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# Adolescents' psychological well-being and self-esteem in the context of relationships at school

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*Background:* The school environment has shown itself to be an important factor in explaining adolescent behaviour. The relationships and experiences that pupils have at school have been found to influence their development, psychological well-being, self-esteem and social adjustment.
*Purpose:* The aim of the study is to explore whether there is a relationship between pupil–peer and pupil–teacher relationships and psychological well-being and self-esteem, and whether this relationship varies according to pupils' experience of bullying or being bullied.
*Sample:* Data consisted of a sample of 3694 students (mean age ± SD 14.3 ± 0.62 years; 51% girls) from elementary schools in Slovakia.
*Design and method:* Questionnaires were administered to the students. In terms of data analysis, linear regression was firstly used in the whole sample to explore pupil–peer and pupil–teacher relationships and psychological well-being (the depression/anxiety and social dysfunction subscales of GHQ-12) and self-esteem (positive and negative self-esteem subscales of RSE). Next, the whole sample was divided into four groups in terms of involvement in bullying (normative contrasts, passive victims, aggressive non-victims and aggressive victims). Linear regression was used to explore the associations between pupil–peer and pupil–teacher relationships with the two factors of psychological well-being and two factors of self-esteem in these four groups.
*Results:* As findings showed, better pupil–peer relationships and also pupil–teacher relationships were significantly related statistically to less depression/anxiety and social dysfunction, as well as to more positive and less negative self-esteem. All bullying categories were significantly related to pupil–peer relationships and the four dependent variables. However, in the categories of aggressive victims and aggressive non-victims, the pupil–teacher relationship was not significantly related to their psychological well-being and self-esteem. Also, in all subgroups, better pupil–peer relationships were significantly related to less depression/anxiety and social dysfunction, as well as with more positive and less negative self-esteem.
*Conclusion:* Given the differences found in the connections between pupil–teacher relationships and well-being and self-esteem, between those who bullied and those

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who were bullied, it would seem that the school environment can play an important role in implementing anti-bullying prevention strategies.

**Keywords:** psychological well-being; self-esteem; relationships at school; adolescents



## Introduction

The school environment has shown itself to be an important factor in explaining adolescent behaviour. The relationships and experiences that pupils have at school have been found to influence their development, psychological well-being, self-esteem and social adjustment (Murray and Greenberg 2000; Barth et al. 2004). The opportunity to experience stable relationships, responsibility, motivation, feelings of safety and positivity, as well as a sense of social relatedness, can have a powerful influence on the mental health of pupils.

When students feel that they belong and have supportive relationships with their teachers and classmates, they are motivated to participate more actively in classes and school life (Hughes and Kwok 2007). They are also less likely to be involved in problematic behaviour such as bullying (Hawkins and Catalano 1992). In their study, Barth et al. (2004) highlighted the relationship between individual behaviour, the classroom and school. Both of these environmental factors were found to play a role in accounting for children's aggression and peer relations.

Relationships between pupil and teacher as well as peer relationships can have an immediate effect on adolescents' social outcomes (Kilpatrick et al. 2000; Wentzel 2003; Bacchini, Esposito, and Affuso 2009; Cassidy 2009) as well as shaping their behaviour after they leave school. Supportive relationships with teachers, classroom climate and teachers' attitude towards students, in addition to feeling safe and connected to the school, can provide pupils with the environmental and social support that is essential for mental health (Glover et al. 2000; Pianta 2002). On the other hand, findings from a qualitative study by Athanasiades and Deliyanni-Kouimtzis (2010) have suggested that pupils do not perceive teachers as being supportive and portray them as indifferent toward bullying and ineffective in their interventions. Relationships with peers have also been found to play a critical role in the development of social skills and feelings that are necessary for personal growth and social adjustment (La Greca and Lopez 1998). Moreover, while peer relationships may have a positive influence on psychosocial development, such as good psychological well-being and positive self-esteem, when pupils are not exposed to these relationships there could be a risk of problematic behaviour such as drug abuse, alcohol abuse and bullying (Patterson et al. 2000; Goldstein et al. 2005). Reciprocal relationship has been suggested between acceptance/rejection in peer relationships, social adjustment and bullying where a 'vicious cycle' leads to a progressive increase in peer rejection and victimisation (Harris 2009).

