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Research Article

Impact of stress-induced life events on mental well-being and delinquency: The mediating influence of substance use among Jordanian university students

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Stressful situations encountered throughout adolescence distress health throughout a person's life. In light of the high frequency of stressful life events, particularly for adolescents at risk for interaction with the child welfare system, the effects of these experiences must be well understood throughout the many phases of child growth. Based on general strain theory, the present research investigates the association between having encountered stressful life events in the past, having mental health issues, and engaging in delinquent behaviours through substance use when a person is a teenager. Adolescents subjected to physical and emotional maltreatment were likely to report experiencing mental health issues and delinquent behaviour, engaging in alcoholic beverages, using illicit substances, improper use of prescribed or over-the-counter medication, and smoking cigarettes. Data was collected from 248 students and 112 counsellors in Jordanian universities to conduct the comparative study through the convenience sampling technique. Data were analyzed through SmartPLS Software. The findings of this study show that stressful life events promote substance use among students in Jordanian universities. Similarly, these events also enhance mental health issues and lead the students toward delinquent behaviour.

Keywords: Stressful life events; Mental health; Delinquent behaviour; Substance use

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1. Introduction

The focus of different definitions of stress can range from objectively exhausting aspects of the surroundings (such as stressful life events), which become an individual's perceived threat from the environment, which affects the behaviour (Cohen, 2016). These various descriptions indicate distinct phases in a paradigm where stressful life events that a person evaluates as hazardous elicit behavioural and physical reactions in that individual (Kessler, 1997). Numerous adverse consequences, such as mental diseases and depression, are caused by stressful life events (McMahon et al., 2020). It is well-documented that stressful life events harm mental well-being (Cohen et al., 2019; Thoits, 2010). Stressful events like bullying, mourning the death of a close one, or significant sickness, melancholy, or psychotic symptoms (Pitman et al., 2014; Yıldız, 2020) are

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associated with a higher probability of drug abuse (Krueger et al., 2020), mental health problems (Cohen et al., 2019), delinquent behaviour (Cho & Galehan, 2020).

Childhood and adolescent stressful life situations have been related to long-lasting consequences on learning (textual, intellectual, and social-emotional), behaviour (flexible compared to ineffective reactions to potential adversity), and physiological processes (an overreactive stress reaction or one that is constantly aroused). (Anda et al., 2006; Roberts et al., 2018). In addition, these events may create metabolic changes, which can lead to increased rates of stress-related persistent illnesses and an elevation in the frequency of sedentary lifestyles, all of which contribute to a deepening of health inequalities (Anda et al., 2006; Cho & Galehan, 2020). Age is an essential factor when they are exposed to traumatic events. The age of a person when they are exposed to traumatic events may have a bearing on the effects of such experiences. Encounter with childhood and adolescent trauma might affect the responsiveness of stress-response mechanisms, increasing the likelihood of negative consequences (Kleber, 2019).

There is research to support the notion that other highly stressful life events, such as poverty, proximity to loud, protracted disputes, and financial turmoil, may affect young adolescents' mental health and behaviour (Conger, 2015). Toxic stress levels are associated with mental health problems and change behaviour to enhance the use of alcohol and drugs in adolescents (Wynaden et al., 2014). Research conducted throughout the globe on the self-reported and quantitatively graded degrees of psychological distress experienced by university students corroborates the notion that individuals in this demographic often struggle with mental health issues (Burris et al., 2009; Leahy et al., 2010; Stallman, 2010; Wynaden et al., 2013) and seem to be becoming more common (Hunt & Eisenberg, 2010). Australian research found that more than half of students at three institutions reported psychiatric problems four weeks before seeking care (Stallman & Shochet, 2009). Students may rely on previously used methods of responding to alleviate the uncomfortable symptoms connected with a mental health condition, so that they may use cigarettes, alcohol, and drugs (McGuinness & Ahern, 2009).

