

THE EFFECTS OF THE TYLENOL POISONINGS ON CONSUMER FEARS

Stanley M. Zdep and Irving Roshwalb, Audits & Surveys, Inc.

During the week of September 26, 1982, a heretofore unknown form of hysteria swept the United States. Seven persons in a northwestern suburb of Chicago died from apparent poisonings. These persons seemed totally unrelated in every way, except for the fact that they had recently taken newly purchased Extra-Strength Tylenol capsules.

Rapid laboratory analysis of the unused remaining capsules revealed that some of them contained lethal doses of potassium cyanide. At first, a problem in the manufacturing process was suspected. As lot numbers of the contaminated capsules were identified, they were broadcast in Chicago and throughout the country.

It soon became apparent that the lot numbers identified represented products that had come from different manufacturing facilities in different parts of the country. The likelihood of the poison having been inserted during the manufacturing process became more and more remote. Johnson & Johnson, the parent company of the makers of Tylenol breathed some sigh of relief, but they still had a catastrophe of major proportions on their hands.

Very quickly the investigation moved from the manufacturing process to the distribution channels, and finally to the point of purchase--the stores themselves. This was a logical process, because all deaths had occurred in the Chicago area. It was concluded that someone from that area was inserting the poison in Extra-Strength Tylenol capsules while they were displayed for sale on the store shelves.

The situation took on even more ominous overtones when a man in Oroville, California, took Extra-Strength Tylenol capsules and fell ill with what later was determined to be strychnine poisoning. The first of a number of potential copycat tamperings had emerged. The makers of Tylenol responded with a nationwide recall of all Tylenol capsules, both regular and Extra-Strength.

Other copycat tamperings were reported elsewhere involving mouthwashes, eyedrops, and candy products. Faced with the prospects of such Russian-roulette killing or maiming, many communities banned the traditional trick-or-treat activities connected with fast-approaching Halloween.

Not only Johnson & Johnson, but the makers of other capsule products, analgesics, over-the-counter drugs, and packaged ingestibles were all scrambling for answers. Two questions were paramount. How were consumers reacting, and

what were the long-term implications of this tragedy?

This was a clear opportunity for providing some of the answers using survey research techniques. Because the situation appeared to be in continual flux, however, survey data needed to be gathered, analyzed, and disseminated rapidly, or they would be of little value to data users.

On October 8th, Audits & Surveys, Inc. (A&S) decided to implement a nationwide telephone survey, with an oversampling in the Chicago area, to assess consumer reactions to the tamperings. During the next week samples employing random digit dialing procedures were generated. Work on a survey instrument progressed, getting as much input from pharmaceutical companies and federal agencies as was possible, given the tight schedule.

Interviewing began on October 15th and by October 23rd, 1504 adults nationwide and 500 adults in the Chicago area had been interviewed. A primary objective was to establish baseline data for measuring a concept we labeled "spreading fear."

This involved the spread of fear geographically, of course, but it also involved the spread of fear across products. Fear initially centered on Tylenol Extra-Strength capsules, but it was believed to have spread to other Tylenol products, followed by all capsule products, other analgesics, pharmaceuticals, and even to food and beverages.

We discovered to our amazement that knowledge of the tamperings was almost universal. Ninety-nine percent of those interviewed in the Chicago and nationwide samples were aware of the poison deaths. Ninety-three percent of the samples were aware that the product involved was Extra-Strength Tylenol capsules.

Moreover, approximately three-quarters of both samples were able to name other products that had been tampered with as well. Ninety-four percent of the Chicago sample and 86 percent of those nationwide knew the initial Tylenol tampering incidents had taken place in the Chicago area.

Approximately one in five homes reported having had Extra-Strength Tylenol capsules at the time of the tampering incident, while a similar number reported having Extra-Strength Tylenol tablets. We asked these respondents what, if anything, was done with them.

More than 60 percent of the Chicagoans and 45 percent of those nationwide

destroyed or discarded Extra-Strength Tylenol capsules. Our reaction to this finding was that, during that week, probably more Tylenol had gone down the toilet than did Tidy Bowl Cleaner.

One out of ten additional Chicagoans and one out of fifty in the nationwide sample returned their Extra-Strength Tylenol capsules to the manufacturer for a refund.

Extra-Strength Tylenol tablets did not fare much better. Almost four in ten in Chicago and one in four nationwide got rid of them.

This fear had even spread to Regular-Strength Tylenol products--including both capsules and tablets. In Chicago, six out of ten households with regular strength capsules destroyed them, while nationwide, three in ten got rid of them.

One-third of the households in Chicago that had regular strength tablets got rid of them, while one in five nationwide behaved similarly.

There was also isolated discarding of other analgesic products as well, but this was insignificant compared to the discarding of Tylenol products that had taken place.

We also explored what was the most hotly-debated question of the time. That was whether or not people would purchase Tylenol products again.

