

# Integrated Model of Factors Affecting Drug Addiction Among Juveniles in UAE

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## ABSTRACT

Drug addiction is substance use that influences an individual brain and personality and prompts to inability to control the utilization of an illegal drug. Drug addiction begins with experimental utilization of a recreational drug in social circumstances and for certain individuals, drug use turns out to be more regular. The danger of addiction and how quick individuals become addicted to a drug depends on the type of drug that they consume, which has a higher risk and creates addiction more rapidly. The primary drive about this research was to examine the connection between factors affecting the tendency towards drug addiction among juveniles in the UAE. The significant research question was the factors affecting the tendency towards drug addiction among juveniles in the UAE. This study means to identify the collaboration of the factors affecting drug addiction among juveniles in the UAE. The study principle results center around developing the conceptual model of factors affecting the tendency towards drug addiction among juveniles in the UAE.

**Keywords:** Drug Addiction, Factors Affecting, Juveniles, Prevention, Youths.

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## INTRODUCTION

Drug addiction has been around for a very long time and it comes in a wide range of forms throughout its reality. Divergent changes in innovation and technology elements over time have contributed to drug addiction factors and the mindset to use drugs has advanced. Drug addiction has become one of the most genuine social issues in UAE (Almutawa, Mansor, & Zainudin, 2020). UAE brags a growing population of more than 9 million people and the Islamic-ruled country has consistently maintained strict control over alcohol, public decency, dress code, and drug consumption. Drug use is 100% prohibited in the UAE and the criminal punishment for being caught with the influence of drugs or with drugs is a significant deterrent for most Emirati (Said & Hussain, 2017). Unfortunately, not all citizens of the UAE can deal with their addictions and can confront genuine prison time as a result.

The juvenile rate among drug users is very high and 80% of all reported cases of juveniles are credited to drug addiction. Many young Arabs, especially in the cities, say drug use among youth is on the rise as 76% in the country by the Ministry of Health UAE. According to Dubai Customs, drug seizures made in the year 2020 1Q is 1105, where 528 seizures occur inland customs centers, 4 seizures in Jebel Ali customs centers, 15 seizures in coastal customs centers, 467 seizures in passenger operations and 91 seizures in air customs centers. Thus, this major seizure can be categorized as 54kg of narcotic substances, 528 drug seizures, 57 thousand of narcotic pills, 268kg of narcotics, 26 thousand kg of hemp seeds, 13kg of cocaine, 5 million of captagon pills and 10 million of tramadol pills. There are an issue and UAE are a significant international hub for travel and business, there is a genuine open door for drug abusers to access illegal drugs. Besides drug addiction cost the UAE economy around AED10 billion per year, as indicated in the year 2019 review by the National Rehabilitation Center

(NRC) in Abu Dhabi and the UN Office for Drugs and Crime. Moreover, the National Rehabilitation Center of the UAE, indicate that 20% of the total deaths in the Emirates each year are related to drug abuse.

Juveniles are vulnerable to the impacts of drug use and are at expanded risk of the long-term dilemma as drug use issues, fights, mental health disorders, sexual activity, accidents, overdose, and underachievement in school. The difficulty of drug addiction among juveniles is one of the most entangled and troublesome social issues confronting present-day society (Hirschi, 2017). Youths who become drug addicts may have a serious risk of developing drug addiction when they become adults (Almutawa, 2020). Half of all new drug addicts are younger than 18 years old (Alblooshi, Abdullah, & Yunus, 2019). The common reasons juveniles become drug addicts are due to stress, curiosity, a desire to escape, peer pressure, and emotional struggles. The stress is a notable risk factor in the advancement of drug addiction and independence weakness for youths (Mereish, E.H., Goldbach, J.T., Burgess, C. and DiBello, 2017).

