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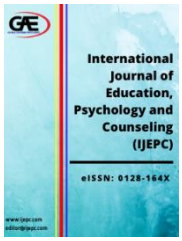

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ASSESSING MULTIDIMENSIONAL SCALE OF LOW SELF-CONTROL IN MALAYSIAN PROPERTY CRIMES PRISONERS

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Abstract:

The increasing incidence of criminal and delinquent behaviour has received a lot of attention. The Low Self-Control Scale (LSCS) developed by Grasmick et al. (1993) has been significant in our understanding of the role of self-control in that behaviour. The purpose of this study is to look into the psychometric properties of the Malay language modified multidimensional LSCS among 181 property crime convicts in Malaysia prisoner. The validity and reliability of the LSCS second-order reflection measurement model were investigated using the partial least square structural equation modelling (PLS-SEM) method. The findings demonstrate that the six LSCS constructs (temper, easy tasks, self-centered, risk seeking, physicality, and impulsivity), as well as the 23 indicators, can explain the concept of low self-control. This research proved the construct reliability, discriminant validity, and convergent validity of the LSCS's Malay version. In addition, this research also demonstrated that prisoners disclosed themselves high on each LSCS's constructs, having the highest ratings on impulsivity and the lowest on temper. In conclusion, the psychometric evidence of LSCS in this study will be catalyzed for future studies of individual self-control in delinquent or criminal behavior.

Keywords:

Low Self-Control, Dimensionality, Prisoner, Property Crimes.

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Introduction

Criminal activity significantly jeopardizes socio-economic growth as well as social cohesiveness. Studies conducted over the past 60 years have shown that economic and social factors possess an impact on how crime patterns develop over time (Jennings, Farrall, & Bevan, 2012). Currently, speculation that, as happened during the 2008 financial crisis, an increase in crime may result from the instability of the post-Covid-19 global economy. In addition, the increase in job losses and unemployment has impacted young people greatly (Carmichael & Ward, 2001). Nevertheless, over the past 30 years of research, it has been found that the effects of low self-control and environmental pressures contribute a significant part to criminal behaviour (Huijsmans, Nivette, Eisner, & Ribeaud, 2021; Walters, 2016, Pratt & Cullen, 2000).

Numerous studies in more than 25 countries have demonstrated the relationship between criminal behaviours and self-control (Vazsonyi & Belliston 2007; Zimmerman, Botchkovar, Antonaccio, & Hughes 2015; Mufti & Updegrove 2018). In general, exercising good self-control will reduce the chance of crime in any situation. Individual's criminal and violent behaviour, as well as delinquent and self-control behaviour, were both significantly correlated, as per the General Theory of Crime (Gottfredson & Hirschi, 1990), which is the theoretical framework for studies on self-control (Baron, Forde, & Kay, 2007; Forrest, Hay, Widdowson, & Rocque, 2019; Holt, Cale, Brewer, & Goldsmith, 2021; LaGrange, & Silverman, 1999; Morselli, & Tremblay, 2004; Peter, Lagrange, & Silverman, 2003; Phythian, Keane, & Krull, 2008).

As a developing country, Malaysia also pays serious attention to the involvement in crime especially among teenagers (Abdullah, Ortega, Ahmad, & Ghazali, 2015; Shong, Abu Bakar, & Islam, 2019). Malaysia is a small Southeast Asia that ranks 26th out of 133 countries in the World Crime Index, with more property crimes recorded than violent crimes. Although there has been a trend of decreasing property crime cases yearly since 2009, the number of cases is still worrying. For example, in 2019, 80.2% of cases were recorded compared to 80.9% in 2018 (DOSM, 2019). Moreover, the latest research in Malaysia shows that criminal records are decreasing during the first phase of the Movement Control Order (MCO) but are now increasing again when the conditions of the MCO begin to recline from 4 May 2020 (Nuraina Hanis Abd. Halim, 2021).

Among the most popular tools for studying self-control is the Low Self-Control Scale (LSCS), created by Grasmick et al. (1993). It is a reliable indicator of delinquency and criminal study. Significant evidence demonstrates the reliability of the scale across various language and cultural settings, primarily from Europe and North America in western world countries (Vazsonyi et al., 2001; Marcus, 2003; Vazsonyi & Huang, 2015), having a surging number of research from eastern world countries (Vazsonyi, Clifford Wittekind, Belliston, & Van Loh, 2004; Cheung, & Cheung, 2008; Jiang, Chen, & Zhuo, 2020). Though given the LSCS's popularity, there is still disagreement among scholars about the LSCS's factorial structures (Grasmick, Tittle, Bursik, & Arneklev, 1993; Longshore & Turner, 1998; Delisi, Hochstetler, & Murphy, 2003; Williams, Fletcher, & Ronan, 2007; Ward, Nobles, & Fox, 2015). General Theory of Crime claims that the Low Self-Control (LSC) concept is a one-dimensional construct. Meanwhile, empirical data, especially from Western studies, has led to the development of multidimensional and higher-order models of conceptualizing LSCS (Arneklev, Grasmick, & Bursik, 1999; Vazsonyi, Pickering, Junger, & Hessing, 2001; Romero, Gomez-Fraguela, Luengo, & Sobral, 2003).

