



Parenting Styles and Aggression Among Young Adolescents: A Systematic Review of Literature

Hamid Masud^{1,2} · Muhammad Shakil Ahmad³ · Ki Woong Cho⁴ · Zainab Fakhr⁵

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Abstract

There is ample research on aggression amongst children and adolescents that highlights several antecedents of aggression. While researchers have remarked on the relationship between parenting styles and aggression in children, there are few studies that integrate and systemize the available studies on parenting styles and aggression. The present review is an attempt to fill this gap. For this review, relevant studies were first searched, then coded and classified. As a result of thorough review, 34 relevant studies were identified. The review shows that parenting styles have a direct impact on aggression in children. *Authoritative* parenting styles play a positive role in psychological behavior in children while *authoritarian* and *permissive* parenting styles result in aggressive and negative behaviors in children. The current study also suggests that there is room to conduct studies on this topic in developing countries. Future research should be undertaken in developing and underdeveloped countries and should focus on mixed modes of research and examine the direct influence of parenting styles on aggressive behavior in children in different cultural contexts.

Keywords Aggression · Child mental health · Aggressive behavior · Family support · Systematic literature review

Introduction

During the last few decades, researchers in the field of aggression have devoted their attention to relational, social, and indirect aggression (Underwood et al. 2009). For these types of aggression, the term relational aggression is used here to distinguish it from physical aggression. It is conceptually recognized as the type of aggression which usually

damages relationships with others. Freud (1937) stated that aggression is a reaction to a varying level of conflicts of interest. It is observed that aggressive children face psychological disturbance. It is a serious mental health issue which is faced by both Western and Eastern countries (McNamara et al. 2010), and in many cases, once it is identified in childhood, it is harmful for the child's psychological growth (Huesmann et al. 2009). Such children have additional behavioral problems that increase in intensity with the passage of time (Dodge et al. 2006). During adulthood, these problems then lead towards behavioral disorders, sometimes resulting in criminal behavior (Huesmann et al. 2009).

The literature on aggression has identified various antecedents. Among them, biological and psychological factors are of greater interest for researchers, who have found family factors as of paramount importance as they directly and indirectly impact on aggressive behavior (Raine 2002). Parenting style is one of the most dominant factors which directly and indirectly influence psychological growth of children (Crick et al. 1999). Studies examining parenting styles and aggression have shown that the way parents interact with their children can have both positive and negative results (Reed et al. 2008). Research on child learning and behavior has shown that differences in behaviors in

✉ Hamid Masud
hamidmasud86@gmail.com

✉ Muhammad Shakil Ahmad
onlyshakil@gmail.com

¹ COMSATS University Islamabad (Virtual Campus), 166, Street 9, I-10/3, Islamabad, Pakistan

² Universiti Sultan Zainal Abidin, Gong Badak, 21300 Kuala Terengganu, Terengganu, Malaysia

³ Department of Management Sciences, COMSATS University Islamabad, Attock Campus, Attock 43600, Pakistan

⁴ College of Political Science and Economics, Research Professor/Postdoctoral Researcher, Korea University, 145, Anam-Ro, Seongbuk-gu, Seoul 02841, South Korea

⁵ Guildhall School of Business and Law, London Metropolitan University, London, UK

children occur due to different parenting styles (Collins and Laursen 1999). The role of parenting in child aggression has even greater impact as child behavior is shaped by the parenting behavior. This fact has been supported by social learning theory (Bandura 1973). According to this theory, people learn from others by observing their actions. In the first stage, people observe the actions which they mentally rehearse later, keeping in mind the ultimate consequences of adopting such behaviors. Later on, they adopt such actions, implementing them in their daily lives. It is equally possible that there may be no change in behavior even after observing actions of other people. Behavioral adjustment and social competence of children is based on understanding their needs and parents limit-setting behavior (Baumrind 1991). This phenomenon can be better explained with the help of Baumrind's parenting style theory (1971). According to the parenting styles theory, there are three different types of parenting behavior which have direct influence on the psychological growth of children which include *authoritative*, *authoritarian* and *permissive* parenting styles. Each of these parenting styles is directly and indirectly associated with psychological growth of children and thus on aggressive behavior but an *authoritarian* parenting style is particularly linked with aggression and aggressive behavior in children and adolescents. Since aggression can be harmful for both perpetrator and victim, the current review will integrate the studies that analyze the relationship between parenting styles and aggression. Therefore, the goal of the current review is to synthesize and integrate the studies on parenting styles and aggression in order to identify the main methodological factors associated with this relationship.

Research shows that parenting style is the combination of the different sets of parenting behaviors that contribute to competency, child development, or psychopathology (McKee et al. 2008). Child modeling behavior and emotional control are affected by these parenting styles. Also, parenting styles affect the behavioral development of children (Lorber and Egeland 2011). Positive and negative behavior in children is the result of these parenting styles. Each parenting style shapes the behavioral adjustment of children (Romano et al. 2005). Keeping in view the importance of parenting styles in the psychological growth of the child, the current review is an attempt to synthesize and integrate past studies in order to examine the relationship between parenting styles and aggressive behavior of children. For this purpose, 34 relevant studies have been analyzed to examine the relationship. Detailed descriptions of these studies are given in the upcoming sections. The review proceeds with the brief introduction of parenting styles and their relationships to aggression in children. In Sect. 2, a brief overview of the methodology is given. Finally, the review ends with discussion and practical implications.

A Brief Analysis of Parenting Styles

Three parenting styles, *authoritative*, *authoritarian*, and *permissive* were derived from the classification of Baumrind's theory ((1971)). According to Baumrind (1971),

1. Authoritative parents are supportive in nature. They lay down guiding principles and try to maintain a balance in affection and discipline.
2. Authoritarian parenting represents traditional harsh parenting in which children is required to obey the instructions of their parents. There is also the concept of punishment associated with authoritarian parenting.
3. Permissive parents leave their children free to have their own preferences. Such parents do not restrict the social life of children and encourage them to plan at their convenience.

Parenting styles result in behavioral and psychological adjustments of children. These behavioral and psychological characteristics include: academic achievement (Lamborn and Dornbusch 1991), self-reliance, social competence (Steinberg 1990), academic achievement (Steinberg et al. 1989), substance use (Baumrind 1991), peer group selection (Brown et al. 1993) and adolescent drinking and delinquency (Barnes and Farrell 1992).

