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REVIEW

Parenting styles and alcohol use among children and adolescents: A systematic review

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Introduction: Research studies have been focusing on the prevalence of alcohol use among children and adolescents since the 1990s. There are many individual, family, and social factors that can influence this kind of risk behaviour. The present review is focused on the influence of parenting styles.

Aims: The main aim is to provide a systematic review of studies published from 1995 until 2012 which investigate the relationship between alcohol use among adolescents and parenting styles.

Methods: A systematic search of literature employing the PRISMA method identified and evaluated 16 original studies published in the EBSCO, MEDLINE/PubMed, JSTOR, and ScienceDirect databases. The studies were classified according to their research design, the age group of the respondents, the participation of parents, the effects of parenting styles, and the sociocultural setting of the study.

Findings: The studies were subjected to quantitative evaluation according to their methodological criteria and forms of parenting styles. Qualitative evaluation showed a broader context and complexity of study results. While there is some evidence of the protective effect of an authoritative parenting style, there are many other individual, social, and environmental factors.

Conclusions: There is evidence of a connection between parenting styles and the forms of alcohol use among children and adolescents. Such conclusions should be reflected in national primary prevention strategies and family-based prevention programmes.

INTRODUCTION

Alcohol use among children and adolescents is currently a widespread and dangerous form of risk behaviour. It may have a negative impact on the healthy psychological and social development of an individual. The results of the ESPAD (European School Survey Project on Alcohol and Other Drugs, 2011) study indicate that the lifetime prevalence of alcohol use among adolescents aged 15–16 years is high in Europe. Since 1995, its level has been oscillating ~90%, with the recent data (from 2011) showing that 87% of the respondents had drunk alcohol at least once in their lifetime. The number of respondents who were initiated into drinking when they were 13 years or younger is also alarming. This was reported by an average of nearly 6 out of 10 respondents (57%), with 12% of the respondents even admitting to having become drunk for the first time at that age (Hibell et al., 2012).

These results correspond to those generated by another international survey, HBSC (Health Behaviour in School-Aged Children: A WHO Cross-National Study, 2012), which indicate that the age of children who drink alcohol is lower now than in 2006. The latest findings show that the prevalence of drunkenness rises significantly between the ages of 11 and 15 years (Currie et al., 2012).

Recent data from USA indicate that slightly more than half (51.8%) of the children aged 12 years or older reported being current drinkers of alcohol (i.e. they had had at least one drink in the past 30 days). Nearly one-quarter (22.6%) of the persons aged 12 years or older had participated in binge drinking at least once in the 30 days and heavy drinking was reported by 6.2% of this population. The rates of current alcohol use increased with age among underage persons. In 2011, the rates of current alcohol use were 2.5% of the

persons aged 12 or 13 years, 11.3% of the persons aged 14 or 15 years, and 25.3% of the 16- or 17-year-olds, and 46.8% of the 18- to 20-year-olds had drunk alcohol during the 30 days before they were surveyed. This age pattern has been observed since 2002. In terms of gender, 56.8% of the males aged 12 years or older were current drinkers, which was a higher rate than that for the females (47.1%). Among the young people aged 12–17 years, however, the percentage of current male drinkers (13.3%) was similar to the rate for females (13.3%) (SAMHSA, 2012).

Given the concerns this issue raises, a number of studies have explored the causes of alcohol use among adolescents and, specifically, the protective and risk factors that are involved (Bellis et al., 2009; Čablová & Miovský, 2013; Graves, Fernandez, Shelton, Frabutt, & Williford, 2005; Vidourek & King, 2010). Such factors are generally categorized into individual, family, social, and environmental ones (Ostaszewski & Zimmermann, 2006; Wang, Hsu, Lin, Cheng & Lee, 2010). The family factors include parenting, or parental child-rearing styles. Recent studies agree on their effects on healthy, or negative, individual development (Bahr & Hoffmann, 2010; Burk et al., 2011; Paiva, Bastos, & Ronzani, 2012).

In addition, there are several studies showing that the protective effect of parents (secure emotional bonds, parental control, monitoring, family cohesion, communication, management skills, and attitudes) on adolescent alcohol use may be modified by the peer influence (Bergh, Hagquist, & Starrin, 2011; Feinberg, Jones, Cleveland, & Greenberg, 2012; Velleman, Templeton, & Copello, 2005). Finally, there is a significant effect of the socio-economic status of parents, the influence of the school and community, and other socio-cultural factors that influence the development of children (Cleveland, Feinberg, & Jones, 2012; Spijkerman, Van den Eijnden, & Huijberts, 2008; Tobler, Komro, & Maldonado-Molina, 2009).

The purpose of this study is to analyse the results of the latest research studies that examine correlations between parenting and alcohol use among children and adolescents and to perform a descriptive analysis in order to establish the parental styles that may be considered more beneficial than others in this respect. This review also seeks to identify which parenting styles seem to predominate in the families where children show the highest prevalence rates of alcohol use. The unique contribution of this article lies in the critical assessment of the original studies and the new and consistent interpretation of their results within a more homogeneous interpretative framework.

