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Exploratory study of consumer attitudes towards children's flame-retardant sleepware

EXPLORATORY STUDY OF CONSUMER ATTITUDES TOWARDS CHILDREN'S FLAME-RETARDANT SLEEPWEAR

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The analysis and conclusions of this study do not recessarily reflect the views of the Department.

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DRAFT

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SUMMARY

The purpose of this study was to investigate consumer awareness of the possible danger of children's sleepwear in burn accidents, to determine their knowledge of current flammability legislation and terminology, and to learn consumers' attitudes about the importance of legislation for for children's flame-retardant sleepwear. Consumers' attitudes about the regulation of general product safety and textile flammability were explored, as well as the trade offs consumers said they would accept in return for standards governing flame retardancy in children's sleepwear.

Data were analysed from a two-part questionnaire returned by 473 English-speaking and 134 French-speaking females who were members of a nation-wide consumer mail panel and were parents of children 14 years of age or less. Certain biographical characteristics of the respondents were obtained and the samples were fairly representative of the demographic characteristics of the total samples surveyed. Preferences and practices for purchasing and laundering children's sleepwear were obtained for 974 children of English-speaking and 280 children of French-speaking families. The sleepwear styles most often worn were regular tailored pyjamas, followed by short or long nightgowns. Fabric blends of cotton and polyester were preferred in the summer season and all cotton, mainly flannelette, in the winter. Consumers said they looked for care instructions on children's sleepwear before purchasing it. Many of the English-speaking, but fewer of the French-speaking, respondents could identify the Canadian care symbols that might appear on sleepwear items. They experienced the most difficulty in defining the symbols for "hang to dry," "tumble dry low," and "do not dry clean." Respondents generally washed sleepwear they were currently using in a wringer or an automatic washer, used powdered detergent, rarely used bleach, frequently used fabric softener, and dried the sleepwear most often in an automatic dryer (English) or on a line outside (French).

The majority of French- and English-speaking respondents were not aware that sleepwear could pose a fire hazard for children. About one-fourth of the English and 13 per cent of the French were somewhat aware and few English- and no French- speaking respondents were fully aware.

Most consumers were not knowledgeable about flame retardancy. Neither English- nor French-speaking respondents knew of the Canadian flammability legislation for

children's sleepwear or of legislation for other textile products. Many could not define the associated terminology. A large portion of English-speaking respondents were confused by the terms "inflammable," "flame-retardant" and "flame-resistant." French-speaking respondents were especially confused by the terms "agent ignifuge" and "retard à l'inflammation."

Consumers were generally in favour of textile items being made flame retardant, although French-speaking respondents were less favourable than English. Most respondents stated that all children's sleepwear should be made to resist burning, less than 25 per cent revealed some reservations about this, and a small portion preferred a choice between regular and flame-retardant children's sleepwear. There was strong support for burn- resistant clothing for people over 65 years and for the disabled and handicapped. However, a preference was stated for the choice between regular and flame-retardant clothing for people aged 15 to 65. Over 50 per cent favoured other textiles, including mattresses, blankets, curtains, draperies, rugs and carpets, being burn resistant.

The three major variables -- awareness, knowledge and attitudes -- were tested with the biographical characteristics. French-speaking consumers 35 years and older were slightly more aware of the burn hazard than were younger consumers. Of the English-speaking respondents who could define "inflammable," most were between 35 and 44 years. However, most could not define "inflammable" but did know the term "flammable." The majority of consumers had not previously been involved with a textile fire experience. Among those who had been involved, more knew the term "flammable" and fewer knew the term "inflammable" in comparison to consumers with no fire experience.

In the French-language survey, consumers 35 years and older were even less knowledgeable about current sleepwear flammability laws than were younger consumers although, in general, the level of knowledge was low among all consumers. Family size was inversely related to understanding the term "noninflammable," with large families of seven persons or more being the least knowledgeable. Socio-economic status was related to knowing the terms "agent ignifuge" and "retard à l'inflammation," with middle socio-economic level consumers being the most knowledgeable. Generally, however, consumers lacked adequate knowledge of both terms across all socio-economic levels.

A high importance was placed on both the government and clothing manufacturers being responsible for product safety in general. However, both English- and French-speaking respondents indicated that it was more important to provide consumer protection from dangerous products in general than from flammable textile items in particular. Public education was considered more effective as a means of preventing accidents with fire, whereas laws were favoured to reduce accidents with generally dangerous products.

Consumers were willing to accept specified changes in sleepwear criteria in exchange for flame retardancy. However, several discrepancies occurred when these items were statistically compared with the evaluative criteria and care practices currently in use for sleepwear. Both English- and French-speaking consumers were less accepting of special care instructions, loss of fabric softness or price increases of $2.00 or more per sleepwear item. French-speaking consumers did not want to sacrifice any durability, although English-speaking consumers would in return for flame retardance. Consumers were more accepting of styling and trim changes in return for greater protection from sleepwear flammability.

There were thus several apparent contradictions in consumers' stated acceptance of children's flame-retardant sleepwear and flammability regulations and their actual practices and preferences. Consumers were not aware that fabric flammability was a danger to children. Consumers' interest in children's flame-retardant sleepwear was much greater than their knowledge. A greater importance was placed on the regulation of general product safety than on the flammability of textile products. For those items consumers found most important when selecting children's sleepwear such as low price, fabric and ease of care, they were less willing to accept changes in return for flame-retardant properties than for properties considered less important, such as style and trim.

Based on the results of the study, the following major policy directions are suggested:

- Education and information programs should be undertaken regardless of any other action by government. Consumers are sadly lacking in awareness that textiles, particularly children's sleepwear, can pose a serious fire hazard. English-speaking consumers do not understand the word "inflammable" and therefore its use should be discouraged. Improved understanding of the terminol-

ogy for flame retardance and resistance by both English- and French-speaking consumers is critical. Many fire accidents involving textiles are caused by negligence. While standards for textile flammability may help to reduce injury, consumer education is needed to reduce negligence due to ignorance or carelessness.

- Increased flammability standards for children's sleepwear should be considered carefully. The most acceptable step from the point of view of consumers would be to develop styling regulations. Any regulations requiring standards similar to those in the United States could be negated by the sleepwear care practices commonly followed in Canada. Consumers most likely would continue their current practices unless an effective education program accompanied such legislation to make them aware of the need for special care. Even then, many may not comply since habit and convenience often may prevail if the benefits of flame retardancy are considered remote.

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NOTE TO THE READER

Consumer and Corporate Affairs discovered during the review of this study that there existed some confusion as to the correct translation of certain key terms within the francophone questionnaire. Specially, the problem stemmed from the incorrect translation of the following terms from English to French; flammable, non-flammable, flame retardant, and flame resistant.

This problem has reduced the confidence of the inferences drawn from the survey of the francophone population. Therefore, the reader should view all conclusions drawn from the francophone survey, or comparisons with the anglophone survey, with caution. Nevertheless, the conclusions extracted from the anglophone survey can be viewed with the highest level of confidence that is statistically allowed by the analysis.

It must be underlined that the reader should be aware of this problem at all times.

NOTE AU LECTEUR

Lors de la révision de cette étude, le Ministère de la Consommation et des Corporations a décelé une confusion dans la traduction française de certains mots-clés. En particulier, le problème provient de la traduction inexacte de l'anglais au français des termes suivants: "flammable", "non-flammable", "flame retardant" et "flame resistant".

Cette confusion des termes réduit donc le degré de confiance qu'on peut tirer des résultats du sondage francophone. Par conséquent, le lecteur devra être prudent quant à l'interprétation des résultats du sondage francophone ou de toute comparaison avec le sondage anglophone. Quoi qu'il en soit, les conclusions formulées à partir du sondage anglophone sont valides sous réserve évidemment du degré de confiance statistique.

Le lecteur devra être conscient de cette lacune tout au long de l'étude.

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CHAPTER I

INTRODUCTION

Support for greater public safety measures by making apparel and household fabrics flame resistant has accelerated in recent years. The main concern is for the victims burned as a result of textiles catching fire, particularly clothing (Bennett, 1973; Crikelair, 1977). Several factors contribute to this concern: clothing burns are severe, even more so than burns in which clothing is not involved; extensive burn injuries are by far the most difficult to treat medically, requiring long periods of hospitalization at extremely high medical costs; finally, of grave consideration are the psychological ramifications caused by the pain and visible disfigurment to the burn accident victim (Bennett, 1973; Crikelair, 1969; Segal, 1969).

Although inadequate and often contradictory, burn statistics do give some indication of the numbers of fabric fire fatalities and their distribution among the different age groups. Both the number of deaths and the fact that a disproportionately high percentage of these victims are young children have led some governments to legislate restrictions on the burning characteristics of many textile fabrics including children's sleepwear items (Block, 1976). As consumer safety becomes an issue to advocates, various medical associations and governments, the scope of textile flammability standards may increase.

Flame-retardant sleepwear for children may contribute to child safety. Reports in the United States seem to indicate a reduction in the severity and incidence of burn injuries and deaths due to children's nightwear being made fire retardant. Although it would seem that these regulations are in the public interest, consumer demand for children's flame-retardant sleepwear has not been great.

