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Abstract

Decades of research has shown that adolescent alcohol consumption is linked to effective parenting. Data were obtained from adolescents (N=11 503, mean age 14.9±0.79) in Austria, Estonia, France, Germany, Hungary, Ireland, Israel, Italy, Romania, Slovenia and Spain within the European Union's 7th Framework Programme funded project, 'Saving and Empowering Young Lives in Europe (SEYLE)'. Our data show that on average in European families' parents most of the time or always know about their childrens' whereabouts, never or rarely check their homework, most of the time or always understand their problems and often help them make important decisions. Parents also often take time to talk, listen to adolescents' opinions and come to see their special activities. Investigated parenting actions conceptualised as firmness, closeness and involvement can in some combinations predict adolescent alcohol consumption frequency.

The current paper suggests that there are two types of family contexts where adolescents drink less alcohol. In the first family context parents most of the time or always know about their whereabouts, check their homework and often help to make important decisions or understand problems. In the second type, their parents often take time to talk to them, listen to their opinion and come to see their special activities. Ineffective parenting eclipses different family structure types and reveals to be a higher predictor of adolescents' multidimensional decline.

Keywords: alcohol, adolescent, parenting, firmness, closeness, involvement, family structure, SEYLE

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INTRODUCTION

Parenting and its effects on adolescent development have been a pillaring topic for researchers for over the last 60 years. Effective parenting regarding adolescent risk behaviours has within recent decades been globally addressed by a multitude of preventive and operational guidelines, strategies, and policies in different countries on national and EU levels. Starting with the ratification of the 1990 United Nations Convention on the Rights of the Child in Sweden (United Nations General Assembly, 1989a), followed by events like the International Year of the Family in 1994 (United Nations General Assembly, 1989b), Council of Europe Recommendation 19 to Member States on policies to support positive parenting (European Committee for Social Cohesion, 2006). Such movements have yielded widely accepted global programs like *Incredible Years* (Webster-Stratton, Rinaldi, & Reid, 2011), the *Prosper* (R. Spoth *et al.*, 2013), *Triple P - Positive Parenting Program* (Sanders, 1999), *Strengthening Families 10-14* (R. L. Spoth, Guyll, & Day, 2002), *Youth in Europe* (Kristjansson *et al.*, 2016) and *Family Check-Up* (Dishion *et al.*, 2008) programs. Much has gone from research into practice in the EU and the USA, but much is yet ahead.

Every adolescent is a result, a unique combination of their inherited genetic material, environmental experiences, and concurrent cognitive functions. Social environmental stimuli, drawing on the aptitude of biological foundations, consists among many other factors of available frameworks (parents, friends, kindergarten, school, TV, internet, videogames etc.) through which the learning process takes place. From birth to young adulthood one of the most important contributors to the social development of a person is parenting. Parenting steers the learning of norms, values and the unfolding of inherited personality traits. The older the child gets the more parental contribution becomes a collaboration between the parent and the child. Adolescence, as being the time when the youth strives for autonomy to experiment with new roles and responsibilities associated with adulthood, is filled with unpredictable perils and many parenting mistakes could only be outlined in hindsight. The parental task to sufficiently and most effectively mediate and moderate the behavior of an adolescent is complex and has to be looked at in detail to draw out some useful principles.

Adolescents' alcohol consumption and family relationships

The European Union (EU) has one of the highest drinking rates in the world (11 litres of pure alcohol per adult each year; (Anderson, Mřller, & Galea, 2012). International studies have repeatedly shown that alcohol consumption is also a problem among adolescents (de Looze *et al.*, 2012; Hibell *et al.*, 2012; Rřütel *et al.*, 2014). Studies have revealed that there is a clear distinction between adolescents' drinking habits according to family structure. In families with both birth parents' adolescents' drinking rates are far less than in families with a single parent or one birth parent and one step-parent families. These studies suggest that adolescents from both birth-parents' families consume less alcohol because

of the predominance of some underlying qualities existing in those families (Ram & Hou, 2003; Rützel *et al.*, 2014). These qualities of family relationships are hard to grasp as a whole, but have been studied separately for decades by social scientists. Wider dimensions of family relationships influencing adolescent development investigated are the impact of parents' personal material issues, parental psychological problems, marital disruptions, parental behaviour patterns (conflict resolution, coping methods, parental drinking patterns etc.) (Cherlin, 2012; Nash, McQueen, & Bray, 2005; Ram & Hou, 2003; Rützel, *et al.* 2014; Keeley, Mongwa, Corcoran, 2015). Research has revealed that adolescents in families where there are family disruptions and constant marital conflict show severe academic, emotional, and behavioral problems (Ram & Hou, 2003). Many researchers have found that the reasons for the adolescents' cognitive, emotional and behavioral decline are related to parenting styles and the psychosocial well-being of parents rather than children themselves (Longest & Shanahan, 2007; Steinberg, 2001). The diminution of parenting resources among parents on a material or a psychological level manifests in ineffective parenting, evoking family dysfunctions one of which being adolescent alcohol consumption (McMunn, Nazroo, Marmot, Boreham, & Goodman, 2001; Petterson & Albers, 2001). Researchers have shown that effective parenting is among the variables we can control to successfully mediate the adverse effects of aberrant environmental stimuli on adolescents emotional and behavioral problems (Ram & Hou, 2003).