CLASSIFICATION OF PARENTING STYLES

The early tendencies to classify parenting styles date back to the early 20th century. The first influential typology was introduced by Lewin, Lippitt, & White (1939). This classification defines three types of

parental child-rearing styles: autocratic, democratic, and *laissez-faire*. This notion was further elaborated into the so-called Schaefer's Model (1959), which uses two mutually independent dimensions to assess parenting styles: the quality of the emotional relationship between parents and children (positive or negative) and the level of control (minimal versus maximal).

Integrating the typological model with the two-dimension model, Tausch and Tausch (1977) demonstrated that the model of three child-rearing styles captures only some of the major forms of parenting, while the two-dimension model makes it possible to define a parenting style in broader terms. In the next stage, the authors modified their model to reflect Rogers' concept of personality and the conditions for its favourable development. This new model comprised four dimensions, with the first three of them promoting the development of the emotional relationship (closeness) between the adult and the child and thus corresponding to the original dimension of responsiveness. The fourth dimension covers the level of control (Tausch & Tausch, 1977).

Building upon the previous categorizations, the co-called two-component model of parental reinforcement, inspired by Skinner's theory of learning, is also of significance. Stapf, Hermann, Stapf, & Stacker (1972) regard these two components as the basis for differentiating between the child-rearing styles applied within the family. Here, again, two forms of reinforcement (reward and punishment) correspond to two dimensions of parenting: strictness and the frequent use of punishment on one hand and support and help on the other hand. The creators of this model conclude that children who are brought up according to the first dimension follow restrictions. They try to avoid punishment, abide by the opinions of the authorities, and tend to be compliant. When a child from such a family background enters a peer group featuring norms other than those applied within the family, they may show greater vulnerability to engaging in any form of risk behaviour. On the other hand, children who are brought up in families where support and praising predominate are more focused on rewards for their compliance and their activities are not restricted. They are better at adapting to peer groups and their perception of the world is more optimistic (Stapf et al., 1972).

The studies included in this review mostly used the categorization according to Baumrind (1967). This typology recognizes three parenting styles: authoritarian, authoritative, and permissive. A fourth – neglectful – parenting style was later added to her theory by Maccoby and Martin (1983). The resulting 4-fold categorization of parenting styles has become widely used in research into the relationship between the different parenting styles and alcohol use among adolescents (Bahr & Hoffmann, 2010; García & Gracia, 2009; Patock-Peckham & Morgan-Lopez, 2007).

Authoritarian parenting style

An authoritarian style of child-rearing is characterized by high demands on the child, but low levels of responsiveness and warmth on the part of the parents. Authoritarian parents tend to attempt to shape, control, and, in particular, evaluate their children's behaviour in the light of social standards. They are strict, less open to compromises, and require their children to be absolutely obedient and follow their directions. They emphasize subordination and their children's respect for their authority. Using bans and punishment to reach their goals, they restrict the child's autonomy (Bush & Peterson, 2007).

Authoritative parenting style

An authoritative parenting style is defined by reasonable levels of responsiveness and demand. This approach seems to be the best for the healthy development of an individual. Authoritative parents seek to control their children's activities in a reasonable way. They set clear rules for their children and explain such rules and the reasons for them to the children, as well as asking them to explain why they may not want to comply with such rules. The parents acknowledge their children's rights and support their independence, while insisting on their observation of norms, the reaching of agreement, and their responsible behaviour (García & Gracia, 2009; Spera, 2005).

Permissive parenting style

A permissive parenting style is high in responsiveness, but low in demand. The parents who practise this style of parenting typically seek to rear their children without resorting to bans and punishments. Children's individual needs and all their forms of behaviour (including those that are inappropriate) are tolerated to the maximum degree. All the rules and principles are thoroughly explained, and the parents are ready to make compromises in this respect. They waive their responsibility for the shaping of their children's future and fully respect all their decisions (Baumrind, 1968; Van der Vorst, Engels, Meeus, & Deković, 2006).

Neglectful parenting style

A neglectful parenting style is considered as posing the highest level of risk. It is characterized by a low degree of warmth, responsiveness, and demands on the part of the parents. The parents associated with this style of child-rearing show disregard for their children, have no expectations, and require no responsibility from them. In comparison to permissive parents, they do not even show interest in their children's development (Baumrind, 1967; Santrock, 2005). The neglectful parenting style was added to Baumrind's original typology by Baumrind (1991) Maccoby and Martin (1983). later pointed out certain limitations of the existing typologies which lay mainly in their being too generalized. She proceeded to modify her typology to encompass seven parenting styles. The authoritative

and neglectful styles were retained. The permissive style of child-rearing was divided into two subtypes, democratic and non-directive, with the democratic style featuring a high degree of commitment to the child and the non-directive one corresponding to the original permissive style. The authoritarian style was also subdivided into an authoritarian-directive approach, characteristic of parents who are highly restrictive and demanding and who exercise absolute control over their children, and a non-authoritarian-directive one, which is characterized by greater sensitivity on the part of the parents. The seventh parenting style is referred to as 'good enough'. It is associated with a moderate level of control and demand and an average degree of parental emotional involvement with their children.

