



ANTECEDENTS FACTORS AFFECTING CYBERBULLYING RISKS: A STUDY IN JORDANIAN SECONDARY SCHOOLS

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Abstract

Purpose of the study: In this study, the primary aim is to identify the effects of self-efficacy and cyberbullying knowledge on cyberbullying risks among Jordanian students.

Methodology: The population of the study specifically comprised of Jordanian students in Irbid students, with the study sample being 153 students. Accordingly, a questionnaire was developed and disseminated among the students to gather data for the achievement of the study objectives. The study used Structural Equation Modeling (SEM). The study also employed AMOS 23.0 and SPSS 25.0 software in SEM.

Main Findings: self-efficacy and cyberbullying knowledge factors do have significant effects on cyberbullying risks.

Applications of this study: This work can be used for academic purposes by universities, educational and management lecturers, scholars, and graduate and postgraduate students.

Novelty/Originality of this study: The report on cyberbullying was performed and summarized comprehensively, relating to the problem that occurred in cyberbullying and from different previous research findings. The impact of factors of self-efficacy and cyberbullying knowledge on cyberbullying risks needs to be investigated.

Keywords: *Antecedents Factor, Self-efficacy, Cyberbullying Knowledge, Cyberbullying Risks.*

INTRODUCTION

Developments in technology have brought about the introduction of further innovations, and variations, both positive and negative, in Internet usage (Kaveri & Greenfield, 2008). Besides, the activation of Social Network Service (SNS) via smartphones has led to over seven hundred million people's use of Facebook, Twitter and several other social media sites around the globe, with around half of the total billion text messages sent every day via chat rooms. More specifically, SNS refers to an online platform that creates and supports social relationships by facilitating free communication, information sharing, and human connections expansion. SNS primarily creates, maintains, enforces, and expands social connection networks via its services (Cho, Kim, & Shin, 2017). Moreover, SNS developed relationships with people throughout the globe through the Internet and it brings about information sharing without the time and places limitations. Nevertheless, regardless of the multiple benefits of SNS, there are negative sides that have over-reaching consequences, with the top being harassment through SNS.

The actual occurrence of bullying in schools among students is an old phenomenon that has been noted throughout the decades – bullying is a type of repetitive intentional abuse and victimization on a specific individual. This includes physical assault like beating, harassment, and abuse towards the weaker individual, and bullying has a far-reaching and immediate effect with no limits (spatial or temporal), and never-ending and thus, it has negative outcomes for the individual and the society at large (Donegan, 2012). According to Toqonaga, e-bullying refers to the use of electronic or digital media to send repetitive aggressive messages to others for harm or disturbance, and this behavior may stem from an individual or a group. This definition focuses on some-bullying features such as the purpose behind bullying, repetition, and technological usage, the hostile nature of the behavior or action (Pietro Ferrara, 2018).

In the present study, the focus is laid on the intention and repetitive victimization in the form of bullying using web tools, and this type of bullying exceeds traditional bullying adverse consequences. In e-bullying, there are some conditions that researchers have outlined and they include repetition, intention, personal communication, and imbalance (Annalaura Nocentini, 2012). Added to this, e-abuse or harassment spreads fast through social media, affecting the whole society and thus, the present study examines e-bullying among high-school students in Jordan and highlights the outcomes that affect the students' school performance and the negative outcomes to the bullied students' family and society that could lead to suicidal thoughts or even suicide itself.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Cyber Bullying Risks

Cyberbullying has been described as the malicious and repeated use of information and communication technology by an individual or a group to send threats to others (Lee & Wu, 2018). It is conducted mostly carried out through electronic or digital media, the Internet, bulletin boards, emails, cell phones, cell phone cameras, text messages, video

conferencing, blogs, and social media platforms aimed at other people (Neto & Barbosa, 2019). In this case, the Internet is used as a basis for sending/posting messages that taunts, humiliates, sends scornful comments, or unsightly images. Added to the above, the anonymity that is promoted by the Internet is abused to send information to peers or strangers in the public to incite the fear, harm, and embarrassment on the victims (Lee & Wu, 2018), which could eventually cause mental issues among victims and in the whole society (Rivara & Le Menestrel, 2016). There are different types of cyberbullying and these include creating online messages for the purpose of harassing, ostracizing, vilifying, imitating, swindling other people, divulging information about them, and participate in accusative quarrels online, and even bring about online stalking.

