ABSTRACT

The aim of the present study was to examine sport orientation of swimmers in terms of competitiveness, victory and predisposition to achieve a goal in relation to gender, experience and age. The sample consisted of 589 swimmers (293 male and 296 female), aged from 13 to 23 years (M = 15.50, SD = 2.05). The participants completed the Sport Orientation Questionnaire in non-competitive conditions. The results showed satisfactory internal consistency to the three factors of the questionnaire. In relation to gender, multivariate significant differences were found between two genders (p = 0.000). One-way post hoc analyses with Bonferroni control yielded significant results in competitiveness in favor to men (p = 0.000). In relation to experience and age, significant multivariate differences were not observed (p = 0.347, p 412, respectively). In conclusion, male athletes seem to be more confident than female athletes. Each swimming team should pay attention in the psychology of each swimmer, in order to built confidence and emphasize the importance of setting goals. Further research should be done to give insight in swimmers psychology and motivation.
INTRODUCTION

Sport’s development and continuous improvement of athletic performance indicate further insight and research by all scientific aspects. Sport psychologists study sport orientation that aims to locate individual differences in athlete’s attitudes towards sport and motivation.

Competitive sport includes the motivation of an athlete to compete and the achievement of a goal (26). Vealey concluded that orientation is relying on two goals: good performance and victory. For the evaluation of sport orientation various questionnaires have been constructed (SOQ; Sport Orientation Questionnaire, 5; 11). Gill and Deeter (1988) (5) have created a sport orientation questionnaire (SOQ) that provides information on three factors: i) competitiveness, b) predisposition to winning, and c) predisposition to achieve personal goals. Competitiveness is referred to the inner desire that motivates each athlete to succeed and be satisfied. Predisposition to winning is a way to achieve comparative social goals such as winning a game. Orientation to the goal is the predisposition of the athlete to focus on specific performance goals such as breaking a personal record. These factors play an important role during the preparation of an athlete because in conjunction with physical abilities can affect performance (24).

The reliability and validity of SOQ were previously tested by many researchers (10; 21; 22; 27). A recent research of Tojari, Manouchehri and Manouchehri (2013) (25) confirmed the validity and reliability of sport orientation questionnaire, by applying the questionnaire in Martial artists.

In relation to gender, previous studies show that there are differences between male and female athletes, with men indicating higher values than women in all three factors (3; 4; 6; 7; 10; 14; 24).

Examination of sport orientation provides information on the manner in which athletes control their motivations (4; 13; 28). Knowledge of predisposition to conquer personal goals and winning can lead to more effective training programs (5) in line with the targets of the athletes. Although the theoretical foundations of personal and competitive goals (1) and predisposition of personal goals and winning (5) are different, both provide important information about the motivations (4; 28). White and Duda (1993) (29) examined the personal and competitive goals of athletes and indicated the need to understand the way athletes set their goals. Coaches should continue to provide challenging and competitive opportunities for athletic excellence and avoid expressing low performance expectations that can be psychologically harmful (9; 16).

Sport orientation in swimming is important because swimming is one of the oldest sports followed by many people and as a result there are many different competitive reactions to focus on. Description of sport orientation of swimmers can provide information about the level at which athletes perceive themselves, as well as the importance of swimming competitiveness.
The aim of this study was to examine the factors of sport orientation of swimmers in terms of competitiveness, winning and predisposition to achieve personal goals in relation to gender, competitive level and age.

MATERIAL AND METHODS

Participants

The sample consisted of 589 swimmers (n = 293 males and n = 296 females). Their age ranged from 13 to 23 years (MEAN = 15.50, SD = 2.05). Swimmers were separated in two age groups, 13-17 years and 18-23 years old. Their competitive experience was at least 1 year so that all participants are capable of completing the questionnaire. Participants were members of different swimming clubs from all over Greece and participated in the National Greek Championship. Regarding to experience the sample was divided in half and the cut off score (on experience in swimming) was 9 years. We set 9 years as the cut off score for experience, dividing almost in half the years of experience of the sample, expecting that an athlete competing for 14 years will have different predisposition in comparison to an athlete with 5 years. This research has been approved by the ethics committee of Athens University.

