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PATH ANALYTICAL INVESTIGATION OF ADOLESCENTS RISK BEHAVIOUR IN KAMPALA PREDICTIVE WEIGHTS OF PARENTAL MONITORING, PEER INFLUENCE, RISK EXPOSURE, POCKET MONEY AND SOCIAL MEDIA USE

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Abstract

The risk behaviour of adolescents is still a major health issue in sub-Saharan Africa whereby contextual aspects like peer influence, parental intervention, and Internet usage interact to determine the behavioural outcomes. This paper looked at the predictive pathways of risk behaviour of secondary school adolescents in Kampala, Uganda, through a path analytical approach. Correlational design was used, and the sample of 355 adolescents (M age = 16.4 years, SD = 1.8) was picked by multistage sampling. The measures were standardized and the measures comprised the Youth Risk Behaviour Survey, Parental Monitoring Scale, Peer Pressure Inventory, and Social Media Engagement Questionnaire. Data analysis was done through structural equation modelling (SEM) through AMOS. The risk behaviour of adolescents was greatly predicted by peer influence (0.536, p <.001) and parental monitoring (0.165, p <.001) was also found to be a negative predictor. The social media use and pocket money had indirect impacts with exposure to risk. Increased parental surveillance has been associated with decreased internet use and exposure to risky situations. The model demonstrated excellent fit indices (CFI = .999, GFI = .999, RMSEA = .000). Results underscore the multidimensional and interconnectedness of adolescent risk behaviour in Kampala. Interventions should be effective to enhance parental control, control digital activity among adolescents, and support prosocial peer groups. The research has a methodological contribution in that it uses a path analytical model to deconstruct the multifaceted behavioural dynamics among the African adolescent groups.

Keywords: Adolescent risk behaviour, Parental monitoring, Peer influence, Social media use, Pocket money, Path analysis, Kampala

Introduction

Adolescence is a highly sensitive period of development that is defined by identity exploration, sensitivity and experimentation and is mostly portrayed in behaviours that may lead to either development or serious health and social risks. The problem of risk behaviour among adolescents has been increasing in both public health and social interest worldwide because of its consequences on morbidity, mortality and psychosocial maladjustment. The definition of risk behaviour is quite broad as it implies any activity that contributes to the increased probability of adverse consequences or self-harm or harm to others (Lauriola & Weller, 2018). It can also be defined as action that does not conform to social conventions or is harmful to physical or mental health, substance use, risky sexual behaviour, violence or crime (Najafov, 2025; Oladunmoye, Enamudu & Nakalema, 2024).

Adolescents who engage in risk behaviour often exhibit impulsivity, sensation-seeking, low self-control, and susceptibility to peer pressure (Siraj et al., 2021). They may also experience weak

parental supervision, academic disengagement, and exposure to high-risk environments. Globally, risk behaviour remains a serious challenge: the World Health Organization (WHO, 2023) estimates that over 1.2 million adolescents die each year, primarily from preventable causes linked to risky behaviours such as substance abuse, violence, and unsafe sex. In the United States, approximately 30% of adolescents report alcohol use, 13% report illicit drug use, and 16% report early sexual debut (Clark et al., 2020). In sub-Saharan Africa, studies show that between 25–45% of adolescents engage in at least one high-risk behaviour, including unsafe sexual practices, alcohol consumption, and truancy (Koumba Maguena et al., 2025; Oladunmoye, Enamudu & Nakalema, 2024).

In Uganda, the challenge is particularly acute. A study by Radha (2020) found that 38% of secondary school students in Kampala reported engaging in at least one risk behaviour, such as unprotected sex or substance use, while 41% had experienced peer-related pressure leading to risk-taking. Similarly, Kiirya et al. (2019) reported that adolescent risk-taking in urban Ugandan schools has risen due to limited parental involvement, growing social media exposure, and urban poverty. These behaviours have implications for academic performance, mental health, and long-term well-being. The growing prevalence of adolescent risk behaviour necessitates a multidimensional exploration of its predictors particularly parental monitoring, peer influence, exposure to risk, pocket money, and social media use which have been inconsistently examined in African contexts. Existing literature has explored various interventions for managing adolescent risk behaviour, such as school-based life skills education, peer counselling, and community awareness programmes (Xu et al., 2020). While these interventions have yielded partial success, they often overlook contextual and family-based determinants. Moreover, most studies have been conducted in Western or high-income countries, where social dynamics, digital exposure, and parental structures differ markedly from those in Kampala and other African cities. There is, therefore, a significant gap in understanding how family, social, and technological factors interact to shape adolescent behaviour in low- and middle-income urban contexts. This study thus considers a path analytical approach to examine the predictive weights of these factors.