METHODS

A systematic search of research studies was conducted following the PRISMA method (Higgins & Green, 2008; Moher et al., 2009) (see Table I). This process took place from March to July 2012 using the international databases EBSCO, MEDLINE/PubMed, ScienceDirect, and JSTOR. The following key words were used to search the databases: parenting styles, alcohol use, children, and adolescent. It was decided that only studies using the term 'parenting styles' in connection with alcohol use among children and adolescents would be selected. The full texts of studies that met the criteria below (set by means of database filters) were chosen for thorough assessment of eligibility:

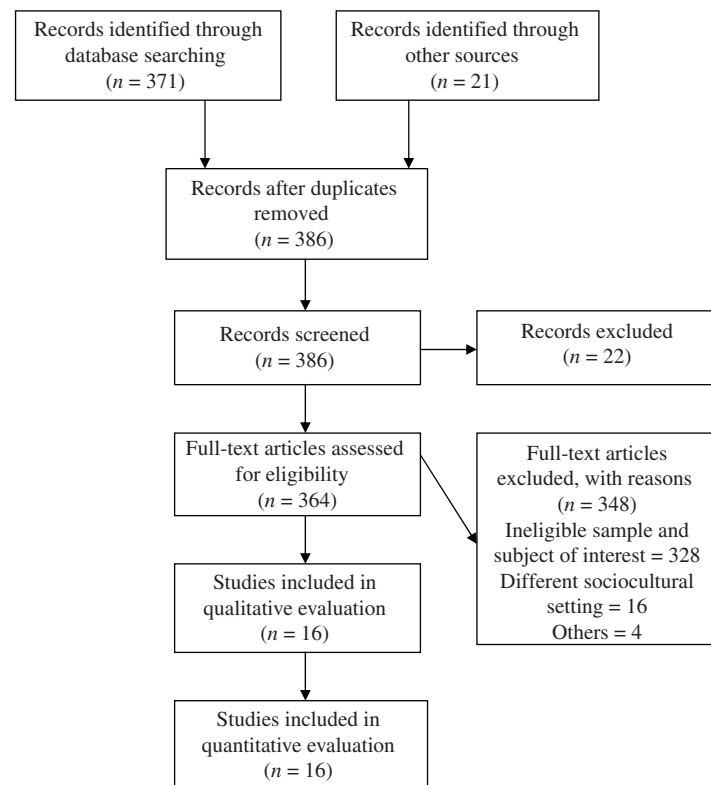
- year of issue: 1995–2012
- language: English
- types of publications: articles – original papers

The following criteria were met by a total of 16 original international studies, which were further systematically classified (see Table II) and subjected to descriptive analysis.

- subject of investigation: the relationship between parenting styles and alcohol use among children and adolescents
- age group: 'younger children' (9–12 years), 'older children' (13–15 years), adolescence (16–22 years)
- sociocultural setting – Europe, North America

A number of studies focus on the relationship between parenting styles and substance use among children and adolescents, without addressing alcohol use as a separate domain (e.g. Baumrind, 1991; Becerra & Castillo, 2011; Smith & Hall, 2008). Such studies were not included in our review. Other research projects (e.g. Khalatbari, Ghorbanshirodi, Akhshabi, Sedaghati, & Karimi, 2011; Paiva et al., 2012) could not be included because of their different sociocultural settings; they were conducted in neither Europe nor North America.

Table I. PRISMA study flow diagram.



METHODOLOGICAL DIFFERENCES AND LIMITATIONS OF THE STUDIES

When the findings of the above research projects are being compared, the following matters should be taken into account: respondents from heterogeneous age categories were examined, the studies were undertaken in different sociocultural settings, and various measurement methods were employed. For example, Adalbjarnardottir and Hafsteinsson (2001) note highly critical public attitudes to the use of both legal and illegal drugs in Iceland, where their research was conducted. These attitudes are reflected in adolescents' opinions and, accordingly, in substance use among this age category. Iceland has maintained the lowest prevalence of alcohol use in Europe (Hibell et al., 2012). Given the low crime rate, Icelanders also provide their children with greater autonomy (Adalbjarnardottir & Hafsteinsson, 2001). On the contrary, Choquet, Hassler, Morin, Falissard, and Chau (2008) point out that there is social tolerance towards drinking in France. Other studies, too, should be interpreted in the light of specific sociocultural conditions.

Inconsistent measurement methods were used to assess parenting styles. While some researchers used standardized scales (see Table II for more details), such as PAQ (Parental Authority Questionnaire, Buri, 1991; Patock-Peckham & Morgan-Lopez, 2007; Patock-

Peckham, Cheong, Balhorn, & Nagoshi, 2001) and WAS (Warmth Affection Scale, García & Gracia, 2009; Rohner et al., 1978), others devised their own items to measure parental control and emotional support (e.g. Choquet et al., 2008; Foxcroft & Lowe, 1995; Latendresse et al., 2009; Piko & Balász, 2011; Roche, Saiffudin, & Robert, 2008). The majority of studies made use of self-report questionnaires. Some study samples comprised children and adolescents only, while others also included parents (see Table II) or siblings and peers (Latendresse et al., 2009; Weiss & Schwarz, 1996), which may have produced many biases. All the above thus limits the comparability of the studies under scrutiny.

