

Verbal Aggressiveness and Argumentativeness in Physical Education: Perceptions of Teachers and Students in Qualitative and Quantitative Exploration

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Abstract

This study is aiming at examining 1) physical education teachers' self-perceived verbal aggressiveness and argumentativeness, 2) students' perceptions about verbal aggressiveness and argumentativeness developed by their teachers, in order to assess the communicational accordance between students' and teachers' perceptions in elementary, junior and high schools. A combination of qualitative (study 1) and quantitative methods (study 2) has been implemented for this purpose. Fifteen PE teachers (6 females and 9 males), participated in the qualitative study; and 894 students (442 males, 452 females), participated in the quantitative study. According to the study 1, argumentativeness and verbal aggressiveness are features that co-exist to a person's behavior. Five communicational PE teachers' profiles have been detected ("high argumentativeness-low verbal aggressiveness", "moderate argumentativeness and verbal aggressiveness", "moderate argumentativeness-low verbal aggressiveness", "low argumentativeness-high verbal aggressiveness", "low argumentativeness-moderate verbal aggressiveness"). According to these, PE teachers who are capable of arguing are less likely to expose a verbally aggressive behavior. Determinants of this are students' behaviors, attitudes and disagreements or conflicts. When arguments are avoided, verbal aggressiveness is enhanced. Verbal aggressiveness plays the role of discipline. The prompt transition from argumentativeness to verbal aggressiveness is explained by the fact that teachers can't interpret the difference between attacks on a position. According to the study 2, the findings supported the differences in verbal aggressiveness and argumentativeness between schools, showing at the same time students' perceptions about their PE teachers. PE teachers' reports about the perceived verbal aggressiveness and argumentativeness were aligned in the vast majority of the profiles with their students' perceptions.

Keywords

Verbal Aggressiveness, Argumentativeness, Perceptions, Physical Education, Mixed Methods

1. Introduction

The learning process is influenced significantly by the communication among teachers and students (Bekiari & Hasanagas, 2016a,b; Haleta, 1996; Myers & Claus, 2012; Richmond & Gorham, 1992). Teachers' personality and exposure during the lesson have a great impact on students' thinking, motivation, emotions, attitudes, and behavior (Horn, 2002; Infante & Rancer, 1996; Rancer & Avtgis, 2014). Effective teaching and learning conditions are achieved through teachers' positive communication behaviors (Mazer, Murphy, & Simonds, 2007; Scott & Wheelless, 1977). Particularly, teachers can promote affective learning (McCroskey, 1994; Rodriguez, Plax, & Kearney, 1996; Titsworth, 2001), positive classroom climate (Mazer & Hunt, 2008; Myers, 1995; Myers & Rocca, 2001), interpersonal relationships (Frymier & Houser, 2000) and students' motivation (Christophel, 1990; Frymier, 1994; Goodboy & Myers, 2008). On the other hand, people's negative communication reflects aggressive characteristics and as numerous studies have shown, such behaviors can undermine students' learning (Bekiari, Deliligka & Hasanagas, 2017; Bekiari et al., 2015; Bekiari & Pachi, 2017; Bekiari, Pachi, & Hasanagas, 2017; Bekiari & Petanidis, 2016; Bekiari & Spyropoulou, 2016; Bekiari & Tsagopoulou, 2016; Bekiari & Tsiana, 2016; Hasanagas, Bekiari & Vasilos, 2017; Hassandra, Bekiari, & Sakellariou, 2007; Manoli & Bekiari, 2015). Aggressive behavior can be depicted as constructive or deconstructive. Constructive is a person's behavior that contributes to interpersonal relationships' improvement, whereas deconstructive behavior portrays harmful effect in a person's relationships or the emotions or another person (Infante, 1988). Two aggressive communication traits are argumentativeness and verbal aggressiveness (Infante, 1987). They are differentiated in the target of the aggression. Argumentativeness aims at attacking the other person's position, and on the other hand, verbal aggressiveness is intended in the interlocutor's self-concept (Infante & Rancer, 1996). Consequently, verbal aggressiveness ramifications are destructive, while those of argumentativeness are constructive (Infante, Myers, & Buerkel, 1994; Infante & Rancer, 1996; Sympas & Bekiari, 2015).

1.1. Verbal Aggressiveness

Verbal aggressiveness is a person's proneness to offensively assault another individual self-image (Infante & Rancer, 1996; Infante & Wigley, 1986). The result is to cause negative feelings such as disgrace, embarrassment, desperation, depression, and furthermore (Infante, 1987; Infante & Rancer, 1982; Infante & Rancer, 1993; Infante, Riddle, Horvath, & Tumlin, 1992; Infante & Wigley, 1986; Piko &