Neurobiological and behavioral connections are being recognized and some proof of atomic and cell changes related to chronic stress and lead towards drug addiction among youths (Bah, 2018). Youths consume drugs for stress relief

because it connects with the neurochemistry of the brain to produce feelings of joy. Besides, youths took drugs for curiosity, that they are interested, and want to recognize what it feels like (Arafat, M.O.S.A.B., Ahmed, Z.A.H.A.A. and Arafat, 2017). Regardless, they realize that drugs are terrible, but they do not accept that and pretend it will not harm them. Yet, youths are frequently inspired to look for new encounters, especially those they see as exciting or brave. Moreover, they have a desire to escape from life, where they believe drug addiction can permit them to stay away from negative circumstances, issues, and feelings. For some juvenile addicts, the inborn inability to manage with natural drives leads them to begin drug addiction (C. W. M. Wilson, 2017). Youth may start to utilize a greater amount of the drug more regularly for escaping from real-life dilemmas.

The view of outcomes can interfere with peer pressure capacity to drive youths into an outrageous action, which could decrease the opportunity that individuals give in to pressure to attempt more extraordinary drugs (Papp, 2016). Certain peer pressure lead to risky short-term behavior, that is planted inside juveniles for long-lasting and hindering habits towards drug addiction (Almutawa, 2020). Juveniles think others are doing it and they fear not being acknowledged in a social circle that medicates using peers. Moreover, drug addiction exacts an emotional struggle that develops in a bed of previous enthusiastic disturbance and the sentiments of nervousness, disgrace, blame, and uselessness that expansion risk for drug addiction will just turn out to be more awful as the drug substance extends (Schimmenti, 2017). Drug addiction creates new emotional for juveniles that have been influenced and the emotional pain is inevitable for them (Arslan, 2015). Utilizing drugs might be an attempt to diminish the emotions of distress.

Therefore, we have conceptualized the factors affecting the tendency towards drug addiction among juveniles that relates to family, individual, and society. The proposed conceptual model has assigned drug addiction among juveniles within the UAE. The advancement of the conceptual model should concentrate on the outcomes of drug addiction among juveniles on family, individual, and social context in the UAE.

## LITERATURE REVIEW

The initial choice to ingest drugs is intentional for most juveniles, however, rehashed drug use can prompt brain damage that challenges juvenile self-control and meddle with their capacity to oppose extraordinary desires to consume drugs (Johnston, L.D., O'Malley, P.M., Miech, R.A., Bachman, J.G. and Schulenberg, 2017). Juveniles in recovery from drug use issues are at expanded risk for returning to drug use even after years of not taking the drug, due to cultural, socio-economic, and environmental root cause (AL-Imam, 2017). Therefore, we need to classify drug addiction among juveniles in a divergent context that emphasis on three (3) perspective as biological, social, and psychological. The biological perspective indicates that drug addiction is more understandable when biology metabolism seeks and repeat pleasurable encounters (Arslan, 2015; Priester, 2016). Individuals vary in the degree that they like or dislike a specific addictive substance that veil emotional issues and increased social problems (Agra, 2017). Thus, the social perspective emphasis the cultural approach that impacts huge youth groups in drug addiction (Van Wormer, 2017). Its influential part comes from someone in the social circle of the groups, where youths with similar difficulties and problems follow their footstep into drug addiction (Van Wormer, K., and Davis, 2016). The psychological perspective inspired juveniles to transform, where they

encounter personality and behavior change (Degenhardt, L., Stockings, E., Patton, G., Hall, W.D., and Lynskey, 2016). Individuals in drug abuse will encounter difficulty to change in the way they feel, behave, and think that lead toward crime scenarios (DiClemente CC., 2018).