The parenting styles of mothers are associated with behavioral strategies at school and children's cognitive control (Tiina et al. 1998). In addition, it was found that children showed more determination in classroom and were less vulnerable where mother authoritarian behavior was observed. Parents who raise their children with care and give them proper time as well as facilitate them have a stronger effect on the development of children (Baumrind 1971). Thus it can be concluded that parenting styles, especially the authoritarian parenting style, have a direct impact on the aggression of adolescents.

Objectives of the Study

Following are the objectives of this paper:

- To identify studies related to parenting styles and aggression
- To classify and code studies/articles
- To summarize the contribution of each article
- To highlight the strengths and weaknesses of available literature
- To provide a research agenda on parenting styles and aggression for the future

Research Question

- How effective are parenting styles in reducing aggression among adolescents?
 What is the impact of parenting styles on aggression of children?
 Which parenting style contributes more towards aggression among adolescents?

Behavioral disorder problems are more prominent in children whose parents practice harsh rules as compared to those whose parents are supportive of their children (Kim et al. 2003). It is observed that behavioral problems in children are the result of the absence of supportive parenting which impacts strong communication with and commitment to children. Supportive parenting has several dimensions which include responsive, supportive, warm, sensitive parenting, and parental monitoring and parental involvement (Beyers et al. 2003). The absence or presence of such parenting behavior affects the behavioral development of children (Nelson et al. 2006). Studies show that authoritative/supportive parenting leads children towards pro-social behavior, more socially competent, less negative and low aggressive behavior (Collins and Steinberg 2006). In contrast, authoritarian parenting involves coercive rules, strong discipline, aggressive parenting and low levels of a supportive environment for children and can result in negative behavior and aggression (McNamara et al. 2010). Aggression is directly linked with the authoritarian, coercive, and uninvolved parenting styles (Nelson et al. 2006) which cause behavioral disorders and aggression in children (Barry et al. 2008), and its frequency is less in the permissive parenting styles (Underwood et al. 2009).

Hence, the importance of parenting styles is presented to highlight their impact on aggression in children. A detailed overview regarding parenting styles and aggression has been presented in the introduction of this study. The next section discusses briefly the methodology of the current review.

Research Methodology

For this study, a systematic literature review was carried out to search for and select relevant studies. Such a review helps in integrating and systematically arranging the studies and their results. Also, it helps to provide a thorough analysis of the studies and to identify the challenges that are needed to develop future research. According to Junior and Godinho Filho (2010), the following steps are required in order to conduct a literature review:

Step 1 Reputable databases are searched to collect studies relevant to the subject.

Step 2 The classification system is coded.

Step 3 The classification system is applied.

Step 4 On the basis of the coding system, results should be provided.

Step 5 Gaps will be identified by analyzing the themes extracted from codes.

Inclusion and Exclusion Criteria

It was determined that only relevant studies should be the part of this review. The criteria for inclusion include studies published in English presenting original data and focusing on parenting styles and aggression. Studies that used measures other than parenting styles for aggression were not included in the review. In addition, meta-analytical studies which were not published are not considered part of this review. Two researchers scrutinized the articles at each stage. As a result of thorough review, 34 relevant studies were selected for this review.

Step 1—Search of Relevant Database

In the first step of this study, online databases were searched. All the studies relating to parenting styles and aggression were collected. The search was carried out using keywords, titles of articles and abstracts. Keywords used in the search included “parenting styles”, “aggression”, “aggressive behavior” and “parenting styles and aggressive behavior of adolescents”. Other keywords, like “parenting behaviors and aggression” and “parenting styles and aggression in children” were also used to search for the relevant studies with the help of ISI Web of Knowledge, JStore, and Science Direct.

Step 2—Databases Search

In the next step, a search for studies published in online journals like Elsevier, Taylor & Francis, Emerald, Springer, and Sage was carried out. Studies that were not relevant to the parenting styles and aggressive behavior of children were excluded from the study. After the precise selection of studies, 34 articles were included in the review. Next, classification and coding of these selected studies were performed.

Coding and Classification

The classification framework was designed after screening the studies relevant to parenting styles and aggression. Six major themes were classified and identified. Each classification was coded alphabetically. Classification of framework and coding is shown in Tables 1 and 2.

Table 1 Summary of characteristics of selected articles

	Year	Author	Journal	N	Design of study	Country	Mediator	Moderator
1	1998	Tiina et al.	European Journal of Psychology of Education	105	Cross sectional	Finland		
2	1998	Ellen K. Slicker	Journal of Youth and Adolescence	2250	Cross sectional	US	Parenting styles	
3	1999	Smith et al.	Counseling and Therapy for Couples & Families	104	Cross sectional	US		
4	2001	Chen et al.	Parenting: Science and Practice	68	Cross sectional	China		Child characteristics
5	2003	Russell et al.	International J. of Behavioral development	421	Cross sectional	US, AUS		
6	2005	Chen et al.	Child Development	535	Longitudinal	China		Peer group
7	2006	Casas et al.	Applied Developmental Psychology	204	Cross sectional	US		
8	2006	Nelson et al.	Child Development	215	Cross sectional	China		
9	2007	Milevsky et al.	J Child Fam Stud	272	Cross sectional	US		
10	2008	Underwood et al.	International J. of Behavioral Development	256	Longitudinal	US		
11	2009	Sánchez-Martín et al.	Psicothema	129	Cross sectional	Spain		
12	2010	Chan	Early Child Development and Care	185	Cross sectional	Hong Kong	Coping strategy	
13	2009	Bayer and Cegala	Western Journal of Communication	233	Cross sectional	US		
14	2009	Underwood et al.	Aggressive Behavior	281	Longitudinal	US		
15	2010	Rodriguez	Violence and Victims		Descriptive			
16	2010	Greening et al.	J Youth Adolescence	172	Cross sectional	US	Parenting styles	
17	2010	Carlo et al.	Personality and Individual Differences	233	Cross sectional	US		
18	2010	Brook et al.	The Journal of Genetic Psychology	254	Cross sectional	US	child rearing	
19	2011	Hesari and Hejazi et al.	Procedia - Social and Behavioral Sciences	300	Cross sectional	Iran	Self esteem	
20	2011	Healey et al.	Infant and Child Development	138	Cross sectional	US		Parenting style
21	2011	Kawabata et al.	Developmental Review		Descriptive			
22	2011	Finzi-Dottan et al.	Children and Youth Services Review	119	Cross sectional	Israel		
23	2012	Azimi et al.	Procedia - Social and Behavioral Sciences	380	Cross sectional	Iran		
24	2013	Smith and Moore	International Journal of Adolescence & Youth	563	Cross sectional	Jamaica		
25	2013	Batool	Pakistan Journal of Psychological Research	109	Cross sectional	Pakistan		
26	2013	Schwerdtfeger et al.	J. of Aggression, Maltreatment & Trauma	105	Cross sectional	US	Verbal hostility	
27	2013	Trenas et al.	Procedia—Social and Behavioral Sciences	432	Cross sectional	Spain		
28	2013	Fung et al.	J Fam Viol	1,485	Cross sectional	Hong Kong		
29	2013	Carpenter and Mendez	Early Education and Development	274	Longitudinal	US		
30	2014	Ehrenreich et al.	Aggressive Behavior	296	Longitudinal	US		

