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Research article

Correlation of the teacher's locus of control and students' direct aggression towards the teacher

A. A. Rean^{✉1}, A. V. Egorova¹, R. G. Kuzmin¹

¹ Moscow Pedagogical State University, Structure 1, 1 Malaya Pirogovskaya Str., Moscow 119991, Russia

Authors

Arthur A. Rean, SPIN: 3118-2694, Scopus AuthorID: 6507072773, ResearcherID: A-5349-2015, ORCID: 0000-0002-1107-9530, e-mail: aa.rean@mpgu.su

Anna V. Egorova, SPIN: 7848-9620, Scopus AuthorID: 57452033700, ResearcherID: X-7492-2018, ORCID: 0000-0003-3502-9551, e-mail: egrvan18@gmail.com

Roman G. Kuzmin, SPIN: 6858-1057, Scopus AuthorID: 57430723700, ORCID: 0000-0001-8851-5313, e-mail: romquz@gmail.com

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Abstract

Introduction. Students' aggression towards the teacher is a modern and multifaceted problem that affects all participants of educational relations. Attempts to explain the causes of this aggression reveal the contribution of various factors, but their list is far from exhaustive. The authors assume that there is a correlation between direct aggression of adolescents against the teacher and the level of his locus of control.

Materials and Methods. The study involved 5189 teachers (94% female; average age 44.5 (SD = 11.7)) from nine regions of Russia. The USK method (the level of subjective control) designed by E. F. Bazhin, E. A. Golyunkina and A. M. Etkind (Bazhin et al. 1984) was used to assess the level of the locus of control. The subjective evaluations of the teachers' encounter with direct aggression on the part of students were analyzed using a questionnaire developed by the Center for Socialization, Family and Prevention of Antisocial Behavior Research at Moscow Pedagogical State University. Spearman's correlation analysis and multiple regression analysis were used as the key methods of statistical data processing.

Results. The correlation analysis showed significant negative relationships between the level of subjective control of teachers and their encounter with direct aggression from students. The regression analysis showed that the indicator of general internality/externality is the most significant predictor for all indicators of direct aggression, with the exception of the indicator "expressing dissatisfaction with the quality of teaching"—that is, teachers with an external locus of control are more likely to encounter direct aggression from students.

Conclusions. The obtained results contribute to the study of the phenomenology of adolescent aggression towards teachers. The results can also be used by teachers as a basis for self-reflection. Further, the results can be instrumental in psychotherapeutic work and in the design of preventive behavioral and de-victimization programs, professional development programs, coping strategies and trainings for teachers.

Keywords: locus of control, direct aggression, student aggression towards teachers, internality, externality, the level of subjective control, teachers

Научная статья

Взаимосвязь локуса контроля учителя и прямой агрессии учащихся по отношению к нему

А. А. Реан^{✉1}, А. В. Егорова¹, Р. Г. Кузьмин¹

¹ Московский педагогический государственный университет, 119991, Россия, г. Москва, ул. Малая Пироговская, д. 1, стр. 1

Сведения об авторах

Артур Александрович Реан, SPIN-код: 3118-2694, Scopus AuthorID: 6507072773, ResearcherID: A-5349-2015, ORCID: 0000-0002-1107-9530, e-mail: aa.rean@mpgu.su

Анна Викторовна Егорова, SPIN-код: 7848-9620, Scopus AuthorID: 57452033700, ResearcherID: X-7492-2018, ORCID: 0000-0003-3502-9551, e-mail: egrvan18@gmail.com

Роман Геннадьевич Кузьмин, SPIN-код: 6858-1057, Scopus AuthorID: 57430723700, ORCID: 0000-0001-8851-5313, e-mail: romquz@gmail.com

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Аннотация

Введение. Проявление агрессии учащихся по отношению к учителю — современная и многогранная проблема, влияющая на всех участников образовательных отношений. Попытки объяснить причины этой агрессии обнаруживают вклад разных факторов, однако их список далеко не исчерпывающий. Авторы полагают, что существует взаимосвязь между проявлением прямой агрессии подростков в отношении учителя и уровнем его локуса контроля, анализу этой взаимосвязи посвящена данная статья.

Материалы и методы. В исследовании приняли участие 5189 педагогов, проживающих в девяти регионах России. Большинство респондентов женского пола (94%), средний возраст респондентов 44,5 (SD = 11,7). Для оценки уровня локуса контроля была использована методика УСК (уровень субъективного контроля), авторами которой являются Е. Ф. Бажин, Е. А. Голынкина, А. М. Эткинд. Для анализа субъективных оценок столкновения педагогов с прямой агрессией со стороны учащихся была разработана авторская анкета Центра социализации, семьи и профилактики асоциального поведения МПГУ. Для установления статистических взаимосвязей использовался корреляционный анализ по методу Спирмена и множественный регрессионный анализ.

