**Forms and functions of aggression in young adults:**

**The Polish modified version of the Peer Conflict Scale**

Supplementary material

Table 1

Item loading on the four-factor model, for the complete sample and by gender (Study 1)

|  |  |  |  |
| --- | --- | --- | --- |
| Scale/Item | Complete sample | Gender | |
|  | Women | Men |
| **Proactive overt aggression** | α = .78 | α = .76 | α = .81 |
| 12. When I hurt others, it makes me feel powerful and respected  *Gdy ranię innych, czuję, że to czyni mnie silnym/-ą i szanowanym/-ą* | .588 (.578) | .482 (.485) | .761 (.753) |
| 18. I threaten others to get what I want  *Grożę innym, aby dostać to, czego chcę* | .662 (.653) | .620 (.608) | .725 (.730) |
| 21. I am deliberately cruel to others, even if they haven’t done anything to me  *Celowo jestem okrutny/-a dla innych, nawet jeśli nic mi nie zrobili* | .537 (.544) | .530 (.530) | .524 (.527) |
| 24. I carefully plan out how to hurt others  *Uważnie planuję, jak skrzywdzić innych* | .581 (.583) | .549 (.563) | .617 (.627) |
| 27. I hurt others for things they did to me a while back  *Krzywdzę innych za rzeczy, które zrobili mi jakiś czas temu* | .702 (.698) | .703 (.701) | .684 (.677) |
| 28. I enjoy hurting others  *Krzywdzenie innych sprawia mi przyjemność* | .605 (.605) | .614 (.621) | .537 (.539) |
| **Reactive overt aggression** | α = .81 (.83) | α = .83 (.84) | α = .80 (.82) |
| 3. When I am teased, I will hurt someone or break something  *Gdy jestem rozdrażniony/-a, zranię kogoś albo coś niszczę* | .629 (.652) | .628 (.645) | .635  (.669) |
| 11. I threaten others when they do something wrong to me  *Grożę innym, gdy robią mi coś złego/zrobią coś niewłaściwego wobec mnie* | .587 (–) | .596 (–) | .612 (–) |
| 16. I hurt others when I am angry at them  *Czasami ranię innych, gdy jestem na nich zły/-a* | .679 (.729) | .746 (.773) | .606 (.650) |
| 20. If others make me mad, I hurt them  *Jeśli inni mnie rozwścieczą, ranię ich* | .815 (.848) | .818 (.841) | .800 (.860) |
| 36. When I get angry, I will hurt someone  *Gdy jestem zły/-a, skrzywdzę kogoś* | .730 (.750)) | .726 (.734) | .739 (.779) |
| **Proactive relational aggression** | α = .60 | α = .62 | α = .58 |
| 2. I enjoy making fun of others  *Naśmiewanie się z innych sprawia mi przyjemność* | .465 (.454) | .463 (.459) | .422 (.430) |
| 9. I try to make others look bad to get what I want  *Staram się przedstawić innych w złym świetle, aby dostać to, czego chcę* | .599 (.593) | .585 (.582) | .628 (.612) |
| 29. I spread rumors and lies about others to get what I want  *Rozsiewam plotki i kłamstwa na temat innych, aby dostać to, czego chcę* | .466 (.471) | .508 (.508) | .390 (.390) |
| 32. I ignore or stop talking to others in order to get them to do what I want  *Ignoruję lub przestaję rozmawiać z innymi, aby zrobili to, czego chcę.* | .592 (.593) | .595 (.599) | .570 (.577) |
| **Reactive relational aggression** | α = .73 | α = .74 | α = .73 |
| 7. I spread rumors and lies about others when they do something wrong to me  *Rozsiewam plotki i kłamstwa na temat innych, gdy zrobią mi coś złego* | .567 (.575) | .554 (.554) | .621 (.625) |
| 15. I make new friends to get back at someone who has made me angry  *Zawieram nowe przyjaźnie, aby odegrać się na kimś, kto mnie rozgniewał* | .516 (.520) | .534 (.537) | .440 (.445) |
| 17. When others make me mad, I write mean notes about them and pass the notes around  *Gdy inni doprowadzają mnie do szału, piszę o nich wredne rzeczy i przekazuję je dalej* | .512 (.521) | .525 (.524) | .526 (.533) |
| 22. When I am angry at others, I try to make them look bad  *Gdy jestem zły/-a na innych, staram się przedstawić ich w złym świetle* | .736 (.737) | .757 (.758) | .707 (.721) |
| 40. When someone makes me angry, I try to exclude them from my group  *Kiedy ktoś mnie zezłości, staram się wykluczyć go z mojej grupy* | .639 (.626) | .636 (.634) | .593 (.573) |

*Note*. Factor loadings are completely standardized regression weights. Loadings or internal stability in parentheses are for model excluding item 11 due to the MI analysis. All loadings are significant at *p* < .001.