We have indicated the drug addiction factors concerning juveniles that emphasize three (3) factors as individual, society, and family. The individual factor is simply the impression of the comprehension and feeling of individual value (Hodder, R.K., Freund, M., Bowman, J., Wolfenden, L., Gillham, K., Dray, J. and Wiggers, 2016). Juveniles may have problems control negative ideas and consequently turn to external action to change those negative ideas through drug addiction. A sign that a youth might be utilizing drugs if they are poor in academic performance (Everitt & Robbins, 2016). The societal factor emphasizes juveniles that resulted in drug addiction that impacts the nation (Lyman, 2016). Yet it impacts society through the connection of drug addiction and crime that is fundamentally added to the illegal drug abuse (Said & Hussain, 2017). Half of the juvenile's arrest is for the serious crime on robbery, assault, and murder were affected by drug addiction. The family factor indicates that positive family impacts through family bonding that emphasize reliable guidelines to reduce the risk of drug addiction, while negative family impacts will in general increase risk (Parks, 2013). Thus, family bonding was persuasive before the age of 18 for youths but low family bonding will lead to drug addiction among them (Klein & Golub, 2016). Moreover, family monitoring will decrease the risk of drug addiction among youths and more protective.

Therefore, we have adapted the learning theory for this study as the theoretical concept, where drug addiction is essentially a learned behavior. The learning theory engages in addictive behavior that leads to the development of drug addiction (Walker, 2017). It focusses on the reactions and behavior of individuals utilizing drugs as they wish to repeat it (Nicholson, J. and Higgins, 2017). Besides, juveniles learn through watching others' attitudes, behavior, and results of those actions (Rotter, 2017). The learning theory clarifies human behavior in a complementary interaction between cognitivism, constructivism, and behaviorism. We have tabulated the learning theory parameters to interpret how drug addiction information is handled and received during the learning practice of juveniles as shown in Table 1.

Table 1 shows the learning theory for drug addiction among juveniles that focus on cognitivism that relies on active learning from individual action towards juveniles, constructivism classifies influence from the social environment towards juveniles, and behaviorism classify as quick behavior change in juveniles. Thus, learning theory is a

process of thinking, doing, feeling of the juveniles in encountering drug addiction. Besides learning theory, we have also adopted the problem behavior theory for this study.

The problem behavior theory is a social-psychological model

**Table 1.** The Learning Theory for Drug Addiction among Juveniles

Parameters	Clarifies	Factors	References
Behaviorism	Juveniles focused on observable behavior that response to it.	Individual - Reacting to external stimuli and observing it.	(Davey, 2017; Dietrich, F. and List, 2016; Pasquale, F. and Cashwell, 2018)
Cognitivism	Juveniles focused on information seeking ways to understand it.	Family - Acquiring and changes in behavior from the reflection of the individual.	(Allen, M. and Friston, 2018; Ekkekakis, P. and Zenko, 2016; Jacobson, 2016)
Constructivism	Juveniles focus on the learning role in their learning through social learning.	Society - Constructing reality based on social behavior.	(Hay, 2016; Smith, 2017; Zemel, 2016)

concentrated on the explanation of diversity in juvenile's present actions that are socially identified as a problem and the levels of ordinary society, which motivate some kind of social sanctions (Jessor, 2016). Furthermore, it gives an outline of the conceptual structure and the essential elements of the theory is been utilized in various studies for planning and evaluation of preventing drug addiction among juveniles

(Costa, F.M., Jessor, R. and Donovan, 2017). The domain of risk behavior incorporates not just the traditional problem behavior on drug addiction, yet its emphasis on personality system, behavior system, and perceived environment system. Therefore, we have tabulated the parameters of problem behavior theory as shown in Table 2.

**Table 2.** The Problem Behavior Theory for Drug Addiction among Juveniles

Parameters	Clarifies	Factors	References
Personality system	Juveniles personality traits that emphasis on low self-esteem.	Individual – Contribute to problem behavior, which has high value.	(Kudryavtsev, 2016; Baumert, 2017; Tremblay, 2017)
Perceived Environment system	Juveniles engage in problem behavior which has less parental influence.	Family – Environmental that influence problem behavior, which has minimal parental support.	(Ramos-Díaz, 2016; Roda, 2016; Lee, 2017)
Behavior system	Juveniles are influenced by social behavior that leads to irresponsible and drug addiction scenarios.	Society – Behavior that contributes to problem behavior through influential surroundings.	(Protano, 2016; Ruuska, 2016; Greenwood, 2017)

Table 2 shows the problem behavior theory for drug addiction among juveniles that focus on personality system that indicates value and self-perception of juveniles, perceived environment system classifies parental influence towards juvenile's personality and behavior system classify the problem behavior from delinquency for juveniles. The problem behavior theory has been further managing larger domains of health-enhancing behavior in youth and health-compromising for juveniles. Therefore, these theories will be the fundamental theoretical for this research in indicating factors affecting drug addiction among juveniles in the UAE.

