

A Critical Review of Anti-Bullying Strategies: Analyzing Survey Results Across Regions

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Abstract

Survey participants were asked to rate the effectiveness of different strategies for dealing with bullying on a scale from 1 to 5. The results of the survey, which were checked for reliability and accuracy, indicate that social support and avoidance of aggression are the preferred methods. An analysis of responses from adolescents between the ages of 12 and 17 shows that many of them turn to their friends for comfort and support. The correlation coefficient is highest at age 14 (13.044), while the coefficients for ages 12, 15, and 16 (7.593, 12.497, 12.167 respectively) are closer to the average and suggest a moderate relationship between the variables. The lowest correlation coefficient is at age 17 (8.308), indicating a weaker connection between that age group and the ability to seek comfort and support. People have different ways of responding to bullying and defending themselves. Not everyone chooses to confront the bully directly; some seek support and try to avoid conflict. Adolescents who are 14 years old (7.598) seem to be the most willing and able to respond to bullying, likely due to their stronger sense of social support and conflict avoidance strategies. On the other hand, those who are 12, 16, and 17 years old (4.438, 6.021, 5.029) may struggle more with showing empathy and support, possibly because they are more inclined to avoid conflict or lack the necessary skills in this area.

Keywords: Adolescents, Aggression avoidance, Bullying, Comfort and support.

1. Introduction

schoolchildren and adolescents around the world, leaving lasting effects on their psychological and emotional well-being. In this regard, the study of anti-bullying strategies is becoming increasingly relevant. The results of a recent survey in which participants rated their choice of strategies in response to bullying on a scale of 1 to 5 confirmed the importance of social support and avoidance of aggression in such situations. An analysis of the responses of teenagers of different ages, from 12 to 17 years old, outlined interesting trends in their ability to seek solace and support from friends. In this context, research into the goals and methods of responding to

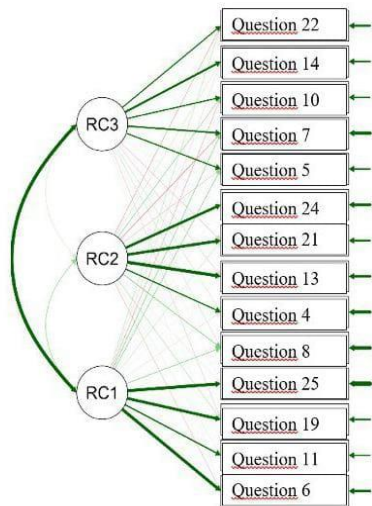
bullying becomes more important, especially considering different age characteristics and preferences. This study aims to gain a deeper understanding of these issues and identify differences in anti-bullying strategies across different age groups.

Bullying is a phenomenon that is becoming increasingly common among children and adolescents, leaving negative consequences on their mental and emotional well-being. To combat this phenomenon, it is necessary to develop effective coping strategies that would help adolescents cope with aggressive behavior and find support in difficult situations. Various coping strategies in bullying situations represent behavioral, cognitive and emotional ways of coping with difficult situations. Research shows that there are three main types of coping strategies: behavioral, cognitive and emotional. Each type of strategy has its own options - adaptive, relatively adaptive and non-adaptive [1]. Within the framework of cognitive coping strategies, the following options are distinguished: the strategy of problem analysis, ignoring, dissimulation, maintaining composure, religiosity, giving meaning and establishing one's own value, as well as strategies of humility and confusion [2]-[3]. Behavioral coping strategies can be adaptive (eg, cooperation) or maladaptive (eg, active avoidance) [4]. Relatively adaptive strategies include distraction, altruism, compensation, constructive activity, asking others for help, as well as active avoidance and retreat strategies. Within the framework of emotional coping strategies, there are adaptive (for example, optimism), relatively adaptive (for example, protest and passive cooperation) and maladaptive (for example, emotional release, humility, self-blame, aggressiveness and suppression of emotions) options. These strategies have been examined in the context of bullying, and the use of adaptive coping strategies can help people cope effectively with the negative consequences of this phenomenon. If maladaptive coping strategies are used in adolescents with addictive behavior, there may be a risk of developing dependence on psychoactive substances. However, in the presence of psychological factors of resistance to stress, such as a developed basic coping strategy of seeking social support from others, empathy and other communicative resources, an individual can successfully overcome stress and integrate into a prosocial environment. On the contrary, the insufficient development of these factors and the predominance of maladaptive coping behavior can lead to the development of negative addictive behavior [6].