Keresztes, 2006; Rancer & Avtgis, 2006). There are different types of verbally aggressive messages including verbal criticism on the character, the capability, in physical appearance and in the background, disregard, derision, threats, obscenity, curses, loud voices, teasing gestures (Avtgis & Rancer, 2010; Coyne & Archer, 2004; Infante 1987; Infante et al., 1992; Infante, Sabourin, Rudd, & Shannon, 1990; Infante & Wigley, 1986; Neuman & Baron, 1997; Rancer & Avtig, 2006) and additionally according to Myers, Brann, and Martin (2013) has been stated the work ethic attacks and nonverbal behaviors. Verbal aggressiveness has widespread significantly in an educational environment (Bekiari, Koustelios, & Sakellariou, 2000; Theoharis & Bekiari, 2016a,b; 2017a,b; Theoharis, Bekiari, & Koustelios, 2017). It consists a destructive communicative feature affecting negatively human relationships (Bekiari & Hasanagas, 2015; Bekiari, Patsiaouras, Kokaridas, & Sakellariou, 2006; Bekiari, Perkis, & Gerodimos, 2015; Bekiari & Syrmipas, 2015; Johnson, Becker, Wigley, Haigh, & Craig 2007; Myers, Edwards, Wahl, & Martin, 2007). When students experience verbal aggressiveness from their instructors, they present lower levels of motivation, satisfaction, rapport with the instructors as well as higher feeling of hostility (Bekiari, 2014; Mazer & Stowe, 2016; Myers, 2002; Myers & Knox, 2000; Myers & Rocca, 2001; Snyder, Forbus, & Cistulli, 2012; Teven, 2007). This is not conducive to effective attendance (Myers et al., 2007) and interpersonal communication between students and instructors (Bekiari & Sakellariou, 2003; Edwards & Myers, 2007; Hasanagas & Bekiari, 2015, 2017; Rocca & McCroskey, 1999; Schrodtt, 2003). Also, research has shown that the students' class participation is negatively correlated with instructors' verbal aggressiveness, as they avoid asking them questions and do not try to maintain the communication outside the classroom (Bekiari, 2012; Bekiari & Syrmipas, 2015; Myers et al., 2007). PE teachers' negative communication with students has as a result the rise of anti-social behaviors for the latest, as well as the absence of a beneficial interaction, satisfaction and motivation among them (Avtgis & Rancer, 2008; Claus, Booth-Butterfield, & Chory, 2012; Edwards & Myers, 2007; Rancer & Avtgis, 2006; Rocca & McCroskey, 1999; Schrodtt, 2003). Verbal aggressiveness affects negatively students' perceptions of their instructors (Bekiari, 2017a,b; Bekiari, Digelidis & Sakellariou, 2006; Bekiari, Patsiaouras, Kokaridas, & Sakellariou, 2006; Myers et al., 2007; Schrodtt, 2003; Wrench & Punyanunt-Carter, 2005), as they are considered less reliable, hostile, ideologically biased (Edwards & Myers, 2007; Linvill & Mazer, 2013; Mazer & Stowe, 2016; Snyder, Forbus, & Cistulli, 2012; Teven, 2007).

1.2. Argumentativeness

Argumentativeness is defined as a person's tendency to support its beliefs on debatable disputes and at the same time trying to prove false the opinions of the interlocutor (Infante & Rancer, 1982, 1996). Argumentativeness uses premise as a way for verbal persuasiveness in advocating the original aim (Hample, Han, & Payne, 2010) or give a character's impression (Hample & Irions, 2014). Com-

munication between students and teachers is considered a relational process, dynamic, transactional and interdependent, where force is constantly negotiable (Claus, Chory, & Malachowski, 2012; Golish & Olson, 2000; Paulsel & Chory-Assad, 2004). Argumentativeness is a constructive communicational trait, as its results focus and orient to the substance of the message transmitted, without verbally attacking the opponent (Infante, Myers, & Buerkel, 1994; Infante & Rancer, 1996; Rancer & Avtgis, 2006). Therefore, argumentativeness is esteemed a socially productive manner to resolve disagreements comparing to other ways, such as verbal aggressiveness which may result even to abusive behavior (Bekiari, Deliligka, & Koustelios, 2017; Johnson et al., 2007). Instructors who encourage argumentativeness and exchange of ideas, promote a supportive classroom climate (Myers & Rocca, 2000). In addition, their students perceive them as assertive, intimate, competent (Myers, 1998), efficient at their teaching process, gregarious, attractive (Syrmpas & Bekiari, 2015), reliable (Schrodt, 2003). Furthermore, students whose instructors were more argumentative and less verbally aggressive, showed higher motivational level, teamwork, cognitive learning, interest in the course content as well as satisfaction (Bekiari & Balla, 2017; Bekiari & Manoli, 2016; Bekiari, Nikolaidou, & Hasanagas, 2017; Bekiari & Pylarinou, 2017; Hamilton & Hample, 2011; Syrmpas & Bekiari, 2015). An important benefit of argumentativeness is to consolidate existing knowledge and create new knowledge to students, based on the ideas of social environment (Driver, Newton, & Osborne, 2000). The inclusion of argumentative activities during the teaching process is essential for generating argumentativeness in a school class (Dawson & Venville, 2010; Knight & McNeill, 2011; Osborne, Simon, Christodoulou, Howell-Richardson, & Richardson 2013; Simon, Erduran, & Osborne, 2006; Zembal-Saul, Munford, Crawford, Friedrichsen, & Land 2002).