The representativeness of the individual study samples may be an issue of concern. Randomization was used in only one of the studies under analysis (Choquet et al., 2008). In the other studies, the authors themselves noted the possibility of a certain bias in their findings, which may have resulted from the unexplained attrition of some respondents during the longitudinal research (Adalbjarnardottir & Hafsteinsson, 2001) or from the method used to select the target group (Weiss & Schwarz, 1996). The former needs to be taken into account, as it may especially apply to adolescents engaging in risk-taking behaviours. A distinction should be drawn between

Table II. Systematic overview of studies according to the criteria that were set.

Research studies	Criteria														Methods ⁵			
	Study design ¹			Age category ²			Number of respondents	Parental involvement ³			Parenting styles ⁴							
	Country	L	C	1	2	3		Y	N	1	2	3	4	5		1		
Adalbjarnardottir and Hafsteinsson (2001)	Iceland	+			+	+	347		+	+	+	+	+	+	+			
Bahr and Hoffmann (2010)	USA		+		+	+	4938											
Barnes, Reifman, Farrell, and Dintcheff (2000)	USA	+			+	+	506	+										
Burk et al. (2011)	USA	+			+	+	362	+								+		
Choquet et al. (2008)	France		+		+	+	16,532		+							+		
Clausen (1996)	Norway	+			+	+	846		+							+		
Cohen and Rice (1997)	USA		+		+	+	386	+								+		
Foxcroft and Lowe (1995)	UK		+		+	+	1054		+							+		
García and Gracia (2009)	Spain		+		+	+	1416		+							+		
Latendresse et al. (2009)	Finland	+			+	+	5183	+								+		
Patock-Peckham et al. (2001)	USA		+		+	+	251		+							+		
Patock-Peckham and Morgan-Lopez (2007)	USA		+		+	+	441		+							+		
Piko and Balázs (2011)	Hungary		+		+	+	2072		+							+		
Roche et al. (2008)	USA	+			+	+	1596	+								+		
Shucksmith, Glendinning, and Hendry (1997)	Scotland	+			+	+	635		+							+		
Weiss and Schwarz (1996)	USA	+			+	+	178	+								+		
Total		8	8	8	6	6	12	14	6	10	13	9	9	9	7	3	12	6

¹L = longitudinal study, C = cross-sectional study.²1 = younger children (9–12 years), 2 = older children (13–15 years), 3 = adolescence (16–22 years).³Y = yes, N = no.⁴1 = authoritative style, 2 = authoritarian style, 3 = permissive style, 4 = neglectful style, 5 = other.⁵1 = questionnaires newly developed for the purposes of the research, 2 = standardized questionnaires.

PAQ – Parental Authority Questionnaire (Buri, 1991).

CRPR – Child-Rearing Practices Report (Block, 1965).

WAS – Warmth/Affection Scale (Rohner, Saaverda, & Granum, 1978).

PCS – Parental Control Scale (Rohner, 1989).

these cases, even though they are both associated with the reduced validity of the research. The latter case of impaired validity is a major limitation, especially in longitudinal research.

FINDINGS

Quantitative evaluation

Recent studies included in this review mostly categorize parenting styles according to Baumrind (1967), who distinguishes between authoritative, authoritarian, and permissive parenting styles (Patock-Peckham & Morgan-Lopez, 2007; Patock-Peckham et al., 2001), or Maccoby and Martin (1983), who expanded the above typology to include the fourth – neglectful – parenting style (Adalbjarnardottir & Hafsteinsson, 2001; Bahr & Hoffmann, 2010; Clausen, 1996; Foxcroft & Lowe, 1995; García & Gracia, 2009).

The above overview of research studies (see Table II) indicates that exactly half of the studies (eight) were undertaken in USA. The other countries were France, UK, Spain, Norway, Finland, Iceland, and Hungary. The ratio of preferred research designs was in balance – eight studies used a longitudinal design and eight a cross-sectional one. The target group mostly comprised adolescents aged 16–22 years (14 studies), followed by ‘older children’ aged 13–15 years (12 studies) and 9- to 12-year-old children falling into the ‘younger children’ category (six studies). It should be noted that a number of studies focused on broader target groups and, therefore, their results in the table apply to more than one age category. The smallest number of respondents (178 adolescents) was found in Weiss and Schwarz (1996); the study also involved their parents. The largest number of respondents, 16,532 in total, was found in Choquet et al. (2008), although the study involved only adolescents aged 11–18 years, not their parents. The rate of parental involvement suggests that researchers have recently preferred to conduct studies of children only (10 studies in our review) in comparison to those involving the parent-child combination (six research projects in our review).

