Review Article

Parental Influence on Adolescent Substance Use: A Systematic Review Mafia Shahzadi^{*1}, Sana Hafeez, Mehwish Jabeen², Saba Ehsaan³ & Nazma Asif⁴

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Abstract

Adolescence is a time characterized by great physical and emotional changes that creates a lot of stress so individuals in this age and stage are prone to more negative behavior this is why substance use in early years can have more serious and damaging consequences. The support of people you have around determines your behavior specially the parenting style, that can be interpreted as universal style of parenting. The main focus of this review is to explore the effect of parenting styles on adolescent substance use. A systematic review of electronic databases EBSCO, Emerald, PubMed, Ovid, Science Direct, ProQuest, Taylor and Francis and Web of Science was conducted from database inception to February to 2023. Forty-eight unique records in total, were retrieved from the eight databases between 2000 to 2023. Overall, reviewed studies conducted in 11 countries: such as USA 19, Uk 05, China 02, Switzerland03, Span 02, Mauritius 01, Barazil 01, South Africa 03, America 02, Swedan 02Turkey 01, West Africa 01, Nigeria 01, Italy 01, Iran 01, Canada 01, Balkans 02. From the information in these studies, we can identify four basic parenting styles that were used to observe the connection between substance use in adolescence and parenting styles. This review showed that authoritarian, permissive and neglectful parenting styles all increase the chances of adolescents to use drugs while the authoritative parenting style was the only one that decreases the probability of substance use in adolescence. To highlight the importance of positive parenting style further studies are recommended with improved quality of the researches by focusing more on stakeholder engagement and expanding the degree of theory application as well as theory reporting.

Keywords: parent, adolescents, substance use, prevention, alcohol, systematic review

Introduction and Literature Review

Substance use is a global issue that causes a high mortality and morbidity rate (Harford et al., 2013). For instance, occasionally, many adolescents consume alcohol or other substances, and several individuals consume it frequently, which grounds medical and psychological

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problems and even deaths (WHO, 2019). Approximately 15.1 million people met the diagnostic criteria and increasing various mental health issues among individuals (National Survey on Drug Use and Health, 2018). In Asian countries, the consumption of illicit drugs is increasing, and drug prevalence is observed at 0.01% - 4.6% (Otto et al., 2006). In Pakistan, the prevalence of substances use is also high. For example, 6.2 million people in 2006 and 8.1 million in 2011, and last year, approximately 6.7% of adolescents used illicit drugs (Burns, 2014). Illegal substances commonly used by adolescent who is a major public health concern (Gignac at el, 2005; Johnston at el, 2004). Substance use in adolescence has considerably increased lately (Centers for Disease Control and Prevention, 2000) and lending more urgency to address the problem. Adolescence is the age characterized by increased vulnerability to stress this is why it is a crucial time of life. Moreover substance use in early age often leads to substance abuse (Ellickson at el, 2004). A typical pattern has been observed in adolescence drug use in which illegal drugs, for instance alcohol and tobacco precedes cannabis use, commonly substance *marijuana* (Johnston et al., 2004) and other illicit drugs (Degenhardt et al, 2010).

Research identifies substance use has a deep connection with the perceptions of parental warmth and control/ parenting style. Family is the first and most crucial agent that affects the way adolescents socialize (Steinberg, 2001). Since parents are the backbone of a family so they have the major role to play when it comes to adolescent's substance use (Allen et al, 2003). Stronger connection between adolescents and their parents decreases the risk of substance use (King et al., 2002).

Numerous studies highlighted strong association between parenting styles and smoking behavior in Adolescents (Adamczyk-Robinette et al., 2002). Furthermore, researches also through light on that the type and quality of the bond the parents have with their children is a great factor to count while studying substance use among adolescents (Horn et al, 2000). Despite that studies have found out the importance of parenting styles while dealing with adolescence substance use still not enough focus has been given to this important aspect to understand it in depth (Simons-Morton & Chen, 2004).