1.3. Innovation of Research

The purpose of the present study was to reveal PE teachers' perceptions about verbal aggressiveness and argumentativeness they develop during the learning process. The academic added value of this research is supposed to consist in providing insights into the perceptual issues of communication between instructors and students in both quantitative and qualitative methods combined. The practical added value is expected to consist in examining to which extent students' perceptions of verbal aggressiveness and argumentativeness promoted by their teachers are in accordance with their PE teachers' perceptions of verbal aggressiveness and argumentativeness.

More precisely, the research is articulated in two phases: the goal of Study 1 (qualitative analysis) is to reveal teachers' self-perceived verbal aggressiveness and argumentativeness. The goal of Study 2 (quantitative analysis) is to investigate: 1) differences among students' gender; 2) differences among schools; and 3) differences among educational level pertaining to students' perceptions about their PE teachers' verbal aggressiveness and argumentativeness during the physical education lessons. The accordance degree between self-perceptions of

instructors and the perceptions of their students about them is a central focus of the research.

2. Study 1

2.1. Method

The ethics committee of the Dept. of Physical Education and Sport Science, University of Thessaly, has approved the concept. The great majority of the research in this field has been carried out by implementing either quantitative or qualitative methods. Nevertheless, it has been suggested that the mixture of methods can help researchers eliminate or reduce the limitation of a single method (Creswell, Clark, Gutmann, & Hanson, 2003). Thus, in this study quantitative (questionnaire) and qualitative (open-ended questions) data were collected combined. Triangulating methods may be useful for eliciting information on argumentativeness and verbal aggressiveness in the context of PE.

2.2. Participants

Interviews with 15 physical education teachers (6 females and 9 males), were conducted. The schools were located in central Greece (elementary $n = 5$, junior $n = 5$ and high schools $n = 5$). They were from 42 to 58 years old ($M = 50.73$, $SD = 4.27$). Their teaching experience varied from 10 to 33 years. The PE instructors involved in the qualitative phase of the research were purposefully selected considering their students' participation in the quantitative part, which were randomly selected from a list of schools located in Central Greece.

2.3. Data Collection: Procedure

The ethical standards were officially checked. The researcher informed the interviewees about the main purpose of the survey and they signed a consent form. The respondents participated voluntarily in the study, with no incentive offered by the interviewer, and they were also informed that they were free to quit the interview any time they desired. They were also informed about the anonymity of their participation and the confidentiality of the research. The interviewer was a PhD student who took part in other qualitative data collections as well. The fifteen (15) interviews were held in the school settings of participants choosing, such as in a private room or the gym. They were interviewed individually. The duration of each interview was 35 minutes at average. The researcher wrote down any fact that would be helpful. The interviews were digitally recorded and later transcribed verbatim in 63 single-spaced pages (Times New Roman-12). Participants' names were encoded with letters and numbers. More specifically, the letter A represents teachers in primary schools, letter B teachers in junior high schools and letter C those in senior high schools (e.g. A1, B2, etc.).

2.4. Interview Protocol

A semi-structured interview protocol was designed in order to elicit valuable

information about PE teachers' attitudes and self-perceptions about the verbal aggressiveness and argumentativeness during the lesson. The interview protocol was based on previous literature concerning verbal aggressiveness and argumentativeness. Patton's (2002) methodological recommendations were observed. The interview format included background questions (e.g. age, qualifications and teaching experience). Then, questions were followed regarding the verbal aggressiveness and argumentativeness, so PE teachers were prompted to report their beliefs about argumentativeness and verbal aggressiveness, and to describe the possible causes of these behaviors. Researchers based on Patton's suggestion (2002) that real-world settings where the phenomenon of interest unfolds naturally contain short scenarios of teaching conditions which can promote such behaviors (Creswell, Hanson, Plano, & Morales, 2007). For example the following questions were included: "I want you to recall and describe an incident during which you had disagreements with your students"; "Your students are playing a game at the end of a lesson. They start arguing and they use inappropriate expressions. Please describe to me what happened and how did it end up?", "A student who talks back to you in a rude manner or he/she questions your instructions. How do you handle him/her?"; "I would like to consider some students' troubled behavior. They systematically deny following the rules. Although, you give them a warning about their behavior, they continue to exhibit the same behavior. Then you warn them again but nothing changes. What do you do afterwards?"

2.5. Reliability

Establishing "data" reliability was implemented through the strategies as described by Shenton (2004), these being: 1) well-established research methods; 2) randomness of sampling; 3) background, qualifications and experience of interviewers; 4) documentation made by three researchers individually for reassuring convergence of the findings; 5) and conversation of the researcher with the interviewees before the procedure for being familiarized with them. For ensuring external reliability, the following practices were followed: a) interviews were conducted in the gym or PE teacher's office, b) data were collected during formal discussion after arranging an appointment (LeCompte & Goetz, 1982). Finally, in order to be established internal reliability the interview data were presented to participants in order to assess whether the reports depicted their beliefs.