According to the current study's underlying hypothesis, general strain theory (GST), negative emotions like fear, disappointment, melancholy, wrath, and frustration are the root causes of criminal behaviour (Agnew, 1992). Crime and other forms of delinquency may be seen as a way to deal with the stress brought on by these unpleasant emotions. Previous studies have shed light on the significant impact of stressful life events on developing delinquent behaviour, mental health issues, and substance use (Compas et al., 1988; Sinha, 2008). For instance, according to the "General Strain Theory", when people do not adequately deal with the unpleasant feelings resulting from strains, they may be more likely to engage in aggressive behaviour (Agnew, 2006; Agnew et al., 2002). According to Dariotis and Chen (2022), stressful life events still had direct consequences on risky conduct, suggesting the need for additional approaches or treatments to mitigate the adverse effects of stress. The current study brings substance use as a mediator between stressful life events and mental health issues, similarly between stressful life events and delinquent behaviour, to see the direct and indirect impact of stressful life events on mental health and delinquent behaviour (see Figure 1). Based on GST, this study is focused on attempting to provide explanations for the following significant questions:

RQ 1) Is stressful life events positively influence mental health issues, delinquent behaviour, and substance use in Jordanian schools?

RQ 2) Is substance use positively influence mental health issues and delinquent behaviour in Jordanian schools?

RQ 3) Is there a mediating effect of substance use between stressful life events and mental health issues, and delinquent behaviour, in Jordanian schools?

Figure 1
Conceptual Framework
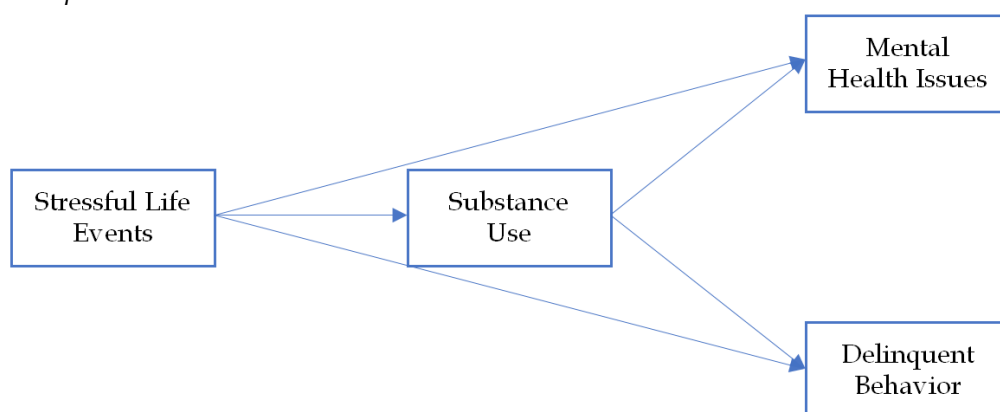
2. Theory and Hypotheses

2.1. General Strain Theory (GST)

According to the general strain theory, the social systems that exist within a community may put people under pressure to conduct crimes. The theory given by Agnew (1992) emphasizes the reasons for crime and delinquency by broadening Merton's (1938) concept of strain. The fundamental premise of the strain theory is that young people who are exposed to adverse surroundings (such as those that are characterized by economic hardship, neighbourhood inconvenience, and affiliated persistent stressors) are unable to accomplish desired objectives by legal means and instead resort to delinquency and crime.

According to the general strain theory, the incidence of delinquency and criminal activity is due to the bad influence that is the outcome of environmental stress such as "stressful life events". Based on the GST, this study proposed the "stressful life events" as an antecedent of delinquent behaviour. It has been reported that to alleviate the stress caused by these unfavourable effects, some individuals may turn to inappropriate coping mechanisms (Agnew & Brezina, 2019). Based on this phenomenon, this study argues that students facing "stressful life events" use drugs (substance use) to cope with the stress coming from these events (Agnew & Brezina, 2019). Another piece of evidence from GST points to the role of people's behavioural traits (such as self-esteem and recklessness) and emotional situations (such as loneliness, rage, and depressed mood) in illicit activities. Based on this, current research argues that "stressful life events" affect the mental health of students and design their behaviour as delinquent behaviour (Agnew & Brezina, 2019). Integrating the original work on GST with previous experimental research on mental health and delinquency, the current study focuses on the effect of "stressful life events" on the mental health and delinquent behaviour of Jordanian university students.

2.2. Effect of Stressful Life Events on Mental Health Issues and Delinquent Behaviour

Stress is used generically and in various research as occurrences that create stress (i.e., stressful life events) (Smith & Carlson, 1997). Previous studies have thrown light on the impact that stressful events play on drug abuse, mental health issues, and criminal behaviour. Researchers are studying the influence of stressful events on mental health issues for more than 30 years (Compas, 1987; Grant et al., 2006). Experiencing a stressful event may affect the initiation of a clinically characterized illness, the course of a preliminary or clinical disease, or both of these outcomes (Miller et al., 2007) in teenagers. Experience in stressful situations may influence any illness with an origin including affect control, health outcomes, endocrine, or the sympathetic nervous system (Cohen et al., 2019), which creates mental health issues. Aside from the influence on mental health, stressful life events and everyday stresses are linked to the start and worsening of chronic disease (e.g., diabetes, asthma) (Alfven et al., 2008; Tran et al., 2011).