Baumrind has identified four of these parenting styles in majority of the households : in *authoritative parenting, parents have a good balance of exacting attitu*de and sensitive attitude towards child's feelings and needs; in *authoritarian parenting*, parents show dictating behavior for keeping children in place; in *permissive parenting*, parents show accepting and compensatory behavior, with hardly any dictation on the children (Bush & Peterson, 2007) and in neglectful parenting, parents show low demanding and low responsive behavior towards their children (Santrock, 2005) A recent review find that authoritative and neglectful parenting has positive and negative respectively correlation with substance use in adolescence (Becoña et al., 2012). Clearly, it is mentioned in number of studies that authoritative parenting decreases the chances of alcohol, tobacco and illegal drugs use in adolescents (Cablova et al., 2015). Parents with authoritarian parenting style report more drug use in their children than those who use authoritative parenting style is linked with increased chances of substances, while others demonstrate the opposite is true (Shakya et al., 2012). *In conclusion*, the family is a primary component to three main types of substances, tobacco,

alcohol, and marijuana, that set the ball rolling towards even more dangerous substance use for instance cocaine.

Rationale of the study

The present study designed a comprehensive systematic review on relationship between parenting styles and substance abuse among adolescents. The current study synthesizes updates and develops: (1) adopting a comprehensive description of parenting styles and aim to discuss types of parenting styles (2) focusing on the relationship between parenting styles and substance abuse (3) containing studies, low, middle, and high-income countries. The prime motive was to measure the effectiveness of parenting in substance abuse. The secondary goal was to explore the effects of parenting and substance abuse by comparing the different levels of country income, age, setting, and study quality.

Materials and Methods

Scope of Study

In this study, we included the empirical work that has been published in the last 20 years. We did not focus on the studies published before 2000. Further, we searched the data from different databases including; PubMed, EBSCO, Emerald, ProQuest, Ovid, ScienceDirect, Taylor & Francis, Scopus, MEDLINE, EMBASE, Web of Science, PsycINFO, Google Scholar, Clinical Trials.gov, and OvidSP. The published literature from 2000 to 2023 was included. The following limits were applied in the search process: English language, human and adolescents' age. The search update was carried out from inception to March to 2023.

Search Terminology

The keywords or search terms were: "Parenting Styles" OR " parental Guidelines*" OR " parent Practices*" AND "Substance use disorders* OR "SUDs" * OR "Chemical addiction" * OR " Substance use and abuse.

Inclusion and Exclusion Criteria

The current review included only those studies which met the following criteria: experimental studies and RCT design; provided data relating to individuals suffering from substances; published in a peer review journal; both qualitative and quantitative research were included; articles published in English; participants with SUD and with psychiatric comorbidities and participants included with young age. in contrast, some studies were excluded from the systematic review; not have complete access; participants suffering SUD and involved in illegal activities; having HIV/AIDS along with SUD; adult were excluded and the sample comprising non-humans and people with different sexual orientations were not included.

Selection Process

The selection process started with the search process, and references were transferred to EndNote and then into excel. Titles and abstracts were screened out, and complete articles were evaluated for eligibility. Inclusion and exclusion criteria were followed by completing these steps. See Fig 1, which illuminates the selection process.

Table 1

Search terms used to search for articles in eight databases

Web of Science	Parenting Practices OR Submissive Parenting OR Parenting techniques OR			
	Parent-child interaction OR Parental encouragement OR Parental supervision			
	AND Young People* OR Males OR Females AND Alcohol-related consequences			
	AND Substance Abuse* OR Drugs Consumption or Intake			
Frontiers in	Parental Behavior OR Father OR Mother Support OR Father OR Mother Control			
	OR Father or Mother Caring OR Father OR Mother Warmth AND Adolescents			
	OR Youth OR Adults OR Young* OR College Students OR University Students			
	AND Addiction OR Drug Use OR Abuse OR Substance Abuse* OR Users			
Science Direct	Parenting Styles* OR Parental rejection OR Parent-child Relationship OR			
	Parental Brought up Styles OR Maternal control AND Younger OR Teenagers			