As regards methodology, the authors of the studies under review chose questionnaires that had been newly developed for the purposes of the research (12 studies in total) rather than standardized methods (the latter approach was only applied in six studies). This may imply certain limitations in evaluating and comparing the validity and reliability of the results produced by the studies – see the previous section, Methodological Differences and Limitations of the Studies.

In terms of specific child-rearing approaches, the closest research attention was given to an authoritative parenting style (13 studies). The focus on authoritarian and permissive styles was in balance (each is covered by nine studies). The neglectful style received less scientific attention (seven studies), and three of the reported works provided no specification of the

parenting style(s) they were concerned with. It should be noted at this point that several studies looked into multiple parenting styles. The cumulative rates of occurrence are thus higher than the sum of the studies under scrutiny. Moreover, five studies (Adalbjarnardottir & Hafsteinsson, 2001; Bahr & Hofmann, 2010; Clausen, 1996; Foxcroft & Lowe, 1995; García & Gracia, 2009; Shucksmith et al., 1997) investigated the effects of all four parenting styles.

A quantitative comparison of the results of the studies was carried out according to the study criteria. The findings relevant to parenting styles can be summarized as follows.

Authoritative parenting style

Authoritative parenting was examined by the largest number of the studies (13) included in our review. Six of the studies employed longitudinal research designs, seven were designed as cross-sectional studies. Adolescents in the 16–22 years age category formed the largest target group (11 studies). Ten studies were concerned with adolescents falling within the older children (13–15 years). Younger children (9–12 years) were represented the least (five studies). As for methodology, the use of questionnaires that had been newly developed for the purposes of the research (nine studies) predominated over the application of standardized methods (four studies). Only four studies also involved parents. Most of the research projects under consideration focused on children and adolescents only (nine studies).

Authoritarian parenting style

Nine studies that examined authoritative parenting also looked into an authoritarian style. A cross-sectional research design was used significantly more often (six studies) than a longitudinal one (three studies). Adolescents in the 16–22 years age category formed the largest target group (seven studies), followed by adolescents aged 13–15 years (six studies). Only three studies were concerned with children in the 9–12 years age category. Methodologically, questionnaires that had been newly developed for the purposes of the research (six studies) were preferred to standardized questionnaires (three studies). Only one study (Cohen & Rice, 1997) explored the relationship between parenting and children’s alcohol use within the child-parent dyad. The other researchers (eight studies) focused their investigation on children only.

Permissive parenting style

Nine of the studies that examined authoritative and authoritarian parenting styles also addressed permissive parenting. The proportions of the research designs used, the representation of the target group, and the preferences for research methods are the same as in the studies pertaining to an authoritarian parenting style – see above.

Neglectful parenting style

Seven studies investigated the neglectful style of parenting. While six of them also addressed the parenting styles mentioned earlier, only Choquet et al. (2008) focused their study exclusively on research into neglectful parenting. The ratio between the preferred research designs was almost in balance: there were four cross-sectional and three longitudinal studies. In comparison to other child-rearing approaches, this category featured the highest representation of adolescents in the 13–15 years age category (seven studies). Six of these studies also covered the 16–22 years age group. None of the studies pertaining to this parenting style addressed children aged 9–12 years. Questionnaires that had been developed specifically for the purposes of the research predominated among the methods used (six studies); only one study worked with standardized methods (García & Gracia, 2009). All the above-cited studies that came into this category involved children only. No parents participated in the research.

Qualitative evaluation

Some authors limit their focus to the authoritarian style so as to assess its influence on risk behaviour, specifically alcohol use among adolescents (Burk et al., 2011; Piko & Balázs, 2011), while others devised their own typologies (Bahr & Hoffmann, 2010; Choquet et al., 2008; Latendresse et al., 2009; Roche et al., 2008).

In order to investigate the correlations between parenting styles and alcohol use among children and adolescents, the studies seek to identify the prevalence of drinking. Their conclusions generally suggest that there is a relationship between a style of parenting and regular or hazardous alcohol consumption among children and adolescents (Cohen & Rice, 1997; Foxcroft & Lowe, 1995; García & Gracia, 2009; Patock-Peckham & Morgan-Lopez, 2007). It has been shown that specific parenting styles correlate with the experimental use of alcohol among 14-year-old respondents; experimental use is referred to as trying alcohol at least once in the respondent's lifetime (Adalbjarnardottir & Hafsteinsson, 2001). Burk et al. (2011) found that young children exposed to authoritarian parenting are more likely to show higher prevalence rates of alcohol use in adolescence (from 10 to 16 years of age). Examining the outcomes of all four parenting styles, García and Gracia (2009) concluded that adolescents whose parents practised neglectful parenting showed higher levels of independence and competence, but also high levels of alcohol use.

