

THE ROLE OF PERSONAL AND SOCIAL RESPONSIBILITY ON FUTURE PHYSICAL EDUCATION TEACHERS' BULLYING ATTITUDES

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ABSTRACT

Although physical education provides significant opportunities to promote physical activity, the nature of movement-performance-based, multidimensional classroom dynamics can make students primary targets for bullying, particularly in areas such as gymnasiums or even changing rooms. Therefore, teachers' interventions and awareness are critical. To create effective anti-bullying programs for teacher candidates, this study examined the impact of personal responsibility (PR) and social responsibility (SR) on attitudes towards bullying. It also highlights the possible effects of gender, year of study, and teaching experience. A total of 164 Hungarian physical education teacher candidates (PETCS) studying in the 3rd to 5th years completed questionnaires. The majority of PETCs had a high level of positive bullying attitudes, PR, and SR. While there were significant differences in bullying attitudes at gender and year of study, no differences were found in teaching experience. A significantly strong relationship was found between SR and various attitude sub-dimensions. Analyses showed a predictive effect of SR, gender, and year of study on several bullying attitudes, while PR did not show any significant effect. Since attitudes are an important factor in creating a safe classroom environment, the focus of preventive and educational programs against bullying should include developing SR.

KEYWORDS

Bullying attitudes, bullying prevention, personal responsibility, preservice teachers, social responsibility

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Highlights

- A significant relationship exists between physical education teacher candidates' social responsibility and their attitudes towards bullying.
- It was determined that physical education teacher candidates' individual values, such as social responsibility, were significant factors in shaping their attitudes towards bullying.
- Results indicated that bullying attitudes varied by gender and year of study, but teaching experience had no effect.

INTRODUCTION

Bullying is defined as the deliberate and repeated use of words or actions against an individual or group of people with the intention of making others feel powerless and helpless, thereby causing distress and endangering their well-being (AHRC, 2011). Bullying is regarded as a major problem in many nations and, may “*even pose a threat to public health* (Gladden et al., 2014: 4)” given its wide ranging short and long term consequences including well-being, mental, physical, emotional, social, behavioural, and academic outcomes (Copeland et al., 2013; Hendricks and Tanga, 2019; Kallman, Han and Vanderbilt, 2021). It is known that incidents such as bullying, disruptive

behaviours, and physical or psychological violence are becoming more common in schools. According to OECD (2023: 95), approximately 20% of students reported being bullied, threatened, or witnessing fights on school grounds at least once a month. General overview of bullying ranging from 8.3% to 34.2% depending on the country (Twardowska-Staszek, Zych and Ortega-Ruiz, 2018; Fischer et al., 2020; Kilicaslan et al., 2023).

While bullying in school settings has been studied relatively extensively and is considered a serious problem, little is known about bullying in physical education (PE) classes, and more information is needed to address bullying in this context (O'Connor and Graber, 2014; Borowiec et

al., 2022). Although PE classes are an ideal environment to promote physical activity and healthy lifestyles, due to the dynamics of the classroom (*less adult supervision, more pronounced physical differences, large group settings, and competitive nature*) it can be a suitable environment where students are the primary targets of bullying, especially in areas such as changing rooms, gymnasiums, or athletic fields (O'Connor and Graber, 2014; Jiménez-Barbero et al., 2020; Ball et al., 2022). Studies show that many students are mocked, ignored, discriminated against, bullied in PE classes and sports activities due to physical appearance, body image, gender, poor motor skills, or physical ability and disabilities (O'Connor and Graber, 2014; Benítez-Sillero et al., 2021; Ball et al., 2022; Bejerot, Ståtenhag and Glans, 2022; Borowiec et al., 2022; Sağın, Uğraş and Güllü, 2022). As a result, in addition to the negative effects mentioned above, victims participate less in PE and physical activity, have less enjoyment, and lose interest (Roman and Taylor, 2013; O'Connor and Graber, 2014; Jachyra, 2016; Jiménez-Barbero et al., 2020; Sağın, Uğraş and Güllü, 2022). Since children spend most of their time at school, *“teachers are often the first adults whom students can contact when they face bullying in schools* (Wachs et al., 2019: 644). Research has shown that although students expect teachers to actively intervene (Wachs et al., 2019; Demol et al., 2021), they also report that teachers' actions can worsen the incident (Sağın, Uğraş and Güllü, 2022). The majority of research suggests that teachers often fail to identify bullying incidents, overlook them, or are unable to intervene promptly (Eijigu, 2021; Rigby, 2014; Yoon et al., 2016). Although many international studies have shed light on bullying in PE classes, no such study has been found in Hungary.