Stressful situations and traumatic events in adolescence both have a role in predisposing young people to engage in criminal behaviour (Fang et al., 2016). According to the GST, some strains may cause negative emotions like rage, which can lead to youngsters being involved in delinquent activity (Agnew, 2013). In addition to mental health issues, stressful events significantly affect the behaviour of young age students, such as poor academic performance, school disengagement, high usage of school services, and suicidal behaviour (Sandin et al., 1998). Based on this theory, this study predicts that stressful life events create mental health issues and delinquent behaviour through substance use. Therefore, this study hypothesizes that:

Hypothesis 1a: Stressful life events will be positively related to mental health issues.

Hypothesis 1b: Stressful life events will be positively related to delinquent behaviour.

2.3. Stressful Life Events and Substance Use

Given the growing volume of research that has been conducted on stress and hazardous behaviour, the majority of studies have concentrated on a single aspect of risky behaviour, such as substance use solely (Dariotis & Chen, 2022). Over the last three decades, several studies have been conducted to study the influence of stressful events on substance use disorder (Compas, 1987; Grant et al., 2006). Stressful life experiences are regarded as distinct quantified conditions that might have significant negative consequences. Concerning post-traumatic stress disorder, extremely stressful experiences like childhood physical mistreatment, violence, and molestation have been widely studied, despite their rarity (Trickey et al., 2012).

The use of substances, particularly cigarettes, alcohol, marijuana, and psychoactive drugs, tends to rise as a way of dealing with the effects of trauma (Brooks et al., 2020; Slaven et al., 2017). Substance use is seen as a "resource" for coping with stress (Mooney et al., 2008), thus stressful events should be regarded as a risk factor for substance abuse (Ireland et al., 2002) and legal problems (Brems et al., 2004). Child abuse is linked to an increased likelihood of substance use and usage in adulthood (Cicchetti & Toth, 2005), involving arrests for drug offenses (Brems et al., 2004).

Based on GST, this study proposes that negative emotions in the form of stressful life events lead adolescents to criminal behaviour, such as substance use. Therefore, this study hypothesizes that:

Hypothesis 2: Stressful life events will be positively related to substance use.

2.4. The Mediating Role of Substance Use

According to the findings of a study conducted by Schaaf and McCanne (1998), the incidence rates of stressful events among college students vary from 20% to nearly 73%. Additionally, studies show that stressful event indicators may negatively impact functioning (such as interpersonal relationships; Davis et al., 2001) as well as depression indicators (Marshall et al., 2010) and drug abuse even in those who do not fully fit the criteria for stressful life events (Norman et al., 2007). According to research conducted by Norman and colleagues (2007), adolescents who may not fulfill the criteria for stressful events but have symptoms may be at hazard for drug use disorders.

Issues with substance use and mental health are related to considerable costs for both the person and their family (Kawakami et al., 2012). When a person is in their early 20s, they are at their greatest risk of developing mental health conditions such as major depressive disorder and generalized anxiety disorder (Kessler et al., 2005), along with substance use disorders related to alcohol and drugs (Haberstick et al., 2014). There have been many studies that have concentrated on the rate of substance use and mental health issues among undergraduate students (Ketchen Lipson et al., 2015).

Several studies conducted in the last 20 years have shown a substantial connection between adolescent substance use and delinquent behaviour (Barnes et al., 2002; Helstrom et al., 2004; Mason et al., 2007). The relationship between drug abuse and criminal behaviour has been postulated to develop through several different pathways. According to the psychopharmacological theory, delinquent behaviour is said to be caused by the intoxicating properties of the drug that is being used (Goldstein, 1985; Parker & Auerhahn, 1998). There is also

the possibility that young people who use substances would conduct crimes in order to acquire resources to maintain their drug use (Goldstein, 1985). The use of substances in adolescence has been shown in a number of studies to be a reliable indicator of eventual antisocial and delinquent behaviour in adolescents (Ford, 2005; French et al., 2000).