Table 1 (continued)

	Year	Author	Journal	N	Design of study	Country	Mediator	Moderator
31	2014	Pascual-Sagastizabal et al.	Aggressive Behavior	159	Cross sectional	Spain		Testosterone
32	2014	Jia et al.	Archives of Psychiatric Nursing	1164	Cross sectional	China		
33	2014	Gómez-Ortiz et al.	Culture and Education	626	Cross sectional	Spain		
34	2014	Cleveland	Personality and Individual Differences	215	Cross sectional	US		
35	2014	Gao et al.	International Journal of Psychology	175	Cross-sectional	China		
36	2015	Gómez-Ortiz et al.	Child Abuse and Neglect	2060	Cross-sectional	Spain	Parent discipline	
37	2016	Álvarez-García et al.	Frontiers in Psychology	1974	Cross-sectional	Spain		
38	2016	Kokkinos and Voulgari-dou	European Journal of Developmental Psych.	261	Cross-sectional	Greek	Inhibition System	
39	2017	Llorca et al.	Frontiers in Psychology	220	Cross-sectional	Valencia	Empathy	
40	2017	Muñoz et al.	Frontiers in Psychology	72	Cross-sectional	Spain		Day care attendance
41	2018	Servatyari et al.	Int. J of BioMedicine and Public Health	337	Cross-sectional	Iran		
42	2018	Chan et al.	School Psychology International	1021	Cross-sectional	Hong Kong		
43	2018	Martínez et al.	Computers in Human Behavior	1109	Cross sectional	Spain		

Table 2 Classification framework and coding

Classification	Meaning	Codes for alternatives
1	Context	A—Developed country B—Developing country C—Under-developed country
2	Focus	A—Parenting styles and aggression B—Parenting styles and various factors effecting aggression C—Parenting styles are not predominant in the analysis
3	Method	A—Qualitative B—Quantitative C—Qualitative/quantitative or Quantitative/qualitative D—Cases
4	Sector analyzed	A—Organization B—Education C—Others
5	Position in model	A—Independent variable B—Dependent variable C—Mediator/moderator variable
6	Variables	A—Mediator B—Moderator C—No mediator/moderator

Classification 1 Studies in the national context. Coding was done from A to C.

Classification 2 Identified parenting styles in relation to aggression. The main purpose was to show the dominance

of parenting styles in the study. Studies were coded from A to C.

Classification 3 Studies focus on research method. Studies codification was symbolized from A to D.

Classification 4 Different sector, in which studies were done and were coded from A to C.

Classification 5 Position for parenting style in models. It was coded from A to C.

Classification 6 It was associated with exploring the moderator or mediator variable that was used in the study. It was coded from A to C.

Results

Codification of the studies was done that were included in this review (Table 3).

National Context

In this study, the following categories were used to highlight the context in which the study was done: A is coded for developed countries, B relates to developing countries, and C represents under-developed countries.

The analysis showed that most of the studies were directed in developed countries (category A). There was only one study that was conceptual (Fig. 1).

Focus on Parenting Styles

In the second classification, parenting styles were the focal point. Studies on “parenting styles and aggression” were classified as A; “parenting styles and other variables that affect aggression” were classified as B; and studies in which “parenting styles was not a dominant factor” were classified as C (Fig. 2).

The present analysis shows that most of the studies were related to parenting styles and other variables that affect aggression, that is, “category B”. There were very few studies that focused solely on parenting styles and aggression and few studies in which parenting style was not a dominant factor.

Research Methods

Articles were classified based on research methods as follows (Fig. 3):

- A—Qualitative, that is, usually associated with the survey
- B—Quantitative, that is, usually associated with a case study
- D—Qualitative/Quantitative or Quantitative/Qualitative
- E—Cases

Analysis showed that most of the studies relevant to parenting styles and other variables that affect aggression used quantitative research methods. There were very few studies that used qualitative research methods. Also, there were no

studies that used mixed methods of research such as qualitative/quantitative research methods.

Economic Sector Analyzed

Classification 4 focused on determining which of the studies were done in A—the manufacturing industries, B—the education sector, or C—other sectors (Fig. 4).

Results show that the focus of the studies was in the education sector. There were very few studies that focused on organizations.

The Role of Parenting Style in Current Research

The role of parenting style was analyzed in the review to determine whether it was used as A—an independent variable, B—a dependent variable, or C—mediator/moderator (Figure 5).

Results reveal that in all of the studies, parenting style was used as an independent variable. None of the studies used it as dependent variable. Also, only in one study, it was used as mediator/moderator variable.

Use of Mediator, Moderator Variables in the Study

Mediator and moderator variables were analyzed in the studies that were included in the present review. These were characterized as A—mediator, B—moderator, C—no mediator/moderator variable used (Fig. 6).

The review shows that most of the studies did not use mediator or moderator variables. The ratio of mediator to moderator used in the studies was almost equal (i.e., six mediators and seven moderators were used in different studies). It might be possible that parenting styles have direct influence on aggression in children. But future studies might investigate this aspect of parenting styles and aggression in children (Table 4).