While research has focused largely on teachers of other disciplines, little is known about physical education teachers (Wei and Graber, 2024), especially physical education teacher candidates (PETC). Studies with physical education teachers highlight that teachers' and coaches' intervention tendencies vary according to the student's gender (Peterson, Puhl and Luedicke, 2012). Moreover, teachers often address physical bullying and tend to be less attentive to verbal and relational bullying (O'Connor and Graber, 2014). The literature further confirms that teachers acknowledge the existence of bullying; however, they are often ineffective in systematically preventing certain students from being targeted by peer bullying (Sağın, Uğraş and Güllü, 2022; Wei and Graber, 2024). It is important to know the responses and strategies that PETC will use to receive specialised anti-bullying training. Therefore, drawing attention to the pre-service period will be an important step. Ríos, Ventura, and Prat (2023) indicate that PETC lacks confidence in dealing with bullying and often adopts superficial strategies. They perceive that poor classroom management can pave the way for bullying. Castillo-Retamal et al. (2023) found that candidates were aware of the negative effects of bullying. The authors also noted that although they had not received any training on bullying, 60% stated that they could identify physical and verbal forms of violence. Consistent with this, earlier research indicates that teacher candidates are better at

recognizing or intervening in physical bullying (Boulton et al., 2014; Dawes, Starrett and Irvin, 2024) but less effective in addressing relational bullying (Yoon, Sulkowski, and Bauman, 2016; Huang, Liu, and Chen, 2018). Overall, studies highlight significant gaps in candidates' knowledge (Begotti, Tirassa and Acquadro Maran, 2017) and the skills required for prevention (Mahon, Packman and Liles, 2023). They also indicate that candidates frequently tend to overlook incidents (Fry et al., 2020), even though they have mainly negative attitudes toward bullying (Lester et al., 2018).

“Teachers have a responsibility to proactively quell unnecessary bullying that has some students terrified to attend PE, a class that may provide them with their only structured physical activity outlet during the school day (O'Connor and Graber, 2014: 406).” To mitigate the negative effects of bullying and achieve favorable outcomes, families, schools, and educators must recognize their collective societal responsibilities. For this purpose, the teaching of personal and social responsibility has been used to develop many positive values, such as effort, respect, and conflict management, alongside sports behaviors in PE (Sánchez-Alcaráz, Gómez-Mármol and Valero-Valenzuela, 2019). While our study does not implement the model itself, we adopt the core concept as a framework to enable individuals to take ownership of their actions as personal responsibility (PR) and to become more sensitive to the needs of others through social responsibility (SR) (Lavay, 2019). A large body of research examining the effects of personal and social responsibility on students' bullying behaviours (Sánchez-Alcaráz, Gómez-Mármol and Valero-Valenzuela, 2019; Ioannis, 2024). While a few studies have examined the effects on university students (Soos et al., 2025), there seems to be insufficient emphasis on the responsibility of in-service and preservice teachers in the PE context. Physical education teachers or PETC' are expected to exhibit PR in the educational environment under the “inner sense of obligation, duty or commitment (Lauermann and Karabenick, 2013: 13)” and in addition to this, SR, framed by ethical and moral values, implies without prioritising their self-interest, protecting and improving the well-being of the society and the environment by fostering a positive impact. While PR provides an inner strength for individuals to take responsibility for the decisions or actions they make and overcome the problems they encounter along the way, SR supports the creation of an inclusive classroom environment where students feel safe, promote respect and empathy. Personal and social responsibility appear to have an impact on respect towards others, self-control (Escartí et al., 2010), violent attitudes (Sánchez-Alcaráz, Gómez-Mármol and Valero-Valenzuela, 2019), bystander and prosocial behavior (Nickerson et al., 2024; Pérez Ordás, Pozo and Cruces, 2020) in the PE context. Studies in the literature show that teachers/candidates tend to take responsibility for intervening in bullying (Ellis et al., 2016; Gizzarelli, Burns and Francis, 2023). Yet, they have difficulties in detecting bullying in the classroom, as they believe it mostly occurs in the corridors and outside the school; therefore, they tend to pass on the responsibility to administrators and other teachers in these areas (Mahon, Packman and Liles, 2023).

Aims and Research Questions

Recent research on bullying appears to fall short in explaining why some teachers/teacher candidates exhibit intervention behaviours such as tackling bullying or helping the victim, while others tend to ignore it. It is well recognized that a wide range of characteristics influences teacher candidates' attitudes towards bullying, and that these factors may affect how they respond to bullying incidents in teaching practice or in an actual school setting in the future. Previous studies have identified demographic factors, such as gender, age, or teaching experience, as being associated with perceptions of bullying or taking responsibility in responses to those incidents (de las Heras et al., 2022; Soos et al., 2025). Studies indicate that female teacher candidates generally show higher empathy and intervene more frequently, whereas senior candidates tend to take the incident more seriously. With greater teaching experience, they often report higher self-confidence and a greater likelihood of intervening (Amanaki and Galanaki, 2014; Lester et al., 2018). The attitudes or behaviours of PETC towards bullying are complex and not one-dimensional. Especially, PETC tend to adopt the same teaching style and teaching approaches they experienced during their student years (Wei and Graber, 2024), making teacher training indispensable for changing these beliefs. Up to this date, studies on bullying attitudes have largely focused on teachers or students, with only a few studies examining the responses of teacher candidates (Mahon, Packman and Liles, 2023), and this gap is even more evident in the context of PE (Wei and Graber, 2023). While responsibility studies mainly focus on teachers' accountabilities or students' educational outcomes (Çetin and Eren, 2022), research on teacher candidates remains limited (Lauermann and Karabenick, 2013; Eren, 2014; Eren and Çetin, 2019). So far, attitudes are known to be an important factor in understanding behaviours, but it has remained largely unclear how PETC's sense of responsibility might relate to forming these beliefs. We believe that this study represents a fundamental element for the development of both theory and intervention research, and it holds an important place in understanding the factors that may positively or negatively influence candidates' standpoints. Although these studies provide important insight into the potential reactions of teacher candidates to bullying, studies addressing PE, particularly in Hungarian PETCs, remain under-documented and inadequately analysed. In light of the insufficiency of research, this study seeks to explore the following questions: a) Are there any differences in the levels of personal and social responsibility and attitudes toward bullying among PETCs based on demographics? b) What is the relationship between personal and social responsibility levels and attitudes towards bullying among PETC? c) To what extent do demographics, personal and social responsibility levels predict PETC's bullying attitudes?

