

BOOK REVIEWS

DRUG EDUCATION: RESULTS AND RECOMMENDATIONS

**Richard H. Blum,
D.C. Heath & Co., 1976 (\$17.00)**

*There is a widespread tendency to steady ourselves in the face of the functional inadequacies of our culture by a comforting reliance upon education. . . This operates, in effect, to justify everyone in continuing to do what he is doing, while we pass the buck to education. Only when an intricate culture like ours is better structured to support, rather than to obstruct or merely to tolerate, humanly important lines of behavior, can we justifiably expect secondary agencies like education to carry on effectively. R. Lynd, **Knowledge For What?** 7938.*

The believing we do something when we do nothing is the first illusion of tobacco. R.W. Emerson, 1859.

Once again we are into the education season, the formal education season, that is, where schooling occurs and learning gets translated by obscure processes into credits. It is for many the season for

renewed, increased efforts of drug and alcohol education. Emerson and Lynd might well have been writing about drug education as it exists in the last quarter of the twentieth century, if we take the recent work of Blum as an indicator of the "state of the art". In research supported by NIDA grants, Blum and associates have taken a long critical look at drug education and they produced a book which combines reasoned analysis with well-planned research. The result is solid: There is no exaggeration here, no over-blown promises and expectations for drug education, no mindless cheerleading. Blum clearly spells out the limitations of education in the schools, given the cultural context, and also presents data on what one 4 year drug education program actually accomplished. These accomplishments were modest. According to Blum, *We have found that particular methods applied at certain grade levels do work. Drug education is effective when the effectiveness is measured by a less-than-expected expansion of use over a several year period into more unusual, more disapproved substances. . . Education is effective in these same conditions when measured by student's satisfaction.* As with most efforts in social change, there were certain drawbacks, and Blum has no qualms about discussing the negative impacts:

But drug education as we practiced and

tested has another impact, the negative impact of increasing the movement into the rate of use of the conventional psychoactive drugs: Alcohol, tobacco, and marijuana. The effects vary from high to low depending on the grade level of students and depending upon the education method applied. In addition, the research indicates that "actual drug use is resistant to education". That is, there will be very little change in behavior if students are already using certain drugs.

Contrary to most expectations, Blum found that different educational approaches yielded "modestly different outcomes", short-term differences that depend on the audience, setting and program goals. He notes that "recent enthusiasm about values clarification as a teaching method is not accompanied by any richness of proof." In fact, the information giving type of educational approach proved to be superior to process oriented discussion as measured both by subsequent student drug use and by student satisfaction.

Drug education approaches have varied from none - i.e. no formal drug education at all - to intensive, well-funded, adequately staffed school and community projects. The results have been equivocal. As the present study indicates, "We have discovered a paradox, for drug education as we practiced a simultaneously productive, nonproductive, and counterproductive."

1. Productive: Drug education retards the increase of non-medical psychoactive drug use in some children, and restricts the spread of use among elementary school pupils. This impact is limited to the latter group and occurs irrespective of educational mode, although information giving appears to have an edge on process-oriented discussion.
2. Non-productive: Drug education has no noticeable influence on young children in grades 2 and 3. Older people in grades 9 through 12 were likewise unaffected.
3. Counter-productive: Drug education "destabilizes existing drug habits, including abstinence that leads to a greater variety and intensity of use."

Most drug education takes place informally

outside the framework of formal educational institutions. However, this is not to say that informal education lacks clout. As we all know, industry places an enormous amount of money on advertising and marketing schemes carefully designed to influence the consumer. Unfortunately Blum does not address the basic problem with drug education: How to strike that happy balance between use and abuse of drugs in a culture that promotes drug use, especially when the debilitating consequences of drug use often show up only after chronic use. In this context even the top-notch drug educator engages in a task akin to that of Sisyphus. Typically we want to have our cake and eat it: We want to take our pill and remain free of the side effects, interactions, and sequela of chronic use.