Effective parenting

Historically effective parenting has been viewed from the perspective of parent-adolescent conflicts (Blos, 1967; Erikson, 1994; Freud, 1958), which in time inverted towards a modern non-conflictive perspective of family relationships (Conger, 1981; Josselson, Greenberger, & McConochie, 1977a; Josselson, Greenberger, & McConochie, 1977b). Today we are more certain that high-intensity, angry fighting is not the most fruitful style of parenting and somewhere between conflict and nurture lays the middle ground of being an effective parent (Steinberg, 2001).

Authoritative parenting

According to Baumrind (1971) there are three types of parenting styles: permissive, authoritarian and authoritative. This triad corresponds closely to well-known communication styles: passive, aggressive and assertive. Assertiveness among others has been explored first by Wolpe (1968) in relation to methods used for overcoming anxiety. Since the 70's there has been a multitude of research from different countries, from various cultural and ethnic backgrounds and from diverse value systems showing that adolescents benefit from authoritative parenting (Feldman, Rosenthal, Mont-Reynaud, Leung, & Lau, 1991; Shucksmith, Hendry, & Glendinning, 1995; Steinberg, 2001; Stewart *et al.*, 2000). There are also research showing that the same principles of authoritative and assertiveness characterize effective teachers, school principles, sports coaches, work supervisors, organizations and leaders (Moos, 1978; Rutter, 1983).

Authoritative parenting is described through three aspects: warm, firm and involved. These aspects contribute to adolescent academic achievements, stress tolerance, higher self-reliance and self-esteem, and less likeliness to exhibit anti-social behavior, delinquency, alcohol and substance consumption. All three aspects have been shown to enhance psychosocial development and some aspects although overlapping influence different traits of the adolescents' growth. Firmness has been linked to preventing risk behavior, such as drug and alcohol consumption and delinquency (Furstenberg, Cook, Eccles, Elder, & Sameroff, 1999; Sampson & Laub, 1993). Warmth and involvement are connected to adolescents' psychological autonomy development and as a general protective factor against anxiety, depression and other manifestations of distress (Gray & Steinberg, 1999). The nurturing qualities of parenting and parental involvement in adolescents' lives make them more receptive to parental influence which advances their socialization. The combination of support and structure within a family facilitates the development of self-regulatory skills enabling the young person to function as a competent, responsible individual. Familial verbal interaction invests in adolescents' cognitive and social competences preparing them for future autonomy (Steinberg, 2001).

From a family structure perspective Steinberg (2001) has noted that although having two authoritative parents is better than having one, having one authoritative parent is better than having none, even if having one means having parents who do not necessarily agree (Steinberg, 2001). Differences among adolescents with one compared to two authoritative parents are much smaller than the differences among adolescents who only have one authoritative parent versus those with two parents who agree, but are permissive or authoritarian.

Adolescents whose parents attend school functions, monitor homework and are generally involved in their daily lives did better in school than their peers and revealed less proneness towards risk behaviors such as alcohol consumption (Steinberg, Lamborn, Dornbusch, & Darling, 1992). The studies of authoritative parenting reveal that it is not only what parents do that has the positive effect on adolescents but also in what emotional atmosphere it happens (Steinberg, 2001).

Parental actions

Baumrind's (1971) authoritative parenting construct triad '*warm, firm and involved*', although somewhat lost to the blind developmental rush of contemporary social sciences, have been investigated using different terminology. Ryan, Jorm and Lubman (2010) from their extensive systematic review of longitudinal studies on parenting factors associated with reduced adolescent alcohol consumption reported that *key parental factors* influencing adolescent alcohol consumption in both initiation and later drinking phase were (1) *parental modelling*, (2) *limiting availability of alcohol to the child*, (3) *parental monitoring*, (4) *parent-child relationship quality* and (5) *general communication*; only drinking initiation phase – (6) *parental involvement* and only in later drinking phase – (7) *disapproval of adolescent drinking*, (8) *general discipline* and (9) *parental support* (Ryan, Jorm, & Lubman, 2010).

