Factors leading to Aggressive Behaviour and Favouring Violent Digital Entertainment among Adolescents in Malaysia

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Abstract. Continuous effort to ensure every child's well-being today is paramount in building a nation with a sustainable future. Protecting children from violence is a priority, aligning with the Sustainable Development Goals and the 'care and compassion' value in Malaysia MADANI concept. Violence in entertainment has become a popular genre among adolescents around the world. While adolescents' engagement in violent digital entertainment may lead to aggressive behaviour, this study focuses on four main factors: self-motivation, parental monitoring, peer influence, and social media. The aim is to examine the influence of adolescents' involvement in violent digital entertainment on aggressive behaviour. Hence, the study enlisted the participation of 365 adolescents in a quantitative analysis. The findings of Linear Multiple Regression analysis revealed that self-motivation ($p<0.049$) and social media influence ($p<0.001$) have a significant relationship with aggressive behaviour among adolescents ($p<.01$). Particularly, social media influence ($\beta=.414$, $p<0.001$) emerges as the primary factor influencing aggressive behavior. Considering these findings, it is essential for all stakeholders, including government agencies, to address these concerns proactively and prevent the normalization of aggressive behaviours in society.

Keywords: Adolescent, aggressive behaviour, social media influence, self-motivation

1   Introduction

Violent digital entertainment has become a prominent and controversial genre. In 1969, the Surgeon General's Scientific Advisory Committee on Television and Social Behaviour was formed to assess the impact on attitudes, behaviours, and values of viewers due to viewing violence. In 1982, the committee reported that the major effects of watching violence are: (1) children may become less sensitive to the pain and suffering of others; (2) children may be more fearful of the world around them; and (3) children may be more likely to behave in aggressive or harmful ways towards others [1]. The challenge is bigger today, where violent digital entertainment is accessible at the fingertip.

Furthermore, excessive consumption of violent digital entertainment is said to cause desensitization to violence, aggressive thoughts and behaviour, lack of prosocial behaviour and empathy, anger, hostile appraisals, and physiologic arousal [2]. Therefore, countries such as Jordan, China, India, and Iraq, have taken a strict move by banning some violent video games such as PUBG and Fortnight in considering the behavioural impact on society [3]. While consumption of violent digital entertainment being one of many reasons to aggressive behaviour, the increasing number of bullying cases among adolescents in Malaysia requires every party including parents, non-government organisations and community to play their role for the future generation's wellbeing [4]. Hence, this study aims to examine the influences (self-motivation, parental monitoring, peer influence, and social media influence) on adolescents' engagement in violent digital entertainment and aggressive behaviour. The saying goes—violence begets violence. Thus, aggressive behaviour concerns are to be addressed so that negative values will never integrate with the society's norms.

2   Literature Review

Aggressive behaviour is a complex social phenomenon that has been discussed in terms of its causes and forms over the past several decades. Aggression can be verbal or non-verbal such as actions to cause harm and hurt another person [5]. It is an unpleasant response to something being delivered unpleasantly. Researchers often define it as an act to harm another person that does not have the intention to harm or to be harmed [2]. The perpetrator and victim of aggression can also happen among adolescents. Moreover, breaking school rules, bullying, and truancy which are not prevented may lead to further delinquency [6]. Aggressive behaviour can last until adulthood as numerous studies have shown that children who bully in their childhood remain bullies as adults [7]. Further, hostility—is an indirect aggression and a cognitive component of anger that consists of resentment and suspicion [8, 9]. Exposure to violent genres can lead people to perceive and act towards the world around them in a hostile manner [10]. Besides, active participation in violent digital entertainment such as violent gaming can provide excitement, priming makes one observe, learn, and imitate and be desensitised which leads to hostility [11]. Moreover, studies suggest hostility influences adolescents' well-being and their relationships with friends [12]. The verbal aggression—is a personality and language style commonly used to attack someone. However, there are many types of verbal aggression, including attacks on competence, character, physical appearance, self-concept, threats, insults, scolding, verbal abuse, verbal use of force and obscenity [13]. It is an emotionally associated aggressiveness made directly to a person to harm their social and emotional well-being through words. Moreover, this type of aggression includes video game violence, flaming, trolling, framing, spin, and populism [14].

