

Reliability and Validity of Peer Aggression Coping Self-Efficacy Scale

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Abstract: Worldwide, most of the mainstream media commonly reports bullying behavior. Nevertheless the instruments for measuring bullying behavior and the attitude towards bullying behavior among Malaysian adolescents are lacking. This study examined the reliability and validity of the peer aggression coping self-efficacy scale measuring the self-efficacy of bully victims among Malaysian adolescents. The scale, which consists of 45 items, was translated to Malay language using back translation method and its validity was examined using 176 high school students. The split-half reliability result revealed Cronbach's alpha of 0.91, indicating a high reliability. Four experts in the counseling field established face validity. The Peer Aggression Coping Self-Efficacy Scale provides a useful measure for examining children's self-efficacy.

Key words: Peer Aggression • Self-Efficacy • Reliability • Bullying • Malaysian adolescents

INTRODUCTION

Peer aggression and victimization has increased among adolescents [1]. Peer aggressions involve a group of adolescents rather than a single adolescent bullying another adolescent. As indicated by Gini [2] peer aggression is a kind of social phenomena that involve groups and individual. The effect on victims of peer aggression is tremendous. Most victims of peer aggression tend to lose interest to study at school and prefer to study at home. Rigby and Slee [3] mentioned that between five to ten percent of victims of peer aggression preferred to study at home to avoid being victimized at school. They also noted that victims who are harmed once a week or more endure health, anxiety, insomnia, depression and social dysfunction. Adolescents who are victim of aggression, when they become adult, they are likely to have children who are victim of peer aggression [4].

Olweus [5] noted that peer aggression has a long-term effect on both victim as well as the bully. Olweus [5] stated that peer aggression is common in school and occurs at all grade levels. Susan [6] stated that peer

aggression affect victims of bullies and decreases self-esteem, confidence in peer acceptance, academic performance and school attendance. Other effect of peer aggressions includes increased in depression, anxiety, negative self-concept, isolation and withdrawal.

The act of peer aggression involves a wide range of aggression acts among children and adolescents, which can be described as bullying. Peer victimization is the experience of being a target of peer aggressive behavior [7, 8]. The victims of bullies are more anxious, careful and insecure in general when compared to other [5]. The characteristic of these adolescents make them an easy target to be victim of aggressions of the bullies at school. Therefore, there is a need to develop a scale to assess self-efficacy to cope with the peer aggression. The Peer Aggression Coping Self-Efficacy Scale measures children's self-efficacy using a wide range of strategies to deal with peer aggression [7].

In Malaysia, the mainstream media commonly reports bullying behavior, however little research had been conducted to understand this behavior [9, 10]. Nevertheless the instruments for measuring bullying behavior and the attitude towards bullying behavior

among Malaysians are lacking. Therefore, this research aimed to adapt the Peer Aggression Coping Self-Efficacy Scale to Malaysian context and test the validity and reliability of the scale to develop a valid measure of self-efficacy to cope with peer aggressions among Malaysian adolescents.

MATERIALS AND METHODS

This quantitative study examines the validity and reliability of the translated Peer Aggression Coping Self-Efficacy Scale. This study involved 176 secondary school students with the age ranging from 13 to 15 years old from a selected school. Three school counselors with Bachelor degree in counseling facilitated the study. The researcher instructed the school counselors on how to administer the scale. The respondent answered the scale, which took about 45 minutes to complete, in their classrooms. The school counselor randomly selected the respondents. All respondents were informed that there were no right or wrong answers and that their participation was voluntarily. The completed scale was collected for analysis.

This study used the Peer Aggression Coping Self-Efficacy Scale for Adolescents, developed by Sing and Bussey [7]. The Peer Aggression Coping Self-Efficacy Scale for Adolescents has four domains; self-efficacy for provocative behavior, self-efficacy for avoiding aggressive behavior, self-efficacy for avoiding self-blame and self-efficacy for victim role disengagement. The scale comprised 45 items with the internal consistency between 0.87 and 0.90 all domains.

The English version of the scale was translated to Malay language (*Bahasa Melayu*) by four panels that were well verse in both languages (Malay language and English). The translated Bahasa Melayu version and the original English version then were given to four experts with a strong background in counseling to check the face validity. The 45 translated scales were then administrated to the participants.