It has been suggested that, in general, consumers are not concerned (Crown, 1973), and that people evidently do not perceive themselves as exposed to any particular hazard by most of the textile items they wear or use (LeBlanc, 1969). It has been the experience in Britain and the United States that consumers are not willing to pay a premium for flame-retardant fabrics. When offered a choice, consumers selected untreated items even though the difference in safety was indicated on the label. This lack of consumer acceptance has been attributed not only to the aesthetic shortcomings of the treated fabric (LeBlanc, 1969;

Weinberg, 1973), but also to the higher cost of an item that a child will soon outgrow (Blum and Ames, 1977; Weinberg, 1973). The Canadian consumer's desire or willingness to pay for flame-retardant properties is not known.

At present, more stringent standards are being considered for children's sleepwear in Canada as well as the extension of these standards to include the "up to size 14" group. If Canada adopted regulations and test procedures similar to those in the United States, only those fabrics treated for flame retardancy or inherently flame retardant would comply with such stringent standards (Bennett, 1973). However, the Canadian government has elected to move more cautiously. There has been criticism of the fact that, prior to the implementation of the American standards, reliable data were not available on fabric-burn injuries to determine from what specific hazard protection was needed (Connor, 1977), thus making it impossible to develop meaningful test methods (Crown, 1976). It was not known whether the textile industry could provide a variety of fabrics which would meet these standards or what effects they would have on the marketplace. Therefore, before Canadian flammability regulations for children's sleepwear are extended, the situation is being studied by a committee of representatives from Consumer and Corporate Affairs Canada, the Canadian Manufacturers Association, the Consumers Association of Canada and major clothing retailers. Changes to the Hazardous Products Act will require a consensus of the committee members on realistic specifications and test methods. To provide the necessary factual information, some investigation has been carried out to determine factors which may be important in assessing the flammability hazard of textile products. The textile industry is expanding technology to provide fabrics which do not constitute a hazard. However, nothing has been done to assess the consumer's reaction to the extension of government regulations and the anticipated loss of product choice.

U.S. studies of consumer acceptance of children's flame-retardant sleepwear have been conducted after regulations were being developed or were already implemented. Consumers thus did not have a choice in the matter. Currently in the United States, flame-retardant sleepwear is receiving a tremendous amount of attention as questions on the health hazard posed by chemically-treated garments are being raised.

A study of Canadian consumers' attitudes, knowledge and acceptance of children's flame-retardant sleepwear is warranted. Awareness of these attitudes may indicate Canadian consumers' reactions to chemically-treated

children's sleepwear which requires special care, costs more than untreated sleepwear and/or limits the selection in the marketplace.

Purpose of the Study

The purpose of this research was to investigate components of consumers' attitudes towards flame retardancy of textiles. As children constitute a high risk group for textile burn injuries and sleepwear has been implicated frequently, children's flame-retardant sleepwear was selected for the primary focus.

The research was designed to answer the following questions:

1. How aware are consumers of flammability as an issue related to children's sleepwear?

2. How knowledgeable are consumers about flammability terminology and legislation?

3. What are consumers' attitudes towards textile flame retardancy?

4. Are consumers' awareness of, knowledge of and attitudes towards textile flammability interrelated?

5. Are awareness, knowledge and attitudes related to consumers' age, socio-economic status, family size and previous experience with fires involving textiles?

6. Do consumers' attitudes towards the regulation of product safety in general differ from their attitudes towards the regulation of textile flammability in particular?

7. How do consumers' stated evaluative criteria and care practices for children's sleepwear currently used compare with their projected evaluative criteria and willingness to follow specific care directions for children's flame-retardant sleepwear?

By answering these questions, policy direction concerning flammability, specifically in the area of children's sleepwear, was determined to assist consumers, educators, legislators and industry.

Definitions

"Flammability" is a complex term covering many properties of fabric combustion including ease of ignition, ability to support combustion and rate of burning (Richards, 1971). As Bennett has noted:

> Practically all materials are flammable, depending on the surrounding atmosphere and other conditions of use, and flammability is relative rather than an absolute condition. There is no such thing as a fire-proof fabric, but there are different degrees of resistance to combustion or flame. (Bennett, 1973, p. 67)

A flammable or inflammable fabric is a textile that will burn when touched with a flame; a nonflammable fabric will not burn when touched with a flame (Zentner et al., 1977). Flame retardants are a special group of finishes which react chemically during combustion to slow the spread of flame over a fabric (Burnett, 1973). "Flame resistant" and "flame retardant" describe textiles in which the burning characteristics have been reduced according to accepted test methods (Katz, 1972; U.S. Consumer Product Safety Commission, 1975). Although these two terms sometimes have been used interchangeably, they were defined separately for this study. Fabrics differ in their degree of resistance to flame and terminology designating this difference could be used to prevent misleading labelling. A flame-resistant fabric has been defined as one that will burn when touched with a flame, but stops burning when the flame is removed (Zentner et al., 1977). However, the term is no longer generally used because of the misunderstanding it generated. Flame retardancy is a property of a substance or treatment applied to a material which markedly retards the propagation of the flame (i.e., the fabric will ignite but will burn slowly).

For the purpose of this study, the consumer's evaluative criteria for children's sleepwear referred to specifications used by a consumer when selecting children's sleepwear items. Examples are price, durability and fabric type. Consumer care practices were based on the consumer's knowledge of care symbols and current laundering procedures, that is, the steps used to restore soiled articles to usable condition (Monk, 1975).

Significance of the Study

This exploratory investigation has several practical implications. It can help to clarify the need for extension of government regulations for children's flame-retardant

sleepwear and the need for permanent labelling of flame-retardant products. Moreover, it can assist in effective marketing of children's flame-retardant sleepwear and aid in the formation of educational programs for consumers on textile safety.

The concept that choice must be retained in a free society has frequently been emphasized. The U.S. National Commission on Fire Prevention and Control has suggested the use of:

> labelling requirements as to combustion hazards. This would honour the cherished principle of free choice, while at the same time informing consumers of potential risks and reminding them of the importance of fire. (Blum and Ames, 1977, p. 21)

Previous to the 1964 Children's Nightdresses Regulations, Britain had adopted a policy of consumer education rather than legislation. Yet, the annual total number of deaths due to ignited clothing remained high. When Meacher and Word (1977) studied the role of textiles in personal injury burn cases, they concluded that even if all clothing items sold in the United States were permanently labelled "Warning: This garment is dangerously flammable. Do not use around fire or flame," the incidence of textile burn injuries would remain unaltered. The present study was designed to provide some insight into the Canadian consumer's reaction to this issue.

The consumer's knowledge of flammability terminology and willingness to give special care to flame-retardant sleepwear items may determine labelling requirements. For instance, if consumers do not know the meanings of the terms "flammable," "inflammable," "nonflammable," "flame resistant" and "flame retardant," it may be necessary to standardize certain expressions and drop others altogether in the development of standards and for use on garment labels. As proper care of some flame-retardant fabrics is vital to maintaining their flame- retardant properties, it is important to determine whether care symbols or printed instructions are a more comprehensible labelling system.

As well, the ranking of criteria considered in buying children's sleepwear could have implications for marketers. Since manufacturers have had only limited success in providing flame-retardant garments with the aesthetic appeal, comfort and durability factors of untreated garments (Connor, 1977), this study was designed to indicate the consumer's willingness to sacrifice some degree of these

characteristics in exchange for greater safety. Finally, the findings from this study should prove useful in creating consumer information and education programs about textile flammability by providing more information about consumers' present knowledge of flammability legislation and terminology and about their willingness to care for flame-retardant fabrics properly.

CHAPTER II

REVIEW OF THE LITERATURE

The literature has been reviewed to provide a background about textile flammability including current flammability legislation, cost-benefit analyses of flame retardancy, the effects of various care practices on flame retardancy and a survey of consumer attitude studies about sleepwear flammability conducted in the United States. A theoretical framework which integrates the components of consumers' attitudes toward products is also presented.

Background

Centuries ago, man became concerned about the dangers when cellulosic materials ignited. For more than 300 years attempts have been made to protect against flammable fabrics. In 1638, Parisian theatre decorations and scenery were treated to make them flame resistant. Unburnable cloth was first recorded in 1684 at Oxford and, in 1820, Guy-Lussac proposed a flame-resistant mixture that is still applicable today as a non-durable treatment. The invention of the first durable flame retardant for cotton textiles has been attributed to William H. Perkins in 1902. His research was the result of a request by a British manufacturer of cotton flannelette who was alarmed at the frequency of fatal burns to children dressed in flannelette garments.

In recent years, concern has increased over the mortality and morbidity caused by fabric-burn injuries. The National Advisory Committee for the Flammable Fabrics Act has estimated that 16,000 textile-related burns and 500 deaths occur annually in the United States (Blum and Ames, 1977). In Canada, summarized data indicate that the ignition of clothing fabrics cause approximately 120 deaths per year (Crown, 1973). However, Consumer and Corporate Affairs Canada reports that only 25 of these involved incidents where clothing was the first material to ignite. Analysis of fatal fire deaths in Ontario from 1956 to 1963 showed that clothing fires caused one in every five fire deaths (Williams-Leir, 1967). A disproportionately high percentage of clothing burn victims are young children (Richards and Wiles, 1969). Research in the United States has indicated that children's sleepwear and fabrics for such garments represented a significant burn hazard to children (Richards and Wiles, 1969; Vickers, undated).

