

Assessing the Effectiveness of Juvenile Delinquency Welfare Programs: A Case Study of the UAE

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Abstract

Preventing delinquent behaviour among young people requires addressing various factors and potential approaches to ensure support and behavioural development. This research focused on juvenile delinquency in the United Arab Emirates to evaluate the juvenile rehabilitation programs within Abu Dhabi's Juvenile Welfare Department, staff competence and environment regarding the behavioural development of juveniles. This study is based on data gathered from 200 respondents using structured questionnaires, theoretically supported by the Positive Youth Development Theory (PYDT). The results indicated that the devised rehabilitation programs effectively fulfilled their primary objectives, contributing to positive changes in the behaviour (development) of the juvenile participants. Also, the effect of staff competency on behavioural development remained significant, indicating the effectiveness of staff educating and caring for the behaviour of juveniles. Finally, the research underlined the crucial role played by the environmental setting provided by Abu Dhabi's juvenile welfare department in the behavioural development of juveniles. It is found that a well-equipped and emotionally supportive rehabilitation centre promotes residents' emotional well-being and decreases stress. Besides, activities aimed at disrupting delinquency networks and providing relapse prevention strategies in the community contribute to the successful reintegration of juvenile offenders into society. Therefore, this study underscores the importance of community-level factors in shaping positive behavioural development and well-being among juveniles. By prioritizing the three prominent factors, offering comprehensive support, and incorporating community-level considerations, this research implies that we can encourage a safer community and develop more promising futures for these young individuals.

Keywords: *Juvenile Delinquency, Rehabilitation Programs; UAE, Positive Youth Development, Environment, Staff Competence.*

Introduction

Juvenile delinquency is a severe issue faced by societies worldwide. Children, susceptible members of the population, need maximum care and security. However, their vulnerability can expose them to inequity and undesirable results in their surroundings. Despite efforts to guard and care for them, children sometimes engage in deviant behaviour Error! Bookmark not defined.. The concept of delinquency is intricate and varies between countries, making it challenging to have a single universal definition. What might be considered delinquent in one country could be accepted behaviour in

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another. For example, in the United States, rebelling against parental authority or missing school is deemed delinquent. In contrast, other crimes such as vandalism, stealing, street hawking, and black marketing are treated as juvenile delinquents in Korea, India, the United Kingdom, and Europe (Anthonson, 2019). According to (Miller, 2009), juvenile delinquency holds considerable importance in society for three main reasons. First, it involves many children and adolescents pledging in delinquent acts that lead to violence, property crimes, or victimization of others. Over one million young individuals are charged every year for their delinquent behaviours. Second, juvenile delinquency acts as an indicator of a society's overall health and prosperity. This antisocial behaviour is part of a larger set of social problems in areas with increased delinquency rates. Hence, it becomes thought-provoking because of the damage caused to victims and reflects a perception that society aims to supervise and control its youth effectively (M. I. Al Jwaniat, Safori, et al. 2023; Mansoori et al. 2023; Tahat et al. 2023). Finally, juvenile delinquency varies depending on its severity and other factors. For many young individuals, delinquent behaviour is a normal aspect of growing up. Yet, for a small group of youths, it marks the initial stage of a lifetime characterized by antisocial behaviour (Garbarino & Plantz, 2016).

Similarly, observed that the United Arab Emirates (UAE) has experienced rapid social shifts. These changes have significantly affected families in general, leading to family breakdowns, particularly affecting the youth, resulting in concerns like juvenile delinquency. Consequently, there is a crucial need for research to safeguard young individuals from the negative effects of these transformations. The incidence of juvenile crimes has reached threatening levels in the UAE, transforming it into a public crisis. This surge in juvenile crime rates can be attributed to different factors, including parental neglect and drug abuse (Aromaa, 2010). Over the past twenty years, there has been a considerable surge in juvenile delinquency in the UAE. Notably, in 2009, the juvenile crime rate spiked by 33%, raising serious concerns, as many of these young offenders tend to resume their criminal behaviours into adulthood (M. Al Jwaniat et al. 2023; M. I. Al Jwaniat, Safori, et al. 2023; Habes, Elareshi, et al. 2023; Habes, Tahat, et al. 2023; Mansoori et al. 2023; Safori et al. 2023; Tahat et al. 2023). The situation has become alarming as more young individuals in the UAE display violent tendencies, proving challenging to handle compared to adults (Ali, 2013). According to the UAE Federal Public Prosecution for Juveniles, they handled 116 cases involving teenagers in 2022, representing a 15 per cent decline compared to the 137 cases in the previous year. These cases primarily comprised boys (Sebugwaawo & Times, 2023). The most prevalent offences among teenagers were assaults, fights, traffic violations, and drug consumption, as the Federal public prosecutors reported. Despite this, there has been a significant reduction in the number of teenagers engaged in criminal activities, yet it is a crucial issue. In 2020, 175 juveniles faced prosecution, which is lower than the 208 cases in 2019 and significantly less than the 313 cases in 2018 (Sebugwaawo & Times, 2023). However, authorities, schools, parents, and child welfare organizations contribute equally to counteract juvenile delinquency. These entities have raised awareness among young individuals about good behaviour and the probable dangers of associating with bad groups and engaging in criminal activities (Al-Karbi & Mai, 2018). As a result, (Kithaka & Kariuki, 2018) consider juvenile rehabilitation programs one of the most effective ways to curb the increased delinquency rates among children. As noted, Rehabilitation efforts handle the root causes of a child's illicit behaviour and aim to make a positive effect by supporting the child within their family and community. This process involves empowering them with knowledge and skills, helping them to make better choices and positively alter their lives (P. 202) .

Study Aims and Gaps

According to (Peter Greenwood, 2008), issues like bullying may emerge during this important stage, potentially pushing some individuals towards delinquency. Designing

and implementing rehabilitation strategies can help fight the rise in crimes associated with industrialization and urbanization, creating a securer and more harmonious society. Thus, based on the prevalence of juvenile delinquency and the importance of rehabilitation strategies and programs, this research examines how these approaches influence individuals' behavioural well-being and modification in the Juvenile Welfare Department in Abu Dhabi. Besides, it also analyzed the service competency of staff in the relevant department and overall atmosphere to ensure the behavioural modification of the juveniles. It is notable that several studies have assessed the juvenile rehabilitation centres and their competence level worldwide (Heilbrun et al., 2015; Juvenile Welfare Board of Pinellas County, 2022; Kratcoski et al., 2020), yet their focus remained on other different geographical regions. In this regard, studies witnessing juvenile rehabilitation centres in the UAE are scarce. Further, existing studies on juvenile delinquency and rehabilitation in UAE primarily focused on addressing the factors behind juvenile delinquency, the juvenile justice system, and the educational training for juveniles (Ali, 2013; Al-Karbi & Mai, 2018; Blaik Hourani et al., 2020). Consequently, this study also filled this gap by scrutinizing the services and other factors (staff and atmosphere) regarding juvenile behavioural well-being and development.

Review of Literature

Importance of Juvenile Rehabilitation

Young people play a critical role in shaping the future success of any society. Youth is particularly important as the attitudes and values developed during this time can affect their lives. Besides physiological changes, adolescence can greatly affect young people's behaviour, leading to various challenges, especially if they face family conflicts or separation (Mantey & Dzetor, 2018). Issues like bullying, family crisis, and others may emerge during this important stage, potentially pushing some individuals towards delinquency. Designing and implementing rehabilitation strategies can help fight the rise in crimes associated with industrialization and urbanization, creating a securer and more harmonious society (Lipsey et al., 2000). Rehabilitation centres offer specialized programs sought to help juvenile delinquents modify their behaviour. The primary purpose of rehabilitation is to address the background causes of their criminal behaviours and foster positive changes by providing support within their family and community settings. Also, these programs equip juveniles with the knowledge and skills to make more reasonable choices in the future (Noviello, 2022; Islam et al., 2019; Rashid et al., 2020; Singh et al., 2019). According to (Mincey et al., 2007), numerous studies have shown the important role of rehabilitation programs in decreasing recidivism rates among juvenile delinquents (Astuti et al., 2018; Kelie, 2018; Noviello, 2022). Proper rehabilitation greatly lowers these individuals' likelihood of relapse and re-entry into the Juvenile Justice System (Lipsey et al., 2000). The burden of dealing with child delinquents impacts taxpayers and society at large. Effective intervention techniques are fundamental to any strategy to diminish juvenile delinquency rates (M. I. Al Jwaniat, Alshammari, et al. 2023; Hatamleh et al. 2023; Sarwar et al. 2023; Tawafak et al. 2023). By providing important resources to juvenile delinquents, rehabilitation facilitates their reintegration into society and violates the vicious cycle of Recidivism. Successfully implemented rehabilitation can eventually lead these individuals away from a life of adult offence (Loeber et al., 2003).