### FRAMEWORK DEVELOPMENT

Various components can indicate to juvenile's drug addiction. Thus, youths frequently do not perceive the link between their action today and the consequences tomorrow. They also tend to sense resistance and indestructible to the dilemma that others experience. Moreover, youths develop a proceeding, reliance onward to further dangerous drugs and capacity huge harm to themselves. These scenarios are assists by the social networks where utilization of illegal drugs is standardized and glamorized in quality pictures and videos. Nowadays social network is being utilized as a commercial center for illegal drugs and the effect is having on youths (Angus, Peter, & Reid, 2016). Thus, dealers would promote their drugs by videos, posting, status, and photos in their social network that demonstrates what type of drugs they have, the costing and the quantity of it, and informing users when they are opening for the market.

Therefore, the government should play a role in preventing drug addiction. Government agencies offer divergent levels of drug addiction treatment for juveniles through specialized and trained experts, yet the rise of drug addiction is still at a high level. This drug addiction dilemma has become a public health epidemic with obliterating results including various drug usage and related to overdose, thus, also, the rising occurrence of babies who experience neonatal restraint syndrome, due to their mother utilized drugs during pregnancy and expanded spread of diseases including hepatitis C and HIV (Bah, 2018). The awareness of drug addiction impacts is still a low level of understanding within the locals and community risks have expanded, due to this drug addiction. The government should disrupt the progression of illegal drugs and destroy drug trafficking associations (Almutawa, 2020). The government has a wide position to impact and direct the endorsing and apportioning of prescription drugs (Arafat, M.O.S.A.B., Ahmed, Z.A.H.A.A., and Arafat, 2017). Yet the government can

emphasize policy choices identifying clinics to lessen recommending drugs that are risky to patients. Therefore, we have tabulated the factors affecting drug addiction among

juveniles in the UAE based on mapping the theoretical concept with the affecting factors of drug addiction, as shown in Table 3.

**Table 3.** The factors affecting drug addiction among juveniles in the UAE.

Learning Theory	Problem Behavior Theory	Factors Affecting	References
Behaviorism (All behavior is learned habits)	Personality system (Expectations of achievement)	Individual – Juveniles alter their behavior and personality toward drug addiction.	(Baumert, A., Schmitt, M., Perugini, M., Johnson, W., Blum, G., Borkenau, P., Costantini, G., Denissen, J.J., Fleeson, W., Grafton, B. and Jayawickreme, 2017; Davey, 2017; Dietrich, F. and List, 2016; Kudryavtsev, M.D., Kopylov, Y.A., Kuzmin, V.A., Ionova, O.M. and Yermakova, 2016; Mohamad, Jayakrishnan, & Nawi, 2020a; Pasquale, F. and Cashwell, 2018; Tremblay, 2017)
Constructivism (Individuals learn construct mentor models)	Perceived Environment system (Perceived support, control, and expectations)	Family – Juveniles learn the best things in the real environment towards drug addiction.	(Allen, M. and Friston, 2018; Ekkekakis, P. and Zenko, 2016; Jacobson, 2016; Jayakrishnan, Mohamad, & Yusof, 2020; Lee, S.M., Conway, T.L., Frank, L.D., Saelens, B.E., Cain, K.L. and Sallis, 2017; Ramos-Díaz, E., Rodríguez-Fernández, A., Fernández-Zabala, A., Revuelta, L. and Zuazagoitia, 2016; Roda, C., Charreire, H., Feuillet, T., Mackenbach, J.D., Compennolle, S., Glonti, K., Ben Rebah, M., Bárdos, H., Rutter, H., McKee, M. and De Bourdeaudhuij, 2016)
Cognitivism (Describes everything that changes through social behavior)	Behavior system (Engaging in social behavior)	Society – Juveniles emphasis on social cognition of nature towards drug addiction.	(Greenwood, 2017; Hay, 2016; Mohamad, Jayakrishnan, & Nawi, 2020b; Protano, C., Manigrasso, M., Avino, P., Sernia, S. and Vitali, 2016; Ruuska, S., Kajava, S., Mughal, M., Zehner, N. and Mononen, 2016; Smith, 2017; Zemel, 2016)