Current Flammability Legislation

A brief account of the legislation to date in Great Britain, the United States and Canada illustrates the impetus in many countries to protect consumers against flammable fabrics. In Great Britain, where the main heating sources are open fires, paraffin burners and gas fires, a high proportion of burn injuries have involved nightdresses (Kemp, 1969). Thus in 1964 the Children's Nightdresses Regulations under the 1961 Consumer Protection Act made it an offence to sell children's nightwear unless it passed British flammability standards (Drake, 1976). Trimmings and thread used were required to satisfy the same conditions. In 1967, requirements covering all nightdresses were added. At present, the British flammability regulations include garment design, in recognition of the fact that tailored pyjamas are less susceptible to accidental contact with ignition sources than loose flowing styles.

With the enactment of the Flammable Fabrics Act of 1954 and 1967 in the United States, flammability standards for all fabrics used in wearing apparel and interior furnishings were developed. Under amendments to the Act, the Secretary of State can promulgate standards which are both technologically feasible and necessary to provide reasonable protection to the public. Since 1967 additional flammability standards have been established for carpets and rugs, mattresses and mattress pads, and children's sleepwear sizes 0 to 14. Under the Children's Sleepwear Standard, fabrics used in children's sleepwear must essentially be flame resistant; that is, the garment must not support combustion after removal of the flame source. Using a vertical forced ignition test, the lower edge of six specimens, 50 by 315 mm. in size and with a centre trim or seam, are exposed to a standard burner flame for three seconds. This test is conducted on new specimens and samples which have undergone 50 launderings. The average char length cannot exceed 18 cm. No specimen can have a char length over 25.5 cm. Amendments to the children's sleepwear flammability standard by the Consumer Product Safety Commission have eliminated the residual flame time criteria and have modified the flammability test for sleepwear trim. These changes are intended to maintain the fire safety level of the original standard while reducing the need to add certain flame retardants to children's sleepwear, as some of these chemicals have proven to be unsafe. The amendments also allow a wider variety of lower cost fabrics to be used for sleepwear items. The exclusion of children's sleepwear below size one is currently being considered because of the low incidence of burn accidents with this relatively immobile age group. Other regulations under consideration include standards for

both flammability and garment design of all adults' and children's clothing as well as for upholstered furniture, curtains, tents and sleeping bags.

Canadian legislation covering general textile flammability was issued in 1971 under the Hazardous Products Act. Consumer and Corporate Affairs Canada became responsible for taking immediate action against those products shown to be unduly hazardous to consumers in accordance with a standard of the American Society for Testing and Materials, ASTM D1230-61. This test involves applying a standard burner flame to a specimen held at a 45 degree angle and, according to the rate of flame spread, three classes of flammability are defined:

Class 1: Normal Flammability. These textiles are generally accepted as having no unusual burning characteristics.

Class 2: Intermediate Flammability. These textiles are recognized as having flammability characteristics between normal and intense burning.

Class 3: Rapid and Intense Burning. These textiles are considered dangerously flammable and unsuitable for clothing because of their rapid and intense burning. (Leblanc, 1969, p. 188).

It is an offence in Canada to advertise, sell or import fabrics classified as dangerously flammable. In addition, fabrics of intermediate flammability are not allowed for children's sleepwear, dressing gowns and robes sizes 0 to 6X, or for such bedding items as pillow cases, sheets, blankets and bedspreads or for carpeting. As most fabrics involved in fires are classified as normally flammable, additional standards are currently being considered for mattresses, pillows, upholstered furnishings, draperies, children's sleepwear sizes 7 to 16, and children's and adults' clothing.

It is obvious from this review of current flammability legislation that much attention and concern has been directed toward the reduction of fabric-burn injuries. In order to develop textile flammability standards which are adequate, several conditions should be met. Reliable statistics are required on fabric-burn injuries to know what fabrics constitute a flame hazard and the level of protec-

tion required (Richards, 1971; Richards and Wiles, 1969). As well, suitable test methods must be developed so that all of the various combustion hazards can be accounted for (Richards, 1971).

These requirements are difficult to meet as the degree to which fabrics are involved in fires is influenced by the habits of consumers and carelessness is frequently the cause of burn accidents. Furthermore, a fire is an exceedingly complicated event that changes from moment to moment, which adds to the impossibility of recreating and sustaining an average fire in a laboratory and makes it virtually impossible to evaluate the relative contribution of various factors to the burn hazard. In addition, there is the nature of fabrics themselves. Cellulosic fabrics such as cotton, rayon, and acetate, are readily flammable and are involved in most clothing burns. Although certain synthetic fabrics are considered to be moderately flammable, they will melt and drip if ignited and will result in burns from the flaming molten polymer. If the fabric is composed of a blend, the garment will generally burn according to the nature of the more flammable component.

The process of making synthetic fibers flame resistant involves incorporating suitable chemicals into the polymer before extrusion. As well, flame retardants which react chemically during combustion to retard the spread of flame over a fabric can be topically applied to both cellulosic and synthetic fibers. These finishes are categorized as non-durable, semi-durable or durable according to their ability to be laundered. Durable finishes are expected to last through 50 launderings, or the life of the article, if washed according to instructions. However, such treatments require compromises in economy, aesthetic qualities and durability and can introduce toxicological hazards, as illustrated by the case of Tris (2,3-dibromopropyl phosphate) in the United States. Tris-treated polyester at one time comprised approximately one-half of the children's sleepwear and most other flame-resistant garments produced in the United States. It was banned from sale in April 1977 after being found to be a mutagen and thus to represent a substantial cancer hazard to the wearer. With the realization that chemicals can be absorbed through the skin or ingested should a child chew the fabric, warning labels have been proposed in the United States urging consumers to launder new sleepwear three times before wearing, to remove excess chemicals. Manufacturers do not wash prior to sale because this would take longer and cost more and because consumers prefer clothes that look new.

Blum and Ames (1977) cautioned that flame retardants may have adverse environmental effects which could outweigh their safety benefits. Dissolving flame retardants from fabrics during manufacturing and laundering may lead to their being filtered into water supplies and eventually entering the food chain. It is not known what effects the environmental accumulation of flame retardants will have as the production and dispersal of these chemicals increases.

Much time, effort and money is being invested by government and industry in both Canada and the United States to protect against textile fires, particularly for children's clothing. As the health hazards associated with chemicals such as flame retardants receive public exposure, how receptive will consumers be to clothing their children in treated garments despite the potential safety benefit? How willing would consumers themselves be to wear such garments? It is just as important to know the consumer's acceptance of a product that could mean, among other things, restriction of choice, higher prices, special maintenance, loss of comfort and decreased durability.

Cost-Benefit Analyses

Schmitt and Dardis applied a cost-benefit analysis to the 0 to 6X Children's Sleepwear Standards implemented in the United States (1976). The cost incurred by American consumers, based on a 30 per cent price increase due to treatment costs, was $39.86 million annually. This cost estimate was considered to be somewhat conservative as it neglected other costs to the consumer such as loss of durability, maintenance costs and reduction in choice. The benefits were the potential reduction in burn injuries and deaths due to the imposition of the 1973 flammability standard. This estimation included the following 1973 figures compiled in the United States: 4,000 to 5,000 burn injuries involved sleepwear; 20 per cent of all fire and flame deaths were caused by clothing; 4.8 per cent of all fire and flame deaths were caused by sleepwear ignition; 8.7 per cent of all clothing fires involved the 0- to 5-year age group. Estimated losses due to sleepwear burn injuries ranged from $39.17 to $48.96 million. Again it was felt that some underestimation of costs occurred as no allowance was made for the pain and suffering incurred by the victim or his family. Although the cost-benefit ratios were found to be fairly close, costs were considered to be less than the overall potential benefits that could be gained. The authors acknowledged that such political decisions as the Children's Sleepwear Act will vary with time and across cultures as they reflect how much society is willing to spend to protect consumers from death and injury. However,

this cost-benefit analysis makes value judgements explicit and can assist in the selection of the most cost-effective programs for consumer protection.

Polyzou and Dardis conducted a cost-benefit analysis of flammability standards for three sleepwear categories: adult (based on a hypothetical standard) and children's sizes 0 to 6X and 7 to 14 (1977). The estimated dollar costs (in 1975 prices) were based on the increased fabric price and reduced durability of garments treated for flame retardancy. Dollar benefits to the consumer included the direct benefits of reduced medical expenditures associated with injuries and death, and indirect benefits related to a decrease in earnings lost due to injuries and deaths. The cost-benefit estimate of the adult standard indicated that one dollar's worth of protection from sleepwear burn injuries and deaths would entail expenditures by the consumer of $5.37 to $5.80. Therefore, the cost to consumers of this protection would outweigh the potential benefits considerably and would not be cost effective. However, both children's sleepwear standards were found to be cost effective since consumers would spend approximately one dollar for children's flame-retardant sleepwear for one dollar's worth of protection from sleepwear burn injuries and deaths. Consumer costs were considered to have been underestimated since a reduction in consumer choice was not measured. Nor were such indirect costs measured as the mutagenic or carcinogenic hazard to the individual's health from exposure to flame-retardant chemicals, or the environmental hazards from disposing of these chemicals in water and soil. Since the reduction in pain and suffering was not considered, consumer benefits were underestimated as well.

