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AGGRESSION IN SCHOOL CHILDREN AND ADOLESCENTS: ITS RELATIONSHIP WITH EMPATHY BY SPIRITUAL SENSITIVITY

Abstract: Background: Aggression is one of the important problems of psychosocial functioning, but it is also an area of physical and mental health among children and adolescents. The

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purpose of the present study was to examine the role of spiritual sensitivity as a mediator in the relationship between empathy and aggression in a group of school children and adolescents. Participants and procedure: The study included 281 children and adolescents (54% were girls) aged 9–14 years. The study procedure consisted of completing three questionnaires measuring spiritual sensitivity, empathy and aggression. The structural equation modeling using maximum likelihood estimation were used to determine the relationship between variables. Results: Our results suggest that spiritual sensitivity may mediate the relationship between empathy and aggression. Including spiritual sensitivity in the model reduced the negative relationship between the independent and dependent variables, indicating full mediation. Conclusions: In conclusion, the present study has provided some findings suggesting that spiritual sensitivity may indeed be one of the possible mechanisms by which religiosity leads to positive behavioral outcomes. The findings suggest that such internal factors may be important in leveling aggression and that focusing solely on environmental and situational influences may not fully capture individual differences in thinking, emotions and behavior.

Key words: aggression, school children, adolescents, empathy and spiritual sensitivity

Introduction

Aggression is one of the important problems in psychosocial functioning, but it is also an area of physical and mental health in children and adolescents.⁶ The effect of aggression on psychosocial adjustment underscores the need to recognize variables that may predict aggressive behaviour, among other aspects, in order to provide implications for guidance for prevention programmes or in the context of educational policy. Thus, a growing number of researchers are seeking to understand the processes and mechanisms that can minimize and reduce aggression, suggesting an important role for empathy,⁷ religiosity and spirituality.⁸

In general, interpersonal aggression is defined as behaviour that aims to cause some physical or psychological harm to another person. According to the functional-pragmatic criterion, aggression can be divided into reactive (internalizing an individual's emotional experience) and proactive (externalizing an individual's emotional experience). The latter is also sometimes referred to as instrumental, and is generally aimed at gaining some benefit (possession of something) and intimidating (dominating) someone. Among students, the construct of proactive aggression often describes schoolyard bully behaviour.⁹ This type of aggression is

⁶ Karol Konaszewski, *Tożsamość wychowanków młodzieżowych ośrodków wychowawczych* (Gdańsk: Wydawnictwo Naukowe Katedra, Białystok: Universitas Bialostocensis, 2016).

⁷ David D. Vachon, Donald R. Lynam, Jarrod A. Johnson, "The (non) relation between empathy and aggression: surprising results from a meta-analysis". *Psychological Bulletin* 140 (3) (2014): 751.

⁸ Sam A. Hardy et al., "Religiosity and adolescent empathy and aggression: The mediating role of moral identity". *Psychology of Religion and Spirituality* 4 (3) (2012): 237.

⁹ Dan Olweus, *Aggression in the Schools: Bullies and Whipping Boys* (Washington–New York: Hemisphere, 1978).

shaped by reinforcement and most often occurs without the impact of provocation or anger. Proactively aggressive children attack to steal, tease, threaten or coerce. Their actions are based on the assumption that aggression is an appropriate way to achieve a goal or complete an action.¹⁰ In contrast, reactive aggression (also known as hostile aggression) is primarily aimed at hurting or harming another person. Among juveniles, this construct describes the psychosocial functioning of a rejected child who is angry and hostile towards the environment.¹¹ Reactive aggression is associated with an impulsive and defensive bodily response, as well as anger and loss of control.¹² Children behave in a reactive-aggressive manner when they think they are threatened or provoked. The aggressive response may be disproportionate to the situation (e.g., when one child beats another for 'fun'). Understanding and evaluating these types of aggression together, as well as learning about their correlates, is an important area for understanding the nature of aggressive behaviour in children and adolescents.

One variable that frequently appears in research findings related to the determinants of aggression is empathy.¹³ Empathy is one of the oldest scientific constructs¹⁴ shaping social functioning.¹⁵ It was initially viewed unidimensionally,¹⁶ but is now most often considered a multidimensional construct, usually of a two-factor nature involving affective and cognitive aspects interacting with each other.¹⁷ The former generally indicates the trait of being able to respond emotionally in accordance with another person's emotional state.¹⁸ Cognitive empathy, on the other hand, refers to the ability to mentally understand another person's emotional states.¹⁹ In their analysis, Cuff operationalized empathy as an emotional (affective) response determined by the interaction of features of the observer and situational factors.²⁰

¹⁰ Welmoet Merk et al., "The distinction between reactive and proactive aggression: Utility for theory, diagnosis and treatment?" *European Journal of Developmental Psychology* 2 (2) (2005): 197–220.

¹¹ Kenneth A. Dodge, "Social cognition and children's aggressive behavior". *Child Development* 51 (1) (1980): 162–170.

¹² Merk et al., "The distinction".

¹³ Vachon, Lynam, Johnson, "The (non) relation".

¹⁴ Albert Mehrabian, Norman Epstein, "A measure of emotional empathy". *Journal of Personality* 40 (4) (1972): 525–543.