Table 3 shows the factors affecting drug addiction among juveniles, which have been mapped with the theoretical concepts. We have described and identified the factors of drug addiction through utilizing critical thinking skills when reacting to situations of juveniles that emphasize suitable moves to make to consider youth's health and prosperity.

Thus, our prevention measures focus on the type of drug addiction among juveniles in the UAE. Therefore, we have designed a conceptual model of factors affecting the tendency towards drug addiction among juveniles in the UAE, as shown in Figure 1.

**Figure 1.** Conceptual Model of Factors Affecting the Tendency Towards Drug Addiction among Juveniles.

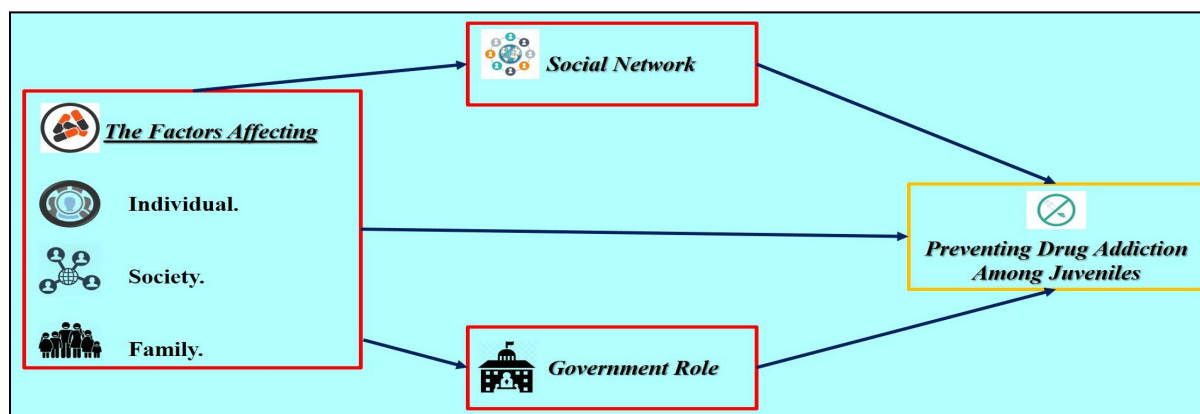


Figure 1 shows the conceptual model of factors affecting the tendency towards drug addiction among juveniles, where the drug addiction factors concerning juveniles that emphasis on three (3) factors as individual, society, and family. The social network influences the youths by providing information for online drug dealers. Government role in curbing drugs by

reducing illegal drugs in the market and enhance local understanding about tackling drug addiction. Therefore, preventing drug addiction among juveniles can be reduced and types of drugs in the illegal market can be identified and reduce the demand. Therefore, this study will contribute best practices and sharing evidence-based approaches in preventing drug addiction among juveniles in the UAE.

## CONCLUSION

Drug addiction is a chronic illness characterized by drug-using and utilization that is compulsive, which leads toward difficulty to control and despite harmful results. Juveniles who determinedly drug abuse often experience a variety of issues in their daily life. Thus, drug addiction can have both immediate and indirect consequences for criminal behavior and violence that creates a lower quality of life. Behavior can be forever changed and molded by crime, whether it be gauging the dangers of drug abuse. We must encounter drug abuse among youths before it destroys the young generation and society. Preventing early utilization of drugs may go far in decreasing these dangers and advising youths about the risks regarding drug addiction, thus counteracting methods to discover recovery help if necessary. Besides the information given the most effective way when youths need to proceed with help and drug prevention programs must include the family, community, and society in the prevention cycle. Therefore, this study focuses on developing a conceptual model of factors affecting the tendency towards drug addiction among juveniles, that relates to family, individual, and society.