2. METHODS

AS part of our study, the structure of the author's questionnaire of strategies for overcoming bullying was tested using exploratory and confirmatory factor analysis. Exploratory analysis revealed 3 scales associated with different strategies (pic.1).

Pic. 1 – Questionnaire structure diagram



However, some indicators were unsatisfactory, which required adjustment of the model. As a result, a two-factor structure with 10 statements was identified (see Table 4 – questionnaire questions). Coping strategies represent different ways of responding to bullying and can be adaptive depending on the situation and the resources available to cope with the problem.

PARTICIPANTS AND DATA COLLECTION

Adaptation of the methodology was carried out from April 18 to May 18, 2024 on a sample of 1050 adolescents aged 12-17 years in different regions of Kazakhstan. The average age of participating adolescents was 14.3 years; the percentage of boys and girls among the study participants – boys - 41.3%, girls - 58.6%. (434, 616 people respectively).

Respondents are asked to rate how likely or certain they would use certain strategies to cope with bullying if they received threats.

Answers are filled out on a five-point Likert scale, where 1 is definitely not, 2 is no, 3 is probably not, 4 is probably yes, 5 is definitely yes. This questionnaire is practical, easy to administer and analyze, and saves time. It can be used to screen students.

INSTRUCTION:

Dear survey participant! Imagine being the victim of physical violence, beatings, or intimidation in real life. What would you do in this situation? Please rate on a scale of five what strategies you would use to overcome hypothetical physical violence (“I would...”).

To do this, put opposite each line the corresponding score from 1 to 5, where 1 is definitely not, 2 is not; 3- probably not; 4 - probably yes, 5 - definitely yes.

Respondents were sent links to the questionnaire in a Google form. After completing the questionnaire, the data were imported into IBM SPSS (version 23.0). At the first stage of data analysis, exploratory factor analysis was carried out using the principal components method and oblique rotation, as well as normalization using the Kaiser method. To confirm the results, confirmatory factor analysis and multigroup confirmatory factor analysis (MGCFA) were used using the JASP statistical package (version 0.10.0).

MEASURES

Table 1 presents data on the reliability (Reliability) of indicators of close support and avoidance in adolescents of different ages. The α coefficient indicates the degree of internal consistency of the data (reliability) in each age group. The table shows that, in general, reliability indicators are quite high in each age group, from 0.734 to 0.806. However, there is some variation depending on age. For example, children 12 years old (see Fig. 2) have the lowest rates, and children 15 years old have the highest (see Fig. 3).

These findings may help to understand how the perception and importance of close support and avoidance changes with age in adolescents, and what opportunities there are to work with these measures to improve the reliability and rigor of research. From these results we can conclude that with age, adolescents change their perception of the importance of close support and avoidance. For example, in children 12 years of age, reliability indicators may be lower due to the more unstable psychological and emotional sphere at this age. On the other hand, 15-year-old adolescents have higher reliability scores, which may indicate more stable and confident relationships at this age.

Table1- Data on the Reliability of Indicators of Bullying Coping Strategies

| Group | Factor | Coefficient α |
|----------|---------------|----------------------|
| 15 years | Close support | 0.739 |
| | Avoidance | 0.720 |
| | total | 0.806 |
| 14 years | Close support | 0.708 |
| | Avoidance | 0.642 |
| | total | 0.783 |
| 16 years | Close support | 0.720 |
| | Avoidance | 0.651 |
| | total | 0.753 |
| 13 years | Close support | 0.701 |
| | Avoidance | 0.637 |
| | total | 0.748 |
| 12 years | Close support | 0.564 |
| | Avoidance | 0.644 |
| | total | 0.734 |
| 17 years | Close support | 0.685 |
| | Avoidance | 0.685 |
| | total | 0.759 |