Anger—is an emotion that has a recognisable facial expression or intonation that humans experience regularly. It is an emotion that is often expressed in hostile situations [15]. Other than that, anger has also been discussed as a trait or a state [16]. Adolescents that possess awareness and skills in managing negative emotions are able

to choose appropriate action, avoiding aggressive behaviour that is good for their health, safety, and wellbeing [17]. Indeed, physical aggression—is any physical response that causes physical injury and damage to another person or an object such as hitting, kicking, and pushing. It is an aggressive behaviour that is commonly assessed among children and adolescents [18]. The 27.4% of Malaysian adolescents were reported to be involved in aggressive behaviour which is a physical fight in school with boys dominating compared to girls [19]. Other than that, physical aggression behaviour, along with the presence of other factors makes it possible for it to last until adulthood and leads to other social problems (crime, substance misuse, domestic abuse, and murder), health problems and economic difficulties [20].

Digital entertainment is not new to adolescents. They tend to use their mobile gadgets interchangeably while doing homework, eating, and even during weekends at home [21]. It has been found that 69.7% of children go to the internet to stream or download videos, and 50.9% of children play online games [22]. The majority of young people do not involve themselves in structured leisure activities (activities that come with rules, goals, a regular schedule, and skill-building activities oriented and supervised by adults) after school or on weekends. Because of this, adolescents are vulnerable to being exposed to violence in the facet of entertainment, which can cause a worrying impact, especially when engagement is pervasive. In certain ways, understanding and addressing the interplay between power relations and patriarchy politics is crucial for effectively combating dating violence and supporting victims [23]. In a study by Saba et al [24], it was found that male adolescents' aggressive behaviour was affected after watching violent animations. Moreover, their aggressive behaviour increases as the violent animation's screen time duration increases.

The factors that influence aggressive behaviour were considered in how the social media influences with the existence of the internet has tremendously changed how people live their lives. Technological advancement becomes so rapid, and social media use, especially among adolescents, becomes pervasive. Social media usage among young people functions more than just social space but to get the latest news and information, entertainment, share information, maintain relationships, learn, and others [25]. Various kinds of entertainment and content that makes users feel entertained too, are accessible just through social media [26]. However, social media usage can be a two-edged sword as it also exposes adolescents to harms such as health issues and aggressive behaviour [27].

Self-Motivation—Self-Determination Theory (SDT) is one of motivational theories by Deci and Ryan [28] that has existed since the 1980s with revisions being made. There are three aspects of motivation in Self-Determination Theory (SDT) which are: (1) competence. This aspect is needed to enhance motivation in individual interactions with their environment. The second aspect is autonomy, which means self-organisation and self-regulation—with more autonomy, the higher the tendency for one to perform certain actions or behaviours. The third aspect is relatedness, which refers to a sense of connectedness. This theory is being discussed as it fits with the self-motivation context in this study, whereby adolescents can be driven with motivation to engage in and enjoy violent digital entertainment such as violent video games [29].This is because adolescents who possess competence (unique talent),

autonomy, and relatedness to violent digital entertainment are predicted to be more prone to aggressive behaviour.

Peer Influence—Peer influence is commonly discussed in the discourse on the development of social competence and behavioural issues in literature, including among adolescents. Thus, it assumes a directional change of characteristics, heightened similarity, and increased resemblance between friends [30]. It can be emphasised that the group of friends forms the climate in shaping adolescents' behaviour whereby a positive climate in friendships carries positive influence and vice versa. Furthermore, the development of friendship has its stages, whereby friendship occurs when a lot of time and activities are done together, followed by self-disclosure, emotional support, and coping with similarities and differences [31].

Parental Monitoring—Parental monitoring refers to parents overseeing and regulating adolescents' activities [32]. Hence, parental monitoring and guardianship can shape and improve adolescents' behaviour. Parental monitoring is an important form of social control for ensuring adolescents' wellbeing and preventing problematic behaviours including addiction to violent digital entertainment and aggressive behaviour. However, monitoring has its own challenges, especially in the current age of digitalization. Adolescents are often independent when engaging with entertainment, as they are left with multiple options at their own discretion. Parental monitoring has been discussed in literature as one of the most effective ways to prevent adolescents' from engaging in negative behaviour. However, inadequate monitoring will cause adolescents' to be less resilient and still get influenced, such as from peers [33].