While some studies looked into the direct relationship between parenting styles and alcohol use among children and adolescents (e.g. Adalbjarnardottir & Hafsteinsson, 2001; Bahr & Hofmann, 2010; Choquet et al., 2008; Foxcroft & Lowe, 1995; García & Gracia, 2009; Piko & Balázs, 2011; Weiss & Schwarz, 1996),

others also investigated the indirect associations by taking into account a wider range of variables. A correlation between the quality of the emotional bond between children and their parents and its subsequent effect on drinking may be of significance. This aspect was explored by Patock-Peckham and Morgan-Lopez (2007), who studied the impact of parenting styles on the quality of the emotional bonds with the mother and the father, respectively. They concluded that an authoritative parenting style on the part of both the father and the mother strengthens the positive (secure) emotional bond and serves as a protective factor in terms of alcohol use, while the opposite is true as regards the permissive and authoritarian child-rearing approaches. A negative emotional bond between the parent and the child then increases the probability of the development of depressive symptoms among children, which may result in higher levels of alcohol use and related problems. The authors further suggest that drinking often works as a form of self-medication (i.e. individuals choose the drug that will manage their specific type of psychiatric distress and help them achieve emotional stability [Khantzian, 1997]) in these cases.

Patock-Peckham et al. (2001) conducted research into the influence of parenting styles on self-regulation in children of the same sex and the relationship between self-regulation and alcohol use. Self-regulation and, specifically, thoughts of control over drinking are forms of positive self-control mechanisms. Parenting styles are known as determinants of both negative and positive self-control mechanisms in young people. These authors found a negative correlation between self-regulation and drinking. Authoritative parenting by the mother was shown to be in a significantly positive correlation with the level of self-regulation in girls, while no such association with an authoritative parenting style on the part of the father was confirmed in boys. Importantly, a permissive parenting style was shown to result in significantly lower levels of self-regulation in children of both genders and thus to be positively related to drinking.

The research results indicate that a parenting style may change during adolescence and so may its consequences (Piko & Balázs, 2011). Longitudinal studies show that the degree of parental control decreases as the children grow older (Adalbjarnardottir & Hafsteinsson, 2001; Choquet et al., 2008; Latendresse et al., 2009). Shucksmith et al. (1997) report that in the first phase of their longitudinal study, when the respondents were aged 13–14, authoritative and authoritarian parenting styles predominated, while two years later permissive or neglectful child-rearing was more likely to be found in the respondents' families. Adalbjarnardottir and Hafsteinsson (2001) stated that while 14-year-old children from families applying permissive parenting showed lower levels of experimenting with alcohol

than those from neglectful families, this difference had disappeared by the time they were 17 years.

Moreover, as young people grow older, parental influence diminishes and the role of the peer group gains in significance. It is at this point that the presence of parental control as a protective factor is vital. Adolescents' proneness to yielding to peer influence is described by Roche et al. (2008). The role of parental control as a significant asset is noted by Adalbjarnardottir and Hafsteinsson (2001). The importance of parental control in later adolescence is also pointed out by Piko and Balázs (2011), who suggest that it works as a major protective factor among university students too. In addition, their study showed that the level of parental control had no significant influence on the prevalence of alcohol use among adolescents in middle school, but had a significant bearing on the monthly prevalence of drinking among adolescents in high school. Barnes et al. (2000) suggest gender-related correlations between the degree of parental control and alcohol use among children. According to their study, older adolescents and boys report lower levels of parental control than girls and younger adolescents, and children growing up in families with a lower level of parental control are exposed to a higher risk of alcohol use. Some authors focus on the significance of gender differences in child-rearing by making a distinction between the respective parenting styles practised by mothers and fathers. A particularly significant association between fathers' parenting styles and alcohol use among children and adolescents was found by Patock-Peckham and Morgan-Lopez (2007). Other researchers (Choquet et al., 2008; Foxcroft & Lowe, 1995; Piko & Balázs, 2011) looked into gender differences in the influence of parenting styles and the development of risk-taking behaviour in girls and boys. Choquet et al. (2008) suggest that parental control and emotional support, i.e. both dimensions used to determine a parenting style, are more closely related to alcohol use among girls. The opposite conclusion was arrived at by Foxcroft and Lowe (1995), who identified a more pronounced relationship between a parenting style and alcohol use among boys. While some other research results provide evidence of alcohol use among boys being influenced by parental control only (Roche et al., 2008), there are studies that point to a crucial role being played by emotional closeness to the parents for both boys and girls (Piko & Balázs, 2011).

Some studies take into account additional family factors that may have an impact on children's drinking, such as *family structure*. Researchers generally agree that adolescents from single-parent families are at significantly greater risk of alcohol use than adolescents from intact families. Shucksmith et al. (1997) describe children from intact families as showing a lower prevalence of alcohol use, while those from non-intact (single-parent) families tend to use alcohol more frequently; the highest prevalence of use is found in

children raised in reconstituted families. Choquet et al. (2008) suggest a relationship between the level of parental control and emotional support and family structure. While children from reconstituted families reported lower levels of both control and emotional support than children from intact families, children from single-parent families were likely to report a similar degree of parental control to those from intact families, but emotional support on a level equivalent to that experienced in reconstituted families. This may subsequently affect the level of alcohol use among children. Higher levels of drinking were shown in girls from single-parent and reconstituted families. No evidence of this association was found in boys (Choquet et al., 2008).