Parental monitoring refers to the degree to which parents are aware of and regulate their children's activities, peers, and whereabouts (Pelham III, 2024). It is also defined as parents' active efforts to track and supervise their adolescents' behaviour to prevent engagement in deviant activities. Adolescents experiencing high parental monitoring tend to exhibit responsible social conduct, better academic outcomes, reduced involvement in delinquency, and lower susceptibility to negative peer influence (Ofodile et al., 2025). Conversely, adolescents with low parental monitoring often report higher engagement in risky behaviours, including substance use, early sexual debut, and truancy (Rusby et al., 2018).

The empirical research shows that the lack of parental supervision is a significant predictor of misconduct in adolescents. Indicatively, Kiirya (2025) discovered that the likelihood of adolescents in Uganda having early sex and substance abuse was 2.4 times greater than their counterparts who had strict parental supervision. On the same note, Emeri (2025) in Nigeria revealed that parental monitoring was shown to be low in relation to the level of deviant behaviours among secondary school students which had risen by 35%. These results underscore the importance of parental counsel in minimizing exposure to adverse social forces, especially in urban hubs such as Kampala where teenagers are exposed to conflicting social and online forces.

Peer influence can be described in terms of how the attitudes, values and behaviours of adolescents are influenced by their interactions with peers (Oyekola et al., 2025). It may also be defined as the

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extent to which teenagers align themselves to the expectations or behaviours of other teenagers so as to be accepted (Chakraborty, 2023). Highly peer-influenced adolescents usually have conformity-oriented behaviours, increased risk-taking behaviours, and a greater need to be socially validated (Saleh & Terike, 2025). Individuals who have low peer influence are more independent, resilient and less prone to peer influence, but they can experience social exclusion or isolation. One of the strongest predictors of risk-taking among adolescents all over the world is peer influence. As an example, Lansford et al., (2014) discovered that the three times more likely to participate in risky sexual or delinquent behaviours were adolescents with deviant peer groups. In Uganda, Batte et al., (2024) found that more than 40 percent of adolescents confessed to having committed risk behaviours mainly as a result of peer pressure, highlighting the social aspect of behaviour control. The peer influence is also more critical when it comes to low parental monitoring and high exposure to social media, which leads to the formation of a social environment that condones risk behaviour.

Risk exposure is the degree to which people are exposed to conditions, experiences or situations that raise the chances of adopting harmful or antisocial behaviours (Boullier & Blair, 2018). It is also defined as the degree of contact with risky situations or stimuli that may promote behavioural maladjustment (Haertlé & Oleś, 2023). Individuals with high-risk exposure such as frequent encounters with violence, substance availability, or permissive peer cultures are more prone to engage in deviant behaviours. Conversely, those with low exposure tend to experience more structured environments, parental supervision, and limited access to negative stimuli. According to WHO (2023), adolescents living in high-risk urban environments are 60% more likely to engage in substance use or delinquency compared to those in controlled rural contexts. In Uganda, Kalungi et al. (2024) found that adolescents exposed to urban street life were significantly more involved in truancy, theft, and substance use. The implication is that reducing exposure to risk environments can mitigate behavioural maladjustment. However, few Ugandan studies have quantitatively examined how risk exposure interacts with family and social dynamics a gap this study addresses.

Pocket money can be defined as regular financial allowances given by parents to their children for personal expenses (Garyn-Tal, 2024). It may also be described as the amount of disposable income available to adolescents for daily use (Gali, 2022). Adolescents with regular pocket money may demonstrate autonomy and improved financial literacy but may also be tempted toward risky consumption patterns, such as alcohol use, gambling, or truancy (Mancone, 2024). Conversely, those with little or no pocket money may experience economic stress or engage in petty theft and other risk behaviours to compensate for financial limitations.
In Kenya, Standing (2019) found that adolescents receiving above-average pocket money were twice as likely to engage in substance use compared to those with modest allowances. Similarly, Dvalishvili et al. (2025) noted that in Kampala, access to disposable cash among adolescents was positively associated with truancy and early sexual activity. Thus, while pocket money can enhance independence, without adequate parental supervision it may amplify risk exposure.