MATERIALS AND METHODS

Design

The study was conducted using a quantitative methodology, employing a correlational survey method to inductively examine the relationships between teacher candidates' sense

of responsibility, their attitudes towards school bullying, and the research variables.

Participants

The study population consists of 3rd-, 4th-, and 5th-year PETCs studying in Budapest. A total of 164 students participated in the study. Among these participants, 84 (51.2%) were female, 80 (48.8%) were male ($M_{gender} = 1.48$). As for year of study, 67 (40.9%) were 5th year, 39 (23.8%) were 4th year, and 58 (35.4%) were 3rd year students ($M_{class} = 2.05$). Regarding teaching/coaching experience, 124 (75.6%) had experience, while 40 (24.4%) did not have teaching/coaching experience ($M_{experience} = 1.24$).

Instruments and Data Collection Procedure

The ethical permission was obtained from the Hungarian University of Sports Science Ethics Board (MTSE-KEB/No09/2025). After the purpose of the research was explained to the participants, data were collected voluntarily, outside class hours, in accordance with ethical rules. The data was collected via Google Forms in April 2025.

Demographic Form: the form consists of the information about the participant's gender, teaching/coaching experience, and year of study.

Personal And Social Responsibility Questionnaire

(PSRQ): Participants completed a Hungarian translation of PSRQ developed by Watson, Newton, and Kim (2003) for measuring responsibility in PE. The questionnaire was later adapted for the school context by Li, Wright, and Rukavina (2008) and for the Hungarian and Spanish university contexts by Soos et al. (2025). For this study, the questionnaire was further modified to apply to PETC. For instance, the item "*I give a good effort*" was adapted for the educational environment as "*I work hard to perform well in the classroom.*" This 6-point Likert-type scale has two sub-dimensions, each with seven items, called Social Responsibility ($\alpha = .88$) and Personal Responsibility ($\alpha = .81$). Total Responsibility Cronbach's α coefficient was .88. Reverse-coded item 14 was removed due to its low factor loading and Cronbach value.

Attitudes Toward School Bullying Scale: Attitudes towards bullying were assessed with the Hungarian translation of the *Attitudes Toward School Bullying Scale* developed by Yeşilyaprak and Dursun Balanuye (2012). The questionnaire was further modified in this study so that the PETC can understand possible situations. The scale is a 5-point Likert-type scale consisting of 25 items. Extended version "*students who witness bullying and remain silent will allow the bullying to continue.*" to give deeper understanding we add context for "staying silent" such as (*e.g., by not reacting, not reporting it to an adult*) or "*I hate the bully,*" to "*I feel a deep hatred toward the bully due to their harmful and destructive behaviours*" to direct the negative emotion toward the situation rather than directly toward a person. The scale consisted of four subscales, including Ignoring (10 items, $\alpha = .71$), Humanistic (7 items, $\alpha = .73$), Authoritarian (4 items, $\alpha = .57$), and Tough (4 items, $\alpha = .76$) Attitude. The Cronbach value for the overall scale was .79.

In the original study the Cronbach value for the overall scale was .78 and the subscales varied between .55 to .72. While higher scores in total attitudes reflect are more conscious, sensitive, prone to bullying in recognising and noticing bullying, high scores in subscales indicate; Ignore: dismissive approach; Humanistic: empathic and supportive approach; Authoritarian: delegate handling to the administrators; Tough: harsh and punitive approach.

Data Analysis

Statistical analysis was performed with SPSS 29.00 and Jamovi software. To verify normality, we used Kolmogorov-Smirnov. The results of the test showed an absence of normality. After descriptive statistics (mean, median, SD, skewness, and kurtosis), internal consistency was assessed using Cronbach's alpha, reflecting acceptable to good levels of reliability except for the Authoritarian subscale with four items (.57), which is below the ideal levels, but this is anticipated and accepted due to the limited items (Taber, 2018). Mean comparisons and significance testing

were conducted using nonparametric tests. The Mann-Whitney U test was used for comparing two samples, and the Kruskal-Wallis test for more than two samples, followed by the Bonferroni post hoc test. Associations were examined using Spearman correlation, direct effects were evaluated with GLM multivariate analysis, and prediction was evaluated with Hierarchical Regression Analysis. Effect size was calculated by using partial eta squared (η^2), with values interpreted as a small $\eta^2 = 0.01$, medium $\eta^2 = 0.06$, and large $\eta^2 = 0.14$ (Richardson, 2011). A significance level of $p < 0.05$ was used for the interpretation of all statistical results.