According to (Savatia et al., 2020), adolescents are usually seen as needing special care and attention due to their developmental stage, and it is considered that criminal behaviour during this period may not necessarily endure into adulthood. As a result, rehabilitation appears to be a promising strategy for dealing with juvenile offenders. (Yukhnenko et al., 2019) conducted a study in London focusing on deterring repeat offences and reintegrating juvenile offenders into society. The research underlined the

importance of tailored intervention efforts for addressing each child's unique rehabilitation requirements. Some effective programs for juvenile rehabilitation included family therapy, parental training specially designed for delinquent behaviour, training in thinking skills, and treatment for risk factors. The results highlighted that punitive measures alone are effective but continuous treatment should be prioritized to decrease the likelihood of reoffending. Thus, it is concluded that juveniles' behaviour can be controlled, and Recidivism can be nullified by employing effective programs in the best possible manner (United Nations Office on Drugs and Crime, 2018).

Juvenile Rehabilitation in the UAE

During a juvenile's time in the correctional system, rehabilitation and detention are used, but they have distinct focuses and approaches. Rehabilitation aims to transform the juvenile's behaviours positively, providing them with the required means for personal growth and progress. It is centred on treating the underlying issues that led to criminal behaviour (Government of UAE, 2021). Research suggests that rehabilitation yields more favourable outcomes for juveniles compared to incarceration. Early intervention plays a critical role in preventing later criminal behaviour. Even after release from correctional facilities, juvenile offenders should obtain treatment, participate in rehabilitation programs, access medical attention, and have learning experiences to foster positive change. These measures are more efficacious in reducing Recidivism than simply subjecting them to punishment through incarceration. In this regard, the juvenile rehabilitation facilities in the UAE are regulated by the Community Development Authority (CDA), established in July 2008 by a decree from H (Al Adwan et al. 2023; Alghizzawi et al. 2023; Alhumaid et al. 2022; Habes, Alghizzawi, et al. 2023; Pasha et al. 2023). H. Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai. Its primary mission is to foster social development by creating a comprehensive framework. The CDA aims to realize the objectives outlined in the Dubai Strategic Plans (Ministry of Community Development and Social Services, 2022). One of the important initiatives carried out by the child protection section of the Community Development Authority (CDA) is the rehabilitation programs for juvenile delinquents and susceptible youths. These programs focus on young individuals under 18 facing social and behavioural challenges or receiving sentences from Dubai courts under Federal Law No. 9 of 1976 about juvenile delinquents and vagrants (Child Rights International Network, 2018).

Similarly, the Abu Dhabi Juvenile Welfare Department is a prominent social and educational institution that provides rehabilitation and care for juveniles given there by the law. The centre's prior objective is to assess, evaluate, and help adjust the behaviour of these young individuals. They consider the root causes of their delinquency to offer appropriate behaviour training, aiming to reintegrate them successfully into society. This organization serves as a critical government institution in the community, with the managers' personalities playing a noteworthy role in affecting employees and shaping the centre's reputation (Ali, 2013). The relevant centre is renowned for its modern facilities, including its style of buildings and institutional care, its well-equipped amenities and different programs catering to the requirements of juveniles. The centre's foremost goal is to diagnose each juvenile's condition and devise a complete plan for their care during their stay. Choosing this organization as a case study for current research is influenced by its current performance, indicated by improved results due to the programs and policies executed by the stakeholders (Government of UAE, 2021). Also, the centre's fascinating collaborative efforts across all sectors to achieve its direct purpose of protecting juveniles and guiding them towards becoming positive benefactors to the community make it an intriguing subject for the current study. The centre foresees itself as a specialized developer that instils positive values and behaviours in juveniles. It aims to foster moral values among juveniles to mend their behaviours and execute necessary actions to address criminal cases effectively. Furthermore, the centre offers programs to support

juveniles and families in actively developing their children's behaviour, contributing to the organization's general success (Hourani et al., 2020). As the Abu Dhabi Juvenile Welfare Department has several rehabilitation programs, this research study adopted five programs to check their effectiveness with staff competence and physical environment. Table 1 below indicates the definitions of these programs and other constructs in the current research.

Table 1- Definitions of Rehabilitation Programs, Staff Competency, Environment, and Behavioral Development

Constructs	Definition	Source
Rehabilitation Programs	Juvenile rehabilitation programs are approaches and tactics designed to support and reform juvenile delinquents. These programs include educational, social development, religious, military, and sports.	(Kiiru, 2019).
Staff Competency	Staff competency refers to how well the staff delivers services for juvenile delinquents. It assesses how the staff meets the young offenders' expectations. This research will consider key factors such as trustworthiness, responsiveness, compassion, and assurance to measure staff competence or service quality. These aspects play a critical role in evaluating how sufficient and supportive the staff members are in helping the juveniles in their rehabilitation expedition.	(Hasan et al., 2020; Jafar Naqvi & Al-Shihi, 2013; Mendoza, 2018; Selber & Streeter, 2004).
Environment	The juvenile rehabilitation centre's physical and interactive atmosphere settings are considered "environment", encompassing different aspects that contribute to the overall quality of the rehabilitation facility. This involves the tangible aspects of the juvenile rehabilitation program, as the environmental setting includes the appearance of the facilities, the equipment and materials available, and the availability of the personnel.	(Selber & Streeter, 2004).
Behavioral Development	Behavioural outcomes refer to the observable modifications in the behaviour and actions of young individuals who have experienced rehabilitation interventions. These programs are developed to address and modify delinquent juvenile behaviours. The behavioural outcomes are the measurable results that show the effectiveness of the rehabilitation efforts in fostering positive changes in the participants' conduct and decreasing the likelihood of reoffending.	(Fox et al., 2020; Heynen et al., 2014).

Positive Youth Development Theory

This research is theoretically supported by Positive Youth Development Theory (PYD) as it is a purposeful and constructive strategy involving young individuals in their communities, schools, organizations, families, and peer groups. It focuses on identifying, utilizing, and improving young people's strengths while fostering positive outcomes. This is achieved by providing opportunities, nurturing positive relationships, and offering support to develop their leadership abilities. According to Pauzi (2019), positive youth development is a critical reform principle that rehabilitation centres should adopt, drawing motivation from the Strengths Perspective introduced by Saleebey. This stance is an influential theory in social work practice to empower juvenile offenders (Yip, 2005). Before adopting this strengths standpoint, several similar methods had been used, including development resilience, rehab and vigour, solution-focused therapy, and asset-based community development (Saleebey, 1996; Ali et al., 2020; Azman et al., 2021). Lipsey et al. (2000) argued that the effectiveness of a juvenile rehabilitation program can be evaluated through the lens of positive youth development, which encloses different elements, including the conversion of negative behaviours into positive ones. This aligns with positive youth development principles, which acknowledge the significance of developing inner strengths in individuals. These internal strengths include cognitive,

emotional, and behavioural factors contributing to an individual's growth and development. By stimulating these internal strengths, rehabilitation programs can empower young offenders and direct them towards positive behavioural changes, eventually leading to better outcomes and more successful reintegration into society (Office of Juvenile Justice and Delinquency Prevention, 2014). Thus, based on the cited literature and theory, this study proposes three hypotheses, also demonstrated by the conceptual framework in Figure 1.

