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Kathleen K. Bucholz

S. A. Ryan

Pamela A. Madden

Andrew C. Heath

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Drinking practices and problems in adolescents: Evidence from female and male twins

*K. K. Bucholz, Ph.D, S.A. Ryan, M.S.P.A., P.A.F.
Madden, Ph.D., A.C. Heath, D.Phil.*

Missouri Alcoholism Research Center

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OBJECTIVE

- To compare drinking practices and problems reported by adolescent and young adult female and male twins who participated in the Missouri Adolescent Female Twin Study (MOAFTS) from 1995 to 1999, and the MARC/Genetic Epidemiology of Smoking study (males) which is ongoing



METHODS

- Male and female twins ascertained from state vital health statistics, born 1975 -1986 (females) and 1982-1991 (males)
- All twins were interviewed by telephone with a structured psychiatric diagnostic interview with an alcohol section that covered drinking milestones, current and lifetime drinking practices, and alcohol problems consistent with DSM-IV alcohol abuse/dependence
- Analyses are limited to those aged 14 or older who were regular drinkers
 - Females: 781/2256
 - Males: 505/915



ALCOHOL USE LEVELS BY AGE (%)

	14-15	16-18	19+
Females	N (736)	(886)	(634)
Lifelong abstainers	55.8	34.1	16.3
Infrequent/light drinkers*	31.7	31.5	23.1
Drinkers	12.5	34.4	60.6
Males	N (98)	(340)	(477)
Lifelong abstainers	61.2	38.8	12.6
Infrequent/light drinkers**	20.4	24.7	11.3
Drinkers	18.4	36.5	76.1

* Never had at least 3 drinks on a single occasion, or drank fewer than 6 days ever in lifetime

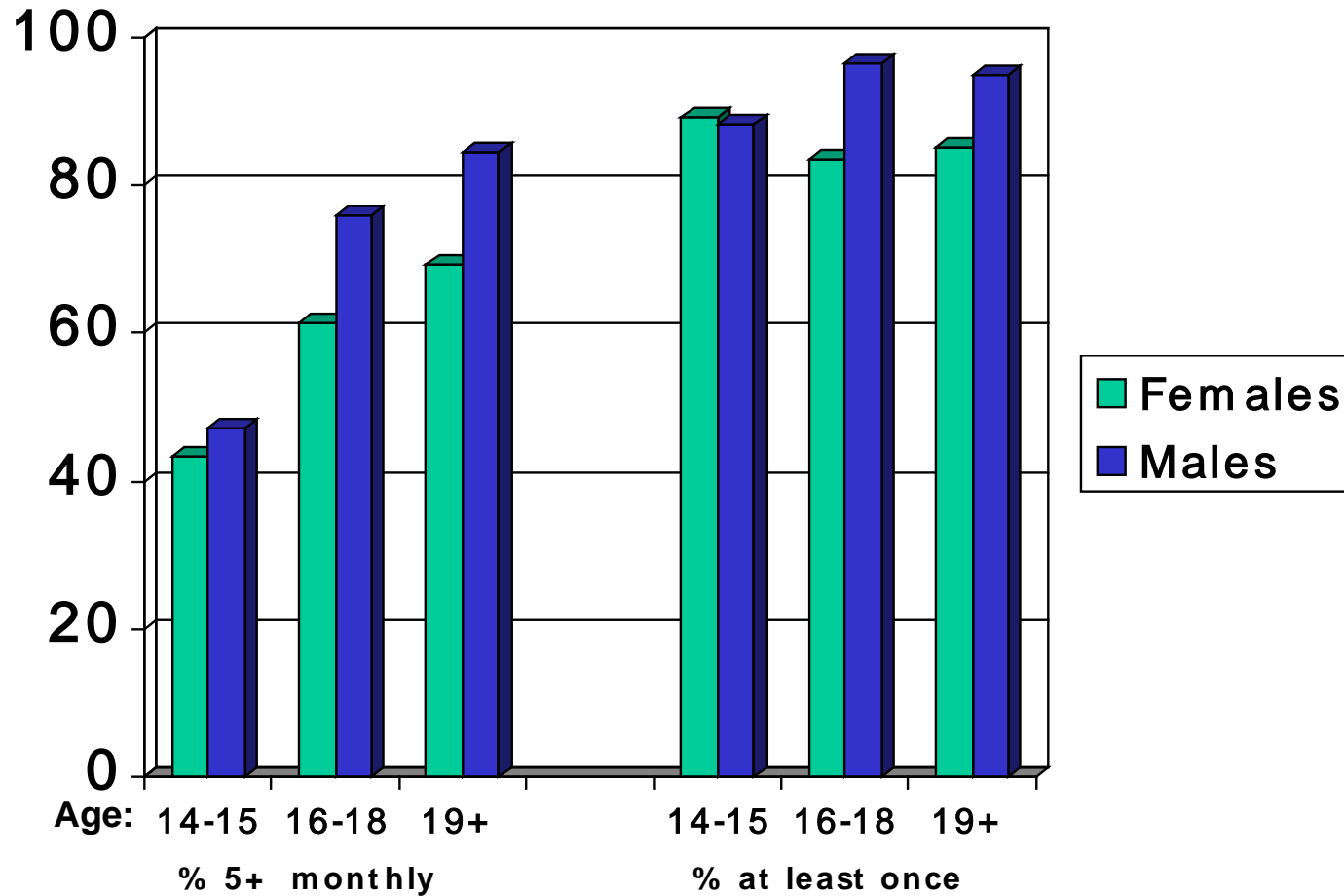
**Never drank regularly AND never been intoxicated