RESULTS

The Mann-Whitney U test was employed to analyse whether there were differences according to gender. As shown in Table 1, female candidates scored significantly higher scores in Ignore, Humanistic, Tough, and Total Attitude subscales compared to male candidates ($p \leq .05$). In addition, there is no difference in the PR, SR, Total Responsibility, Tough, and Authoritarian Attitude sub-scales ($p > .05$).

			<i>n</i>	Mean Rank	<i>U</i>	<i>p</i>	<i>r</i>
Personal and social responsibility subscales	PR	Female	84	84.56	3787.000	.568	-
		Male	80	80.34			
	SR	Female	84	85.46	3111.500	.405	-
		Male	80	79.39			
	TR	Female	84	85.48	3119.500	.410	-
		Male	80	79.37			
Attitudes towards school bullying subscales	Ignore	Female	84	94.54	2349.000	.001*	-0.26
		Male	80	69.86			
	Humanistic	Female	84	91.70	2587.000	.011*	-0.19
		Male	80	72.84			
	Authoritarian	Female	84	80.86	3222.000	.647	-
		Male	80	84.23			
	Tough	Female	84	92.59	2512.500	.005*	-0.21
		Male	80	71.91			
	Total Attitudes	Female	84	95.02	2308.500	< .001*	-0.27
		Male	80	69.36			

* $p < 0.05$; TR = Total Responsibility

Table 1: Results of the Mann-Whitney U test for comparing bullying attitudes and responsibility level based on gender

The Kruskal-Wallis test results, as shown in Table 2, indicated significant differences across years of study in the Ignore, Humanistic, and Authoritarian Attitude sub-scales ($p < .001$). Post-hoc comparisons revealed that the 4th year students exhibited significantly higher scores in Ignore and Humanistic Attitude. Notably, 5th-year candidates exhibit the highest Authoritarian and the lowest humanistic attitudes. On the other hand, no significant differences were found in PR, SR, Total Responsibility, Tough, and Total Attitudes across groups ($p > .005$).

To explain clearly the interaction between attitudes towards school bullying and responsibility, a scatter plot was created (Fig. 1). The Mann-Whitney U test was applied to examine whether there were significant differences based on teaching/coaching experience. According to Table 3, no statistical difference was observed between those with teaching/coaching experience and those without teaching/coaching experience on bullying attitudes and responsibility levels ($p > .05$).

Variable	Year of study	χ^2	df	p	Mean Rank	Group comparison	Adjusted p-value
PR	3 rd year	5.19	2	.07	71.12		
	4 th year				88.87		
	5 th year				88.64		
SR	3 rd year	2.97	2	.22	81.77		
	4 th year				93.09		
	5 th year				76.97		
Total Responsibility	3 rd year	3.30	2	.19	74.65		
	4 th year				92.37		
	5 th year				83.55		
Ignore	3 rd year	23.17	2	< .001*	90.78	5 th -3 rd year	.002*
	4 th year				105.23	5 th -4 th year	.000*
	5 th year				62.10	-	-
Humanistic	3 rd year	25.36	2	< .001*	93.39	5 th -3 rd year	.000*
	4 th year				103.87	5 th -4 th year	.000*
	5 th year				60.63	-	-
Authoritarian	3 rd year	17.88	2	< .001*	69.17	5 th -3 rd year	.000*
	4 th year				70.17	4 th -5 th year	.003*
	5 th year				101.22		
Tough	3 rd year	4.34	2	.11	79.53		
	4 th year				96.14		
	5 th year				77.13		
Total Attitudes	3 rd year	5.62	2	.060	80.40		
	4 th year				97.76		
	5 th year				75.44		

Note: *Bonferroni adjusted Dunn test significance

Table 2: Results of the Kruskal-Wallis Test for comparing bullying attitudes and responsibility level based on year of study