H1: Rehabilitation Programs positively affect Behavioral Development in the Abu Dhabi Juvenile Welfare Department.

H2: Staff competency positively affects Behavioral Development in the Abu Dhabi Juvenile Welfare Department.

H3: Environment positively affects Behavioral Development in the Abu Dhabi Juvenile Welfare Department.

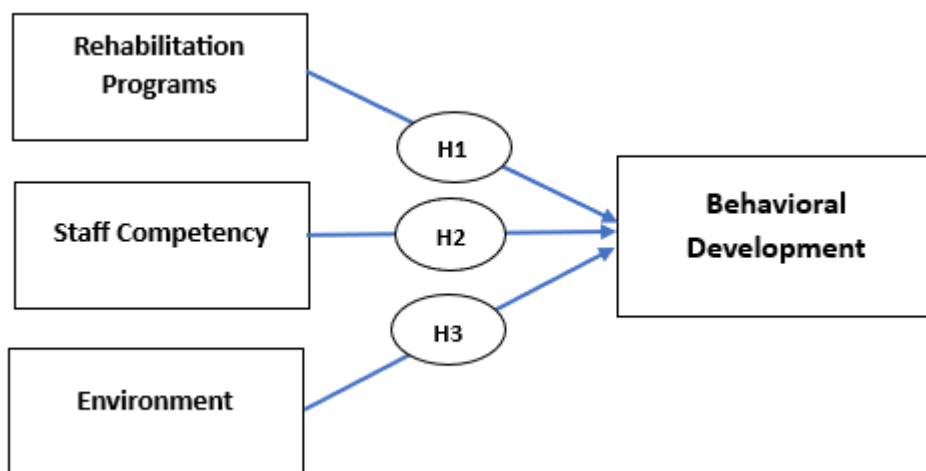


Figure 1- Conceptual Model of Current Research Study

Research Methods

This study is based on the case study method. Notably, a case study approach is useful when the researchers aim to examine a phenomenon in a certain setting (Cousin, 2005; Ali et al., 2020; Azman et al., 2020; Halim et al., 2020). Thus, this research also examined the effectiveness of rehabilitation programs, staff competency, and the environment in juvenile rehabilitation centres in Abu Dhabi. The structured surveys were administered based on the Five-Point Likert scale. The survey was designed using measurement items and scales from existing studies. Table 2 indicates the items and sources of measurement/survey instruments. It is shown that the Cronbach Alpha (range from 0.811 to 0.938) and Composite Reliability (range from 0.841 to 0.951) values of each construct surpass the threshold value of 0.7.

Consequently, it is affirmed that the survey questionnaire was reliable. The data was gathered from May 2023 to July 2023. The gathered data was further analyzed after careful evaluation using SPSS Ver. 26 and Smart-PLS for Partial Least Square- Structural Equation Modelling.

Table 2- Items and Sources of Measurement/Survey Instrument

Constructs	Measurement Items	Source(s)	CA	CR
Rehabilitation Programs	Psychological support			
	Military training	(Kiiru, 2019;	0.874	0.904
Staff Competency	Religious summons and preaching.	Rautta & Ogolla, 2019)		
	Educational courses.			
	Behavioural modification.			
	Staff providing service at the decided time.			
	The staff shows interest in problem-solving.	(Fisher &	0.887	0.910
	The staff tells us exactly when services will be provided.	Kennedy, 2016)		
	The staff gives instant service to you.	(Evans & Burton, 2013)(Ajzenstadt, 2014)		
	Staff inspires trust in you.			
	I feel safe when dealing with staff.			
	Staff who give you individual attention.			
Environment	The program's hours are feasible for you.			
	The condition of the physical facilities in the rehabilitation is appealing.	(Kiiru, 2019; Litz et al., 2020)	0.938	0.951
	The condition of the equipment in the centre is satisfactory.	(Kiiru, 2019;		
	Accommodation facilities are adequate.	Rautta & Ogolla, 2019)		
	The general appearance of the facilities, including the personnel, is satisfactory.			
	Security measures are satisfactory regarding the juvenile's activities within the facility to keep the residents safe.			
	Juveniles are less fear of being injured by other inmates.			
Behavioral Development	Reduction in Recidivism among juveniles.			
	Living peacefully and harmoniously with other inmates.	(de Vries et al., 2018) (Dillard et al., 2019)	0.811	0.846
	Respect for rules and regulations is permanent.			
	A sense of positive self-worth and self-efficacy is prevalent among inmates.			
	Positive relationships with other people and institutions are visible among juveniles.			
	Adhering to prosocial cultural, and societal norms and values			
	Juveniles have a sense of sympathy and empathy for others.			

Sampling Techniques

The study's population consisted of juvenile delinquents undergoing rehabilitation in government-run centres in the Emirate of Abu Dhabi, specifically managed by the Abu Dhabi Juvenile Welfare Department. The participants comprised juveniles from various nationalities and age groups residing in different regions of Abu Dhabi, namely Western, Eastern, and Central Abu Dhabi. Currently, there are approximately 400 juveniles undergoing rehabilitation at the Abu Dhabi Juvenile Rehabilitation Centre (National Rehabilitation Center Abu Dhabi, 2022). Notably, the population selection was carefully undertaken to ensure that the data obtained from the research sample directly pertains to the research problem, questions, and objectives. Further, a stratified random sampling method was employed to ensure that the gathered observations were highly relevant, precise, and diverse (Taherdoost, 2016). Stratified random sampling involves diverging the larger population into smaller groups based on shared characteristics among their members. Within each stratum, random selection is used to create the final sample, thus ensuring a representative and well-rounded sample from the entire population (Etikan, 2017). In this study, a careful sample size estimation was conducted to examine the effectiveness of juvenile rehabilitation programs. The samples considered for the research

comprised individuals from various nationalities, age groups ranging from 11 to 17 years old, and different cases. Yamane's sample size determination criteria determined the sample size. Given the total population size of 400 individuals in the current research, applying Yamane's estimation criteria led to the selection of 200 respondents as the suitable sample size for the study (Adam, 2020).

Response Rate and Ethics

The data for this study was collected by visiting selected institutions with prior permission from the administration. The potential respondents were informed about the study's topic, objectives, and process. They were also asked to provide informed consent before the survey distribution began. Respondents were ensured data confidentiality and were informed that their participation was voluntary. After gathering the data, the questionnaires were carefully reviewed, and it was discovered that all of the respondents had carefully filled out the questionnaires and handed them over. Thus, the response rate was 100% as none of the questionnaires was removed or missing, ensuring the generalizability of research findings.

Analysis and Findings

This study is based on Partial Least Square- Structural Equation Modelling, the analysis was based on two primary stages. First, the inner model was examined to affirm the validity of the research instrument. Further, the second stage involved a model assessment to check the proposed hypotheses statistically.

Inner Model Assessment

The convergent validity, also known as internal consistency between the constructs, was examined by calculating the factor loads and Average Variance Extracted (AVE). According to (Carlson, 2010), convergent validity assessment helps to examine the extent to which research constructs are internally consistent. First, it was found that most of the loading values of measurement items exceeded the minimum cut-off value of >0.07 (Chin & Yao, 2014). Further, the Average Variance Extracted Values (AVE) also indicated that all the relevant values surpass the cut-off value >0.7 (Rehabilitation Program 0.612, Staff Competence 0.560, Environment 0.765, and Behavioral Development 0.545). Table 3 shows the results of the convergent validity assessment. The initial assessment through factor loads and AVE indicated that all the study constructs are internally consistent in current research.