The use of social media is defined as the use of online activities in which interaction, communication, and content creation are possible (Azzaakiyyah, 2023). It can also be defined as the frequency or intensity of adolescents' engagement with digital social networking sites (Moroney et al., 2023). Social media has been commonly linked with peer comparison, exposure to deviant content, and the online risk-taking behaviour like sexting or cyberbullying (Wood, 2023). Moderate or low social media use on the other hand can lead to connectedness, mental health awareness and education enrichment of academics. Adolescents spend three to four hours a day on social media on average across the globe (Tormoen et al., 2023), whereas Ugandan youth is becoming more and more reliant

on social media such as Tik Tok and Instagram to gain social validation (Qadeer and Asma Saleem, 2025). Norwegian research concluded that alcohol-related risk behaviours were 45% more common with the frequent use of social media (Hansen, 2024). Likewise, Wanjohi and Ndirangu (2025) found that 32 percent of adolescents in Uganda who went through explicit material online were involved in risky sexual behaviour. Such statistics demonstrate the pressing necessity to comprehend the social media role in the context of the greater social and family issues that affect risk behaviour in adolescents.

Given that many studies have investigated individual predictors of adolescent risk behaviour, few have incorporated family, peer, financial, exposure and digital factors into one analytical framework in Uganda. The majority of previous studies used a simple correlation or regression analysis, which does not have the ability to explain the complex mediating and moderating mechanisms that exist between these variables. The current research fills this gap in terms of the application of a path analytical approach (Structural Equation Modeling -SEM) which allows evaluating the direct and indirect relations between variables. This approach enables a subtle insight into the interplay between parental monitoring and peer pressure with exposure to risk and pocket money and social media usage to forecast risk behaviour among adolescents in Kampala. Through the use of path analysis, this research would give an empirical foundation to specific interventions, which incorporate the interaction of social, familial, and technological factors of youth risk behaviour. This methodology helps in formulation of context-specific and evidence-based approaches to adolescent behavioural control and policy in the Ugandan and other contexts like the urban African contexts.

Purpose of the Study

To examine the relationships and structural pathways among parental monitoring, peer influence, pocket money, social media use, exposure to risk, and adolescents' risk behaviour using structural equation modeling (SEM). Specifically, the study intends;

1) To determine the bivariate (zero-order) correlations among parental monitoring, peer influence, pocket money, social media use, exposure to risk, and adolescents' risk behaviour.
2) To assess the direct effects of parental monitoring, peer influence, pocket money, social media use, and exposure to risk on adolescents' risk behaviour.
3) To examine the indirect effects of parental monitoring, peer influence, pocket money, and social media use on adolescents' risk behaviour through exposure to risk as a mediating variable.
4) To evaluate the overall model fit of the hypothesized structural equation model using established SEM indices such as CFI, GFI, and RMSEA.

Research Questions

1) What are the bivariate (zero-order) correlations among parental monitoring, peer influence, pocket money, social media use, exposure to risk, and adolescents' risk behaviour?
2) What are the direct effects of parental monitoring, peer influence, pocket money, internet/social media use, and exposure to risk on adolescents' risk behaviour?
3) To what extent do parental monitoring, peer influence, pocket money, and internet/social media use indirectly influence adolescents' risk behaviour through mediating variables such as exposure to risk?
4) Does the hypothesized path analytical model demonstrate an acceptable model fit according to standard structural equation modeling benchmarks (e.g., CFI, GFI, RMSEA)?

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Materials and Methods

Research Design

The research design was a correlational study in a quantitative paradigm to examine the predictive and mediating relationships between the study variables. A correlational design was suitable as it can be used to test the strength and direction of relationships between two or more continuous variables without controlling them (Akintayo and Dahir, 2024). The research used path analysis as a type of Structural Equation Modeling (SEM) to measure both the direct and indirect causal relationships between the variables.

Participants

The research population was secondary school teens in Kampala, Uganda aged between 13 and 19 years. The study involved 355 respondents, all of whom were male and female students in both public and private schools. The inclusion criteria meant that the participants must be in secondary school, be in the adolescent age group and be active social media users.