Previous studies have shown that this risk-taking and problematic behaviour belongs to aspects of school life that have a considerable influence on pupils' psychosocial development (Hawker and Boulton 2000; Bond et al. 2001; Rigby 2003). In particular, bullying in schools has been recognised as a serious problem in recent years (Roland and Galloway 2002). Bullying has been defined as a deliberate and repeated long-term exposure to negative acts performed by a person or group of persons regarded of higher status or greater strength than the victim (Harel-Fisch et al. 2011). It implies an imbalance of power (physically, psychologically or otherwise) between the bully and

the victims (Olweus 1994) and may involve verbal acts such as threats, insults and nicknames, physical acts such as assault or theft or social acts such as exclusion from the peer group (Harel-Fisch et al. 2011). The school environment is a place where bullying often happens, and this has a detrimental effect on both victims and offenders (Ma 2002). Victims often suffer from a great loss of self-esteem that can linger into adult life (Boulton and Underwood 1992; Olweus 1994). This relationship between bullying and self-esteem has been confirmed in other studies (Hawker and Boulton 2000; O'Moore and Kirkham 2001). At school, victims were often found to be unpopular among peers as well as their teachers. Based on qualitative study by Thornberg (2010), bullied children were interpreted by their peers as deviant, different, or odd, which in turn provokes others to bully them. They were rejected by their classmates and had few friends. On the other hand, bullies reported higher levels of popularity among peers. They were usually leaders and the centre of attention in a group (Perren and Hornung 2005). Other studies have shown that being bullied at school is a source of stress that can potentially have a significant effect on well-being (Slee 1994; Bond et al. 2001). However, when adolescents feel like they are part of their school, they are less likely to engage in bullying and they report higher levels of emotional well-being (Rigby 2003; McNeely et al. 2002). Therefore, it appears that there are differences in the psychological and social aspects of passive victims, aggressive victims and aggressive non-victims. Also, other studies on bullying suggest three separate groups involved in school violence – bullies, victims and those who are both bullies and victims, each group associated with specific characteristics, environmental influences and social implications (Ball et al. 2008). The additional value of this study is the addition of a group of those who are not victims of bullying and do not bully others (normative contrasts). This group was usually not present in previous studies comparing these different groups.

As the cross-national Health Behaviour in School-aged Children study (HBSC) has shown, violence among adolescents has emerged as a major concern in most countries. However, there are large cross-national differences in the prevalence of bullying behaviour (Currie et al. 2008). There are many reasons for the above-mentioned differences in the prevalence of bullying. One of the reasons could be the diversity of educational systems across countries, such as the educational curriculum and the role of the teachers and pupils in education. Definitions and perceptions of bullying may vary by cultural setting and therefore also contribute to observed cross-national variations (Molcho et al. 2009). Based on these possible explanations, the associations between relationships in schools and bullying with some aspects of mental health could be expected to differ. In the countries of Central Europe, the position of a teacher is still seen as dominant in teacher–pupil relationships. There is a lack of studies oriented toward the associations between relationships at school (teacher–pupil and pupil–pupil relationships) and their influence on psychological well-being and self-esteem. The present study, therefore, focuses on the importance of both peer and teacher relationships on psychological well-being and self-esteem among those who are bullied and those who bully.

The aim of the present study is to explore whether (1) there is a relationship between pupil–peer relationships and psychological well-being and self-esteem, (2) there is a relationship between pupil–teacher relationships and psychological well-being and self-esteem, and whether (3) this relationship varies according to pupils' experience of bullying or being bullied.