Результаты исследования. Результаты корреляционного анализа показали значимые отрицательные связи между уровнем субъективного контроля педагогов и их столкновением с прямой агрессией со стороны учеников. Результаты регрессионного анализа показали, что по всем показателям прямой агрессии, за исключением показателя «высказывали недовольство качеством преподавания», наиболее значимым предиктором является показатель общей интернальности/экстернальности, то есть педагоги с экстернальным типом чаще сталкиваются с прямой агрессией со стороны учащихся. При этом есть различия относительно прогностичности отдельных шкал уровня субъективного контроля.

Заключение. Полученные результаты вносят вклад в изучение феноменологии подростковой агрессии по отношению к учителям, а также могут стать основой для профессиональной рефлексии педагогов, работы психотерапевтов, проектирования профилактических поведенческих и девиктимизационных программ, а также программ повышения квалификации и тренингов для педагогов.

Ключевые слова: локус контроля, прямая агрессия, агрессия учащихся против учителя, интернальность, экстернальность, уровень субъективного контроля, педагоги

Introduction

Adolescent aggression towards educators is a phenomenon that is being contemplated by psychologists and teachers. Cases of aggression include those directed towards teachers that adolescent students spend most of their time with at an educational institution.

As a rule, mass media report only on criminal cases of bodily harm inflicted on teachers. Extreme cases of aggression are murders (e. g., the murder of Samuel Paty) as well as homicide or grievous bodily harm caused to teachers during school shootings. However, aggression towards a teacher is not limited to cases of bodily harm and includes insults, mockery, disregard, complaints, misbehavior, etc. All these affect a teacher's mental, physical and emotional state.

Aggression towards a teacher has recently come to the fore in the international research agenda (Rean, Egorova 2021; Sobkin, Fomichenko 2012; Huang et al. 2017, etc.). A plethora of scholars have attempted to evaluate the prevalence of aggression towards teachers. The findings showed that the degree of teacher victimization varies between 25% and 80%. Russian studies reveal that 70% of Russian teachers have been bullied by students, while about 80% of US teachers become victims of student aggression at least once during an academic year (Espelage et al. 2013). The data from China indicate that 25% of teachers have experienced student aggression (Yang, Weber 2019). These findings from across the world are concerning and indicate high prevalence of student aggression towards teachers. Besides the research in the prevalence of teacher victimization, scholars have attempted to explain the motivation behind the aggressive behaviour of students towards teachers (Moon, McCluskey 2018 et al.). Thus, the reasons of adolescent aggression include: specifics of social and psychological environment of society; specifics of school environment (Rean, Novikova 2019); triggering factors (Gottfredson et al. 2005); student personality (Moon et al. 2019), and teacher's personality (Jackson, Stevens 2022). A teacher is more likely to be victimized if they show emotional and psychological vulnerability (O, Wilcox 2018), propensity for self-blame (Martinez et al. 2016), differences in information processing (Guy et al. 2017), aggression (Espelage et al. 2013), professional burnout (Winding et al. 2022), etc.

As we see it, one of the reasons for student aggression towards a teacher is the teacher's level of subjective control, i.e., the locus of control. We presume that there is a correlation between cases of adolescent aggression towards a teacher and the

teacher's level of the locus of control. Interestingly, this correlation has been little studied and dedicated research is limited to the correlation between a teacher's locus of control and different aspects of their professional activity and social interactions that, inter alia, include the phenomenon of aggression as a whole. Thus, this article aims to study the correlation between the teacher's locus of control and teacher victimization to bridge the existing research gap.

Theoretical overview and state of the art

Today, the theory, underpinned by empirical studies, states that internality is related to positive personal qualities, socially approved behaviour and mental functioning. According to prior research (Muzdybaev 1983; Rean 2016; Pesudo, Anakonda 2022), internality correlates with social maturity and pro-social behaviour in general. Besides, people with higher internality are more adaptable (Kim, Lee 2018; Türk-Kurtça, Kocatürk 2020), tolerant (Camadan, Sari 2021), single-minded (Rusbandi, Usman 2020), productive (Zigarmi et al. 2018), self-confident and popular (Strong, Gore 2020), satisfied with their job (Padmanabhan 2021), calm, less aggressive (Levy, Gumpel 2022; Zeyin et al. 2022), and more friendly towards others (Rodriguez-Ricardo et al. 2019).

On the opposite, those with a more pronounced level of externality have higher levels of nervousness (Hovenkamp- Hermelink et al. 2019), anxiety (Graham et al. 2022), intolerance, aggression and deviance (Rean 1996; 1998; 2016; Kobayashi, Farrington 2020; Xiao et al. 2018), lower social popularity, and more difficulty in decision-making (Kirdök, Harman 2018). These personal qualities common for internals and externals also become manifest in the professional activity of teachers.

A range of research shows that secondary school teachers tend to exhibit internality. At the same time, the indicators on subscales differ: in one study (Yureva, Yureva 2016), teachers were found to show external subjective control in their family and professional relations, while another study (Grigorovich 2017) revealed that the major contributors to overall internality are internality indicators from personal achievements, professional and interpersonal relations. The article by L. A. Grigorovich concludes that "teachers exhibit high subjective control over emotionally positive experiences and believe that they and their achievements are an important structural factor of their professional activity. They feel that they are capable of making others like and respect them" (Grigorovich 2017, 40–41).