In corresponding works Bryant, Schulenberg, O'Malley, Bachman, and Johnston (2003) saw that parental involvement in adolescents' schoolwork acted as a buffer against substance use, which has been supported by Borawski, Levers-Landis, Lovegreen, & Trapl (2003) pointing out that in families with less parental monitoring and control the rates of delinquency and alcohol consumption increase (Borawski, Levers-Landis, Lovegreen, & Trapl, 2003). Many studies have found that parental monitoring had its greatest effect on adolescent alcohol consumption in families with higher levels of support (Barnes, Reifman, Farrell, & Dintcheff, 2000; Longest & Shanahan, 2007). Thus, children are more willing to cooperate with parental expectations as family closeness increases and as they feel a greater sense of attachment to them (Kerns, Aspelmeier, Gentzler, & Grabill, 2001). Longest & Shanahan (2007) have reported that in families where the levels of parental support, closeness and monitoring are high the risk for occurring aberrant behavior such as alcohol and drug use is lowered. Steinberg (2001) proclaims that effective parenting can be defined through authoritative parenting and thus firmly stands behind Baumrind's (1971) concerning measures which are comparable across different ethnic and socioeconomic groups, and keep unveiling plausible results in adolescent outcomes across diverse groups (Knight, Virdin, & Roosa, 1994; Mason, Cauce, Gonzales, & Hiraga, 1996; Steinberg, Dornbusch, & Brown, 1992).

Evidence suggests that positive family relationships and parenting variables have the capacity to influence the alcohol consumption and risk behaviours of adolescents, as well as their choice of peer-group (Poelen, Scholte, Willemsen, Boomsma, & Engels, 2007). With the current research, we aim to investigate the relationship of 7 parenting actions' with adolescents' alcohol consumption.

METHODS AND DATA

The 7th Framework European Commission funded project, Saving and Empowering Young Lives in Europe (SEYLE) is a Randomized Controlled Trial (RCT) evaluating preventive interventions for risk-behaviours among adolescents in Austria, Estonia, France, Germany, Hungary, Ireland, Israel, Italy, Romania, Slovenia and Spain with Sweden as the coordinating site. The data for this study were collected during the baseline assessment of the SEYLE project (Wasserman *et al.*, 2010).

Subjects and instrument

All SEYLE questionnaires were administered in the official language(s) of the specific country. In each country random schools were selected and on each site representativeness was tested and compared to corresponding national data. All scales utilised in the study had good to very good internal reliability, as measured by Cronbach's alpha (BDI-II: 0.864; Z-SAS: 0.805; SDQ: 0.740; WHO-5: 0.799). Demographic characteristics of participating sites were found to be reasonably

representative of their respective national population (Carli *et al.*, 2013). Ethical approval was obtained from the local ethical committees at each study site. Out of the 14,115 students who consented to participate, 1,720 were absent on the day of the survey. This resulted in a total of 12,395 students who completed the questionnaire. An additional 892 subjects were excluded based on missing relevant data concerning investigated parenting actions and the total sample of 11 503 adolescents was included in the analyses (F/M: 6475 (56.3%)/5028 (43.7%); mean age: 14.9±0.79). The whole sample consisted of 32,9% (n=3783) *14 years old and younger*, 43,8% (n=5043) *15 years old* and 23,3% (n=2677) of *16 years old and older* kids. Out of our investigated sample 78,3% (n=9004) of adolescents were from families with *both birth parents*, 14,7% (n=1691) were from *single-parent families* and only 7% (n=808) were from families with *one birth parent and one step parent*. Sample variation by country was minimal (mean 1045.72; range 912:1394) so no adjustments were made. Among other attributes the SEYLE baseline questionnaire gathered information on (I) *family structure*, (II) *alcohol consumption patterns of adolescents* and on (III) *parenting actions* which were investigated in this study.

Operationalization of concepts and statistical procedures

Family structure was assessed through the question ‘*where you live permanently or most of the time and write down the people who live with you at your home*’ in 8 categories: mother, father, stepmother with father, stepfather with mother, grandmother, grandfather, foster home or something else. We recoded the answers into 3 categories: living in a (1) *both birth-parents’ family*—birth father and birth mother in the family; (2) *single-parent family*—one birth parent alone, either father or mother; and (3) *one step-parent family*—one birth parent (either father or mother) and one step-parent (either stepfather or stepmother), disregarding other family settings. Families with grandparents living together with the parent(s) (n = 1246 [11%]) were included within the immediate family structure and not differentiated in this research (Rüütel *et al.*, 2014).

Adolescent alcohol consumption was measured with the question ‘*How often do you have a drink containing alcohol? For example, 0.33 l beer or cider; glass of wine or 4 cl of strong alcohol*’. The answers to the question were grouped into 5-scale: never; once a month or less; 2 to 4 times in a month; 2 to 3 times a week, 4 or more times a week.