Table 3- Convergent Validity of Research Constructs

Variables	Items	Loads	AVE
Rehabilitation Programs	Psychological	0.773	0.612
	Sport	0.804	
	Military	0.819	
	Religion	0.786	
	Educational	0.772	
Staff Competency	Behaviour	0.785	0.560
	REL1	0.796	
	REL2	0.644	
	RES1	0.680	
	RES2	0.735	
Environment	ASU1	0.752	0.765
	ASU2	0.782	
	EMP1	0.798	
	EMP2	0.878	
	ES1	0.868	
	ES2	0.871	
	ES3	0.874	
ES4	0.895		

	ES5	0.859	
	ES6	0.748	
	BEH1	0.729	
	BEH2	0.694	
Behavioral Development	BEH3	0.736	0.545
	BEH4	0.641	
	BEH5	0.389	
	BEH6	0.677	

Table 4 shows the findings of goodness of fit. According to (Chwialkowski et al., 2018), the goodness of fit helps to determine whether the observed data fits well with the expected data. Hence, it was found that the Standardized Root Mean Square (SRMR) value is 0.131 that, remained smaller than the cut-off value 0.85. The Non-Fit Index (NFI) value is 0.672 (b/w 0-1), Tucker and Lewis (TLI) value is 0.982 (>0.900), and Chi-Square value is 1.711 (<3.0). The analysis revealed a good fit for the study measurement model/instrument.

Table 4- Goodness of Fit

	Estimated model	Threshold Value
SRMR	0.131	<0.850
Chi-square	1.711	<3.0
NFI	0.672	b/w 0-1
TLI	0.982	>0.900

Discriminant validity examines the extent to which the research constructs are divergent or do not correlate (Shiu et al., 2011). The relevant analysis in the current research was based on two-criteria Fornell-Larcker criterion and Heterotrait-Monotrait Ratio. As shown in Table 5, all the calculated correlation values are different, indicating no consistency or relationship between them. Table 5 shows the Heterotrait-Monotrait Ratio scale also demonstrated that All the HTMT values are below the cut-off value of 0.85 (Rasoolimanesh, 2022). Thus, it was found that the measurement instrument contains discriminant validity.

Table 5- Discriminant Validity

	Behaviour	Environment	Programs	Staff Competency
Behaviour				
Environment	0.650			
Programs	0.663	0.414		
Staff Competency	0.738	0.741	0.501	

Table 6- Heterotrait-Monotrait Ratio Scale

	Behavior	Environment	Programs	Staff Competency
Behavior				
Environment	0.650			
Programs	0.663	0.414		
Staff Competency	0.738	0.741	0.501	

Notably, this research contains three predictor variables, so the possibility of collinearity must be considered. According to (Daoud, 2017), collinearity between predictor variables is highly disregarded in regression-based studies and should be assessed. Thus, collinearity in current research was examined using Variance Inflation Factor (VIF) analysis as recommended by (Shrestha, 2020). As shown in table 7, the Variance Inflation Factor (VIF) values associated with each predictor are lower than the cut-off value of 3.0 (Rehabilitation Program 1.507, Staff Competence 0.594, and Environment 1.957), indicating that multicollinearity between the predictors is under control.

Table 7- Collinearity Analysis

Constructs	Collinearity Statistics	
	Tolerance	VIF
Programs	.664	1.507
Staff Competence	.594	1.683
Environment	.511	1.957

Outer Model Assessment

The outer model was assessed by conducting path analysis to examine the proposed relationship between the predictor and dependent variables (Palese et al., 2019). However, first, the predictive power of independent variables was analyzed by conducting the R2 analysis, also known as the Coefficient of Determination R2 (Nakagawa et al., 2018). Calculations showed a 65.8% (0.658) variance in the dependent variables caused by the predictor variables, indicating a strong predictive power of the relevant variables in the current study. Further, the path analysis examined the direct relationships proposed between the study variables. The first hypothesis was "Rehabilitation Programs positively affect Behavioral Development in the Abu Dhabi Juvenile Welfare Department". Path analysis revealed that the proposed effect of behavioural educational, military, psychological, sports, and religious programs remained significant with the Beta Coefficient value $\beta = 0.327$, $t = 4.742$, $p = 0.000^{***}$ (>0.5). The second hypothesis (H2), "Staff-competency positively affects Behavioral Development in the Abu Dhabi Juvenile Welfare Department", also remained significant as the Beta Coefficient value was $\beta = 0.302$, $t = 2.926$, $p = 0.003^{***}$ (>0.5). Finally, H3 proposed that "Environment positively affects Behavioral Development in the Abu Dhabi Juvenile Welfare Department". With the Beta Coefficient value $\beta = 0.426$, $t = 4.224$, and significance value $p = 0.000^{***}$ (>0.5), the third hypothesis also remained significant. Notably, the path between Environment and Behavioral Development remained the strongest among all (0.426), followed by Rehabilitation Programs and Behavioral Development (0.327), and the path between Staff-competency and Behavioral Development remained third among all. Table 8 briefly represents the findings of hypotheses testing, and Figure 2 illustrates the results of path analysis.

Table 8- Hypotheses Testing

Hypotheses	β	<i>M</i>	<i>STDEV</i>	<i>t</i>	<i>P</i>	95.0% Confidence Interval	
						2.50%	97.50%
Programs -> Behavioral Development	0.327	2.0885	0.069	4.742	0.000***	0.195	0.464
Staff Competency -> Behavioral Development	0.302	2.1924	0.103	2.926	0.003***	0.088	0.494
Environment -> Behavioral Development	0.426	2.1653	0.103	4.224	0.000***	0.235	0.638

Discussion

Juvenile delinquency is a significant issue in many communities. It is important to recognize that adolescents need special attention due to their formative stage of life. Delinquent behaviour during this period does not necessarily define their future as adults. Hence, rehabilitation holds distinct assurance as an approach for dealing with juvenile offenders. However, just like adult programs, executing rehabilitation programs for juveniles can often be lacking. To effectively rehabilitate young offenders, it is important to incorporate key principles such as intensive behavioural services, targeting precise delinquent needs, and encouraging constructive communication, as suggested by (Mazzotti & Higgins, 2006).

According to (Day et al., 2004), it is also important to consider insights from developmental psychology and community-level approaches and programs to ensure the maximum well-being of juveniles. Comprehensive approaches that address multiple aspects can significantly decrease youth violence and enhance positive social reintegration. A similar case is with the juvenile rehabilitation programs imposed and regulated by Abu Dhabi's juvenile welfare department (National Rehabilitation Center Abu Dhabi, 2022). Based on the importance of implementing rehabilitation programs by Abu Dhabi's juvenile welfare department, this research further tested and witnessed the effectiveness of the relevant approaches.