This important conclusion correlates with an idea that the structure of protective and coping behaviour of teachers may include the locus of control together with the indicators of internality in different spheres of a teacher's activity (Antonovskij 2012). The higher the level of a teacher's internality, the more effective the teacher is in using the strategies of protective and coping behaviour in response to aggression exhibited by adolescent students. Thus, in their study of stress resistance in teachers, A. A. Rean and A. A. Baranov note that "highly professional teachers show more pronounced levels of internality as compared to their less professional counterparts" and "highly effective teachers reveal a significant positive correlation between internality in relation to failures and stress resistance" (Rean, Baranov 1997, 50–51). These ideas are supported by the results of other studies (Khan et al. 2012) that show a direct correlation between an internal locus of control, higher stress resistance and higher effectiveness in teachers.

Several studies (Formanyuk 1994; Shingareva 2009; Bitsadze, Japaridze 2016) have revealed a correlation between professional burnout and the locus of control. Thus, teachers with a more internal locus of control are less prone to burnout and more satisfied with their job (Mahajan, Kaur 2012). An important factor of school security are the school rules that, inter alia, regulate which behaviour towards teachers is considered acceptable. According to (Demirkasimoğlu et al. 2012), teachers with an internal locus of control find school rules more functional than their colleagues with higher externality. A school environment with or without school rules in place acts as, respectively, a protective or a provocative factor of adolescent aggression towards teachers. Notably, the development of school rules is moderated by stakeholders (school administration and teachers) with different levels of subjective control.

To conclude, the research to date has established the correlation between the locus of control and the autonomy of teachers, their capability of self-governance, professional fulfillment, emotional burnout, disadaptation, stress resistance, etc. The article will focus on the prevalence of adolescent aggression towards teachers and the contribution of the teacher's locus of control in direct aggression from students.

Research design and methods

The sample included 5,189 teachers. The prevailing 94% of the sample are female. The mean age of the respondents is 44.5 (SD = 11.7). Only 15% of the sample are young professionals with the track record

of experience fewer than five years. About 40% of the respondents have been school teachers for more than 25 years. The majority of the sample teach at lower secondary school (66%), about 50% at junior school and 40% at upper secondary school. The sample includes 23% of teachers that do not have a professional grade, 37% of teachers with the professional grade one and 40% of teachers with the highest professional grade. About 30% of the respondents also do administrative work, while 70% also work as homeroom teachers.

The level of subjective control was assessed using the USK method (the level of subjective control) designed by E. F. Bazhin, E. A. Golyunkina and A. M. Etkind. The method is based on the concept of the locus of control developed by Julian B. Rotter (Bazhin et al. 1984; Rotter 1966). The USK questionnaire includes seven scales: general internality scale (GenIn), internality scale for achievements (InAchiev), internality scale for failures (InFail), internality scale for family relations (InFam), internality scale for professional relations (InProf), internality scale for interpersonal relations (InPers) and internality scale for health and disease (InHealth).

To evaluate subjective teachers' experiences of problematic student behavior a questionnaire was developed by the Center for Socialization, Family and Prevention of Antisocial Behavior at Moscow Pedagogical State University. The questionnaire includes a set of socio-demographic questions; assessment of markers of an adolescent's involvement in situations of aggressive behavior; assessment of prevalence of different types of aggressive behavior in relation to an adolescent's age and gender; assessment of perceptions of risk factors of aggressive behaviour in adolescents; assessment of a teacher's reaction to students' problematic behaviour in educational institutions, and teachers' experiences of direct student aggression. The results of certain sections of the questionnaire were reported in earlier publications (Rean, Konovalov 2021). The present article analyses the answers to the question "How often have you personally experienced the following aggressive behaviour on the part of students during your professional carrier?". The analysis includes statements related to direct student aggression. The statements include the following range: students used physical violence against you (beating, kicking, etc.); used cruel jokes/mockery; insulted / humiliated / teased you; destroyed or damaged your property; showed their contempt; expressed dissatisfaction with the quality of teaching.

The respondents evaluated each statement on a seven-point scale. The options included "Never", "Just once", "Quite rarely (once a year)", "Rarely (at least once every six months)", "Rather often"

(at least once a month), "Often" (at least once a week), "Very often" (every day or almost every day).

The article provides the distribution of answers to the question regarding subjective evaluations of teachers' experiences of direct student aggression. It also reports the results of the USK questionnaire. We used Spearman's correlation analysis to establish the correlation between the teachers' level of subjective control and their experiences of direct student aggression. We also used multiple regression analysis to study the correlation between the level of teachers' internality and frequency of direct student aggression. Statistical data processing was conducted using IBM SPSS Statistics (v.23).

Results and discussion

Subjective evaluations of teachers' experiences of direct student aggression

Figure 1 summarizes subjective evaluations of teachers' experiences of direct student aggression. The majority of respondents say that they have never or only once experienced student aggressive behavior. Those who have experienced direct student aggression said that students used cruel jokes / mockery (17%), expressed dissatisfaction with the quality of teaching (13%), insulted / humiliated the teacher (12%), or showed their contempt (11%). The results of the distribution of teachers' experiences of direct student aggression were reported in earlier publications (Rean et al. 2022).