Factors that Influence Cyber Bullying Risks

1. Self-efficacy

According to Thompson and Verdino (2019), self-efficacy is the belief of the individual that he/she is capable of executing and completing certain tasks in certain situations – it is the expectations of individuals of his/her capability to conduct behavior that is required for certain tasks. Along the same line of study, Musharraf, Bauman, Anis-ul-Haq, and Malik (2019) stated that self-efficacy is a factor of protection against involvement in cyber-bullying perpetration, while Bussey, Luo, Fitzpatrick, and Allison (2020) revealed that low-efficacious individuals in light of their academic performance and self-management are inclined towards feeling negative emotions and deviant activities like embarking on physical and verbal abuse. This is indicative of a significant relationship between self-efficacy and deviant behavior among adolescents. In this regard, the self-efficacy of adolescents towards refusing to engage in cyberbullying affects their intention and behavior towards such engagement and thus, this study proposes the following hypothesis for testing;

H1: Self-efficacy has a positive impact on cyber-bullying risk behavior.

2. Cyber Bullying Knowledge

Knowledge is naturally undeletable and unpredictable and is ever-changing with the external environment changes (Wahab & Yahaya, 2017). In schools, students generally lack knowledge of aging, even harboring and displaying negative prejudices against the elderly through their attitudes as mentioned by Donizzetti (2019). It is thus important for educational authorities to inculcate within students the knowledge of aging to promote students' positive attitude and behavioral intention towards aged individuals. According to Lee and Wu (2018), the higher the positivity of the students' attitude towards painkillers and their knowledge concerning them, the optimum will be their perceptive and performance towards using them. In other words, the above studies indicate that attitude is developed through the cognitive and emotional responses of the individuals towards the stimulation of external objects and events. Hence, product knowledge is a significant factor affecting post-purchase behavior (Wahab & Yahaya, 2017), and thus, this study proposes that;

H2: Cyber-bullying knowledge has a positive impact on cyber-bullying risk behavior.

METHODOLOGY

Sample and Procedure

The study participants consisted of 153 students, 45.6% of whom are male, in secondary schools in Irbid City, Jordan. The participants' ages ranged from 11 to 18 years with 16 years being the average age (SD=1.45).

Measures

Data was gathered from the study respondents using a structured instrument, with the items within the instrument adopted from prior literature and gauged using a 5-point Likert scale that ranged from strongly disagree and strongly agree. This ensured the content validity of the items. More specifically, the cyber-bullying risks behavior items were adopted from (Messias, Kindrick, & Castro, 2014), self-efficacy items were adopted from (Heiman, Olenik-Shemesh, & Eden, 2015), and cyberbullying knowledge items were adopted from (Wahab & Yahaya, 2017).

Analytical Method

The relationships between the variables (cyberbullying risks behavior, self-efficacy, and cyber-bullying knowledge) were tested and examined using Structural Equation Modeling (SEM). The study employed AMOS 23.0 and SPSS 25.0 software in SEM.

DATA ANALYSIS AND RESULTS

Exploratory Factor Analysis (EFA)

The Exploratory Factor Analysis (EFA) procedure was applied to the variables, with the items used to measure them adopted from prior literature. Specifically, cyber-bullying risk behavior was measured by four items, self-efficacy was measured by four items, and cyber-bullying knowledge was measured by four items (refer to Table 1).

In Table 1, the Kaiser-Meyer-Olkin (KMO) value of sampling adequacy of constructs ranged from 0.630 to 0.808 (above 0.60 thresholds established by prior studies) (Al-Shbiel, Ahmad, Al-Shbail, Al-Mawali, & Al-Shbail, 2018; Obeid,

Salleh, & Nor, 2017; SI Shbail, Salleh, Nor, & Nazli, 2018). This result is consistent with the KMO requirement. Along a similar line of findings, EFA results of constructs, the construct's components, components' items, and the factor loading of items are presented in the table. Each component's internal reliability supports the reliability of the items in the study field. Figure 1 presents the main constructs, their components, and three validity types (construct validity, convergent validity, and discriminant validity) and composite reliability. The requirements of the above-mentioned validity were all met for further analysis.