According to the GST, young people who are exposed to adverse surroundings are unable to accomplish desired objectives by legal means and instead resort to delinquency and crime. Based on this theory, this study predicts that stressful life events create mental health issues and delinquent behaviour through substance use. Therefore, this study hypothesizes that:

Hypothesis 3a: Substance use will mediate the relationship between stressful life events and mental health issues.

Hypothesis 3b: Substance use will mediate the relationship between stressful life events and delinquent behaviour.

3. Method

3.1. Research Design

The study utilized a cross-sectional survey design, a methodology that captures data from participants at a singular point in time. Within this framework, participants from Jordanian universities, both students and counsellors, were surveyed to investigate the interplay between stressful life events and outcomes such as mental health challenges, substance use, and delinquent behaviour. Using standardized questionnaires equipped with validated scales allowed for robust and reliable data collection. The decision to opt for a convenience sampling approach, driven by time and budgetary restrictions, further delineates the practical considerations of this design. In summary, this research offers a contemporary snapshot into the relationship between life stresses and various outcomes within the academic context of Jordan.

3.2. Sample and Data Collection Procedures

Jordanian universities are used as a source for the data. Jordan is home to a total of 32 universities, 10 of which are public, 19 of which are private, 1 is regional, and 2 are governed by their own specialized rules, in addition to 51 community colleges. It is projected that there are over 236,000 national and international students now enrolled in both public and private educational institutions (Ministry of Higher Education and Scientific Research, 2023). Data were collected from 248 students and 112 counsellors to measure students' mental health issues and delinquent behaviour due to stressful life events. Permission was obtained from the admin department of the universities to collect the data. The convenience sampling technique was chosen due to time and budgetary constraints. More comprehensive sampling methods, like stratified or random sampling, are time-consuming and often require significant resources. Given the limited timeframe and financial budget for this study, convenience sampling provided a quick and cost-effective method to gather data from readily available participants. English is the language of communication, as it is well understood in Jordan. After collecting the data from students and counselors, a multigroup analysis was conducted to record the views from both groups, after measurement and the structural model.

In the context of the research methodology, the decision to incorporate a multigroup analysis was both deliberate and strategic. Given the distinctive characteristics and potential differential perceptions of the primary cohorts - students and counselors - it was deemed essential to apply a technique that would allow for an intricate examination of inter-group variances. Such an analytical approach not only offers a means to discern nuanced disparities in responses but also ensures the robustness of the findings by mitigating the risk of overgeneralization. This methodology aims to present a comprehensive and rigorous exploration of the subject, highlighting the unique insights and perspectives intrinsic to each subgroup.

3.3. Measures

3.3.1. Stressful life events

To assess the frequency of stressful life events encountered by the teenager, a 14-item, child/adolescent-specific version of the Lindens Life Event for Students Scale, will be used (Linden, 1984), utilization of which has been verified through further samples (e.g., Clements & Turpin, 1996). They were questioned if any of the following occurrences had taken place in the preceding three years, and they were asked to respond with a straightforward yes or no: "Death of a parent, Death of a close family member, Death of a close friend, Divorce, Moving house within Ireland, Moving country, Stay in a foster home, Serious illness/injury, Serious illness/injury of a family member, Drug taking/alcoholism within the family, Mental disorder within the family, House broken into/Home burgled, Conflict between parents, Parent in prison". Respondents will be invited to score on "a 5-point Likert scale ranging from 1= strongly disagree to 5=strongly agree."

3.3.2. Substance use

The following substance use items will be chosen from a broader collection of the YRBSS (Brener et al., 2004; Knight et al., 2014):

1) Cigarette Use. "During the past 30 days, on how many days did you smoke cigarettes?"

2) Problem drinking. "During the past 30 days, on how many days have you been drunk or very high from drinking alcoholic beverages?"

3) Marijuana use. "During the past 30 days, how many times did you use marijuana?"

4) Other illegal drugs. "In the past year, did you use or try any other illegal drugs or drugs that were not prescribed to you by a doctor?"

3.3.3. Mental health issues

To assess the students' mental health problems stigma experiences will be assessed using the 28-item Stigma Scale developed by King et al. (2007). Respondents will be invited to score on "a 5-point Likert scale ranging from 1= strongly disagree to 5=strongly agree."