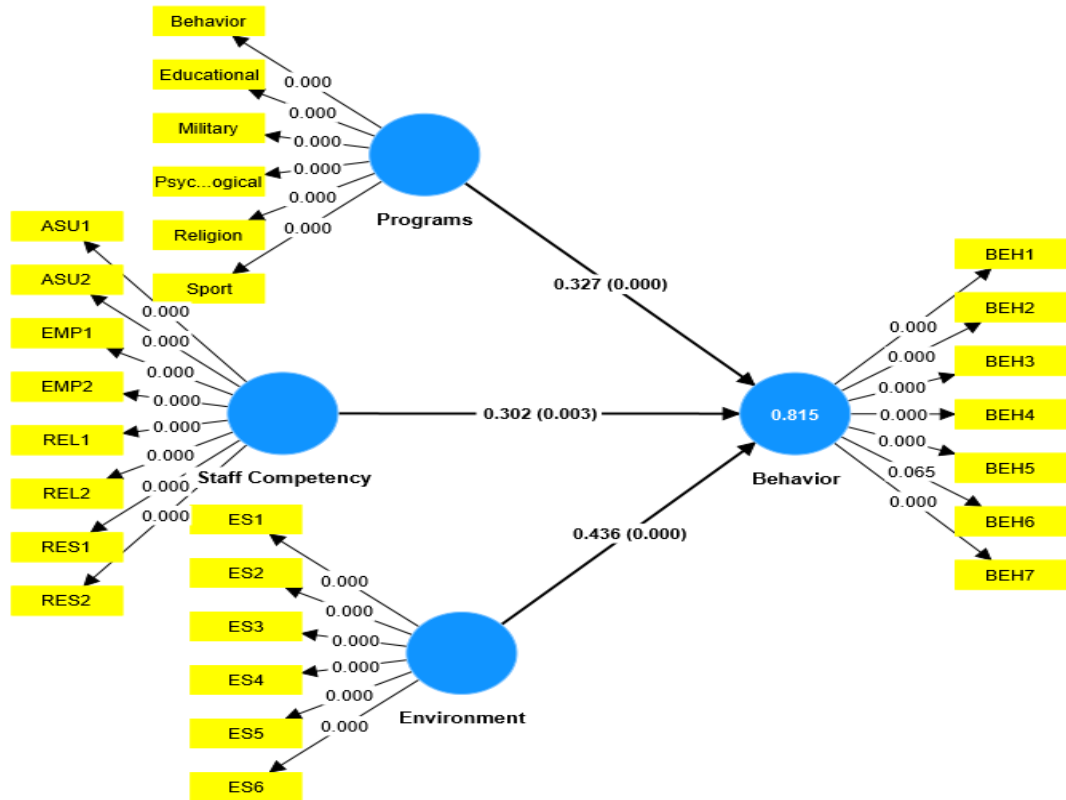


Figure 2- Results of Path Analysis

Talking particularly about the current research study and hypotheses, the programs and approaches implemented by Abu Dhabi's Juvenile Welfare Department in the UAE have demonstrated a notable effect on the behaviour of juvenile delinquents. The study respondents shared that Abu Dhabi's Juvenile Welfare Department offers various programs, including military training, religious teaching, formal education, psychological support, counselling, etc. These programs are highly advantageous for them, as they have learned from them and applied the lessons to their daily behaviour, resulting in enhanced performance and positive strategies for behavioural development. These findings align with the central ideas (Bilikas, 2010) about the characteristics of an effective juvenile welfare department as ideal for behavioural modification and well-being. These results also contribute to and extend the existing literature focusing on the ideal approaches for rehabilitating juvenile delinquents across the globe (Lambie & Randell, 2013; Pearson et al., 2002). As the studies by (Ford & Blaustein, 2013) indicated, the effectiveness of military programs, religious programs (Lambie & Randell, 2013), psychological (Gilbert et al., 2000), sports (Khurshid & Urooj, 2018), and behavioural modification programs (Chui & Chan, 2017) witnessed the effectiveness of rehabilitation programs in different regions.

Further, regarding the effect of staff competence on behaviour well-being, the results also supported the proposed hypothesis, as the impact of staff competency (services) was

significant. Respondents strongly pointed out the efficient service deliveries among the staff, problem-solving capability, ensuring individual safety, feasible service hours and others indicating positive effects of competent staff. (Pealer, 2017) views these aspects as important indicators of staff capabilities and commitment to work. Competent and skilled staff in rehabilitation programs are crucial in dealing with juvenile delinquents effectively to ensure positive, constructive outcomes. According to (Killington et al., 2019), the environment within a juvenile rehabilitation centre plays a crucial role in facilitating a successful rehabilitation process for young individuals. Indeed, the environment is one of the critical factors in prioritizing the safety and security of juveniles, which can be acquired by having security systems for juveniles, including surveillance cameras and closely monitored living areas. Such measures can prevent violence, self-harm, or escape, creating a safe and conducive atmosphere for practical rehabilitation. Thus, respondents in the current research indicated that they agreed with the overall condition of these rehabilitation centres, noting that they provide ample space and high security, decreasing the likelihood of injuries, riots, or conflicts among juveniles, staff members, and others.

Additionally, the respondents indicated that the social environment within the centres is satisfactory, fostering improved social communication among the juveniles in the best possible way. As a result, the respondents indicate an overall positive behaviour towards compliance with laws, avoiding Recidivism, mutual respect, and feelings of empathy towards each other. As noted by (Trimberly & Lal, 2023), Physical settings effectively foster positive social interaction among juveniles. When living areas, recreational spaces, and activities are shared, it creates prospects for communication, empathy, and teamwork. These interactions are important for developing social skills and a sense of belonging, sustaining the rehabilitation process effectively.

Implications

This research proposes some theoretical implications based on the results highlighting the positive impacts of juvenile rehabilitation programs, staff competence, and the environment on the behavioural well-being of juveniles at the Abu Dhabi juvenile rehabilitation centre. Notably, the Positive Youth Development Theory (PYD) emphasizes recognizing and fostering the strengths and potential of young individuals to encourage positive behaviour and development. Thus, it is proposed that the rehabilitation centres in the United Arab Emirates and worldwide should adopt a strength-based approach, leveraging the positive influence of rehabilitation programs, staff competence, and the environment to focus on each juvenile's strengths and capabilities. These centres can foster development and resilience in the juveniles by identifying and building on their skills and positive attributes. Further, consistent with the positive impact of the environment, rehabilitation centres should actively involve juveniles in decision-making processes and program design and development. Providing a voice and enabling them to shape their rehabilitation journey will infuse a sense of ownership and agency, leading to improved motivation and positive behavioural outcomes.

Additionally, recognizing the importance of staff competence, rehabilitation centres should stress the significance of building supportive and nurturing associations between staff and juveniles. Creating caring, compassionate, and trustworthy relationships can improve the juveniles' sense of belonging, security, and emotional well-being, contributing to their positive development. A holistic approach to youth development should also be adopted, considering the positive influence of rehabilitation programs, staff competence, and the environment. Along with addressing behavioural issues, the centres should also provide opportunities for educational, social, emotional, and psychological growth. Extensive programs that cater to all facets of a juvenile's life can lead to more well-rounded and favourable outcomes. Finally, to ensure the sustainability of positive results, the rehabilitation centres should focus on continuity of care as

juveniles transition from the rehabilitation centre back into society. Follow-up support and community integration programs can support positive effects and bolster long-term behavioural well-being outcomes. Hence, by implementing these implications under the Positive Youth Development Theory, juvenile rehabilitation centres can optimize their efforts to promote positive behavioural well-being among juveniles, facilitating their successful reintegration into society.

Conclusion

This research study scrutinized the effectiveness of juvenile rehabilitation programs, staff competency at rehabilitation centres, and environmental settings on the behavioural development of juveniles in the Juvenile Welfare Department in Abu Dhabi. The findings imply that these interventions play a critical role in positively shaping the lives of young offenders. Well-structured and intensive rehabilitation programs significantly affect the behavioural development of juveniles. Providing behavioural services and targeted interventions that address the specific needs of high-risk juvenile offenders shows promising results in encouraging law-abiding behaviour and reducing recidivism rates. The study also underlines the significance of fair enforcement of program contingencies and behavioural strategies to infuse a sense of responsibility and empathy among the juveniles. Another prominent factor is the environment of these rehabilitation centres, which positively affects these juveniles' behavioural well-being and development. Altogether, the study underscores the effectiveness of juvenile rehabilitation programs, rehabilitation centres, and the rehabilitation environment in the UAE. By focusing on these three factors, comprehensive support, and integrating community-level factors, positive behavioural development and well-being can be fostered among juveniles, leading to securer communities and more optimistic futures for these young individuals.

Limitations

Despite conducting an extensive study and providing empirical evidence, this research has some primary limitations. First, the study's geographical focus on Abu Dhabi's juvenile welfare department restricts its generalizability to other regions. The second limitation concerns using more than one study design and approach. However, this can be overcome by incorporating a mixed-method approach in future research. Qualitative interviews with rehabilitation centre administrators, and parents, can be conducted to improve the general understanding and broaden the scope of the research. Lastly, this research investigated juvenile delinquents' responses within Abu Dhabi's juvenile welfare department. To acquire more comprehensive insights into the effectiveness, benefits, and suitability of rehabilitation programs, future studies should include adult delinquents within welfare departments not only in the United Arab Emirates but also in other parts of the world. This extended perspective can shed light on the behavioural reformation of offenders in general and contribute to more efficacious rehabilitation strategies globally.

