group, where the correlation between competition with others and goal and perseverance was negative and weak. These women show the strongest relation between Goal achievement as the source of satisfaction and Perseverance in the goal achievement components.

Motivation components, pointing to the method of the success defining, are positively and with statistical significance related in the experimental group ($r = 0.223$; $p = 0.000$) and in the control group, where the relation was weaker ($r = 0.101$; $p = 0.043$). It means that the examinees that show higher competitive spirit also have higher goal achievement as the source of satisfaction.

The objective of this paper was to examine the achievement motivation in couples participating in IVF program, as one of the important predispositions for the achievement of the final goal. The results of the study show that a more detailed research of this topic is needed.

CONCLUSION

The achievement motivation represents an important segment of life to each individual, so for the purpose of realization of the set goals and the achievement of success, numerous cognitive and conative mechanisms are used along with already mentioned social interaction. The obtained results show the following: between the examined groups there is no statistically significant difference in the total score for the achievement motivation, however, the gender-related difference has been obtained, i.e. men achieved significantly higher score than women. Having analysed the achievement motivation components individually, we have obtained data showing that Competition with others and Orientation toward planning are much higher in men, while Goal achievement as the source of satisfaction is higher in women. The Perseverance in the goal achievement is also higher in men, but the difference is not statistically significant. In examinees of both genders in the experimental group, there is a positive significant relation between all motivation components, with women showing the higher values.

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