Sampling Technique

Multistage sampling method was used. To be representative, first schools were randomly sampled among the five divisions of Kampala. In every chosen school, the grade level stratified the classes and proportionate sampling was used to sample students. This guaranteed gender balance and proper coverage by age groups. The SEM sample size guidelines (Kline, 2017) were applied to determine that the final sample (N = 355) was sufficient (at least 200 participants are recommended to use complex path models).

Measures

All constructs in this study were measured using standardized, validated instruments that were adapted and contextually validated for adolescents in Uganda. Each instrument was anchored on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree), allowing for quantitative analysis of participants' perceptions and experiences. Composite mean scores were computed for each construct, with higher scores indicating greater endorsement of the construct. Prior to analysis, internal consistency reliability was assessed using Cronbach's alpha (α), and all scales demonstrated acceptable to excellent reliability (α ≥ .80), consistent with the benchmarks recommended by Izah et al., (2023).

1) Adolescents' Risk Behaviour
   Adolescents' engagement in risk behaviours was measured using a modified version of the Youth Risk Behaviour Survey (YRBS) developed by the Centers for Disease Control and Prevention (CDC, 2019). The adapted instrument assessed multiple domains of adolescent risk-taking, including substance use (e.g., alcohol and drug experimentation), aggression and violence, sexual risk behaviours, and delinquency. The adaptation process ensured cultural and contextual relevance to Ugandan adolescents by including locally prevalent behavioural indicators such as truancy and unsafe transportation habits. The internal consistency report (Cronbach's α = .87) indicated suitable.
2) Parental Monitoring
   Parental monitoring was assessed using the Parental Monitoring Scale developed by Stattin and Kerr (2000), which evaluates the extent of parental supervision, parents' knowledge of adolescents' activities, and the level of parent–child communication. This instrument has been widely validated in adolescent behavioural studies and was contextually adapted for this study to reflect family dynamics in Ugandan households. High scores represented greater parental oversight and awareness of adolescents' daily routines. The internal consistency report (Cronbach's α = .84) indicated suitable.

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3) Peer Influence Scale
The Inventory of Peer influence was the Peer Pressure Inventory (Brown, Clasen, and Eicher, 1986) which measures the vulnerability of adolescents to attitudes and behaviours of their peers, especially in relation to risky behaviour and conformity. The modified version incorporated questions that were pertinent to peer pressure both in-face and online social settings. The increased scores corresponded to greater vulnerability to peer influence. The internal consistency report (Cronbach's α = .82) indicated suitable.

4) Pocket Money Scale
The operationalization of pocket money was in the form of self-report single-item scale that required the participants to respond to the frequency and sufficiency of monetary allowance given by parents or guardians. The answers were between 1 (none) and 5 (regular and adequate). This was a proxy of the financial autonomy of adolescents and their exposure to discretionary spending, which was found to have an effect on behavioural inclinations (Salami & Ogunlade, 2018).

5) Social Media Use Scale
The Social Media Engagement Questionnaire (SMEQ) created by Nadkarni and Hofmann (2012) was used to measure social media use. The scale measures the frequency, duration and emotional engagement of individuals in social media like Facebook, Instagram, Tik Tok, and WhatsApp. Objects included passive (e.g., browsing) and active (e.g., posting and commenting) engagement. The high scores were the measures of increased interest and possible addiction to social media. The internal consistency reports (Cronbach's α = .85) indicated suitable.

6) Exposure to Risk Scale
An adapted form of the Risk Exposure Scale created by Skinner, E.A., Zimmer-Gembeck (2016) was used to measure exposure to risk. This scale is used to measure the exposure that adolescents have to risky peers, unsafe situations and the exposure that adolescents have to risky content online or in the community. The modified items were based on off-line (e.g., hanging out with delinquent peers) and online (e.g., viewing violent or sexualized content) situations of Ugandan adolescents. The higher the scores, the more exposure to risk-inducing situations. Internal consistency report (Cronbachs =.81) was suitable.

Method of Data Analysis

Data were analyzed using SPSS version 26 and AMOS version 24 for Structural Equation Modeling (SEM). Descriptive statistics (means, standard deviations) and zero-order correlations were computed to examine associations among variables. The path analytical model was then tested using maximum likelihood estimation.

