Public Health Briefs

Safety Packaging—What Does the Public Think?

MATILDA S. MCINTIRE, MD, CAROL R. ANGLE, MD,
KUMAR SATHEES, MD, AND PAUL S. T. LEE, PHD

Introduction

The history of safety packaging, here defined as child-resistant containers, is one of persistent efforts by many groups culminating in the passage of the Poison Prevention Packaging Act of 1972 (P.L. 92-573). This act provided that all potentially harmful household substances including prescription medication be marketed in safety packaging. One of the salient ideas incorporated into the legislation is that "the package is the message" and serves as a constant reminder of safety education in the market place as well as in the home. Previous studies of safety prescription packaging establish its efficacy: three out of four poisonings do not occur when prescription safety packaging is used.[1-5]

Since several groups, including pharmacists[6] and toxicologists,[7] have protested safety packaging on the basis of consumer non-acceptance there is a need for a community-wide study to investigate overall public opinion and acceptance of safety packaging.

Materials and Methods

A sample telephone survey of the opinion of residents was designed and conducted by the Center for Applied Urban Research at the University of Nebraska at Omaha. The survey was done in January 1976, in the Greater Metropolitan Omaha Area, a standard metropolitan statistical area (SMSA). The method used was the two-stage probability sampling procedure. The sample framework was the Omaha City telephone directory. The sample was selected using a table of random numbers. The directory represents 94 per cent of the area households (6 per cent do not have a telephone or have an unlisted number). There are approximately 120,000 households in the area of which 636 (0.5 per cent) were reached in the random survey. Five hundred two households were in Omaha, 52 in Bellevue, a city to the south, and 82 in Council Bluffs, a city just across the Missouri River. All the sample households were contacted through telephone interviews by professionally trained interviewers at various times during the day and evening. There were 132 absolute refusals or no adult was available, a non-response rate of 17 per cent. There were no significant geographical variations on the non-response rate. All the questions were structured. Preliminary testing was conducted after which the questionnaire was reconstructed.

Analysis and Discussion

A total of 636 telephone responses were obtained with 29 per cent of the households having children under six years of age. Thirty per cent of all families in the Omaha (SMSA) area have children.[8] Twenty-nine per cent of the families had parents under 30 years of age and 21 per cent were over 60 years of age. The educational level was 81 per cent with high school and some college education, giving a relatively well educated population, as shown in Table 1. The response to the five basic questions is as follows:

1. What do you think of the idea of safety packaging?

Families with young children at home tend to be more enthusiastic about the idea of safety packaging with a 92 per cent approval, than those with no children, 82 per cent approval (Table 2). An overwhelming majority of all respondents approved the idea of safety packaging. Age affected the respondents' attitude about safety packaging: of respondents under 30 years of age, 92 per cent approved, compared to 75 per cent of respondents over 60. Approval did not vary by

Address reprint requests to Dr. Matilda S. McIntire, Poison Control Center, Children's Memorial Hospital, 502 S. 44th, Omaha, NE 68105. Dr. McIntire is also Director, Division of Community Pediatrics, and Professor of Pediatrics, Creighton University School of Medicine; Dr. Angle is Professor of Pediatrics, University of Nebraska Medical Center, and Attending Physician, Children's Memorial Hospital; Dr. Sathees is Pediatric Resident, Creighton University School of Medicine and Children's Memorial Hospital; Dr. Lee is Senior Research Associate, University of Nebraska at Omaha. This paper, submitted to the Journal July 28, 1976, was revised and accepted for publication November 2, 1976.

TABLE 1—Demographic Characteristics of Respondents

With or without children under 6 (635)*	%
With young children	29
Without young children	71
Age group (635)	
<30	29
31–60	50
>60	21
Education level (631)	
<12 yrs	19
12 yrs	41
>12 yrs	40

*Number of subject respondents in parentheses

educational level or sex of respondent. Response by residential section appeared more related to the presence of children in the home than to socioeconomic variables.

2. Have you any products with safety caps or packaging in your home?

Of the families surveyed, 89 per cent had safety packages at home.

3. Have you had safety packages that were so difficult to use that you did not use them properly?

Improper use was reported by 22 per cent, increasing from 14 per cent by respondents under 30 years to 33 per cent by those over 60 years, (Table 3). Of the different types of improper use, 41 per cent changed the container, and 25 per cent left the top off. Of the 22 per cent with difficulties, 14 per cent, or 3 per cent of the 560 respondents, discontinued use of a product due to difficulty in use. The tendency to quit using safety packaging was seen more among respondents below 30 years (20 per cent) as compared to those above 60 years of age (9 per cent).

4. What changes would you like to see in safety caps or safety packaging?

The presence of young children in the home and age affect opinions on changes in safety packaging, while sex and educational level do not. In households with young children, (Table 4), only 8 per cent thought they should be more difficult for children to open while this opinion was held by 17 per cent of households without present experience with children under 6 years. Similarly, 29 per cent of people over 60 thought the packages should be more difficult, while only 8 per cent of those under 30 made this recommendation. Of families with young children, 9 per cent suggested extending safety packaging to more products, with this suggestion from only 3 per cent of families without young children.