## REFERENCES

1. AL-Imam, A., Santacroce, R., Roman-Urrestarazu, A., Chilcott, R., Bersani, G., Martinotti, G., & Corazza, O. (2017). Captagon: use and trade in the Middle East. *Human Psychopharmacology: Clinical and Experimental*, 32(3), e2548. <https://doi.org/10.1002/hup.2548>
2. Alblooshi, K. M. A. M., Abdullah, N., & Yunus, A. R. (2019). Drug addiction among juveniles in the digital era of UAE. *International Journal of Engineering and Advanced Technology*, 8(5), 547–553.
3. Allen, M. and Friston, K. J. (2018). From cognitivism to autopoiesis: towards a computational framework for the embodied mind. *Synthese*, 195(6), 2459–2482.
4. Almutawa, S. A. A., Mansor, N., & Zainudin, M. Z. (2020). Initiate integrable model for impede drug abuse in UAE. *Test Engineering and Management*, 83(March-April 2020), 11709–11719.
5. Angus, A., Peter, B., & Reid, S. (2016). Concepts of illicit drug quality among darknet market users: Purity, embodied experience, craft and chemical knowledge. *International Journal of Drug Policy*, 35, 42–49. <https://doi.org/10.1016/j.drugpo.2015.11.008>
6. Arafat, M.O.S.A.B., Ahmed, Z.A.H.A.A. and Arafat, O. S. A. M. A. (2017). Comparison between generic drugs and brand name drugs from bioequivalence and thermoequivalence prospective. *Int. J. Pharm. Pharm. Sci*, 9(1), 1–4.
7. Arslan, G. (2015). Psychological maltreatment, emotional and behavioral problems in adolescents: The mediating role of resilience and self-esteem. *Child Abuse & Neglect*, 52(1), 200–209. <https://doi.org/10.1016/j.chiabu.2015.09.010>
8. Bah, Y. M. (2018). Drug Abuse among Street Children. *Journal of Clinical Research In HIV AIDS And Prevention*, 3(3), 12–45. <https://doi.org/10.14302/issn.2324-7339/jcrhap-18-2291>
9. Baumert, A., Schmitt, M., Perugini, M., Johnson, W., Blum, G., Borkenau, P., Costantini, G., Denissen, J.J., Fleeson, W., Grafton, B. and Jayawickreme, E. (2017). Integrating personality structure, personality process, and personality development. *European Journal of Personality*, 31(5), 503–528.
10. C. W. M. Wilson. (2017). *The Pharmacological and Epidemiological Aspects of Adolescent Drug Dependence* (Proceeding). London: University of Dublin.
11. Costa, F.M., Jessor, R. and Donovan, J. E. (2017). Value on Health and Fitness in Adolescent Behavioral Health. In *Problem Behavior Theory and Adolescent Health*. Springer, Cham.
12. da Agra, C. (2017). The complex structures, processes and meanings of the drug/crime relationship. In *Drugs and crime deviant pathways*. Routledge.
13. Davey, G. (2017). Conditioning principles, behaviourism and behaviour therapy. In *Applications of conditioning theory*. Routledge.
14. Degenhardt, L., Stockings, E., Patton, G., Hall, W.D. and Lynskey, M. (2016). The increasing global health priority of substance use in young people. *The Lancet Psychiatry*, 3(3), 251–264.
15. DiClemente CC. (2018). *Addiction and change: How addictions develop and addicted people recover*. Guilford Publications.
16. Dietrich, F. and List, C. (2016). Mentalism versus behaviourism in economics: a philosophy-of-science perspective. *Economics & Philosophy*, 32(2), 249–281.
17. Ekkekakis, P. and Zenko, Z. (2016). Escape from cognitivism: Exercise as hedonic experience. In *Sport and exercise psychology research*. Academic Press.
18. Everitt, B. J., & Robbins, T. W. (2016). Drug Addiction : Updating Actions to Habits to Compulsions Ten Years On. *Annual Review Of Psychology*, 67(1), 23–50. <https://doi.org/10.1146/annurev-psych-122414-033457>
19. Greenwood, N. J. C. (2017). *A System and Method for Modelling System Behaviour*. Patent Application, 15(323), 199.
20. Hay, C. (2016). Good in a crisis: the ontological institutionalism of social constructivism. *New Political Economy*, 21(6), 520–535.
21. Hirschi, T. (2017). *Causes of Delinquency* (1st Editio). New York: Routledge. <https://doi.org/10.4324/9781315081649>
22. Hodder, R.K., Freund, M., Bowman, J., Wolfenden, L., Gillham, K., Dray, J. and Wiggers, J. (2016). Association between adolescent tobacco, alcohol and illicit drug use and individual and environmental resilience protective factors. *BMJ Open*, 6(11), 12–68.