International and National Agenda
Sustainable Development Goals (SDGs) and Adolescents' Well Being—Every child is to be protected from all forms of violence. This has been emphasised in the United Nations Convention on the Rights of the Child and the 2030 Agenda for Sustainable Development, specifically Goal 16 (SDG 16.2). Adolescents who are also children can be both perpetrators and victims of violence. Preventing violence from being normalised within society at large begins with shaping our children. Aggressive behaviour among adolescents that is left without prevention will make room for tolerance and acceptance of negative values and practices.

Malaysia MADANI—Adolescents are the future generation of the country, and the government foresees their growth and wellbeing for longer, healthier, and more productive lives as crucial to the community and nation [34]. This meets the agenda of Malaysia MADANI in ensuring a sustainable future for the country, which is: (1) focus on problem-solving processes; (2) meet the needs of the nation; (3) create a peaceful and prosperous future; and (4) fulfil the potential of people and the country. In emphasising the context of this study to Malaysia MADANI, the core value of care and compassion is closely related. This is as it focuses in society that care and compassion for others including family members, friends, neighbourhood, and community including the minority.

3   Methodology

This study employed cluster and stratified sampling techniques. The proposed sample size is based on the population of adolescents in each region, which is classified as a cluster. According to Sekaran and Bougie [35], the cluster sampling technique consists of the geographical area; hence, dividing the sample size based on five main regions will represent the entire Malaysian population. This study selected adolescents who are in secondary schools from 15 states in Malaysia. Subsequently, the sample for each region is divided by states. In this context, these states are categorised as subgroups within the region. Stratification ensures homogeneity within each stratum (region) but heterogeneity between strata (states) [35]. This paper presents the results of a quantitative approach using a self-administered survey with 365 respondents across the country who are engaged and addicted to violent digital entertainment. This approach has the advantages of being objective, precise, and able to generalise the conclusion to a larger population [36]; thus, the findings of this study is able to draw statistical conclusions about factors leading to aggressive behaviour and favouring violent digital entertainment among adolescents in Malaysia.

4   Findings

Profile of Respondents
This study gathered 365 respondents in a nationwide survey consisting of 209 females (57.3%) and 156 male respondents (42.7%). This study has involved adolescents from the ages of 13 to 17 years old. Majority of respondents are 17 years old with the frequency of 161 respondents (55.9%). Also, there are 274 (75.1%) of Malay respondents which has the highest number compared to other ethnicities followed by Indians with 42 respondents (11.5%), Chinese with 39 respondents (10.7%) and Others with 10 respondents. While for the region, the majority of the respondents are from the central region of Malaysia which are WP Kuala Lumpur and Selangor with 172 respondents (47.12%). This is as the use of electronics and internet is more widespread in these urbanised states in Table 1.

Table 1. Background of respondents

No	Profile	Frequency	Percent (%)
1.	**Age**		
	13	5	1.4
	14	28	7.7
	15	78	21.4
	16	93	30.4
	17	161	55.9
2.	**Region**		

Northern	90	24.66
Southern	78	21.37
Central	172	47.12
East Coast	11	3.01
East Malaysia	14	3.84
Total	**365**	**100**

Linear Multiple Regression Analysis

The purpose of this study is to examine a dependent variable (aggressive behaviour) and multiple independent variables (self-motivation, parental monitoring, peer influence and social media influence). Prior to conducting linear multiple regression, an exploratory factor analysis (EFA) was performed, and the findings revealed that the items pertaining to each construct were loaded in the same dimension. Furthermore, all of the constructs used in this study were deemed reliable because the Cronbach alpha values were all above 0.7. Following this, all analyses for testing parametric assumptions were satisfied: linearity was assumed between all independent variables and the dependent variable, and all data were normally distributed.