Tribus used the decision-analysis approach as a framework to provide equitable solutions when promulgating standards for fabric flammability (1973). He hypothesized that the incremental costs involved in achieving compliance for a flammability standard should compare with the increase in safety attained. However, Tribus observed that this conceptualization was rather simplistic and in a further economic analysis, he noted that more people will seek substitutes as disutility increases due to more stringent standards. That is, as standards increased, consumers would perceive a rise in cost associated with increased disutility of the garment. Consequently, they are likely to subvert the standards by using substitutes such as garments made from fabric not conforming to the standards. Therefore, instead of a situation where the number of burns steadily decreases as increased standards are observed, the burn injury rate would initially drop somewhat but would then level off despite increased standards. Thus, the consumer's reac-

tion to increased cost could result in the standards being circumvented. In concluding, Tribus suggested that public education programs complementing standards may be effective in reducing the number of burns and that children's well-being may be greatly helped by re-examining the consumer and producer economics of children's clothing.

Blagman questioned whether consumer protection is actually counter-productive for the consumer because of the reduction of free choice that it entails (1974). In the past, with the consumer movement and inflation, consumers have demanded high-performance textiles and higher safety standards. Industries have met these demands without the need of legislation. Blagman viewed the adversaries as being the "consumerists" who represent the consumer when decisions determining performance levels are made. Consumerists initiated such U.S. laws as the Children's Sleepwear Act which, Blagman noted, created many problems. Coupled with lower durability and with laundering difficulties because of the phosphate detergent bans, cotton garments treated with flame retardants are less comfortable because of the resin finish. Comfort characteristics are lost with synthetic garments as well due to the nature of the fibre. Furthermore, because of these very stringent regulations there is no longer free consumer choice and "in this respect an abridgement of the consumers' rights may occur rather than the protection of these rights for which the legislation was originally intended" (p. 60).

Blagman demonstrated that, for a given product, consumer acceptance is determined by the inverse relationship of the product performance to the consumer expectation according to the formula:

$$P(p_1\ p_2 \ldots p_n)/E(e_1\ e_2 \ldots e_n) = A$$

where: P = actual performance of the item (a summation of the performance of individual properties)

E = consumer expectation of performance of the item (a summation of the expectation for individual performances)

A = level of acceptance. (Blagman, 1974, p. 60)

Complications arise because the consumer determines his own acceptance level for both actual and expected performance by including such individual factors as: aesthetics, expected length of service, care characteristics and cost (p_1, p_2, etc. and e_1, e_2, etc.). Safety was noted as the one factor omitted from the formula. Blagman considered

that it is not known whether the consumer wants to purchase safety or how much the consumer is willing to pay for it.

Burnett researched the possibility of safety marketability in terms of flame-resistant standards for blouses and wet-braking standards for bicycles (1977). For this exploratory study, a convenience sample of 40 undergraduate students enrolled at Indiana University was used. Burnett found improved wet-braking more than compensated for a price increase. Conversely, the flame-resistant feature was far outweighed by price, durability and wash and wear properties, despite efforts by the researcher to influence one group of subjects to attach a higher value to the flame-resistant feature. Burnett concluded that a student's utility for a shirt or blouse would be substantially reduced by a flame-resistant feature. However, he questioned whether the same conclusions can be reached for pyjamas and robes, or whether the utility impact would be the same for elderly consumers where the probability of clothing fires is higher. He noted that, depending on the utility costs, a clothing flammability standard should not apply to all types of apparel but only to those items for which consumers are more willing to make the necessary utility trade offs.

Dean and Dolan listed four issues related to flame-retardant clothing that they considered to be of philosophical as well as of practical importance (1978). First, forcing consumers by law to pay extra for flame-retardant clothing with possible side effects (such as increased risk of cancer) may be denying consumers freedom of choice. Second, the trade off of special care for flame-retardant garments in exchange for the potential increase in safety might be unacceptable. Indeed, some parents may prefer to cope with the known risk and predictable consequences of fire hazard instead of the unknown risks and unpredictable consequences of highly treated fabrics which are also inconvenient to care for. Third, if the term "flame retardant" is mistaken for "flame-proof" or "nonflammable," consumers may have a false sense of security about a garment's safety. This might result in less concern for teaching children fire safety and less care in dealing with fire sources. Fourth, this transfer of parental responsibility from home to government may weaken parental confidence. Dean and Dolan considered that parents could make responsible decisions if adequate information was provided. Because of these issues, they thought that attention should focus on sources of fire accidents rather than on flame-retardant fabrics.

Laundering Variables Affecting Flame-Retardant Sleepwear

The care of fabrics depends on the fibre content, the yarn and fabric construction, variables of dyeing and finishing, as well as the overall design, construction and fashion details. Frequently, the degree and type of soil or stain will determine the most appropriate laundering method for a garment.

Although some of the fibres used for sleepwear are inherently flame retardant, most sleepwear is made of cotton or other fibres which need to be topically treated with chemical finishes to be made flame retardant. Phosphorus-containing flame retardants are the most effective means of making cellulose flame resistant; however, these compounds require proper application and care to assure maximum efficiency and durability. Calcium and magnesium ions can be picked up by fabrics treated for flame retardance from the wash water during laundering. This can occur through ion exchange properties of the retardant and through precipitation of calcium and magnesium compounds on to the fibres by combining with carbonate builders in non-phosphate detergents or the fatty acids in soaps. Thus, the use of low- or non-phosphate detergents or soap, especially in hard water areas, causes insoluable curds to form a deposit on the fabric and mask the flame-retardant finish after a number of washings. If enough precipitate builds up, it can burn. The adverse effects of a buildup of calcium and magnesium ions with soap or carbonate builders on flame-retardant fabrics can partially be eliminated by occasionally rinsing the laundered fabric in a dilute acid such as vinegar. Phosphate detergents containing at least eight per cent phosphate should be used. In 1973 an amendment to the Canada Water Act required that the phosphate content of laundry detergents must not exceed five per cent phosphorus pentoxide by weight. It has been suggested that non-phosphate heavy-duty liquid detergents be used if the sleepwear item requires phosphate detergent which is unavailable or if hard water is prevalent in the area.

Depending on the nature of the flame retardant, fabric softeners can mask a flame-retardant finish and render it less effective; chlorine bleaches can chemically attack flame- retardant finishes and render them ineffective; and strong chemicals used in commercial laundries can cause the loss of flame retardance. Tests to determine the effects of outdoor weathering, exposure to sunlight and prolonged heating at 71 degrees Celsius in clothes dryers indicated that degrading of flame retardants can occur to some extent (Dean and Dolan, 1978; Mazzeno et al., 1973). Pressing also decreases the effectiveness of some flame retardants. "Under some conditions, the ester groups of alkyl phosphonates are hydrolyzed at the pressing temperature to

produce sites for ion exchange, which is detrimental to the fabrics when laundered" (Drake, 1976, p. 21).

Laundering procedures for flame-retardant garments can become very complex. Instructions may include: do not use soap, bleach, or a low- or non-phosphate detergent; do not launder in hard water; home launder only; do not use fabric softeners; or do not iron. In the United States, manufacturers are responsible for the wording of the care labels and, as a result, the care instructions frequently vary, causing confusion for the consumer.

In Canada, manufacturers are encouraged to attach labels to textile articles giving care instructions using coloured symbols. These symbols do not allow for such special care instructions as use phosphate detergents, use non-phosphate heavy-duty liquid detergent, do not use fabric softeners, or use oxygen bleach. The Textile Labelling Act requires manufacturers to print clothing labels in both English and French. Care labelling of articles could become very complex and costly if both symbols and printed bilingual directions were used. Of utmost importance is consumers' understanding of the care instructions on the label and willingness to follow them to ensure that their children's treated sleepwear continues to be flame retardant.

Variables Affecting Consumer Acceptance

Consumer acceptance of flame-retardant apparel has been investigated by several researchers in the United States. Their studies have been concerned with consumer attitudes towards flame-retardant garments in relation to price, special care, importance of safety, knowledge and socio-economic level.

In 1972, a survey was conducted in six Eastern States (Maine, New York, Pennsylvania, Rhode Island, Vermont and Virginia) to determine the factors influencing consumer demand for flame-retardant textiles in the United States (Zentner et al., 1977). The sample consisted of 1,090 women ranging from low- to upper-middle income levels from both urban and rural areas with children aged two to six enrolled in daytime programs. Questionnaires were distributed to the children to take home or the parent was approached directly. About half of the respondents were unaware of the existing flammability standards. Most understood the terms "flammable," "nonflammable" and "flame retardant" but the majority did not know the meaning of "flame resistant." Although the importance of flame retardancy was reflected in the respondents' willingness to pay for it, differences

existed in the amount they would pay. Lower socio-economic level and less educated respondents were willing to pay more for flame-retardant children's sleepwear than were the upper socio-economic level and more educated respondents. In general, consumers would launder flame-retardant sleepwear in the same manner as regular sleepwear, despite different care label instructions. As the study was conducted in 1972, conditions have changed sufficiently to warrant more current investigation. Inflationary costs have increased the amount consumers must pay for flame-retardant finishes and this may have affected consumer attitudes.