Results and Discussion

This study is carried out with the help of past literature which examined parenting styles and aggression in children. Each parenting style has some psychological characteristics to control the behavior of children. Review of current studies shows that both authoritative and authoritarian parenting styles provide psychological control, but their magnitude is different. Authoritative parents show flexibility in their attitude and therefore have low magnitude of psychological control, which in turn is helpful in minimizing aggressive and negative behavior in children, while authoritarian parents exert more psychological control to influence their will on children. That is why the authoritarian parenting style

Table 3 Brief descriptions of the goals and results of each analyzed study

Study	Brief summary
Tiina et al. (1998)	Maladaptive strategies (negative strategies) are associated with parenting styles. Children adopted more maladaptive strategies when their parents showed stress. On the other hand, use of maladaptive strategies was lesser in children whom parents practiced authoritative parenting style
Ellen K. Slicker (1998)	Parenting style was found to be a moderator of family structure and socioeconomic status. It was also found that parenting style and behavioral adjustment of adolescents are significantly related to each other
Smith et al. (1999)	Family structure is one of the factors of aggression. This fact has been proved and supported by the Alder's Aggression theory
Chen et al. (2001)	Child's characteristics moderate the relationship of aggressive behavior and parenting practices. Paternal positive parenting and aggression are negatively associated with each other for noncompliant and defiant children while there was negative relationship of maternal warmth and aggression for compliant children
Russell et al. (2003)	Aggressive behavior of children was due to their authoritarian behavior. Also, there was the effect of gender on the aggressive behavior. Boys are less pro-social and relationally aggressive as compared to girls. Also, it was analyzed that fathers have authoritarian characteristics while mothers have authoritative parenting style characteristics
Chen et al. (2005)	In Chinese context, it was analyzed that activity level of children was higher for authoritative parenting style as compared to that of authoritarian parenting style. Also it was observed that authoritarian parenting style and child emotionality are positively associated with each other
Casas et al. (2006)	Results show that there exists a significant relationship between parenting styles, psychological control behaviors, indicators of the attachment relationship and both relational and physical aggression
Nelson et al. (2006)	Differential parenting effects were less predictive of aggression as compared to combined parenting effects. Psychological control was associated with aggression in girls whereas physical punishment and bullying was predictor of aggression in boys
Milevsky et al. (2007)	Low depression and higher self-esteem were related to authoritative mothering. It was also found that psychological adjustment was related to paternal parenting styles. It was also assessed that permissive mothering was less effective as compared to authoritative mothering
Underwood et al. (2008)	There exists a positive relationship between mothers' negative inter-parental strategies and social and physical aggression for girls whereas in case of boys, social and physical aggression were not related to mothers' negative inter-parental conflict strategies. It was also evident that for either gender, there was no relationship between aggression and negative conflict strategies of father
Sánchez-Martín et al. (2009)	It was analyzed that with high androstenedione levels in boys, physical aggression and directive maternal behavior had significant relationship
Chan (2010)	Results indicated that mothers' authoritarian parenting was not associated with negative emotionality of children. Also, aggressive behavior at school was not related to authoritarian parenting and negative emotionality
Bayer and Cegala (2009)	It was analyzed that behaviors of persons are consistent with authoritative parenting style that scored higher on argumentativeness and negatively on aggressiveness. It can be said that positive aggressiveness and negative argumentativeness were linked with authoritarian parenting style
Underwood et al. (2009)	Social aggression is not high during preadolescence. Also it was analyzed that authoritarian parenting was associated with physical aggression
Rodriguez (2010)	Results suggest that a dysfunctional parenting style was associated with physical aggression of children especially with authoritarian parenting style. It was also found that physical maltreatment is linked with permissive parenting style
Greening et al. (2010)	Depressive symptoms and suicidal behaviors of children were associated with authoritarian parenting practices for African American and older children but there were association for younger children
Carlo et al. (2010)	Pro-social behaviors were significantly associated with parenting practices
Brook et al. (2001)	It was analyzed that aggression in toddlers was associated with parental aggression and maternal child-rearing practices
Hesari and Hejazi (2011)	Self-esteem and authoritative parenting style were positively associated with each other while there was negative association between authoritative parenting style and aggression. Also, self-esteem and aggression had negative relationship. Self-esteem mediated the relationship of authoritative parenting style and aggression
Healey et al. (2011)	Parenting style moderates the relationship between child functioning and ADHD symptoms
Kawabata et al. (2011a, 2011b)	There was positive relationship between relational aggression and psychologically controlling parenting. Also, it was found that positive parenting is linked with less relational aggression
Finzi-Dottan et al. (2011)	Negative parenting and diffused ego identity were associated with aggression of immigrant students. Diffused ego identity and aggression and conduct disorders were moderated by lack of positive parenting

Table 3 (continued)

Study	Brief summary
Azimi et al. (2012)	It was found that there was negative relationship between authoritative parenting style and adolescent's aggression. Also, adolescent aggression and mother's authoritarian parenting were positively linked with each other
Delores and Todd (2012)	It was analyzed that conduct problems, suicide ideation and risk of anger depression were associated with authoritarian parenting style
Batool(2013)	Aggression was associated with permissive and authoritarian parenting styles. Also, there was significant relationship between aggression and parenting income
Schwerdtfeger et al. (2013)	Maternal authoritarianism was linked with physical punishment, verbal hostility and indifferent nurturance
Trenas et al. (2013)	Limit setting and autonomy from mother and role orientation from father had significant relationship with Behavior Assessment System for Children (BASC) for aggression
Fung et al. (2013)	Hong Kong's parent's level of distress was due to their parenting styles. These distressed parents used to adopt parenting strategies with least effort. Generally, it can be said that they experienced greater degree of distress when they employ authoritative parenting style with their children
Carpenter and Mendez (2013)	Parenting profiles were significant predictors of aggression in adolescent
Ehrenreich et al. (2014)	Results suggests that parents who set less limits to their children (Permissive parents) had higher and long lasting relationships with adolescents. Gender was not related to social and physical aggression
Pascual-Sagastizabal et al. (2014)	There was significant relationship between high testosterone levels and higher level of physical aggression among boys with authoritarian mothers. Also, testosterone moderated the relationship of physical aggression and authoritarian parenting for girls. For girls with permissive mothers, testosterone with moderate and high levels was linked with aggression
Jia et al. (2014)	Harsh parenting was associated with children's aggression. Also, parenting education is associated with aggression. Results also show that children had higher levels of reactive and proactive aggression as compared to adolescents
Gómez-Ortiz et al. (2014)	Different dimensions of parenting styles are also categorized as being risk or protective factors of bullying involvement. Parenting style's dimensions are linked with bullying involvement of children
Cleveland (2014)	Results show that authoritarian parenting style is the stronger predictor of aggression in children
Gao et al. (2015)	Authoritarian parenting style is associated negatively with aggression in children
Gómez-Ortiz et al. (2014)	Non-bureaucratic parenting results into bullying and negative behaviors in children
Álvarez-García et al. (2016)	All parenting behaviors are negatively associated with negative behaviors in children
Kokkinos and Voulgaridou (2017)	Authoritative parenting style is significantly related to aggression in children
Llorca et al. (2017)	Authoritative and permissive parenting style are negatively associated with aggression
Muñoz et al. (2017)	Authoritarian parenting style results into aggressiveness in children
Servatvari et al. (2018)	Children, whose parents show low authority and control, have low aggression
Chan et al. (2018)	Authoritarian Parenting style results into aggression in children
Martínez et al. (2019)	Authoritarian parenting results into bullying in children; Authoritative parenting is negatively related to bullying in children

has more negative impacts on child aggressive behavior as compared to authoritative and permissive parenting.