Parental actions were measured by 7 questions: (1) Check homework – ‘*During the past 2 weeks, how often did your parents or guardians check to see if your homework was done*’, (2) Knowing of child’s whereabouts - ‘*During the past 2 weeks, how often did your parents or guardians really know what you were doing with your free time*’; (3) Understanding problems - ‘*During the past 2 weeks, how often did your parents or guardians understand your problems and worries*’, (4) Take time to talk - ‘*How often do your parents/guardians take time to talk with you about things that happened to you*’, (5) Pay attention to child’s opinion - ‘*How often do your parents/guardians pay attention to your opinion or what you say*’; (6) Help make important decisions - ‘*How often do your parents/*

guardians help you make important decisions', (7) Come to see an activity - 'How often do your parents/guardians come to see you when you do some special activity like being in a play, a sport, or you give some sort of a performance'. The answers to the questions 4-7 were measured on a 3-point scale: never or almost never, sometimes, often. The answers to the questions 1-3 were measured on a 5-point scale: never, rarely, sometimes, most of the time, always; but were re-grouped into 3-point scale (never or rarely, sometimes, most of the time and always) to match the data from questions 4-7.

At first we aimed to group the 7 parental actions to correspond with the original Baumrind's (1971) sharing of authoritative parenting 'warm, firm and involved' and with later works of Ryan, et al. (2010), Shanahan & Longest (2007), Getz & Brey (2005), Bryant, et al. (2003) and Furman & Buhrmester (1985) on 'Closeness, Monitoring and Parental Support' in association with adolescent alcohol consumption. But after an indepth look at the studies from the last two decades, we saw that different papers had grouped same parenting actions under different categories (Ryan, Jorm & Lubman, 2010; Shanahan & Longest, 2007; Getz & Brey, 2005; Nash, McQueen & Bray, 2005; Bryant, et al., 2003; Barnes, et al, 2000; Furman & Buhrmester 1985; Barnow, Schuckit, Lucht, John, & Freyberger, 2002; Bogenschneider, Wu, Raffaelli, & Tsay, 1998; Ennett, Bauman, Foshee, Pemberton, & Hicks, 2001; Hoskins, 2014; Maccoby & Martin, 1983; Simons-Morton, Haynie, Crump, Eitel, & Saylor, 2001; Small & Kerns, 1993; Stice, Barrera Jr, & Chassin, 1998). Within this paper we will not present our findings according to the different groupings of parental actions in these papers because this will divert the attention from the main goal of this study. Furthermore, in a previous study a Principal Components Analysis and a Parallel Analysis with Monte Carlo simulation on investigated parenting actions revealed only one relevant parenting factor at play within all 7 investigated parenting actions (Watkins, 2005). Thus, aiming for a more transparent and more comparable research results, we investigated the 7 named parenting actions as they were.

RESULTS

Adolescent alcohol consumption and parental actions

The gathered data on *alcohol consumption frequency* of 11 European countries (N=11503) revealed that 35.8% of adolescents have *never* consumed alcohol, 33,2% have consumed alcohol *once a month or less* and 22,8% have consumed alcohol *2 to 4 times a month*. There is a dramatic drop in the group size of alcohol consuming adolescents with the increase of alcohol consumption frequency, revealing that only 6.5% drink as often as *2 to 3 times a week* and only 1.7% drink *4 or more times a week*.

From the *parenting actions* perspective, it is shown that out of the whole sample (N=11503) parents know of child's whereabouts 67.1% most of the time or always, 14.1% sometimes, 18.8% never or rarely; *check homework* 26,1% most

of the time or always, 19.6% sometimes, 54.3% never or rarely. Parents *understand adolescents' problems* 55.3% most of the time or always, 17.9% sometimes, 26.8% never or rarely; *take time to talk about life* 48.2% often, 37.6% sometimes, 14.2% never or almost never; *parents pay attention to adolescents' opinion* 61.5% often, 32% sometimes, 6.5% never or almost never. *Parents help adolescents make decisions* often 47.8%, sometimes 41.3% and never and almost never 10.9% and *parents come to see a special activity* 56% often, 27.3% sometimes, 16.6% never or almost never.