A linear multiple regression analysis is conducted to determine how the independent variables explain the variation in the dependent variable. This study observes the regression weights/beta coefficients to evaluate the intensity and direction of the relationship between independent and dependent variables. The linear multiple regression model used in this study is based on this formula:

$$Y = \beta_0. + \beta_1 x_1. + \beta_2 x_2. + ... + \beta_p x_p. + \varepsilon$$

Based on the Model Summary results, the R^2 value was 0.208 and the adjusted R^2 was 0.199. This indicates that the model used in this study only fit 19.9% of the data. Durbin-Watson value is 1.733 shows that there is a slight autocorrelation issue. However, Field [37] suggested that Durbin-Watson value below than 1 and above 3 only for it to be a cause to concerned. Values anywhere within 1.5 to 2.5 is considered normal in Table 2.

Table 2. Multiple regression (Model Summary)

R	R Square	Adjusted R Square	Std Error of the Estimate	Durbin-Watson
.456 a	.208	.199	.60922	1.733

a. Dependent Variable: DV_AGGRESIVE
b. Predictors: (Constant), IV_SMedia, IV_Parental, IV_Peer, IV_Motivation

Moreover, ANOVA results revealed that the entire model used in this study was significant ($p<0.000$), shows that there is a significant relationship between the independent variables and dependent variables in this study (see Table 3).

Table 3. Multiple Regression (ANOVA)

	Sum of squares	df	Mean Square	F	Sig
Regression	34.987	4	8.747	23.567	<.001[b]
Residual	133.613	360	.371		
Total	168.600	364			

a. Dependent Variable: DV_AGGRESIVE
b. Predictors: (Constant), IV_SMedia, IV_Parental, IV_Peer, IV_Motivation

The findings are without any multi-collinearity issues as the tolerance values are all <.3 and VIF values are less than 4. Only two out of four independent variables which are self-motivation (p<0.049) and social media influence (p<0.001) have significant relationship with the dependent variable which is aggressive behaviour among adolescents. Notably, social media influence was found to be the main influence (β=.414, p<0.001) towards adolescents' aggressive behaviour (see Table 4).

Table 4: Multiple regression (Coefficient)

	Beta	t	Sig.	Tol.	VIF
Self-Motivation (IV)	.115	1.979	.049	.652	1.535
Parental Monitoring (IV)	.007	.142	.887	.938	1.066
Peer Influence (IV)	-.057	-.980	.328	.662	1.511
Social Media Influence (IV)	.414	7. 6	<.001	.676	1.479

5   Discussion

The findings revealed that social media influence and self-motivation have significant positive relationships with aggressive behaviour. In comparing the factors, social media influences adolescents to be aggressive the most.

The findings are consistent with one by Okeke and Anierobi [38] in Anambra, whereby violent digital entertainment on social media causes aggressive behaviour among adolescents. In addition, children internet users in Malaysia grew by 155% over the years (2016–2020) [39]. Furthermore, 76.4% of Malaysians own their own devices in order to access the internet. This study has found that social media platforms enable adolescents to seek advice and discuss violent digital entertainment content with others. Social media allows its users to connect people with similar interests across the world by being able to communicate with one another easily [40]. Based on the findings of this study, violent digital entertainment content can be promoted through social media, which can cultivate more enjoyment of violent digital entertainment. Furthermore, adolescents can create multiple social media accounts to engage with other fans of violent digital entertainment as well. Moreover, communities on social media become more competitive and seek validation for self-esteem, social status, and sense of belonging [41]. This statement is consistent with the findings of this study, whereby adolescents are proud to share their violent digital entertainment activities. Violent digital entertainment provides rewarding

feelings after engagement. Hence, the use of social media elevates adolescents' interest in violent digital entertainment, which is found to cause aggressive behaviour.