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	OR Youngsters OR Youth OR Boys OR Girls OR Young People* AND alcohol		
	usage OR Drug involvement		
PubMed	Parenting Styles* OR Parental warmth OR Effective Parenting OR Parenting		
	pattern OR Parental closeness OR Neglectful parenting AND Alcohol misuse OR		
	Alcohol addiction AND Drug misuse AND Adolescents OR Adults OR		
	Youngsters OR Youth		
NIH	Parental monitoring OR Parental style OR Uninvolved parenting OR Parental		
	engagement AND Smoking OR Smokers AND Elementary Students OR College		
	Students OR Inter Students OR Post Graduates AND Increased Risk AND		
	Substance-related consequences OR Results		
Taylor &	Positive Parenting OR Negative Parenting OR Effective Parenting Style* OR		
Francis			
F rancis	Neglectful Parents OR Parenting behaviors AND Drug Consumption OR		
	Drinking OR Cocaine OR Smoking AND Adults Or Youngsters OR Boys/Girls		
	OR Young People*		
MDPI	Children Perception of Parenting OR Positive parenting factors OR Negative		
	parenting factors OR Parental Conflicts OR Parental understanding AND College		
	Students OR Adolescents OR Drug misuser OR Abusers AND Substance Abuse*		
	OR misuse OR Drug Intake		
Research Gate	Parenting Style* OR Parental Style OR Authoritative Parents OR Authoritarian		
	Parents OR Supportive Parents OR Commanding Parents OR Cooperative Parents		
	OR Demanding Parents OR Caring Parents OR Protective Parents OR Controlling		
	Parents OR permissive Parents AND Addiction OR Substance-Use OR Substance		
	Abuse* OR Drug Use OR Drug Abusers AND Adolescents		

Data Extraction

The five reviewers accessed and screened study titles and abstracts, and then full-text articles were reviewed. All the reviewers checked the articles' eligibility and suitability with the systematic review, and disagreements among the reviewers were resolved through round table discussion. To evaluate the quality of the manuscript, we used the adapted version of "Cochrane Collaboration risk of the bias assessment criteria". By using the manual, all studies were coded, and the following data was removed (where available) from each search: gender, sample size/description, age of participants, and country of study, and assessment of patients, study type/design, and problem of SUD problem: mild, moderate and high. The researcher coded the *four parenting styles;* permissive, authoritative, neglectful and authoritarian. In this review, we considered these styles and the rest of the articles extracted in this review. On the other hand, studies that based on adolescents and substance abuse (non-clinical sample) were included, and the rest of the articles were also excluded. Finally, the research only considered the relation of parenting styles and substance abuse among adolescents this review.

Quality Assessment

Methodological assessment of studies was evaluated by following the checklist of the reported studies. This checklist was also used to assess any threat to the studies' validity (internal & external). In this review, specific criteria were used, such as; descriptive issues, study population, data collection, generalizability, study completion, data analysis, results from interpretation, treatment conditions, and outcomes.

Information Analysis

Regarding parenting styles and substance use, the studies were considered only based on a non-clinical sample. After examining it, the result of each study was screened separately. The studies were future arranged according to the study references (published years) in all studies and to the relationship among constructs in all studies; the research searched for correlation of parenting styles as mediation, and moderation leading role towards use of substance among adolescents. Treatment and intervention-based studies were excluded in this review.

Figure 1.

The study selection process preferred reporting items for systematic reviews and meta-
analysis(PRISMA)FlowDiagram



Result

In this systematic review, the search identified N=6837 research items. 2549 out of 6837 search items were excluded due to an eligibility issue. 519 search items were excluded for various reasons, and finally, 48 manuscripts sustain the eligibility criteria (Table 1). The full PRISMA flow chart is shown in Figure 1 and in table 2. This is consistent with our finding that few parenting styles lead towards the use of substances among adolescents. **Study Characteristics**

Overall, reviewed studies conducted in 11 countries such as USA 19, Uk 05, China 02, Switzerland03, Span 02, Mauritius 01, Barazil 01, South Africa 03, America 02, Swedan 02

Turkey 01, West Africa 01, Nigeria 01, Italy 01, Iran 01, Canada 01, Balkans 02 are included in this systematic review on parenting styles and substance abuse among adolescents.