¹⁵ Jean Decety, Sara D. Hodges, "The Social Neuroscience of Empathy". In: *Bridging Social Psychology* (Psychology Press, 2006), 121–128.

¹⁶ Robert Hogan, "Development of an empathy scale". *Journal of Consulting and Clinical Psychology* 33 (3) (1969): 307.

¹⁷ Cecilia Heyes, "Empathy is not in our genes". *Neuroscience & Biobehavioral Reviews* 95 (2018): 499–507.

¹⁸ Simon Baron-Cohen, Sally Wheelwright, "The empathy quotient: An investigation of adults with Asperger syndrome or high functioning autism, and normal sex differences". *Journal of Autism and Developmental Disorders* 34 (2) (2004): 163–75; Mehrabian, Epstein, "A measure"; John Lawson, Simon Baron-Cohen, Sally Wheelwright, "Empathising and systemising in adults with and without Asperger syndrome". *Journal of Autism and Developmental Disorders* 34 (3) (2004): 301–310.

¹⁹ Hogan, "Development".

²⁰ Benjamin M.P. Cuff et al., "Empathy: A review of the concept". *Emotion Review* 8 (2) (2016): 144–153.

The processes of empathy are induced automatically and modelled by subsequent cognitive processes (top-down). The empathic emotions resulting from these processes correspond to the emotions of the person being observed (directly or through mental images). Moreover, the observer understands the sources of the emotions seen in the other people (cognitive empathy) and distinguishes them from his or her own states. Numerous studies indicate that both cognitive and affective pathways are developed during ontogenesis and are based in different neural structures.²¹ Researchers within neuropsychology also indicate two central aspects of empathy, cognitive and affective, which are dependent on different brain structures and thus have different paths of development, with affective empathy forming much earlier than the cognitive type.²² Embodied models, on the other hand, support the more specific idea that action and perception are represented through shared coding or overlapping psychological and neural representations.²³ Although we still do not fully understand the neurocognitive relationships between affective and cognitive empathy, most researchers remain in agreement about the two-factor nature of the phenomenon.²⁴

In both youths and children, high levels of empathy are associated with such desirable processes as emotion regulation, reduced levels of aggression and prosocial behaviour.²⁵ Children with higher levels of empathy show better conflict resolution skills²⁶ and have deeper and more stable friendships with peers.²⁷ On the other hand, low-empathy children show higher levels of aggressiveness²⁸ and often engage in behaviours which harm others, e.g., bullying.²⁹ For children and adolescents, empathy is an important aspect of behaviour formation, moral development and acceptance, which are key areas of development during adolescence.³⁰

²¹ Boris C. Bernhardt, Tania Singer, "The neural basis of empathy". *Annual Review of Neuroscience* 35 (1) (2012): 1–23; Decety, Hodges, "The social neuroscience".

²² Bernhardt, Singer, "The neural basis"; Decety, Hodges, "The social neuroscience".

²³ Robert P. Spunt, Matthew D. Lieberman, "The busy social brain: Evidence for automaticity and control in the neural systems supporting social cognition and action understanding". *Psychological Science* 24 (1) (2013): 80–86.

²⁴ Chi-Lin Yu, Tai-Li Chou, "A dual route model of empathy: A neurobiological prospective". *Frontiers in Psychology* 9 (2018): 366716.

²⁵ Nancy Eisenberg, Claire Champion, Yue Ma, "Emotion-related regulation: An emerging construct". *Merrill-Palmer Quarterly* 50 (3) (2004): 236–259; Mehrabian, Epstein, "A measure".

²⁶ Minet De Wied, Susan J.T. Branje, Wim H.J. Meeus, "Empathy and conflict resolution in friendship relations among adolescents". *Aggressive Behavior* 33 (1) (2007): 48–55.

²⁷ Bart Soenens et al., "The intergenerational transmission of empathy-related responding in adolescence: The role of maternal support". *Personality and Social Psychology Bulletin* 33 (3) (2007): 299–311.

²⁸ Lucinda BC Pouw et al., "Reactive/proactive aggression and affective/cognitive empathy in children with ASD". *Research in Developmental Disabilities* 34 (4) (2013): 1256–1266.

²⁹ Darrick Jolliffe, David P. Farrington, "Empathy and offending: A systematic review and meta-analysis". *Aggression and Violent Behavior* 9 (5) (2004): 441–476.

³⁰ Corinne Reid et al., "The Kids' Empathic Development Scale (KEDS): A multi-dimensional measure of empathy in primary school-aged children". *British Journal of Developmental Psychology* 31 (2) (2013): 231–256.