Figure 2 – Correlation coefficients for adolescents 12 years old

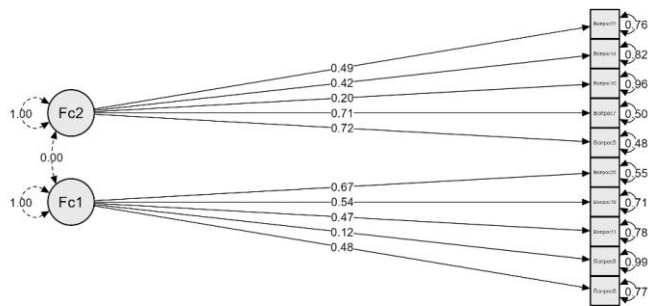
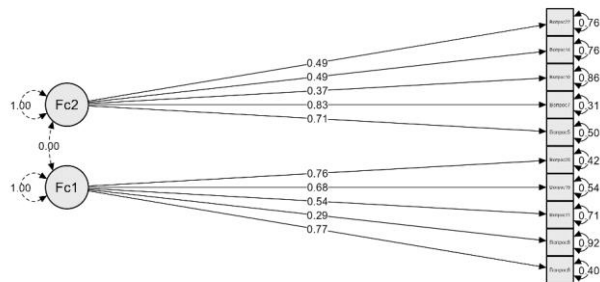


Figure 3 - Correlation coefficients for adolescents 15 years old.



STATISTICAL ANALYSIS

Tables 2 and 3 present factor loadings for the Close Support and Avoidance strategies, confirming that the most preferred strategies among adolescents were social support and avoidance of aggression. Factor loadings for the Close Support strategy increased with age. This may indicate that high school students perceive this strategy as more effective and meaningful to them. Teenagers tend to turn to friends for comfort and support. In addition, age 14 was found to have the highest correlation coefficient (13.044), indicating a strong connection between this age and the ability of adolescents to respond to threats from bullies. The standard error for factor loadings decreases with age, which may indicate a more confident assessment by high school students of the importance of this support strategy. Z-scores for all age groups clearly indicate statistical significance of the factor loadings, confirming their validity. On the other hand, the 12, 16, and 17-year-old age groups showed lower correlation coefficient values, which may indicate difficulty in showing empathy and support or a desire to avoid conflict, and a weaker relationship between these ages and the ability to comfort and listen. Thus, the study showed different approaches and strategies for responding to situations of bullying among adolescents of different ages, which can be useful information for developing programs to support and prevent violence in a school environment with differentiation by age.

Table 2 - Factor loadings. "Close Support" Strategy

| Group | Estimate | Std. Error | z-value | p |
|----------|----------|------------|---------|--------|
| 12 years | 1.000 | 0.132 | 7.593 | < .001 |
| 14 years | 1.058 | 0.081 | 13.044 | < .001 |
| 15 years | 0.984 | 0.079 | 12.497 | < .001 |
| 16 years | 1.183 | 0.097 | 12.167 | < .001 |
| 17 years | 1.316 | 0.158 | 8.308 | < .001 |

Table 3 - Factor loadings. Avoidance Strategy

| Group | Estimate | Std. Error | z-value | p |
|----------|----------|------------|---------|--------|
| 12 years | 0.624 | 0.141 | 4.438 | < .001 |
| 14 years | 0.641 | 0.084 | 7.598 | < .001 |
| 15 years | 0.984 | 0.079 | 12.497 | < .001 |
| 16 years | 0.571 | 0.095 | 6.021 | < .001 |
| 17 years | 0.718 | 0.143 | 5.029 | < .001 |

Note. The rotation method used is varimax.

A comparative analysis of the questionnaire questions (see Table 4) showed that for group 15 the most significant are questions 8, 10 and 14, since they have the highest values of the residual dispersion coefficient. For group 14, questions 8, 10 and 14 also turned out to be significant, for group 13 - questions 8 and 10 (see Table 5). Group 12 stood out in that the most significant were questions 8, 10, 14 and 22. Group 17 years old – questions 5 and 10.