Results of the USK questionnaire

Figure 2 summarizes the results of the USK scales. The general internality scale shows that the majority of respondents—about 64%—are externals. Along with that, teacher externality prevails on the scales related to failure (67%), professional relations (74%) and health (67%). Higher levels of internality are observed on the scales related to achievements (60%) and interpersonal relations (56%). The family relations scale returned almost the same percent of externals and internals.

Correlation between the teachers' level of subjective control and their experiences of direct student aggression

We used Spearman's correlation analysis to establish the correlation between the teachers' level of subjective control and their experiences of direct student aggression. The correlation analysis was based on the USK data (standard scores) and the respondents' answers to the question about the frequency of direct student aggression. See Table 1 for the results of the correlation analysis.

Notably, the correlation coefficients are low in absolute value— a regularity common for large samples. What matters in such cases is the statistical significance of correlations, not the absolute values. The analysis showed highly significant negative correlations between the teachers' level of subjective control and their experiences of direct student aggression. This indicates that the lower the level of subjective control (higher externality), the more

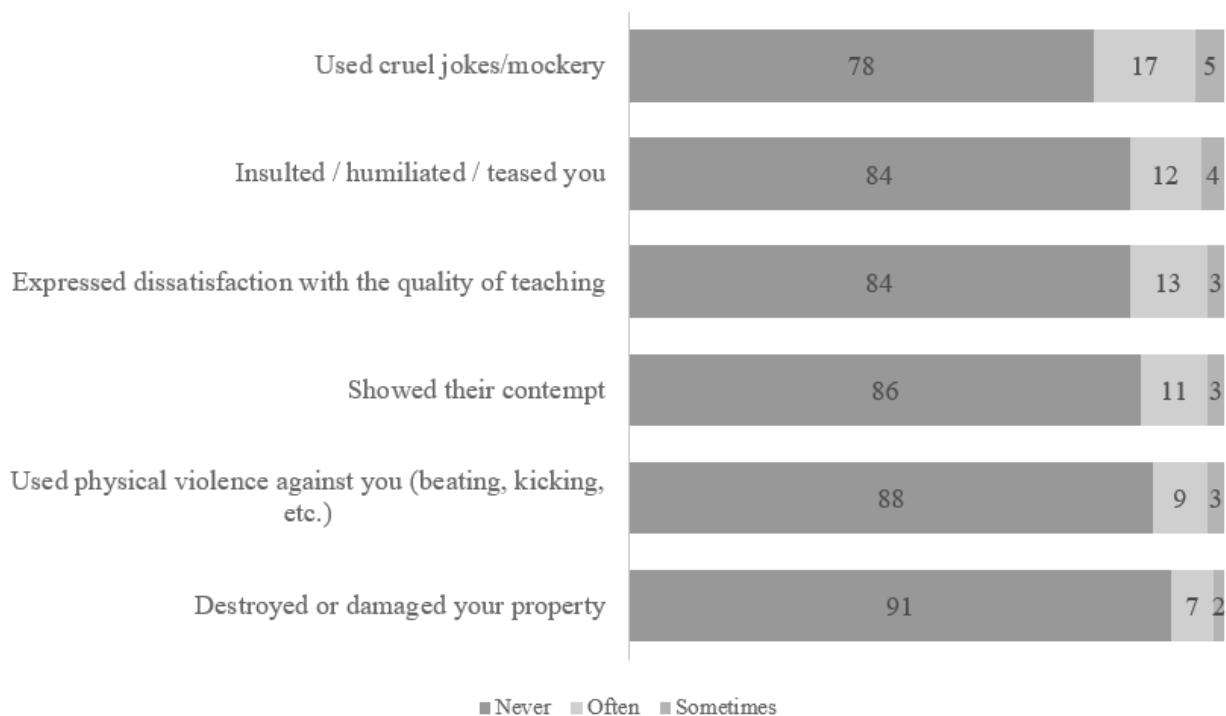


Fig. 1. The experience of teachers encountering direct aggression from students, in %