Model fit was assessed using standard indices:

- Chi-square (χ^2) test and its significance ($p > .05$ desirable),
- Comparative Fit Index (CFI > .95),
- Goodness-of-Fit Index (GFI > .90),
- Normed Fit Index (NFI > .90),
- Root Mean Square Error of Approximation (RMSEA < .08), and
- Root Mean Square Residual (RMR < .05).
- **Model Specification (Path Analytical Model)**

The hypothesized model examines the direct and indirect relationships among parental monitoring, peer influence, pocket money, internet/social media use, exposure to risk, and adolescents' risk behaviour. The model assumes that parental monitoring and peer influence are exogenous variables

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that covary, while pocket money, internet/social media use, exposure to risk, and adolescents' risk behaviour are endogenous variables.

The structural equations for the model are specified as follows:

1) Pocket Money

   pocket money = β1Parental_monitoring + β2Peer_influence + ε3

2) Internet/Social Media Use

   internet social-media use = β3Parental_monitoring + β4Peer_influence + β5 pocket money + ε2

3) Exposure to Risk

   Exposuretorisk = β6Parental_monitoring + β7Peer_influence + β8pocketmoney + β9internetsocialmediause + ε4

4) Adolescents' Risk Behaviour

   Adolescents_riskbehaviour = β10Parental_monitoring + β11Peer_influence + β12pocketmoney + β13internetsocialmediause + β14Exposuretorisk +ε1

Result

Research Question 1: What are the bivariate (zero-order) correlations among parental monitoring, peer influence, pocket money, social media use, exposure to risk, and adolescents' risk behaviour?

Table 1: Zero-Order Correlation Matrix among Key Study Variables (N = 355)

Variables	1	2	3	4	5	M	SD
1. Adolescents' Risk Behaviour	—					19.11	4.45
2. Parental Monitoring	−.46**	—				25.44	8.52
3. Peer Influence	.69**	−.38**	—			15.32	5.31
4. Pocket Money	.48**	−.44**	.46**	—		1.50	0.50
5. Internet/Social Media Use	.43**	−.32**	.36**	.24**	—	2.58	1.38

Note. M = Mean; SD = Standard Deviation; p < .01 (two-tailed).

Table 1 demonstrates that there are strong correlations between the risk behaviour of adolescents and the chosen psychosocial and contextual variables. There was a significant positive relationship between peer influence and the risk behaviour of adolescents (r =.69, p<.01) implying that the more adolescents are exposed to peer influence, the more they are likely to engage in risk behaviours. Likewise, pocket money (r =.48, p <.01) and internet/social media use (r =.43, p <.01) also positively correlated with risk behaviour which suggests that higher access to disposable income and more frequent social media use are likely to increase the risky behaviour of secondary school adolescents. On the other hand, the parental monitoring had negative relationship with the risk behaviour (r = -.46, p <.01), which would suggest that the higher adolescents are reporting the higher supervision and involvement with the parent, the less they are likely to engage in risky behaviours. Moreover, peer influence (r = -.38, p <.01), pocket money (r = -.44, p <.01), and social media use (r = -.32, p <.01) were negatively associated with parental monitoring, which indicates that effective parental monitoring could help decrease exposure to risk-enhancing factors.

Research Question 2: What are the direct effects of parental monitoring, peer influence, pocket money, internet/social media use, and exposure to risk on adolescents' risk behaviour?

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Table 2: Standardized Direct Effects among Study Variables (N = 355)

Endogenous Variable	Predictor	B	β	S.E.	C.R.	p
Pocket Money	Parental Monitoring	−.018	−.311	.003	−6.423	***
Pocket Money	Peer Influence	.032	.338	.005	6.982	***
Internet/Social Media Use	Parental Monitoring	−.035	−.218	.008	−4.178	***
Internet/Social Media Use	Peer Influence	.073	.282	.014	5.403	***
Exposure to Risk	Internet/Social Media Use	.068	.267	.013	5.393	***
Exposure to Risk	Pocket Money	−.347	−.498	.037	−9.299	***
Exposure to Risk	Parental Monitoring	−.006	−.157	.002	−2.986	.003
Exposure to Risk	Peer Influence	.018	.275	.004	5.119	***
Adolescents' Risk Behaviour	Parental Monitoring	−.086	−.165	.022	−3.952	***
Adolescents' Risk Behaviour	Peer Influence	.449	.536	.037	12.276	***
Adolescents' Risk Behaviour	Pocket Money	.856	.096	.415	2.060	.039
Adolescents' Risk Behaviour	Internet/Social Media Use	.576	.179	.130	4.426	***
Adolescents' Risk Behaviour	Exposure to Risk	−1.064	−.083	.530	−2.005	.045

Note. *B = Unstandardized regression weight; β = Standardized coefficient; S.E. = Standard error; C.R. = Critical ratio; *p < .001.