Moreover, adolescents are at the phase of age of exploring their own identity and the environment around them [42]. This, in turn, motivates adolescents to independently explore and make decisions about their interests, including trying violent digital entertainment after seeing it on the internet. Once adolescents find that violent digital entertainment is keen to their liking, adolescents will become attached to this genre of entertainment. This study argues that adolescents are motivated to explore violent digital entertainment that provides a better experience, sense of thrill and self-fulfillment. This study has found that adolescents can be motivated by three reasons, which were adapted from Self-Determination Theory [28]. First, is competence – whereby adolescents feel competent to continually engage in battles in violent video games. Secondly is autonomy—adolescents nowadays have an increasing demand for autonomy; they feel independent and mature. This includes using certain types of gadgets and the autonomy to choose violent digital entertainment that meets their expectations. Thirdly is relatedness— whereby violent digital entertainment is aggregable to their values, and other people with the same interest. Therefore, adolescents' high self-motivation to be involved with violent digital entertainment will cause adolescents' aggressive behaviour and thoughts to be high as well.

6   Conclusion

The real causes of aggressive behaviour specifically among Malaysian adolescents remain a debatable discourse. However, this study has found that social media influence and self-motivation have a significant relationship with aggressive behaviour. Social media influence is the factor which contributes the most influence than others. Literature also discusses social media as a type of entertainment, exemplified by the success of platforms like YouTube. The platform manages to gather influencers, content creators, live streamers, and game players, which then become sustainable careers for young people [43]. Additionally, these platforms consist of algorithms that transform data and are able to suggest personalized content to adolescents in accordance with their interests, identity, and motivation [44]. Furthermore, adolescents can be motivated to engage with this genre of entertainment through possessing the autonomy to choose the one that meets their preferences, especially in this age of digitalisation. Adolescents can be motivated to seek sensation with a desire and readiness to take risks for exciting experiences, which they can gain from violent digital entertainment.

All parties such as parents, society, and the authorities, are responsible for protecting adolescents from all forms of violence, be it physical or digital. Steps are to be taken to ensure every child can grow in the most conducive way while being educated and empowered with the necessary skills. Eventually, our adolescents will be able to gain the most benefits from technological advancement rather than only being driven away

from other possible negative influences, such as addiction. Hence, future research is recommended to explore how aggressive behaviour due to addiction to violent digital entertainment moderates the relationship between the factors (social media influence, self-motivation, peer influence, and parental monitoring) and aggressive behaviour.

References

1. National Institute of Mental Health: Television and behavior: Ten years of scientific progress and implications for the eighties. Rockville, MD: U.S. Department of Health and Human Services. (1982)
2. Anderson, C. A., J, B. B., Bartholow, B. D.: Screen violence and youth behaviour. Pediatrics, 140(S2), 142-147. (2017)
3. Sinclair, B.: PUBG banned in Jordan, Fortnite expected to be banned as well. GamesIndustry.biz.https://www.gamesindustry.biz/pubg-banned-in-jordan-fortnite-expecte d-to-be-banned-as-well, last accessed 2023/10/19
4. Arifin, L.: Kes Buli di Sekolah Terus Meningkat - Hui Ying. *Berita Harian*.https://www.bharian.com.my/berita/nasional/2023/11/1171753/kes-buli-di-sekolah -terus-meningkat-hui-ying. (2023)
5. Singh, T., Mohanty, R., Lalrhiatpuia, Haobam, M., & Saini, M.: Aggression and Violent Behaviour: A Critical Review. Journal of Pharmacy and Biological Sciences, 9(5), 10-13. (2014)
6. Gerth, M.: Does truancy make the delinquent? A situational and longitudinal analysis of the truancy-delinquency relationship. European Journal of Criminology, 1–20. (2020)
7. Bucur, A., Ursoniu, S., Caraion-Buzdea, C., Ciobanu, V., Florescu, S., & Vladescu, C.: Aggressive Behaviors among 15–16-Year-Old Romanian High School Students: Results from Two Consecutive Surveys Related to Alcohol and Other Drug Use at the European Level. Environmental Research and Public Health, 17(10), 1-14. (2020)
8. Buss, A. H., & Perry, M.: The Aggression Questionnaire. Journal of Personality and Social Psychology, 63(3), 452-459. (1992)
9. Buss, A. H., & Durkee, A. An Inventoru for Assessing Different Kinds of Hostility.: Journal of Consulting Psychology, 21(4), 342-349. (1957)
10. Bushman, B. J.: Violent Media and Hostile Appraisals: A Meta-Analytic Review. Aggressive Behaviour, 42(9), 1-9. (2016)
11. Huesmann, L. R., & Taylor, L. D.: The role of media violence in violent behavior. Annual Review of Public Health, 27, 393–415. (2006)
12. Muñoz-Reyes, J.A., Polo, P., Valenzuela, N., Guerra, R., Anabalón, K., Hidalgo-Rasmussen, C., & Turiégano, E.: Sexual differences and associations between aggressiveness and quality of life in late adolescents. Current Psychology, 37(1), 28–37. (2018)
13. Bykov, I. A., Balakhonskaya, L. V., Gladchenko, I. A., & Balakhonsky, V. V.: Verbal aggression as a communication strategy in digital society. 2018 IEEE Communication Strategies in Digital Society Workshop, (pp. 12-14). (2019)
14. Hmielowskia, J. D., Hutchen, M. J., & Cicchirillo, V. J.: Living in an age of online incivility: examining the conditional indirect g the conditional indirect. Information, Communication & Society, 1-16. (2014)