The results of most of the studies under analysis show that an authoritative parenting style, characterized by a positive emotional bond between the parents and the child and reasonable parental control and demandingness, serves as a protective factor regarding alcohol use among children and adolescents (Adalbjarnardottir & Hafsteinsson, 2001; Bahr & Hoffmann, 2010; Barnes et al., 2000; Burk et al., 2011; Cohen & Rice, 1997; Patock-Peckham et al., 2001; Piko & Balázs, 2011). Young people exposed to authoritative parenting usually report a lower prevalence of alcohol use and other risk-taking behaviour than those from families featuring neglectful or authoritarian parenting styles. Adolescents whose parents adopt permissive child-rearing approaches show similar positive outcomes, particularly at an early age (Adalbjarnardottir & Hafsteinsson, 2001). According to García and Gracia (2009), permissive parenting may even be more effective in this respect than an authoritative approach. The impact of an authoritative parenting style on children's alcohol use was further explored by Burk et al. (2011). Their longitudinal study showed that when applied in early childhood, this style of parenting results in a higher prevalence of alcohol use during adolescence. This finding may imply that an authoritative parenting style differs in its influence on pre-pubertal children and adolescents, respectively. This is also of significance for parents, who should consider a differentiated approach to child-rearing and the application of rules in different stages of their children's development. These authors (Burk et al., 2011) also suggest that the definition of an authoritative parenting style may encompass additional factors that facilitate children's alcohol use. Further research should also consider children's individual predispositions and the interactions between children's behaviour and their parents' child-rearing approaches.

DISCUSSION

Apart from raising concerns about the methodological limitations of the studies, the above findings may also provoke discussion on their concrete implications for clinical practice.

Some researchers (Cohen & Rice, 1997) note that agreement on parenting styles as perceived by parents and children may be poor. While children tend to perceive their parents' child-rearing styles in more negative terms, their parents view them as positive; i.e. parents are more likely to report stricter parenting than their children. In addition to the assessment measures, parents' involvement also plays a major role in identifying parenting styles. It was therefore used as a criterion in the summary table.

As previously stated, two of the studies under analysis produced different results. Looking into alcohol use among adolescents, as well as their problem behaviours, self-esteem, and personal responsibility, García and Gracia (2009) found that children exposed to permissive parenting in all aspects showed outcomes that were as good as or even better than those whose parents practised authoritative child-rearing. This conclusion contradicts other research results that point out the negative ramifications of a permissive parenting style, which are especially attributed to the typical lack of parental control as the children grow older (Adalbjarnardottir & Hafsteinsson, 2001; Patock-Peckham et al., 2001). García and Gracia (2009) explain this by referring to the hierarchical arrangement of family relationships and sociocultural differences between southern and northern countries. This suggests that strict parental control does not necessarily have a positive influence on adolescents' development, not even in combination with strong emotional attachment (Van der Vorst et al., 2006).

Some authors suggest that strict parenting may be viewed negatively in cultures that are not based on hierarchical relationships (Rudy & Grusec, 2001). As a result, strict parental control may not have a positive effect on parenting outcomes in those countries where acceptance, warmth, and attachment are positively associated with the healthy psychosocial development of an individual (Ciairano, Kliever, Bonino, & Bosma, 2008; Martinez & Garcia, 2007; Martinez, Garcia, & Yubero, 2007).

Surprising results were also reported by Burk et al. (2011). While the other studies considered parenting styles as perceived by adolescents during adolescence, Burk et al. (2011) assessed parenting styles at the ages of four and eight years, using information from parents only. In the second phase of their longitudinal research, these scores were compared with information from children collected on the basis of a self-report questionnaire designed to rate the prevalence of alcohol use among 16-year-old adolescents. It was found that an authoritative parenting style during childhood resulted in higher levels of drinking in adolescence. The authors explain this finding by the different impacts of authoritative parenting during childhood and adolescence, respectively. In addition, the absence of information about parenting styles provided by the children themselves may have produced bias, and

parents may have reported stricter parenting approaches, as was the case in other studies.

The studies often point to parenting styles being more closely associated with alcohol use among girls, with parental control representing an aspect of higher significance (Choquet et al., 2008; Foxcroft & Lowe, 1995; Patock-Peckham et al., 2001). The authors note that this may be partly due to gender differences in parenting: while parents tend to be more tolerant of boys coming home late at night, stricter rules apply to girls in this respect. Girls therefore report a greater degree of parental control, which may lead to the misinterpretation of results (Foxcroft & Lowe, 1995).

Some studies explore the two dimensions that constitute the model devised by Maccoby and Martin (1983), i.e. parental control and emotional support, separately rather than dealing directly with parenting styles (Barnes et al., 2000; Choquet et al., 2008; Roche et al., 2008). Such studies were nevertheless included in the present review as evident associations may be made between their results and specific parenting styles. Other researchers chose to develop their own typologies. Considering several aspects (warmth/emotional support, granting of autonomy, strictness, information, and a level of stress), Latendresse et al. (2009) distinguished three profiles of parenting, with the most effective being that characterized by reasonable degrees of all the relevant aspects and high levels of warmth/emotional support, which is a description that generally matches the definition of an authoritative parenting style (Baumrind, 1991).