## Methods

### *Sample*

In 2006, a sample of 3725 adolescents was drawn from the 8th and 9th grades at elementary schools in major Slovak cities representing different parts of the country: Bratislava (approximately 425,000 inhabitants, Western Slovakia), Zilina (approximately 157,000 inhabitants, Northern Slovakia), Kosice (approximately 240,000 inhabitants, Eastern Slovakia) and other smaller cities (approximately 20,000–40,000 inhabitants) in the eastern region of Slovakia. The study sample was evenly divided by gender (49% boys, 51% girls) and students ranged from 11 to 17 years old (mean age ± SD 14.3 ± 0.65 years). From the sample, 24.6% came from Bratislava, 21.3% from Zilina, 32.1% from Kosice and 22% from other eastern region cities. Students under the age of 13 and over 16 were excluded in order to ensure a more homogeneous sample and thus avoid the influence of age extremes. Subsequently, the study sample consisted of 3694 students (mean age 14.3 ± 0.62 years). The schools and classes were selected randomly in each region. School directors were asked for permission for participation. After their approval and the approval of parents, researchers and research assistants administered questionnaires during two regular 45-minute lessons in a complete 90-minute time period on a voluntary and anonymous basis in the absence of teachers. The overall response rate was 93.5%. Non-response was due to illness or other types of school absence. The local Ethics Committee approved the study.



### *Measures*

*Psychological well-being* was measured using the two factors 'depression/anxiety' and 'social dysfunction' from the 12-item version of the General Health Questionnaire (GHQ-12) (Goldberg and Milliams 1988). The factor 'depression/anxiety' consisted of items 2, 5, 6, 9, 10 and 11 (loss of sleep, under strain, overcoming difficulties, feeling unhappy, loss of self-confidence, and feeling worthless). Items 1, 3, 4, 7, 8 and 12 (concentration, playing a useful part, making decisions, enjoying activities, facing up to problems and feeling happy) were components of the factor 'social dysfunction' (Sarkova et al. 2006). The questions compared how the respondents' present state differed from their usual state. A 4-point Likert scale (0, 1, 2 and 3) was used, with scores for each factor ranging from 0 to 18. Higher score indicated poorer psychological well-being. Cronbach's alpha was found to be 0.82 for depression/anxiety' and 0.65 for 'social dysfunction'. The social dysfunction subscale consisted of only six items and thus had a lower Cronbach's alpha in comparison with other subscales. Considering the combination of the length of the subscale and Cronbach's alpha, the mean inter-item correlation (MIIC) was satisfactory. Here the MIIC was 0.23. According to Clark and Watson (1995), the MIIC should not be less than 0.15.

*Self-esteem* was measured using the two factors 'positive self-esteem' and 'negative self-esteem' from the Rosenberg Self-esteem Scale (RSE) (Rosenberg 1965). Items 1, 3, 4, 7 and 10 (satisfied with self, having good qualities, equal to others, feeling valuable and a positive attitude) belonged with the factor 'positive self-esteem'. Items 2, 5, 6, 8 and 9 (no good at all, not proud, feeling useless, lack of respect, and feeling a failure) were components of the factor 'negative self-esteem' (Sarkova et al. 2006; Halama 2008). Each item in both factors had four response options (1 = strongly agree, 2 = agree, 3 = disagree, 4 = strongly disagree), and the score for each factor ranged from 5 to 20. Lower positive self-esteem scores indicated higher self-esteem while lower

negative self-esteem scores indicated higher negative self-esteem. Cronbach's alpha for 'positive self-esteem' was 0.74, and for 'negative self-esteem' was 0.64. Positive and negative self-esteem subscales consist of only five items and thus has a lower Cronbach's alpha in comparison with other subscales. Considering the combination of the length of the subscales and Cronbach's alphas, the mean inter-item correlation (MIIC) is satisfactory. Here the MIIC was 0.36 for positive self-esteem and 0.26 for negative self-esteem. According to Clark and Watson (1995), the MIIC should not be less than 0.15.

*The pupil–peer relationship* was measured using question number 27 from the Pupils' questionnaire of the OECD Programme for International Student Assessment 2003. The respondents expressed their feelings based on the climate and relationships in their classroom with regard to eight statements 'My classroom is place where …': (1) I don't feel a part of the group; (2) I make friends easily; (3) I feel I belong; (4) I feel awkward and inconvenient; (5) others pupils obviously like me; (6) I feel alone; (7) I am often bored; and (8) I don't like to go. The answer possibilities used a 5-point scale from 1 = 'strongly agree' to 5 = 'strongly disagree'. The sum score ranged from 8 to 40, with a lower score indicating better relationships. Cronbach's alpha for this questionnaire was 0.83.