Smythia investigated influences on consumer demand for flame-retardant textile products and practices relative to their use and care (1972). The sample consisted of 23 mothers of pre-school children, most of whom were wives of university professors. A majority of the respondents considered the availability of flame-retardant textile products important and were willing to pay extra for them. Many were unaware of federal legislation preventing the sale of flammable textile products in the future. Over half could not define "inflammable." Many respondents reported that, even though the label indicated not to, they used chlorine bleach. Again, the study may be out of date for today's market conditions. Also, it involved a very small sample, primarily from the upper-middle socio-economic class.

An investigation by Abney indicated that consumer interest in children's flame-retardant sleepwear was greater than consumer knowledge (1974). The study explored consumer knowledge of children's flame-retardant sleepwear among 119 mothers of children enrolled in kindergarten and elementary schools in Gadsden, Alabama. Data collected by personal interviews and self-administered questionnaires indicated that less than one-fourth of the total sample could correctly identify the terms associated with flame-retardant sleepwear. About one-third were aware that some of the price increase in children's sleepwear was due to new flame-retardant finishes or fibres. Most consumers were satisfied with the flame-retardant garments they had; those not satisfied indicated appearance and rough feel of the fabric as the causes. Consumers were willing to pay more for flame-retardant sleepwear and thought children's sleepwear sizes 0 to 6X and 7 to 14 and mattresses should all be flame resistant. Future flammability standards were favoured for blankets, sleepwear and clothing for the elderly. While data from questionnaires and interviews were similar in most areas, in the self-administered questionnaire group, more consumers had not heard about flame-resistant sleepwear and were not willing to pay more for this sleepwear than in the personal interview group. The study was limited because the

sample was selective and included only the middle socio-economic levels. It was undertaken when only sleepwear sizes 0 to 6X were required to be flame resistant.

Robinson's study of consumer opinions regarding the DOC Standard FF 3-71 on the flammability of children's sleepwear involved 120 parents with children enrolled in pre-school in Southern California (1974). Results of the study showed that consumers were aware of and wanted flame-retardant sleepwear for their children, were willing to pay extra for the sleepwear, had not noticed changes in sleep-wear with flame-retardant finishes and would like to see the finish applied to other items of children's clothing. How-ever, consumers did not follow care label instructions when laundering flame-retardant sleepwear and most of those who sewed sleepwear did not purchase flame- retardant piece goods.

Monk explored consumer understanding of care in-structions and consumer care practices for children's flame-retardant sleepwear (1975). Of the 148 respondents who were mothers of pre-school children in North Virginia and Washington, D.C., 35 per cent did not use acceptable care practices for flame-retardant sleepwear, mainly due to the use of chlorine bleach, and 20 per cent did not understand the care instructions for the garments. Consumer care prac-tices were not significantly related to age, education or number of children.

A series of studies on the consumer acceptance of children's flame-retardant nightgowns sizes 4 to 6X winter-wear (Laughlin, 1974), sizes 4 to 6X summerwear (Laughlin, 1976) and sizes 7 to 14 winterwear (Laughlin and Buddin, 1977) have been conducted recently at Winthrop College, South Carolina. Women with daughters aged two to eight were selected through local kindergartens, nursery schools, per-sonal contacts and local ministers for participation in the size 4 to 6X study. Approximately two-thirds of this sample were engaged in the size 7 to 14 study. The reports include an evaluation after wear through 100 to 160 consumer inter-views and performance ratings before and after wear by lab-oratory tests. The earliest study varies slightly in that three questionnaires were administered during the wear test and mail-in questionnaires were collected from 200 sub-jects. Most respondents found the quality of the garments acceptable.

Laughlin and Buddin summarized the changes in con-sumers' attitudes during the period of the study. There was an increase in consumer recognition of flammability as an important clothing property and in those favouring the ex-

tension of flame resistance to other clothing and household items. However, there was also an increase in the number who felt the present laws were strict enough. Although opposition to enforcement of flame resistance of children's sleepwear decreased, a small reversal (three per cent) in consumer acceptance occurred between 1975 and 1976 because of publicity about the possibility that one of the flame retardants, Tris, was a possible carcinogen. Consumers did not strictly adhere to the suggested care instructions. In five of the seven instances of flammability test failure, the consumer had used fabric softeners and/or bleach. The low level of water hardness in the test area was felt to have minimized the likelihood of loss in flammability properties due to the use of low- or non-phosphate detergents.

Although this research is a thorough investigation of the performance and acceptance of children's flame-retardant nightgowns, it does seem to be somewhat "after the fact," as U.S. federal regulations were either in process or were already implemented. Consumers really did not have any choice in the matter. An admitted shortcoming of the studies was that the participants were predominantly upper-middle socio-economic level women with high education. All had either been involved with an earlier study or had had recent experience with flame-retardant garments.

The effect of socio-economic level and parental status on consumer attitudes about clothing and textile flammability was investigated by Patterson (1977). Telephone interviews were conducted with 150 women throughout Virginia. Although their responses were not statistically significant in relation to socio-economic level, some differences between the groups were observed. Upper-middle level women were most likely to know about existing flammability standards, to consider flame- retardant apparel as very important for all children and adults 65 years and over, and to think that consumers should be responsible for their own protection from dangerously flammable fabrics. Most lower-middle level respondents believed that there should be flame-retardant standards on clothing for all consumers and were more willing to pay a higher price for this protection. Upper-lower level women were least likely to know about existing flame-retardant standards and more likely to believe that government and/or clothing manufacturers should be responsible for consumer protection from unsafe textile products.

When respondents were categorized as parents or non-parents, some of their answers were statistically significant. Parents were more likely than non-parents to consider

flame-retardant clothing important for adults 65 and older but less inclined to believe that it was important for adults between 15 and 64; they were also more likely to own flame-retardant clothing and to know about the special care and price of these products. Of the total sample, a large proportion thought there should be flame-retardant standards for clothing for all children up to 14 years, adults over 65, and disabled and handicapped people. However, most also believed that consumers should have a choice in the retail market especially for people aged 15 to 64. The study investigated the importance of flammability legislation and retail choice for apparel items only. Again, flame-retardant sleepwear up to size 14 was mandatory at this time. Recent developments related to the health hazards of the flame-retardant finishes, such as Tris, may have affected consumer attitudes.

Theoretical Framework

Components of the acceptance-decision model formulated by Robertson constitute the theoretical framework for this study (see Figure 1). This model represents a comprehensive summary of alternate model forms for marketing products and specifically applies to the adoption of products. Flame-retardant sleepwear is a product which has not been widely introduced or adopted in Canada. Thus, such a model provides a framework for understanding consumer processes as they relate to the adoption of a new product.

Robertson has defined the stages in the acceptance-decision model as follows:

1. Problem-perception stage. Before any effective or systematic action can be taken to satisfy a need or motive, the basic problem or nature of this need must be perceived and defined.

2. Awareness. The product stimulus registers with the consumer. Awareness assumes only that the consumer knows of the product's existence.

3. Comprehension. Comprehension is based on knowledge and represents the consumer's perception of what the product is and what functions it can perform ... Awareness and comprehension are the information processing stages.

4. Attitude. The attitude stage consists of the development of a favourable or unfavourable behavioural disposition by the individual towards the innovation. Unless the outcome of this

stage is believed favourable toward the innovation, the adoption process is likely to terminate.

5. Legitimation. The individual becomes convinced that purchase is the appropriate course of action...using the information which he had already accumulated, or he may turn to his environment for further information.