In Fig. 7, some issues are highlighted that need to be explored and investigated in future studies. Category C was the least addressed category in classification 1. There is only one conceptual paper which is part of this review. Only five of the included studies which analyzed the impact of parenting styles and other variables on aggression were conducted in developing countries (e.g., Batool 2013; Delores and Todd 2012; Azimi et al. 2012). This raised a concern that the ratio of conceptual studies is less.

In classification 2, most of the studies focused on parenting styles and other variables to assess their impact on aggression. There were few studies that directly assessed the impact of parenting styles on aggression in children and

adolescents. Also, there were few studies in which parenting styles were not a dominant factor in analyzing aggression. Past studies show that parenting styles affect aggression in children and affect their behavior. The current review found that the same trend is followed across different geographical boundaries. For example, Delores and Todd (2012) and Shoumei et al. (2014) found that parenting styles and aggression are directly associated with each other. More specifically, authoritarian parenting results in negative psychological behavior of children while authoritative parenting results in positive child behaviors. But the literature still lacks enough studies to analyze the direct relationship between the two factors (Trenas et al. 2013).

Classification 3 consists of studies that used research methods. The current review shows that there were few

Fig. 1 Study selection process

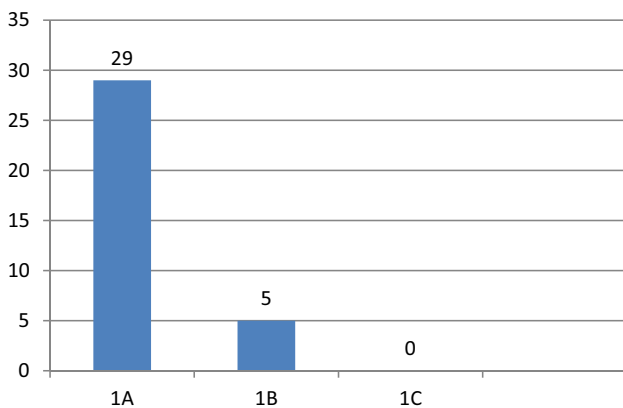
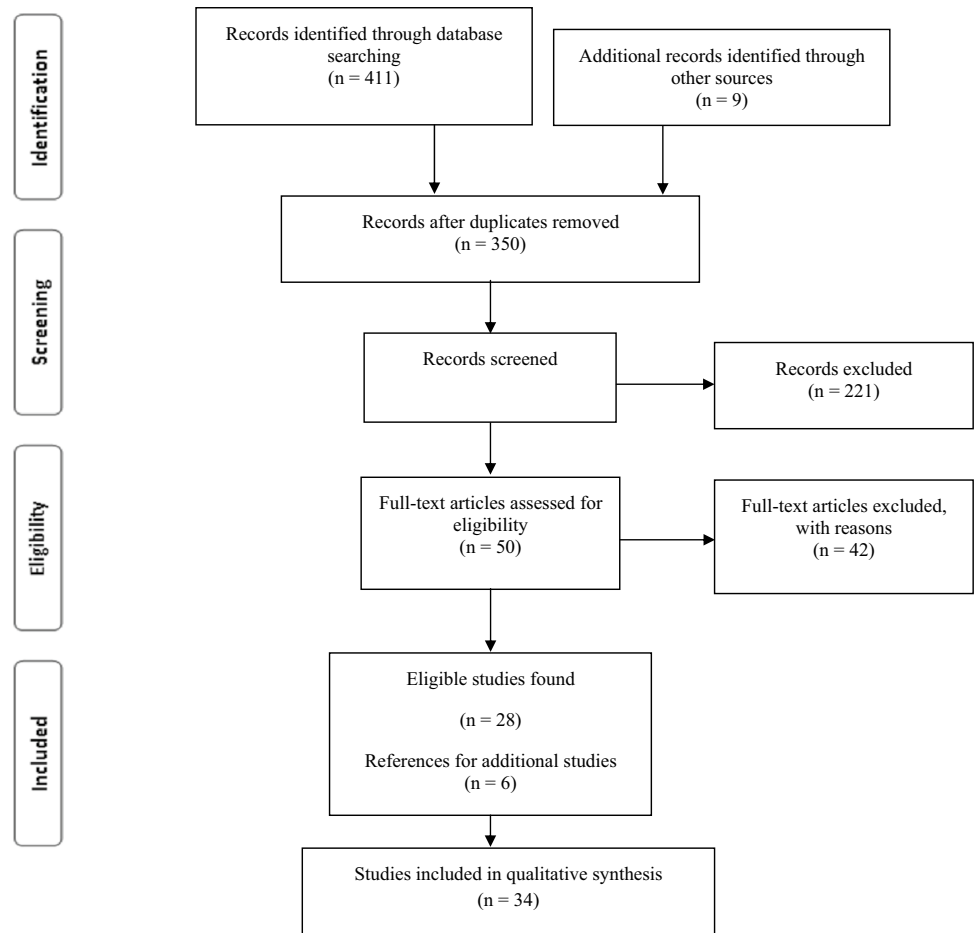


Fig. 2 Frequency distribution for context

studies that used qualitative research methods (Category A). Also, there were no survey and case studies. Most of the studies applied quantitative methodology in their studies (for example, Chan 2010; Carlo et al. 2010, etc.), while there were no studies that used the mixed method of research (Category D).