*Pupil–teacher relationships* were measured using 15 statements in which the respondents expressed opinions about their teachers. The measure was inspired by and adapted from the Inclusion of Other in the Self (IOS) Scale developed by Aron, Aron, and Smollan (1992). The concept of parents was replaced with concept of teachers, as this was more suitable for the aims of this study. Each of these statements (e.g. 'they like me a lot', 'they are very conscionable', 'they usually praise me', 'they help me a lot') started with the following question 'When you think about your study in elementary school, how do your teachers behave towards you?' The answers were on a 7-point scale from 1 = 'strongly agree' to 7 = 'strongly disagree'. The sum score ranged from 15 to 105. A lower score reflected better relationships between the pupil and teacher. Cronbach's alpha for this scale was 0.83.

*Bullying behaviour* was measured by two questions in six bullying categories. This measure was inspired by the questions regarding bullying at schools previously used in the international study into Health Behaviour in School-aged Children (HBSC) (Currie et al. 2008). The respondents answered the questions 'Have you ever been part of following situations?' and 'Have the following situations ever happened to you?' in six categories: (1) physical assault, beating; (2) unpermitted borrowing of things; (3) enforcement of senseless orders; (4) ridicule or cruel nicknames; (5) threats, verbal insults; (6) intimidation. Respondents were then divided into four distinguishable character profiles associated with bullying: normative contrasts (those who neither bully nor are bullied); passive victims (those who are/were bullied); aggressive non-victims (those who bullied); and aggressive victims (those who bullied and who are also bullied) (Schwartz 2000; Woods and White 2005).

### *Statistical analyses*

Firstly, linear regression was used in the whole sample to explore the associations between pupil–peer and pupil–teacher relationships and psychological well-being and self-esteem. The two factors of psychological well-being (the depression/anxiety and social dysfunction subscales of GHQ-12) and self-esteem (positive and negative self-esteem subscales of RSE) were used as dependent variables. Next, the whole sample was divided into four groups (normative contrasts, passive victims, aggressive

non-victims and aggressive victims) and linear regression was used to explore the associations between pupil–peer and pupil–teacher relationships with the two factors of psychological well-being and two factors of self-esteem in these four groups. Analyses were carried out using the statistical software package SPSS version 12.1.

## Results

Firstly, we analysed the connections between pupil–peer and pupil–teacher relationships with the 'depression/anxiety' and 'social dysfunction' factors of the GHQ and the 'positive' and 'negative self-esteem' factors of the RSE in the whole sample. Simple linear regression instead of multiple regression was used in order to explore specifically how each separate independent variable is related with chosen dependent variables. Both pupil–peer and pupil–teacher relationships had a strong relationship with all dependent variables ($p < 0.001$) (Table 1). The better the relationships pupils reported, the better their psychological well-being, the higher their positive self-esteem and the lower their negative self-esteem.

Next, the sample was divided into the four groups associated with bullying behaviour (normative contrasts, passive victims, aggressive non- victims and aggressive victims) and the analysis was repeated in each of these groups. Table 2 shows the number of respondents in each group. The relationship between pupil–peer and pupil–teacher relationships with both factors of the GHQ and the RSE was explored in separate groups.

### *Normative contrasts*

In the normative contrasts group (those who neither bully nor are bullied) all relationships between both the pupil–peer and pupil–teacher relationships and the dependent variables were found to be statistically significant (Table 3).

### *Passive victims*

The results for the passive victim group (those who are/were bullied) were found to be similar to those of the group of normative contrasts, whereby all dependent variables were statistically related to the pupil–peer relationships ($p < 0.001$). Similarly, the relationships between the pupil–teacher relationships and all dependent variables were found to be significant (Table 3).

Table 1. Pupil–peer and pupil–teacher relationships related to two factors of psychological well-being and self-esteem.

| | GHQ- 12 | | RSE | |
|---|---|---|---|---|
| | depression/ anxiety β | social dysfunction β | positive self-esteem β | negative self-esteem β |
| Pupil–peer relationships | −0.20*** | −0.17*** | 0.25 *** | −0.27 *** |
| Pupil–teacher relationships | −0.10 *** | −0.11 *** | 0.10 *** | −0.08 *** |
| $R^2$ | 6% | 6% | 8% | 9% |
| *F*-value | 89.22 | 74.60 | 126.14 | 132.30 |

Note: ***$p$<0.001.