Blum stresses the importance of evaluation: "there are very few educators who require in their teaching the kind of tough evaluation that demonstrates that objectives have been achieved." He also questions the fiscal prudence of those who would run about engaging in drug education activities which are not demonstrably needed and which may be counterproductive. Blum suggests that drug trends be carefully monitored and that education be based on community need, not on the need of someone identified as a "drug educator" hired to do something called "drug education" in a haphazard, but fashionable growth-oriented fashion.

Despite the fact that I am an ardent supporter of the "drug consumer safety education" approach developed by Mark Miller (Drug Information Center, University of Oregon, Eugene.) I must concede that other than the usual demonstration that students gain knowledge, there is no evidence of changes in drug taking behavior. Gains of knowledge are so common as to be trivial. The critical question is: Knowledge for what? As demonstrated by what changes in behavior? Perhaps significant changes do occur; that we do not note them may simply indicate inadequate evaluation. Or worse, it may be a sign that the effects of commercial drug promotion strongly counter-balanced even the most effective formal drug

education program.

What is knowledge for? This should be our slogan as we continue our sporadic, poorly coordinated, disorganized drug education efforts, as we promote more and more alcohol drug education, all the time "floundering in the search for little remedies for large troubles" (Lynd, 1938). Or, to modify Emerson, the believing we do something when we do nothing is the first illusion of drug education.

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**DRINKING: ALCOHOL IN AMERICAN
SOCIETY-ISSUES IN CURRENT
RESEARCH**

**John A. Ewing and Beatrice A. Rouse (Eds.)
Nelson-Hall Publishers, Chicago 441 pages,
\$19.95 (paper \$8.95)**

My first thought when scanning the table of contents: no, no, not another collection of papers hastily compiled for one of those ubiquitous alcoholism conferences. The alcoholism field has its "stars" and conference groupies, and there is a kind of "good ol' boy" network that operates like this: If you invite me for a week at the Palm Beach Conference on Alcoholism (all expenses paid), when I hold my conference on Medical Aspects of Alcoholism up here in North Carolina, I'll reciprocate and invite you (all expenses paid). It is rare that anything very new comes out of these conferences since the papers were originally written five to ten years ago and undergo biannual revisions for newly established conferences in

exotic locales.

While they may have called upon their good ol' boy network, editors Ewing and Rouse have put together a volume of at times scholarly and readable papers. The selections are short enough to hold those with limited attention spans and frequently scholarly enough (without being entirely academic and pompous) to provide a solid core of well-researched material to whet the appetite of those wishing to pursue the subjects in more detail. Scholarly and readable. A rare combination.

The careful reader does not have to get too far to discover there are no chapters on treatment. This may indicate (a) a recognition that people are over-saturated with the same old theories of alcoholism and treatment, and weary of repeated descriptions of treatment techniques that sound vigorous and effective on paper but in practice often have rather dismal outcomes; (b) a recognition that there are other vital issues related to drinking problems besides treatment, with a strong emphasis on the role of social policies in creating conditions in which drinking problems may flourish or fail to thrive; (c) the authors forgot the chapter on treatment (not bloody likely). What of the social issues? Several chapters deal with the question of government control and legislation on alcohol related problems. In "Government Control Measures to Prevent Hazardous Drinking", Popham, Schmidt, and de Lint (Addiction Research Foundation of Ontario) provide a thorough account of the hypothetical and actual effects of various legislative or government imposed control measures, including discussion of monopoly systems, outlets, hours of sale, and the effects of relative price. They again contend, as they have for the past several years in other alcohol literature, that those interested in prevention should not discount the "distribution of consumption" hypothesis, and that price control policies should be seen as potentially effective preventive measures: "In our judgment, substantial improvements in the health status of many jurisdictions could be achieved through suitable price increases and without undue loss of the rewards of drinking". Robin Room (author of

the prevention section in the just-released **Alcohol and Health III**) evaluates the effect of the drinking laws on drinking and critiques the distribution of consumption hypothesis. Room concludes that "while general liquor control measures have their potential of affecting the whole population, their actual effects are different in different populations. Little enough is known about the net effects of control measures in the total population, but even less is known about the detailed effects in different segments of the population." Room is obviously not so sanguine about the value of legislation in controlling alcohol related problems.