Рис. 1. Опыт столкновения педагогов с прямой агрессией со стороны учащихся, в %

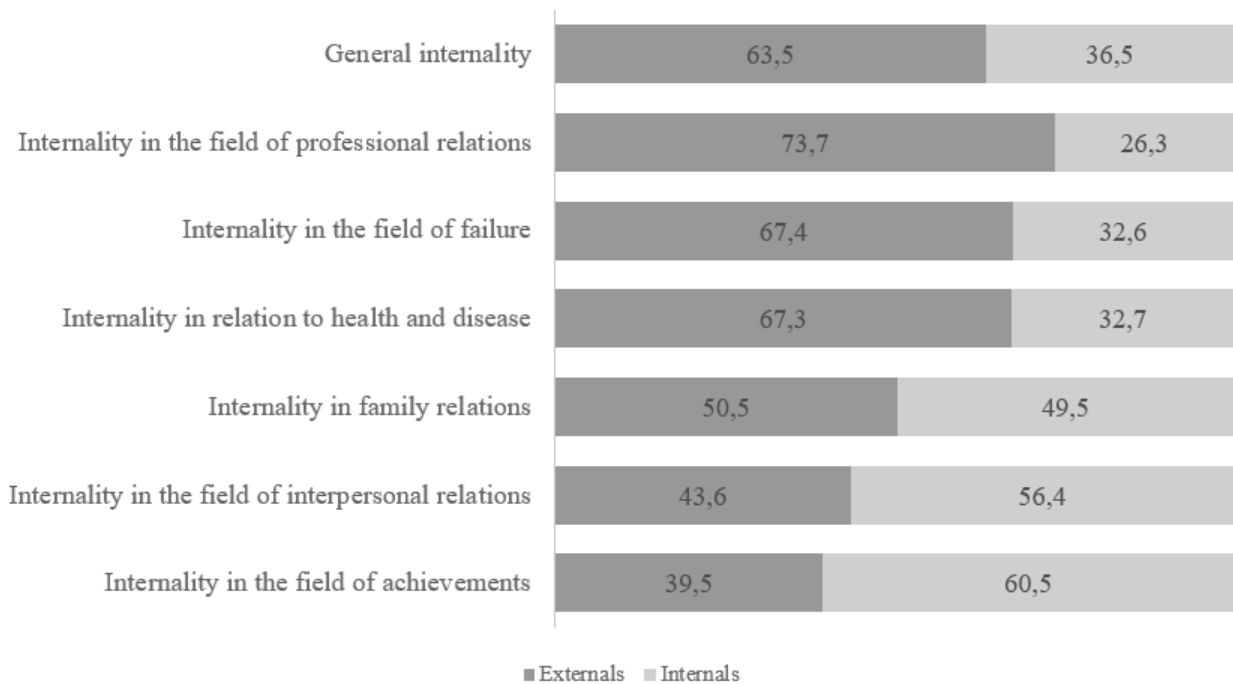


Fig. 2. The level of subjective control of teachers on the scales of the USK method, in %



Рис. 2. Уровень субъективного контроля педагогов по шкалам методики УСК, в %

Table 1. Results of correlation analysis

Variables	GenIn	InProf	InPers	InFam	InFail	InAchiev	InHealth
Used physical violence against you (beating, kicking, etc.)	-0.23**	-0.19**	-0.14**	-0.13**	-0.14**	-0.22**	-0.07**
Used cruel jokes / mockery	-0.14**	-0.16**	-0.09**	-0.07**	-0.09**	-0.15**	-0.02
Insulted / humiliated / teased you	-0.17**	-0.13**	-0.10**	-0.08**	-0.08**	-0.16**	-0.04**
Destroyed or damaged your property	-0.23**	-0.19**	-0.14**	-0.10**	-0.12**	-0.21**	-0.08**
Showed their contempt	-0.19**	-0.17**	-0.13**	-0.09**	-0.10**	-0.18**	-0.06**
Expressed dissatisfaction with the quality of teaching	-0.14**	-0.12**	-0.08**	-0.06**	-0.05**	-0.16**	-0.03**

Note: GenIn—the scale of general internality, InProf—the scale of internality in the field of professional relations, InPers—the scale of internality in the field of interpersonal relations, InFam—the scale of internality in the field of family relations, InFail—the scale of internality in the field of failure, InAchiev—the scale of internality in the field of achievements, InHealth—the scale of internality in relation to health and disease. **— $p < 0.01$.

Табл. 1. Результаты корреляционного анализа

Переменные	Ио	Ип	Им	Ис	Ин	Ид	Из
Применяли физическое насилие по отношению к вам (били, пинали и т. д.)	-0,23**	-0,19**	-0,14**	-0,13**	-0,14**	-0,22**	-0,07**
Использовали злобные шутки/насмешки	-0,14**	-0,16**	-0,09**	-0,07**	-0,09**	-0,15**	-0,02
Оскорбляли/унижали/дразнили	-0,17**	-0,13**	-0,10**	-0,08**	-0,08**	-0,16**	-0,04**
Уничтожали или портили ваше имущество	-0,23**	-0,19**	-0,14**	-0,10**	-0,12**	-0,21**	-0,08**
Демонстрировали свое презрение	-0,19**	-0,17**	-0,13**	-0,09**	-0,10**	-0,18**	-0,06**
Высказывали недовольство качеством преподавания	-0,14**	-0,12**	-0,08**	-0,06**	-0,05**	-0,16**	-0,03**

Примечание: Ио — шкала общей интернальности, Ип — шкала интернальности в области производственных отношений, Им — шкала интернальности в области межличностных отношений, Ис — шкала интернальности в семейных отношениях, Ин — шкала интернальности в области неудач, Ид — шкала интернальности в области достижений, Из — шкала интернальности в отношении здоровья и болезни. ** — $p < 0,01$.

frequent are the cases of direct student aggression. Interestingly, the analysis revealed no correlation between the variable 'used cruel jokes / mockery' and the internality scale for health and disease.

The contribution of the teachers' level of subjective control in their experiences of direct student aggression

We used multiple regression analysis to study how the level of the teachers' subjective control contributes to their experiences of direct student aggression. The USK scales were used as predictors. The teachers' evaluations of the frequency of their experiences of direct student aggression (see above) were used as dependent variables. Table 2 provides general characteristics of the regression analysis models for the studied variables.