More than seven in ten Chicagoans and nearly as many nationwide stated they were not likely to purchase Extra-Strength Tylenol in tamper-resistant capsules within the next six months. This question dealt with a six-month period because we felt that behavioral intentions over a longer period of time get more and more unreliable as the time period in question is increased.

When we asked about Extra-Strength Tylenol in tablet form, 65 percent of the Chicagoans and 58 percent of those nationwide stated they were not likely to purchase the product during the next six months. As can be seen, the product resistance for tablets was almost as great as for capsules.

In pursuing the concept of spreading fear, we asked respondents how likely they would be to purchase other over-the-counter medications in the near future. If these medications came in tablet form, almost four in ten stated they were unlikely to purchase, but if they came in capsule form, this increased to six in ten.

We then asked respondents where they felt it was safest to purchase over-the-counter medications. Ninety-two percent nationwide and 82 percent in Chicago felt drug stores or pharmacies were safest. Fewer than one in twenty listed grocery stores, supermarkets, department stores, or discount stores as safest.

We next explored the need for tamper-evident or tamper-resistant packaging. Approximately four out of five in Chicago and three out of four nationwide stated they would be looking for such packaging in the future.

Using ratings given by consumers, we rank-ordered the kinds of products they said they would expect to find in tamper-resistant packaging. This list is as follows:

- Pain relievers
- Over-the-counter drugs
- Candy
- Dairy products
- Packaged meat
- Frozen foods
- Baked goods
- Breakfast cereals
- Cosmetics

Although respondents expected all of the listed products to come in tamper-resistant packaging in the future, a Studentized range test on mean rating differences indicated that respondents were significantly more interested ($p < .01$) in the packaging of pain relievers, over-the-counter drugs, and candy than they were in the other products named.

Except for the finding that there was a more fervent desire for tamper-resistant packaging among Chicago residents, the rank order on consumer packaging expectations for various products was identical to that for the nationwide sample.

Having determined that there was a groundswell of sentiment for tamper-resistant packaging, we next investigated levels of consumer confidence regarding the different types of tamper-evident or tamper-resistant packaging that had been proposed to date.

Consumers expressed greatest confidence in a package using a band that must be broken to remove the cap. This type of packaging is characteristic of many soft drinks that come in bottles.

The second most secure type of packaging, according to consumers, is a shrink band over the cap. Shrink bands are commonly found on bottles of wine.

Next, in perceived decreasing order of safety were sealing pills in individual cells; placing a membrane over the tops of bottles; blister packaging; using capsules that cannot be opened; and finally, the use of cellophane-wrapped boxes.

As you know, the makers of Tylenol are now packaging their product in a triple, tamper-resistant package. They are using a technique that customers perceive as most effective--the band that must be broken to remove the cap. They are also using a foil bottle top seal, rated in the middle in effectiveness, plus a cellophane-wrapped box, which was rated as least effective.

When Johnson & Johnson opted for this approach, many observers questioned whether or not any incremental gains in consumer confidence could be achieved by using two additional packaging techniques that were considered to be less effective than the most secure technique adopted (from a consumer's point of view).

When consumers want more, they invariably have to pay more. In this respect, consumers were asked if they would be willing to pay more for tamper-resistant packaging. Almost three out of four said they would be willing to pay. Among these, 96 percent in the nationwide and 98 percent in the Chicago sample said they would be willing to pay as much as five cents more per package. Those who expressed such willingness were they asked if they would pay ten cents more. Three-fourths of the Chicago and nationwide replied in the affirmative.

A final series of questions dealt with the need for regulation in the area of packaging. If you recall, a number of federal agencies, the U.S. Congress, state governments, and even local governments became very vocal about the need for protecting consumers, and all expressed some willingness to get involved.

In order to get consumers' perspectives on this, we asked, first of all, whether consumers felt labels were needed warning about possible package tampering. Fifty-four and 56 percent of the nationwide and Chicago sample, respectively, said labels were needed.

We then asked whether manufacturers, the government, or both should deal with the tampering issue. Almost one-third said manufacturers, one out of ten felt it was the responsibility of government, whereas approximately 55 percent stated it was the responsibility of both.

When asked which levels of government should get involved in making laws concerning the safety of packages, more than eight in ten felt it was the responsibility of the federal government; slightly more than one-third felt state governments should also make such laws; and finally, one in four felt that local governments should get involved as well.

In summary, this survey and others like it have resulted in legislation designed to help protect consumers; they have resulted in warning labels being attached to consumer packaging; and the surveys have resulted in a plethora of different types of tamper-evident and tamper-resistant packaging appearing on retail shelves. There is no complete and total defense against product tampering, as far as the consumer is concerned. However, led by the totally responsible corporate behavior of Johnson & Johnson, other companies have responded with packaging which enables the consumer to protect himself. The tragedy of the tampering deaths is undeniable. However, as a result of these deaths, million upon millions of consumers now have an opportunity to protect themselves.