Farrington suggested that empathic responsiveness reduces aggressive behaviour because, in conflict situations, it fosters the ability to understand the real motivations of others' actions, reducing the risk of identifying as aggressive those behaviours that do not have that connotation or, when they do, increasing the ability to tolerate them.³¹ Similarly, Buss stressed that the onset of human aggression is preceded by the frustration of individual needs and the appearance of harmful stimuli. In order to remove them and restore well-being, the victim then attacks the perpetrator. He points out that frustration is only one and certainly not the most important predictor of aggression. He attributes the main role to the occurrence of various types of harmful and undesirable stimuli by the individual (among which the most relevant are attacks by others and stimuli that annoy and irritate the individual, whose main function is to agitate them). In contrast, as he suggests, the main deterrent to the occurrence of aggression is feeling empathy toward the (potential) victim.³²

In addition to empathy, psychologists and educators are increasingly interested in the role that religion and spirituality play in the development and behaviour of children and adolescents.³³ Although new evidence is being provided on the correlates of various aspects of spirituality and religiosity with behavioural variables, we still know little about the mechanisms that indicate the mediating role of spirituality in the relationship between empathy and potential outcomes.³⁴ One potentially important but as yet unexplored mechanism involves the mediating role of spiritual sensitivity considered from two perspectives: outward and inward reflective focus. These two perspectives relate to a child's ability to express wonder and fascination about experiences within his or her world, as well as the capacity to reflect inwardly on the meaning of these experiences.³⁵ Outward focus deals with supporting people in need, sharing special moments with others and striving to provide the child with the love of the significant people in his or her life. Inward reflective focus involves taking time to reflect, learn about the world, express one's feelings to others and lose oneself in activities to the point of not noticing the passage of time and events.³⁶

³¹ David P. Farrington, "Predictors, causes, and correlates of male youth violence". *Crime and Justice* 24 (1998): 421–475.

³² Arnold H. Buss, "Psychopathology". In: A.H. Buss, *The Psychology of Agression* (New York: Wiley & Sons, 1961), 207–220, <https://psycnet.apa.org/record/2006-09474-011> [accessed 15 May 2024].

³³ Pamela Ebstyn King, Robert W. Roeser, "Religion and spirituality in adolescent development". *Handbook of Adolescent Psychology* 1 (3) (2009): 435–478.

³⁴ Christian Smith, Melina Lundquist Denton, *Soul Searching: The Religious and Spiritual Lives of American Teenagers* (New York: Oxford University Press, 2009).

³⁵ Gerard John Stoyles et al., "A measure of spiritual sensitivity for children". *International Journal of Children's Spirituality* 17 (3) (2012): 203–215.

³⁶ Ibid.

Based on previous research findings,³⁷ it can be assumed that spiritual sensitivity may also be a potential mediator between empathy and behavioural outcomes. Empathic individuals become more spiritually sensitive and consequently have lower youth scores in the area of aggression.³⁸ In view of this, the purpose of this investigation was to examine the role of spiritual sensitivity as a mediator in the relationship between empathy (affective and cognitive) and aggression (reactive and proactive) in a group of school children and adolescents. Given the psychosocial development of students during adolescence and previous research findings,³⁹ spiritual sensitivity may fit the mediating role in the relationship under study.

Method

Participants and procedure

This investigation included 281 children and adolescents (54% of whom were girls) aged 9–14 years (mean = 12.21; standard deviation = 1.5). It was conducted with the approval of the Ethics Committee of the ‘masked/blind review’. The study procedure consisted of completing three questionnaires measuring spiritual sensitivity, empathy and aggression. The average time taken to complete the questionnaires was 15 minutes. The survey was conducted in schools (during class time) using the paper-and-pencil method by an experienced interviewer. The principals, teachers, parents and minor participants were briefed on the objectives and procedure before taking the survey, and written consent for participation was obtained from them.

Measures

The Questionnaire to Assess Affective and Cognitive Empathy (QAACE) by Zoll and Enz⁴⁰ is a self-report questionnaire used to measure empathy in children aged 8–14, based on a two-factor cognitive-emotional model of empathy. The QAACE consists of 22 questions and a 5-point Likert-type response scale (from ‘I strongly disagree’ = 1

³⁷ King, Roeser, “Religion and spirituality”; Rafi M.M.I. Chowdhury, “Religiosity and voluntary simplicity: The mediating role of spiritual well-being”. *Journal of Business Ethics* 152 (1) (2018): 149–174.

³⁸ Lawrence J. Walker, Kevin S. Reimer, “The relationship between moral and spiritual development”. In: *The Handbook of Spiritual Development in Childhood and Adolescence*, eds. Eugene C. Roehlkepartain, Pamela E. King, Linda Wagener, Peter L. Benson (Thousand Oaks: Sage Publications, Inc., 2006), 224–238; Lawrence J. Walker, Jeremy A. Frimer, “Being good for goodness’ sake: Transcendence in the lives of moral heroes”. In: Lawrence J. Walker, Jeremy A. Frimer, *Getting Involved: Global Citizenship Development and Sources of Moral Values* (Rotterdam: Brill, 2008), 307–326.

³⁹ Hardy et al., “Religiosity and adolescent empathy”.

⁴⁰ Carsten Zoll, Sibylle Enz, *A Questionnaire to Assess Affective and Cognitive Empathy in Children* (Bamberg: Otto-Friedrich-Universität Bamberg, 2010).

to 'I strongly agree' = 5). The questionnaire items were adjusted to create two groups of questions: one for the affective factor (10 items) and the other for the cognitive factor (12 items). The Polish adaptation was performed by Surzykiewicz.⁴¹ The Cronbach's alpha coefficient for the reliability of the 'affective empathy' factor was $\alpha = .84$, and $\alpha = .76$ for 'cognitive empathy'.