The majority of recent studies of alcohol use among children and adolescents prefer to investigate the individual aspects of parenting and specific risk and protective factors. These include the family structure and the quality of parent-child relationships (Kuntsche & Silbereisen, 2004; Ryan, Jorm, & Luxman, 2010; Sieving, Maruyama, Williams, & Perry, 2000). Kuntsche and Kuendig (2006) find the family structure to be a factor that is statistically more significant than perceived alcohol use among peers. Other authors report the influence of the emotional bond between the parent and the child (Danielsson, Romelsjö, & Tengström, 2011; Hemphill et al., 2011; Kopak, Chia-Chen Chen, Haas, & Gillmore, 2012) or open communication in the family (Luk, Farhat, Iannotti, & Simons-Morton, 2010; Mares, Van der Vorst, Engels, & Lichtwarck-Aschoff, 2011; Van der Vorst, Burk, & Engels, 2010). Recent studies often interrelate the topics of communication and alcohol use in the family (Foley, Altman, Durant, & Wolfson, 2004; Kuendig & Kuntsche, 2006; Van der Vorst et al., 2010). Bellis et al. (2009) explain that while a non-drinking family environment may reduce the risk of adolescent alcohol use, it may also increase alcohol consumption in public places. The authors suggest that alcohol provision in a safe parental environment may facilitate open communication in the family, as well as influencing the total adolescent alcohol intake. While relevant to some

countries and cultures, this finding cannot be generalized to all families. It may be more useful to look for an explanation of this fact in the styles of communication and the degree of openness in the family.

Indeed, an approach that reflects additional family assets and risk factors is beneficial in many ways. The individual aspects of parenting may usually be measured in all respondents. In two of the studies, however, the samples had to be narrowed because of the limited applicability of the existing typological models of parenting styles, as not all the respondents met the criteria for being assigned to any one of the three or four parenting styles (García & Gracia, 2009; Shuckmith et al., 1997). In both cases, the original study sample was reduced by almost half, and the respondents who did not match any of the formal categories were removed from the study. Significantly, they were the individuals who often reported average scores in both the parental control and emotional support dimensions. The impact of this parenting style on alcohol use was thus not examined further. On the other hand, some researchers divided the original sample into four parenting styles (e.g. Adalbjarnardottir & Hafsteinsson, 2001). This implies that the criteria for determining the parenting styles must have varied dramatically, and, in the latter case, the differences between the parenting styles were small.

Last but not least, a major limitation of quantitative research should be mentioned: it precludes taking the individuality of a child into account. Alcohol use among children is strongly affected by additional systemic factors, such as the child's personality characteristics, genetic predispositions, and sociocultural background (Masten et al., 2009; Settertubulte, Jensen, & Hurrelmann, 2001), which were not considered in the research studies dealt with here. On the social level, family structure (Kuntsche & Kuendig, 2006; Kuntsche & Silbereisen, 2004; Ledoux, Miller, Choquet, & Plant, 2002), the socio-economic status and education of parents (Dubow, Boxer, & Huesmann, 2008; Melotti et al., 2013; Spijkerman et al., 2008), peer influence (Crawford & Novak, 2002; Nash, McQueen, & Bray, 2005; Trucco, Colder, & Wieczorek, 2011), and parental socialization (Latendresse et al., 2009; Shucksmith et al., 1997; Van der Vorst, Engels, Meeus, Dekovic, & Van Leeuwe (2005) play an important role.

On the individual level, as suggested by Matějček (1986), for example, the same parenting style applied by different parents to different children may have various consequences. Cleveland et al. (2012) indicated that the influence of individual risk would increase during adolescence. They found that while the influence arising from family protection diminished during this developmental period, the influence of family risk, school protection, and community protection did not vary. The results of this study support a developmental approach to adolescent alcohol use and emphasize the

need for prevention strategies that account for these developmental changes.

CONCLUSION

The aim of this review was to analyse the results of the latest research studies that examine correlations between parenting and alcohol use among children and adolescents. The unique contribution of this article lies in the critical assessment of the original studies and the new and consistent interpretation of their results within a more homogeneous interpretative framework. The studies were subjected to quantitative evaluation according to their methodological criteria and forms of parenting styles. Most of the studies focused on the authoritative parenting style. The ratio of longitudinal research projects and cross-sectional studies was in balance. As regards methodology, researchers have recently preferred to conduct studies of children only rather than those involving the parent-child combination. At the same time, the authors of recent studies chose questionnaires that had been newly developed for the purposes of their research rather than standardized methods. These facts may imply certain limitations on evaluating and comparing the validity and reliability of the results of the studies that were presented. Qualitative evaluation showed a broader context and greater complexity of study results. 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 alcohol use among children and adolescents. Future research should be focused more on the group of younger children (9–12 years) and studies involving both children 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 programmes.

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