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Contemporary Malaysian research on self-control has also used the LSCS in criminal studies (Kamaluddin, Shariff, Othman, Ismail, & Saat, 2016; Kamaluddin, Othman, Ismail, & Mat Saat, 2017; Ang, Kamaluddin, Nasir, Ab Rahman, & Rathakrishnan, 2021). The unidimensionality construct's total score was employed to complete all prior studies. So far, however, there is no published study about the psychometric qualities of a Malay adapted version of the multidimensional LSCS. To close the literature gap, the current research investigates the LSCS's multidimensional psychometric features in the Malaysian context and the low self-control state, notably among prisoners engaged in property crimes.

Literature Review

Gottfredson and Hirschi (1990) General Theory of Crime

Among the most prominent criminal theories to describe the determinants that influence delinquent behavior is the General Theory of Crime which Gottfredson & Hirschi established in 1990. Following its original publication, this theory has attracted a lot of interest from academicians investigating criminal behavior, and numerous have cited the authors. (Pratt, & Cullen, 2000; Rebellon, Straus, & Medeiros, 2008; Gottfredson, & Hirschi, 2022). Note that General Theory of Crime speculates that people possess rational decision-making, and their participation in crime does not necessitate a special purpose; rather, it is only a manifestation of their fundamental inclination to avoid pain and seek pleasure (Gottfredson & Hirschi, 1990). The central proposition of General Theory of Crime to analyze the primary person-centric factor for involvement in delinquent and criminal behaviors is the self-control concept.

Self-control may be described as the individuals' distinctive propensity to refrain from unlawful behaviour regardless of the circumstances. The self-control construct consists of six elements: (1) impulsive, in a way that they pursue immediate gratification; (2) desire simple and easy tasks (3) involved in risky, exciting, and physical behaviors; (4) are easily angered; (5) are drawn to actions and seeking out sensations; and (6) are self-centered and insensitive towards other people. Referring to Gottfredson and Hirschi (1990), individuals having poor self-control favor behaviors that give them immediate gratification and are less worried about the possible long-term effects of their choices (see also Gottfredson & Hirschi, 2019). Other than that, Gottfredson & Hirschi (1990) later highlight that these characteristics possess a strong inclination to co-occur in the same individuals. Therefore, it is plausible to assume that they form a stable construct that may be utilized to explain crime.

Numerous studies have been conducted and published that look at the connection between abnormal behavior and poor self-control throughout a lifetime in both the general public and offenders (e.g., Longshore & Turner, 1998; LaGrange & Silverman, 1999; Turner & Piquero, 2002; Baron, 2003; Winfree Jr, Taylor, He, & Esbensen, 2006; Wolff, Paez, Bernheimer, & Piquero, 2018; Kroneberg, & Schulz, 2018; Bobbio, Arbach & Illescas, 2020; Holt, Brewer, & Goldsmith, 2021; Intravia, Gibbs, Li, & Vazsonyi, 2021; Stults, Hernandez, & Hay, 2021; Jiang, & Chen, 2022). For example, a recent study was performed in Argentina with a convenient non-probabilistic sample of young people who self- and officially reported engaging in antisocial behavior by Bobbio, Arbach, and Illescas (2020). Subsequent evidence from numerous reviews confirmed that self-control could be used to predict a variety of aggressive, antisocial as well as criminal behaviors (Vazsonyi, Mikuška, & Kelley, 2017; Pratt & Cullen, 2000; Piquero, Jennings, & Farrington, 2010a, 2010b). Alternatively, Pratt and Cullen's (2000) meta-analysis of 21 empirical research led them to the premise that future

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studies that do not include self-control in their empirical analysis pose the risk of being miscalculated in the specification.