The Reactive-Proactive Aggression Questionnaire (RPAQ) by Raine⁴² is a self-report questionnaire that measures two forms of aggression: reactive (Cronbach's alpha = .84) and proactive (Cronbach's alpha = .86). The RPAQ consists of 23 questions (from 'never' = 0 to 'often' = 2).

The Spirituality Sensitivity Scale for Children (SSSC) by Stoyles⁴³ is a self-reporting scale that measures the overall level of spiritual sensitivity in children, which addresses two dimensions: external orientation (outward focus; Cronbach's alpha = .75) and internal orientation (inward reflective focus; Cronbach's alpha = .57). The scale consists of 12 items (from 'I strongly disagree' = 1 to 'I strongly agree' = 4). The internal consistency of a one-dimensional version of the SSSC was acceptable (Cronbach's alpha = .77).

Statistical data analysis

The *r*-Pearson correlation coefficient and structural equation modelling (SEM) using maximum likelihood estimation were used to determine the relationship between the variables. The correlation value was equivalent to the effect size, with values below .10 being trivial, between .10 and .30 weak, between .30 and .50 moderate, and above .50 strong.⁴⁴ The following metrics were utilized to evaluate the model's fit to the data in the SEM: relative chi-squared ($\chi^2/\text{degrees of freedom [df]}$), comparative fit index (CFI), root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR). Values of $\chi^2/\text{df} < 2$ suggest a good fit of the model to the data, while a CFI > .9 indicates a good and adequate fit and RMSEA and SRMR values < .08 should also be interpreted as an acceptable fit.⁴⁵ The statistical analysis of the data was performed using IBM Statistical Package for the Social Sciences (SPSS) Statistics 28 and IBM SPSS Amos 28 software.

⁴¹ Janusz Surzykiewicz et al., "Preliminary assessment of the psychometric properties of the polish version of the Questionnaire to Assess Affective and Cognitive Empathy (QAACE) in children". *Current Issues in Personality Psychology* 12 (2) (2023): 100–108.

⁴² Adrian Raine et al., "The reactive-proactive aggression questionnaire: differential correlates of reactive and proactive aggression in adolescent boys". *Aggressive Behavior* 32 (2) (2006): 159–171.

⁴³ Stoyles et al., "A measure".

⁴⁴ Jacob Cohen, "A power primer". *Psychological Bulletin* 112 (1) (1992): 155.

⁴⁵ Rex B. Kline, *Principles and Practice of Structural Equation Modeling* (New York: Guilford Publications, 2015).

Results

The means are shown in Table 1. A correlation analysis revealed a few statistically significant relationships. Cognitive empathy was strongly positively related to affective empathy, moderately positively to the internal orientation (inward reflective focus) of spiritual sensitivity, and slightly positively to the external orientation (outward focus) of spiritual sensitivity. Affective empathy was strongly positively correlated with the external orientation (outward focus) of spiritual sensitivity, moderately positively with the internal orientation (inward reflective focus) of spiritual sensitivity, slightly negatively with proactive aggression, and weakly negatively with reactive aggression. The external orientation (outward focus) of spiritual sensitivity was strongly positively linked with internal orientation and moderately negatively with proactive aggression. The internal orientation (inward reflective focus) of spiritual sensitivity was weakly negatively connected to proactive aggression. Reactive aggression was strongly positively correlated with the proactive dimension. Sex (0 = female, 1 = male) was weakly negatively associated with affective empathy and the external orientation (outward focus) of spiritual sensitivity and weakly positively with the reactive and proactive dimensions of aggression. Age was not correlated at a statistically significant level with the results.

Table 1. Means and correlations (N = 281)

	<i>M (SD)</i>	1.	2.	3.	4.	5.	6.
1. Cognitive Empathy	3.8 (.5)	–					
2. Affective Empathy	3.8 (.7)	.51***	–				
3. Spiritual Sensitivity (External Orientation)	3.2 (.6)	.27***	.56***	–			
4. Spiritual Sensitivity (Internal Orientation)	2.9 (.5)	.33***	.38***	.59***	–		
5. Reactive Aggression	8.4 (5.4)	.02	–.12*	–.11	–.02	–	
6. Proactive Aggression	3.7 (5.4)	–.05	–.27***	–.30***	–.12*	.73***	–
Gender (0 = female, 1 = male)	1.4 (.5)	.04	–.21***	–.21***	–.07	.15*	.23***
Age	12.2 (1.5)	.10	.07	–.05	.01	–.05	–.07

p* < .05, **p* < .001.

Source: own research.