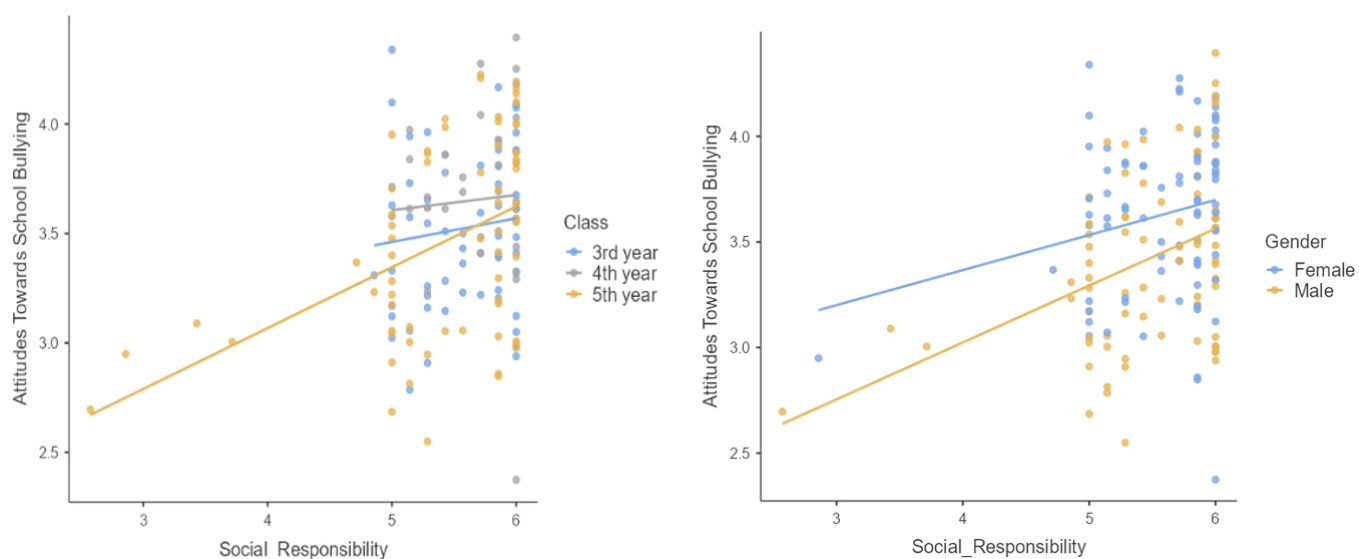


Figure 1: Scatter Plot

			<i>n</i>	Mean Rank	<i>U</i>	<i>p</i>
Personal and social responsibility subscales	PR	Yes	124	85.21	2144.500	.197
		No	40	74.11		
	SR	Yes	124	85.30	2132.500	.175
		No	40	73.81		
	Total Responsibility	Yes	124	85.21	2144.000	.198
		No	40	74.10		
Attitudes towards school bullying subscales	Ignore	Yes	124	84.54	2226.500	.331
		No	40	76.16		
	Humanistic	Yes	124	83.82	2316.500	.530
		No	40	78.41		
	Authoritarian	Yes	124	86.48	1986.500	.057
		No	40	70.16		
	Tough	Yes	124	84.71	2206.000	.292
		No	40	75.65		
	Total Attitudes	Yes	124	85.78	2006.000	.070
		No	40	72.33		

Table 3: Results of the Mann-Whitney U test for comparing bullying attitudes and responsibility level based on teaching experience

A correlational analysis was conducted to explore the relationship between responsibility and attitudes. Table 4 summarises the results of Spearman's rank correlation analysis. A very strong positive relationship was found between PR and SR ($r = 0.621, p < .001$). SR showed significant but

weak correlations with Ignore ($\rho = .220, p < .01$), Humanistic ($\rho = .247, p < .01$), Tough ($\rho = .193, p < .05$) attitudes and a moderate correlation with Total Attitudes ($\rho = .279, p < .01$). PR showed only a weak but significant correlation with Total Attitudes ($\rho = .156, p < .05$).

	1	2	3	4	5	6	7
1. SR	1.00						
2. PR	0.621**	1.00					
3. Ignore	.220**	.079	1.00				
4. Humansitic	.247**	.118	.433**	1.00			
5. Authoritarian	.069	.010	.005	-.285**	1.00		
6. Tough	0.193*	0.142	.404**	.213**	.296**	1.00	
7. Total Attitudes	0.279 **	0.156*	.663**	.456**	0.477**	0.829**	1.00

** $p < 0.01$. * $p < 0.05$

Table 4: Correlation analysis of personal and social responsibility and their relationship with bullying attitudes towards bullying

To determine the predictive effects of demographics, PR, and SR levels of PETCs on bullying attitudes, a two-step hierarchical regression was conducted (Table 5). Total Responsibility was excluded due to the multicollinearity problem. The independent variables were entered as follows: Step 1 included gender and year of study, and Step 2 included PR and SR. In the first step, demographic variables significantly explained 13.3% of the variance in Ignore Attitude ($p < .001$). In Step 2, PR and SR were incorporated into the equation, resulting in an improvement in the model, with the variance explained increasing to 18.7% ($p < .001$). SR was the strongest predictor of Ignore Attitude ($\beta = .254, p < .01$). In Humanistic Attitude, demographic variables explained 15.5% of the total variance ($p < .001$). In the second step, when PR and SR were added, the model improved. Likewise, SR was the strongest predictor ($\beta = .239, p < .05$)

along with gender ($\beta = -.239, p < .001$) and year of study ($\beta = .273, p < .001$). While the first model explained 10.1% of the variance in the Authoritarian Attitude ($p < .001$), increasing to 11.9% in model 2 ($p < .001$). The best predictor of the model was the year of study ($\beta = .316, p < .001$). Tough Attitude showed the lowest variance. While 4.9% was explained in Model 1 ($p = .017$), with the addition of PR and SR, the explanation increased to 9.9% ($p = .002$). The only significant predictor for this attitude was gender ($p < .05$). Finally, for Total Attitude, demographic variables explained 7.3% of the total variance ($p = .002$), while SR and PR added in model 2 increased the explanatory power to 40.3% ($p < .001$). The strongest predictors in the model were determined as gender ($\beta = -.228, p < .01$) and SR ($\beta = .315, p < .01$). Overall, SR and gender were the most significant factors in predicting PETC's bullying attitudes.