Grasmick et al. (1993) Self-Control scale

One of the prominent self-control measures was created by Grasmick, Tittle, Bursik, and Arneklev (1993) using Gottfredson and Hirschi's six-factor conceptualization from 1990 (Piquero, 2008; DeLisi, 2011; Moffitt et al., 2011; Gibson, 2014). Note that the Gramick et al. inventory was attributed to criminal behavior, as shown by two extensive meta-analytic analyses utilizing the instrument (Pratt & Cullen, 2000; Vazsonyi, Mikuška, & Kelley, 2017). According to Pratt and Cullen's meta-analysis (2000), the Grasmick et al. scale was employed in 50% of self-control studies incorporating an attitudinal measure. Additionally, a comprehensive meta-analysis exposed that the Grasmick et al. scale possessed 46% effects on the relationship between various criminal and delinquent behavioral outcomes and self-control (Vazsonyi et al., 2017). Furthermore, a number of subsequent research have discovered links between poor self-control and criminal behavior as well as contacts with law enforcement, corroborating Gottfredson and Hirschi's theory (DeLisi & Vaughn, 2008; Beaver, Wright, DeLisi, & Vaughn, 2008; Beaver, DeLisi, Mears, & Stewart, 2009; Walters, 2016).

Grasmick Low Self-Control Scale (LSCS) has twenty-four items, four of which correspond to each element of self, as implemented by Gottfredson & Hirschi in 1990. In their preliminary investigation, university students as samples were examined utilizing various item combinations (Grasmick et al., 1993). Moreover, the finalized scale, which possesses six constructs having four elements each, is depicted in Figure 1. The constructs were combined into a single latent factor named "low self-control", premised on exploratory factor analyses in the Grasmick et al. (1993) research, exhibiting strong internal consistency. Referring to a different study, construct analysis work on the LSCS structure also supported the structural validity of the inventory's six facet factors (Arneklev, Grasmick, & Bursik, 1999). However, there is no agreement regarding the dimensionality, reliability, as well as construct validity of the Grasmick et al. (1993) scale according to psychometric studies (Vazsonyi, Pickering, Junger, & Hessing, 2001; Romero, Go'mez-Fraguela, Luengo, & Sobral, 2003; Piquero, 2008; Gibson, 2014; Ren et al., 2018; Pechorro et al., 2022).

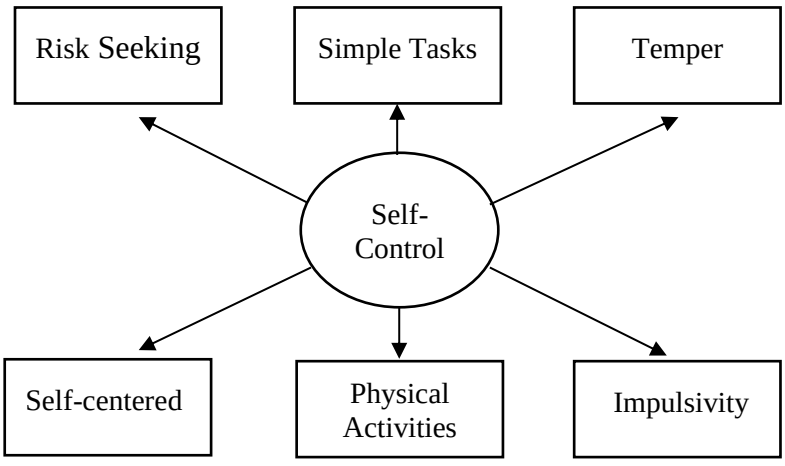

Figure 1: Low Self-Control Scale (LSCS) (Garmisck et al., 1993)

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As some have supported the multidimensional structure of the instrument model, others have defended the unidimensionality of the LSCS constructs (Piquero, MacIntosh, & Hickman, 2000; Gibbs, Giever, & Higgins, 2003; Longshore et al., 1996; Longshore, Rand, & Stein, 1996; Vazsonyi, Pickering, Junger, & Hessing, 2001; DeLisi et al., 2010; Vazsonyi et al., 2001; Romero, Gomez-Fraguela, Luengo, & Sobral, 2003; DeLisi, Hochstetler, & Murphy, 2003; Williams, Fletcher, & Ronan, 2007; Conner, Stein, & Longshore, 2009). For instance, an investigation by Ward et al. (2015) employing a bi-factor model on a sample of Florida jail prisoners produced a high general self-control factor. However, the Grasmick et al. (1993) items were likewise loaded on element-specific dimensions related to the six self-control constructs. Note that a six-factor second-order LSCS structure was recently proposed by Pedro (2022).

Methodology

Research Design and Participants

A quantitative approach was employed in this research. The survey study's design utilizing a questionnaire administered via face-to-face interviews was applied over a period of four months (April-July 2018) in one of the prisons in Malaysia. Apart from that, the study subjects were property crime prisoners serving sentences for the remaining six months. The convenience non-probabilistic sampling method is utilized to choose the study's respondents from a list given by the prison after taking safety considerations into account. Table 1 contains some demographic characteristics of the participants.