3.3.4. Delinquent behaviour

As a means of indexing the respondents' level of delinquent behaviour, the Hong Kong Delinquent Behaviour Scale, which was established by Wong et al. (2018), will be used. This instrument was modified from the "17-item Delinquency Scale developed by Miller et al. (2007)". The scale asks about the frequency with which participants have involved in a sequence of delinquent behaviours in the preceding few months. Sample items are "argue/fight with parents" and "take drugs." Respondents will be invited to score on "a 5-point Likert scale ranging from 1= strongly disagree to 5=strongly agree."

4. Results

The SmartPLS3 software was used so that we could carry out the preliminary study and evaluate the psychometric features of the construct. In order to achieve the goals of our study, we have come up with a process that consists of a measurement model, and then, an analysis of the structural model (Barclay et al., 1995), followed by a multi-group analysis to find the difference between two groups.

4.1. Measurement Model

Measurement model of the study is presented in Figure 2. In accordance with the suggestions given by Roldán and Sánchez-Franco (2012), the initial step that we took was to process the indicator loading values for the proposed model. Table 1 presents the related statistics. The criterion set by Carmines and Zeller (1979) at 0.7 has been surpassed by all indicators, according to our current analysis. "Cronbach's α (CA)" and "composite reliability (CR)" were calculated to

establish the reliability of measures (Henseler et al., 2015; Mansoor & Paul, 2022). Similarly, the minimum values for "composite reliability were established at 0.7 by Fornell and Larcker (1981), for Cronbach's Alfa (0.7), and Average Variance Extracted (AVE, recorded at 0.5)". This has clearly proved that the model has adequate "construct validity, that is, the amount to which a collection of measured items truly represents the theoretical latent construct" (Hair et al., 2017a).
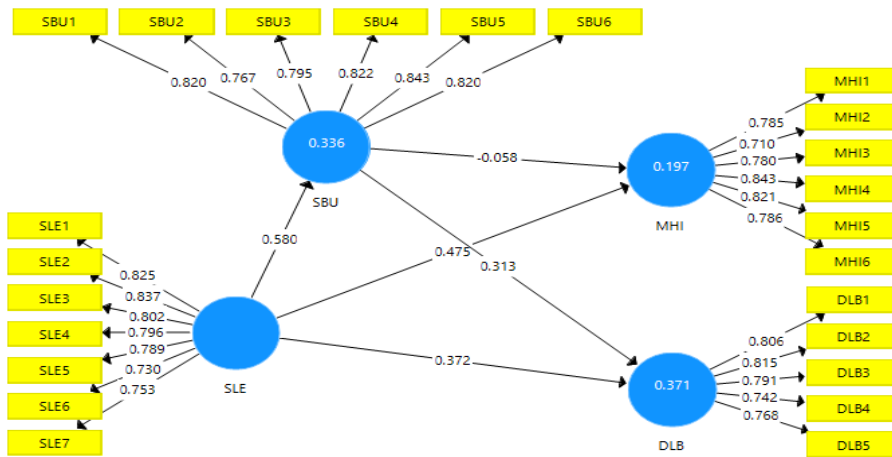
Figure 2
Measurement Model

Table 1
Factor Loading, Construct Reliability, and Validity

Constructs/indicators	DLB	MHI	SBU	SLE	CA	CR	AVE
Delinquent Behaviour					0.845	0.889	0.616
DLB1	0.806						
DLB2	0.815						
DLB3	0.791						
DLB4	0.742						
DLB5	0.768						
Mental Health Issues					0.879	0.908	0.622
MHI1		0.785					
MHI2		0.710					
MHI3		0.780					
MHI4		0.843					
MHI5		0.821					
MHI6		0.786					
Substance Use					0.896	0.920	0.659
SBU1			0.820				
SBU2			0.767				
SBU3			0.795				
SBU4			0.822				
SBU5			0.843				
SBU6			0.820				
Stressful Life Events					0.901	0.921	0.626
SLE1				0.825			
SLE2				0.837			
SLE3				0.802			
SLE4				0.796			
SLE5				0.789			
SLE6				0.730			
SLE7				0.753			

Note: CA, Cronbach's Alpha; CR, composite reliability; AVE, average variance extracted; DLB: Delinquent behaviour; MHI: Mental health ıssues; SBU: Substance use; SLE: Stressful life events

This research then moved on to examine the discriminant validity of the measures, which is defined as "the extent to which the measures are not a reflection of some other variables; this is indicated by low correlations between the measure of interest and the measures of other constructs". As shown by the findings in Table 2, "the square root of each construct's AVE (diagonal values) is larger than its associated correlation coefficients", which indicates that the construct satisfies the requirements for acceptable discriminant validity as outlined by Fornell and Larcker (1981).