Table 1. Frequencies of parental actions and adolescent alcohol consumption

	Adolescent alcohol consumption frequency											Chi-Square	p-value
	Never		Once a month or less		2 to 4 times a month		2 to 3 times a week		4 or more times a week				
	n	%	n	%	n	%	n	%	n	%			
Parental actions													
Knowing of child's whereabouts													
Never or rarely	581	14.1%	665	17.4%	609	23.2%	221	29.5%	86	44.8%	387.33	<0.001	
Sometimes	431	10.5%	555	14.5%	476	18.1%	129	17.2%	22	17.2%			
Most of the time or always	3100	75.4%	2596	68.1%	1540	58.7%	398	53.3%	73	38.0%			
Check homework													
Never or rarely	1908	46.3%	2128	55.8%	1605	61.2%	477	63.8%	131	68.2%	250.54	<0.001	
Sometimes	833	20.2%	779	20.4%	497	18.9%	121	16.2%	25	13.0%			
Most of the time or always	1381	33.5%	909	23.8%	523	19.9%	150	20.0%	36	18.8%			
Understanding problems													
Never or rarely	935	22.6%	975	25.6%	812	30.9%	278	37.1%	85	44.3%	192.36	<0.001	
Sometimes	654	15.9%	718	18.8%	483	18.4%	162	21.7%	37	19.2%			
Most of the time or always	2533	61.5%	2123	55.6%	1330	50.7%	308	41.2%	70	36.5%			
Take time to talk													
Never or almost never	501	12.1%	508	13.3%	416	15.8%	168	22.5%	51	26.5%	130.89	<0.001	
Sometimes	1466	35.6%	1439	37.7%	1043	39.7%	297	39.7%	75	39.1%			
Often	2155	52.3%	1869	49.0%	1166	44.5%	283	37.8%	66	34.4%			
Listen to your opinion													
Never or almost never	232	5.6%	209	5.5%	193	7.3%	76	10.2%	36	18.8%	114.41	<0.001	
Sometimes	1221	29.6%	1242	32.5%	886	33.8%	280	37.4%	50	26.0%			
Often	2669	64.8%	2365	62.0%	1546	58.9%	392	52.4%	106	55.2%			
Help make important decisions													
Never or almost never	337	8.2%	372	9.8%	350	13.4%	140	18.7%	54	28.1%	268.63	<0.001	
Sometimes	1523	36.9%	1638	42.9%	1172	44.6%	346	46.3%	70	36.5%			
Often	2262	54.9%	1806	47.3%	1103	42.0%	262	35.0%	68	35.4%			
Come to see special activity													
Never or almost never	576	14.0%	587	15.4%	510	19.4%	182	24.3%	56	29.1%	155.02	<0.001	
Sometimes	1017	24.6%	1071	28.0%	768	29.3%	229	30.6%	61	31.8%			
Often	2529	61.4%	2158	56.6%	1347	51.3%	337	45.1%	75	39.1%			
The most prevalent subgroups in Bold													

The distribution of adolescents who consume alcohol with different frequencies depending on parenting actions is shown in *Table 1*. As Chi-Square analysis revealed all measured parenting actions are in statistically significant ($p < 0.001$) relations with adolescent alcohol consumption frequency. We can see that the intensity of parents *knowing of child's whereabouts* has an anticipated almost linear inverse relationship with adolescent alcohol consumption frequency and the other way around. The same pattern can be observed within the *checking homework, understanding problems, take time to talk* and *come to see special activity* parenting actions. A slight abruption of linearity can be noted in the ascension pattern of adolescent alcohol consumption frequency corresponding to 2 parental actions: *listen to your opinion* and *help make decisions*, nevertheless the direction of the relationship between adolescent alcohol consumption frequency and parental actions is still the same.

Ordinal logistic regression analysis in *Model 1* (*Table 2.*) on *adolescent drinking frequencies* and *parenting actions* with *country, family structure, age* and *gender* as covariates, showed that adolescents drinking is more likely ($p < 0.001$) to be frequent in families where parents never or rarely know about adolescent whereabouts (OR=1.92) or know it only sometimes (OR=1.71) compared to families where parents know about their whereabouts most of the time or always. Adolescent frequent drinkers are also more likely to be from families where parents never or rarely (OR=1.32 $p < 0.001$) or sometimes (1.18 $p = 0.022$) check their homework than from families where it happens most of the time or always. There are higher odds for a more frequent alcohol consuming adolescent to belong to a family where parents sometimes understand adolescents' problems (OR=1.18 $p = 0.001$) compared to families where parents understand their problems most of the time or always. Adolescent alcohol consumption frequency tends to be bound to families where parents never or almost never (OR=1.43 $p < 0.001$) or sometimes (OR=1.22 $p < 0.001$) help adolescents' make important decisions compared to families where adolescents report their parents helping them with important decisions often. Three other investigated parental actions in *Model 1* (*take time to talk, listen to opinion* and *come to see activity*) odds ratios did not appear statistically significant ($p < 0.05$) in the grand scheme of 11 covariable countries, controlling for family structure, gender and age.