Table 4 - Survey questions

| Factor | Index |
|---------------|---|
| Close support | 6. I would like to find someone with whom I can share my feelings and receive support. |
| | 11. I'd rather discuss this with my friends. |
| | 8. I would rather spend time with loved ones to take my mind off my problems. |
| | 25. I would go to the person I trust most. |
| | 19. I would like to find a person who will accept me for who I am. |
| Avoidance | 5. I'd stay away from the bully. |
| | 7. I would try not to think about it and distract myself from negative thoughts. |
| | 10. I would ignore all messages and actions of the bully in order to lose his attention. |
| | 14. I would pretend that I am not affected by the behavior of the bully and would communicate with those who accept me. |
| | 22. I would try to avoid any contact with the bully and reach out to a supportive person. |

Table 5 - Table of residual variations of indicators according to questionnaire questions

| Residual variances | | | | | | | | |
|--------------------|-------------|----------|------------|---------|--------|-------------------------|-------|----------------|
| | | | | | | 95% Confidence Interval | | |
| Group | Indicator | Estimate | Std. Error | z-value | p | Lower | Upper | Std. Est. (lv) |
| 15 | Questions6 | 0.867 | 0.104 | 8.325 | < .001 | 0.663 | 1.071 | 0.867 |
| | Questions8 | 2.021 | 0.154 | 13.117 | < .001 | 1.719 | 2.323 | 2.021 |
| | Questions11 | 1.376 | 0.114 | 12.033 | < .001 | 1.152 | 1.601 | 1.376 |

| Residual variances | | | | | | | | |
|--------------------|-------------|----------|------------|---------|--------|-------------------------|-------|----------------|
| | | | | | | 95% Confidence Interval | | |
| Group | Indicator | Estimate | Std. Error | z-value | p | Lower | Upper | Std. Est. (lv) |
| | Questions19 | 1.032 | 0.098 | 10.501 | < .001 | 0.839 | 1.224 | 1.032 |
| | Questions25 | 0.818 | 0.095 | 8.594 | < .001 | 0.632 | 1.005 | 0.818 |
| | Questions5 | 1.098 | 0.113 | 9.697 | < .001 | 0.876 | 1.320 | 1.098 |
| | Questions7 | 0.603 | 0.106 | 5.681 | < .001 | 0.395 | 0.811 | 0.603 |
| | Questions10 | 1.894 | 0.148 | 12.760 | < .001 | 1.603 | 2.184 | 1.894 |
| | Questions14 | 1.597 | 0.131 | 12.154 | < .001 | 1.339 | 1.854 | 1.597 |
| | Questions22 | 1.529 | 0.127 | 12.076 | < .001 | 1.281 | 1.777 | 1.529 |
| 14 | Questions6 | 0.899 | 0.121 | 7.449 | < .001 | 0.663 | 1.136 | 0.899 |
| | Questions8 | 2.206 | 0.169 | 13.048 | < .001 | 1.875 | 2.538 | 2.206 |
| | Questions11 | 1.480 | 0.126 | 11.701 | < .001 | 1.232 | 1.728 | 1.480 |
| | Questions19 | 1.167 | 0.109 | 10.715 | < .001 | 0.953 | 1.380 | 1.167 |
| | Questions25 | 0.904 | 0.099 | 9.088 | < .001 | 0.709 | 1.099 | 0.904 |
| | Questions5 | 1.272 | 0.133 | 9.581 | < .001 | 1.012 | 1.532 | 1.272 |
| | Questions7 | 0.889 | 0.142 | 6.239 | < .001 | 0.610 | 1.168 | 0.889 |
| | Questions10 | 1.891 | 0.150 | 12.637 | < .001 | 1.597 | 2.184 | 1.891 |
| | Questions14 | 1.796 | 0.153 | 11.708 | < .001 | 1.495 | 2.097 | 1.796 |
| | Questions22 | 1.513 | 0.129 | 11.745 | < .001 | 1.261 | 1.766 | 1.513 |
| 16 | Questions6 | 0.936 | 0.144 | 6.513 | < .001 | 0.654 | 1.217 | 0.936 |
| | Questions8 | 1.722 | 0.174 | 9.901 | < .001 | 1.381 | 2.062 | 1.722 |
| | Questions11 | 1.742 | 0.176 | 9.881 | < .001 | 1.396 | 2.087 | 1.742 |
| | Questions19 | 0.827 | 0.128 | 6.457 | < .001 | 0.576 | 1.078 | 0.827 |
| | Questions25 | 0.937 | 0.126 | 7.423 | < .001 | 0.689 | 1.184 | 0.937 |
| | Questions5 | 1.550 | 0.196 | 7.902 | < .001 | 1.166 | 1.935 | 1.550 |
| | Questions7 | 0.973 | 0.139 | 6.995 | < .001 | 0.701 | 1.246 | 0.973 |
| | Questions10 | 1.834 | 0.203 | 9.022 | < .001 | 1.435 | 2.232 | 1.834 |
| | Questions14 | 1.561 | 0.189 | 8.268 | < .001 | 1.191 | 1.931 | 1.561 |
| | Questions22 | 1.110 | 0.151 | 7.361 | < .001 | 0.814 | 1.405 | 1.110 |
| 13 | Questions6 | 1.357 | 0.134 | 10.122 | < .001 | 1.094 | 1.620 | 1.357 |
| | Questions8 | 1.859 | 0.150 | 12.363 | < .001 | 1.565 | 2.154 | 1.859 |
| | Questions11 | 1.291 | 0.129 | 9.990 | < .001 | 1.038 | 1.545 | 1.291 |
| | Questions19 | 1.033 | 0.121 | 8.503 | < .001 | 0.795 | 1.271 | 1.033 |
| | Questions25 | 1.066 | 0.113 | 9.401 | < .001 | 0.843 | 1.288 | 1.066 |
| | Questions5 | 1.253 | 0.161 | 7.787 | < .001 | 0.937 | 1.568 | 1.253 |
| | Questions7 | 1.136 | 0.136 | 8.380 | < .001 | 0.870 | 1.401 | 1.136 |
| | Questions10 | 1.807 | 0.153 | 11.831 | < .001 | 1.508 | 2.107 | 1.807 |
| | Questions14 | 1.485 | 0.162 | 9.196 | < .001 | 1.169 | 1.802 | 1.485 |
| | Questions22 | 1.455 | 0.136 | 10.722 | < .001 | 1.189 | 1.721 | 1.455 |
| 12 | Questions6 | 1.579 | 0.251 | 6.292 | < .001 | 1.087 | 2.071 | 1.579 |
| | Questions8 | 2.162 | 0.287 | 7.531 | < .001 | 1.599 | 2.724 | 2.162 |
| | Questions11 | 1.724 | 0.273 | 6.304 | < .001 | 1.188 | 2.260 | 1.724 |