Table 2	
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Characteristic of the Studies describing the relationship of parenting styles and substance abuse

Sr.	Study Reference	Study Type/Design	Sample Characteristics	Conclusion
No				
(1)	Liu et al., 2022	Correlational (exploratory factor analysis, Confirmatory factor analysis)	Adolescent Drug Abusers N = 363 and Non- drug Abusers N = 229 Drug Abusers: M = 28.5 , SD = 3.93	Strict parenting predicts drug abuse
(2)	Kokotovic et al., 2022	Correlational, Cross-sectional Survey	Adolescents N= 839 $M_{age} = 16.43$, SD= 1.28	Strict parenting (maternal) impact on cannabis use
(3)	Meisel, 2022	Qualitative: CAID	Parent-adolescent dyads N= 61 M_{age} adolescent= 14.02 M_{age} parent= 46.40	Negative association between parental warmth and substance use
(4)	Ramsewak et al., 2022	Synthesis of Literature Review	-6- I	Early childhood parenting and disorders have strong link.
(5)	Meisel & Colder, 2021	Longitudinal Study	Adolescent N=387	Strong relation between protective interpersonal style and parenting styles
(6)	Baudat et al., 2020	Longitudinal Study	Adolescence N=190 BL self-report AUD: M=2.33, SD=2.31 FU1 self-report AUD: M=2.53, SD=2.37 FU2 self-report AUD: M=2.39, SD=2.36	Young men and AUD severity profiles are significant
(7)	Benchaya et al., 2019	Prospective Study + Correlational	Adolescent N=99 M _{age} 17.05, SD=1.51	Parental styles (avoidant and indulgent) and adolescent behavior are related.
(8)	Shek et al., 2019	Longitudinal Study	Early Adolescents First Wave N= 3,328 Second Wave N= 2,905 Third Wave N= 2,860 Final Sample N= 2,669 $M_{age} = 12.56$, SD=0.71	Parental influence on adolescent substance use is predicted.
(9)	Mak & Iacovou, 2019	Longitudinal Study	Adolescent N=2954	Association between parenting styles and substance use risks is established.