*Table 2*

Descriptive values (means and standard deviations for all subscales) for men and women (Study 1)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | Full sample | | Women  (*n* = 356) | | Men  (*n* = 121) | |  |  |
|  | *M* | *SD* | *M* | *SD* | *M* | *SD* | *t* | *Cohen’s d* |
| Proactive overt aggression | 1.27 | 2.04 | 1.08 | 1.83 | 1.82 | 2.48 | –3.02a\*\* | –0.34 |
| Reactive overt aggression | 3.30 | 2.37 | 3.39 | 2.35 | 3.03 | 2.42 | 1.41 | 0.15 |
| Proactive relational aggression | 0.73 | 1.20 | 0.65 | 1.13 | 0.96 | 1.36 | –2.24a\* | –0.25 |
| Reactive relational aggression | 2.04 | 2.17 | 2.05 | 2.21 | 2.02 | 2.07 | 0.16 | 0.02 |

*Note*. a – Welch test due to unequal variances.

*Table 3*

Correlations with emotion regulation strategies and full (10-items) version of the PCS subscales (Study 1)

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Cognitive reappraisal | Emotion suppression | Correlation with original (10-item) version of respective subscale |
| Proactive overt aggression | 0.01 | –0.34 | .96\*\*\* |
| Reactive overt aggression | –.08 | 0.12\* | .86\*\*\* |
| Proactive relational aggression | –.10\* | .02 | .86\*\*\* |
| Reactive relational aggression | 0.03 | .01 | .93\*\*\* |

*Note*. \* *p* < .05

*Table 4*

Fit indices for competing model of internal structure of the PCS (Study 2)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Model | χ2 (df) | CFI | RMSEA  [90% CI] | SRMR | Comparisons |
| M1: Unidimensional | 258.21 (152) | .89 | .056  [.044; .068] | .05 | vs. M2: ∆χ2 = 3.01  vs. M3: ∆χ2 = 3.43  vs. M4: ∆χ2 = 55.64\*\*\* |
| M2: Two-forms (overt vs. relational) | 255.20  (151) | .89 | .056  [.044; .068] | .05 | vs. M3: ∆χ2 = 0.42  vs. M4: ∆χ2 = 54.60\*\*\* |
| M3: Two-functions (proactive vs. reactive) | 254.78  (151) | .89 | .056  [.044; .068] | .05 | vs. M4: ∆χ2 = 56.17\*\*\* |
| M4: Four-factors | 184.09  (150) | .96 | .035  [.015; .049] | .036 |  |

*Note*. All *χ2* values were significant at *p* < .001. CI = confidence interval; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual. \*\*\* *p* < .001

*Table 5*

Item loading on the four-factor model, for the complete sample and by gender (Study 2)