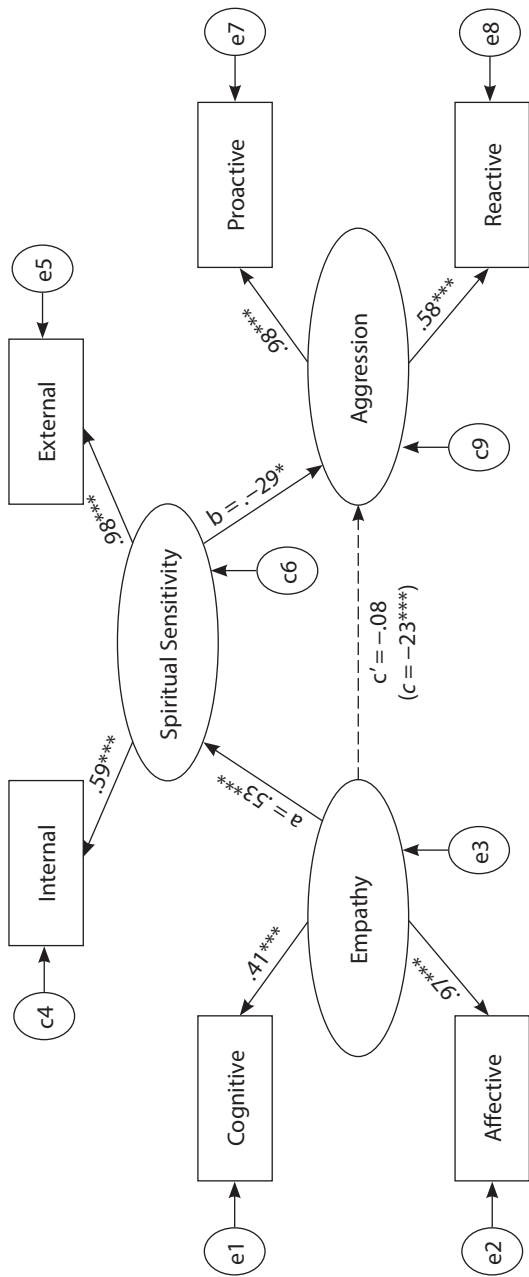


Figure 1. Spiritual sensitivity as a mediator in the relationship between empathy and aggression (N = 281)

* $p < 0.05$; *** $p < 0.001$.
Source: own research.

We then used SEM with latent variables to test the hypotheses. We examined the extent to which the association between the latent empathy variable (including cognitive and affective dimensions) and the latent aggression variable (proactive and reactive) was mediated by the latent spiritual sensitivity variable (internal: inward reflective focus and external: outward focus). The model was a reasonable fit to the data: $\chi^2(6) = 11.01$, $p = .088$; $\chi^2/df = 1.84$, CFI = .977, SRMR = .046, RMSEA = .047, 90% confidence interval [.031, .059]. Figure 1 depicts the standardized path coefficients. Latent empathy and spiritual sensitivity explained 17% of the variance concerning aggression.

The total effect (without any mediator) equalled $\beta = -.23$ ($p < .001$). The regression coefficient of the latent independent variable's impact on the latent mediator was $\beta = .53$ ($p < .001$). The regression coefficient of the latent mediator's impact on the latent dependent variable, with simultaneous control of the latent independent variable, amounted to $\beta = .29$ ($p < .001$). Mediation explained the relationship between empathy and aggression – the direct effect corresponded to $\beta = -.08$ ($p = .292$). Including an intermediate variable in the model reduced the negative link between the independent and dependent variables to statistical insignificance, indicating full mediation (the indirect effect equalled $\beta = -.15$, $p < .001$).

Discussion

Although various dimensions of religiosity and empathy have been linked to decreased antisocial behaviour and increased pro-social behaviour, it is still unclear how, for example, spiritual sensitivity leads to such positive results in the area of aggression inhibition. One possibility is that higher levels of empathy foster a greater sense of spirituality, which in turn motivates positive behavioural outcomes. Thus, the purpose of this study was to examine the role of spiritual sensitivity as a mediator in the relationship between empathy (affective and cognitive) and aggression (reactive and proactive) in a group of school children and adolescents. Our results suggest that spiritual sensitivity may mediate the relationship between empathy and aggression. Including spiritual sensitivity in the model reduced the negative relationship between the independent and dependent variables, indicating full mediation. Spiritual sensitivity mediated the relationship between empathy and aggression, confirming previous research findings in which, among other things, religiosity including religious commitment or moral identification as variables mediated the relationship between empathy, aggression and behavioural outcomes.⁴⁶

⁴⁶ Hardy et al., "Religiosity and adolescent empathy"; Sam A. Hardy, Gustavo Carlo, "Religiosity and prosocial behaviours in adolescence: The mediating role of prosocial values". *Journal of Moral Education* 34 (2) (2005): 231–249.

This complements current research findings that suggest that religiosity may facilitate identity formation and empathy development processes, which in turn may result in positive social and behavioural outcomes for adolescents.⁴⁷

The associations between both affective empathy and cognitive empathy and spiritual sensitivity (outward focus and inward reflective focus) were positive, which remains consistent with the consensus in the literature.⁴⁸ In contrast, the links between aggression and spiritual sensitivity proved to be more complex than studies have so far suggested. Outward focus and inward reflective focus were negatively related to proactive aggression, while both dimensions of spiritual sensitivity were unrelated to reactive aggression. It seems likely, therefore, that spirituality may provide a resource for preventing individuals from taking of benefit-oriented aggressive actions (e.g., through references to moral principles), but is less likely to improve angry and hostile dispositions. Associations between higher levels of spirituality and lower levels of dispositional aggressiveness have been observed in the past,⁴⁹ which may support our findings. Similarly, spirituality has also been positively correlated with overall levels of aggression.⁵⁰

In addition, our results indicate that cognitive empathy was not related to reactive and proactive aggression, while affective empathy was weakly linked to proactive and reactive aggression. However, increasing attention is now being paid to the fact that empathy is not such an important factor in the determinants of empathy. A meta-analysis⁵¹ involving 106 effect sizes found that the relationship between empathy and aggression was surprisingly weak. This result was also fairly consistent for specific types of aggression, including verbal, physical and sexual aggression. In this regard, the results of our study are quite puzzling, given that empathy is a core component of many therapies for aggressive juveniles and offenders.