For those who are interested in following the continuing controversy regarding drinking and driving countermeasures, the chapter by Patricia Waller, "Drinking and Highway Safety", reviews many of the more important studies done on the effectiveness of counter-measures. In one study cited, judges assigned first offenders to "treatment conditions of fine, conventional probation, or rehabilitative probation." The outcome? As usual, "there were no significant differences in subsequent crashes, moving violations, or DUII convictions for the three treatment groups. Furthermore, drivers sentenced to jail did not differ from the other groups in their subsequent records." Of course, there must have been something wrong with the data, or the methodology -some inadequacy in the evaluation techniques that it failed to uncover those meager signs of success, as fragile, evanescent and diaphanous as dragon's fewmets. Overall, Waller's review is particularly well-referenced and directs the reader to some of the outstanding research in the area of drinking and highway safety.

Despite the fact that there are some excellent papers included in **Drinking**, and there is erudite exploration of important topics and issues, the quality of the papers is not uniformly high. There is a tendency toward overlap and redundancy. Archer Tongue covers five thousand years of drinking in seven pages, superficially one might say; while Howland and Howland deal with two hundred years of drinking in the United States in 21 pages. There are also a couple of rather parochial and dull chapters by Loeb and Womer

on state drinking laws. Worrier's paper on "Drinking Laws in the Commonwealth of Virginia" might well have been written as a mid-term paper for Intro to Alcoholism: I. No conclusion, no moral, no point, just a recitation of the evolution of Virginia's drinking laws. C+, good spelling and syntax.

Despite occasional pedestrian chapters, the book is well worth reading. One of the factors that makes it so is the absence of the usual simple slogans and mindless promotion that passes for intelligent thinking about alcohol and alcohol related problems.

It may be a book written by good ol' boys (and gals), but all in all it is a good ol' book.

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ORTHOMOLECULAR NUTRITION

Abraham Hoffer, Ph.D., M.D., and Morton Walker, D.P.M. (Introduction by Linus Pauling, Ph.D.)

**Keats Publishing, Inc., 36 Grove St, New Canaan, Connecticut 06840, 209 pp. 1978 \$2.25
In Canada \$2.50**

A decade ago two-time Nobel Prizewinner Linus Pauling coined the term "Orthomolecular", proposing the word as a Greek-Latin hybrid to express "the idea of the right molecules in the right amounts." He made particular reference to the "optimum molecular environment of the mind especially the optimum concentrations of substances normally present in the human body." Even before Pauling wrote, Abram Hoffer, a psychiatrist with specialized training in nutrition, had been involved in experimentation on the role of vitamins and

other nutrients in the treatment of mental illness.

In the present work, **Orthomolecular Nutrition**, physicians Abram Hoffer and Morton Walker provide a clearly written well-researched account of the basic tenets of a movement which has gone from a few isolated practitioners in 1952 to over 3,000 Orthomolecular physicians and other professionals in allied health fields.

Echoing the pioneer work of nutritionist Roger William, Hoffer and Walker emphasize the enormous range in need individuals have with respect to the 45 nutrients required for optimal cellular function. According to Hoffer and Walker, "Orthomolecular nutrition is nutrition which strives to provide these optimum quantities for the cells of the body and takes into account the enormous individuality of persons and the variations caused by time and stress."

Because the authors inveigh against white flour, sugar, and other junk foods, it is perhaps tempting to write them off as natural food cultists, or "nuts among the berries." However, they make a strong case for the importance of nutrition and related dietary practices in the prevention and treatment of physical, mental and emotional problems. Particularly with respect to the latter, Hoffer and Walker give additional weight to Pauling's statement in 1968, "...mental disease is for the most part caused by abnormal reaction rates, as determined by genetic constitution and diet, and by abnormal molecular concentrations of essential substances."

The book outlines a program for different categories of individuals:

(1) People who are very healthy now and would like to increase the probability that they will remain so for the rest of their lives.