|  |  |  |  |
| --- | --- | --- | --- |
| Scale/Item | Complete sample | Gender | |
|  | Women | Men |
| **Proactive overt aggression** | α = .94 | α = .95 | α = .93 |
| 6. When I hurt others, it makes me feel powerful and respected  *Gdy ranię innych, czuję, że to czyni mnie silnym/-ą i szanowanym/-ą* | .842 | .866 | .823 |
| 10. I threaten others to get what I want  *Grożę innym, aby dostać to, czego chcę* | .831 | .832 | .827 |
| 12. I am deliberately cruel to others, even if they haven’t done anything to me  *Celowo jestem okrutny/-a dla innych, nawet jeśli nic mi nie zrobili* | .875 | .917 | .836 |
| 14. I carefully plan out how to hurt others  *Uważnie planuję, jak skrzywdzić innych* | .869 | .893 | .843 |
| 15. I hurt others for things they did to me a while back  *Krzywdzę innych za rzeczy, które zrobili mi jakiś czas temu* | .811 | .867 | .775 |
| 16. I enjoy hurting others  *Krzywdzenie innych sprawia mi przyjemność* | .853 | .857 | .842 |
| **Reactive overt aggression** | α = .87 | α = .86 | α = .88 |
| 2. When I am teased, I will hurt someone or break something  *Gdy jestem rozdrażniony/-a, zranię kogoś albo coś niszczę* | .738 | .666 | .796 |
| 8. I hurt others when I am angry at them  *Czasami ranię innych, gdy jestem na nich zły/-a* | .674 | .619 | .698 |
| 11. If others make me mad, I hurt them  *Jeśli inni mnie rozwścieczą, ranię ich* | .885 | .972 | .820 |
| 19. When I get angry, I will hurt someone  *Gdy jestem zły/-a, skrzywdzę kogoś* | .899 | .852 | .921 |
| **Proactive relational aggression** | α = .89 | α = .91 | α = .87 |
| 1. I enjoy making fun of others  *Naśmiewanie się z innych sprawia mi przyjemność* | .733 | .744 | .707 |
| 4. I try to make others look bad to get what I want  *Staram się przedstawić innych w złym świetle, aby dostać to, czego chcę* | .858 | .890 | .820 |
| 17. I spread rumors and lies about others to get what I want  *Rozsiewam plotki i kłamstwa na temat innych, aby dostać to, czego chcę* | .880 | .872 | .879 |
| 18. I ignore or stop talking to others in order to get them to do what I want  *Ignoruję lub przestaję rozmawiać z innymi, aby zrobili to, czego chcę.* | .826 | .880 | .771 |
| **Reactive relational aggression** | α = .93 | α = .94 | α = .92 |
| 3. I spread rumors and lies about others when they do something wrong to me  *Rozsiewam plotki i kłamstwa na temat innych, gdy zrobią mi coś złego* | .876 | .891 | .861 |
| 7. I make new friends to get back at someone who has made me angry  *Zawieram nowe przyjaźnie, aby odegrać się na kimś, kto mnie rozgniewał* | .809 | .824 | .782 |
| 9. When others make me mad, I write mean notes about them and pass the notes around  *Gdy inni doprowadzają mnie do szału, piszę o nich wredne rzeczy i przekazuję je dalej* | .852 | .851 | .846 |
| 13. When I am angry at others, I try to make them look bad  *Gdy jestem zły/-a na innych, staram się przedstawić ich w złym świetle* | .895 | .923 | .871 |
| 20. When someone makes me angry, I try to exclude them from my group  *Kiedy ktoś mnie zezłości, staram się wykluczyć go z mojej grupy* | .830 | .839 | .819 |

*Note*. Numbering of items reflects the modified PCS used in the Study 2. Factor loadings are completely standardized regression weights. All loadings are significant at *p* < .001.

*Table 6*

Descriptive values (means and standard deviations for all subscales) for men and women (Study 2)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | Full sample | | Women  (*n* = 110) | | Men  (*n* = 107) | |  |  |
|  | *M* | *SD* | *M* | *SD* | *M* | *SD* | *t* | *Cohen’s d* |
| Proactive overt aggression | 2.66 | 4.12 | 1.91 | 3.66 | 3.44 | 4.43 | –2.77a\*\* | –0.37 |
| Reactive overt aggression | 2.94 | 2.91 | 2.64 | 2.77 | 3.24 | 3.02 | –1.54 | –0.21 |
| Proactive relational aggression | 1.98 | 2.69 | 1.43 | 2.49 | 2.54 | 2.78 | –3.11a\*\* | –0.42 |
| Reactive relational aggression | 2.60 | 3.65 | 1.97 | 3.41 | 3.24 | 3.79 | –2.60a\* | –0.35 |

*Note*. a – Welch test due to unequal variances.

*Table 7*

Fit indices for measurement invariance analyses (Study 2)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Measurement invariance | *χ2* | df | CFI | RMSEA [90% CI] | SRMR |
| Configural | 335.49\* | 292 | .95 | .04 [.009; .054] | .049 |
| Metric | 336.29 | 307 | .97 | .03 [0; .049] | .066 |
| Scalar | 351.24 | 322 | .97 | .03 [0;.048] | .067 |

*Note*. \* *p* < .05. CI = confidence interval; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual.