

## Is there a relationship between Social Physique Anxiety and parental involvement in Greek ballet dancers, rhythmic gymnastics and swimming athletes during adolescence?

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### Abstract

Women participate in different types of physical activity. Rhythmic gymnastics, swimming and ballet dance classes are usually chosen from childhood to late adolescence and parents are deeply involved in this participation and afterwards. During this developmental period, growth implies changes in body size, which cannot be controlled and these changes may be related with a social physique anxiety. **Purpose:** The purpose of the study was to examine the relationship between social physique anxiety and parental involvement among rhythmic gymnastics, swimming athletes and ballet dancers during adolescence. **Methods:** A total of 102 female participants, rhythmic gymnasts, swimmers and ballet dancers participated in the study. Self-reported questionnaires were completed examining social physique anxiety and perceived parental involvement. **Results:** The analysis of data revealed that there are differences between sports activities only in praise -understanding and active involvement. Social physique anxiety was predicted only by pressure. **Conclusion:** The above findings revealed that female athletes during adolescence, competing in these sports, have many similarities that should be taken under consideration.

**Keywords:** *female athletes, rhythmic gymnastics, swimming athletes, ballet dancers, social physique anxiety, parental involvement*

### 1. Introduction

Physical activity is an important context concerning children's development. Participation in organized sport programs, as gymnastics and swimming or in physical activity programs, as ballet dance classes or physical education, starts from a very early age (Giannitsopoulou, Kosmidou & Zisi, 2010). This participation affects children's development not necessarily positively, as in some cases this participation can have a negative effect in participants' development (Smolak, Murnen & Ruble, 2000). It seems that sport participation provides opportunities to learn emotion regulation, skills interpersonal and motor, enhance relationships, built self-esteem (Larson, 2000; Mahoney, Larson, Eccles, & Lord, 2005; Smith & Smoll, 2002). But also participating in sports can lead to eating disorders (Holm-Denoma, Scaringi, Gordon, Van Orden, & Joiner, 2009; Smolak et al., 2000) or built self-esteem only participating in team sports (Slutzky & Simpkins, 2009). In any case, participation can have a significant role in their development.

Rhythmic gymnastics, swimming and ballet dance are three kinds of physical activity with many similarities for participating children. First of all, children start

participating in training settings at a very young age, some times since the age of 5. There are sports that body's physical appearance is more important than in others, not necessarily by the sport itself. There are sports aesthetically-based or emphasizing aesthetics such as dance and gymnastics (Slater & Tiggemann, 2011). In sports with body exposure, as ballet and rhythmic gymnastics, athletes rely on their bodies for artistic expression (Langdon & Petracca, 2010). Also, in rhythmic gymnastics, ballet and swimming, athletes must wear appropriate athletic suits which are leotards or swimwear while they are competing, performing and practicing. In other words, they must wear revealing attire (Haase & Prapavessis, 2001). So, their body changes are observable to themselves and others, their coaches, their teammates, judges, spectators and their parents. There are also some common points in their bodies, as female ballet dancers are generally 10-12% below ideal body weight and engage in dieting to maintain this weight (Kaufman, Warren, Dominguez, Wang, Heymsfield & Pierson, 2002) and rhythmic gymnastics gymnasts' weight is low, below 50<sup>th</sup> percentile (Georgopoulos et al., 1999).

Social physique anxiety is a feeling or an emotion people experience in response to other's evaluation of their physique (SPA; Hart, Leary & Rejeski, 1989). SPA emerged from body image and body esteem literature (Hart et al., 1989). SPA is based on theories of self-presentation and impression management (Mülazımođlu, Erturan-İlker & Arslan, 2014) and bridges one's image of her /his physique with the satisfaction or dissatisfaction of this image (Hart et al., 1989). Based on a self -presentation perspective, an individual may choose to either engage in or avoid physical activity in order to improve her/his chances of making positive impressions; or maybe to avoid circumstances in which physique could potentially be evaluated negatively by others (Crawford & Eklund, 1994; Hart et al., 1989). So, adolescents are at risk for experiences concerning their body, particularly in social settings which emphasize one's physique and abilities, such as physical activity settings, even physical education (Carlson, 1995; Crombie, Brunet & Sabiston, 2011). Sabiston, Pila, Pinsonnault- Bilodeau and Cox (2014) mentioned that aside from the theoretical roots within self-presentation, social anxiety and body esteem research, there are no specific conceptual or theoretical models related to SPA experiences in sport and exercise psychology. It seems there is a relation between SPA and maturity, as it was found that girls in early adolescence reported lower SPA than girls in middle or late adolescence (Niven, Fawkes, Knowles, Henretty & Stephenson, 2009). According to Sabiston et al.'s (2014) review, exercisers tend to report lower SPA comparing to non-exercisers but athletes in competitive aesthetic, subjectively rated sports and martial arts, tend to report higher SPA scores than athletes in non-aesthetic sports. These findings could be a result of the participants included, as in Mülazımođlu-Balli et al.'s (2010) in which participants included male and female athletes from a variety of sports. It would be interesting to examine SPA in female athletes who participate only in aesthetic sports.

