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The Psychometric Properties of the Persian Versions of the Cyberbullying Perpetration Questionnaire

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Extended Abstract

Aim

Cyberbullying has been recognized as a significant issue and a national mental health problem, with the percentage of individuals experiencing it in their lifetime increasing from 18% in 2007 to 36% in 2019 (López-Vizcaíno et al., 2021). There is currently no consensus on the definition of cyberbullying (Chun et al., 2020). Some researchers define cyberbullying as harassment perpetrated through technology and in an online environment (Kowalski & Limber, 2007). Generally, cyberbullying encompasses online harassment behaviors and other forms of hostile interactions that do not occur face-to-face (Grigg, 2010). After establishing a proper definition of cyberbullying, selecting and developing appropriate measurement tools for evaluating this construct becomes a crucial step. However, the reliability and validity of measurement tools have varied significantly across previous studies (Chun et al., 2020; Calvete et al., 2010).

To understand the complex nature of cyberbullying among young people, significant methodological improvements are needed. Additionally, gender differences in cyberbullying among young people remain largely unknown. Specifically, some studies suggest that girls engage in cyberbullying more than boys (Kowalski & Limber, 2007; Pornari & Wood, 2010), while other studies have reported no difference (Raskauskas & Stoltz, 2007) or even shown higher rates of cyberbullying among boys compared to girls (Aricak et al., 2008; Slonje & Smith, 2008).

In this regard, among the available tools that assess the perpetration of cyberbullying in different groups, the Cyberbullying Perpetration Questionnaire (Wright & Li, 2013) was considered. Given the lack of research that has directly examined the validity and reliability of the Persian version of this construct, and the contradictory findings regarding gender differences in the perpetration of cyberbullying, this study was conducted with the aim of investigating the psychometric properties of the Cyberbullying Perpetration Questionnaire (Wright & Li, 2013).

Methodology

This practical, survey-based psychometric study was conducted in 2022 to investigate the psychometric properties of the Persian version of the Cyberbullying Perpetration Questionnaire (CPQ;

Wright & Li, 2013) among young adults aged 18-35 residing in Tehran and Shiraz, Iran. The statistical population included 474 young people aged 18 to 35 living in Tehran and Shiraz that 474 participants were selected based on convenience sampling.

The translation of the questionnaire involved a four-stage process. First, two translators independently translated the questionnaire from English to Persian. Next, three psychology experts proficient in both languages reviewed and revised the content for clarity and cultural appropriateness. In the third stage, the research team assessed the clarity and fluency of the statements for the target population of young adults. Finally, a pilot study with 40 young adults further refined the questionnaire.

A convenience sample of 500 participants completed the self-reported CPQ. After excluding invalid responses, the final sample consisted of 474 participants. Data analysis was performed using Cronbach's alpha coefficient, Pearson correlation coefficient, confirmatory factor analysis, and independent t-tests in SPSS and AMOS version 26 software, with a significance level of 0.05.

Findings

The study involved 478 participants, with a mean age of 26.01 years ($SD = 5.14$). The majority of participants were female (61%), had undergraduate or higher education (71.70%), and were single (78.70%). Instagram was the most popular social media platform among participants (42%), followed by Facebook (28.20%), WhatsApp (21.30%), and Telegram (11.20%).

The Cyberbullying Perpetration Questionnaire demonstrated good reliability. The Cronbach's alpha coefficient was 0.85, indicating high internal consistency. Additionally, the three-week test-retest correlation coefficient was 0.67, suggesting acceptable stability over time. Confirmatory factor analysis supported the one-factor structure of the questionnaire, with acceptable fit indices ($X^2/df = 2.613$, $GFI = 0.953$, $IFI = 0.950$, $CFI = 0.949$, $PCLOSE = 0.109$, $RMSEA = 0.058$). A significant difference was observed in cyberbullying perpetration between males and females, with males reporting engaging in cyberbullying more frequently than females ($t = 3.91$, $p < 0.001$).

Conclusion

The findings of the Cronbach's alpha coefficient in this study indicate that the Persian version of the Cyberbullying Perpetration Questionnaire (CPQ) demonstrates satisfactory internal consistency, consistent with previous studies (Wang et al., 2016; Wright et al., 2020). Moreover, the CPQ shows consistent internal consistency across different cultures (e.g., Wang et al., 2016; Wright et al., 2021).

The results of the factor analysis of the CPQ align with those of the original study (Wright & Li, 2013) and the Chinese version (Wang et al., 2020), providing additional evidence for the conceptual foundation of cyberbullying perpetration. This replication confirms the CPQ's single-factor structure and demonstrates its strong internal consistency.

Gender differences revealed that women exhibited a higher average of cyberbullying compared to men, consistent with findings from Abeele et al. (2013); Kowalski & Limber (2007); Pornari & Wood (2010). According to Social Construction Theory, individuals' online behavior mirrors their offline behavior (Rivers & Noret, 2010), potentially explaining the higher prevalence of cyberbullying among women, who tend towards indirect aggression offline, while men tend to be more direct.

This study focused on cyberbullying among young adults (aged 18-35 years). While the CPQ proved valuable, there are limitations. Firstly, the sample lacked younger adults, suggesting the need for research across a wider age range. Secondly, peer-to-peer interactions on social media were not studied, an area for future exploration. Despite these limitations, the CPQ remains a concise and effective tool for assessing cyberbullying. Further research with broader scope is warranted.

Keywords: Confirmatory Factorial Analysis, Cyberbullying, Psychometrics, Reliability, Validity.

Ethical Considerations

This study was approved by the Research Ethics Committee of the Faculty of Psychology and Educational Sciences, University of Tehran (code: IR.UT.PSYEDU.REC.1400.036). All procedures performed in this study adhered to the ethical standards of the Declaration of Helsinki.

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Conflict of Interest

The authors declare no conflicts of interest.

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