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(10)	Pena et al, 2018	Cross-sectional, Correlational	Middle-school Youth N= 3,172	Parenting and substance use associations
			M_{age} = 12.8, SD= 0.95	
(11)	Muchiri & Dos Santos, 2018	Exploratory Study	Adolescents with Substance Uses N=54	Parental monitoring and adolescent alcohol use
(12)	Luk et al., 2017	Community-Based Prospective	Youth: API N=97, EA= 255	Positive parenting and lower level of
~ /	,	Cohort Study	$M_{age} = 11.9, SD=0.40$	substance use risk
(13)	Brewer, 2017	Correlational, Cross-sectional	Adolescent Boys N=255	Positive parenting and substance use
(-)	- · · · · · · · ·	Survey	M=16.73, SD=0.738	among at-risk adolescents
(14)	Moss, 2017	Cross-sectional, Correlational	College student participants $N = 290$	Parental monitoring and alcohol use
(1.)			$M_{age} = 19.16$, SD=1.22	consequences
(15)	Russell & Gordon,	Longitudinal Study	Adolescents $N=12,139$	Community engagement moderate's
(10)	2017	Longitudina Stady		substance use.
(16)	_ • - ·	longitudinal Study	Baseline Adolescents N=1268	Poor outcomes linked to neglectful
(10)	Derge et al., 2010	Tongitudinar Study	Follow-up Adolescents N=1080	parenting.
			Tonow up radiescents IV=1000	parenting.
(17)	Loredo et al.,	Longitudinal Study	Adolescents N=346	Neglectful parenting increases alcohol
()	2016	g	First Wave: $M_{age} = 12.89$, SD= 0.54	disorder risk.
	2010		Second Wave: $M_{age} = 14.92$, SD= 0.50	
(18)	Fleming et al.,	Longitudinal Study	Early Adolescents and Parents N=321	Positive family management reduces
(10)	2016	Longitudina Stady	Families $M_{Parent} = 4.02$, $SD = 0.45$	substance use.
	2010		$M_{child} = 3.69, SD = 0.58$	substance use.
			$M_{child} = 5.07, DD = 0.50$	
(19)	McLaughlin et al.,	Participatory Focus Group Study	Adolescence N=62. Focus Group N=9 Post-	Attachment and communication protect
()	2016		primary schools	against substance use.
			$M_{age} = 15$	
(20)	Cablova et al.,	Correlational Study, Cross-	Children and Adolescents Students N= 1255	Parental control and warmth impact
()	2016	sectional Survey	$M_{age} = 14.7$	alcohol use.
(21)		Longitudinal	Adolescent N=1268	Family functioning styles affect addiction
(=1)	20180 00 000, 2010	2011910001111		risks.
(22)	Kenney et al,2015	Correlational Study, Cross-	Students N=289; $M_{age} = 19.01$	Permissive parenting increases substance
()	1101110 9 00 01,2010	sectional Survey		use risk.
(23)	Matejevic,	Correlational, Cross-Sectional	Adolescents of both genders, aged 14 to 24	Authoritative parenting reduces alcohol
(23)	Jovanovic &	conclutional, cross sectional	N=100	use.
	Lazarevic, 2014		11-100	ub0.
	Lazartvic, 2014			

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(2.1)	D 0011	<u> </u>		
(24)	Posey, 2014	Correlational, Cross-Sectional	Delinquent Youth N=181	Parenting styles influence substance
(25)	A. (1 0014		M_{age} =14.64, M= 0.59, SD= 0.493	abuse risks.
(25)	Atar et al., 2014	Matched case-control study	Adolescents N=100	Parental engagement protects against
			Case group n=50	risky behaviors.
			$M_{age} = 16.08, SD = 0.98$	
			Control group n=50	
$(\mathbf{D}_{\mathbf{C}})$	Chining 2014		M _{age} = 15.90, SD=0.95	
(26)	Chirisa, 2014	Correlational, Cross-sectional	Secondary School Pupils N= 20	Parenting styles influence substance use
		Survey	Authoritarian Average= 27.4	attitudes.
			Authoritative Average= 3.7	
(07)	C1 1 2014		Permissive Average= 13.8	
(27)	Glozah, 2014	Correlational Study, Cross-	SHS Students $N=316$	Boys report higher alcohol use.
		sectional Design	Male: $M = 32.35$, $SD = 4.21$	
(20)	Charrens et al	Completional Study, Cross	Female: $M = 32.02$, $SD=3.64$	Anthonitation connecting and soon on aling
(28)	Gboyega et al., 2014	Correlational Study, Cross-	Undergraduates $N=452$	Authoritative parenting reduces smoking risk.
	2014	sectional Survey	less than 20 years: $M_{age} = 28.71$, SD=8.73	IISK.
			aged 20 to 24: $M_{age} = 27.22$, SD=8.88	
			aged 25 years and above: $M_{age} = 22.93$, SD=7.61	
			SD-7:01	
(29)	Stafstrom, 2014	Correlational Study, Cross-	SES Students N=4828	Parenting styles interact with school
		sectional Survey		factors.
(30)	Laghi et al., 2013	Correlational, Cross-Sectional	N=1500	Positive parenting factors protect against
	-		High school students=500	substance use.
			$M_{age} = 17.02$, SD= 0.33	
			Parents=1000	
			Father: $M_{age} = 51.33$, SD= 0.44	
			Mother: $M_{age} = 48.33$, SD= 1.33	
(31)	Becona et al.,	Correlational, Cross-Sectional	Secondary School Children $N = 1,428$	Authoritative parenting lowers substance
	2013		M = 14.73, $SD = 1.81$	use risk.
(32)	Botchkovar&	Correlational Study, Cross-	Russian Adults N=440	Authoritative parenting buffers peer
. ,	Broidy, 2013	sectional Survey	$M_{age} = 46.86$, SD= 17.72	pressure.
(33)	Abar, 2012	Latent Profile Analysis (LPA)	First-year University Students N=1,153	Parental support buffers against drug use.
		-	$M_{age} = 17.9, SD=0.39$	