5. Did you know that you can ask for prescription drugs without safety packaging?

The Poison Prevention Packaging Act provided for the omission of safety packaging when requested yet few people are aware of this provision.[6] Two-thirds (67 per cent) of the Omaha-Council Bluffs residents did not know that they could ask for prescription drugs without safety packaging. Lack of acquaintance with this provision showed no demographic selectivity.

TABLE 2—Approval of Safety Packaging

	Number	Approve	Approve on Some	Disapprove	No Opinion
		%	%	%	%
Have children under 6	448	82	7	5	6
No children under 6	187	92	5	1	2
Age					
<30	186	92	4	1	3
31–60	318	85	7	4	4
>60	131	74	8	6	12
Total	686	85	6	4	4

TABLE 3—Improper Use of Safety Packaging

			Response to Difficulty	
	Number	Had Difficulty	Left Top Off, Changed Container, or Other	Discontinued Use
		%	%	%
Age				
<30	180	14	80	20
31–60	286	23	85	15
>60	94	33	91	9
Total	560	22	86	14

TABLE 4—Changes Requested in Safety Packaging

	Have Children <6 (187)	No Children <6 (448)
	%	%
More difficult for children to open	8	17
More products with safety packaging	9	3
Easier for adults	5	6
Technical improvements	14	14
No changes	12	9
No opinion	52	51

Conclusion

On telephone survey, 85 per cent of 636 respondents approved of safety packaging. Of those under 30 years of age or with young children, 92 per cent approved and were most likely to favor extending safety packaging. Two-thirds of the respondents, independent of demographic characteristics, did not know that they could ask for prescription drugs without safety caps, indicating the need for education by the Consumer Product Safety Commission and the American Pharmaceutical Association. The Consumer Product Safety Commission received an increasing number of requests for safety packaging exemptions.

Since only 3 per cent of respondents discontinued use of a product because of difficulty with the package, while 91 per cent of the respondents approved the general concept, it would appear that these requests are not justified on the basis of consumer dissatisfaction. Consumer complaints relate to technologic problems, not to the concept of safety packaging.

From the findings of this study it can be concluded that the public overwhelmingly approves of safety packaging. Safety packaging is a landmark and a model for accident prevention.[9]

REFERENCES

1. McIntire, M. S., Angle, C. R., and Grush, M. L.: How effective is safety packaging? Clin. Toxicol. 9:3, pp. 419–425, 1976.
2. Scherz, R. G.: Prevention of childhood poisoning—A community project. Pediat. Clin. N.A. 17:713–727, 1970.
3. Scherz, R. G.: Child proofing the medicine bottle. Lancet 2:287, 1974.
4. Breault, H. J.: Poisonings are Preventable—Experience With One Million Child-Resistant Containers. Presented at the Canadian Pediatric Society Annual Meeting, Saskatoon, June 26, 1968.
5. Angle, C. R.: In defense of safety packaging. Hosp. Pharm. 10:262, 1975.
6. Heard, J. S.: Safety closures—Time for reassessment. Hosp. Pharm. 10:4, 1975.
7. Winek, C. L.: Poison Penletter. 2:2 (July), 1975.
8. Final Report PC(1)—B29, Table 25, Washington U.S. Government Printing Office, 1971.
9. McIntire, M. S., and Angle, C. R.: Poison control—A model for childhood safety. Paediatrician (to be published).

ACKNOWLEDGMENTS

Supported by the Nebraska Master Poison Control Center, Children's Memorial Hospital, Omaha, Nebraska.

Appeals Used in Advertisements for Psychotropic Drugs: An Exploratory Study

MICKEY C. SMITH, PHD

Introduction

Motivation researcher, Ernest Dichter has noted:

> ". . . doctors are human beings . . . medical men are subject to the same kind of stresses, the same emotional influences as affect the laymen. Physicians have, as part of their self-image, a determined feeling that they are rational and logical, particularly in their choice of pharmaceuticals. (The advertiser) must appeal to this rational self-image, and at the same time make a deeper appeal to the emotional factors which really influence sales."[1]

Based upon Dichter's line of reasoning the appeal used in the advertisement is likely to play an important role in whatever influence that advertisement ultimately exercises.

The nature of that influence has been a source of considerable concern. One example is the recent call by the National Council of Churches for "manufacturers, advertisers, media, regulators, organized medicine and retailers" to collaborate in a "long-term continuing review of advertising's influence on drug taking patterns."[2]

A necessary precursor to understanding such influence is to classify the content of ads. Some studies have been made in this area.

Address reprint requests to Mickey C. Smith, PhD, Professor and Chairman, Department of Health Care Administration, University of Mississippi, School of Pharmacy, University, MS 38677. This paper, submitted to the Journal August 27, 1976, was revised and accepted for publication October 14, 1976.