2.6. Data Analysis

The primary data derived from the interviews were analyzed by applying Thematic Analysis. The depiction of the phenomenon through Thematic Analysis is supposed to be achieved by the emerging of significant themes (Daly, Kellehear, & Gliksman, 1997). The interview data were analyzed both deductively and inductively. Deductive analysis uses a pre-existing set of categories (as a rule based on

particular theory and research) in to organize the quotes (Patton, 2002). On the other hand, an inductive reflection is mostly generating ideas to emerge directly from the data (Strauss & Corbin, 1998). According to the Thematic Analysis process of coding the data, meticulous reading and re-reading of the data is important in order to become familiar with the interviews' content (Rice & Ezzy, 1999). Open and axial coding was conducted. Open coding recognized similarities and differences in the data. Themes were identified through axial coding (Corbin & Strauss, 2015). The detection was based on the two communicational features of verbal aggressiveness and argumentativeness developed during their lesson (Infante & Wigley, 1986; Infante & Rancer, 1996; Infante et al., 1992). For example, in the question "I want you to recall and describe an incident during which you had disagreements with your students" a teacher's answer was: "Arguments should exist. But we have to use arguments. I should hear what students will tell me, and through discussion, we all shall find a solution that will satisfy at its best the whole team. We'll try to find a settlement in the middle". It was coded as "argumentativeness". During the entire process, authors act as peer debriefers. Two of the researchers became the "critical friends" to enhance reliability/credibility and find potential bias (Marshall & Rossman, 2006). They read and coded the interview segments. The following themes emerged, as a result of the thematic analysis: 1) verbal aggressiveness, 2) argumentativeness. The credibility/inter-rater reliability coefficient was determined by the percentage of agreement between the researchers, which was 90%. The data were entered into the QSR NVivo 8 data management program for further processing.

2.7. Results

According to PE teachers' insights and relevant literature, an attempt of creating their profiles is presented in this study. The detection profiles were based on the teachers' levels of argumentativeness and verbal aggressiveness. The findings of this study are in consistency with these of previous studies (Infante & Rancer, 1996; Infante & Wigley, 1986; Infante, Riddle, Horvath, & Tumlin, 1992; Rancer & Avtgis, 2014) which revealed the features of verbal aggressiveness and argumentativeness co-existed in teachers' behaviors. The profiles of PE teachers were created based on the intensity of using arguments and being verbally aggressive during their lesson. PE teachers' verbal aggressiveness was also highlighted through the negative comments that usually they make to the students as well as the frequency of verbally aggressive messages being used.

- *Argumentativeness and Verbal Aggressiveness PE teachers' profiles*

Five PE teachers' profiles were selected, because this was a satisfactory number in order to depict a range of features which can be regarded as complete. These profiles illustrated the features of argumentativeness and verbal aggressiveness. Another important dimension that is illustrated through teachers' statements is the explanation of the reasons for using verbal aggressiveness towards students during the teaching context. More specifically, in the first profile were categorized

two PE teachers (A2, C1) that reveal high argumentativeness and low verbal aggressiveness. Whereas within the second profile were categorized four PE teachers (A3, B4, C2, and C3) that showed moderate argumentativeness and verbal aggressiveness. Two PE teachers (A1, B1) were categorized within the third profile. They developed moderate argumentativeness and low verbal aggressiveness. Within the fourth profile, four PE teachers (A4, A5, B5, and C4) were categorized because they reported that they develop low argumentativeness and high verbal aggressiveness. Finally, three PE teachers (B2, B3, and C5) were categorized within the fifth profile as they showed low argumentativeness and moderate verbal aggressiveness.

- *High argumentativeness-low verbal aggressiveness*

Two PE teachers (A2, C1) feature high levels of argumentativeness and low verbal aggressiveness. They use arguments when they want to persuade their students to behave properly or change their attitudes. Overall, verbally aggressive behavior was not conspicuously distinguished from the sayings of these two teachers. Therefore the only types of verbally aggressive messages that sometimes use are attacks on students' character and irony.

C1 stated: "... We should always talk to students in the right way, not with aggressive behavior. Then it is certain that this will affect them profoundly and positively. But at some intense moments if you insult them, then you lost the game... I'm a human being, and therefore sometimes I may express frustration angrily, but that will last only for a few seconds. I may also shout loudly, but that's it. I never continue in angry tone".

A2 said: "Argues should exist. But we have to use arguments. I should hear what students will tell me, and through discussion, we all shall find a solution that will satisfy at its best the whole team. We'll try to find a settlement in the middle".

In this profile the reasons for teachers' developing a verbal aggressive behavior is due to a bad emotional state as human beings. C1 said: "That depends to the moment. Personally, I attribute a verbally aggressive behavior to a bad emotional condition, when I'm feeling down mostly and I'm thinking about staffs that bother me. In times like these, it happens sometimes."

- *Moderate argumentativeness and verbal aggressiveness*

Four PE teachers (A3, B4, C2, and C3) are argumentative and verbally aggressive at medium levels. Although these teachers usually try to settle various issues with their students through discussions, sometimes though when they argue intensely with their students, they often impose punishment or threats.

C3: "I will immediately stop the game with a timeout or something, and I'll tell them either they're stopping now or they leave. Or usually, if I watch w I will replace him with another student. He/she will leave the pitch."