Dependent variable	Model	R	R ² change	F(df)	P	Prediction
Ignore	Step 1	.365	.133	F(2, 161) =12.37	< .001	Gender: $\beta = -.263$ $t = -3.575^{**}$ YOS: $\beta = -.266$ $t = -3.626^{**}$
	Step 2	.432	.053	F(4, 159) =9.13	< .001	Gender: $\beta = -.237$ $t = -3.289^{**}$ YOS: $\beta = -.228$ $t = -3.081^{**}$ SR: $\beta = .254$ $t = 2.866^*$
Humanistic	Step 1	.394	.155	F(2, 161) =14.810	< .001	Gender: $\beta = -.265$ $t = -3.654^{**}$ YOS: $\beta = -.305$ $t = -4.202^{**}$
	Step 2	.459	.056	F(4, 159) =10.627	< .001	Gender: $\beta = -.239$ $t = -3.369^{**}$ YOS: $\beta = -.273$ $t = -3.738^{**}$ SR: $\beta = .239$ $t = 2.736^*$
Authoritarian	Step 1	.317	.101	F(2, 161) =9.012	< .001	YOS: $\beta = .316$ $t = 4.422^{**}$
	Step 2	.345	.018	F(4, 159) =5.361	< .001	YOS: $\beta = .351$ $t = 4.544^{**}$
Tough	Step 1	.222	.049	F(2, 161) =4.172	.017	YOS: $\beta = .005$ $t = -2.834^*$
	Step 2	.314	.049	F(4, 159) =4.340	.002	Gender: $\beta = .011$ 5 $t = -2.575^*$
Total attitudes	Step 1	.270	.073	F(2, 161) = 6.33	.002	Gender: $\beta = -.261$ 5 $t = -3.439^{**}$
	Step 2	.403	.089	F(4, 159) =7.695	< .001	Gender: $\beta = -.228$ 5 $t = -3.121^{**}$ SR: $\beta = .315$ $t = 3.495^{**}$

Note: ** $p < 0.01$. * $p < 0.05$; YOS= year of study

Table 5: Regression analysis of demographic and responsibility predictive roles on bullying attitudes

DISCUSSION

This article aims to investigate how the personal and social responsibility of PETCs affects their attitudes towards bullying and to understand the influence of factors such as gender, year of study, and experience on the formation of these attitudes. Most importantly, it seeks to provide insights into better understanding the factors that influence attitudes and contribute to the development of effective intervention strategies to prevent bullying incidents in PE classes. Many studies show that teacher candidates have negative or positive attitudes towards bullying (Beran, 2005; Craig, Bell and Leschied, 2011; Kahn, Jones and Wieland, 2012; Lester et al., 2018; Kovač and Cameron, 2024). Teacher candidates' attitudes and beliefs about bullying predict whether they will intervene (Banas, 2015; Wei and Graber, 2023). Physical education teachers' attitudes, such as being supportive or authoritarian, influence whether students become victims or bullies (Montero-Carretero and Cervelló, 2019). Therefore, examining the attitudes of PETC is equally important in shaping these early tendencies.

Differences by Demographics in Bullying Attitudes

The literature suggests that individual characteristics, such as gender, age, and experience, are significant factors influencing teachers' perceptions and attitudes towards school bullying (Craig, Pepler and Atlas, 2000; de las Heras et al., 2022). Results from this study revealed that **gender** had a statistically significant effect on attitudes. It was found that female PETC seemed to exhibit more Humanistic, Ignore, Tough Attitudes compared to their male peers. Nevertheless, their general

attitudes were more constructive and positive. Consistent with these findings, Şen and Doğan (2021) reported that female teachers exhibit more Humanistic and Authoritarian Attitudes than their male peers. Similarly, Peterson, Puhl, and Luedicke (2012) found that regardless of the gender of the bully, female physical education teachers or coaches tended to intervene more than their male counterparts. According to de las Heras et al. (2022), the study reported that 20% of teacher candidates preferred to remain ignorant in the face of bullying. These findings may be explained by women exhibiting greater emotional awareness, making them more sensitive to both the bully and the victim. This interpretation is consistent with previous research indicating that female candidates have higher empathy, concern, anxiety most likely intervene and have higher self-confidence than male candidates (Beran, 2005; Yot-Domínguez, Guzmán Franco and Duarte Hueros, 2019; Gizzarelli, Burns and Francis, 2023; Dawes, Starrett and Irvin, 2024) at the same time, they will be more likely exhibit positive bystander responses than males (Macaulay, Boulton and Betts, 2019). Although some studies have indicated gender differences exist in attitudes toward different types of bullying (Craig, Bell and Leschied, 2011; Dawes, Starrett and Irvin, 2024), others have found no significant gender differences (Boulton et al., 2014; Lester et al., 2018).