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(34)	Shakya et al., 2012	Longitudinal Survey	Adolescents: Respondents N= 1386, Friends N=1404	Effective parenting reduces alcohol misuse.
			Respondents: $M_{age} = 16.68$, SD=1.48	
(35)	Wen & Shenassa,	Correlational Study, Cross-	Pairs of adolescents and their parents N=	Community engagement moderates
	2012	sectional Survey	1,213	substance use.
			$M_{age} = 14.9$	
(36)	Javdan et al, 2011	Correlational, Cross-sectional	High-School Students N=265	Poor outcomes linked to neglectful
		Survey	SA M= 3.81, SD= 1.34	parenting.
			APS M= 5.15, SD= 1.39	
			AUPS M= 4.73, SD= 1.87	
			PPS M= 5.13, SD= 1.07	
(37)	Cleveland et al.,	Cross-sectional, Correlational	Students from 6 th ,8 th ,10 th ,12 th grades N=	Neglectful parenting increases alcohol
	2010		48,641	disorder risk.
			Family Protection: 6 th Grade (M=0.43,	
			SD=0.77), 8 th Grade (M=0.07, SD=0.83), 10 th	
			Grade (M=-0.22, SD=0.83), 12 th Grade (M=-	
			0.27, SD=0.77),	
(38)	Wong, 2008	Correlational, Cross-Sectional	Adolescents N= 171	Positive family management reduces
			M_{age} = 14.05, SD= 1.46	substance use.
39)	Pillay, 2008	Qualitative Research	Adolescents N=60	Attachment and communication protect
		(exploratory)	Focus Group N=8	against substance use.
(40)	Montgomery et	Correlation, Cross-sectional	University Students	Parental control and warmth impact
	al., 2008	Survey	Ecstasy-polydrug users N=128, M _{age} = 21.70, SD=1.94	alcohol use.
			Cannabis-only users N=51, $M_{age} = 20.92$,	
			SD= 1.78	
			Nonusers N=54, M _{age} = 21.00, SD=1.79	
(41)	Adam et al, 2008	Correlational Study, Cross-	Hispanic Adolescent	Family functioning styles affect addiction
. /		sectional Survey	N=840	risks.
			$M_{age} = 16.1, SD=1.1$	
(42)	Pires, & Jenkins, 2007	Longitudinal Survey	Children and Youth N=2194	Permissive parenting increases substance use risk.

(43)	Niemeier, 2006	Correlational Study, Cross-	Adolescents N=309	Authoritative parenting reduces alcohol
		sectional Survey	$M_{age} = 13.94, SD = .72$	use.
(44)	Dorius et al, 2004	Correlational, Cross-sectional Survey	Adolescents N= 4,987	Parenting styles influence substance abuse risks.
(45)	King & Chassin,	Longitudinal Study	Alcoholics Group N=175	Parental engagement protects against
	2004	6	Matched Control Group N=190	risky behaviors.
			Adolescents N=454	5
			M = 12.7, SD = 1.45	
(46)	O'Byrne et al.,	Correlational Study	Adolescents N=182	Parenting styles influence substance use
	2002	-	$M_{age} = 15.1$	attitudes.
(47)	Raboteg-Saric et	Correlational Study, Cross-	Young Adolescent N=287	Boys report higher alcohol use.
	al., 2001	sectional Survey	M _{age} =12.6	
(48)	Barnes et al., 2000	Growth-curve Longitudinal	Adolescents N= 506	Authoritative parenting reduces smoking
		Analysis	Six waves of data were analyzed, based on interviews	risk.