(2) People who need to change their pattern of living and eating in order to gain a much better state of health.

(3) People who are already in the throes of serious physical and psychiatric disability.

Individuals in the first two groups will use Orthomolecular nutrition as preventative and maintenance programs. Individuals in the last group will tend to use Orthomolecular nutrition as part of an overall

treatment program, in many cases the most essential component of a treatment program.

To those physicians and other individuals who ridicule the importance of nutrition in physical and mental problems, Hoffer and Walker have this reply: "Not only is it difficult to persuade people to eat what is good for them, but the medical profession plays a damaging role in delaying the applications of vitamin therapy developed by its colleagues. The medical use of vitamins has had to change slowly from prevention and treatment of deficiencies to a newer use of a much larger quantity to treat conditions, which are not clearly related to vitamin deficiencies. Certain foods can prevent and cure major diseases. This has been known for hundreds of years, but this knowledge has been narrow in distribution and seldom is applied on a substantial scale." Going a step further, they make a strong indictment of refined sugar stating that "it produces addiction as severe as any drug addiction." Excessive sugar consumption, a main factor in the cause of hypoglycemia, is one of the factors bringing about the master disease caused by refined foods, the saccharine disease. This condition was first described by H. L. Cleave, British nutritionist in 1958. Since that time, it has become more well known and accepted that refined foods are implicated in a variety of physical conditions from cardiovascular illness to colonic cancer. In addition, as Hoffer and Walker point out, "It is rare to find patients with the physical expression of the saccharine disease who do not also suffer from many of the mood changes typically found in a neuroses."

Orthomolecular Nutrition is bound to be controversial. The subject of food and food habits is colored with symbolic, religious, economic, and political considerations, making the subject of the role of nutrition and behavior a highly complicated and emotion-laden topic. It is to their merit that Hoffer and Walker have offered a carefully researched volume that avoids extreme claims. As Abram Hoffer has stated elsewhere, there are two types of errors in thinking about nutrition, the error of the means and the error of the extremes. In

short, the error of the means is to adhere firmly to general food rules as applied to the average person, and to advise everyone to adhere to these rules in every case. In this position a statistical point of view is adopted in which all human uniqueness vanishes. On the other hand, the error of the extremes is often made by individuals who have discovered that a certain type of diet is best for them and immediately conclude that this particular diet must be good for everyone.

Orthomolecular Nutrition cautions against both types of error, emphasizing the importance of individuality and discouraging dietary and nutritional panaceas. If one gets nothing else from this book, the message should be clear that diet plays a role in behavior that is much more complex than simply supplying energy and easing hunger pangs.

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THE CHANGING AMERICAN DIET

Letitia Brewster and Michael F. Jacobson
Washington, D.C.: The Center for Science in
the Public Interest (paper) \$2.50 80 pp.

THE COMPLETE JUNK FOOD BOOK

Michael S. Lasky
New York: McGraw-Hill Book Company
(paper) \$7.95 286 pp.

These two books complement each other nicely. **The Changing American Diet** documents fluctuations and trends in American eating practices from 1910 (and often earlier) through 1976; it emphasizes the relationship of diet to a variety of health problems; and gives us

tantalizing glimpses at the politics of nutrition. Lasky's book on junk food provides a gourmand's tour through the non-nutritive heart of America's junkfoodland, a tawdry, meretricious territory, clogged and sogged with fats and refined carbohydrates, sugrified and saccharinized beyond the wildest dreams of Willie Wonka. Cola-ed, carbonated, cured and preserved by the chemical ingenuity of food technologists (apprenticed to the corporate sorcerer), junk food caters to the zest and fun of eating, not to humdrum and boring nutrition and health concerns. If junk food turns out to be deleterious to one's health...well, science will find a quick and easy remedy for whatever ails.