Table 2. Number of respondents in the groups split by bullying behaviour.

| Bullying behaviour | N | (%) |
|---|---|---|
| Normative contrasts | 1334 | (36.1) |
| Passive victims | 1243 | (33.6) |
| Aggressive non-victims | 413 | (11.2) |
| Aggressive victims | 704 | (19.1) |
| Total | 3 694 | |

Definitions:
Normative contrasts – those who neither bully nor are bullied;
Passive victims – those who were bullied;
Aggressive non-victims – those who bullied;
Aggressive victims – those who bullies and who are also bullied.



### *Aggressive non-victims*

In the aggressive non-victims group (those who bully), the relationships between pupil–peer relationships and all dependent variables were found to be significant. In addition, the relationship between pupil–teacher relationships and 'depression/anxiety', 'social dysfunction' and 'negative self-esteem' were significant. However, the positive self-esteem factor of the RSE was not significantly related to the pupil–teacher relationships in this group (Table 3).

### *Aggressive victims*

For the aggressive victims (those who were bullied and also bully), the relationships between the pupil–peer relationships with all dependent variables were found to be significant (Table 3). Pupil–teacher relationships were significantly related to 'social dysfunction' and 'positive self-esteem' but not significantly related to 'depression/anxiety' and 'negative self-esteem'.

The independent variables (pupil–peer and pupil–teacher relationships) explained between 3% and 16% of the variance of the dependent variables. The highest explained variance (16%) was in positive self-esteem for the group of passive victims. In addition, 11% of explained variance was found in the group of passive victims for negative self-esteem and 10% of explained variance for social dysfunction in the group of aggressive non-victims (Table 3).

## Discussion

This study aimed to explore the relationship between pupil–peer and pupil–teacher relationships with regard to psychological well-being and self-esteem in the context of bullying. The study found that relationships in school are strongly related to psychological well-being and self-esteem among adolescents. In particular, the study found that for the whole sample, pupil–peer and pupil–teacher relationships are statistically significant regarding depression/anxiety and social dysfunction of psychological well-being as well as for positive and negative self-esteem. This supports the findings of previous studies that have shown that pupils who are satisfied with their relationships at school report higher levels of emotional well-being (McNeely et al. 2002; Rigby 2003). Those who reported better relationships had better psychological well-being, higher positive self-esteem and lower negative self-esteem.

Table 3. Linear regression: the pupil–peer and pupil–teacher relations with two factors of psychological well-being and self-esteem in four profiles related to bullying.

| | GHQ- 12 | | | | RSE | | | |
|---|---|---|---|---|---|---|---|---|
| | 'Depression/anxiety' | | 'Social dysfunction' | | 'Positive self-esteem' | | 'Negative self-esteem' | |
| | β | p | β | p | β | p | β | p |
| Normative contrasts | | | | | | | | |
| Pupil–peer relationships | −0.17 | 0.00 | −0.13 | 0.00 | 0.19 | 0.00 | −0.27 | 0.00 |
| Pupil–teacher relationships | −0.09 | 0.00 | −0.11 | 0.01 | 0.12 | 0.00 | −0.06 | 0.05 |
| $R^2$ | 5% | | 3% | | 6% | | 8% | |
| *F*-value | 25.43 | | 15.83 | | 34.50 | | 48.84 | |
| Passive victims | | | | | | | | |
| Pupil–peer relationships | −0.24 | 0.00 | −0.22 | 0.00 | 0.32 | 0.00 | −0.28 | 0.00 |
| Pupil–teacher relationships | −0.10 | 0.00 | −0.13 | 0.00 | 0.17 | 0.00 | −0.12 | 0.00 |
| $R^2$ | 8% | | 8% | | 16% | | 11% | |
| *F*-value | 43.67 | | 41.10 | | 89.30 | | 59.88 | |
| Aggressive non-victims | | | | | | | | |
| Pupil–peer relationships | −0.15 | 0.00 | −0.15 | 0.01 | 0.15 | 0.01 | −0.14 | 0.01 |
| Pupil–teacher relationships | −0.19 | 0.00 | −0.24 | 0.00 | 0.10 | 0.29 | −0.15 | 0.01 |
| $R^2$ | 6% | | 10% | | 3% | | 5% | |
| *F*-value | 11.44 | | 16.64 | | 4.52 | | 8.24 | |
| Aggressive victims | | | | | | | | |
| Pupil–peer relationships | −0.15 | 0.01 | −0.15 | 0.01 | 0.19 | 0.00 | −0.23 | 0.00 |
| Pupil–teacher relationships | −0.04 | 0.41 | −0.12 | 0.01 | 0.09 | 0.01 | 0.01 | 0.98 |
| $R^2$ | 3% | | 4% | | 5% | | 5% | |
| *F*-value | 6.88 | | 10.56 | | 12.70 | | 13.92 | |