References

- Ali, I., Azman, A., Singh, P. S. J., Drani, S., & Rashid, M. M. (2020). Islamic faith-based organizations and poverty reduction in Bangladesh: A social work perception. *Social Work & Society*, 18(2).
- Ali, I., Shaik, R., Maruthi, A. Y., Azman, A., Singh, P., Bala, J. D., ... & Hossain, K. (2020). Impacts of climate change on coastal communities. In *Decision Support Methods for Assessing Flood Risk and Vulnerability* (pp. 42-59). IGI Global.

- Azman, A., Jali, N. A., Singh, P. S. J., Abdullah, J. M., & Ibrahim, H. (2020). Family roles, challenges and needs in caring for traumatic brain injury (TBI) family members: a systematic review. *Journal of Health Research*, 34(6), 495-504.
- Azman, A., Singh, P. S. J., & Isahaque, A. (2021). Implications for social work teaching and learning in Universiti Sains Malaysia, Penang, due to the COVID-19 pandemic: A reflection. *Qualitative Social Work*, 20(1-2), 553-560.
- Adam, A. M. (2020). Sample Size Determination in Survey Research. *Journal of Scientific Research and Reports*, 90–97. <https://doi.org/10.9734/jsrr/2020/v26i530263>
- Ajzenstadt, M. (2014). Well-Being of Children: A Criminological Perspective. In A. Ben-Arieh, F. Casas, I. Frønes, & J. E. Korbin (Eds.), *Handbook of Child Well-Being: Theories, Methods and Policies in Global Perspective* (pp. 351–361). Springer Netherlands. https://doi.org/10.1007/978-90-481-9063-8_19
- Ali, M. A. (2013). *Towards Effective Juvenile Delinquency Prevention Strategies and Policies in Abu Dhabi Police: An Investigation of Critical Factors* [University of Stirling]. <https://core.ac.uk/download/pdf/16505044.pdf>
- Al-Karbi, M. A., & Mai, M. Y. (2018). The Impact of Media on Juvenile Delinquency in the Care of Abu Dhabi and Fujairah—United Arab Emirates. *European Journal of Education*, 1(3), 1–11. <https://doi.org/10.26417/ejed.v1i3.p7-17>
- Anthonsen, R. (2019). Furthering the Goal of Juvenile Rehabilitation. *Journal of Gender, Race & Justice*, 13, 729.
- Aromaa, K. (2010). INTERNATIONAL STATISTICS on CRIME AND JUSTICE. United Nations Office on Drugs and Crime (UNODC). https://www.unodc.org/documents/data-and-analysis/Crime-statistics/International_Statistics_on_Crime_and_Justice.pdf
- Astuti, Am. E. S., Hardjanto, U. S., & Ziliwu, Y. (2018). Rehabilitation of Juvenile Throughout Diversion Institution as an Effort of Recidive Offenses on Juvenile Offenders. *SHS Web of Conferences*, 54, 08002. <https://doi.org/10.1051/shsconf/20185408002>
- Bilikas, C. (2010). Ideal Juvenile Rehabilitation Program: An Integrated System | Office of Justice Programs. 21(2). <https://www.ojp.gov/ncjrs/virtual-library/abstracts/ideal-juvenile-rehabilitation-program-integrated-system>
- Blaik Hourani, R., Litz, D. R., & Jederberg, S. (2020). The perceived value of the Abu Dhabi Educational Care Centre for enhancing juvenile education within the spectrum of social justice: Confronting challenges. *International Journal of Leadership in Education*, 23(2), 199–222. <https://doi.org/10.1080/13603124.2019.1566576>
- Carlson, K. D. (2010). Understanding the Impact of Convergent Validity on Research Results—Kevin D. Carlson, Andrew O. Herdman, 2012. <https://journals.sagepub.com/doi/abs/10.1177/1094428110392383>
- Child Rights International Network. (2018). Inhuman sentencing of children in the United Arab Emirates. https://archive.crin.org/sites/default/files/inhuman_sentencing_of_children_in_the_uae.pdf
- Chin, C.-L., & Yao, G. (2014). Convergent Validity. In A. C. Michalos (Ed.), *Encyclopedia of Quality of Life and Well-Being Research* (pp. 1275–1276). Springer Netherlands. https://doi.org/10.1007/978-94-007-0753-5_573
- Chui, W. H., & Chan, H. C. (Oliver). (2017). Social bonds and male juvenile delinquency while on probation: An exploratory test in Hong Kong. *Children and Youth Services Review*, 33(11), 2329–2334. <https://doi.org/10.1016/j.childyouth.2011.08.003>
- Chwialkowski, K., Strathmann, H., & Gretton, A. (2018). A Kernel Test of Goodness of Fit. 10.
- Cousin, G. (2005). Case Study Research. *Journal of Geography in Higher Education*, 29(3), 421–427. <https://doi.org/10.1080/03098260500290967>

- Cullen, D. A. A., Ivan Zinger, Robert D. Hoge, James Bonta, Paul Gendreau, Francis T. (1997). Does Correctional Treatment Work? A Clinically Relevant and Psychologically Informed Meta-Analysis *. In *The Philosophy and Practice of Corrections*. Routledge.
- Daoud, J. I. (2017). Multicollinearity and Regression Analysis. *Journal of Physics: Conference Series*, 949(1), 012009. <https://doi.org/10.1088/1742-6596/949/1/012009>
- Day, A., Howells, K., & Rickwood, D. (2004). Current trends in the rehabilitation of juvenile offenders. https://dro.deakin.edu.au/articles/journal_contribution/Current_trends_in_the_rehabilitation_of_juvenile_offenders/21047491/1
- de Vries, S. L. A., Hoeve, M., Asscher, J. J., & Stams, G. J. J. M. (2018). The Long-Term Effects of the Youth Crime Prevention Program “New Perspectives” on Delinquency and Recidivism. *International Journal of Offender Therapy and Comparative Criminology*, 62(12), 3639–3661. <https://doi.org/10.1177/0306624X17751161>
- Dillard, R., Newman, T. J., & Kim, M. (2019). Promoting youth competence through balanced and restorative justice: A community based PYD approach. *Journal of Youth Development*, 14(4), 14–35. <https://doi.org/10.5195/JYD.2019.804>
- Etikan, I. (2017). Sampling and Sampling Methods. *Biometrics & Biostatistics International Journal*, 5(6). <https://doi.org/10.15406/bbij.2017.05.00149>
- Evans, C. B. R., & Burton, D. L. (2013). Five Types of Child Maltreatment and Subsequent Delinquency: Physical Neglect as the Most Significant Predictor. *Journal of Child & Adolescent Trauma*, 6(4), 231–245. <https://doi.org/10.1080/19361521.2013.837567>
- Fisher, E. S., & Kennedy, K. S. (2016). Counseling Students Involved with the Juvenile Justice System. In E. S. Fisher & K. S. Kennedy (Eds.), *Counseling Special Populations in Schools* (p. 0). Oxford University Press. <https://doi.org/10.1093/med:psych/9780199355785.003.0004>
- Ford, J. D., & Blaustein, M. E. (2013). Systemic Self-Regulation: A Framework for Trauma-Informed Services in Residential Juvenile Justice Programs. *Journal of Family Violence*, 28(7), 665–677. <https://doi.org/10.1007/s10896-013-9538-5>
- Fox, A. M., Miksicek, D., Veele, S., & Rogers, B. (2020). An evaluation of dialectical behaviour therapy for juveniles in secure residential facilities. *Journal of Offender Rehabilitation*, 59(8), 478–502. <https://doi.org/10.1080/10509674.2020.1808557>
- Garbarino, J., & Plantz, M. C. (2016). Child Abuse and Juvenile Delinquency: What are The Links? In *Troubled Youth, Troubled Families*. Routledge. <https://www.taylorfrancis.com/chapters/edit/10.4324/9781351327640-3/child-abuse-juvenile-delinquency-links-james-garbarino-margaret-plantz>
- Gibson, C. L., & Davis, A. (2017). A Biosocial Perspective on Juvenile Delinquency. In *The Handbook of Juvenile Delinquency and Juvenile Justice* (pp. 139–160). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781118513217.ch11>
- Gilbert, J., Grimm, R., & Parnham, J. (2000). Applying Therapeutic Principles to a Family-Focused Juvenile Justice Model (Delinquency). *Alabama Law Review*, 52, 1153.
- Government of UAE. (2021). Vocational/Job Training Literature Review. https://ojjdp.ojp.gov/model-programs-guide/literature-reviews/vocational_job_training.pdf
- Halim, N.N., Jaafar, M.H., Anuar, M.O., Kamaruddin, N.A., & Singh, P.S.J. (2020). The causes of Malaysian construction fatalities. *J. Sustain. Sci. Manag*, 15(5), 236-256.
- Hasan, M. S., Anusaksathien, K., Siripornpibul, T., & Narattharaksa, K. (2020). Research Paper: Assessing Post-stroke Outpatients’ Rehabilitation Service Quality Gaps in Bangladesh. *Iranian Rehabilitation Journal*, 18(4), 485–496. <https://doi.org/10.32598/irj.18.4.1114.1>
- Heilbrun, K., Goldstein, N. E. S., & Redding, R. E. (2015). *Juvenile Delinquency: Prevention, Assessment, and Intervention*. Oxford University Press, USA.
- Heynen, E. J. E., van der Helm, G. H. P., Stams, G. J. J. M., & Korebrits, A. M. (2014). Measuring Group Climate in a German Youth Prison: A German Validation of the Prison Group Climate