The regression analysis shows that the teachers' level of subjective control accounts for 5% of variance of the variable 'physical violence against you'. The characteristics of the model: $R^2 = 0.05$; $F = 43.75$; $p = 0.00$. The 2% variance of the variable 'cruel jokes / mockery' is also due to the teachers' level of subjective control. The characteristics of

the model: $R^2 = 0.02$; $F = 22.57$; $p = 0.00$. Similarly, the subjective level of control is also responsible for the 3% variance of the variable 'insulted / humiliated / teased you' ($R^2 = 0.03$; $F = 25.96$; $p = 0.00$), 5% variance of the variable 'destroyed or damaged your property' ($R^2 = 0.05$; $F = 45.25$; $p = 0.00$), 4% variance of the variable 'showed their contempt' ($R^2 = 0.04$; $F = 34.23$; $p = 0.00$) and 3% variance of the variable 'expressed dissatisfaction with the quality of teaching' ($R^2 = 0.03$; $F = 27.48$; $p = 0.00$).

The variables 'used physical violence against you' and 'destroyed or damaged your property' have the highest percent of explained variance, while the 'cruel jokes / mockery' variable has the lowest percent of explained variance. The results of the regression analysis show differences in the predictive value of individual scales of the level of subjective control that may contribute to teachers' experiences of direct student aggression. A more detailed analysis will require the data on which of the studied predictors contribute more to the teachers' experiences of confrontation. Table 3 presents the results of significant predictors only ($p < 0.05$).

Table 2. General characteristics of models for the studied indicators

Model	R	R ²	Adjusted R ²	Standard error of the estimate	F	p
Used physical violence against you (beating, kicking, etc.)	0.23	0.05	0.05	0.97	43.75	0.00
Used cruel jokes / mockery	0.17	0.03	0.02	1.21	22.57	0.00
Insulted / humiliated / teased you	0.18	0.03	0.03	1.12	25.96	0.00
Destroyed or damaged your property	0.24	0.05	0.05	0.88	45.25	0.00
Showed their contempt	0.21	0.04	0.04	1.06	34.23	0.00
Expressed dissatisfaction with the quality of teaching	0.18	0.03	0.03	1.04	27.48	0.00

Табл. 2. Общие характеристики моделей по рассматриваемым показателям

Модель	R	R ²	Скорректированный R ²	Станд. ошибка оценки	F	p
Применяли физическое насилие по отношению к вам (били, пинали и т. д.)	0,23	0,05	0,05	0,97	43,75	0,00
Использовали злобные шутки/ насмешки	0,17	0,03	0,02	1,21	22,57	0,00
Оскорбляли/ унижали/ дразнили	0,18	0,03	0,03	1,12	25,96	0,00
Уничтожали или портили ваше имущество	0,24	0,05	0,05	0,88	45,25	0,00
Демонстрировали свое презрение	0,21	0,04	0,04	1,06	34,23	0,00
Высказывали недовольство качеством преподавания	0,18	0,03	0,03	1,04	27,48	0,00

Table 3. Results of regression analysis

Significant predictors	β	B (standard error of B)	t	p
Used physical violence against you (beating, kicking, etc.)				
General internality	-0.06	0.02	-2.86	0.00
Internality in the field of achievements	-0.05	0.01	-3.99	0.00
Internality in the field of professional relations	-0.03	0.01	-2.58	0.01
Used cruel jokes / mockery				
General internality	-0.09	0.02	-3.48	0.00
Internality in the field of achievements	-0.05	0.01	-2.92	0.00
Internality in family relations	0.03	0.01	2.59	0.01
Internality in relation to health and disease	0.02	0.01	2.25	0.02
Insulted / humiliated / teased you				
General internality	-0.12	0.02	-4.80	0.00
Internality in family relations	0.03	0.01	2.37	0.01
Internality in relation to health and disease	0.02	0.01	2.23	0.02
Destroyed or damaged your property				
General internality	-0.11	0.02	-5.70	0.00
Internality in the field of achievements	-0.02	0.01	-2.08	0.03
Internality in family relations	0.03	0.01	2.83	0.00
Showed their contempt				
General internality	-0.07	0.02	-3.04	0.00
Internality in the field of achievements	-0.03	0.01	-2.26	0.02
Internality in the field of professional relations	-0.03	0.01	-2.03	0.04
Internality in the field of interpersonal relations	-0.02	0.01	-2.55	0.01
Expressed dissatisfaction with the quality of teaching				
Internality in the field of achievements	-0.06	0.01	-4.40	0.00
Internality in the field of failure	0.03	0.01	2.33	0.02