23. Jacobson, H. (2016). Against Strong Cognitivism: An Argument from the Particularity of Love. *Philosophy and Phenomenological Research*, 92(3), 563–596.
24. Jayakrishnan, M., Mohamad, A. K., & Yusof, M. M. (2020). Strategic Information System for Decision Making in Railway Supply Chain Management. *International Journal of Advanced Trends in Computer Science and Engineering*, 9(3), 3988–3994. <https://doi.org/10.30534/ijatcse/2020/223932020>
25. Jessor, R. (2016). *The origins and development of problem behavior theory*. New York: Springer.
26. Johnston, L.D., O'Malley, P.M., Miech, R.A., Bachman, J.G. and Schulenberg, J. E. (2017). *Monitoring the Future National Survey Results on Drug Use, 1975-2016: Overview, Key Findings on Adolescent Drug Use*. Institute for Social Research.
27. Klein, A., & Golub, S. A. (2016). Family Rejection as a Predictor of Suicide Attempts and Substance Misuse Among Transgender and Gender Nonconforming Adults. *LGBT Health*, 3(3), 193–199. <https://doi.org/10.1089/lgbt.2015.0111>
28. Kudryavtsev, M.D., Kopylov, Y.A., Kuzmin, V.A., Ionova, O.M. and Yermakova, T. S. (2016). Personality oriented system of strengthening of students' physical, psychic and social-moral health.
29. Lee, S.M., Conway, T.L., Frank, L.D., Saelens, B.E., Cain, K.L. and Sallis, J. F. (2017). The relation of perceived and objective environment attributes to neighborhood satisfaction. *Environment and Behavior*, 49(2), 136–160.
30. Lyman, M. D. (2016). *Drugs in society: Causes, concepts, and control*. Routledge.
31. Mereish, E.H., Goldbach, J.T., Burgess, C. and DiBello, A. M. (2017). Sexual orientation, minority stress, social norms, and substance use among racially diverse adolescents. *Drug and Alcohol Dependence*, 17(8), 49–56.
32. Mohamad, A. K., Jayakrishnan, M., & Nawī, N. H. (2020a). Classification of Twitter Data by Sentiment Analysis in the Malay Language. *International Journal of Emerging Trends in Engineering Research*, 8(6), 2730–2738. <https://doi.org/10.30534/ijeter/2020/83862020>
33. Mohamad, A. K., Jayakrishnan, M., & Nawī, N. H. (2020b). Employ Twitter Data to Perform Sentiment Analysis in the Malay Language. *International Journal of Advanced Trends in Computer Science and Engineering*, 9(2), 1404–1412. <https://doi.org/10.30534/ijatcse/2020/76922020>
34. Nicholson, J. and Higgins, G. E. (2017). *Social structure social learning theory: Preventing crime and violence*. In *Preventing crime and violence*. Springer, Cham.
35. Papp, J., Campbell, C., Onifade, E., Anderson, V., Foster, D., Papp, J., ... Anderson, V. (2016). *Youth Drug Offenders: An Examination of Criminogenic Risk and Juvenile Recidivism Youth Drug Offenders: An Examination of Criminogenic Risk*. *Corrections: Policy, Practice and Research*, 4657(September), 1–26. <https://doi.org/10.1080/23774657.2016.1218804>
36. Parks, A. B. (2013). *The Effects of Family Structure on Juvenile Delinquency*. East Tennessee State University.
37. Pasquale, F. and Cashwell, G. (2018). Prediction, persuasion, and the jurisprudence of behaviourism. *University of Toronto Law Journal*, 68(1), 63–81.