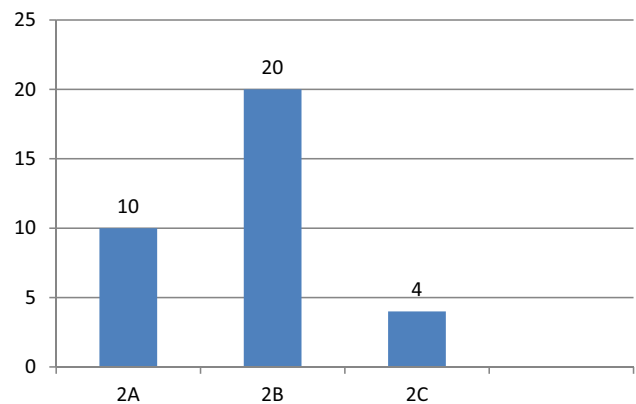


Fig. 3 Frequency distribution for focus

The education sector (Category B) was the most frequently analyzed sector in classification 4. Only one study, by Smith et al. (1999), focused on respondents who do not belong to academia; rather they were convicted of assaulted crimes. The rest of the studies focused on respondents from academia. It is therefore suggested that more studies should be conducted in other sectors so that results could

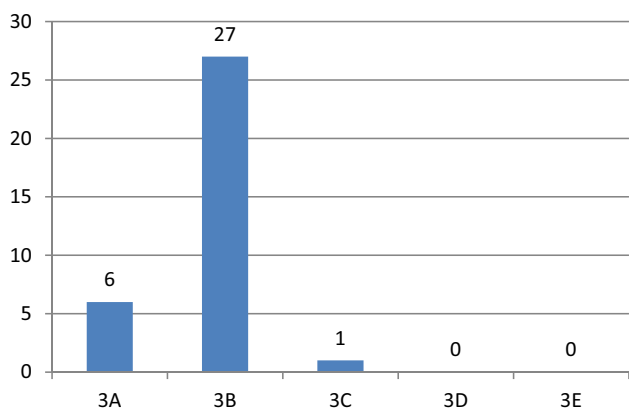


Fig. 4 Frequency distribution for method

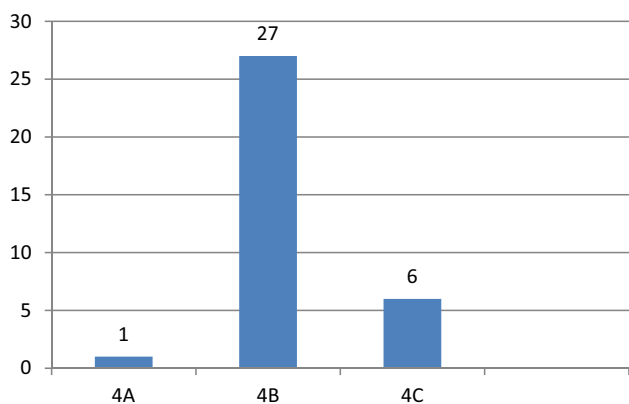


Fig. 5 Frequency distribution for sector analyzed

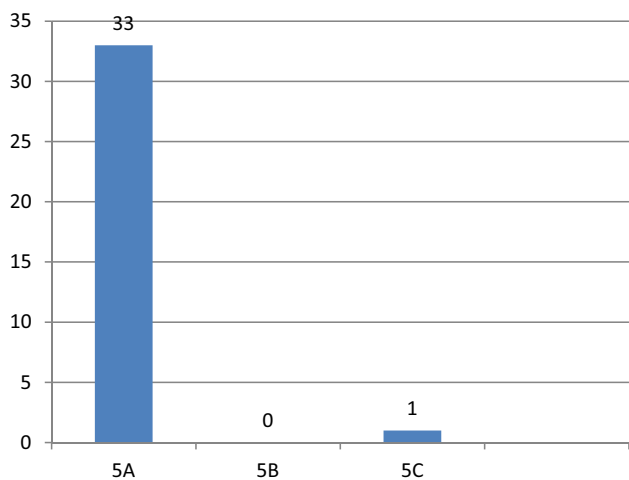


Fig. 6 Frequency distribution for position in model

be generalized. The review shows that there was no study that used parenting style as a dependent variable (Classification-5). Significant studies used parenting style as the

independent variable. Also, there was only one study that used parenting style as a mediator/moderator variable.

Classification 6 highlights the use of different variables used as mediator/moderator. The review shows that there are six studies that used the mediator and seven studies that used moderator variables to measure their impact on aggression. Figure 8 highlights the category that was most frequently addressed for each of addressed item, prioritized category in research agenda and categories that must be taken into consideration for future research agenda.

The review of selected studies shows that there is a negative and direct association between parenting style and aggression (Hesari and Hejazi 2011). For example, the authoritarian parenting style in particular is related to child aggression (Rodriguez 2010). There is a positive relationship between authoritarian parenting style and verbal aggression (Marion et al. 2009). Permissive and authoritarian parenting styles are considered dysfunctional whereas an authoritative parenting style is an ideal and is the most suitable parenting style for optimal child development (Baumrind 1966, 1996). For example, in Wisconsin and northern California, nine high schools (grades 9–12) were analyzed using a large sample of 14- to 18-old students (Steinberg et al. 1994). In these studies, behavioral adjustment and social competence of children was found to be positive in those children who rated their parents as authoritative and indulgent as compared to those who rated their parents as neglectful. The other two parenting styles, permissive (indulgent) and authoritarian, showed mixed results (Steinberg et al. 1994). Eider et al. (2014) found that physical aggression was higher in children of authoritarian mothers having higher testosterone levels. It was also found that testosterone moderated the relationship of aggression in girls and fathers’ authoritarian parenting. Smith and Moore (2013) found that gender plays an important role in explaining parenting styles and aggressive behavior in children. In their study, they found that boys are found to be more aggressive when it comes to the authoritarian parenting styles, while girls show a lower degree of conduct problems. Further, they stated that authoritative parenting helps in overcoming negative behaviors. They concluded that children who show disagreement with instructions from parents were more likely to exhibit psychological problems as compared with others who follow the instructions of their parents. In addition, Greening et al. (2010) found that authoritarian parenting styles help in reducing negative and suicidal behavior of children. Furthermore, they found that children who were more depressed showed more suicidal behavior as compared to less depressed children.