| Residual variances | | | | | | | | |
|--------------------|-------------|----------|------------|---------|--------|-------------------------|-------|----------------|
| | | | | | | 95% Confidence Interval | | |
| Group | Indicator | Estimate | Std. Error | z-value | p | Lower | Upper | Std. Est. (lv) |
| | Questions19 | 1.511 | 0.264 | 5.716 | < .001 | 0.993 | 2.029 | 1.511 |
| | Questions25 | 0.910 | 0.234 | 3.883 | < .001 | 0.451 | 1.369 | 0.910 |
| | Questions5 | 1.136 | 0.282 | 4.022 | < .001 | 0.582 | 1.689 | 1.136 |
| | Questions7 | 0.950 | 0.229 | 4.155 | < .001 | 0.502 | 1.398 | 0.950 |
| | Questions10 | 2.312 | 0.311 | 7.444 | < .001 | 1.703 | 2.920 | 2.312 |
| | Questions14 | 1.809 | 0.269 | 6.729 | < .001 | 1.282 | 2.336 | 1.809 |
| | Questions22 | 1.880 | 0.296 | 6.347 | < .001 | 1.299 | 2.461 | 1.880 |
| 17 | Questions6 | 1.043 | 0.264 | 3.944 | < .001 | 0.525 | 1.562 | 1.043 |
| | Questions8 | 1.600 | 0.258 | 6.206 | < .001 | 1.095 | 2.106 | 1.600 |
| | Questions11 | 1.815 | 0.299 | 6.066 | < .001 | 1.229 | 2.402 | 1.815 |
| | Questions19 | 1.321 | 0.257 | 5.131 | < .001 | 0.816 | 1.825 | 1.321 |
| | Questions25 | 0.953 | 0.261 | 3.653 | < .001 | 0.442 | 1.464 | 0.953 |
| | Questions5 | 1.952 | 0.381 | 5.123 | < .001 | 1.205 | 2.699 | 1.952 |
| | Questions7 | 0.914 | 0.198 | 4.612 | < .001 | 0.526 | 1.303 | 0.914 |
| | Questions10 | 1.705 | 0.294 | 5.806 | < .001 | 1.130 | 2.281 | 1.705 |
| | Questions14 | 1.287 | 0.283 | 4.541 | < .001 | 0.731 | 1.842 | 1.287 |
| | Questions22 | 1.087 | 0.275 | 3.947 | < .001 | 0.547 | 1.627 | 1.087 |