Table 2
Discriminant Validity (Fornell-Larcker Criterion)

	Delinquent Behaviour	Mental Health Issues	Substance Use	Stressful Life Events
Delinquent Behaviour	.785			
Mental Health Issues	.565	.789		
Substance Use	.529	.217	.812	
Stressful Life Events	.553	.441	.580	.791

According to Henseler et al. (2015), the "Heterotrait-Monotrait (HTMT) ratio is one of the best measures of discriminate validity while using SmartPLS3" (Masih et al., 2022). They mandated "the range of HTMT ratio less than 0.90 to establish that all the study constructs are distinct". The "discriminant validity of the constructs" has been proven due to the fact that the values that are shown in Table 3 indicate that the values of the HTMT ratio for all of the research constructs are lower than 0.9.

Table 3
Heterotrait-Monotrait Ratio of the Correlation

	Delinquent Behaviour	Mental Health Issues	Substance Use	Stressful Life Events
Delinquent Behaviour				
Mental Health Issues	.653			
Substance Use	.596	.239		
Stressful Life Events	.619	.492	.623	

Table 4 displays the multicollinearity between predictor and outcome variables. Hair et al. (2017b) recommended this technique to check the multicollinearity. Two different cutoff points (VIF <3 and <5) for the evaluation of the VIF is used. In this investigation, a cautious approach <3 was used, and the researchers discovered that there were no multicollinearity problems between the constructs.

Table 4
Variance Inflation Factor (Inner VIF)

	Delinquent Behaviour	Mental Health Issues	Substance Use	Stressful Life Events
Delinquent Behaviour				
Mental Health Issues				
Substance Use	1.506	1.506		
Stressful Life Events	1.506	1.506	1.000	

4.2. Structural Model

In the first step, all direct hypotheses were tested, Figure 4.4 depicts all of the direct connections between the variables. The findings are summarized in Table 5, which demonstrates that "stressful life events" significantly influence "substance use (Coefficient = .580, $p < .05$), mental health issues (Coefficient = .475, $p < .05$), and delinquent behaviour (Coefficient = .372, $p < .05$)" among university students.
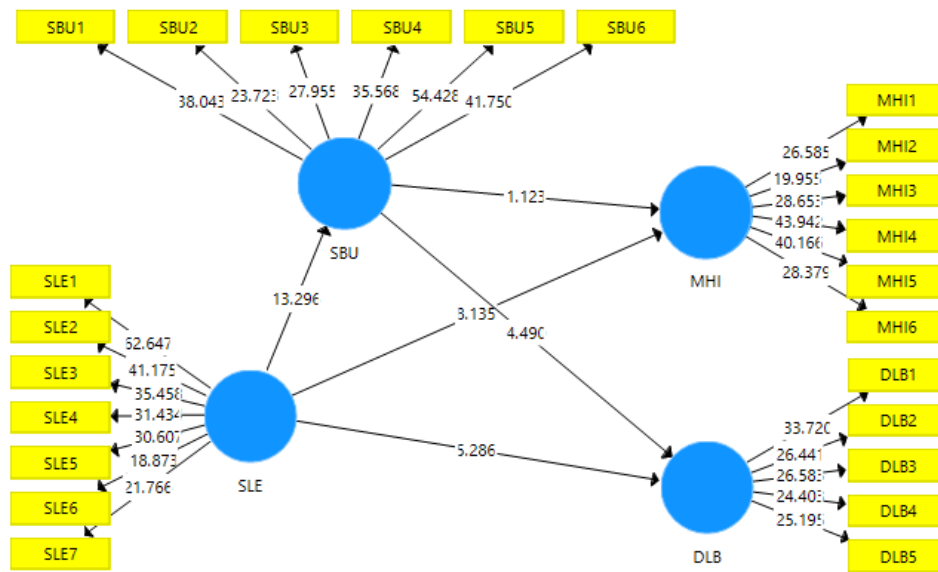
Figure 3
Structural Model

Table 5
Direct Hypotheses

	Original Sample	Sample Mean (M)	SD	t-value	p
SBU → DLB	0.313	0.312	0.070	4.490	.000
SBU →MHI	−0.060	−0.062	0.053	1.123	.261
SLE → DLB	0.372	0.374	0.070	5.286	.000
SLE → MHI	0.475	0.481	0.058	8.135	.000
SLE → SBU	0.580	0.582	0.044	13.296	.000

In the second step, all indirect hypotheses were tested, Figure 3 gives the detail of all indirect connections between the variables. According to the results summarized in Table 6, "stressful life events" significantly influence the "delinquent behaviour" of students through the intervention of "substance use" (Coefficient = .181, $p < .05$). whereas, "stressful life events" do not have any significant influence on "mental health issues" in students through "substance use".