Table 2 reveal significant direct effects among the variables.

Parental monitoring exerted significant negative effects on pocket money (β = −.31, p < .001), social media use (β = −.22, p < .001), exposure to risk (β = −.16, p = .003), and adolescents' risk behaviour (β = −.17, p < .001). This suggests that higher parental supervision consistently reduces access to money, online exposure, and engagement in risky conduct. Conversely, peer influence demonstrated strong positive effects on pocket money (β = .34, p < .001), internet/social media use (β = .28, p < .001), exposure to risk (β = .28, p < .001), and adolescents' risk behaviour (β = .54, p < .001). These results indicate that peer dynamics play a dominant role in shaping adolescent risk involvement. Internet/social media use also positively predicted exposure to risk (β = .27, p < .001) and directly influenced risk behaviour (β = .18, p < .001), emphasizing its mediating and amplifying role. Pocket money had mixed effects negatively predicting exposure to risk (β = −.50, p < .001) but positively predicting risk behaviour (β = .10, p = .039). Exposure to risk had a small but significant negative effect on adolescents' risk behaviour (β = −.08, p = .045), suggesting a suppressor or adaptive moderation effect in this context.

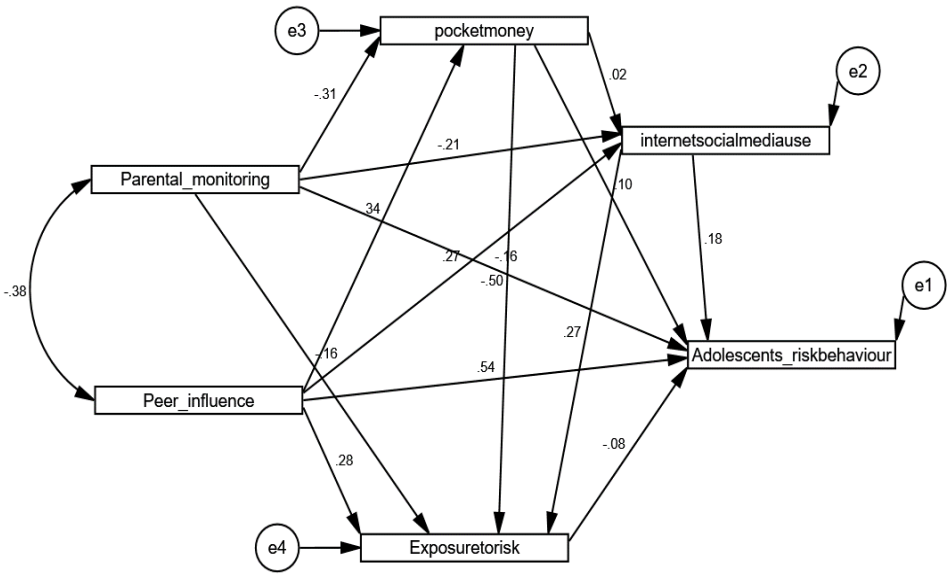

Fig. 1: Initial Path model explaining Adolescents Risk Behaviour

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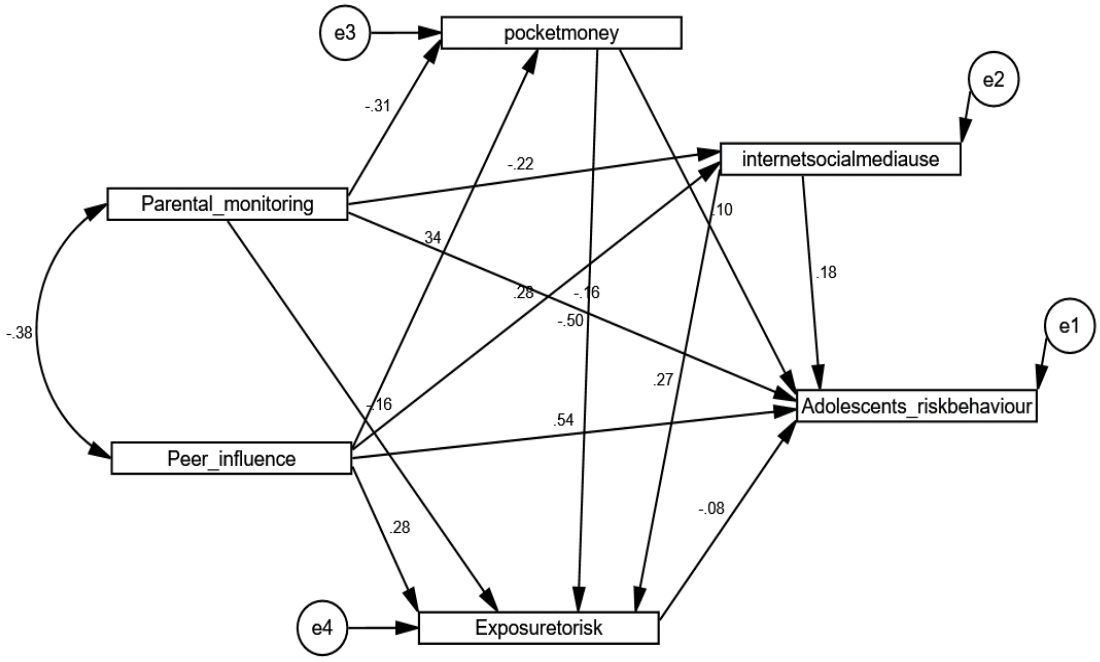

Fig 2: Parsimonious Path model explaining Adolescents Risk Behaviour

Research Question 3: To what extent do parental monitoring, peer influence, pocket money, and internet/social media use indirectly influence adolescents' risk behaviour through mediating variables such as exposure to risk?

Table 3: Indirect and Total Effects of Exogenous Variables on Adolescents' Risk Behaviour

Predictor	Direct Effect (β)	Indirect Effect (β)	Total Effect (β)
Parental Monitoring	−.165	−.122	−.287
Peer Influence	.536	.178	.714
Pocket Money	.096	.041	.137
Internet/Social Media Use	.179	.065	.244
Exposure to Risk	−.083	—	−.083

Note. Indirect effects were computed through mediating paths including pocket money, social media use, and exposure to risk.

