PostScript

LETTER

Altitude, latitude and sex ratio at birth in Iran

It has been reported that sex ratio at birth (SRB; the ratio of male to total live births) in Europe declines with increase in latitude.¹ However, the same authors observed that changes in SRB by increasing latitude in North America compared to Europe are the reverse, and they could not explain this finding.² The aim of the present study was to test two null hypothesis that there are no differences in the ratio of male births to total births in Iran associated with either geographical latitude or altitude.

The annual number of live births by sex for the period 20 March 1993 to 19 March 2004 (1372 to 1382 Hejrae Shamsi, Iranian calendar) was obtained from the Annual Statistical Book of 27 provinces. (It should be mentioned that all provinces were included in the study except East Azarbaijan, because the data was not published for the study period.) A total of 5 294 495 births (male, 2 701 758; female, 2 592 737) were recorded in 294 Iranian towns and cities. Stillbirths are not included in this study. It should be emphasised that neither sex selection abortion nor female infanticide is practiced in Iran. Altitude and latitude information were obtained using the Geographical Atlas of Iran.

We used the odds ratio (OR) and χ^2 test for linear trend as statistical analysis methods. An OR>1.0 shows an increase and an OR<1.0 shows a decrease in SRB in comparison with the sex ratio in cities with less than 100 m of altitude as a reference value. A value of $p<0.05$ was considered statistically significant.

To investigate the effect of altitude on SRB, the towns and cities were classified into four altitudinal levels as following: <100 m, 100–1000 m, 1001–2000 m and >2000 m. Table 1 shows the total number of males and females in different altitude classes. The SRB increase with increase in altitude (χ^2 for trend is equal to 15.891, $p<0.001$).

To consider the effect of altitude in two different latitudinal areas, we classified the towns and cities of altitude level <100 m into two latitudinal levels—low latitude (25° to 32°) and high latitude (36° to 38°) regions (table 2). There was no significant difference in SRB in the two areas ($\chi^2 = 0.042$, $df = 1$, $p = 0.837$).

Our present finding is not consistent with previous reports concerning latitude and SRB. Grech *et al* found a decrease in SRB with increasing latitude in Europe¹ and a reverse effect was observed in North America.² In Europe, mountains stretch along an east–west direction, whereas in North America they stretch along a north–south direction. Therefore, it might be suggested that the reverse observed trends of SRB in Europe and North America, at least in part, is due to altitude effect. A possible correlation of SRB in Europe and North America should be investigated to test the reliability of the finding in this report.

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Table 1 Sex ratio at birth in four altitudinal areas of Iran

Altitude levels*	Male births	Female births	Total	SRB	OR† (95% CI)	p Value
<100 m	477,066	459,903	936,969	0.5092	1.0	–
100–1000 m	587,167	566,516	1,153,683	0.5089	0.999 (0.994–1.005)	0.764
1001–2000 m	1,585,295	1,516,166	3,101,461	0.5111	1.008 (1.003–1.013)	0.001
>2000 m	52,230	50,152	102,382	0.5101	1.004 (0.991–1.017)	0.548
Total	2,701,758	2,592,737	5,294,495	0.5103	–	–

*Number of towns and cities at different altitude levels of <100, 100–1000, 1001–2000 and >2000 m were 59, 56, 162 and 17, respectively.
† χ^2 for trend is equal to 15.891, $p<0.001$.

Table 2 Sex ratio at birth in low and high latitude areas with less than 100 m of altitude

Altitude levels	Number of towns and cities	Male births	Female births	Total	SRB
Low latitude	19	290,048	279,558	569,606	0.5092
High latitude	31	161,584	155,598	317,182	0.5094
Total	50	451,632	435,156	886,788	0.5093

$\chi^2 = 0.042$, $df = 1$, $p = 0.837$.

References

- 1 Grech V, Vassallo-Agius P, Savona-Ventura C. Declining male births with increasing geographical latitude in Europe. *J Epidemiol Commun Health* 2000;54:244–6.
- 2 Grech V, Vassallo-Agius P, Savona-Ventura C. Unexplained differences in sex ratios at birth in Europe and North America. *BMJ* 2002;324:1010–11.

BOOK REVIEWS

Screening in disease prevention: what works?