RESULTS AND DISCUSSION

Translation Process: Cross-cultural adaptation involved in translating psychological testing due to different cultural background, especially in terms of the meaning of each item in the scale. The experts in the field of counseling established the face validity of the Aggression Coping Self-Efficacy Scale in this study. The experts translated the English version to Bahasa Melayu.

Then another group of experts back translated the Bahasa Melayu version to the English version. Next, a group of counselors were approached to seek their opinion on the face validity of the Bahasa Melayu of the scale. Face validity established whether the instrument assesses the desired qualities, whether the criterion represents a subject that was judged and reviewed by one or more experts. Greco *et al.* [11] mentioned that face validity focuses on the appearance of the questionnaire on whether it is constructed carelessly and poorly. The researcher further noted that professional-looking questionnaire is likely to give back serious responses. It is important to consider face validity during both pre-test and the post-test. Kidder [12] stated that face validity is the simplest assessment of validity that does not used any statistical techniques.

Behling and Law [13] stated that back-translation is a well-know method for maintaining the meaning of the original version. The most widely used back-translation method is based on Brislin's classic back-translation model used for instrument validation. Brislin [14] also recommended that a team of translators conduct the translation and back-translation. This notion is supported by Maneesriwongul [15] who mentioned that back-translation helps achieve conceptual equivalence, maintain instrument's strength and enhance the findings' credibility. To ensure the reliability of the scale, split-half reliability technique was conducted.

Reliability of Scale: In this study, the split-half technique was used to assess the reliability of the scale. The result indicated Cronbach's alpha of 0.91 which was the same as the reliability assessed by Guttman Split-Half. This result suggests that the Peer Aggression Coping Self Efficacy Scale highly reliable.

The Cronbach alpha reliabilities of two parts split half (Part 1 & Part 2) are shown in Table 1. The Cronbach alpha for Part 1 comprising 23 items was 0.81 and reliability for Part 2 comprising 22 items was 0.81.

Separate internal reliability consistency tests were conducted by comparing the original English version [7] of the scale with the current translated version. Table 2 shows the reliability of the English version and the current study for each domain in the scale. Table 2 also shows the separate internal reliability consistencies between domains which list the Cronbach alpha of each domain in the scale from English version and the current study. Cronbach alpha for self-efficacy for the English version and the current study was at 0.90 and 0.83 respectively.

Table 1: The Cronbach's alpha reliability for two parts of the scale

Part	Cronbach Alpha	Number of Item
Part 1	0.81	23
Part 2	0.81	22

Table 2: Comparing the reliability of the English version with the current study

No.	Factors / Domain	English version (n=2,161)	Translated version (n=176)
1.	Self-efficacy for avoiding aggressive behavior	0.90	0.83
2.	Self-efficacy for avoiding self-blame	0.90	0.80
3.	Self-efficacy for proactive behavior	0.87	0.77
4.	Self-efficacy for victim-role disengagement	0.90	0.81

Further analysis on the domains reveals the Cronbach alpha for internal reliability consistency of self-efficacy for avoiding self-blame English version was 0.90 and for the current study was 0.80 Cronbach alpha. Internal reliability consistency of self-efficacy for proactive behavior for English version Cronbach alpha was 0.87 and the current study was 0.77 Cronbach alpha. Internal consistency of self-efficacy for victim-role disengagement for English version Cronbach alpha was 0.90 and the current study was 0.81.

Split Half reliability technique was used to assess the validity consistency of the scale. Piaw [16] noted that split-half technique is one way to measure the reliability of a quantitative research. This technique is done by splitting the items of the scale into two groups and computing and analyzing the correlation values. The reliability is considered high if items in both groups are highly correlated.

Rudner and Schafer [17] also mentioned that split-half reliability coefficient is obtained by dividing the test into half, correlating the score by each half and correcting for length. The split is based on odd versus even item numbers, randomly selected items, or manually balancing content and difficulty. The advantage of this approach is that it only needs a single test administration. Piaw [16] also mentioned that correlation values ranging from 0.75 to 0.95 indicate satisfactory reliability.

CONCLUSION

The split-half reliability score indicate that the scale is reliable and can be used for Malaysian population. This study shows that the Peer Aggression Coping Self-Efficacy Scale is a valid and reliable scale. It can be used to examine coping self-efficacy of peer aggression among Malaysian adolescents. While the instrument has proven to have excellent psychometric values, further validity and reliability studies are necessary, to support

the finding of this initial study, especially with more divers sample. In addition, it is recommended that future studies use more sophisticated statistical analysis.

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