The analysis of indirect effects in table 3 revealed that parental monitoring as well as peer influence has significantly mediated effects on risk behaviour among adolescents via the use of social media, pocket money as well as exposure to risk. The parental monitoring produced a negative indirect effect (β = -.12), which supports its protective nature in restricting the impact of intermediate factors like the social media and peer exposure. Conversely, influence exerted by peers was positively indirect (β = .18), which emphasizes that peers not only directly influence behaviour, but indirectly by increasing access to risky environments and media content. Peer influence (β =.71) was the strongest predictor of adolescent risk behaviour, highlighting why it is the most important social determinant of risk behaviour in adolescents in Kampala. On the contrary, parental monitoring showed the largest negative total effect (β = -.29), which proves its buffering and regulatory role. There were also moderate overall impacts of pocket money and social media use (β = .14 and β = .24, respectively), indicating that economic and digital resources have subtle yet significant impacts on the behavioural outcomes of adolescents.

Research Question 4: Does the hypothesized path analytical model demonstrate an acceptable model fit according to standard structural equation modeling benchmarks (e.g., CFI, GFI, RMSEA)?

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Table 4: Model Fit Indices for the Initial and Parsimonious Models (N = 355)

Fit Index	Benchmark Criteria	Initial Model	Parsimonious Model	Interpretation
CMIN (χ^2)	Non-significant ($p > .05$) indicates good fit	.000	.186	Both acceptable (non-significant)
DF (Degrees of Freedom)	≥ 1; over-identified model preferred	0	1	Parsimonious model is better identified
p-value	> .05	—	.666	Good fit (non-significant χ^2)
RMR (Root Mean Square Residual)	≤ .05 (good fit)	.000	.006	Excellent fit for both
GFI (Goodness-of-Fit Index)	≥ .90 (good fit)	.999	.999	Excellent fit
CFI (Comparative Fit Index)	≥ .95 (good fit)	.999	.999	Excellent fit
NFI (Normed Fit Index)	≥ .90 (good fit)	.999	.999	Excellent fit
PCFI (Parsimony CFI)	≥ .50 (acceptable)	.000	.067	Parsimonious model improved
RMSEA (Root Mean Square Error of Approximation)	≤ .08 (good fit); ≤ .05 (excellent)	.345	.000	Parsimonious model excellent; initial poor

Note. Benchmark criteria adapted from Kline (2016) and Hair et al. (2022).