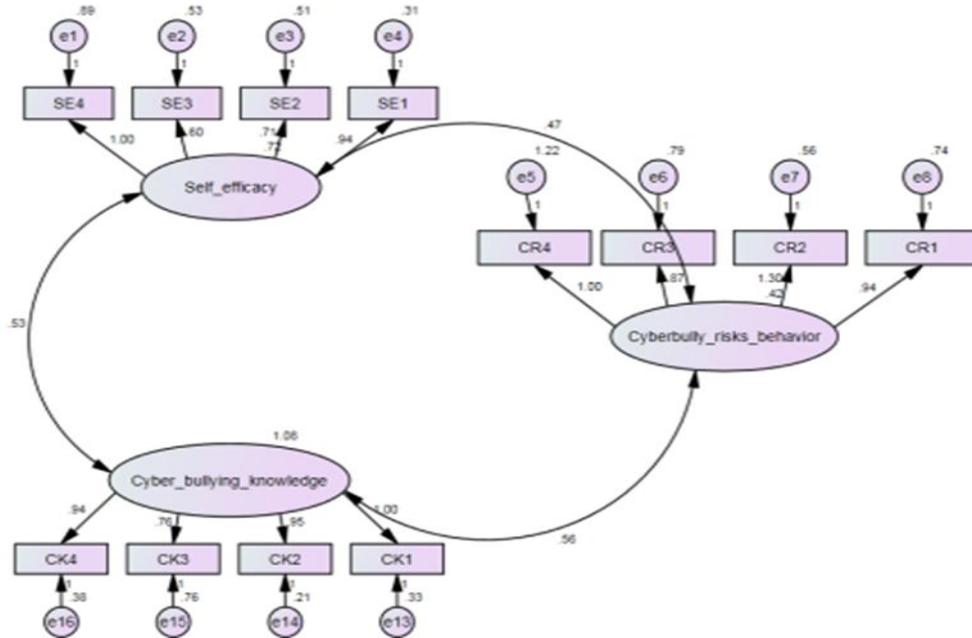


Figure 1: The Measurement Model

Confirmatory Factor Analysis

The measurement model was assessed using confirmatory factor analysis (CFA), specifically pooled measurement model method as recommended by (Al-Shbiel et al., 2018; Obeid et al., 2017; SI Shbail et al., 2018). In the method, the entire latent variables are combined in one measurement model to obtain their uni-dimensionality, reliability, and validity values (refer to Table 1).

Table 1: Validity and reliability analysis

| Construct | Items loading | KMO | Cronach's Alpha | AVE |
|----------------------------|---------------|-------|-----------------|-------|
| Cyber-bully risks behavior | CR1 | 0.808 | 0.772 | 0.640 |
| | CR2 | | | |
| | CR3 | | | |
| | CR4 | | | |
| Self-efficacy | SE1 | 0.630 | 0.906 | 0.665 |
| | SE2 | | | |
| | SE3 | | | |
| | SE4 | | | |
| Cyberbullying knowledge | CK1 | 0.739 | 0.805 | 0.686 |
| | CK2 | | | |
| | CK3 | | | |
| | CK4 | | | |

The study constructs convergent validity was achieved through Average Variance Extracted (AVE), with 0.50 considered as the threshold value as established by prior studies (Al-Shbiel et al., 2018; Obeid et al., 2017; SI Shbail et al., 2018). With regards to the discriminant validity of the constructs, the study used Discriminant Validity Index Summary, which required higher diagonal values (AVE square root) compared to the values in the rows/columns (correlations among constructs). Composite reliability of the constructs was established through their KMO values, ensuring that they are all above the threshold of 0.60 as prior studies have established (Al-Shbiel et al., 2018; Obeid et al., 2017; SI Shbail et al., 2018). Lastly, Cronbach's alpha values were obtained to confirm the internal reliability, with

0.70 considered as the cut-off value. Cronbach's alpha values of the constructs are displayed in Table 1 and they all exceeded 0.70, which is indicative of their internal reliability.

Model-Fit Summary

There are three model fit categories that a measurement model of a construct has to meet for validity and they are absolute fit, incremental fit, and parsimonious fit (SI Shbail et al., 2018). Based on the results obtained from the analysis, construct validity was established through chi-square of 501.630, degree of freedom of 51, and p-value of 0.000, indicating the model-data fit. The chi-square statistics sensitivity prompted the researcher to use other fit measures to confirm the model fit and the following fit values were obtained CMIN/df=3.436, NFI=0.769, CFI=0.785, GFI=0.815, and RMSEA=0.048, further confirming the model-data fit.