6. Trial. The consumer uses the product on a limited scale.

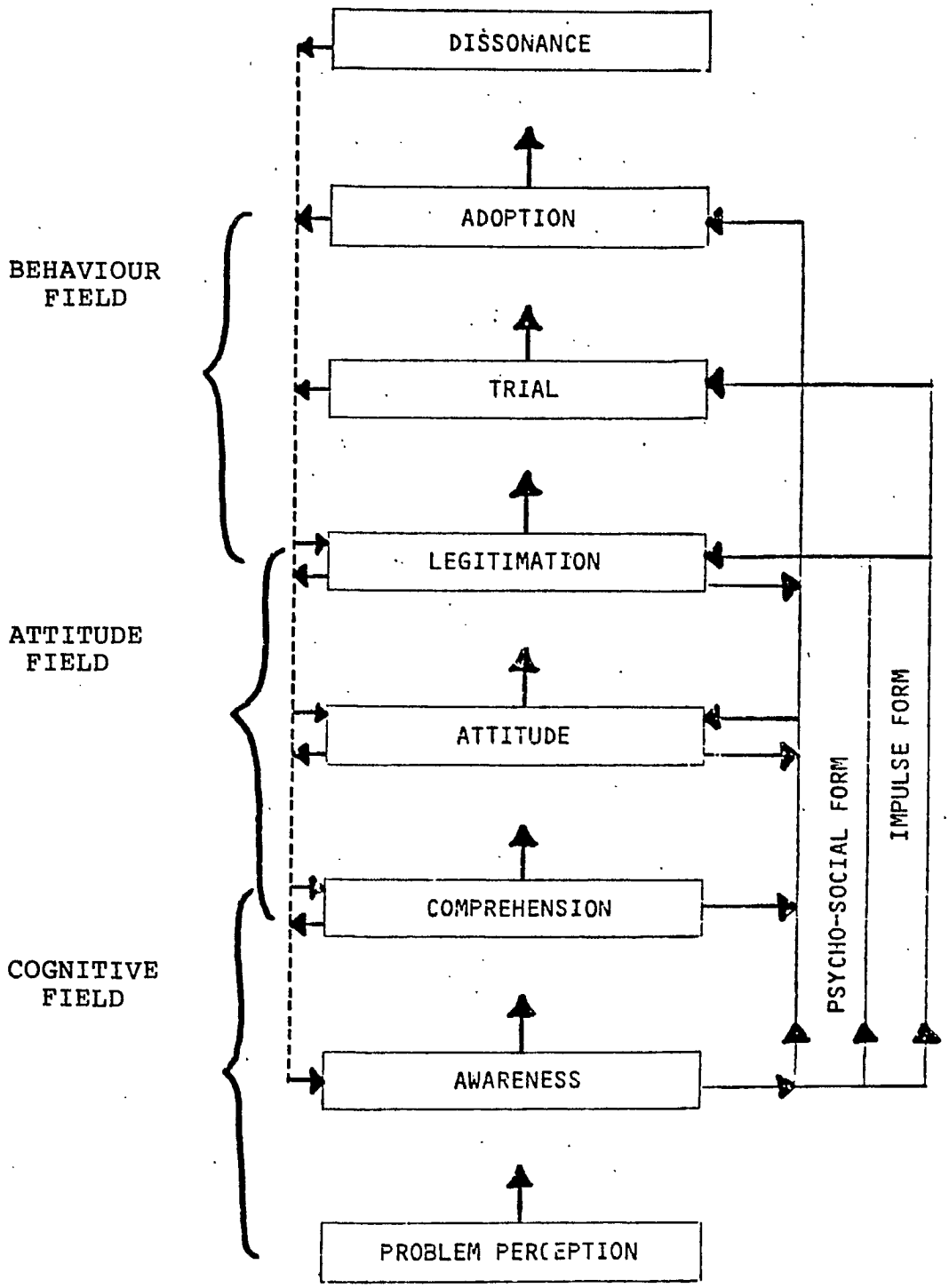
7. Adoption. The consumer accepts the product and continues to purchase and/or use it. The process is now complete unless the occurrence of cognitive dissonance is considered. (Robertson, 1971, pp. 76-77, 57)

In Robertson's model, the first three information-processing stages -- problem-perception, awareness, comprehension -- comprise the cognitive field in the process of purchase decisions. The comprehension, attitude and legitimation stages comprise the attitude field of the adoption decision process. "Comprehension overlaps with the attitude stage since knowledge (defined in terms of beliefs) is recognized as an attitude component" (p. 76). The legitimation, trial and adoption stages comprise the behavioural field. Robertson recognized that the model should not be interpreted in a rigid manner and allowed for the omission of stages as well as for regression to a previous stage.

The Robertson model's cognitive and attitude fields were used as the conceptual scheme to explore consumer attitudes toward flame retardance. External influences were also considered as they affected the consumers' cognitive and attitude fields. Engel, Kollat and Blackwell, in their 1973 analysis of consumer behaviour, have indicated that environmental influences may directly affect an individual's personality which, in turn, may influence the evaluative criteria; that is, the specifications used by a consumer when comparing product or brand alternatives. Thus, in essence, the theoretical framework for the study of consumer attitudes toward children's flame-retardant sleepwear was a combination of Robertson's and of Engel, Kollat and Blackwell's conceptual schemes. The stages of problem perception, awareness, comprehension, and attitude were used from Robertson's adoption process model; the intervention of external influences on these cognitive and attitude fields, as depicted by the Engel, Kollat and Blackwell multimediation model of consumer behaviour, was also incorporated.

Figure 1

Adoption Process Model



Source: Robertson, 1971, p. 75.

Summary and Conclusion

The concern over fabric-burn injuries could lead the Canadian government to consider several policy directions to protect consumers against flammable fabrics, including public education programs, voluntary industry standards and/or mandatory safety standards. From the review of the literature, it is apparent that no clear evidence exists to favour one policy above another.

As the degree to which fabrics are involved in fires is most often influenced by consumers' habits and carelessness, consumer information and education have been recognized as desirable policy directions. In Britain, educational programs proved ineffective in reducing clothing fires because consumers refused to pay higher prices for the protection of flame-retardant fabrics. Consumer reluctance to pay a premium for safety has been cited as a reason for Canada and the United States to legislate consumer protection laws (Richards and Wiles, 1969). Some argue that consumers should not have to pay the increased cost of treated goods involuntarily due to the enactment of legislation (Crown, 1973). However, others suggest that the increased cost of treated sleepwear would not be a deterrent as an inflationary economy and higher prices have helped consumers to be generally more accepting of more expensive products (Suchecki, 1973). In the United States, however, lower-income consumers were found to substitute or make their own sleepwear rather than pay higher prices (Blum and Ames, 1977; Suchecki, 1973). In addition, educational programs are less effective with such high risk groups as young children whose reaction to a fire accident cannot be controlled (Crown, 1973), or the elderly who are often unable to remove themselves from the flame source (Richards and Wiles, 1969).

A second policy direction could involve encouraging industries, working in conjunction with government agencies, to develop voluntary standards for textile performance and safety. Obviously, benefits derived by voluntary standards depend upon the level to which industries comply with the guidelines. In turn, industries will set standards of performance depending upon the degree of consumer demand for a product. Questions arise as to the marketability of safety as a desirable product attribute and to how receptive consumers would be to sleepwear items that might not measure up to the traditional standards of ease of maintenance, comfort or cost.

Finally, the government could legislate more stringent restrictions on the burning characteristics of

children's sleepwear items. However, such action would reduce consumers' freedom of choice. As the health hazards of certain flame- retardant finishes receive wider public exposure, some consumers may generalize the Tris incident to all treated garments and may be less receptive to clothing their children in chemically-treated garments, despite the potential fire safety benefits.

It is evident that some knowledge of consumer behaviour is required to evaluate alternatives effectively. Each alternative raises its own specific research issues. Prior to the present study, there have been no empirical data on the Canadian consumer's reaction to the flammability controversy. Canadian studies to date have been technical in nature and have dealt with improving standards, test methods, chemical finishes and wear properties.

CHAPTER III

RESEARCH METHODOLOGY

In order to answer the research questions posed, a consumer survey was designed and conducted in two parts using the members of a nationally representative consumer mail panel. Thus, information was generated to answer the basic questions about consumer awareness of, knowledge of and attitudes towards flame retardancy. As well, additional data were gathered on consumer consumption patterns and practices and preferences for children's sleepwear so that policy directions could be founded on as complete information as possible.

Design of the Research

This study parallels some of the consumer survey work done in the United States by investigating such areas as flammability terminology, care practices, care labelling and freedom of sleepwear choice (Laughlin, 1974; Patterson, 1977; Zentner et al., 1977). There were, however, two important distinctions: one with respect to the timing of the consumer research, the other with respect to methodology. To date, the extension of flammability standards for children's sleepwear is under consideration by the Canadian government whereas, as mentioned earlier, the American studies were somewhat "after the fact." As reflected by the situation in the United States, consumer knowledge and attitudes would be important to the success of stricter standards. The second difference between the present research and previous studies is in the method of data collection. The American studies were conducted in such a manner that participants were aware of the purpose. The emotional reaction to such an issue would be apt to produce biased responses. The possibility was reduced in this study by first collecting information on general practices and preferences and then collecting data on flame retardancy. Thus, some insight has been gained about the Canadian consumer's probable behaviour towards flame-retardant garments.

Sample Selection and Contact

Women were surveyed who had children 14 years and under, the age range most affected by the flammability standards for sleepwear that may be proposed in Canada. Preliminary interviews and pre-tests were conducted with a convenience sample of mothers of children 14 years and under in order to develop and refine the questionnaires. The final

sample was obtained through a consumer mail panel selected to represent the Canadian population on the basis of demographic factors including age, number and sex of household members, household income level, geographic location, language spoken and occupation type of the head of the household. Panel members consisted of English-speaking adult women with children 14 years and under living in the same household (N = 862) and French-speaking women who met the same selection criterion (N = 270).

Description of Survey Questionnaires

Two questionnaires were designed to obtain the data necessary to answer the research questions (see Appendix A). The first pertained to consumers' preferences and practices for children's sleepwear, their awareness of sleepwear dangers, knowledge of government flammability laws and attitudes towards government regulations. The second was mailed immediately after the first one had been returned by the consumer. It contained questions dealing with consumers' awareness of, knowledge of and attitudes towards the flammability issue, evaluative criteria for flame-retardant sleepwear items and attitudinal statements about flammability laws. Additional background and biographical data were also collected.