Table 1: Respondents' Demographic Characteristics

Demographic Characteristics	Frequency	Percent (%)
Age		
18-22 years	19	10.5
23-27 years	43	23.8
28-32 years	44	24.3
33-37 years	47	26.0
38-42 years	19	10.5
43 years and above	9	5.0
(Mean = 30.86, SD = 6.64)		
Marital Status		
Single	127	70.2
Married	40	22.1
Divorce	14	7.7
Occupation		
Labour	101	55.8
Unemployed	35	19.3
Businessman	19	10.4
Government Servant	21	10.5
Security guard	5	2.8
Income per month		
No wages	44	24.31
Less than RM1500	130	71.82
RM1500 - RM3,900	5	2.76
RM4,001 and RM8,300	2	1.10

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Note that the sample contains 181 property crime prisoners who are all male and between the ages of 18 and 51 (Mean=30.86, SD = 6.64). More than 70% of the sample possesses a secondary education and is single. Nearly 20% of respondents are unemployed, and most (55.7%) are labourers. As can be assumed, almost all of the respondents fall within the B40 income bracket, which has an average monthly income of less than RM3,900 in Malaysia (Department of Statistics Malaysia, 2020). Additionally, their salary is below Malaysia's RM1,500 minimum wage (Attorney General's Chambers, 2022).

Measures

The Low Self-Control Scale (LSCS) in the Malay version (Grasmick et al., 1993) was employed. With the aid of experts dealing with delinquent behaviour, the minimal conceptual alterations necessary to conform the vocabulary to the context of the participants were created. A Likert scale with scores from strongly disagree (1) to strongly agree (5) was utilized in this study. Even though the scale's original response options were four, it was determined to consider a neutral category in the data collection to harmonize the response options across all study instruments to minimize participant confusion. Furthermore, past studies have approved the LSCS's psychometric properties with a neutral response category (DeLisi et al., 2003; Vazsonyi & Belliston, 2007).

Data Analysis

PLS-SEM, or partial least square structural equation modeling, refers to a popular technique for assessing complex inter-relationships between variables of multidimensional construct in social sciences (Usakli & Kucukergin, 2018; Cheah, Roldán, Ciavolino, Ting, & Ramayah, 2021). The reflective-reflective interactions in PLS-SEM are used in the LSCS model for this study, which consists of lower and higher-order constructs. To examine this relationship, the Type I reflective measurement model is employed. Researchers can represent a construct on a more abstract dimension (a higher-order construct) and its more practical subdimensions using higher-order constructs (lower-order constructs). Depending on the criteria of the validity (discriminant and convergent validities) and reliability (indicator and internal consistency reliabilities) measurements, reflective measurement models that were analyzed in PLS-SEM were evaluated. The validity and reliability of the gathered data are examined using SmartPLS software (Sarstedt & Cheah, 2019). The acceptance criteria for the values obtained for the scale's reliability and validity are listed in Table 2.

Table 2: Reflective Measurement Model Assessments

Categories	Indexes	Acceptance Criteria
Indicator reliability	Outer Loading	≥ 0.708 (Hair, Hult, Ringle, & Sarstedt, 2022).
Internal consistency Reliability	Composite reliability (CR)	< 0.6 (low) 0.7–0.9 (acceptable) CR: 0.6–0.7 (acceptable for exploratory research) CR > 0.90 (the probability of multicollinearity issues) (Hair et al., 2021)
	Cronbach's alpha (α)	≥ 0.6 (acceptable for exploratory research) ≥ 0.70 (acceptable in all other research) (Hair et al., 2021)

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Categories	Indexes	Acceptance Criteria
Convergent validity	Average Variance Extracted (AVE)	> 0.50 (acceptable) (Hair et al., 2022).
Discriminant validity	Cross loading	The outer loading of an indicator on the related construct must be greater than any of its loadings in the other constructs (Chin, 1998).
	Fornell and Larcker (1981)	The square root of the AVE of every construct must be greater than its highest correlation having any other construct
	Heterotrait-Monotrait (HTMT)	HTMT 0.85 (Stringent Criterion) (Hair, Howard, & Nitzl, 2020). HTMT 0.90 (Conservative Criterion) (Henseler et al., 2015). The confidence interval of the HTMT statistic must not incorporate the value 1 for all construct combinations (Franke & Sarstedt, 2019)..

Findings

Descriptive Statistics

The mean and standard deviations (SD) values for the individual items on the six dimensions of the Low Self-Control Scale (LSCS) are demonstrated in Table 3. Other than that, the average subdimension means range from 3.892 (SD=0.703) to 4.044 (SD=0.511), indicating that low self-control measures are high among the prisoner sample.