According to **the year of study**, no differences were found in Tough and Total Attitudes, whereas differences emerged in Ignore, Humanistic, and Authoritarian Attitude. In contrast, previous research reported that year of study does not influence attitudes (Dawes, Starrett and Irvin, 2024). It has been determined that PETC's 3rd and 4th year students take bullying

less seriously and see it as an expected situation, while 5th year candidates see bullying as a more serious problem. Whereas candidates in earlier years tend to adopt more humanistic approaches, final-year candidates display a more disciplinary approach, attributing responsibility to school administrators. A higher year of study may result in candidates perceiving the problem as more serious, which in turn may lead them to consider a more layered approach and authority as essential in the solution process. Similar to the present study, Lester et al. (2018) revealed that teacher candidates' perceptions of their knowledge, prevention, and management skills regarding bullying differed by year of study. Amanaki and Galanaki's (2014) study revealed that teacher candidates in the final year of study expressed greater concern but less confidence in their ability to effectively address bullying compared to those in lower years. Nevertheless, Huang, Liu, and Chen (2018) found that first-year teacher candidates were more empathic to the victim, perceived bullying more seriously, and reported a greater willingness to intervene. As literature is contradictory on this issue, further investigation is needed.

In this study, no statistically significant difference was found in *teaching/coaching experience* on attitudes. Similarly, Dawes, Starrett, and Irvin (2024) found that practical experience did not affect perceived seriousness, empathy, confidence, or intervention likelihood. In contrast, Craig, Bell, and Leschied (2011) found that increased exposure to bullying incidents among teacher candidates was associated with greater confidence and sensitivity in recognising and dealing with bullying.

The results of the Burger et al. (2015) study, which involved teachers, highlighted the importance of experience. They found that teachers with less than five years of teaching experience preferred "enlisting other adults", whereas more experienced teachers preferred to "work with the bully or the victim". This result suggests that young or inexperienced teachers tend to seek assistance from others rather than direct intervention, whereas experienced teachers prefer direct intervention. Goryl, Neilsen-Hewett, and Sweller (2013) found that levels of confidence in addressing bullying were not related to years of teaching or experience; teachers with more or fewer years of teaching felt equally confident. Other studies also support that teachers with higher levels of teaching experience exhibit greater confidence and a higher likelihood of intervening in incidents (Shahrour et al., 2023). These studies indicate that candidates' self-efficacy and intervention methods will change as they gain experience and are exposed to different types of bullying. Therefore, it is essential to acknowledge that experience is a crucial aspect.

Differences by Demographics in Personal and Social Responsibility

It was determined that the sense of responsibility does not differ according to gender, work experience, or years of study. A study by Pozzoli and Gini (2013b) suggests that the sense of responsibility is particularly effective through helping behaviour. In this case, the person must first be aware of the situation, see the incident as an emergency, feel responsible for intervening, know what they are doing, and choose to help. In Mahon, Packman, and Liles' (2023) study, it was

revealed that teacher candidates would take responsibility for keeping their students safe, even in the absence of knowledge about bullying or appropriate responses to it. Another finding from the research was that PETC demonstrated a high level of personal and social responsibility. The findings align with Soos et al. (2025), who examined Hungarian and Spanish PETCs and found that Hungarian female PETCs showed a higher personal and social responsibility. A considerable body of research has shown that teachers/candidates take responsibility for attempting to change student behaviour and intervene (Beran, 2005; Craig, Bell and Leschied, 2011; Gizzarelli, Burns and Francis, 2023).

Predictive Effects of Responsibility and Demographics on Bullying Attitudes

Another aim of the current study was to test whether PR or SR would be associated with PETC attitudes. Our findings revealed that SR was significantly positively associated with various attitudes. PETC with higher SR tend to exhibit stronger Humanistic, Tough, Ignore Attitudes. Such candidates are more likely to adopt empathic and supportive approaches while also endorsing disciplinary strategies in certain contexts, and may exhibit avoidance. An important study by Dawes and Lohrbach (2025) revealed that teacher candidates employ multiple strategies to deal with bullying, ranging from student-centered approaches, such as "referring to a counsellor," to strategies that shift responsibility to others, such as "involving the school principal." Therefore, whether candidates take responsibility for their interventions and responses to bullying or avoid it makes a significant difference. On the other hand, PR was not significantly associated with variables except for a weak positive correlation with overall attitudes. Although PR played a relatively small role, it should be borne in mind that "according to the Bystander Intervention Decision Model, even if a person accepts that the incident is serious or wrong during the intervention, their intervention likelihood will depend on their perception of personal responsibility" (Latané and Darley, 1970; Thornberg, Landgren and Wiman, 2018).

A further aim was to investigate the effects of demographics and responsibility on bullying attitudes in more depth. Hierarchical regression analysis was performed to determine the predictive role to support these findings. The results of the hierarchical regression analysis were as expected; SR was a strong and significant predictor of Ignore, Humanistic, Tough, and overall positive attitude. The effect of SR in the model remained significant even when other variables were controlled, revealing its importance as an independent predictor. On the other hand, PR did not make a significant contribution to attitudes. Among the demographic variables, gender was found to have a high predictive effect, especially in the Ignore, Humanistic, Tough, and total attitude dimensions.