Табл. 3. Результаты регрессионного анализа

Значимые предикторы	β	B (стандартная ошибка B)	t	p
Применяли физическое насилие по отношению к вам				
Общая интернальность	-0,06	0,02	-2,86	0,00
Интернальность в области достижений	-0,05	0,01	-3,99	0,00
Интернальность в производственных отношениях	-0,03	0,01	-2,58	0,01
Использовали злобные шутки/насмешки				
Общая интернальность	-0,09	0,02	-3,48	0,00
Интернальность в области достижений	-0,05	0,01	-2,92	0,00
Интернальность в семейных отношениях	0,03	0,01	2,59	0,01
Интернальность в отношении здоровья	0,02	0,01	2,25	0,02
Оскорбляли/унижали/дразнили				
Общая интернальность	-0,12	0,02	-4,80	0,00
Интернальность в семейных отношениях	0,03	0,01	2,37	0,01
Интернальность в отношении здоровья	0,02	0,01	2,23	0,02
Уничтожали или портили ваше имущество				
Общая интернальность	-0,11	0,02	-5,70	0,00
Интернальность в области достижений	-0,02	0,01	-2,08	0,03
Интернальность в семейных отношениях	0,03	0,01	2,83	0,00
Демонстрировали свое презрение				
Общая интернальность	-0,07	0,02	-3,04	0,00
Интернальность в области достижений	-0,03	0,01	-2,26	0,02
Интернальность в производственных отношениях	-0,03	0,01	-2,03	0,04
Интернальность в межличностных отношениях	-0,02	0,01	-2,55	0,01
Высказывали недовольство качеством преподавания				
Интернальность в области достижений	-0,06	0,01	-4,40	0,00
Интернальность в области неудач	0,03	0,01	2,33	0,02

The following subjective control scales have the largest weight in the intensity of the variable 'used physical violence against you': general internality ($\beta = -0.06$, $p < 0.01$), internality in relation to achievements ($\beta = -0.05$, $p < 0.01$), and internality in the field of professional relations ($\beta = -0.03$, $p = 0.01$). Thus, a low level of subjective control (external type) on the scales of general internality, internality scales for achievements and professional relations act as predictors of possible physical violence of students towards teachers.

As for the 'cruel jokes / mockery' variable, the most significant internality predictors include general internality ($\beta = -0.09$, $p < 0.01$), internality in relation to achievements ($\beta = -0.05$, $p < 0.01$), internality in family relations ($\beta = 0.03$, $p = 0.01$) and internality in relation to health ($\beta = 0.02$, $p < 0.05$). In other words, an external locus of control on the general internality scale and the internality scale for achievements as well as the prevalence of an internal locus of control on the internality scale for family relations and health are major contributors to teachers' experiences of cruel jokes and mockery on the part of students.

Below are the significant predictors as contributors to teachers' experiences of insult and humiliation on the part of students: general internality ($\beta = -0.12$, $p < 0.01$), internality in family relations ($\beta = 0.03$, $p = 0.01$) and internality in relation to health ($\beta = 0.02$, $p < 0.05$). Thus, a more external locus of control on the general internality scale and a more internal locus of control on the internality scale for family relations and health serve as predictors of teachers' experiences of insult and humiliation inflicted by students.

As for the teachers' experiences of property damage or destruction caused by students, the major contributors are general internality ($\beta = -0.11$, $p < 0.01$), internality in relation to achievements ($\beta = -0.02$, $p < 0.05$) and internality in family relations ($\beta = 0.03$, $p < 0.01$). Therefore, the external locus of control in teachers on the general internality scale and the internality scale for achievements as well as the internal locus of control in family relations are likely predictors of teachers' experiences of property damage and destruction caused by students.

The most significant predictors for the 'showed their contempt' variable are general internality ($\beta = -0.07$, $p < 0.01$), internality in relation to achievements ($\beta = -0.03$, $p < 0.05$), internality in the field of professional relations ($\beta = -0.03$, $p < 0.05$) and internality in the field of interpersonal relations ($\beta = -0.02$, $p = 0.01$). Thus, the external locus of control in teachers on the general internality scale, internality scales for achievements, professional

and interpersonal relations may serve as predictors of teachers' experiences of contempt shown by students.

As for the students' dissatisfaction with the quality of teaching, the most significant predictors include: internality in relation to achievements ($\beta = -0.06$, $p < 0.01$) and internality in relation to failure ($\beta = 0.03$, $p < 0.05$). So, teachers with an external locus of control in relation to achievements and internal locus of control in relation to failure are more likely to experience students' dissatisfaction with the quality of teaching.

Notably, general internality became the most significant predictor for almost all the models except for the model 'expressed dissatisfaction with the quality of teaching'. This indicates that teachers with an external locus of control tend to more often experience direct student aggression.

Results and discussion

The study showed that the most prevalent cases of direct student aggression towards teachers include cruel jokes / mockery, dissatisfaction with the quality of teaching; insults / humiliation; and contempt.

The analysis of the level of teachers' subjective control on a large sample of 5,189 teachers from nine regions of Russia revealed the prevalence of an external locus of control on the general internality scale (63.5%). Besides, teachers' externality is observed on the following USK scales: internality in relation to failure (67.4%), internality in the field of professional relations (73.7%) and internality in relation to health (67.3%). These results indicate that the majority of the respondents do not see any correlation between their actions and the state of affairs in these areas of their lives, i.e., do not see any opportunities to personally influence these areas of life.