Edited by Walter W Holland, Susie Stewart. Published by Radcliffe Medical Press, 2005, 168 pp. ISBN 1-85775-770-X

Holland and Stewart have updated their book on screening from 1990. The new edition gives the inexperienced reader a thorough introduction to the specialty of medical screening, with numerous valuable references for further reading. The authors want to cover the entire subject of screening and that is probably the weakness of the book. We never really get an in-depth knowledge or a discussion of the specific screening programmes. Therefore, the impression after having read the book is a quick superficial introduction to a complex topic full of dilemmas.

The message to the reader is that screening does harm and some screening programmes also have benefits. Therefore, throughout the book the authors repeat the necessity to be aware of the quantitative scale: the harm-and-benefit ratio. However, a lot of the harm resulting from screening is not necessarily measurable or countable. Qualitative research would often be more adequate in describing some of the side effects of screening—for example, the medicalised society, body control, paternalism, surveillance and governmentality in prevention. Some of these perspectives are mentioned in the book but are not discussed, and important qualitative studies are not quoted—for example, Posner and Vessey's study "Prevention of cervical cancer, the patients' view". The harm-and-benefit ratio is valuable information when sustainability of a screening programme is assessed. Therefore, it would have been useful for the reader if chapters describing specific screening programmes had included a box with the harm-and-benefit ratio. In some chapters, finding these numbers is difficult, and in other chapters they are not reported.

The authors plead for full and understandable information to be given to people invited to screening. They emphasise that such information should include all possible benefits and harm, including the benefits and harm from the additional examinations a person with an abnormal screening result will be offered. It is difficult to disagree on this subject. However, published studies dealing with the lack of information at invitation to screening are not

included in the book. The possible harms of colonoscopy and laparoscopy in screening for colorectal cancer and ovarian cancer, respectively, are not mentioned. Reports of the death of healthy people with a false-positive screening result have been published and should have been included as a possible harm resulting from these two screening programmes.

It also seems as though the provision of full and understandable information is used as an excuse to implement any kind of screening programmes that have a measurable benefit. The authors use Raffle *et al.*'s study on actual data from cervical cancer screening as an example of a programme that has very little benefit but does a lot of harm: 1000 women have to be screened for 35 years to prevent one death from cervical cancer. At least 80 of the 1000 women will be overdiagnosed and 50 will receive overtreatment. Despite this large harm-and-benefit ratio, the authors recommend screening for cervical cancer as long as the people invited for screening are given full and understandable information at invitation. From my point of view, such a recommendation contributes to the public's and its political representatives' view on screening as a panacea. I believe the conclusion should have been that it is difficult to recommend cervical cancer screening in industrialised countries where the incidence of cervical cancer is low. Mass screening for cervical cancer does not seem to be sustainable for all women aged 21–64 years. The authors should have argued against the misunderstanding of screening by the lay population and the politicians by not recommending cervical cancer screening because of its limitation and harm. They should have suggested an alternative to mass screening—for example, screening in high-risk groups or no cervical screening at all.

J Brodersen

Alcohol problems in adolescents and young adults

Edited by G M Boyd, V B Faden, E Witt, D Lagressa, M Galanter. Published by Springer Berlin, 2005, \$49.95 (paper back), pp 456. ISBN 0-38729-215-2

In this book, the editor has brought together a comprehensive view of all the literature in this complex field, and in terms of the detail and coverage, the book cannot really be faulted. The issue of alcohol use by young people is not only hugely important, but is important to a range of people in many different roles and professions in addition to that of specialist adolescent psychiatrists; unfortunately, this tome is directed towards a specialist psychiatric readership to an extent that it is entirely possible to lose the will to live during some of the more densely opaque jargon-filled sections. There is also a distinct air of moral authority running through many of the contributions, which perhaps will sit more easily with a US readership.

One striking point that emerges with all the studies and literature put together in one place are the gaping holes about some of the most fundamental aspects of alcohol use by young people. For example, there do not appear to be good long-term studies of levels of financial, emotional and professional success achieved by childhood alcohol users compared with those

who do not indulge, and clearly these studies are needed.

Some specific chapters do stand out, so for example, Chapter 5—Drinking among college students, which is notable for its lack of judgemental tone and for the excellent reviews of the large numbers of studies carried out in this area. There are also areas which, despite the very comprehensive coverage, are not covered well—for example, the whole contentious area of alcohol use and sexual risk among young people, a topic that is extremely relevant in an age of escalating sexually transmitted disease and in societies with very high and unacceptable levels of sexual victimisation.