Awareness. Several questions were designed to determine the consumer's awareness of children's flame-retardant sleepwear. In the first questionnaire, consumers were asked if they thought children's sleepwear presented any danger to their child and, if so, to list the type(s) of danger and to indicate, on a Likert type of scale, the degree of danger presented (Appendix A, question 13). A similar question in the second questionnaire asked directly if the consumer thought sleepwear presented a danger for burn accidents and, if so, how much and what kind of danger it presented (Appendix A, question 1). Awareness was based on the consumer's answers to these questions.

Knowledge. Questions were asked about flammability laws and terminology. In the first questionnaire, consumers were asked if they had heard about government laws preventing the sale of dangerous textile items and, if so, what these items were and the type of danger they presented (Appendix A, question 14). The consumer who listed the restricted flammable items and noted fire as the danger was of primary interest. In the second questionnaire, consumers were asked to check the flammable items prevented from sale in Canada and to define flammability terminology (Appendix A, questions 4 and 2 respectively).

Attitudes. Attitudes towards children's flame-retardant sleepwear and towards government regulations were measured.

Two questions about the importance of having items made to resist burning were asked in the second questionnaire (Appendix A, questions 5 and 6). Those categories of question 5 that dealt with children were used to measure attitudes towards children's flame-retardant sleepwear. As standards are currently being considered for children's and adults' clothing, question 6, concerning the importance of having all clothing for specified groups of people made to resist burning, was included.

Statements measuring attitudes towards the regulation of textile products were also included in the second questionnaire (Appendix A, question 14). The nine statements of question 14 related directly to flammability. In the first questionnaire (Appendix A, question 12), nine statements referring to laws in general appeared. A comparison of these two sets of attitudes was made.

Evaluative criteria and care. In the first questionnaire, the importance of several criteria when purchasing children's sleepwear was tested (Appendix A, question 1). The second questionnaire included six statements describing items that might change if a flame-retardant finish was applied to sleepwear fabric (Appendix A, question 10). On a Likert type of scale, the consumer indicated the degree of change she was willing to accept. A comparison of the importance of current criteria with the willingness to accept change was used to determine possible trade offs the consumer would make for flame-retardant sleepwear.

Biographical characteristics. Demographic information was provided for the members of the consumer mail panel. In the second questionnaire only three questions were required to complete the biographical data including occupation of the head of the household, reported ownership of flame-retardant textile items and personal experiences with fire accidents. Socio-economic status was measured by the Blishen socio-economic index for occupations in Canada (1976) using the occupation of the head of the household (Appendix A, question 17).

Consumers were asked whether they owned certain textile items labelled flame retardant, flame resistant or non-flammable (Appendix A, question 7). However, a very limited selection has been available on the Canadian market; therefore, it was expected that the majority of respondents would not own such items.

Consumers were also asked about their personal experiences with fire (Appendix A, questions 15 and 16), since respondents who have had such experiences may have opinions concerning fire hazards and prevention that differ from those who have not had such experiences.

Additional background information. Several additional questions were included for discussion purposes.

1. Questions on general clothing practices, acquisition of children's sleepwear and preferred styles (Appendix A, question 5) were asked since some knowledge of current style preferences may indicate how accepting the Canadian consumer would be towards style restrictions. In Britain and Australia, sleepwear is regulated to more tailored styles.

2. Questions were asked about the type of children's sleepwear fabric purchased and about preferences for synthetic, natural or a combination of synthetic and natural fabrics (Appendix A, question 5). Pure cotton could not meet the requirements of the American sleepwear standard; therefore its share of the sleepwear market has dropped from 86 per cent to 17 per cent (Day, 1978). Numerous fibres and blends not previously common to children's sleepwear have appeared on the American market, such as acetates, modacrylics and flame-retardant rayon, polyester and nylons in addition to treated cotton flannelette. However, there is a lack of economically successful flame-retardant treatments for cotton and cotton/polyester blends (Blum and Ames, 1977; Suchecki, 1973). Knowing what fabrics are currently preferred by Canadian consumers may indicate how accepting they would be towards other fabrics.

3. Consumers were asked if they had heard about any health problems associated with flame-retardant sleepwear (Appendix A, question 13) to ascertain whether they were aware of the publicity surrounding Tris in the United States and had generalized this incident to all treated garments. Some evidence of this occurred during preliminary interviewing.

4. A series of questions related to the present care practices of children's sleepwear were included as well as a question on the consumer's knowledge of and opinions about care labels (Appendix A, questions 4, 6 to 11). Such questions have implications for the proper care of flame-retardant garments. In Canada, voluntary care symbols can be used rather than the printed labels used in the United States, but consumers must understand these symbols to ensure proper care.

5. To further determine the consumer's reaction to compulsory regulation of children's sleepwear, she was asked what she would do if the federal government required that all children's sleepwear be made of flame-retardant material after 1978. Four possible answers were provided (Appendix A, question 9).

6. Since consumers may sew their own sleepwear items due to a preference for home sewing and/or to avoid paying more for treated items, a question was included on the consumer's willingness to pay extra for flannel piece goods (Appendix A, question 11).

Statistical Procedures

The data collected were analysed first using frequency counts and percentage distributions for each question response. Factor Analysis was used to define the major variables of awareness, knowledge and attitudes (Gallagher, 1978; Nie et al., 1975; Rummel, 1970). The t test was used to compare mean responses on the major variables between English-speaking and French-speaking consumers. Nonparametric statistical procedures including the Chi Square test and the Wilcoxon Matched-Pair Signed-Rank test (Siegel, 1956) were employed in answering the research questions. For a detailed description of statistical techniques see Gallagher.

CHAPTER IV

RESULTS AND DISCUSSION

The results of the English- and French-language surveys are presented separately but in parallel form. The data were not pooled for two reasons: the English-language questionnaires were administered several months before the French-language questionnaires; also, significant differences were found between the two groups in the response distributions to some of the major variables under study. These differences are specified within the results dealing with each variable where they occurred.

Background information about the consumers surveyed and their purchasing and care practices for children's sleepwear is presented first. The focal topics of the surveys -- consumer awareness of, knowledge of and attitudes towards children's flame-retardant sleepwear -- are then dealt with and the answers to the research questions are presented.

Background Information

English-language survey. The sample surveyed consisted of 862 women who were members of a consumer panel and had children 14 years and under. Thus, their children could probably wear children's sleepwear up to size 16. A total of 593 consumers returned the first questionnaire and were forwarded the second. The data obtained from 473 (55 per cent) consumers who satisfactorily completed both questionnaires were usable for the analysis.

As shown in table 21 of Appendix B, most consumers were either 25 to 34 years of age (42 per cent) or 35 to 44 years (40 per cent). Family size ranged from two to nine or more members with an average size of 4.4. Although 62 per cent of the women were not employed, 92 per cent of the husbands were employed. The mean socio-economic status was 4, which is the middle point in the seven-category Blishen scale. Most respondents were residents of Ontario, followed in order by the Prairies, British Columbia, Maritimes, and Quebec.

French-language survey. Of the 270 French-speaking panelists with children 14 years and under, 176 returned the first questionnaire and 134 (50 per cent) returned the second one in usable form.

As shown in table 22 of Appendix B, the respondents were demographically similar in many respects to the English-speaking sample: age distributions were similar, mean family size was slightly larger (4.7), employment status was similar for panelists (65 per cent not employed) but fewer husbands were employed (81 per cent employed). A higher proportion of the French-speaking sample had incomes below $15,000 per annum (66 per cent) than the English-speaking (47 per cent). The mean socio-economic level was 3.5, slightly lower than the English- speaking sample mean.

Purchasing and care of sleepwear. Data were collected for 974 children in the English-speaking sample including seven per cent who were one year and under; 36 per cent, two to six years; and 57 per cent, seven to fourteen years. Approximately 51 per cent were boys and 49 per cent girls. For the French-speaking sample data were collected for 280 children including six per cent, one year and under; 37 per cent, two to six years; and 57 per cent, seven to fourteen years.

(a) Sleepwear preferences. Current preferences and practices for children's sleepwear are summarized in Appendix B, tables 23 to 42. Tables 23 to 26 of Appendix B show that in the summer, children most often sleep in regular pyjamas and short nightgowns made from 50 per cent cotton and 50 per cent polyester, over 50 per cent cotton and some polyester, or 100 per cent cotton. During the winter, consumers preferred their children to wear regular pyjamas and long, full nightgowns made of 100 per cent cotton. Flannelette, which is generally all cotton, was sometimes mentioned by the English-speaking sample as another type of fabric preferred by 5.0 per cent in the summer and 41 per cent in the winter. In the English-speaking sample, consumers favoured sleepers for boys one year and under while the French-language group used regular pajamas, sleepers and underwear. Both groups preferred regular pyjamas for two- to fourteen-year-old boys. For girls, sleepers were most preferred in the English-language survey for the one-year-old and under while the French preferred short nightgowns. Short and long, full nightgowns were preferred by both groups for the two- to fourteen-year-old girls (Appendix B, tables 27 to 30). Although 100 per cent cotton was a popular fabric, most consumers indicated that they preferred a combination of both synthetic and natural fabrics (Appendix B, tables 31 and 32). Most of the sleepwear items were bought ready-made (Appendix B, tables 33 and 34) at regular department stores (Appendix B, tables 35 and 36).