DRINKING MILESTONES

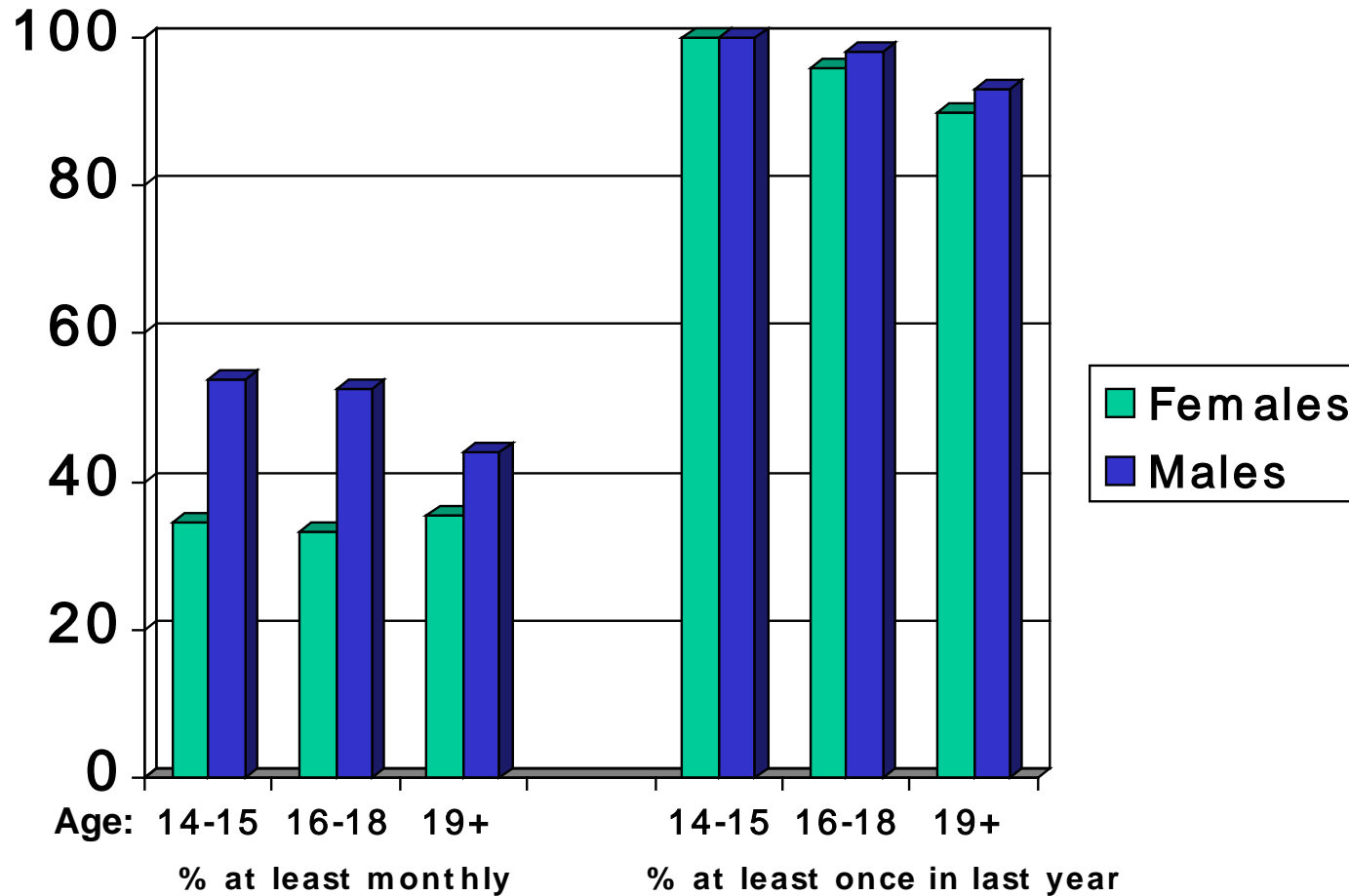
	AGE GROUP:	14-15	16-18	19+
Age first drink	F	13.2	14.6	15.5
	M	12.1	14.2	15.9
Age first regular drinking	F	14.0	15.7	17.2
	M	13.9	16.1	17.9
Age first intoxication	F	14.0	15.2	16.4
	M	13.5	15.3	17.1
Maximum drinks, last 12 mo.	F	9.9	8.8	9.1
	M	7.2	8.7	11.4
Maximum drinks, lifetime	F	11.5	10.0	10.8
	M	13.2	15.2	18.2