Practical implications for education

As a result of the research and analysis, the conclusions also relate to the practical applications of the results. Among other things, they can be used in drawing attention to the role of empathy and spirituality in education as well as in psychological and therapeutic assistance in the context of counteracting aggressive behaviour

⁴⁷ Walker, Reimer, "The relationship"; James L. Furrow, Pamela Ebstyn King, Krystal White, "Religion and positive youth development: Identity, meaning, and prosocial concerns". *Applied Developmental Science* 8 (1) (2004): 17–26.

⁴⁸ Kathy A. Stepien, Amy Baernstein, "Educating for empathy: A review". *Journal of General Internal Medicine* 21 (5) (2006): 524–530; John Thomas Huber, Douglas A. MacDonald, "An investigation of the relations between altruism, empathy, and spirituality". *Journal of Humanistic Psychology* 52 (2) (2012): 206–221.

⁴⁹ Hardy et al., "Religiosity and adolescent empathy".

⁵⁰ Jon R. Webb, Chris S. Dula, Ken Brewer, "Forgiveness and aggression among college students". *Journal of Spirituality in Mental Health* 14 (1) (2012): 38–58.

⁵¹ Vachon, Lynam, Johnson, "The (non) relation".

and promoting the proper social functioning of children and adolescents.⁵² It is important to emphasize the development of skills related to coping with frustrating situations without leading to reacting with aggression in information provided to such individuals. Similar activities can contribute to better functioning not only in the social, family and educational areas, but also in mental health.

The research presented in this paper represents important content in the context of organizing assistance through the implementation of training or classes using various methods from the field of sociotherapy.⁵³ Based on the results obtained, it can be concluded that the formation of appropriate responses in stressful situations is associated with the need to build personal resources which, as a result, allows for minimizing the sense of frustration and the tendency to react with aggression. Therefore, therapeutic activities should lean towards activating resources in a socially desirable direction. The development of empathy should be accompanied by a shift to imaginative, metaphorical thinking with anticipation of the consequences of one's actions towards empathizing with a potential victim of aggressive behaviour. In the area of supporting the individual, one can use, for example, solving difficult or stressful situations with other people. Drama techniques may be indicated for developing empathy and spirituality. The subjects of interactions should be made aware of the concept of taking different perspectives, as well as varying paradigms on events, issues, situations and phenomena. Empathic and spiritualized reactions could involve anticipating situations that provoke aggression responses, as well as avoiding these, learning about one's resources and developing skills for active and constructive social functioning.

Limitations

Some limitations of this study should be noted. First, the measures of proactive and reactive aggression may be too narrow in the child and adolescent population. In future works, an important alternative to the RPAQ scale is the BPAQ (Buss–Perry Aggression Questionnaire),⁵⁴ which could expand the findings on aggression to include dimensions of anger and hostility, for example. Second, the cross-sectional design makes it impossible to clearly establish causal relationships. In addition, the inclusion of more sociodemographic data (such as school type or housing conditions) would provide a more complete picture in terms of the determinants of individual phenomena. Despite these limitations, there are several important

⁵² Karol Konaszewski, *Pedagogika wrażliwa na resiliencje: studium teoretyczno-empiryczne* (Kraków: Oficyna Wydawnicza 'Impuls', 2020).

⁵³ Łukasz Kwadrans, Karol Konaszewski, *Zasoby osobiste młodzieży nieprzystosowanej społecznie* (Kraków: Oficyna Wydawnicza 'Impuls', 2018).

⁵⁴ Arnold H. Buss, Mark Perry, "The Aggression Questionnaire". *Journal of Personality and Social Psychology* 63 (3) (1992): 452.

findings. This paper provides an empirical framework for researchers by testing the mediating role of spiritual sensitivity between empathy and aggression in a sample of children and adolescents, which sheds new light on the mechanism underlying empathy and aggression. Given the findings, it can be concluded that these results can help design effective psychological interventions aimed at building empathy and spiritual sensitivity in children and adolescents, which may consequently promote the levelling of undesirable behaviour.

Conclusions

In conclusion, this study has provided some findings suggesting that spiritual sensitivity may indeed be one of the possible mechanisms by which religiosity leads to positive behavioural outcomes. This paper is focused to a greater extent on internal factors (empathy and spiritual sensitivity) rather than external ones which focus, for example, on social capital. The findings suggest that such internal factors may be important in levelling aggression and that concentrating solely on environmental and situational influences may not fully capture individual differences in thinking, emotions and behaviour.