Table 3: Means and Standard Deviations of LSCS

Code	Item	Mean	SD
Risk Seeking		**4.044**	**0.511**
H.1	I enjoy testing myself regularly by taking a small risk.	4.127	0.408
H.2	I occasionally engage in risk-taking for the joy of it.	3.945	0.523
H.3	Occasionally I become excited about doing things that could lead me into trouble.	4.039	0.56
H.4	I prefer excitement and adventure more than safety and peace.	4.066	0.552
Simple Tasks		**4.034**	**0.470**
H.5	I regularly try to stay away from activities that I know will be challenging to complete.	3.983	0.487
H.6	I have a tendency to give up or withdraw when things get difficult.	4.000	0.433
H.7	I get the most enjoyment in life doing things that are simple to do.	4.099	0.435
H.8	I don't enjoy tasks that are extremely challenging and push my limits.	4.055	0.523
Temper		**3.892**	**0.703**
H.9	I am prone to losing my temper.	3.873	0.713
H.10	When I'm angry with someone, I frequently feel like hurting them rather than explaining why I'm angry.	3.785	0.731
H.11	People should avoid me when I'm extremely angry.	3.939	0.699

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Code	Item	Mean	SD
H.12	It's normally difficult for me to speak calmly about a serious disagreement with someone without becoming annoyed.	3.972	0.668
Self-Centred		**3.979**	**0.635**
H.13	I attempt to put my needs first, even if it means making life complicated for other people.	4.050	0.692
H.14	I don't have a lot of sympathy for other individuals when they are struggling.	3.818	0.709
H.15	It's not my problem if what I do irritates someone.	3.939	0.614
H.16	Even if I am aware that my actions will disturb others, I will still make an effort to obtain what I desire.	4.110	0.524
Physicality		**3.997**	**0.536**
H.17	When given the option, I almost always choose to engage in physical activity over mental activity.	4.022	0.504
H.18	Most of the time, moving about makes me feel better than sitting still and pondering.	4.083	0.492
H.19	I prefer to get outside and engage in activities rather than reading or thinking about things.	4.149	0.520
H.20	I need more activities than my peers because I am more energetic.	3.735	0.628
Impulsivity		**4.014**	**0.508**
H.21	I don't spend much time or energy planning for the future.	3.735	0.71
H.22	I frequently abandon distant goals in favour of what makes me happy right now.	4.044	0.418
H.23	Long-term goals are less important to me than my immediate pleasure and enjoyment.	4.028	0.413
H.24	I enjoy being involved in things that produce quick results.	4.249	0.492

Indicator Reliability

The value of outer loading determines how reliable the construct is. The values assigned to each indicator prior to the evaluation of the indicator's reliability are shown in Table 4. Having a value of 0.896, the indicator H.18 (physicality) possesses the greatest indicator reliability. Moreover, the outer loadings' value for all indicators is significantly greater compared to the recommended threshold value of 0.708 (Henseler et al., 2009), excluding the indicator H.20 (physicality), having a value of 0.628. Table 5 provides the specified values for each indicator due to the elimination of H.20. Meanwhile, the final reflective second-order measurement model for prisoners convicted of property crimes in Malaysia is depicted in Figure 2. The findings show that the LSCS path coefficient for the impulsivity subdimension was the greatest (0.846). Note that temper possesses the lowest path coefficient of any subdimension to the

Internal Consistency Reliability

The internal consistency reliability is justified by Cronbach's alpha coefficients (α) value as well as Composite Reliability (CR). Here, the CR values in Table 5 met the LSCS constructs at a satisfactory level. Note that some constructs' CR values fall below the 0.95 threshold, which makes them acceptable even if they are above the 0.9 level (Tavakol & Dennick, 2011; Hair et al., 2018). Besides, the values of Cronbach's alpha for each construct measure are also greater than the 0.70 thresholds. For example, the construct risk seeking has the smallest Cronbach's alpha ($\alpha = 0.817$), while the construct self-centred possesses the highest

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Cronbach's alpha, having a 0.888 value. Hence, the internal consistency reliability is concluded.

Table 4: Internal Consistency Reliability, Convergent Validity, and Indicator Reliability Before Adjustment

Construct	Indicator	Indicator loading	Internal Consistency		Convergent Validity
			Cronbach's alpha (α)	Composite Reliability (CR)	Average Variance Extracted (AVE)
Risk Seeking	H.1	0.756	0.817	0.880	0.648
	H.2	0.734			
	H.3	0.844			
	H.4	0.877			
Simple Tasks	H.5	0.869	0.857	0.904	0.703
	H.6	0.863			
	H.7	0.726			
	H.8	0.885			
Temper	H.9	0.777	0.874	0.914	0.726
	H.10	0.873			
	H.11	0.876			
	H.12	0.878			
Self-Centred	H.13	0.855	0.888	0.922	0.748
	H.14	0.868			
	H.15	0.883			
	H.16	0.853			
Physicality	H.17	0.856	0.822	0.885	0.661
	H.18	0.896			
	H.19	0.846			
	H.20	0.628			
Impulsivity	H.21	0.767	0.843	0.896	0.683
	H.22	0.893			
	H.23	0.876			
	H.24	0.762			