Brewster and Jacobson, both strong consumer advocates, use F.D.A. statistics to show the U.S. diet has changed dramatically in some instances:

- Increases in caloric sweetener consumption, much of which is added during food processing.
- Increased fat intake. The authors call this "The most alarming change in our diet..."
- Overall decline in carbohydrate intake (21%); switch from the complex carbohydrates, starches, to sugar, making up a higher proportion of all carbohydrate consumption.
- Continued slow rise in per capita alcohol consumption since repeal of prohibition.
- Americans guzzled 493 eight oz. servings of soda pop in 1976, an all-time high and 12.3% increase over 1975.

Unfortunately the authors note that data are not available on other important areas of food consumption, such as per capita ingestion of sodium, whole wheat flour consumption, home-produced vegetables and fruits.

If we take the trends in **The Changing American Diet**, couple them with the clear indications that junk foods are rapidly displacing nutritive counterparts, the future looks bleak as far as meeting the dietary goals for the U.S. (updated, January 1978):

1. Decrease sugar intake, increase ratio of complex carbohydrates to simple carbohydrates.
2. Reduce overall fat consumption.
3. Reduce saturated fat consumption.

4. Reduce cholesterol consumption.
5. Reduce consumption of refined sugars by 45%.
6. Reduce salt consumption.

Noting the pervasive influences exerted on our consumption habits by the food industry, Brewster and Jacobson state: The massive power of the food industry to direct eating habits, the relative powerlessness of the consumer, and the catastrophic health consequences of The New American Diet indicate the need for a comprehensive federal program to change the American diet.

They advocate such measures as media campaigns to encourage consumption of good foods and to provide counter advertising against indiscriminate consumption of non-nutritive foods. There should be changes in meat grading, requirements that nutritious foods be made available in vending machines, and there should be careful control of commercials for candied breakfast foods. In addition, the government should require clear labelling of fat, sugar and salt contents of processed foods.

Although Brewster and Jacobson allow a note or two of optimism to creep in, the future looks even more bleak if we take **The Complete Junk Food Book** as an indicator of the domination of intellect by perverted palate. Lasky makes no secret of his taste preference: "I love trash...Yes, I admit it, I love junk food. If it has sugar in it or oil on it, I'll eat it." Lasky, an apparently well-informed person, displays a devil-may-care, cavalier attitude towards food hazards. As long as we're hooked, he implies, we might as well be discriminating. "If we're going to eat junk food," says Lasky, "we should at least avoid the trashier varieties." Here's Lasky's analysis of our eating habits: We eat junk food-any food that relies on sugar and/or fat as its primary ingredients--for the pleasure of it, for the pleasurable association it beckons from our memories, for its uncomplicated taste. Perhaps we even eat it because we know that it is bad for us. After all anything worth doing is probably illegal, immoral or fattening.' Eating junk food may be an act of anti-Puritanical defiance, a stroke for independence of thought. Could be. It is a true independent thinker who chows down on potato chips and coke. A real maverick, a rambunctious

rebel...without a cause.

No apologist for agribusiness, Lasky gives striking examples of permissible lies used in advertising campaigns sponsored by junk food barons. Example: a booklet distributed to students and teachers by the National Confectioners' Association claims:

- If eaten before each meal, candy works as a weight reducer.
- Candy is an aid in fighting illnesses.
- Candy is a very minor source of dental decay.

Along the same lines, The National Soft Drink Association touts soda pop as-get this-a good source of water. General Foods successfully seduced a number of school systems into endorsing and promoting the use of breakfast candies by promising to exchange box tops for recreation and p.e. equipment. And Hershey Foods published an attractive "Nutrition Information" booklet which tells us "Calories are important and foods which supply only calories can, if used correctly, contribute to good nutrition.

It is bad enough that these false and misleading claims are made by the junk food industry, but it is tragic to hear them repeated mindlessly by nutritionists, dieticians, physicians, and counselors who should, by this time, know better.

Lasky's message seems to be: Look. Junk food is here to stay, I'm a junk food junkie, and I might as well get a few laughs while I subject my body and mind to the gustatory thrills of bas cuisine. Part self-indulgence, part pose and macho bravado, it resembles the same mindless derring-do (or is it desperation?) of the emphysemic patient who smokes another "coffin-nail" after respiratory therapy.

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