Research shows that aggression can be controlled through some indirect ways. For example, Fung et al. (2013) analyzed the association between aggression and parenting styles and found that psychological distress of parents could be decreased by mental health prevention and intervention

Table 4 Evidence for current research project (role of parenting styles on aggression of children)

Works	Context			Focus			Method					Sector analyzed			Position in analytical model			Variables			
	A	B	C	A	B	C	A	B	C	D	E	A	B	C	A	B	C	A	B	C	
Tiina et al. (1998)	✓				✓								✓		✓						✓
Slicker (1998)	✓				✓		✓						✓		✓			✓			
Smith et al. (1999)	✓					✓	✓					✓			✓						✓
Chen et al. (2001)	✓					✓	✓							✓	✓					✓	
Russell et al. (2003)	✓				✓									✓	✓					✓	
Chen et al. (2005)	✓				✓								✓		✓					✓	
Juan et al. (2006)	✓				✓		✓							✓	✓					✓	
Nelson et al. (2006)	✓			✓									✓		✓					✓	
Milevsky et al. (2007)	✓				✓								✓		✓					✓	
Underwood et al. (2008)	✓				✓								✓		✓					✓	
Sánchez-Martín et al. (2009)	✓				✓								✓		✓					✓	
Chan (2010)	✓				✓								✓		✓			✓			
Bayer and Cegala (2009)	✓				✓								✓		✓					✓	
Underwood et al. (2009)	✓					✓							✓		✓					✓	
Rodríguez (2010)	✓				✓									✓	✓					✓	
Greening et al. (2010)	✓				✓								✓		✓				✓		
Carlo et al. (2010)	✓				✓								✓		✓			✓			
Brook et al. (2001)	✓			✓			✓						✓		✓			✓			
Hesari and Hejazi (2011)		✓			✓								✓		✓			✓			
Healey et al. (2011)	✓				✓									✓	✓				✓		
Kawabata et al. (2011a, 2011b)	✓				✓					✓				✓	✓				✓		
Finzi-Dottan et al. (2011)		✓			✓	✓								✓	✓					✓	
Azimi et al. (2012)		✓			✓			✓						✓	✓					✓	
Smith and Moore (2013)		✓			✓									✓	✓				✓		
Batool (2013)		✓			✓									✓	✓					✓	
Schwerdtfeger et al. (2013)	✓				✓									✓	✓			✓			
Trenas et al. (2013)	✓				✓									✓	✓					✓	
Fung et al. (2013)	✓				✓									✓	✓					✓	
Carpenter and Mendez (2013)	✓				✓									✓	✓					✓	
Ehrenreich et al. (2014)	✓					✓								✓	✓					✓	
Pascual-Sagastizabal et al. (2014)	✓				✓									✓	✓				✓		
Jia et al. (2014)	✓				✓									✓	✓					✓	
Gómez-Ortiz et al. (2014)	✓				✓									✓	✓					✓	
Cleveland (2014)	✓				✓									✓	✓					✓	
Gao et al. (2015)	✓				✓									✓	✓					✓	
Gómez-Ortiz et al. (2014)	✓				✓									✓	✓				✓		
Álvarez-García et al. (2016)	✓			✓										✓	✓					✓	
Kokkinos and Voulgaridou (2017)	✓				✓									✓	✓				✓		
Llorca et al. (2017)	✓				✓									✓	✓				✓		
Muñoz et al. (2017)	✓				✓									✓	✓			✓			
Servatyari et al. (2018)	✓				✓									✓	✓					✓	
Chan et al. (2018)	✓				✓									✓	✓					✓	
Martínez et al. (2019)	✓				✓									✓	✓					✓	

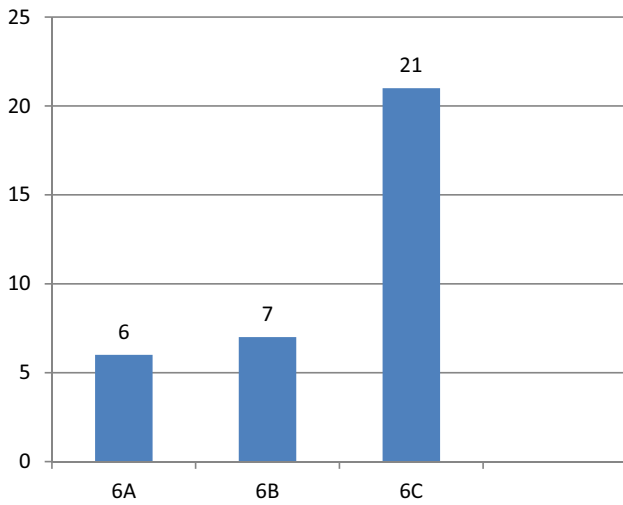


Fig. 7 Frequency distribution for variables

programs. These programs, which address the forms of aggressive behavior of children, also help in improving the parenting skills in parents. In another study, Shoumei et al. (2014) found in their study that aggression in children was linked with the education of the father and harsh parenting (authoritarian parenting style). Well educated parents better understand the psychological growth of children, which indirectly helps in overcoming the issue of aggression in

children. In another study, Chan (2010) examined the relation between authoritarian parenting styles and aggressive behavior in children and found that authoritarian parenting styles and aggressive behavior are significantly associated with each other. Furthermore, it was suggested that there is a need to offer some training programs to parents to cope with emotions of children. Therefore, it is suggested that parents should participate in different training programs which help them in learning different strategies to develop a healthy family environment.

In addition, adolescents reported better socio-emotional functioning when they perceived their parents as less authoritarian. Association between physical and indirect aggression and authoritarian and permissive parenting is moderated by testosterone (Eider et al. 2014). Mothers' authoritarian parenting and physical aggression is strengthened due to high testosterone levels in boys. In girls, testosterone moderates the association between physical aggression and fathers' authoritarian parenting. Children's negative coping strategies help in mediating the damaging effects of authoritarian parenting (Chan 2010). The results suggest that the negative and damaging effects of authoritarian parenting styles may be felt across cultures and societies. The children adapt more negative coping strategies when their mothers show more authoritarian attitude and behavior.

The current review reveals that aggression symptoms become stable with the passage of time (Murray-Close and