- Instrument. *Journal of Forensic Psychology Practice*, 14(1), 45–54. <https://doi.org/10.1080/15228932.2013.868176>
- Hourani, R. B., Litz, D., & Smith, A. (2020). Multi-dimensional leaders' roles and responsibilities: Dynamics, constraints, and policy change in a UAE juvenile correctional educational centre. *Educational Management Administration & Leadership*, 48(4), 682–702. <https://doi.org/10.1177/1741143219833691>
- Islam, T., Azman, A., Singh, P., Ali, I., Akhtar, T., Rafatullah, M., ... & Hossain, K. (2019). Socio-economic vulnerability of riverbank erosion of displacees: Case study of coastal villages in Bangladesh. *Indian Journal of Ecology*, 46(1), 34–38.
- Jafar Naqvi, S., & Al-Shihi, H. (2013). Practicing M-Application Services Opportunities with Special Reference to Oman. *Issues in Informing Science and Information Technology*, 10, 341–353. <https://doi.org/10.28945/1815>
- Juvenile Welfare Board of Pinellas County. (2022). Making Children A Priority—Juvenile Welfare Board. JWB. <https://www.jwbpinellas.org/>
- Kellie, Darbouze. (2018). Rehabilitative Methods and the Affect on Juvenile Delinquents. <https://drum.lib.umd.edu/items/42767404-cc5a-472a-8c8a-aa50437602e8>
- Khurshid, F., & Urooj, T. (2018). Causes of juvenile delinquency among teenagers in Pakistani context.
- Kiiru, P. M. (2019). Outcomes Of Corrective Measures Used in Behaviour Transformation Of Juvenile Delinquents By Public Rehabilitation Centres In Nairobi County. University of Nairobi.
- Kithaka, M. W., & Kariuki, D. J. G. (2018). THE BENEFITS OF REHABILITATION PROGRAMMES FOR JUVENILE DELINQUENTS IN KENYA. 6(12). <https://www.ijern.com/journal/2018/December-2018/18.pdf>
- Kratcoski, P. C., Dunn Kratcoski, L., & Kratcoski, P. C. (2020). *Juvenile Delinquency: Theory, Research, and the Juvenile Justice Process*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-31452-1>
- Lambie, I., & Randell, I. (2013). The impact of incarceration on juvenile offenders. *Clinical Psychology Review*, 33(3), 448–459. <https://doi.org/10.1016/j.cpr.2013.01.007>
- Lipsey, M. W., Wilson, D. B., Cothorn, L., & US Department of Justice; Office of Justice Programs; Office of Juvenile Justice and Delinquency Prevention. (2000). *Effective Intervention for Serious Juvenile Offenders.*: (306462003-001) [dataset]. <https://doi.org/10.1037/e306462003-001>
- Litz, D., Hourani, R. B., & Scott, S. (2020). Leadership challenges in an educational program at a UAE juvenile detention centre: A contextual analysis. *International Journal of Educational Development*, 76(September 2019), 102193. <https://doi.org/10.1016/j.ijedudev.2020.102193>
- Loeber, R., Farrington, D. P., & Petechuk, D. (2003). *Child Delinquency: Early Intervention and Prevention*: (510482006-001) [dataset]. <https://doi.org/10.1037/e510482006-001>
- Mantey, E. E., & Dzetor, G. (2018). Juvenile Delinquency: Evidence of Challenges in Rehabilitation. *American Journal of Applied Sciences*, 15(6), 321–330. <https://doi.org/10.3844/ajassp.2018.321.330>
- Mazzotti, V. L., & Higgins, K. (2006). Public Schools and the Juvenile Justice System: Facilitating Relationships. *Intervention in School and Clinic*, 41(5), 295–301. <https://doi.org/10.1177/10534512060410050701>
- Mendoza, K. G. (2018). Using the Servqual Scale to Measure Client Satisfaction in a Rehabilitation Teaching Clinic in the Philippines using the Servqual Scale to Measure Client Satisfaction in a Rehabilitation Teaching Clinic in the Philippines. *Philippine Journal of Health Research and Development*, 22(4), 17–27.
- Miller, J. (2009). *21st Century Criminology: A Reference Handbook*. SAGE Publications, Inc. <https://doi.org/10.4135/9781412971997>

- Mincey, B., Maldonado, N., & Lacey, C. H. (2007). Perceptions of Successful Graduates of Juvenile Residential Programs: A Phenomenological Study. Annual Meeting of the American Educational Research Association. <https://files.eric.ed.gov/fulltext/ED496563.pdf>
- Ministry of Community Development and Social Services. (2022). Juvenile Welfare and Probational Services. https://www.mcdss.gov.zm/?page_id=2484
- Nakagawa, S., Johnson, P. C. D., & Schielzeth, H. (2018). The coefficient of determination R² and intra-class correlation coefficient from generalized linear mixed-effects models revisited and expanded. 11.
- National Rehabilitation Center Abu Dhabi. (2022). NRC. <https://nrc.gov.ae/>
- Noviello, M. (2022). Preventing and Responding to Juvenile Crime: Importance of Intervention and Rehabilitation. *Criminology Student Work*. https://scholarworks.merrimack.edu/crm_studentpub/45
- Office of Juvenile Justice and Delinquency Prevention. (2014). Positive Youth Development. Washington, D.C.: Office of Juvenile Justice and Delinquency Prevention. https://ojjdp.ojp.gov/model-programs-guide/literature-reviews/positive_youth_development.pdf
- Palese, A., Grasseti, L., Bressan, V., Decaro, A., Kasa, T., Longobardi, M., Hayter, M., & Watson, R. (2019). A path analysis on the direct and indirect effects of the unit environment on eating dependence among cognitively impaired nursing home residents. *BMC Health Services Research*, 19(1), 775. <https://doi.org/10.1186/s12913-019-4667-z>
- Pauzi, H. M. (2019). Positive Youth Development as an Indicator of the Effectiveness of Juvenile Rehabilitation Program. *International Journal of Academic Research in Business and Social Sciences*, 9(7), Pages 909-914. <https://doi.org/10.6007/IJARBS/v9-i7/6189>
- Pearson, F. S., Lipton, D. S., Cleland, C. M., & Yee, D. S. (2002). The Effects of Behavioral/Cognitive-Behavioral Programs on Recidivism. *Crime & Delinquency*, 48(3), 476–496. <https://doi.org/10.1177/00112870204800306>
- Peter Greenwood. (2008). Prevention and Intervention Programs for Juvenile Offenders. *The Future of Children*, 18(2), 185–210. <https://doi.org/10.1353/foc.0.0018>
- Rashid, M. M., Azman, A., Singh, P. S. J., & Ali, M. I. (2020). Issues and problems of small-scale fishing (SSF) communities in South Asia: a comprehensive overview. *Indian Journal of Ecology*, 47(3), 775-781.
- Rasoolimanesh, S. M. (2022). Discriminant validity assessment in PLS-SEM: A comprehensive composite-based approach. 1–8.
- Rautta, S. A., & Ogolla, M. (2019). Rehabilitation Programs on the Behavior of Juveniles in Manga Children's Remand Home, Nyamira County–Kenya. *International Journal of Innovative Science and Research Technology*, 4(8).
- Saleebey, D. (1996). The strengths of perspective in social work practice: Extensions and cautions. *Social Work*, 41(3), 296–305.
- Savatia, B. A., Ruth, D., Simiyu, N., & Nabiswa, D. J. (2020). Effectiveness of Rehabilitation Programmes in Management of Juvenile Delinquency within Penal Institutions in Kakamega County, Kenya. <http://ijmcr.com/wp-content/uploads/2020/09/Paper6721-729.pdf>
- Sebugwaawo, I., & Times, K. (2023). UAE: Over 100 juveniles prosecuted in 2022. <https://www.zawya.com/en/legal/crime-and-security/uae-over-100-juveniles-prosecuted-in-2022-om4wa4sh>
- Selber, K., & Streeter, C. (2004). Family and community perceptions of quality in juvenile justice programs. *Journal of Offender Rehabilitation*, 38(3), 31–47. https://doi.org/10.1300/J076v38n03_03
- Shiu, E., Pervan, S. J., Bove, L. L., & Beatty, S. E. (2011). Reflections on discriminant validity: Reexamining the Bove et al. (2009) findings. *Journal of Business Research*, 64(5), 497–500. <https://doi.org/10.1016/j.jbusres.2010.04.004>