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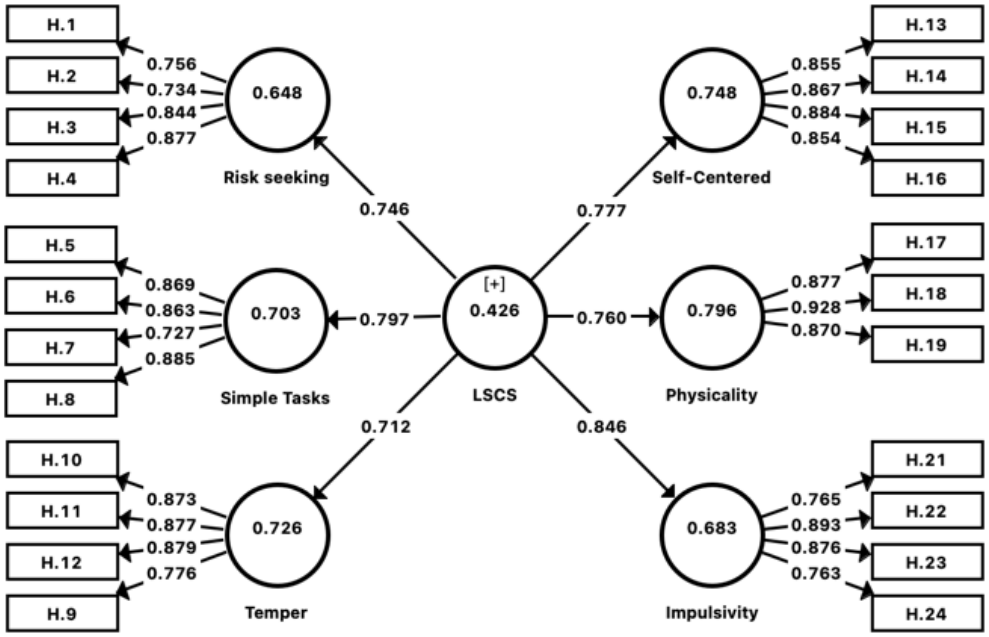

Figure 2: Final Measurement Model of LSCS

Table 5: Internal Consistency Reliability, Convergent Validity, and Indicator Reliability After Adjustment

Construct	Indicator	Indicator loading	Internal Consistency		Convergent Validity
			Cronbach's alpha (α)	Composite Reliability (CR)	Average Variance Extracted (AVE)
Risk Seeking	H.1	0.756	0.817	0.880	0.648
	H.2	0.734			
	H.3	0.844			
	H.4	0.877			
Simple Tasks	H.5	0.869	0.857	0.904	0.703
	H.6	0.863			
	H.7	0.727			
	H.8	0.885			
Temper	H.9	0.776	0.874	0.914	0.726
	H.10	0.873			
	H.11	0.877			
	H.12	0.879			
Self-Centred	H.13	0.855	0.888	0.922	0.748
	H.14	0.867			
	H.15	0.884			
	H.16	0.854			
Physicality	H.17	0.877	0.871	0.921	0.796
	H.18	0.928			

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	H.19	0.870			
Impulsivity	H.21	0.765	0.843	0.896	0.683
	H.22	0.893			
	H.23	0.876			
	H.24	0.763			

Convergent Validity

The average variance extracted (AVE) values are employed to assess convergent validity at the construct level. Self-centred (0.748), physicality (0.796), simple tasks (0.703), temper (0.726), risk seeking (0.648), and impulsivity (0.683) all have AVE values that are significantly greater than the necessary threshold level of 0.50. The six reflective constructs' measurements thus possess excellent degrees of convergent validity.

Discriminant Validity

The internal consistency reliability is established via cross-loading. Thus, Hair et al. (2020) proposed Fornell-Lacker and Heterotrait-Monotrait (HTMT) criteria. Discriminant validity is demonstrated when an indicator possesses a higher loading on the assigned construct compared to all of its other cross-loadings having other constructs. Table 6 illustrates the cross-loadings and loading for every indicator in the LSCS's measurement model. All of the cross-loadings between each indicator having other constructs are significantly lower. For example, the loading value for indicator H.4 with the associated construct is the highest. Other than that, risk seeking shows a value of 0.877, whereas all cross-loadings having other constructs are substantially lower (e.g., H.4 on simple tasks: 0.569). Hence, the results are aligned with the other risk seeking indicators and the temper, self-centred, physicality, and impulsivity indicators.