S t r e s z c z e n i e: Agresja jest jednym z istotnych problemów funkcjonowania psychospołecznego, ale także obszarem zdrowia fizycznego i psychicznego wśród dzieci i młodzieży. Celem niniejszego badania było zbadanie roli wrażliwości duchowej jako mediatora w związku między empatią a agresją w grupie dzieci i młodzieży w wieku szkolnym. W badaniu wzięło udział 281 dzieci i młodzieży (54% stanowiły dziewczęta) w wieku 9–14 lat. Procedura badania polegała na wypełnieniu trzech kwestionariuszy mierzących wrażliwość duchową, empatię i agresję. W celu określenia związku między zmiennymi zastosowano modelowanie równań strukturalnych z wykorzystaniem estymacji maksymalnego prawdopodobieństwa. Nasze wyniki sugerują, że wrażliwość duchowa może pośredniczyć w związku między empatią a agresją. Uwzględnienie wrażliwości duchowej w modelu zmniejszyło negatywny związek między zmiennymi niezależnymi i zależnymi, wskazując na pełną mediację. Niniejsze badanie dostarczyło pewnych ustaleń sugerujących, że wrażliwość duchowa może być jednym z możliwych mechanizmów, dzięki którym religijność prowadzi do pozytywnych wyników behawioralnych. Wyniki sugerują, że takie czynniki wewnętrzne mogą być ważne w niwelowaniu agresji, a skupienie się wyłącznie na wpływach środowiskowych i sytuacyjnych może nie w pełni uchwycić indywidualne różnice w myśleniu, emocjach i zachowaniu.

S ł o w a k l u c z o w e: agresja, dzieci szkolne, młodzież, empatia i wrażliwość duchowa

Bibliography

- Baron-Cohen, Simon, Wheelwright, Sally. "The empathy quotient: An investigation of adults with Asperger syndrome or high functioning autism, and normal sex differences". *Journal of Autism and Developmental Disorders* 34 (2) (2004): 163–175.
- Bernhardt, Boris C., Singer, Tania. "The neural basis of empathy". *Annual Review of Neuroscience* 35 (1) (2012): 1–23. Buss, Arnold H. "Psychopathology". In: A.H. Buss, *The Psychology of Aggression*, 207–220. New York: Wiley & Sons, 1961, <https://psycnet.apa.org/record/2006-09474-011> [accessed 15 May 2024].
- Buss, Arnold H., Perry, Mark. "The Aggression Questionnaire". *Journal of Personality and Social Psychology* 63 (3) (1992): 452.
- Chowdhury, Rafi M.M.I. "Religiosity and voluntary simplicity: The mediating role of spiritual well-being". *Journal of Business Ethics* 152 (1) (2018): 149–174.
- Cohen, Jacob. "A power primer". *Psychological Bulletin* 112 (1) (1992): 155.
- Cuff, Benjamin M.P., Brown, Sarah J., Taylor, Laura, Howat, Douglas J. "Empathy: A review of the concept". *Emotion Review* 8 (2) (2016): 144–153.
- De Wied, Minet, Branje, Susan J.T., Meeus, Wim H.J. "Empathy and conflict resolution in friendship relations among adolescents". *Aggressive Behavior* 33 (1) (2007): 48–55.
- Decety, Jean, Hodges, Sara D. "The Social Neuroscience of Empathy". In: *Bridging Social Psychology*, eds. Paul A.M. Van Lange, 121–128. New York: Psychology Press, 2006.
- Dodge, Kenneth A. "Social cognition and children's aggressive behavior". *Child Development* 51 (1) (1980): 162–170.
- Eisenberg, Nancy, Champion, Claire, Ma, Yue. "Emotion-related regulation: An emerging construct". *Merrill-Palmer Quarterly* 50 (3) (2004): 236–259.
- Farrington, David P. "Predictors, causes, and correlates of male youth violence". *Crime and Justice* 24 (1998): 421–475.
- Furrow, James L., King, Pamela Ebsteyne, White, Krystal. "Religion and positive youth development: Identity, meaning, and prosocial concerns". *Applied Developmental Science* 8 (1) (2004): 17–26.
- Hardy, Sam A., Carlo, Gustavo. "Religiosity and prosocial behaviours in adolescence: The mediating role of prosocial values". *Journal of Moral Education* 34 (2) (2005): 231–249.
- Hardy, Sam A., Walker, Lawrence J., Rackham, David D., Olsen, Joseph A. "Religiosity and adolescent empathy and aggression: The mediating role of moral identity". *Psychology of Religion and Spirituality* 4 (3) (2012): 237.
- Heyes, Cecilia. "Empathy is not in our genes". *Neuroscience & Biobehavioral Reviews* 95 (2018): 499–507.
- Hogan, Robert. "Development of an empathy scale". *Journal of Consulting and Clinical Psychology* 33 (3) (1969): 307.
- Huber, John Thomas, MacDonald, Douglas A. "An investigation of the relations between altruism, empathy, and spirituality". *Journal of Humanistic Psychology* 52 (2) (2012): 206–221.
- Jolliffe, Darrick, Farrington, David P. "Empathy and offending: A systematic review and meta-analysis". *Aggression and Violent Behavior* 9 (5) (2004): 441–476.
- King, Pamela Ebsteyne, Roeser, Robert W. "Religion and spirituality in adolescent development". *Handbook of Adolescent Psychology* 1 (3) (2009): 435–478.
- Kline, Rex B. *Principles and Practice of Structural Equation Modeling*. New York: Guilford Publications, 2015.
- Konaszewski, Karol. *Pedagogika wrażliwa na „resilience”*. Studium teoretyczno-empiryczne. Kraków: Oficyna Wydawnicza Impuls, 2020.