Note: ***$p<0.001$; **$p<0.01$; *$p<0.05$

The classification of the sample into four categories related to bullying behaviour (normative contrasts, passive victims, aggressive non-victims and aggressive victims) allowed us to explore further the relationship between pupil–peer and pupil–teacher relationships and the dependent variables. The findings showed that for all groups there were significant relationships between pupil–peer relationships in all of the studied factors. However, it appears that, for pupils who bully, the relationship they have with teachers does not play an important role in their psychological well-being and self-esteem, because in this group no significant relationships were found between the aforementioned variables. Previous studies have shown that bullies like to feel dominant and therefore have problems with accepting the authority of teachers (Olweus 1994). These studies, in line with other findings (Ma 2002), also suggest that bullies are not more anxious and do not experience the feelings of low self-esteem in comparison with children who do not bully. On the other hand, several studies have found that pupils who enjoy a close and supportive relationship with their teacher are more engaged in positive activities in the classroom, accept teachers' directions and cope better with stress (Little and Kobak 2003; Hughes and Kwok 2007). Based on these findings, it could be assumed that the quality of pupils' relationships with their teachers has important implications for their behavioural adjustment in the school environment and consequently on their well-being and self-esteem (Meehan, Hughes, and Cavell 2003). However, the results of the present study show that in the group of the aggressive non-victims and aggressive victims, peer relationships seem to play an important role. Peer relationships can have an important influence with regard to bullying behaviour, because they can influence the occurrences of bullying. Low popularity and a lack of friends have been identified as risk factors for victimisation (Perren and Hornung 2005). Similarly, peers in the classrooms provide the audience that bullies require. Bullies are caught in a vicious circle in which they try to make friends to gain respect and admiration from their peers through bullying behaviour. Thus, this study suggests that the school context may have a notable influence on pupils' general subjective well-being. The finding that the teacher–pupil relationships were not related, as was expected in the present study, bearing in mind the position of the teachers at schools in Central Europe, suggests that, potentially, changes may be taking place. The authority of teachers seems to be in decline and suggests an impression of teachers' changing status within society as a whole.

### *Strengths and limitations*

This study has some strengths and some limitations. The strength of the study was that the research sample covered different regions of Slovakia, a Central European country with the target group of adolescents, giving us important information about the prevalence of bullying in the school environment. A limitation was that the cross-sectional study design did not give us the opportunity to study causal mechanisms: a longitudinal study would have provided greater insight into this issue. Another limitation of the present study is not using clinical scoring method, identifying if any of the sample scores above the clinical cut off. In further analysis, this could be explored in more depth across the four bully categories. However, the present study was not focused on a clinical sample and, because of this, clinical scoring was not used. Another limitation of the present study was the use of simple linear regression analysis rather than multiple regressions, which would allow for more precise analysis. Finally, bullying is sensitive subject for self-reporting. Therefore, social desirability should be controlled for in the further analysis. Unfortunately, the design of the current study did not include such a measure.

### *Implications for prevention*

Several findings from the study could be used as the basis for preparation of more effective anti-bullying programmes. Given the differences found in the connections between pupil –teacher relationships and the well-being and self-esteem between those who bullied and those who were bullied, it seems that the school environment could play an important role in implementing anti-bullying prevention strategies. As such, programmes should be oriented towards enhancing relationships between pupils and teachers. In particular, a positive classroom environment provides opportunities for teachers to receive information about bullying as well as to identify victims and bullies among pupils. In addition, the identification of aggressive behaviour at school age could prevent several negative outcomes later on, such as psychosomatic problems, as well as aggressive behaviour in adulthood in the personal (family violence) or professional sphere (mobbing or harassment).



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