Table 6: Cross Loading

Code	Risk Seeking	Simple Tasks	Temper	Self-Centred	Physicality	Impulsivity
H.1	**0.756**	0.440	0.423	0.419	0.422	0.626
H.2	**0.734**	0.312	0.263	0.198	0.362	0.395
H.3	**0.844**	0.466	0.31	0.381	0.314	0.421
H.4	**0.877**	0.569	0.365	0.387	0.327	0.508
H.5	0.489	**0.869**	0.430	0.499	0.533	0.524
H.6	0.365	**0.863**	0.313	0.410	0.411	0.395
H.7	0.556	**0.726**	0.403	0.469	0.364	0.447
H.8	0.476	**0.885**	0.428	0.462	0.468	0.550
H.9	0.322	0.327	**0.777**	0.294	0.553	0.339
H.10	0.345	0.468	**0.873**	0.460	0.499	0.379
H.11	0.385	0.295	**0.876**	0.440	0.359	0.309
H.12	0.412	0.498	**0.878**	0.429	0.498	0.426
H.13	0.340	0.436	0.422	**0.855**	0.426	0.493
H.14	0.295	0.424	0.390	**0.868**	0.413	0.496
H.15	0.402	0.426	0.367	**0.883**	0.403	0.548
H.16	0.474	0.599	0.469	**0.853**	0.513	0.590

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H.17	0.405	0.512	0.473	0.440	**0.856**	0.612
H.18	0.419	0.428	0.471	0.389	**0.896**	0.617
H.19	0.341	0.414	0.448	0.390	**0.846**	0.529
H.21	0.451	0.339	0.366	0.468	0.496	**0.767**
H.22	0.581	0.553	0.366	0.551	0.635	**0.893**
H.23	0.511	0.470	0.334	0.477	0.563	**0.876**
H.24	0.484	0.527	0.356	0.542	0.539	**0.762**

Discriminant validity via Fornell–Larcker criterion is determined when the square root of the average variance extraction is higher than the inter-construct correlations. By contrasting the AVE having the squared correlations between the constructs, this approach is then evaluated. Table 7 displays the outcomes of the Fornell-Larcker criterion evaluation, showing the correlations between the constructs in the off-diagonal position and the square root of the AVE of the reflective constructs on the diagonal. Physicality (0.813), impulsivity (0.827), self-centred (0.865), risk seeking (0.805), temper (0.852), and simple tasks (0.838) all have square roots of the AVEs that are larger than their correlations with other latent variables, suggesting that they are all reliable indicators of distinct ideas. Therefore, the Fornell-Larcker criterion and cross-loadings align with the discriminant validity of the constructs.

Table 7: Fornell-Larcker Criterion

	Impulsivity	**Physicality**	**Risk seeking**	**Self-Centred**	**Simple Tasks**	**Temper**
Impulsivity	0.827					
Physicality	0.679	0.813				
Risk seeking	0.616	0.443	0.805			
Self-Centred	0.618	0.511	0.442	0.865		
Simple Tasks	0.577	0.535	0.565	0.552	0.838	
Temper	0.43	0.561	0.431	0.479	0.473	0.852

Notes: Bold: √AVE value, Not Bold: r value

On the HTMT criteria, further research into discriminant validity limitations is developed. As the HTMT value for each construct is less than the 0.9 level in a reflective measurement model, discriminant validity is identified (Henseler, Ringle & Sarstedt, 2015). In Table 8, the HTMT values for each pair of constructs are shown as a matrix. There is no doubt that all HTMT results fall below the 0.85 threshold, indicating a more conservative option.

Table 8: Heterotrait–Monotrait (HTMT) Criterion

	Impulsivity	**Physicality**	**Risk seeking**	**Self-Centred**	**Simple Tasks**	**Temper**
Impulsivity						
Physicality	0.811					
Risk seeking	0.728	0.537				
Self-Centred	0.710	0.602	0.499			
Simple Tasks	0.669	0.633	0.662	0.623		
Temper	0.499	0.666	0.500	0.537	0.535	

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In addition to assessing discriminant validity based on the HTMT ratios, bootstrap confidence interval estimates were utilized to establish whether there is a substantial difference between the HTMT values and 1. The lowest and upper bounds of the 95% (bias-corrected and accelerated) confidence interval are displayed in Table 9 as 2.5 and 97.5%, respectively. Results establish the discriminant validity of the constructs by demonstrating that none of the confidence intervals includes the value 1.