For a statistically significant ($p < 0.05$) model depicting specific parenting actions combinations affecting the majority of European families' adolescent alcohol consumption we constructed three additional models. By screening out countries which appeared most dissimilar in different combinations of ordinal regression models we had to subtract *Estonia* and *Slovenia* in *Model 2*, additionally *Hungary* in *Model 3* and also *Spain* in *Model 4*, while trying to keep as many different parenting action combinations as possible in the model. The choice for subtractions of the named countries in different models, was made depending on the statistical significance ($p < 0.05$) of different parental action combinations within the corresponding model, at the same time by trying to search for models that incorporate as many parenting actions as possible for statistically significant ($p < 0.05$) representation. Among others we also simulated a model subtracting all post-soviet countries (*Estonia, Romania, Slovenia, Hungary*) from the sample, but the models fit did not show relevant disparity from *Model 1*.

Table 2. Odds ratio (OR) 95% Confidence Interval (CI) for adolescent alcohol consumption and parental actions: logistic regression

	Model 1				Model 2				Model 3				Model 4			
	n (total = 11503)	OR	p-value	95% CI	n (total = 9389)	OR	p-value	95% CI	n (total = 8415)	OR	p-value	95% CI	n (total = 7428)	OR	p-value	95% CI
PARENTING ACTIONS																
Knowing of child's whereabouts																
Never or rarely	2162	1.92	<0.001	1.73 2.13									1609	1.92	<0.001	1.70 2.16
Sometimes	1624	1.71	<0.001	1.54 1.90									1063	1.74	<0.001	1.53 1.98
Most of the time or always (reference)	7717												4756			
Check homework																
Never or rarely	6249	1.32	<0.001	1.21 1.45									4208	1.36	<0.001	1.23 1.50
Sometimes	2255	1.18	0.022	1.06 1.31									1667	1.18	0.007	1.04 1.32
Most of the time or always (reference)	2999												2540			
Understanding problems																
Never or rarely	3085	1.01	0.138	0.89 1.14									2222	1.16	0.008	1.04 1.30
Sometimes	2054	1.18	0.001	1.08 1.29									1362	1.24	0.001	1.10 1.39
Most of the time or always (reference)	6364												3844			
Take time to talk																
Never or almost never	1644	1.04	0.554	0.91 1.19	1426	1.51	<0.001	1.33 1.72								
Sometimes	4320	1.00	0.929	0.91 1.08	3456	1.23	<0.001	1.12 1.34								
Often (reference)	5539				4507											
Listen to opinion																
Never or almost never	746	1.03	0.700	0.88 1.21	641	1.30	0.002	1.10 1.54								
Sometimes	3679	0.97	0.497	0.89 1.06	2923	1.10	0.039	1.00 1.20								
Often (reference)	7078				5825											
Help make important decisions																
Never or almost never	1253	1.43	<0.001	1.24 1.64									996	1.47	<0.001	1.28 1.68
Sometimes	4749	1.22	<0.001	1.13 1.32									3510	1.29	<0.001	1.18 1.41
Often (reference)	5501												3909			
Come to see activity																
Never or almost never	1911	1.01	0.891	0.91 1.12	1565	1.13	0.034	1.01 1.27								
Sometimes	3146	1.07	0.093	0.99 1.17	2460	1.15	0.002	1.05 1.27								
Often (reference)	6446				5364											

Model 2 (Table 2.) shows that parenting actions ‘*take time to talk to an adolescent*’, ‘*listen to adolescents’ opinion*’ and ‘*come to special activity*’ while controlling for family structure, age and gender are in 9 countries (n=9 389) out of eleven statistically significantly ($p<0.05$) associated with adolescents’ alcohol consumption frequency.

There is a higher chance for a more frequent alcohol consuming adolescent to be from families where a parent *never or almost never* (OR=1.51 $p<0.001$) or *sometimes* (OR=1.23 $p<0.001$) *takes time to talk to the adolescent*, compared to families where this parenting action happens *often*. Also those more frequently alcohol consuming adolescents tend to be from families where the parents *never or almost never* (OR=1.3 $p=0.002$) or only *sometimes* (OR=1.1 $p=0.039$) *listen to adolescents’ opinion*, compared to families where parents listen to their opinion *often*. Similarly, parents *never or almost never* (OR=1.13 $p=0.034$) or *sometimes* (OR=1.15 $p=0.002$) *going to see their child’s special activity* happens more in the groups where adolescents’ alcohol consumption frequency is higher.