B4: "If I'm 100% certain I support my opinion and I impose it on students, i.e. must be done whatever I say."

The most common reported types of verbally aggressive messages are character attacking, irony, threats, teasing and nonverbal emblems.

A3: "Expressions with negative remarks I usually say to students are: "You're behaving like a baby", "you'll be dismissed from the game". I do facial expressions or movements with my hands when I give negative feedback."

Teachers' often getting angry with children's behavior and vulnerability because of personal issues, are the causes of verbal aggressiveness. B4 mentioned: "It's not always the same reason that a verbally aggressive behavior occurs. It may be some factors in your personal life or it may be because of frustration and anger with students' behaviors or something they've done."

- *Moderate argumentativeness-low verbal aggressiveness*

Two PE teachers (A1, B1) exhibit medium/average argumentativeness and low levels of verbal aggressiveness. These PE teachers advise children what the right thing to do is and they altogether find some solutions with the discussion. In some cases, one of the teachers withdraws from arguments with students and leaves them to act freely. The other one imposes on students using a threat or punishment.

A1 reported: "...I usually go with students' flow, with the majority. This happens sometimes. When there is some reaction, and it is overall, and all students want something different from what I planned for the lesson, then I will relent. I believe that this is good because we learn a lot of things from students, so we manage to gain their favor, and when you need anything from them, they are on your side."

The only types of verbally aggressive messages that sometimes use are attacks on students' character and using threats.

B1 stated "Negative comments I tend to use are: "You are such a lazy student", "you will get expelled", "I will call your father". None the less I don't think that telling a student in a teasing manner that he is lazy is such a big deal."

Emotional tension by virtue of some personal or family problems is what's causing verbal aggressiveness. A1 said: "When something like this happens is due to some tension either in family environment or personal issues. We are human beings, we have a negative temper sometimes and when students don't cooperate, we may raise the tone of our voice and say some things."

- *Low argumentativeness-high verbal aggressiveness*

Four PE teachers (A4, A5, B5, and C4) exhibit low argumentativeness and high levels of verbal aggressiveness. When they argue with their students, they are entirely confident about their point of view. In some cases when their arguments are not sufficient then they impose their opinion and their decisions.

Also, every time students argue among them, they mete out punishment or yelling with threats.

B5 pointed out: “As far as the arguments between students are concerned, I comment them about arguing. I insist they know that I’m clear and definite to what I’m saying. There is no way to change my mind... I will try to calm them down, if I see that they’re continuing with the conflicts, I will threaten them that the game is off. The biggest punishment for them is forbidden them to play.”

C4 said: “Well that’s his opinion, I have my opinion. Until this far I’m able of some things, and as this far he thinks that he is worthy, that’s his problem. I’m here for the whole class, not for the one and only argument.”

The types of verbally aggressive messages that frequently use are attacks on students’ character, competence attacks, irony, cursing, swearing, threats, ridicule, teasing and nonverbal emblems.

A4 mentioned these: “You’re so stupid?”, “You can’t understand anything?”, “Are you dumb?”, “You think this is smart?”, “You’re totally incapable”, “where is your mind, when you wake up talk to me”, “are you so stupid?”, “You’re silly and immature”, “I won’t hear any words from you”, “if you don’t behave appropriately”, “I’ll take you to the headmaster”, “come on this is so easy even kindergarten kids can do it”, “Oh my god look how he does this!” The anger is shown in my face when I say those things to the students.”

The reasons for using verbal aggressiveness are the anger stemming from students’ misbehavior and the endeavor to give the impression as strict teachers. A4 mentioned: “I feel anger at the particular moment when students misbehave. I feel as if I’m out of control. It is an instant reaction. Unfortunately there are students who don’t appreciate anything. So by being verbally aggressive, I feel that I will manage to impose upon them. I’m trying to be strict so that I can make them to pay attention.”

- *Low argumentativeness-moderate verbal aggressiveness*

Three PE teachers (B2, B3, and C5) have low argumentativeness and medium levels of verbal aggressiveness. Two of them when they argue with their students, they don’t insist, they relent and allow their students to do what they desire and prefer in every case. The third person when the arguments are not enough then imposes its opinion.

For example, B3 reported “... Usually, I end up doing what my students want. For example, when they want to play a sport, I find a way to do the sport they like, but I’m trying not to show them that they convinced and did them a favor... I’m watching them while they’re playing, so if there’s any conflict between them, then they will get expelled from the game. There are two of them? I’m not going to find out whose fault was. All the students

that had the conflict, they will step aside.”

Similarly, C5 reported: “... There are many reasons for arguing with my students. I always end up punish them, because they’re not listening to me what I want from them, although I am clear from the first day of school about plenty of things. I want them to keep to the rules as I do with my decisions...”

The reported types of verbally aggressive messages are character attacking, irony, threats, teasing and nonverbal emblems.

B3 said these: “Grow up!”, “You’ll be out in a second or else I’m calling your parents”, “yeah right, now he will do it, and that’s for sure!”