15. Lievaart, M., van der Veen, F. M., Huijding, J., Naeije, L., Hovens, J. E., & Franken, I. H.: Trait anger in relation to neural and behavioral correlates of response inhibition and error-processing. International Journal of Psychophysiology, 40-47. (2016)
16. Deffenbacher, J. L., Oetting, E. R., Thwaites, G. A., Lynch, R. S., Baker, D. A., Stark, R. S., . . . Eiswerth-Cox, L.: State-Trait Anger Theory and the Utility of the Trait Anger Scale. Journal of Counseling Psychology, 43(2), 131-148. (1996)
17. Flanagan R, Allen K, Henry DJ.: The impact of anger management treatment and rational emotive behavior therapy in a public-school setting on social skills, anger management, and depression. J Ration Emot Cogn Behav Ther. 28, 87–99. (2010)
18. Hart, J. L., & Nagel, M. C.: Including playful aggression in early childhood curriculum and pedagogy. Australasian Journal of Early Childhood, 42(1), 41-48. (2017)
19. Mat Hussin, S. F., Abd Aziz, N. S., Hashim, H., & Sahril, N.: Prevalence and Factors Associated With Physical Fight Among Malaysian Adolescents. Asia-Pacific Journal of Public Health, 5S, 108S–115S. (2014)
20. Henriksen, M., Skrove, M., Hoftun, G. B., Sund, E. R., Lydersen, S., Tseng, W.-L., & Sukhodolsky, D. G.: Developmental Course and Risk Factors of Physical Aggression in Late Adolescence. *Child Psychiatry and Human Development,* 52(4), 628–639. (2020)
21. Toh, S. H., Howie, E. K., Coenen, P., & Straker, L. M.: "From   the moment I wake up I will use it... every day, very hour": a qualitative study on the patterns of adolescents' mobile touch screen device use from adolescent and parent perspectives. BMC Pediatrics, 19(30), 1-16. (2019)
22. Malaysian Communications and Multimedia Commission (MCMC).: Internet Users Survey. https://www.mcmc.gov.my/en/resources/statistics/internet-users-survey#, last accessed 2023/10/10
23. Wahid, U., & Legino, R.: Power relations and patriarchy politics on dating violence. Nyimak: Journal of Communication, 7(1), 109-130. (2023)
24. Saba, P., Qi, H., Saleem, A., Chen, I. J., Kausar, F. N., & Iqbal, M. F.: Effects of Animated Movies on the Aggression and Behavior Performance of Primary School Students and Their Control Using a Cognitive Behavioral Anger-Control Training (CBACT) Program. Behavioral sciences, 13(8), 659. https://doi.org/10.3390/bs13080659. (2023).
25. Ismail, N., Mohamed Jawhar, J., Yusuf, D. M., Ismail, A. I., & Raja Mohd Naguib, R. M.: Understanding Malaysian Youth's Social Media Practices and Their Attitude towards Violent Extremism. Intellectual Discourse, 30(1), 5-33. (2022)
26. Young, R., Len-Ríos, M., & Young, H. Romantic motivations for social media use, social comparison, and online aggression among adolescents. Computers   in   Human Behavior, 75, 385-395. (2017)
27. Lin, S., Longobardi, C., Gastaldi, F. G., & Fabris, M. A.: Social Media Addiction and Aggressive Behaviors in Early Adolescents: The Mediating Role of Nighttime Social Media Use and Sleep Quality. The Journal of Early Adolescence. (2023)
28. Deci, E. L., & Ryan, R. M.: The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. Psychological   Inquiry, 11(4), 227-268. 2000
29. Shoshani, A., & Krauskopf, M.: The Fortnite social paradox: The effects of violent-cooperative multi-player video games on children's basic psychological needs and prosocial behavior. *Computers in Human Behavior*, 106641. (2021)
30. Lauresen, B., & Veenstra, R.: Toward understanding the functions of peer influence: A summary and synthesis of recent empirical research. Journal of Research on Adolescence, 31(4), 889-907. (2021)
31. Kamper DeMarco, K. E., & Ostrov, J. M.: The Influence of Friendships on Aggressive Behavior in Early Childhood: Examining the Interdependence of Aggression. Child Psychiatry & Human   Development, 1-12. (2018)

