Alcohol consumption

Introduction

Excessive and frequent alcohol consumption endangers health and is associated with an increased risk of a variety of physical illnesses and mental disorders. Also the risk of accidents, injury and violent altercations increases under the influence of alcohol (RKI 2008; Anderson et al. 2012; Gaertner et al. 2014). Consumed in moderation, alcohol is a socially widely accepted as a semi-luxury item, which is why learning how to consume alcohol responsibly represents an important developmental task during adolescence (Hurrelmann, Settertobulte 2008; Petermann, Helbig 2008). It is possible that alcohol can lead to serious health damage in adolescents because of their inexperience and increased vulnerability due to their organisms not being fully developed yet (Riegg, Pogarell 2012). In addition, social problems such as difficulties in school or arguments with friends or parents are often the result of alcohol consumption during adolescence (Kraus et al. 2011). Studies suggest that starting drinking early and excessive consumption of alcohol at a young age increase the probability of problematic alcohol consumption later in life and the risk of alcohol dependency (Dawson et al. 2008; Rossow, Kuntsche 2013). Adolescents are therefore an important target group for alcohol prevention measures.

Indicator

Alcohol consumption was surveyed in KiGGS wave 1 on the basis of four questions (Lampert et al. 2014). In order to establish the lifetime prevalence of alcohol consumption, all adolescents aged from 11 to 17 years old were asked: "Have you ever drunk alcohol?" (Response categories: "yes", "no"). In addition to this, the internationally established AUDIT-C instrument, consisting of three questions was used (Bush et al. 1998). This is a short questionnaire from the Alcohol Use Disorders Identification Test (AUDIT), which is used to gather data on hazardous alcohol consumption and the spread of binge drinking.

The three AUDIT-C instrument questions are as follows:

1. How often do you have a drink containing alcohol? (Response categories: "never", "monthly or less", "2–4 times a month", "2–3 times a week", "4 or more times a week").

2. How many units of alcohol do you drink on a typical day when you are drinking? (Response categories: "1 or 2 drinks", "3 or 4 drinks", "5 or 6 drinks", " 7 or 8 or 9 drinks", " 10 or more drinks").

3. How often do you drink six or more alcoholic drinks on one occasion, for example at a party? (Response categories: "never", "less than monthly", "monthly", "weekly", "daily or almost daily").

In accordance with the instrument instructions, the response categories pertaining to the three individual questions were each allocated ascending point scores from 0 to 4 and then totalled (Saunders et al. 1993; Bush et al. 1998). The range of the total scores established in this way therefore lies between 0 and 12. Hazardous alcohol consumption can be assumed given a total score of ≥ 4 for girls and ≥ 5 among boys (Hapke et al. 2013; Rumpf et al. 2013). The spread of binge drinking is determined via the third question in the AUDIT-C instrument. In the context of the following, binge drinking is considered to exist where adolescents stated they consume 6 or more alcoholic drinks on one occasion at least once a month or more frequently.

In addition to lifetime prevalence, information is provided in the tables regarding hazardous consumption and regular binge drinking, differentiated according to sex, age and social status.

Key results

- More than half of 11 to 17 year-olds (54.4%) had already consumed alcohol. Hazardous alcohol consumption according to AUDIT-C was established in 15.8% of adolescents and 11.5% of adolescents indulged in regular binge drinking.
- With regard to all three indicators of alcohol consumption, increasing prevalences are to be observed with increasing age.
- In terms of to the frequency of alcohol consumption, barely any differences exist between the sexes; only the group of 14 to 17 year-olds reveals that boys have a tendency to binge drink more frequently than girls (23.1% v. 16.5%).

- No significant correlation between social status and the consumption of alcohol by adolescents is to be determined on the basis of the prevalences presented here.

Note: A detailed description of the study as well as explanations on the method are available on the KiGGS study website, www.kiggs-studie.de, and in Lange et al. (2014). Further results regarding alcohol consumption can be found in Manz et al. (2014).