These teachers mentioned that the causes of expressing verbally aggressive comments is the vulnerable emotional state they’re into, due to personal issues, the economic crisis our country encounters or even certain circumstances at school. Also, the more years of teaching in PE classes, may affect them to lose their patience more easily. B3 stated: “Everything matters. Our age and the economic crisis we’re dealing with, matter. Everyone has problems and we can’t do our jobs as we ought to do. I think that I should mention that. Maybe sometimes we transfer the problems to our working environment and that affects us negatively.”

3. Study 2

3.1. Participants

The sample of the study consisted of 894 students (442 males, 452 females), aged 10 - 17 years old ($M = 13.8$, $SD = 2.3$) in central Greece. The participants were in 5th and 6th grade of five elementary schools, between the 7th and 9th grade of five secondary schools and between the 10th and 12th grade of five high schools. Participants were from urban and suburban schools and belonged to different socio-economic status. They were randomly selected from a list of schools located in Central Greece.

3.2. Data Collection: Procedure

All students completed questionnaires referring to their PE teachers’ verbal aggressiveness and argumentativeness, during the physical education lessons, in spring 2017. The data collector gave information about the study and was present for every assistance students’ needed by the students during the completion of the questionnaires. Anonymity of the participants was ensured by coding elementary schools (A1, A2 etc.), junior high schools (B1, B2 etc.) and senior high schools (C1, C2, etc.) and their participation was voluntary.

3.3. Instruments

Verbal aggressiveness. The Greek version (Bekiari & Digelidis, 2015), which was used to assess physical education instructor verbal aggressiveness, relied on the

theoretical framework and the Verbal Aggressiveness Questionnaire developed by Infante and Wigley (1986). Preliminary examination (Bekiari & Digelidis, 2015) supported the psychometric properties of the instrument. In particular, confirmatory factor analysis indicated satisfactory fit indices (CFI: .97, SRMR: .02), and internal consistency of the scale ($\alpha = .96$). The scale consisted of eight items (e.g., “the teacher insults students,” “the teacher makes negative judgments of students’ ability”). Participants were asked to respond on a 5-point Likert-type scale ranging from 1: Strongly disagree to 5: Strongly agree.

Argumentativeness. The Greek version (Syrmpas & Bekiari, 2015) was used to assess instructors’ argumentativeness, based on the conceptualization of Myers and Rocca (2000). Preliminary examination (Syrmpas & Bekiari, 2015) supported the psychometric properties of the instrument. In particular, confirmatory factor analysis indicated satisfactory fit indices (CFI: .98, SRMR: .05), and internal consistency of the scale ($\alpha = .87$). The scale consisted of ten items (e.g., “the teacher enjoys a good discussion with arguments on a controversial subject with his/her students”, “the teacher avoids making use of arguments when he disagrees with his/her students”). Participants were asked to respond to the items based on a 5-point Likert-type scale ranging from 1 = never to 5 = always.

3.4. Data Analysis

Prior to analysis, the accuracy of data entry, missing values, and fit between their distribution, univariate and multivariate outliers were examined. Normality was checked for each cell of the analysis (Std. skewness/kurtosis > 2.58). Univariate outliers were examined by using z scores > ± 3.29 . Also, multivariate outliers were detected by using the Mahalanobis distance method with $p < .001$ (Tabachnick & Fidell, 2007).

Data analysis included the use of the Statistical Package for Social Sciences (SPSS 21.0). Differences in students’ perceptions about their PE teachers’ verbal aggressiveness and argumentativeness with the gender and school were examined by performing one-way MANOVAs analyses. The level of statistical significance was set at .05.

3.5. Results

One case with extremely high z scores was identified as univariate outlier and was deleted. Two cases through Mahalanobis distance were found to be a multivariate outlier and were deleted, leaving 894 cases for the final analyses. Then, two new variables were calculated based on the mean score of the items assessing verbal aggressiveness and argumentativeness. One-way MANOVA was performed to examine differences in verbal aggressiveness and argumentativeness between genders. The findings showed statistically no significant multivariate effect on gender Wilks’ $\lambda = 1.00$, $F_{(2, 897)} = 2.12$, $p > .05$.

One-way MANOVA was performed to examine differences in verbal aggressiveness and argumentativeness between schools. The findings showed statistically

significant multivariate effect on schools Wilks' $\lambda = .41$, $F_{(28, 1768)} = 35.10$, $p < .001$. The examination of the univariate effects revealed significant effect of schools on verbal aggressiveness, $F_{(14, 885)} = 51.79$, $p < .001$, $\eta^2 = .45$ and on argumentativeness, $F_{(14, 885)} = 37.88$, $p < .001$, $\eta^2 = .36$. An examination of the mean scores indicated which schools (e.g. PE teachers) in verbal aggressiveness and which in argumentativeness (**Table 1**).

One-way MANOVA was performed to examine differences in verbal aggressiveness and argumentativeness between educational levels. The findings showed statistically significant multivariate effect on educational levels Wilks' $\lambda = .98$, $F_{(4, 1794)} = 5.20$, $p < .001$. The examination of the univariate effects revealed significant effect of educational levels on verbal aggressiveness, $F_{(2, 897)} = 3.16$, $p < .05$, $\eta^2 = .01$ and on argumentativeness, $F_{(2, 897)} = 7.06$, $p < .05$, $\eta^2 = .02$. An examination of the mean scores indicated that the higher score in verbal aggressiveness had the junior high schools ($M = 2.94$, $SD = 1.13$) and the higher score in argumentativeness had the senior high schools ($M = 2.78$, $SD = .44$) (**Table 2**).