The largest deviations from the mean values of the coefficient of residual variance and confidence intervals are observed for Questions 8 (I would prefer to spend time with close people to take my mind off problems), 10 - (I would ignore all messages and actions of a bully in order to lose his attention) and 22 – (I would try to avoid any contact with the bully and turn to a supportive person) in different age groups. Thus, these Questions can be considered the most important and of interest to all age groups.

ETHICAL ASPECTS

Parents and guardians were provided with information about the purposes and methods of the study and the potential risks and benefits of their children's participation. They confirmed their understanding of all aspects of the study and consented to their children's participation, ensuring that the study was voluntary and confidential. Data from children under 15 years of age were processed anonymously and used exclusively for scientific purposes, in accordance with the principles of confidentiality and data protection. Therefore, this study complied with all ethical standards..

3. Results

As part of a survey conducted in various regions, the preferences of participants regarding the choice of strategies for bullying were identified. The questionnaire results were tested for reliability and discriminant validity, which confirmed that the most popular strategies were social support and avoidance of aggression. Avoidance as a coping strategy can be a useful way to cope

with stress in some cases, but it can also lead to worsening the situation or negative consequences in the long term. People experiencing victimization may often feel powerless or helpless, which can lead to the use of passive coping strategies. Social support, on the other hand, is an effective and positive way to cope with stress. Support from loved ones, friends, family or professionals can help improve your emotional well-being and mood, reduce stress and increase self-confidence. Therefore, it is important to pay attention to the coping strategies you choose and take into account their effectiveness in solving problems. Support and seeking help from people around you often turns out to be more useful and effective than avoidance or passive approaches to the situation. It is important to note that adolescents between the ages of 12 and 17 take different approaches to countering bullying. For example, the analysis showed that adolescents tend to turn to friends for comfort and support. In addition, different age groups have different levels of readiness and ability to respond to threats from bullies. It should be noted that special attention should be paid to the age group of 14 years, which has the greatest readiness and ability to respond to threats of bullying. At the same time, the 12, 16 and 17 year olds may have difficulty showing empathy and support, which may be due to a desire to avoid conflict or a lack of skills in this area.

4. Discussions

Thus, a critical review of anti-bullying strategies based on survey results in different regions allows us to identify different approaches and preferences of children and adolescents in conflict situations. These data can be used to develop more effective programs and interventions to prevent and combat bullying in school environments..

Individual strategies for protecting adolescents from bullying can be presented in the following ways:

- Seeking support from loved ones. Friends and family can be good sources of support and comfort in difficult situations.
- Avoiding confrontation. Teenagers may try to ignore provocations and insults so as not to aggravate the situation.
- Increased level of self-esteem. Increasing self-confidence and self-respect helps you respond more calmly and confidently to negative situations.
- Contacting specialists. In case of serious problems with bullying, you need to seek help from a psychologist, teacher or other specialist who can help you cope with the situation and find a solution to the problem. It is important to recognize that each person is unique and what may work for one person may not work for another. Therefore, it is important to take into account individual characteristics and preferences when choosing an anti-bullying strategy. It is necessary to pay attention to the development of adaptive behavioral strategies that promote health and resistance to stress as part of prevention programs. To do this, it is necessary to set specific tasks, such as Close support: Creation and development of a social support system for

the individual, providing him with the necessary help and support in difficult situations; building empathy and affiliation to improve relationships with others.

Avoidance: Modification of avoidance strategies by developing skills in cognitive assessment and reappraisal of stressful situations, as well as developing social competence to effectively manage conflict situations and avoid negative consequences.

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DATA AVAILABILITY STATEMENT

Data can be provided upon request by contacting representatives of the research team.

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