The influence of parents within youth sport has generated considerable attention (Brusrad, Babkes, & Smith, 2004). According to LeBlanc and Dickson (1997) it is a parent's duty, among others, to explore a child's needs, to find the appropriate sport programs and help the child attend it. Children's introduction to certain sports is mostly based on their parents' choices (Baxter-Jones & Maffuli, 2003). On the other hand, parents can play an important role in their children's affective experience of extracurricular activities (Anderson, Funk, Elliot & Smith, 2003). Parents are considered as an interpersonal source of SPA. Sabiston and his colleagues (2007) mentioned that mothers triggered SPA when participants were female adolescents. How did parents behave when they were athletes themselves? If parents demonstrate a lower level of

involvement than the child desires, they may be perceived as being not interested and the child will correspondingly experience low levels of pressure (Lee & McLean, 1997). According to communication theory and more specific Elaboration Likelihood Model (Petty & Cacioppo, 1986), parents are sources of persuasion. They deliver messages with or without words as well as through specific behaviors.

The purpose of the present study was to examine the differences in social physique anxiety and parental involvement among athletes participating in different aesthetic sports, as rhythmic gymnastics, swimming and ballet dance. A second purpose was to examine the relationship between social physique anxiety and parental involvement in sports for these young athletes.

## **2. Methodology**

### **2.1 Participants**

A total of 102 female athletes participated in the present study. Forty-seven were rhythmic gymnastics athletes (46.1%), thirty-two were swimming athletes (31.4%) and twenty-three were ballet dancers (22.5%). The mean age was 11.83 years (SD= 1.36) and there were no significant differences between the three participants' group.

### **2.2. Instruments**

#### *2.2.1. Demographic questionnaire*

Self-reported questionnaires were used to assess Social Physique Anxiety, Parental Involvement and pressure for thin body size by parents. Also, participants reported their birth year, sport (rhythmic gymnastics, swimming, ballet), how many years they had received professional coaching (training age), how many days they trained per week, how many hours they trained per day. Finally, they answered if their father and/or mother were athletes.

#### *2.2.2. Social Physique Anxiety*

Social Physique Anxiety (SPA) measures the degree of anxiety that an individual experiences when he/she perceives as negative others evaluation of her/his physique (Hart et al., 1989; Psychountaki, Stavrou, & Zervas, 2004). The SPA scale is a 12-item inventory. Participants responded to a five-point Likert type scale from "not at all" (1) to "extremely" (5). Higher scores indicate greater SPA. Internal consistency was assessed by Cronbach's alpha coefficient,  $\alpha=.73$ . The questionnaire was adapted in Greek population by Psychountaki et al. (2004).

#### *2.2.3. Parental involvement*

Parental Involvement in Sport Questionnaire was used to assess parental involvement in sport settings (Lee & McLean, 1997). The questionnaire was adopted in Greek in previous studies (Giannitsopoulou, Kosmidou & Zisi, 2010; Lazopoulou, 2006). The nineteen items measured Directive Behavior (DB), Active Involvement (AI), Praise and

understanding (PU) and Pressure (P), explaining 52.09% of the variance. Directive behaviour focuses on the extent to which parents control their children's behaviour during sport. Active involvement assesses parents' activity in the club or during practice sessions. Praise and understanding assesses the praise and empathy parents display toward their children. Parental pressure assesses how pressured children feel by their parents. In the present study participants answered about their perceived parental behaviour. Participants did not complete different items for mother and father, but a single questionnaire for parents. It was not in the purpose of the present study to examine separately parental behaviour for each parent in order to include single parent families. Internal consistency was measured by using Cronbach's alpha coefficient for each factor (DB:  $\alpha=.83$ ; AI:  $\alpha=.71$ ; PU:  $\alpha=.61$ ; P:  $\alpha=.55$ ).