- Konaszewski, Karol. *Tożsamość wychowanków młodzieżowych ośrodków wychowawczych*. Gdańsk: Wydawnictwo Naukowe Katedra, Białystok: Universitas Bialostocensis, 2016.
- Kwadrans, Łukasz, Konaszewski, Karol. *Zasoby osobiste młodzieży nieprzystosowanej społecznie*. Kraków: Oficyna Wydawnicza "Impuls", 2018.
- Lawson, John, Baron-Cohen, Simon, Wheelwright, Sally. "Empathising and systemising in adults with and without Asperger syndrome". *Journal of Autism and Developmental Disorders* 34 (3) (2004): 301–310.
- Mehrabian, Albert, Epstein, Norman. "A measure of emotional empathy". *Journal of Personality* 40 (4) (1972): 525–543, <https://psycnet.apa.org/record/1973-23075-001> [accessed 15 May 2024].
- Merk, Welmoet, De Castro, Bram Orobio, Koops, Willem, Matthys, Walter. "The distinction between reactive and proactive aggression: Utility for theory, diagnosis and treatment?". *European Journal of Developmental Psychology* 2 (2) (2005): 197–220.
- Olweus, Dan. *Aggression in the Schools: Bullies and Whipping Boys*. Washington–New York: Hemisphere, 1978.
- Pouw, Lucinda BC, Rieffe, Carolien, Oosterveld, Paul, Huskens, Bibi, Stockmann, Lex. "Reactive/proactive aggression and affective/cognitive empathy in children with ASD". *Research in Developmental Disabilities* 34 (4) (2013): 1256–1266.
- Raine, Adrian, Dodge, Kenneth, Loeber, Rolf, Gatzke-Kopp, Lisa, Lynam, Don, Reynolds, Chandra et al. "The reactive–proactive aggression questionnaire: differential correlates of reactive and proactive aggression in adolescent boys". *Aggressive Behavior* 32 (2) (2006): 159–171.
- Reid, Corinne, Davis, Helen, Horlin, Chiara, Anderson, Mike, Baughman, Natalie, Campbell, Catherine. "The Kids' Empathic Development Scale (KEDS): A multi-dimensional measure of empathy in primary school-aged children". *British Journal of Developmental Psychology* 31(2) (2013): 231–256.
- Smith, Christian, Denton, Melina Lundquist. *Soul Searching: The Religious and Spiritual Lives of American Teenagers*. New York: Oxford University Press, 2009.
- Soenens, Bart, Duriez, Bart, Vansteenkiste, Maarten, Goossens, Luc, "The intergenerational transmission of empathy-related responding in adolescence: The role of maternal support". *Personality and Social Psychology Bulletin* 33 (3) (2007): 299–311.
- Spunt, Robert P., Lieberman, Matthew D. "The busy social brain: Evidence for automaticity and control in the neural systems supporting social cognition and action understanding". *Psychological Science* 24 (1) (2013): 80–86.
- Stepien, Kathy A., Baernstein, Amy. "Educating for empathy: A review". *Journal of General Internal Medicine* 21 (5) (2006): 524–530.
- Stoyles, Gerard John, Stanford, Bonnie, Caputi, Peter, Keating, Alysha-Leigh, Hyde, Brendan. "A measure of spiritual sensitivity for children". *International Journal of Children's Spirituality* 17 (3) (2012): 203–215.
- Surzykiewicz, Janusz, Ciechomski, Maciej, Skalski, Sebastian, Toussaint, Loren L., Bielecki, Marcin, Kwadrans, Łukasz et al. "Preliminary assessment of the psychometric properties of the polish version of the Questionnaire to Assess Affective and Cognitive Empathy (QAACE) in children". *Current Issues in Personality Psychology* 12 (2) (2023): 100–108.
- Vachon, David D., Lynam, Donald R., Johnson, Jarrod A. "The (non) relation between empathy and aggression: Surprising results from a meta-analysis". *Psychological Bulletin* 140 (3) (2014): 751–773.
- Walker, Lawrence J., Frimer, Jeremy A., "Being good for goodness' sake: Transcendence in the lives of moral heroes". In: Lawrence J. Walker, Jeremy A. Frimer, *Getting Involved: Global Citizenship Development and Sources of Moral Values*, 307–326. Rotterdam: Brill, 2008.

- Walker, Lawrence J., Reimer, Kevin S., “The relationship between moral and spiritual development”. In: *The Handbook of Spiritual Development in Childhood and Adolescence*, eds. Eugene C. Roehlkepartain, Pamela E. King, Linda Wagener, Peter L. Benson, 224–238. Thousand Oaks: Sage Publications, Inc., 2006.
- Webb, Jon R., Dula, Chris S., Brewer, Ken. “Forgiveness and aggression among college students”. *Journal of Spirituality in Mental Health* 14 (1) (2012):38–58.
- Yu, Chi-Lin, Chou, Tai-Li. “A dual route model of empathy: A neurobiological prospective”. *Frontiers in Psychology* 9 (2018): 366716.
- Zoll, Carsten, Enz, Sibylle. *A Questionnaire to Assess Affective and Cognitive Empathy in Children*. Bamberg: Otto-Friedrich-Universität Bamberg, 2010.