Conclusion

Since the AUDIT-C-Instrument was not be deployed as part of the initial KiGGS survey, it is only possible to report developments over time with regard to lifetime prevalences for alcohol consumption. The percentage of adolescents who have ever consumed alcohol has, according to this fallen significantly from 62.8% to 54.4% (Lampert et al. 2014). Declining trends in alcohol consumption by adolescents are also being reported in other studies. This applies for example with regard to the representative surveys conducted regularly by the Federal Centre for Health Education (BZgA), the study "Health Behaviour in School-aged Children" (HBSC), as well as the European School Survey Project on Alcohol and Other Drugs (ESPAD) (Kraus et al. 2011; Richter et al. 2012; BZgA 2014). In apparent contradiction to the declining alcohol consumption rates, which are being established in population-representative interview surveys, there is the finding that more and more children and adolescents are being admitted to hospital due to acute alcohol poisoning. As can be seen from the hospital diagnosis statistics published by the Federal Statistical Office, in the year 2012 around 26.600 children and adolescents aged between 10 and 19 were treated as in-patients due to excessive alcohol consumption – almost three times as many as in the year 2000 (Statistisches Bundesamt 2014). Current research suggests however that at least part of the increase in hospital treatment figures is due to increased perception of the problem and an increased willingness amongst the public to call emergency services (Wurdak et al. 2013). Therefore a careful interpretation of the statistics upon which these figures are based is recommended (Kraus et al. 2013). When classifying the KiGGS results on hazardous alcohol consumption it must be borne in mind that the definition of the threshold values, as is the case in RKI adult surveys, is based on international guidelines (Gual et al. 2002; Reinert, Allen 2007; Hapke et al. 2013). An AUDIT-C total value below the defined threshold values is not to be equated with low-risk alcohol consumption for the age group of 11 to 17 year-olds under consideration here. In accordance with the recommendations of the Scientific Board of the German Central Office for Addiction Issues (DHS), adolescents should largely avoid alcohol; no established threshold limits for low-risk consumption exist for them (Seitz et al. 2008).

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Table 1
Prevalence of alcohol consumption among 11 to 17 year-old girls according to age and social status

	Lifetime prevalence		Hazardous consumption		Regular binge drinking	
	%	(95% CI)	%	(95% CI)	%	(95% CI)
Girls	**54.8**	**(52.2–57.5)**	**16.5**	**(14.5–18.8)**	**9.8**	**(8.3–11.7)**
Age						
11 to 13 years	0.2	(17.3–23.4)	1.3	(0.5–3.1)	0.9	(0.3–2.8)
14 to 17 years	80.6	(76.7–83.9)	27.9	(24.5–31.6)	16.5	(13.8–19.5)
Social status						
low	49.7	(41.5–57.8)	15.6	(10.5–22.7)	8.0	(4.4–13.9)
medium	58.4	(55.2–61.6)	17.7	(15.2–20.5)	11.3	(9.2–13.8)
high	50.9	(45.7–56.1)	14.5	(11.3–18.2)	7.4	(5.3–10.3)
Total (girls and boys)	**54.4**	**(52.2–56.5)**	**15.8**	**(14.2–17.6)**	**11.5**	**(10.2–13.0)**

Table 2
Prevalence of alcohol consumption among 11 to 17 year-old boys according to age and social status

	Lifetime prevalence		Hazardous consumption		Regular binge drinking	
	%	(95% CI)	%	(95% CI)	%	(95% CI)
Girls	**53.9**	**(51.1–56.8)**	**15.1**	**(13.1–17.3)**	**13.1**	**(11.3–15.2)**
Age						
11 to 13 years	21.9	(18.3–25.9)	0.0	(0.0–0.1)	0.3	(0.1–0.7)
14 to 17 years	78.5	(75.0–81.7)	26.6	(23.3–30.2)	23.1	(20.0–26.5)
Social status						
low	51.1	(42.9–59.3)	15.1	(10.7–20.7)	12.9	(9.0–18.2)
medium	54.5	(51.0–57.9)	15.0	(12.7–17.7)	13.8	(11.6–16.2)
high	57.3	(53.5–61.0)	16.1	(12.6–20.3)	12.0	(9.0–15.9)
Total (girls and boys)	**54.4**	**(52.2–56.5)**	**15.8**	**(14.2–17.6)**	**11.5**	**(10.2–13.0)**

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