### **2.3. Statistical analyses**

Differences between athletes' groups (rhythmic gymnastics, swimming, ballet) were examined by Analysis of Variances in SPAS, in Directive Behavior, Active Involvement, Praise and understanding, and Pressure. Scheffe criterion was used for multiple comparisons. Regression analysis was conducted to examine whether SPAS could be predicted by Parental involvement in sports (DB, AI, PU, and P).

After checking assumptions (Ntoumanis, 2001; Tabachnick and Fidell, 1996) a linear regression analysis (enter method) was conducted to evaluate how well parental involvement (DB, AI, PU, and P) predicted Social Physique Anxiety.

## **3. Results**

### **3.1. Differences between sport groups**

Analysis of variances were used to examine possible differences in SPA, Directive Behavior, Active Involvement, Praise and understanding between rhythmic gymnastics athletes, swimming athletes and ballet dancers. Significant differences were observed in Praise and Understanding ( $F_{2,99}= 6.27$ ,  $p<.005$ ) and Active involvement ( $F_{2,99}= 3.45$ ,  $p<.05$ ). Rhythmic gymnastics athletes reported higher mean in praise and understanding than swimming athletes (Table 1). In active involvement ballet dancers reported lower mean than swimming athletes (Table 1.).

Forty-nine fathers did not participate in organized sports while fifty-three did. There were no differences between different sports ( $\chi^2=.16$ ,  $p=.69$ ). On the other hand, sixty-three mothers did not participate in organized sports while only thirty-nine mothers were athletes. There were significant differences between different sports ( $\chi^2=5.65$ ,  $p\leq.017$ ) (Table 2.)

### **3.2. Prediction of Social Physique Anxiety**

Correlation between independent variables were not high ( $.01<r<.41$ ). The linear combination of measures could significantly predict SPA and thirteen percent of the variance could be accounted (Table 3). From the predictors, only pressure by parents contributed significantly to the prediction of SPA (Table3).

**Table 1.** Descriptive statistics (M, SD) in variables for all participants, rhythmic gymnasts, swimming athletes and ballet dancers.

	<b>All participants</b>	<b>Rhythmic Gymnastics Athletes</b>	<b>Swimming athletes</b>	<b>Ballet dancers</b>
	M (SD)	M (SD)	M (SD)	M (SD)
Age	11.83 (1.36)	11.45 (.21)	11.94 (1.41)	11.83 (1.11)
Training age	4.85 (2.53)	5.24 (2.49)	4.06 (2.01)	5.15 (3.05)
Days/week	4.17 (1.41)	4.68 (1.79)	4.17 (1.41)	2.22 (.85)
Hours/day	2.09 (1.07)	2.55 (1.22)	1.46 (.49)	2.03 (.87)
SPA	2.65 (.69)	2.76 (.69)	2.46 (.62)	2.68 (.77)
<b>Parental Involvement</b>				
Directive Behavior	2.58 (.86)	2.80 (1.00)	2.39 (.76)	2.40 (.57)
Praise and Understanding	3.81 (.80)	4.06 (.76)	3.44 (.71)	3.83 (.81)
Active Involvement	2.51 (1.01)	2.64 (1.09)	2.66 (.96)	2.03 (.80)
Pressure	1.42 (.66)	1.46 (.71)	1.42 (.73)	1.32 (.44)

**Table 2.** Sum of athletes' parents (father, mother) being athletes or not themselves for each sport and total of participants.

	<b>Father</b>		<b>Mother</b>	
	<b>Athlete</b>	<b>Non athlete</b>	<b>Athlete</b>	<b>Non athlete</b>
Rhythmic Gymnastics	26 (55.3%)	21 (44.7%)	23 (48.9%)	24 (51.1%)
Swimming	19 (59.4%)	13 (40.6%)	12 (37.5%)	20 (62.5%)
Ballet	8 (34.8%)	15 (65.2%)	4 (17.4%)	19 (82.6%)
Total	53 (52%)	49 (48%)	39 (38.2%)	63 (61.8%)

**Table 3.** Regression coefficients and R, R squared of directive behavior, active involvement, praise and understanding and pressure.