Table 6
Indirect Hypotheses

	Original Sample	Sample Mean (M)	SD	t-value	p
SLE → SBU → MHI	−0.035	−0.036	0.031	1.103	.270
SLE →SBU → DLB	0.181	0.181	0.042	4.334	.000

4.3. Multi-Group Analysis (MGA)

Given that the fundamental premise of MGA is the existence of heterogeneity between groups, it helps determine the degree to which groups vary from one another. When doing multigroup SEM studies, researchers are required to consider the important problem of measurement invariance. We developed the MICOM method to be completely compliant with the characteristics of composite models and to have as many similarities as feasible to other procedures already in use. Because variance-based SEM approaches never require distributional assumptions, our methodology is based on tests that are not parametric.

To evaluate it, we have relied on a method known as MICOM, which stands for "measurement invariance of composite models" to ensure that any variations across groups, if any, are not the result of survey content or group classification (Henseler et al., 2016). This process is broken down

into three parts, the first of which involves determining the "configurational invariance". It demonstrates that each of the groups that are the focus of the inquiry was obtained using the same instrument, and each group was assigned a unique value. In step II, the "compositional invariance" is calculated. It shows the equality of the variance and composite mean values across all of the groups. Step III indicates that the composites exhibit equal variance or mean values for all groups. Tables 7 and Table 8 reflect the findings of the MICOM study, respectively. The bootstrap-based MGA developed by Henseler et al. (2009) was used to conduct group comparisons using the SmartPLS3 software in the present investigation. After they were completed, the three processes outlined above made it possible for us to provide evidence in favour of the existence of quantifiable measurement invariance, after that, the implementation of a technique for multigroup analysis has been attempted (Henseler et al., 2016).

Table 7
Measurement Invariance of Composite Model (Step II)

Constructs	Original	Permutation Mean	5.0%	Permutation p-values
DLB	0.999	0.998	0.995	.718
MHI	0.999	0.996	0.990	.769
SBU	0.999	0.999	0.998	.511
SLE	1.000	0.999	0.997	.856

Table 8
Measurement Invariance of Composite Model (MICOM) (Step III)

	Mean Difference (students-Counselors)					Variance Difference (students-Counselors)				
	Original	Perm	LL	UL	*p*	Original	Perm	LL	UL	*p*
DLB	−0.065	0.000	−0.226	0.231	.580	−0.040	0.013	−0.318	0.337	.809
MHI	−0.230	0.002	−0.227	0.231	.050	0.321	0.010	−0.296	0.331	.049
SBU	0.129	−0.002	−0.223	0.228	.270	−0.177	0.015	−0.366	0.399	.357
SLE	−0.022	0.000	−0.224	0.221	.846	0.109	0.007	−0.310	0.318	.504

After the findings of the MICOM study, we used the PLS MGA to find out the difference in both groups. The findings of the current study established a statistically significant association ($p < .05$) between "stressful life events" and "substance use" (see Table 9 and Table 10).

Table 9
Path Coefficients (MGA)

	Path Coefficients-diff (Students - Counselors)	p-value original	p-value New
SBU → DLB	−0.115	.800	.401
SBU → MHI	−0.200	.925	.151
SLE → DLB	0.026	.426	.852
SLE → MHI	0.014	.465	.930
SLE → SBU	−0.218	.999	.002

Table 10
Specific Indirect Effects (MGA)

	Indirect Effects-diff (Students - Counselors)	p-value original	p-value New
SLE → SBU → MHI	−0.126	.898	.203
SLE → SBU → DLB	−0.147	.935	.131

5. Discussion

The current study delves into the potential significance of "stressful life events" in shaping students' mental health issues and delinquent behavior. Additionally, it examines the intermediary role of students' substance use in the correlation between stressful life events and their mental health issues and delinquent behavior. Data collection encompassed two distinct participant

groups: students and counselors. The findings, emerging from a comprehensive analysis of both groups' perspectives, unequivocally demonstrate that "stressful life events" exert a substantial influence on students' "substance use," mental health concerns, and delinquent behavior. This resoundingly validates the acceptance of hypotheses 1a, 1b, and 2 in light of the empirical outcomes. Remarkably, these findings harmonize with prior research outcomes (Cho & Galehan, 2020; McMahon et al., 2020), further corroborating their credibility.