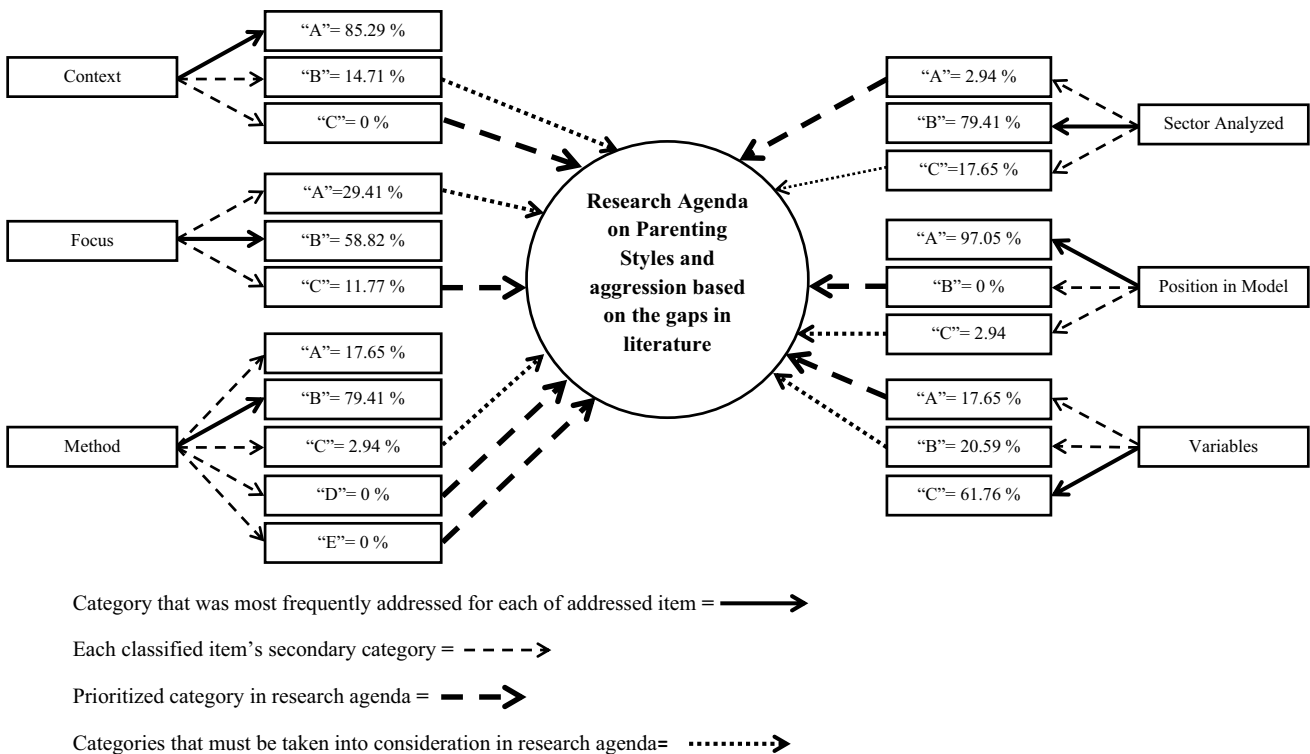


Fig. 8 Percentages of articles observed in each category

Ostrov 2009). The reason may be that younger children are not able to distinguish aggression while, with the development of cognitive skills in children, children are better able to understand how aggression can be used to achieve their goals or to protect themselves. So, in adults, aggression functions become more distinct as compared to children (Murray-Close and Ostrov 2009). It is therefore suggested to explore the relationship between age and aggression in future studies.

Parenting behaviors have a strong influence on child development and continue this influence from childhood till later stages of development (Mowder 2005). The current review studied three parenting styles. As Western parents are authoritative in nature (Liu and Guo 2010), so they have a positive influence on the development of children, while harsh parenting is positively related to aggression in children. This relationship can be explained with the help of social learning theory. According to this theory, in the early stages, harsh parenting may be helpful in achieving the desired positive outcomes from children, but it may lead towards proactive aggression (Bandura 1973). Such an environment may direct children to adopt such parental practices in order to resolve their social problems (Chan 2011) so they start adopting and practicing such strategies in daily social life to avoid problems. The review also highlights that there is no association between authoritative parenting style and aggression. The reason is that authoritative parents involve themselves with their children and help them in overcoming their issues. Such parents are also termed as indulgent parents who are highly involved in their children's social life and tolerate their mistakes (Chen et al. 2001) which in turn help in overcoming the aggressiveness in children.

Conclusion

This study aims to assess the impact of parenting styles on aggression in children and adolescents. Such a review is helpful and useful for the scientific community. Studies relevant to parenting styles and aggression were first selected and then classified. With the help of six recommendations, a research agenda is presented. A research gap is also presented which may strengthen and guide researchers to conduct future research on the relationship between parenting styles and aggression.

The current review shows that authoritative parenting results in positive behavior in children while authoritarian parenting results in aggressive and negative behavior in children. Furthermore, parents' income also plays an indirect role in aggression in children (Batool 2013). Adding to this, parenting education also plays an important role in aggressive behavior in children. Higher education among parents results in decreased aggressive behavior in children.

However, there is need of further studies to elaborate the relationship comprehensively. Educated parents are better able to develop the personality of children resulting in a smaller chance that their children will have negative behaviors (Shoumei et al. 2014). The review suggests that there is a strong need to understand the parenting style and training of parents in order to aid them in adopting a particular parenting style that will help them overcome the problem of aggression in children and adolescents. In addition, there is a need to conduct studies in developing countries to compare the effect of parenting styles from different cultures and communities. This will help the trainers, educational institutions, parents and, ultimately, children and adolescents.

Lamborn and Dornbusch (1991) contradicted the Baumrind theory of parenting styles by stating that authoritative parents were already aware of the psychological needs of their children, so this does not relate to the controlling factor of parents. Lewis (1981) also concluded that children with positive outcomes are not directly associated with firm enforcement of an authoritative parenting style, while kids whose parents were not controlling (permissive parents) also performed well. In traditional structures, there is no need for a controlling factor, so Baumrind's perception of a controlling factor is not applicable.

Though this study shows important findings, there are still some limitations. This study is review analysis. Meta-analytic reviews will produce a deeper understanding of the relationship of parenting styles and aggression. The studies included in this review focused on the *parenting* aspect of parenting styles. Responses from children would be useful in order to avoid the problem of common method bias.

Future Research

This study examined past studies to analyze the relationship between parenting styles and aggression. Based on the current review, some recommendations are suggested to future scholars to draw more insights into the relation between parenting styles and aggression in children. First, more studies are needed in developing and under-developed countries to generalize the impact of parenting styles and other variables on aggression and to compare the national context and understand characteristics of parenting styles in different economic settings. Second, more studies are needed to examine the direct relationship between parenting styles on the aggression of children and adolescents. The current review shows that fewer studies focused on direct association between the variables. Most of the studies focused on an indirect relationship between parenting styles and aggression. The third recommendation is to apply the mixed method of research, in other words, the qualitative/quantitative or quantitative/qualitative. The current analysis

shows that most of the studies used qualitative methods for analyzing the relationship. The focus of most researchers remained within the quantitative method. Future scholars may consider it as a guideline to analyze the relationship. It is also suggested that future scholars may use parenting styles as a different antecedent of aggression. For example, future scholars may use them as a moderating or mediating variable. This will aid in understanding parenting styles and aggression in a different way. Finally, there is strong need to examine the mediating role of parenting styles in aggressive behavior among children. The review of current studies shows that 61.76% of the studies did not apply the mediator/moderator analysis in their studies. This will draw more insight into the literature. Also, replication of studies in the health sector can be helpful in generalizing the results.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no competing interests.

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