Model 3 and *Model 4* (Table 2.) depict similarly to *Model 1* three parental actions that are statistically significantly ($p<0.01$) interrelated with adolescent alcohol consumption frequency accordingly among 8 and 7 countries (*Model 3* n=8415 and *Model 4* n=7428). The *Models 3* and *4* are important in revealing which countries’ data (Estonia, Hungary, Slovenia and Spain) does not correspond with the overall model’s fit. Parenting actions like ‘*knowing their child’s whereabouts*’ and ‘*checking homework*’ are statistically significant ($p<0.001$) predictors of adolescent alcohol consumption frequency in both models. Adolescents whose parents *never or rarely know about their child’s whereabouts* (Both *Models* OR=1.92) or *know it sometimes* (*Model 3* OR=1.73; *Model 4* OR=1.74) consume alcohol more frequently, than parents who know about their child’s whereabouts most of the time or always. Adolescents who drink more alcohol are more likely to be from families where *parents never or rarely* (*Model 3* OR=1.36; *Model 4* OR=1.45; $p<0.001$) and *sometimes* (*Model 3* OR=1.18; *Model 4* OR=1.23; $p<0.01$) *check their homework* compared to families where it occurs most of the time or always. In *Model 3* we can also see that adolescents whose *parents help them make important decisions often*, drink alcohol less frequently than adolescents whose parents help them with important decisions *never or almost never* (OR=1.47 $p<0.001$) or *sometimes* (OR=1.29 $p<0.001$). The difference between *Models 3* and *4* is the covariable country Spain and with Spain out in *Model 4* parental action ‘*parents understand problems*’ alongside previously described 2 other actions, emerges as being statistically significant ($p<0.01$) predictor of adolescent alcohol consumption frequency.

From *Models 1-4* we see that constants: *Family Structure, Age* and *Gender* are statistically significant ($p<0.001$) covariables in every model. Thus adolescents who more frequently consume alcohol in every model have higher odds of being from *single-parent families* (eg. *Model 1* OR=1.35) and *one birth-parent one step-parent families* (eg. *Model 1* OR=1.5) than from *both birth-parent families*. They are more likely to be *16 and older* (eg. *Model 1* OR=1.72) than *15* and less likely to be *14* (eg. *Model 1* OR=0.6), and are more likely to be *boys* (eg. *Model 1* OR=1.51) than *girls*.

DISCUSSION

Parenting is the cornerstone in the formation of a healthy member of society. Research has repeatedly shown that children imitate their parents not only in behavior but also in choosing their friends and setting normative boundaries for themselves (Cairns, Cairns, Neckerman, Gest, & Garipey, 1988; Hogue & Steinberg, 1995; Keeley, Mongwa, Corcoran, 2015). In contemporary world there is a multitude of suggestions, advices and ideas that fill bookstores, flood the Internet, the news and television on how to be a good parent. Every parent is at some point baffled by the questions of how and what should they do in order to benefit their children. Much of the information available is opinionated, argumentative, confusing and conflicting. In this paper we have reflected on many works that have investigated this subject and shone a light on specific parenting actions from a scientific perspective. The current paper is aiming to give a more transparent insight into which kind of parenting action can matter in the forming of a responsible adolescent and, also, what are the most common European family parenting tendencies.

Parenting in Europe and adolescent alcohol consumption tendencies

Our data shows that in the families of the investigated European nations, from the adolescents' perspective, parents most of the time or always know about adolescents' whereabouts, never or rarely check their homework, most of the time or always understand adolescents' problems and often help them make important decisions. They also often take time to talk, listen to adolescents' opinions and come to see their special activities.

Adolescents consuming alcohol more frequently are 50% more likely to be from one birth one step-parent families, and 35% more likely to be from single-parent families than from families with both birth parents. This result corresponds with earlier findings (Ram & Hou, 2003). Adolescent frequent drinkers have a 92% higher chance to be from families where parents never or rarely know about their whereabouts compared to families where parents know about their whereabouts most of the time or always. Adolescent alcohol consumption frequency is firmly related to the age of the drinker, where there is a 72% chance for more frequent drinkers to be 16 and older than 15 years old and 67% chance for them to be 15 years old than 14, which is an overstatement of today's common knowledge. Also, in keeping with prior adolescent alcohol related research, according to our study boys have a 51% higher chance to drink more frequently than girls, regardless of age (Hibell *et al.*, 1995; de Looze *et al.*, 2012).

Associations between effective parenting and adolescent alcohol consumption

Our research showed that all investigated 7 parenting actions (knowing of child's whereabouts, checking homework, understanding problems, taking time to talk, listen to their opinion, help make important decisions and come to see special activity) are related to adolescent alcohol consumption frequency. With our analysis results we can take a step further and state that all 7 parenting actions in some combinations in most country settings can predict adolescent alcohol consumption frequency which corresponds with the outcomes of similar studies (Furstenberg *et al.*, 1999; Longest & Shanahan, 2007; Sampson & Laub, 1993; Steinberg *et al.*, 1992).