Table 9: Confidence Interval Bias Corrected

	Sample Mean	Bias	2.50%	97.50%
LSCS -> Impulsivity	0.845	0.001	0.781	0.896
LSCS -> Physicality	0.804	0.006	0.699	0.853
LSCS -> Risk seeking	0.735	-0.002	0.611	0.832
LSCS -> Self-Centred	0.776	-0.004	0.677	0.849
LSCS -> Simple Tasks	0.792	-0.002	0.68	0.859
LSCS -> Temper	0.718	0.002	0.623	0.789

Discussions

The Low Self-Control Scale (LSCS) is an instrument expanded from a theory having substantial empirical evidence in the criminology field. The Malay adapted version of LSCS was employed to assess Malaysian prisoners' low self-control in this research. The LSCS's validity and reliability were evaluated utilizing descriptive statistics as well as the second-order reflective-reflective measurement model of partial least square structural equation modeling (PLS-SEM). One item from the physicality construct in the original LSCS that did not work effectively in our Malaysian sample had to be removed. The LSCS results' multidimensionality revealed that the six factors (physicality, impulsivity, self-centred, risk seeking, simple tasks, and temper), including the 23 indicators define the low self-control construct well and confirm the construct validity of the multidimensional model. The results on the self-control measure's dimensionality were notably similar to findings from earlier research (Arneklev et al., 1999; DeLisi et al., 2003; Marcus, 2003; Conner, Stein, & Longshore, 2009). Hence, we arrive at a conclusion that the reflectively measured LSCS constructs in the PLS-SEM model satisfy the requirements for validity and reliability and, as a result, ought to be incorporated into the structural model in future investigations.

This research's findings illustrated that Malaysian prisoners reported themselves high on each construct, having the highest ratings on impulsivity. The LSCS's fundamental characteristic is the inclination to act quickly, without giving long-term effects or the benefits of delaying gratification much thought (Steinberg, 2010). This study contributes to the LSCS knowledge by demonstrating the wide range of loadings on the LSCS second-order construct. Other than that, Arneklev et al. (1999, p. 324) likewise discovered the greatest factor loading between LSC and impulsivity in their research on the LSC dimensionality in the United States. Thus, our findings support the LSCS by professionals and academicians as a trustworthy and valid tool to examine crime and its determinants in non-western countries. Therefore, studies that provide a high impulsivity level in adolescents, especially among adolescent boys (Shulman et al., 2015), who the environment would easily influence, could indeed serve as the basis for improving crime prevention programmes (Stenberg et al., 2008; Forrest, Hay, Widdowson, & Rocque, 2019).

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The result proved that temper loadings are the lowest among prisoners charged for property crimes is another interesting aspect that may appear unique in the Malaysian context. Past research signifies that the prisoner sample was unable to control their temper compared to the general population, proving that this group responds to the general theory of crime significantly more (Weng, & Chui, 2018; Meldrum, 2020). According to Gottfredson and Hirschi's General Theory of Crime, those who lack self-control are more prone to commit any crime (Pratt & Cullen, 2000). The generality of the notion, nevertheless, has recently come into doubt in certain studies (Leeper Piquero, Schoepfer, & Langton, 2010; Boccio & Beaver, 2018; Ribeiro, Guedes, & Cruz, 2019). Referring to this context, the current research supports earlier results and adds to the body of evidence indicating that violent crimes were strongly predicted by volatile temper; nevertheless, not property crimes (Conner, Stein, & Longshore, 2009).

Despite the research's significance, it is essential to highlight some of its limitations. First, the sample was a convenience sample of property crime prisoners at one selected prison that cannot be considered representative of the whole prisoner in Selangor, Malaysia. Although Selangor is the most developed state in Malaysia, prisoners in low-income areas may exhibit differing levels of self-control owing to the effects of their socio-economic circumstances. Furthermore, because this was retrospective research, memory biases could not be eliminated. Additionally, we only used a self-report methodology, which may lead to typical method bias and limit participants' willingness and ability to provide truthful responses. Nonetheless, given the moderate sample size and inclusion of a population with restricted access, we think the findings are relevant to action and research in the domain of criminal behavior in more general circumstances.

Conclusions

This research provided empirical evidence of the Grasmick Low Self Control Scale (LSCS)'s psychometric properties in regard to reliability and validity among Malaysian property crime prisoners. This is our primary contribution to the theoretical discussion on the composition of self-control and its evaluation. Additionally, we add to the empirical research using samples from underrepresented populations and cultural groups in the international criminological literature by determining the LSCS's psychometric features in a sample of property crime prisoners. Moreover, this research demonstrated that prisoners reported themselves high on each LSCS construct, having the highest ratings on impulsivity and the lowest on temper. In general, further psychometric validation procedures (such as test-retest reliability and cross-validation) must be carried out later for the Malay version of the essential instrument. We anticipate that this research will stimulate additional research on self-control, employing the multidimensional construct. Apart from that, the crime prevention program will be substantially enhanced by developing our knowledge of the theoretical foundations for assessment tools as well as the multidimensional construct's interpretation.

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