To determine the sufficiency of the hypothesized path analytical model, a number of fit indices were analyzed, such as the chi-square statistic (CMIN), degrees of freedom (DF), goodness-of-fit index (GFI), comparative fit index (CFI), normed fit index (NFI), parsimony comparative fit index (PCFI), root mean square residual (RMR), and root mean square error of approximation (RMSE According to the recommended levels of acceptable model fit as presented by Kline (2017) and Hair et al. (2022), non-significant chi-square (p >.05), GFI, CFI, and NFI values over.90, RMR values under.05, and RMSEA values under.08 indicate a well-fitting model.

The first model demonstrated great indexes of GPI (.999), CPI (.999) and NFI (.999), with a low RMR (.000), as shown in Table 4. The model was however, zero degrees of freedom (DF = 0) and inflated RMSEA value (.345) which indicated that the model was a saturated model with no additional estimation and thus lacked parsimony. Yaşlıoğlu and Yaşlilioglu (2020) explain that saturated models can yield perfect fit indices, but are theoretically less informative since all possible parameters are freely estimated.

Conversely, parsimonious model showed a good and statistically acceptable fit to data. The chi-square test was not significant ($\chi^2 = .186$, $p = .666$), which means that the model was not significantly different than the observed data. Both the RMR (.006) and the RMSEA (.000) were less than the recommended values, which means that there were very few residuals and the results in the population were highly approximated. Moreover, the GPI (.999), CFI (.999) and NFI (.999) were above the .95 threshold indicating excellent goodness-of-fit in indices. The PCFI value showed an increase of.000 in the first model up to.067 in the second model with high parsimony of the model and good fit quality.

Discussion of Findings

This study examined the pathways linking parental monitoring, peer influence, pocket money, social media use, and exposure to risk in predicting adolescents' risk behaviour in Kampala. Path analysis revealed a robust model ($\chi^2 = 0.186$, $p = .666$; GFI = .999; CFI = .999; RMSEA = .000) explaining significant variation in risk behaviour. Parental monitoring negatively predicted adolescents' risk behaviour ($\beta = -.165$, $p < .001$), confirming that supervision, communication, and awareness reduce risky engagement, consistent with Yang et al. (2024) and Carrillo (2025). Low

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monitoring increased social media use, peer influence, and risk exposure, highlighting vulnerabilities in urban Ugandan contexts (Self-Brown et al., 2021).

Peer influence strongly predicted risk behaviour (β = .536, p < .001) and was positively associated with pocket money (β = .338) and social media use (β = .282), reflecting digital peer dynamics among Kampala adolescents (Kiirya et al., 2025). Social media use itself also positively predicted risk behaviour (β = .179, p < .001), though controlled use may have benefits, with high-frequency engagement amplifying exposure to risky content (Richards & Hartzog, 2024). Pocket money positively influenced risk behaviour (β = .096, p = .039) and indirectly mediated peer influence, aligning with prior findings linking discretionary funds to substance use and deviant acts (Heidari et al., 2025). Exposure to risk mediated the relationships among the variables, with parental monitoring reducing, and peer influence and social media increasing, adolescents' exposure to risky environments (Ruiter, 2025). Contextual factors in Kampala suggest that economic stability may buffer some risks, contrasting with Western patterns (Ali Karama, 2024).

Conclusion

Adolescent risk behaviour in Kampala is shaped by interconnected personal, social, and environmental factors. Peer influence was the strongest positive predictor, while parental monitoring was protective. Pocket money and social media exerted both direct and indirect effects via exposure to risk. Findings support social learning (Bandura, 1977) and ecological systems theory (Bronfenbrenner, 1979), emphasizing the interplay of family, peers, and socio-digital environments in adolescent behaviour. The study contributes empirical evidence from sub-Saharan Africa, highlighting the importance of culturally contextualized interventions.

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