Notably, the investigation revealed that while "stressful life events" exhibit no discernible impact on mental health issues via substance use, they significantly amplify students' delinquent behavior through this channel. Consequently, hypothesis 3a was not validated, whereas 3b found empirical support.

This research mandated a meticulous exploration of structural discrepancies via multigroup comparisons across the two participant categories. The multi-group analysis accentuated a solitary disparity, indicating that students and counselors only diverge in their perception of "stressful life events" augmenting substance use. In contrast, both groups exhibited alignment in all other relational aspects. This unified perspective underscores the mutual agreement of both students and counselors that "stressful life events" significantly contribute to students' mental health issues and delinquent behavior. Furthermore, both parties concurred on the lack of influence exerted by "stressful life events" on mental health issues through substance use, while still significantly accentuating students' delinquent behavior through the conduit of substance use. These findings are in line with previous studies (Agnew & Brezina, 2019; Cohen, 2016; Kleber, 2019).

This study assumes a distinctively unique role by juxtaposing the viewpoints of university students and counselors within the context of Jordanian universities, accounting for the nuanced cultural backdrop. Framed within the purview of the general strain theory, it underscores how social systems prevailing within a community can precipitate criminal proclivities under duress. This study extends the theoretical framework of the general strain theory to explore the intricate interplay between stressful life events, students' mental health issues, and delinquent behavior. The substantiated findings gleaned from both students and counselors augments the theoretical foundation of this study, constituting a substantive addition to the existing scholarly corpus. The contribution rests on the empirical validation that "stressful life events" directly precipitate mental health issues and foster delinquent behavior among university students. Moreover, the research illuminates the role of such events in fueling substance use within the student population of Jordanian universities.

The implications of our findings reverberate on a practical front, carrying direct ramifications for policymakers and practitioners alike. Pragmatically, the study offers actionable insights to Jordanian universities to better manage and mitigate the impact of stressful events. Employing the general strain theory within the unique cultural context of Jordan, this research furnishes a blueprint for stakeholders to address these stressors effectively. The findings serve as a guiding beacon for the implementation of targeted interventions to curtail substance use among students. Furthermore, the research underscores the pressing need for dedicated healthcare facilities within university campuses to address the mental health repercussions of stressful life events. The establishment of counseling sessions and training initiatives emerges as a strategic response to address the behavioral challenges faced by students in Jordanian universities.

6. Limitations and Future Research Directions

Despite the significance of the study, the work has a couple of shortcomings, the resolution of which might help to identify new avenues for research in the future. Firstmost the current study is limited to the quantitative technique, whereas future studies should use the mixed method to collect data on stressful life events. Secondly, the study is limited to one country only i-e Jordan, whereas future studies are recommended to include a minimum of two countries for better comparison. As the study is to observe stressful life events, so longitudinal study shall be most suited instead to cross-sectional. It is, therefore, recommended for future researchers conduct a

longitudinal study on stressful life events. Future studies should incorporate some other outcome variables in addition to the outcomes used in this study.

7. Conclusion

This research rigorously examined the relationship between "stressful life events" and their consequent effects on students' mental health and delinquent behaviors, emphasizing the intermediary role of substance use. Data collated from both students and counselors yielded consistent findings: stressful life events have a pronounced impact on students' substance use, mental health disturbances, and deviant behaviors. From a theoretical standpoint, this study makes a salient contribution by juxtaposing student and counselor perspectives within the Jordanian academic milieu. It amplifies the understanding of the general strain theory, postulating that societal systems can exert pressures leading to delinquency. In the specific context of Jordanian universities, it is empirically evidenced that stressful life events precipitate mental health challenges and foster delinquent inclinations among students. Furthermore, a notable revelation of this study is the ascertainment that such events exacerbate substance use. On the practical front, the findings of this research bear profound implications for institutional governance and policymaking. Recognizing the detrimental ramifications of stressful events is pivotal. Accordingly, universities are encouraged to devise and implement mitigation strategies, encompassing substance use deterrence and bolstered mental health support. The establishment of dedicated healthcare facilities and the provision of specialized counseling sessions are recommended to holistically address the myriad behavioral challenges encountered by students within the Jordanian academic sector.

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