There are some specific problems for a UK readership. The UK is the “sick man” of Europe as far as teenage alcohol problems are concerned, with record levels of teenage pregnancy and soaring rates of sexually transmitted diseases. At a time when overall alcohol intake is decreasing in many parts of Europe, alcohol intake in young people is still increasing in the UK. In particular, female drinking patterns are approaching male drinking patterns in both frequency and quantity of alcohol consumed, and some of the downstream measures of the effects of this increased alcohol intake are showing extremely worrying consequences. For example, deaths from liver disease have increased eightfold in young and middle-aged people over the past 30 years, with all the signs being that we have only just seen the start of the likely problems to come. Many knowledgeable people in the field are predicting future large rises in alcohol-related deaths and in particular, female deaths.

Unfortunately, one of the main issues for a UK or indeed a European reader is that most of these studies are US based, and American and European drinking cultures are very different. For example, the cut off for problematic binge drinking of five units of alcohol in a single session amounts to two glasses of wine or pints of lager in most UK bars, and is less than the mean weekly alcohol intake of an average 11–13-year-old school child in the UK (6.4 units).

In a recent survey of alcohol use in a local sexually transmitted diseases clinic, we found that 94% of attendants regularly drank more than 6 units, with the median consumption of 20 units of alcohol (200 ml) on a heavy night. The US bias in the book is no fault of the authors, but merely reflects the huge disparity in the quantity and quality of research into alcohol in the US compared with that in Europe, particularly reflects the disgraceful absence of funding for serious studies of the problem.

In summary, this volume provides an excellent reference work for those with a specific clinical interest in this area but it is less easy to recommend it to a more general readership; for those working in the field in the UK, it really does give a clear indication as to how desperately similar research studies are needed in the future.

N Sheron

Drug and alcohol abuse: a clinical guide to diagnosis and treatment

Authorised by Marck A Schuckit. Published by Springer, New York, 2006, \$52.04, pp 404. ISBN 13 978-0387-25732-7

As the subtitle indicates, *Drug and alcohol abuse* is a clinical guide, no more, no less. The fact

that it is in its sixth edition shows that it sums up important and indispensable information for specialists working in clinical addiction medicine, ranging from the basic concepts of addiction medicine, through the diagnostic criteria of the different addictive syndromes, to the specific treatment methods. Right in the first chapter the author emphasises that the book has undergone considerable changes and development since the appearance of the first edition (1979). A separate study could be made of the contemporary development of addiction science by comparing the different editions. In each edition, in defining the priorities for the different drugs, Schuckit takes into account how popular the particular substance is with users at the time. As a result, this edition contains no information on ketamine, a drug that was given considerable attention in the previous edition. From the Hungarian viewpoint, this is regrettable because ketamine use is increasing among young people in Hungary. In the same way, although the fifth edition devoted a chapter to prevention, this is not found in the present edition. If the reader skips over the reasons for this given by the author in the first chapter, by the time he or she reaches the end of the book he or she will have a strange feeling that something is missing. This feeling can arise in the individual chapters too because the preventive view is lacking from the approach of the whole book. This lack is reflected, for example, in the fact that concepts such as gateway do not appear in the book. If the aspects of the gateway phenomenon had been examined for individual drugs, the author would have been able to expound his ideas on how the process leading to addiction can be halted in the early stages. Schuckit had earlier received feedback leading him to the conclusion that his book is read mainly by clinicians who are interested in clinical cases and the specific tasks in the given situation. If this is true, then we must conclude with regret that the clinicians do not have a preventive attitude. This in turn points to the shortcomings in this aspect in the training provided in addiction medicine. It would certainly have been more fortunate if the author took advantage of the popularity of this book to broaden the horizon of clinicians in the direction of community health and prevention.

The greatest merit of *Drug and alcohol abuse* is that it does not contain a single superfluous sentence. The author expresses what he has to say concisely, giving only the most important and most reliable information. He does not recommend any form of treatment if the efficacy tests leave any doubt about its value. One example: in the chapter on opioids, the author mentions the possibility of ultrarapid detoxification with naltrexone, but he does not recommend its use because research to date has not shown its efficacy compared with the longer-term outcome, and the potential dangers of its use are well known.

Schuckit places the different syndromes in the widest perspective, which also includes the epidemiological data, not only giving the reader recommendations for the course of clinical treatment for individual patients but also giving a comprehensive picture of the spread of the syndromes in the USA as well as the historical aspects of this spread. The reader in Europe and other continents is left with a feeling of something missing: where suitable information is available, the American figures could have been supplemented with those for Asia, Australia, Europe and Africa. This would