The prevalence of internality in teachers is observed on the following USK scales: internality in relation to achievements (60.5%) and internality in the field of interpersonal relations (56.4%). This means that teachers tend to assume responsibility for what happens in these areas of their life. The obtained data do not completely match the findings of prior research reported in the theoretical overview section of the article. E. g., earlier studies claimed that teachers showed internality in the field of professional relations (Grigorovich 2017), while our research provides evidence in support of teachers' externality in this respect. A similar discrepancy is also found for general externality with the prevalence of an external locus of control in our sample. This may be due to the size of the sample population in our research that significantly exceeds those we referred to in the theoretical section.

The correlation analysis identified significant negative correlations between the level of teachers' subjective control and their experiences of direct student aggression. This means that teachers with an external locus of control tend to more often experience direct student aggression as opposed to their counterparts with more pronounced internality. A possible explanation lies in the specifics of a teacher's personality. As is said above, externals are more emotionally tense, anxious, aggressive and less attractive socially. Presumably, as these personality traits are seen as negative, teachers with an external locus of control, unlike internals, act so that their actions provoke similar socially unacceptable behaviors in students. Besides, due to higher anxiety and suspiciousness, externals may be more sensitive to aggressive student behavior. In other words, externals tend to more often pay attention to such behavior and are more likely to take it personally than their counterparts with an internal locus of control. Externals also find it difficult to take control of their life and assume personal responsibility for problem-solving in the field of social relations. Presumably, this creates grounds for breaches of classroom discipline that, in turn, may encourage students to show aggression towards a teacher. Thus, all the mentioned personal qualities common for externals may trigger student aggression.

The article aimed to identify the contribution of teachers' level of subjective control in their experiences of direct student aggression. The study found that general internality / externality is the most significant predictor for all types of direct aggression except for 'dissatisfaction with the quality of teaching'. In other words, teachers with higher externality are more likely to experience direct student aggression. The regression analysis showed differences in the predictive value of individual scales of the level of subjective control that may contribute to teachers' experiences of direct student aggression. E. g., teacher externality in relation to achievements is a predictor of all types of direct student aggressions except for insults / humiliation, while teacher externality in the field of professional relations is a predictor of students' physical violence and contempt. Teachers with externality in the field of interpersonal relations are more likely to face students' contempt.

This may indicate that teachers with higher externality tend to believe that it is hard for them to control or anyhow influence aggressive student behaviour, i. e., the responsibility for such acts is external. Needless to say, direct aggression towards a teacher is unacceptable and does not relieve students of the responsibility for their actions. Direct aggression, however, may arise from an extremely

complex social environment that, to ensure effectiveness, requires much more resources not only from teachers, but also from the school administration and other prevention authorities that could help teachers cope with aggressive student behaviour. Moreover, when experiencing direct student aggression, teachers may turn to externality as a certain protection from feeling helpless and inability to cope. This interpretation is quite in line with the concept of 'protective internality'.

Teachers' internality in relation to failure may predict their experience of students' dissatisfaction with the quality of teaching. In other words, teachers who assume personal responsibility for their failure are more likely to face students' dissatisfaction with the quality of teaching. At the same time, teachers' internality in the field of family relations may predict insults, humiliation, cruel jokes and mockery, damage or destruction of their property by students. A possible reason is that teachers with higher internality adopt their family relations scenarios in the classroom. However, these scenarios and strategies of behaviour may fail to match students' expectations thus encouraging student aggression. Besides, teachers with higher internality in relation to health are more likely than externals to face cruel jokes, mockery, insults and humiliation. It is not uncommon that people with a healthy lifestyle are more demanding to themselves and to others. Assumingly, teachers with an internal locus of control in relation to health are also strict with students as regards health-related issues which encourages cruel jokes or insults.

Conclusions

To conclude, the research has established a correlation between the level of teachers' subjective control and their experiences of direct student aggression. It has also determined the predictive value of individual scales of the level of subjective control that may contribute to teachers' experiences of direct student aggression. The research contributes to the study of adolescent aggression towards teachers. The research results may find an application in awareness-raising, preventive or professional development programmes and psychological trainings for teachers. To date, the research agenda of issues related to student aggression has not been exhausted. We believe that follow-up research in student aggression is crucial, especially as regards the identification of teacher personality profiles that encourage student aggression. Another important research avenue is the development of theoretical concepts that could explain the reasons behind student aggression. It is also necessary to develop

a set of preventive measures that could ensure teacher safety, promote their psychological well-being and professional resilience.

Conflict of Interest

The authors declare that there is no conflict of interest, either existing or potential.

Ethics Approval

The authors declare that the study complies with all ethical principles applicable to human and animal research

Author Contributions

A. A. Rean—organization of the study and formulation of the main concept of the study; methodology approval; research management; development of data processing methodology; formulation of conclusions; preparation of the final version of the manuscript.

A. V. Egorova—preparation of survey instruments; analysis of empirical materials; development of data processing methodology; data processing; formulation of conclusions.

R. G. Kuzmin—preparation of survey instruments; data processing; formulation of conclusions; preparation of the initial version of the manuscript.

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