<b>Predictor Variables</b>	<b><math>\beta</math></b>	<b><math>t</math></b>	<b><math>p</math></b>	<b><math>part</math></b>
Directive Behavior	-.16	-1.39	ns	-.18
Active Involvement	.01	-.57	ns	-.05
Praise and understanding	.19	1.87	.ns	.21
Pressure	.35	3.31	.001	.26

$R=.36$ ,  $R^2=.13$ ,  $F(4, 97)=3.61$ ,  $p<.01$

#### **4. Discussion**

The purpose of the present study was to examine the social anxiety and perceived parental involvement in adolescent female athletes and the possible relationship between social physique anxiety and parental involvement. Participants were involved in rhythmic gymnastics, swimming and ballet dance. Results revealed that athletes competing in these sports have many similarities. On the other hand social physique anxiety was predicted only by pressure.

First of all, it seems that female adolescent athletes competing in rhythmic gymnastics, swimming and ballet dance- three aesthetic sports- have many similarities that should be taken under consideration. They had the same level of Social Physique Anxiety. This finding is in consistence to Sabiston et al. (2007) findings who mentioned that athletes in competitive aesthetic (as in the present study) tend to report same SPA and higher SPA scores than athletes in non-aesthetic sports. There are a few studies examining the reason or reasons SPA scores are higher in aesthetic athletes. In this study the purpose was to examine SPA through perceived parental involvement.

Regarding their perceived parental involvement in sports, there were no differences observed in directive behavior, pressure by parents and pressure for thin body by parents. Parents in rhythmic gymnastics in Greece most of the times are the ones that are very close to their child-athlete in training and competitions. Many seminars have taken place by university departments and by sport federations in order to educate parents about motivation and how they should encourage and motivate their child-athlete. Many of the parents were athletes themselves, so they could be informed, even trained on these issues. Rhythmic gymnastics athletes reported higher praise and understanding than swimming athletes. It should be mentioned that more mothers of rhythmic gymnastics athletes were athletes themselves than mothers of swimming athletes. Perhaps praise and understanding should be examined separately for fathers and mothers.

On the other hand, ballet dancers reported lower parental active involvement than swimming athletes. This finding is probably because ballet dance classes frequency was lower (fewer days per week). The most important thing is that in Greece, ballet classes are not public, they are run by private businesses and parents do not have to be involved. The owners of the dance schools are responsible for everything. In sports, as swimming and rhythmic gymnastics, parents are often members of the sport councils or even members of the sport federations.

The present study examined the prediction of SPA from perceived parental involvement. Social physique anxiety is a feeling, according to Hart et al. (1989). Feelings are result of social interaction with people who are important. For adolescents and pre-adolescents both parents are very important. It seems that parents are a social variable that can influence social physique anxiety. In sports as gymnastics and swimming young athletes' involvement in high level sport is heavily dependent on their parents (Baxter-Jones & Maffulli, 2003). Moreover, Baxter-Jones and Maffulli (2003) mentioned that in the United Kingdom, high level sports participation and success in young athletes seem to be heavily dependent on parents and the motivation of the children themselves, with coaches and sports clubs playing a secondary role in the process. The results of a qualitative research (Holt, Tamminen, Black, Sehn & Wall, 2008) showed that parents perceived they had knowledge and experience of competitive sport, which appeared to influence their involvement. Understanding adolescents'

positive and negative developmental experiences in sport, parental pressure is mentioned as a variable that athletes are burdened with (Fraser-Thomas & Côté, 2009). In another study (Kosmidou, Proios & Giannitsopoulou, under review), examining the prediction of body esteem in rhythmic gymnastics athletes, participating former and current rhythmic gymnastics athletes, it was found that perceived pressure to be thin by parents and not by other significant persons (as coaches or friends) contributed significantly. All the above can increase negative feelings of young athletes and in this way social physique anxiety can be affected. That is, perhaps, the reason why almost all factors of perceived parental involvement contributed to the prediction of the SPA.

More studies on parental involvement and SPA should take place, in order to examine separately the involvement of mothers and fathers and to examine at the same time the predictability of personal factors (as global body esteem, body esteem, body image) and parental involvement. According to findings, interventional programs including parents should be addressed to rhythmic gymnastics athletes, swimming athletes and ballet dancers.

In conclusion, social physique anxiety of female young athletes competing in rhythmic gymnastics, swimming and ballet can be predicted by parental involvement. Interventions should be addressed to parents targeting these athletes, in order to be able to help them overcome possible negative feelings about their body and stay in sports or afterwards in physical activity programs for longer time, or even lifetime.

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