- Shrestha, N. (2020). Detecting Multicollinearity in Regression Analysis. *American Journal of Applied Mathematics and Statistics*, 8(2), 39–42. <https://doi.org/10.12691/ajams-8-2-1>
- Singh, P., Singh, J., Rashid, M. M., Azman, A., & Ali, I. (2019). Fishery policies and acts in present context- experiences from coastal Bangladesh. *Indian Journal of Ecology*, 46(4), 857-861.
- Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research (SSRN Scholarly Paper 3205035). <https://doi.org/10.2139/ssrn.3205035>
- Tate, D. C., Reppucci, N. D., & Mulvey, E. P. (1995). Violent juvenile delinquents: Treatment effectiveness and implications for future action. *American Psychologist*, 50(9), 777–781. <https://doi.org/10.1037/0003-066X.50.9.777>
- United Nations Office on Drugs and Crime. (2018). *Introductory Handbook on The Prevention of Recidivism and the Social Reintegration of Offenders*. https://www.unodc.org/documents/justice-and-prison-reform/18-02303_ebook.pdf
- Yip, K. (2005). A Strengths Perspective in Working with an Adolescent with Depression. *Psychiatric Rehabilitation Journal*, 28(4), 362–369. <https://doi.org/10.2975/28.2005.362.369>
- Yukhnenko, D., Blackwood, N., & Fazel, S. (2019). Risk factors for Recidivism in individuals receiving community sentences: A systematic review and meta-analysis. *CNS Spectrums*, 25(2), 252–263. <https://doi.org/10.1017/S1092852919001056>
- Al Adwan, M.N., Safori, A., Habes, M. & Ali, S. 2023. Why New Media app during the Healthcare Crisis? WhatsApp Based Study. *Studies in Media and Communication* 11(3): 79–89.
- Al Jwaniat, M., Tahat, D., AlMomany, R., Tahat, K., Habes, M., Mansoori, A. & Maysari, I. 2023. Examining Journalistic Practices in Online Newspapers in the Era of Artificial Intelligence. In *2023 International Conference on Intelligent Computing, Communication, Networking and Services (ICCNS)*. pp. 183–189. IEEE.
- Al Jwaniat, M.I., Alshammari, M.M., Al Adwan, M.N. & Habes, M. 2023. Why Do Journalists Prefer Data Journalism? A Case Study of Online Journalists & Public Relations in UAE. *Journal of Namibian Studies: History Politics Culture* 34: 5673–5694.
- Al Jwaniat, M.I., Safori, A., Al-Tahat, K., Mansoori, A. & Habes, M. 2023. Investigating the Approaches to Improve Journalism Practices in Jordan: Data Journalism Perspective. In *Artificial Intelligence (AI) and Finance*. pp. 811–820. Springer.
- Alghizzawi, M., Al-ameer, A., Habes, M. & Attar, R.W. 2023. Social Media Marketing during COVID-19: Behaviors of Jordanian Users. *Studies in Media and Communication* 11(3): 80–71.
- Alhumaid, K., Ayoubi, K., Habes, M., Elareshi, M. & Salloum, S.A. 2022. Social Media Acceptance and e-Learning Post-Covid-19: New factors determine the extension of TAM. In *2022 Ninth International Conference on Social Networks Analysis, Management and Security (SNAMS)*. pp. 1–5. IEEE.
- Habes, M., Alghizzawi, M., Ahmad, A.K. & Almuhausen, O. 2023. The Impact of Digital Media Learning Apps on Students' Behaviors in Distance Learning During COVID-19 at the University of Jordan. *Studies in Media and Communication* 11(3): 47–55.
- Habes, M., Elareshi, M., Tahat, K. & Tahat, D. 2023. Social Media Narratives of Covid-19 Pandemic and Misinformation. In *2023 International Conference on Intelligent Computing, Communication, Networking and Services (ICCNS)*. pp. 124–127. IEEE.
- Habes, M., Tahat, K., Tahat, D., Attar, R.W., Mansoori, A. & Ketbi, N. 2023. The Theory of Planned Behavior Regarding Artificial Intelligence in Recommendations and Selection of YouTube News Content. In *2023 International Conference on Multimedia Computing, Networking and Applications (MCNA)*. pp. 42–47. IEEE.
- Hatamleh, I.H.M., Safori, A.O., Habes, M., Tahat, O., Ahmad, A.K., Abdallah, R.A.-Q. & Aissani, R. 2023. Trust in Social Media: Enhancing Social Relationships. *Social Sciences* 12(7): 416.

- Mansoori, A., Tahat, K., Tahat, D., Habes, M., Salloum, S.A., Mesbah, H. & Elareshi, M. 2023. Gender as a moderating variable in online misinformation acceptance during COVID-19. *Heliyon*.
- Pasha, S.A., Sharif, H., Ali, S., Al-Misfari, A., Elareshi, M., Ziani, A. & Habes, M. 2023. Perceptions of Incorporating Virtual Reality of Goggles in the Learning Management System in Developing Countries. In *Digitalisation: Opportunities and Challenges for Business: Volume 2*. pp. 879–886. Springer.
- Safari, A., Youssef, E., Attar, R.W., Tahat, O., Al Adwan, M.N. & Habes, M. 2023. *New Media and Crisis Management in Jordan: COVID 19 Perspective*.
- Sarwar, B., Sarwar, A., Mugahed Al-Rahmi, W., Almogren, A.S., Salloum, S. & Habes, M. 2023. Social media paradox: Utilizing social media technology for creating better value for better social outcomes: Case of developing countries. *Cogent Business & Management* 10(2): 2210888.
- Tahat, K., Tahat, D.N., Masoori, A., Habes, M., Alghazo, E. & Ketbi, N. 2023. Role of Social Media in Changing the Social Life Patterns of Youth at UAE. In *Artificial Intelligence (AI) and Finance*. pp. 152–163. Springer.
- Tawafak, R.M., Al-Rahmi, W.M., Almogren, A.S., Al Adwan, M.N., Safari, A., Attar, R.W. & Habes, M. 2023. Analysis of E-Learning System Use Using Combined TAM and ECT Factors. *Sustainability* 15(14): 11100.