38. Priester, M. A., Browne, T., Ph, D., Iachini, A., Ph, D., Clone, S., ... Ph, D. (2016). *Journal of Substance Abuse Treatment Treatment Access Barriers and Disparities Among Individuals with Co-Occurring Mental Health and Substance Use Disorders: An Integrative Literature Review*. *Journal of Substance Abuse Treatment*, 61(1), 47–59. <https://doi.org/10.1016/j.jsat.2015.09.006>
39. Protano, C., Manigrasso, M., Avino, P., Sernia, S. and Vitali, M. (2016). Second-hand smoke exposure generated by new electronic devices (IQOS® and e-cigs) and traditional cigarettes: submicron particle behaviour in human respiratory system. *Ann Ig*, 28(2), 12–109.
40. Ramos-Díaz, E., Rodríguez-Fernández, A., Fernández-Zabala, A., Revuelta, L. and Zuazagoitia, A. (2016). Adolescent students perceived social support, self-concept and school engagement. *Revista de Psicodidáctica*, 21(2).
41. Roda, C., Charreire, H., Feuillet, T., Mackenbach, J.D., Compernelle, S., Glonti, K., Ben Rebah, M., Bárdos, H., Rutter, H., McKee, M. and De Bourdeaudhuij, I. (2016). Mismatch between perceived and objectively measured environmental obesogenic features in European neighbourhoods. *Obesity Reviews*, 1(7), 31–41.
42. Rotter, J. . (2017). Some implications of a social learning theory for the practice of psychotherapy. *Foundations of Behavioral Therapy*, 1(2), 208–241.
43. Ruuska, S., Kajava, S., Mughal, M., Zehner, N. and Mononen, J. (2016). Validation of a pressure sensor-based system for measuring eating, rumination and drinking behaviour of dairy cattle. *Applied Animal Behaviour Science*, 17(4), 19–23.
44. Said, A. S. A., & Hussain, N. (2017). Adverse Drug Reaction Reporting Practices Among United Arab Emirates Pharmacists and Prescribers. *Hospital Pharmacy*, 52(5), 361–366. <https://doi.org/10.1177/0018578717715364>
45. Schimmenti, A., Passanisi, A., Caretti, V., La, L., Granieri, A., Iacolino, C., ... Billieux, J. (2017). Addictive Behaviors Traumatic experiences , alexithymia , and Internet addiction symptoms among late adolescents: A moderated mediation analysis. *Addictive Behaviors*, 64(1), 314–320. <https://doi.org/10.1016/j.addbeh.2015.11.002>
46. Smith, L. (2017). *Necessary knowledge: Piagetian perspectives on constructivism*. Routledge.
47. Tremblay, R. E. (2017). The prediction of delinquent behavior from childhood behavior: Personality theory revisited. In *Facts, frameworks, and forecasts*. Routledge.
48. Van Wormer, K. and Davis, D. R. (2016). *Addiction treatment*. Cengage Learning.
49. Van Wormer, K. (2017). *Human behavior and the social environment, micro level: Individuals and families*. Oxford University Press.
50. Walker, S. (2017). *Learning theory and behaviour modification*. Routledge.

51. Zemel, O. (2016). The impact of introspection and resilience on abstention and desistance from delinquent behavior among adolescents at risk. *European Journal of Criminology*, 13(1), 111–128.  
<https://doi.org/10.1177/1477370815587770>