32. Bean, R. A., Barber, B. K., & Crane, D. R.: Parental Support, Behavioral Control, and Psychological Control Among African American Youth: The Relationships to Academic Grades, Delinquency, and Depression. Journal of Family, 27(10), 1335-1355. (2006)

33. Ding, Q., Li, D., Zhou, Y., Dong, H., & Luo, J.: Perceived parental monitoring and adolescent internet addiction: A moderated mediation model. Addictive Behaviors, 74, 48–54. (2017)

34. Aziz, N.A. & Ahmad, Y.: The Evolution of Government's Attention Towards Older Person: a Critical Review of Malaysia 5 Years Plan. Ageing International, 44(2). (2019)

35. Sekaran, U., & Bougie, R.: Research Methods for Business: a skill building approach. West Sussex: John Wiley & Sons. (2016)

36. Ahmad, Y., Mustapha, S.Z., Ali, S.S.M., Hamid, S.N.F.A., Aziz, N.A., Tahir, N.S., Azman, U.N.N., Zamri, N.E.M.M., Jamil, A.A.A., Ayob, N.A., Aziz, M.N., Hanafiah, M.H., Arsat, A.R. & Hassan, M.S.N.A.: From crisis to recovery: Malaysia's policy responses to COVID-19 and its implications. Planning Malaysia, 21(6):526-546. (2023)

37. Field, A.P.: "Discovering statistics using SPSS: and sex and drugs and rock 'n' roll", (3rd edition). London: Sage. (2009)

38. Okeke, N. U., & Anierobi, E. I.: The Influence of Social Media on Aggressive Behaviours of in-school Adolescents in Anambra State. *Journal of the Nigerian Academy of Education, 16*(1), 279-292. (2021)

39. Malaysia Communications and Multimedia Commission. Internet Users Survey 2022. Malaysia Communications and Multimedia Commission. Retrieved from https://www.mcmc.gov.my/skmmgovmy/media/General/IUS-2022.pdf. (2023)

40. Kapoor Kawaljeet, K., Tamilmani, K., Rana, N. P., Patil, P., Dwivedi, Y. K., & Nerur, S. Advances in Social Media Research: Past, Present and Future. Inf Syst Front, 20, 531–558. (2017)

41. Noli, B. B.: The Power of Social Validation: A Literature Review on How Likes, Comments, and Shares Shape User Behavior on Social Media. International Journal of Research Publication and Reviews, 4(7), 3355-3367. (2023)

42. Pfeifer, J. H., & Berkman, E. T.: The Development of Self and Identity in Adolescence: Neural Evidence and Implications for a Value-Based Choice Perspective on Motivated Behavior. Child development perspectives, 12(3), 158–164. (2018)

43. Cunningham, S., & Craig, D.: Creator Governance in Social Media Entertainment. Social Media + Society, 1-11. (2019)

44. DeVito M. A.: How transfeminine TikTok creators navigate the algorithmic trap of visibility via folk theorization. Proceedings of the ACM on Human-Computer Interaction, 6(CSCW2), 1–31. (2022)