Hypotheses Testing

The findings from the testing of hypotheses provided insight into the variables based on the examined phenomenon. In the first hypothesis, it was proposed that self-efficacy has a positive effect on cyber-bullying risk behavior (H1), and the results showed support for the hypothesis at ($p < 0.05$), with self-efficacy changes at 41.4% (refer to Table 2).

Table 2: Hypothesis result

| Relationship | Estimate | S.E. | C.R. | P | Decision |
|---|----------|------|-------|-----|-----------|
| Cyberbully_risks_behavior <--- Self_efficacy | .414 | .070 | 5.874 | *** | Supported |
| Cyberbully_risks_behavior <--- Cyber_bullying_knowledge | .316 | .051 | 6.234 | *** | Supported |

***indicate a highly significant at $p < 0.05$.

Moreover, cyberbullying knowledge managed to explain 31.6% of the cyberbullying risks behavior changes as displayed in Figure 2 and Table 2, where cyberbullying knowledge influence on cyberbullying risks behavior is supported at (5%, CR value of 6.234), supporting the second hypothesis (H2).

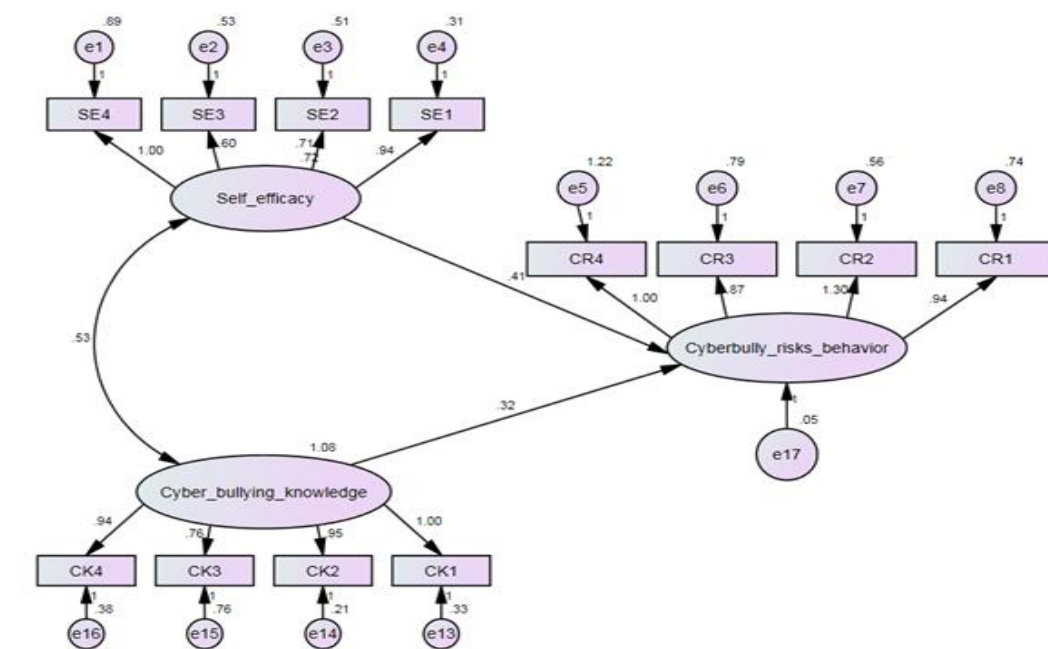


Figure 2: Structural model and hypotheses testing

CONCLUSION

The analysis results showed significant effects of self-efficacy and cyberbullying knowledge on cyberbullying risks behavior, confirming both hypothesized relationships. This can be attributed to the significant role of self-efficacy and cyberbullying knowledge on cyberbullying risk behavior.

LIMITATION AND STUDY FORWARD

The present findings may be generalized by considering its limitations. The first limitation relates to the scope and number of factors examined, which may have led to the relatively low explanatory power of the variance in cyberbullying involvement. It is recommended that future studies explore personal and situation factors (e.g., level of empathy, self-esteem, moral disengagement, and relationships with family members) to provide deeper insight into adolescent's involvement in cyberbullying behavior. The second limitation is related to the sample study, which

comprised of Jordanian students, and thus, the generalizability of the findings to other cultures may be limited and further studies should conduct further examination among other adolescents in other contexts and cultures.

CONTRIBUTIONS OF THE AUTHORS

Almomani and Al-Jabali conceived of the presented idea. Al-Jabali developed the research framework. Mufarrej and Ahmad verified the analytical methods. Almomani supervised the findings of this work. All authors discussed the results and contributed to the final manuscript.

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