Procedures

After the swimmers were informed about the purpose, the benefits of the research and the measurement’s procedures, they signed a statement of informed consent and they proceeded to complete the questionnaire. The questionnaire was completed by the swimmers 10-15 minutes before the beginning of their training without the presence of the responsible coach in order to avoid distortions because of his presence. The administration of the questionnaire and the data collection was performed by the investigator. The researcher was present during the entire process in order to provide any additional information required by the participants.

Each surveyed swimmer completed the Sport Orientation Questionnaire (5). This questionnaire has been translated and adapted to Greek population (11) and is a valid, reliable and objective way to measure parameters. It includes 25 questions divided into three sub-sections that evaluate the following factors: a) competitiveness, (13 questions), b) winning (6 questions) and c) goal (6 questions). The answers were given on a scale from 1 (strongly agree) to 5 (strongly disagree) for each question. The participants answered questions as “how do they usually feel about athletic competition”. Scores close to 1 indicate higher orientation in relation to scores close to 5 for each orientation.

Meanwhile, swimmers answered questions about their experience in swimming and their participation in competitions in order to evaluate their experience.
Statistical analysis

Data analysis included control of the internal consistency of the questionnaire factors. In order to determine differences in competitiveness, victory and goals in relation to gender, competitive experience and age, multivariate analysis (Manova) and univariate analyses with Bonferroni post-hoc test were applied. Level of significance was set at $p < .05$. The data analysis was made with the statistical program SPSS 21.

RESULTS

**Athletes’ answers in SOQ.** Internal consistency was evaluated with Cronbach alpha. For the total sample values for competitiveness, victory and predisposition to achieve personal goals were .78, .79 and .67. Previous studies in which the sport orientation questionnaire was applied to athletes, showed a high reliability and validity of the questionnaire (5; 9; 15). The answers of the swimmers in the three factors of SOQ are presented in Table 1.

**Table 1.**

*Answers of swimmers to the questionnaire in the three factors (competitiveness, victory, target)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Competitiveness</th>
<th>Victory</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>52.19(7.81)</td>
<td>26.87(3.03)</td>
<td>21.55(5.39)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54.00(6.89)</td>
<td>26.88(3.23)</td>
<td>21.81(5.07)</td>
</tr>
<tr>
<td>Female</td>
<td>50.41(8.27)</td>
<td>26.85(2.84)</td>
<td>21.29(5.69)</td>
</tr>
<tr>
<td>Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 9 years</td>
<td>53.35(6.67)</td>
<td>26.80(3.40)</td>
<td>21.89(4.71)</td>
</tr>
<tr>
<td>&lt; 9 years</td>
<td>51.96(8.01)</td>
<td>26.88(2.96)</td>
<td>21.50(5.51)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescents</td>
<td>52.80(5.67)</td>
<td>26.57(3.28)</td>
<td>22.23(4.75)</td>
</tr>
<tr>
<td>Adults</td>
<td>54.00(5.48)</td>
<td>27.69(1.92)</td>
<td>23.44(4.07)</td>
</tr>
</tbody>
</table>
• **Differences between the two genders.** Statistical significant differences were observed between the two genders with MANOVA analyses.

The multivariable index Wilk’s L was equal to 0.940, corresponding to F = 12.452, p < .05. The index $\eta^2$ is equal to .60, i.e., 60% of the distribution of the linear combination of the dependent variables was explained by the statistical effect of the independent variable ‘gender’.

The univariate analyses with Bonferroni control showed significant differences in competitiveness (F = 32.951, p = .000, $\eta^2 = .053$) in favor of male swimmers (MEAN = 54.00, SD = 6.89) compared to female (MEAN = 50.41, SD = 8.27). (Figure 1, 2). No significant differences were observed in winning (F = .020, p = .887, $\eta^2 = .000$) and target (F = 1.352, p = .245, $\eta^2 = .002$).