Table 1. Descriptive statistics between schools.

Schools	Students	Verbal Aggressiveness		Argumentativeness	
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
A1	47	1.93	.77	2.89	.39
A2	30	1.66	.25	3.42	.22
A3	35	2.88	.77	2.73	.32
A4	42	3.13	.48	2.61	.25
A5	56	4.31	.55	2.46	.22
B1	46	1.83	.67	2.94	.40
B2	64	2.42	.65	2.61	.36
B3	67	3.35	.78	2.51	.26
B4	76	2.97	1.30	2.81	.36
B5	47	4.03	.66	2.49	.24
C1	62	1.67	.83	3.32	.33
C2	89	2.51	1.23	2.87	.40
C3	86	2.98	.77	2.70	.38
C4	88	3.83	1.09	2.50	.29
C5	64	2.22	.84	2.64	.33

Table 2. Descriptive statistics between educational levels.

Educational level	Verbal Aggressiveness		Argumentativeness	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Elementary schools	2.92*	1.16*	2.77*	.42*
Junior high schools	2.94*	1.12*	2.67*	.37*
Senior high schools	2.73*	1.22*	2.78*	.44*

Note: * $p < .05$.

4. Discussion

Aim of the study 1 is to reveal teachers' self-perceived verbal aggressiveness and argumentativeness and of the study 2 is to investigate: 1) differences among students' gender; 2) differences among schools; and 3) differences among educational level pertaining to students' perceptions about their PE teachers' verbal aggressiveness and argumentativeness during the physical education lessons. Finally, both qualitative and quantitative findings were used in order to examine to which extent PE teachers' perceptions about the developed verbal aggressiveness and argumentativeness in the PE context is in accordance with their students' perception about their teachers' aggressive behavior.

According to the study 1, argumentativeness and verbal aggressiveness are features that co-exist to a person's behavior as has been proved in other studies as well (Infante, Myers, & Buerkel, 1994; Infante & Rancer, 1993; Infante, Trebing, Shepherd, & Seeds, 1984; Myers, 2002; Edwards & Myers, 2007; Kim & Yang, 2013). After argumentation begins, the instructor who is not skilled in arguing is also incapable of refuting the position of his opponent. Such an instructor tends to satisfy the need to respond by verbally attacking the object which is close to the opponent's position (Infante et al., 1984). Five communicational PE teachers' profiles have been detected according to the approach and avoidance of arguments during the lesson, as well as the usage of verbal aggressiveness via the frequency and intensity of verbally aggressive messages. More precisely these are, "high argumentativeness-low verbal aggressiveness", "moderate argumentativeness and verbal aggressiveness", "moderate argumentativeness-low verbal aggressiveness", "low argumentativeness-high verbal aggressiveness", "low argumentativeness-moderate verbal aggressiveness", as presented in previous research (Infante & Rancer, 1982, 1996). According to the emerging profiles when PE teachers approach arguments and are capable of arguing, they are less likely to expose a verbally aggressive behavior (Bekiari, 2016; Infante & Rancer, 1996; Infante et al., 1984; Syrmipas & Bekiari, 2015). Conditions in which argumentativeness is expressed are students' behaviors, attitudes and any disagreements or conflicts developed among them. When arguments are avoided it has been studied that verbal aggressiveness is enhanced (Bekiari, 2017a; Infante & Rancer, 1996; Infante & Rancer, 1993; Syrmipas & Bekiari, 2015), as shown in our study as well. In the present study, characteristics emerging from teachers who avoid arguments are withdrawing from expressing arguments with students, insisting on their point of view thinking that it's the right thing to do and imposing their opinion through punishments, threats or yelling. This finding is in consistency with the findings of Infante and Rancer (1982) suggested that low scores of argumentativeness are expected to depict individuals who avoid disputing, are quite compliant and easily manipulated in a way which violates even their most important interests. As a consequence, verbal aggressiveness is enhanced and plays the role of discipline, while at the same time PE teachers support that effective teaching is the outcome of a disciplinary class (Bekiari & Hasanagas,