PERCENT CONSUMING 5+ DRINKS IN A SINGLE DAY IN THE LAST YEAR, BY GENDER AND AGE





PERCENT DRINKING TO INTOXICATION IN THE LAST YEAR, BY GENDER AND AGE





PATHOLOGICAL DRINKING INDICATORS

	AGE GROUP:	14-15(%)	16-18(%)	19+(%)
Became drunk when didn't want to	F	16.3	15.7	17.4
	M	22.2	11.3	15.7
Drank more than meant to/drank more days in a row	F	50.0	47.2	46.6
	M	41.2	38.5	43.6
Great deal of time spent drinking	F	17.4	16.1	11.8
	M	17.6	10.7	14.2
Blackouts	F	43.4	40.5	35.8
	M	41.2	29.5*	34.8
Tried to quit but couldn't	F	5.4	5.3	1.9
	M	5.9	2.4	2.6
Wanted to quit/cut down	F	32.6	27.9	20.6
	M	41.2	22.3	19.5

* p<.05



SOCIAL/LEGAL PROBLEMS

		AGE GROUP:	14-15(%)	16-18(%)	19+(%)
Serious family problems	F		4.4	11.2	6.6
	M		17.6*	3.3**	11.1*
Physical fights	F		15.2	9.5	11.8
	M		29.4	17.2*	22.5***
Said mean things that wouldn't have otherwise	F		23.3	29.3	29.0
	M		29.4	20.5	31.6
Arrested	F		0	1.0	1.3
	M		0	6.4***	6.4***
Accident when drinking	F		8.7	5.2	4.7
	M		22.2	11.3*	7.8

* p<.05, ** p<.01, *** p<.001



RISK TAKING BEHAVIORS

		AGE GROUP: 14-15(%)	16-18(%)	19+(%)
Drove when had a lot to drink	F	0	11.2	23.9
	M	6.2	17.2	36.3***
Charged with DUI	F	0	0	0.8
	M	0	7.9	4.4
Rode with drunk driver	F	37.8	39.3	44.1
	M	27.8	24.2**	41.6
Drank in situation where could have been hurt	F	22.8	21.0	33.9
	M	11.8	7.6***	15.1***
Took other risks	F	1.1	4.3	5.0
	M	11.1*	5.7	8.7*