In current study we chose not to categorize investigated parenting action parameters according to Baumrind's (1971) authoritative parenting dimensions (warm, firm and involved) nor its contemporary division of monitoring, closeness and support (Ryan, Jorm & Lubman, 2010; Longest & Shanahan, 2007), due to the dissimilar categorization of the same parenting actions in different papers and our own parallel analysis findings suggesting only one factorial dimension present over all 7 items. In addition, our ordinal logistic regression analysis revealed 2 distinct models (Model 2 versus Model 3/Model 4) for predicting the increase of adolescent alcohol consumption frequency in which one combination of parental actions discludes other combinations. Primarily, combination of parenting actions: knowing of child's whereabouts, checking homework and help making important decisions (Combination 1) in Model 3 with an alternate combination presented in Model 4 with parents understanding problems replacing help making important decisions marker, both models contrasting with parenting actions combination: take time to talk, listen to opinion and come to see special activity (Combination 2) in Model 2.

Family contexts that predict less alcohol consumption

Since these different parental action Combinations 1 and 2 reveal themselves to be significant only with the subtraction of one country variable (Hungary) from the models, and Model 2's fit not changing with Hungary's subtraction, it suggests the presence of another hidden dimension as an influencing factor. To interpret these findings one can speculate if within the sample of 8 European countries (Austria, France, Ireland, Israel, Italy, Romania, Spain and Germany n=8415) there is a group of adolescents that respond more to parental actions Combination 2 and another group who responds better to Combination 1. The necessity to subtract a country from the analysis to find a working prediction model also suggests that the investigated parenting actions are perceived by adolescents differently within the 11 countries where the study was carried out. This revelation validates our choice to investigate the 7 parental actions separately without any grouping into higher factorial categories. The presumed hidden dimension, that determines which combination of parenting actions works with

which adolescent, can speculatively be a cultural difference, family affluence, adolescents' personality inclination or intelligence factor, or something else altogether that makes some adolescents perceive or respond to certain parental actions differently than others. Since adolescent alcohol consumption has been found largely unrelated to family affluence (Richter *et al.*, 2009), we are directed towards the notion that the hidden dimension at play is more likely to be of individual or cultural parameters within the family context.

Limitations

SEYLE Projects general aim has been to investigate culturally adjusted models for promoting mental health and preventing suicidal behaviors in adolescents. In current research we used SEYLE baseline data to investigate adolescents' assessment of the parental actions in their family. The questionnaire was not designed to exclusively investigate this, whereas only the items included in current study were input to do so, representing only a fraction of the whole questionnaires' 8 different scales. Other research has shown that the same family context can be perceived differently. Plomin and Daniels (1987) showed that parents' and children's interactions may be experienced differently depending on the perspective of the person. This understanding can vary between parents and adolescents and between adolescents as well. Moderation can be interpreted as enforcement of moral codes from one side but a personal choice from the other – to a parent maintaining a clean room is a moral standard, but to an adolescent how one keeps one's room is one's own business and choice (Smetana, 1988). With present paper being of cross-sectional approach we have to keep in mind the prediction limitations and that without longitudinal data, we are not able to describe the true cause and effect relationships between parental actions and adolescent alcohol consumption.

Implications for further Research

Our research is supporting Steinberg's (2001) suggestion, that there is a need for a new perspective on the family (one that emphasizes the different viewpoints and stakes that parents and adolescents bring to their relationship), we need to also add the conception that parenting actions from adolescents' viewpoint can be also individually, culturally and nationally different as can the adolescents' receptiveness to them. To achieve a clearer understanding of the adolescents' predisposition towards certain parenting actions all possible dimensions should be included in future research. It should be further investigated what is the hidden dimension in family context that makes some adolescents respond to certain parental actions more than others. Incorporating qualitative data in further research to better understand the meaning and interpretations the adolescents/parents give to effective parenting is imminent.

CONCLUSION

Conclusively our research has shown which parenting actions and their combinations are related to adolescents who drink less alcohol. These parenting actions can be categorized to fit the original Baumrinds (1971) perspective of authoritative parenting, but necessarily do not have to be. What it all comes down to is the real parental effort and action behind the categories of warmth, firmness and involvement – what does it really mean to be warm, firm and involved and what do children perceive as such. Current study confirms that investigated parental actions are related to adolescent alcohol consumption. Current paper suggests that there are *two types of family contexts* where adolescents drink less alcohol. In the first family context adolescents report that their parents *most of the time or always know about their whereabouts, check their homework and often help to make important decisions or understand problems*. In the second type adolescents describe that their parents *often take time to talk to them, listen to their opinion and come to see their special activity*. In both types adolescents drink less frequently alcohol but both of these parental action combinations together do not necessarily yield a uniform prediction. Until we learn whether the difference between these family context types can be attributed to the adolescents' individual differences, or qualitative differences of parental actions, all 7 parenting actions are relevant in reducing adolescent alcohol consumption.

It is important to recapitulate that the way parents act in their relationship with their children does matter immensely in childhood as well as in adolescence. Ineffective parenting eclipses different family structure types and reveals to be a higher predictor of adolescent multidimensional decline.

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