Note: Mage=Mean Age, SD= Standard Deviation,

The above mentioned table consists of four basic parenting styles have considered: these are authoritative parenting, authoritarian parenting, indulgent parenting and neglectful parenting styles. These parenting styles also divided into sub categories according to their characteristics like parental warmth or trust, control, supervision or monitoring, support or encouragement, care, protection or over protection, strictness, affection, involvement, autonomy or openness, punishment, and rejection. The systematic review revealed that authoritative parenting style has negative, whereas, indulgent, neglectful and authoritarian parenting styles have positive and significant relationship with Substance Intake risk. Additionally, more positive parenting styles tend to have lower risks factors and more negative parenting styles tend to have more risks factors for any kind of substance use among adolescents.

Discussion

The objective of this systematic review was twofold. *First*, this study aimed to identify how parenting styles and substance use disorder in early age are interconnected. Teenagers are highly vulnerable population and substance use is a common problem (Smith & Hall, 2008). One of the most crucial areas of adolescence drug use to emphasis upon is early substance use because adolescence is the age when individuals are more likely to engage in hazardous behaviors such as drunk driving and substance use in group settings (Lohaus et al., 2008). Moreover Russell and Gordon (2017) had brought up in their research that adolescent substance use is linked with high probability of SUD in later years of life. As Shek et al. (2019) mentioned in their study that parenting style has been deeply related to a multitude of psychological outcomes in adolescents, along with academic success, problem drinking and drug use. This statement was further supported by Gallarin and Alonso-Arbiol, (2012) that parenting, which a child receives is highly associated with their personality, which in turn influences their decision on drugs. So the parenting style is the key factor in substance use.

Secondly, the plan of this study primarily was to highlight, that parenting styles have a big role in prevention or facilitation of substance use in early years of a person's life. SUD, that too in early age drastically affect all areas of a child's life weather its biology, psychology or sociology. Most studies incorporated in this systematic review used the classification in accord with Baumrind (1967). The four basic parenting styles were studied in relation to substance use among adolescents in numerous studies (Bahr & Hoffmann, 2010; Garcıa & Gracia, 2009; Patock- Peckham & Morgan-Lopez, 2007).

Effects of Parenting Styles

For many years, parenting practices or styles have been investigated and it has been concluded that a positive relationship between parenting practices or techniques and development of substances among adolescences (Dunkley & Blankstein, 2007). Another research's findings highlights that authoritative parenting has a positive effect on one's psychological health (Bush et al., 2002). In contrast, another study supported that authoritarian parenting style increases the chances of depression, anxiety and stress. This finding is constant with evidence that the inconsistence ways of teaching disciplined by parents and lack of adequate monitoring can lead to problematic behavior (Stice & Barrera, 2011)

Types of Parenting Style and Substance Use

On the current systematic review, it has been concluded that many parenting styles lead to numerous issues, especially Substance abuse. There is only one parenting style that doesn't affect one individual's physical and psychological health.

Authoritative Parenting Style and Substance Use

This current systemic review has concluded that only one parenting style positively affects psychological health, and that is the "*Authoritative Parenting Style*." Research supported that the authoritative parenting style shows a high level of support, and it's also a very effective style to treat their children's negative emotions in warm ways (Gittins & Hunt, 2019). In addition, a study supported that wellbeing outcome brought up by only authoritative parenting styles that decrease the levels of negative emotion and behaviors (Shahar, 2004).