In contrast, the year of study was found to predict the Ignore, Authoritarian, and Tough dimensions. According to a study by Ellis and Shute (2007), teacher reactions to bullying are shaped by their moral orientations and influence the type of response they provide. Those with a care moral orientation predicted a problem-solving response (*empathy, compromise, etc.*), while those with a justice orientation predicted

a rules and sanctions (*punishment, discipline*) response. In this regard, SR can be understood as the ethical obligation that an individual feels toward their surroundings, such as ensuring justice and adhering to rules, and is driven by internal motivation rather than external pressure. However, the largest impact relates to the perceived seriousness of the bullying incident.

For this reason, it is important to foster values such as PR and SR awareness in teacher education. In line with our results, other studies revealed that responsibility predicts an individual's willingness to intervene in bullying incidents (Chen, Chang and Cheng, 2016; Yoon, Sulkowski and Bauman, 2016; Dawes and Lohrbach, 2025) and that SR strongly predicts prosocial behaviours and social skills (Wray-Lake, Syvertsen and Flanagan, 2016; Wei et al., 2023). Although PETCs report a high level of SR, how they perceive SR (e.g., ensuring justice or adhering to rules) in this context remains unclear, which may explain the diverse responses of PETCs. Further research should be conducted on how SR or PR is internalized. Another possible explanation is that people may tend to exhibit more than one reaction in complex situations. Wei and Graber (2024) found particularly striking results for PETCs. Physical education teachers' attitudes towards bullying and their decisions to intervene were influenced by their past experiences and teacher training. People who have had experiences of being both a bully and a victim in their past are likely to develop more than one approach. Likewise, teacher candidates tend to rely on both discipline/punishment and non-confrontational approaches when responding to bullying (Dawes et al., 2023).

In contrast, teachers often adopt more than one approach, combining discipline and adult intervention for bullies with emotional support for victims (Yoon, Sulkowski and Bauman, 2016). An authoritarian attitude appears to be predicted only by the year of study. This approach externalizes intervention in bullying situations and tends to attribute the solution to authority figures, institutional structures, and school administration rather than individual action. As a result, it stands in contrast to other subdimensions that emphasise active individual involvement and instead reflect a more passive orientation. One of the main reasons for this is that "even though they accept that bullying is unacceptable, they do not know exactly how to deal with it, which may lead them to encourage others to take responsibility for the intervention" to change the situation (Begotti, Tirassa and Acquadro Maran, 2017: 178). They may also need the help of the system, school, or institution to increase effectiveness and prefer collaboration with others directly or indirectly involved in the education system (Beran, 2005; Craig, Bell and Leschied, 2011). It should be noted that, as in many other countries, teacher candidates in Hungary do not receive any formal courses on bullying or behaviour management, and their thoughts and future behaviours regarding this incident are often shaped by teaching practice, role models, their experience, or teachers' personal beliefs. Therefore, determining and shaping the attitudes that form the basis of behaviour before graduation may positively affect candidates' approach to bullying once they begin their careers.

Limitations and Future Research Suggestions

Although the study yields interesting results, it has some limitations. Firstly, the focus group of the study consists of the PETC. This limitation may limit the generalisability of the study to other teaching disciplines, countries, and cultures. Although the number of participants is sufficient for the analysis, working with larger and more diverse samples to make stronger inferences may provide stronger evidence about the effect of responsibility on attitudes. Similarly, the fact that attitudes and responsibilities are based on self-reports may have introduced some bias, causing individuals to answer differently than they actually felt. Despite the limitations mentioned above, it is an undeniable fact that the sense of responsibility influences awareness or reactions to bullying. Witnessing or experiencing serious situations where people may be harmed, such as bullying, may affect the tendency to intervene. Therefore, a longitudinal study design can be designed for future studies on attitudes and responsibility to examine their changes over time and the effects of these factors.

CONCLUSIONS

In conclusion, this study served as an important attempt to explore the potential influencing factors of PR or SR on PETC's attitudes toward bullying and to gain insight into their effects. When we evaluated these findings, we discovered that SR has a significant and strong predictive effect on PETC's attitudes towards bullying, specifically in the areas of Ignore, Humanistic, Tough, and overall attitudes. It is believed that understanding the factors underlying the formation of beliefs and attitudes of PETC towards bullying will provide new opportunities, particularly for policymakers and educational institutions. This is consistent with Nickerson et al. (2024: 5), who argue that "responsibility is a key element of overcoming some of the barriers to taking action to help in the situation". The current study suggests that policymakers, teacher educators, and anti-bullying programs should consider the possible contributions of candidate-related attitudes, beliefs, values, and emotions to combating bullying, as well as their connection to personal, social, or professional responsibility. Together with their professional and pedagogical training, these elements can be shaped within the framework of educational accountability, paving the way for future educators to take responsibility for their choices, take action when needed, and develop a solution-oriented approach.

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