![Figure 1](image)

*Figure 1. Differences between the two genders in relation to age category.*
• Differences between different levels of experience. To identify the differences between different levels of experience in swimmers, the sample was divided into two groups according to competition experience: (a) more than 9 years (high experience) and (b) less than 9 years (low experience). Statistical analysis did not show any statistically significant differences between the two groups (Wilks Lambda = .994, F = 1.103, p = .347, η² = .006). Therefore no post hoc analyzes were used any further.

• Differences between ages. Furthermore, important multivariate differences were not observed in relation to age (adolescents and adults), (L = .995, F = .959, p = .412, η² = .005). Therefore no post hoc analyzes were used any further.

• Interaction between experience and age. Finally, the interaction between experience and age was evaluated for the three factors of SOQ. The multivariate 2 x 2 MANOVA revealed no significant interaction (Wilks Lambda = .995, F = .998, p = .412, η² = .005) certifying that age was not interacted with competitive experience regarding to the three factors of the questionnaire.

DISCUSSION

The aim of the present study was to examine the sport motivations of swimmers in terms of competitiveness, predisposition to winning and predisposition to
achieve personal goals through the sport orientation questionnaire. The profile of the sport orientation questionnaire in this study, in terms of subjects, was similar to the investigation of Gill and Deeter (1988) (5).

The results showed that differences exist between the two genders concerning all factors of the questionnaire (Wilks Lambda = .940, F = 12.535, P = .000, $\eta^2$ = .60). However, significant differences were only emerged in competitiveness. Examination of the mean values showed that male swimmers were overall more competitive ($M = 54.00$, $SD = 6.89$) than female swimmers ($M = 50.40$, $SD = 8.27$), a fact showing that male athletes are more confident and know how to take advantage of the game more than female athletes.

Previously, Olds and Shaver (1980) (20) noted that women are less competitive than men. Lenney (1977) (15) singled out competition as a situation likely to elicit sex differences in self-confidence, one of the most consistent predictors of success. Such gender differences have been replicated in several studies, with men scoring higher on competitiveness especially on win orientation and women scoring slightly higher than men on goal orientation. Several researchers (5; 3; 6; 12) have also found that female athletes are more goal-oriented than male athletes. Svebak and Kerr found evidence of a correlation between goal orientation and endurance athletes.

In previous study (2), it was found that female athletes in different sports had higher levels of competitiveness in comparison to female non-athletes.

This fact indicates that men are more ambitious and show a continued trend for improving athletic performance. Participation in competitions develops the abilities of a swimmer and those who employ all their forces and make good use of their physical and mental abilities are able to achieve their goals.

Perhaps competition is the main reason that leads to continuous improvement of performance.

Furthermore, no significant differences appeared in terms of winning and goal in relation to the experience on both groups.

This research testified that age does not interact with competitive experience in the three factors of the SOQ. A possible explanation could be that participation over 9 years in swimming competition is satisfactory for obtaining sufficient sports experience. The results of this study agree with the research of Gould, Petlichkoff & Weinberg (1984) (8) where no significant differences between experienced and inexperienced athletes were found in the factors of sport orientation. Manouchehri and Tojari (18) and Manouchehri et al. (19) found that athletes in diverse level of competing in sports are not the same in winning orientation.

Finally, it should be mentioned as a limitation that within the sample of highly experienced swimmers, swimmers of National level were included, a fact that could affect the results or should be taken in consideration when investigating the effect of experience but in this study we did not separate them as an individual group.
CONCLUSION

The results of this research can be useful in competitive swimming and will be able to provide important information for swimming coaches.

Taking into account the factors of sport orientation it is very important that these swimmers are highly motivated in order to continuously improve their personal performance.

Sport orientation can be controlled to such an extent that it could contribute to further enhance their positive psychological parameters. Coach should focus on the skills of swimmers by setting interesting and realistic goals, communicating clearly and providing positive feedback to the team and guidance to swimmers in order to achieve their personal and racing goals.

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Address for correspondence:

Thanopoulos Vassilios
Assistant professor
Department of Aquatic Sports, Faculty of Physical Education and Sports.
National and Kapodistrian University of Athens
vthano@phed.uoa.gr
Ethnikis Antistasis 41,
Dafni, Athens 17237, Greece
Tel.210 7276128