* p<.05, ** p<.01, *** p<.001



HEALTH & PSYCHOLOGICAL PROBLEMS

		AGE GROUP: 14-15(%)	16-18(%)	19+(%)
Drinking led to: Health problems	F	0	1.3	1.8
	M	0	0	1.1
Drinking worsened health	F	2.2	1.6	3.7
	M	0	0	2.0
Drinking caused depressed feelings	F	14.1	16.7	18.0
	M	11.8	8.2*	10.0**
Drinking caused feelings of paranoia	F	23.1	10.0	6.9
	M	17.6	6.6	3.4*
Drinking caused trouble thinking clearly	F	2.2	4.3	3.6
	M	23.5***	4.1	5.7
Drinking caused memory problems	F†	-	5.0	2.4
	M	-	4.2	5.4*

† Not asked in younger girls, * p<.05, ** p<.01, *** p<.001



INTERFERENCE WITH RESPONSIBILITIES

		AGE GROUP: 14-15(%)	16-18(%)	19+(%)
Cut down on activities	F	6.6	6.3	4.2
	M	5.9	4.1	3.4
Often missed school	F	5.4	5.6	3.9
	M	0	2.5	5.7
Poor work/ school performance	F	7.6	5.3	3.7
	M	17.6	5.7	4.0
Suspended from school	F	2.2	0.7	1.0
	M	0	1.6	1.7
Drinking interfered with other responsibilities	F	14.1	8.8	11.0
	M	17.6	10.7	8.8



SELF-PERCEIVED PROBLEMS

		AGE GROUP: 14-15(%)	16-18(%)	19+(%)
Felt guilty about drinking	F	47.2	45.4	41.5
	M	52.9	30.3**	30.2**
Felt drank too much	F	14.1	13.8	11.6
	M	16.7	6.4*	10.6
Felt had drinking problem†	F	10.2	14.6	8.5
	M	22.2	4.8*	13.7
Had 2+ problems	F	54.4	51.8	53.9
	M	50.0	50.0	50.7
Had 3+ problems	F	0	21.0	26.8
	M	33.3***	30.0*	25.3

† Conditional item, asked only of those with 2 or more problems.

* p<.05, ** p<.01, *** p<.001



CONCLUSIONS - I

- Our data show a strong age effect for prevalence of drinking for both females and males. There are sharp increases in regular drinkers from 14-15 age cohort to 19+ age cohort.
- The male-female gap in drinking amounts widens with age
- Drinking to intoxication is common across all age groups, with higher monthly rates in males than in females
- The most common problems in both males and females were risk taking behaviors and heavy drinking indicators



CONCLUSIONS-II

- The proportions of youth who reported experiencing adverse consequences relating to their daily routines, school work, or job performance were modest
- The proportion reporting adverse physical health consequences from drinking was also low
- Unlike physical problems, adverse psychological problems from drinking were more common. Feeling depressed due to drinking was more common among females than among males



CONCLUSIONS – III

- A high percentage of drinkers aged 14-15 reported wanting to quit, compared to proportions in older cohorts. Even so, one fifth of older drinkers wanted to quit or cut down.
- Certain problems were more common in males, such as ever being arrested, driving a car after drinking a lot, and fighting.
- A higher proportion of females across the 2 older age groups compared to their male counterparts reported feeling guilty about drinking



CONCLUSIONS-IV

- Half of both female and male age cohorts had 2 or more alcohol problems
- One third of boys aged 14-15 and 16-18 had 3 or more problems, which was significantly elevated over the proportion observed in females. However, by the 19+ age cohort, the proportion of male and female drinkers having 3+ problems was equivalent.
- Despite the high proportion with problem drinking, very few believed that they had a drinking problem, with only modest percentages of females (8.5%=14.5%) and males (4.8% - 22.2%) endorsing this.