2016c; Bekiari, Kokaridas, & Sakellariou, 2006; Jones, 2014; Lefstein, 2002; Matsagouras, 2008; Mohapi, 2014; Nelson, 2002; Parker, 1995; Placek & Dodds, 1988; Sharkey & Fenning, 2012; Wang, Selman, Dishion, & Stormshak, 2010). The prompt transition from argumentativeness to verbal aggressiveness which are expressed by their behavior, is explained by the fact that teachers can't interpret the difference between attacks on a position, meaning trait of argumentativeness, and attacks on a person's self-concept, thus trait of verbal aggressiveness (Infante, 1987; Infante & Rancer, 1996; Infante et al., 1984; Infante & Wingley, 1986; Rancer & Avtgis, 2014; Rancer, Baukus, & Infante, 1985; Rancer, Kosberg, & Baukus, 1992). Additionally, in the present study, as has been mentioned by the teachers the usage of verbally aggressive messages was justifiable and aimed at settling certain teaching moments, finding consistent with the studies of Goodboy and Myers (2012) and Martin, Anderson, and Horvath (1996). Moreover, in the present study, the higher verbally aggressive teachers are, the more verbally aggressive messages are using and in these messages are included attacks on students' character, competence attacks, irony, cursing, swearing, threats, ridicule, teasing and nonverbal emblems. This finding is in accordance with other studies as well (Bekiari, Kokaridas, & Sakellariou, 2005; Infante et al., 1992; Infante et al., 1990; Infante & Rancer, 1993). In addition, the results of the present study indicated that verbally aggressive teachers do not consider these as hurtful messages nor as hostile. These findings are also supported by Infante et al. (1992) and by Bekiari (2012) and Infante (1995), respectively. In this research, it has also been found that the reasons high verbal aggressive teachers endorse for being verbally aggressive are the anger which derives from students' behavior and the appearance of being "strict", as has been researched in previous study (Infante et al., 1992). Furthermore, low verbally aggressive teachers mentioned the cause of a bad emotional tension, also, moderate verbally aggressive teachers stated that their anger derived from students' undisciplined behavior and due to bad emotional state related to personal issues. As Infante (1987) noted "verbal aggressiveness is behavior aroused and engendered by frustration", which often results from "having the achievement of a goal blocked by another person" (p. 183). Two more important reasons are added here, such as emotional vulnerability caused by the economic crisis our country is facing and the patience depending on the years of teaching experience. As those are increased, tolerance is decreased. According to teachers' self-reports women use verbal aggressiveness at a higher rate than men and correspondingly men are more argumentative than women. This result is partially confirmed by Infante and Rancer (1996) study where it was stated that men are higher in trait argumentativeness and verbal aggressiveness. Furthermore, it is in general also supported by Myers and Knox (1999), who they suggest that male instructors had been perceived to practice verbal aggressiveness only in terms of "ridicule", "swearing" and "teasing" at a great extent than female ones.

According to the study 2, the findings supported the differences in verbal

aggressiveness and argumentativeness between schools, showing at the same time students' perceptions about their PE teachers. More specifically, PE teachers' reports about the perceived verbal aggressiveness and argumentativeness they develop were aligned in the vast majority of the profiles with their students' perceptions of the verbal aggressiveness and argumentativeness in the PE lesson. Two the PE teachers were categorized in the first profile "high argumentativeness and low verbal aggressiveness". Then four PE teachers were categorized in the profile "moderate argumentativeness and verbal aggressiveness". Two PE teachers were categorized within the third profile "moderate argumentativeness and low verbal aggressiveness". Within the fourth profile "low argumentativeness and high verbal aggressiveness" four PE teachers were categorized. Finally, three PE teachers were categorized within the fifth profile "low argumentativeness and moderate verbal aggressiveness". However, one PE teacher's reports were in contrast with his/her students' perceptions of the exposed verbal aggressiveness. Particularly, according to PE teacher's self-perceptions about verbal aggressiveness categorized him/her in "low argumentativeness and moderate verbal aggressiveness" profile. According to the findings of students' perceptions his/her behavior is characterized as high verbal aggressive. Moreover, the findings of the present study revealed that students in the junior high school perceived as more verbal aggressive their PE teachers, whereas in the senior high school as more argumentative. A reasonable explanation could be that in the secondary school the students are quite intractable. Subsequently, the instructors believe that higher level of strictness is necessary in order to assure order. On the other hand, in the high school it is easier to assure order through conversation.

The classical limitation of the restricted sample and the questionable sincerity of the interviewees also exist in the present research. Apart from that, the verbal aggressiveness and argumentativeness are relations. As such ones, they can be explored through quantitative network analysis which actually constitutes a quantitative cross-assessment. The extension of the present concept on such quantitative research fields is a challenge for future research.

5. Conclusion

The present study concludes that the two communicational features, verbal aggressiveness and argumentativeness, co-exist to a person's behavior. Teachers' self-perceptions concluded to the detection of five communicational PE teachers' profiles ("high argumentativeness-low verbal aggressiveness", "moderate argumentativeness and verbal aggressiveness", "moderate argumentativeness-low verbal aggressiveness", "low argumentativeness-high verbal aggressiveness", "low argumentativeness-moderate verbal aggressiveness"). According to these, PE teachers who are capable of arguing are less likely to expose a verbally aggressive behavior. Thus, verbal aggressiveness is enhanced when argumentativeness is avoided. Furthermore, the authenticity of the teachers' self-reports about their use of verbal aggressiveness and argumentativeness is established by students'

perceptions which capture the intended teachers' behavior, verifying subsequently that the perceived verbal aggressiveness and argumentativeness were aligned in the vast majority of the profiles with their students' perceptions. In the junior high school, PE teachers revealed mostly a verbal aggressive behavior, whereas in the senior high school a more argumentative one.

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