Authoritarian, Permissive and Uninvolved Parenting Style leads to Self-criticism

In this review, studies examined all four types of parenting such as authoritative, authoritarian, permissive and uninvolved parenting. In most of the researches that this review consists of cross-sectional research design was used and few researches used longitudinal one. There are numerous researches which showed that all these parenting styles make one's felt unhappy (Bleys et al., 2016). Research showed that the authoritarian parental style have a negative effect on adolescents and make them more likely to use substances (Aguilar et al.,

2004; Garcı'a & Gracia, 2009), in comparison to authoritative parents. Last but not least, the parental style that has highest level of association with substance use in adolescence is neglectful parenting style as these parents may not be able to keep tabs on their children and may not be able to help them when they need (Garcı'a & Gracia, 2009; Rothrauff et al., 2009),

Shortly, the results of studies under this analysis explains that healthy emotional bonding between the parents and the child and reasonable parental involvement and monitoring in authoritative parenting style, serves as a preventive measure for substance use among adolescents (Adalbjarnardottir & Hafsteinsson, 2001; Bahr & Hoffmann, 2010; Barnes et al., 2000; Burk et al., 2011; Cohen & Rice, 1997; Patock-Peckham et al., 2001; Piko & Bala'zs, 2011).

The style of parenting that a parent has, has a significant impact on adolescent substance use, however not all parenting style have similar impact on it (Abikoye & Adetifa, 2011). Four main parenting styles were addressed in this study that are authoritative (protective) parenting style, authoritarian parenting style, permissive (indulgent) and neglectful (uninvolved) parenting style. The authoritative parenting style is the only one that assured negative association with SUD, especially in early years of life.

Authoritative parenting is a high level of communication, responsiveness and autonomy giving to adolescents (Benchaya et al., 2011) and less likely to get indulged in substance abuse. This review is supported by the study done by Gboyega et al. (2014) in which it is identified that authoritative parenting style teaches the children to take charge of their actions and children feel a sense of connectedness with parents so they have better self-esteem, stronger relationship with parents and better mental health which minimizes the likelihood of substance use. Similarly, another study by Shakaya et al. (2012) authoritative parents tends to have children with fewer mental health problems and less involvement in criminal acts. On the other hand, Loredo et al. (2016) stated that authoritarian parenting style is little communication, and high expectations for children. Another research by Javdan et al. (2011) has revealed that authoritarian parenting can result into high probability of substance use in adolescents, by the reason of, children who receive authoritarian parenting develop the feeling of insecurity and fear, following their inclination towards control and reassurance. Therefore, adolescents who grow up in authoritarian households are more likely to use drugs and alcohol in order to selfmedicate. This aspect is further supported by another study by Abikoye and Adetifa (2012) which highlights that authoritarian parenting leads to increased stress levels, and feeling of isolation, that can increase the chances of drug use to deal with these intense negative feelings.

On the other hand, permissive parenting has been linked to an increase in substance use in adolescents. The study by Glozah (2014) found that adolescents who were grown up in an environment where there was little or no discipline had more inclination towards substance use, that too at an earlier age and more harmful substances. Added to that, a recent study published in the journal JAMA Psychiatry concluded that adolescents who received permissive parenting were more likely to use alcohol, marijuana, and other illicit substances (Shakya et al., 2012).

Last but not least, Pires and Jenkins (2007) disclose that Adolescents who are raised with neglectful parenting style has poor financial security, lack of ability to cope with everyday problems and difficulty in socialization. These children are more likely to find a source of comfort in substance use. Parallel to this finding, Abikoye and Adetifa (2011) found that parental neglect was a significant predictor of early onset substance use.

Conclusion

The basic objective of this systematic review was to look over the findings of the latest research studies that examine correlations between parenting styles and substance use among adolescents. The unique contribution of this article lies in the critical assessment of the original studies and the interpretation of their results regarding parenting styles. It can be concluded

that while there is some evidence of the Protective effect of an authoritative parenting style, there are many other individual, social, and environmental factors which can influence the initiation of substance use among adolescents.

Future Recommendation

Future research focused studies involving both adolescents and parents. Last but not least, the important role of parents should be reflected in national primary prevention strategies and family-based prevention and intervention programs.

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