Consumers usually look for laundering and care instructions on their children's sleepwear before purchasing it and, on occasion, decide not to purchase an item because of the care label instructions (Appendix B, tables 37 and 38, particularly if the instructions said to "hand wash only." Other unacceptable instructions were "wash separately," "hang to dry" and "do not bleach."

(b) Care symbol knowledge. Many of the English-speaking consumers correctly identified the symbols, while French-speaking respondents encountered more problems (Appendix B, tables 39 and 40). "Hand wash warm" was correctly understood by 94 per cent of the English and 79 per cent of the French. "Iron low" scored next highest, followed by "no bleach," "machine wash warm," "do not dry clean," "tumble dry low," and "hang to dry." When consumers were asked for their opinions about the best way to explain care instructions for flame-retardant sleepwear, 49 per cent of the English and 41 per cent of the French preferred words and symbols together, 23 per cent of the English and 28 per cent of the French wanted words only, and 20 per cent of the English and 16 per cent of the French wanted symbols only.

Consumers answered questions about their laundering habits for sleepwear worn by their youngest child (Appendix B, tables 41 and 42). Nearly all respondents washed the sleepwear in a wringer or automatic washer; none indicated that they washed the items by hand. Of the English-speaking sample, 85 per cent used dryers while only 35 per cent of the French-speaking sample did so and 54 per cent line dried outside. However, the later timing of data collection (when weather was warmer) for the French sample may have accounted for part of the difference in drying procedures. Respondents most often used powdered soap or detergent and fabric softener, either in liquid form or sheets. As a general practice, bleach was not used on the sleepwear. When the consumer was asked what she would do if the label on the child's sleepwear said "do not bleach," but the item was stained or heavily soiled, 46 per cent of English and 31 per cent of French respondents said they would use an all-fabric bleach.

Research Questions

Question 1. How aware are consumers of flammability as an issue related to children's sleepwear?

Tables 1 and 2 indicate the distributions of responses to questions measuring awareness for the English- and French-speaking samples.

When consumers were asked if they felt sleepwear presented a danger to their child, the majority, 73 per cent of the English and 96 per cent of the French, said no. Consumers were then asked to list the kind of danger and to indicate on a Likert type of scale how much of a danger children's sleepwear presents. Of the 20 per cent of the English-speaking sample who listed fire, 14 per cent thought it was a great danger. Less than one per cent of the French-speaking sample listed fire as a danger. Several other dangers were listed related to buttons, zippers, loose fit and skin reactions to the fabric.

When asked directly in the second questionnaire if children's sleepwear presented a danger for burn accidents, 37 per cent of the English sample (table 1) said yes; 55 per cent said no. Of those who recognized this danger, most consumers (46 per cent) then indicated on a Likert type of scale that the degree of danger was moderate. Items such as fabric, style, helplessness, cooking, and matches were listed as possible ways that sleepwear could be involved in fire.

The results for the French-speaking sample indicated an even lower awareness of sleepwear being involved in burn accidents: 77 per cent, when asked directly, said no danger existed and 16 per cent said yes (table 2). Of those who said yes a danger existed, 31 per cent thought it was very great and 25 per cent thought it moderate.

Thus, the majority of both English- and French-speaking consumers did not perceive sleepwear as presenting any type of danger, both before and after the mention of the fire hazard. This conflicts with Laughlin's 1976 findings where respondents showed a high level of concern about burn accidents involving children's sleepwear. As Laughlin's questionnaire directly identified flammability of children's sleepwear, it was apt to produce biased responses. By comparison, in this research more consumers recognized children's sleepwear as a hazard for burn accidents when the danger of fire was mentioned in questionnaire two than before fire was mentioned in questionnaire one.

Sixty-seven per cent of the English-speaking sample had heard about clothing made to resist burning, while only 17 per cent of the French sample had heard of this. In Appendix C, tables 43 and 44, the sources of awareness are summarized. The English-speaking sample appeared to have used all sources more than the French, particularly print and broadcast media. Also in Appendix C, tables 45 to 48, consumers' reported ownership of flame-resistant textiles and their efforts to obtain them are summarized. In

Table 1

Consumer Awareness of Flammability Related to Children's Sleepwear: English-Speaking Respondents

	Number*	%
Questionnaire I		
Do you feel children's sleepwear presents a danger to your child in any way, or not?		
yes	121	25.6
no	344	72.7
no response	8	1.7
If yes, please write in below the kind(s) of danger children's sleepwear presents.		
Answer: fire	93	19.7
other and no response	380	80.3
Questionnaire II		
Do you feel children's sleepwear presents any unusual danger for burn accidents?		
yes	175	36.9
no	261	55.2
no response	37	7.8
Have you heard about clothing that is made to resist burning?		
yes	316	66.8
no	155	32.8
no response	2	0.4

*N = 473

Table 2

Consumer Awareness of Flammability Related to Children's Sleepwear: French-Speaking Respondents

	Number*	%
Questionnaire I		
Do you feel children's sleepwear presents a danger to your child in any way, or not?		
yes	4	3.0
no	128	95.5
no response	2	1.5
If yes, please write in below the kind(s) of danger children's sleepwear presents.		
Answer: fire	1	0.7
other and no response	133	99.3
Questionnaire II		
Do you feel children's sleepwear presents any unusual danger for burn accidents?		
yes	21	15.6
no	103	76.9
no response	10	7.5
Have you heard about clothing that is made to resist burning?		
yes	23	17.2
no	109	81.3
no response	2	1.5

*N = 134

Table 3

Level of Awareness of Flammability and Children's Sleepwear: English-Speaking Respondents

Level of Awareness	Number	%
Fully aware	69	14.6
Somewhat aware	129	27.3
Not aware	238	50.3
No response	37	7.8
Total	473	100.0

Table 4

Level of Awareness of Flammability and Children's Sleepwear: French-Speaking Respondents

Level of Awareness	Number	%
Fully aware	1	0.7
Somewhat aware	20	14.9
Not aware	103	76.9
No response	10	7.5
Total	134	100.0

general, most either did not own or did not know if they owned any and few had tried to buy them.

Factor analysis was performed on the three awareness questions for the English-speaking sample. One factor was formed with factor matrix values exceeding 0.50 for two of the three questions (Appendix C, table 49). A score was formed from these two items for each subject to measure the level of awareness. The rules for scoring and categorizing were as follows: a respondent not listing fire as a sleepwear danger in questionnaire one and not indicating that children's sleepwear presented a danger for burn accidents in questionnaire two was categorized as not being aware of the fire hazard of children's sleepwear and was coded as 0; a respondent categorized as somewhat aware of the fire hazard either listed fire or answered affirmatively to sleepwear burn dangers and was coded as 1; an aware respondent mentioned fire hazard in both questions and was coded as 2. The assigned scores were used in the subsequent analysis. The distribution by level of awareness, shown in table 3, revealed that 50 per cent were not aware that children's sleepwear presented a danger.

In order that the data be comparable between the two samples the same rules of scoring were used for the French-speaking sample. However, the response distribution was significantly different because only one person had answered that fire was a sleepwear danger in questionnaire one. As shown in table 4, 77 per cent were completely unaware of the danger and 15 per cent were somewhat aware.

According to Robertson, one of the first stages of the consumer adoption process requires a product stimulus to register with the consumer in order for the consumer to be aware of the need for its existence (1971). From the distributions in tables 3 and 4, it would seem that many consumers were not aware of the need for children's flame-retardant sleepwear.

Question 2: How knowledgeable are consumers about flammability terminology and legislation?

Three questions were used to measure knowledge of children's flame-retardant sleepwear. Tables 5 and 6 contain the response distributions for these questions.

When asked in questionnaire one if the respondent had heard about any government laws preventing the sale of dangerous textile items, 61 per cent of the English-language sample said no, while 84 per cent of the French said no. Of those who had heard of laws, only 5 per cent of the English

and 2 per cent of the French identified the flammability law for children's sleepwear sizes 0 to 6X. Approximately 18 per cent and 6 per cent of the English and French, respectively, knew that some type of flammability laws existed for children's sleepwear.

Forty per cent of English-speaking and 18 per cent of French-speaking respondents were able to identify the flammability law for children's sleepwear sizes 0 to 6X when the laws were listed in questionnaire two. A summary of consumers' knowledge levels for other government flammability laws is given in Appendix D, tables 50 and 51. In general, consumers were not knowledgeable about the flammability standards currently required by law for children's sleepwear sizes 0 to 6X or for other textile products.

To help evaluate consumer knowledge of terminology associated with flammability laws and sleepwear made to resist burning, English-speaking consumers were asked to define the words "flammable," "nonflammable," "inflammable," "flame retardant" and "flame resistant." As shown in table 5, respondents could usually identify flammable (91 per cent) and nonflammable (79 per cent). Many respondents incorrectly defined inflammable (53 per cent), flame retardant (46 per cent) and flame resistant (74 per cent). Those respondents who were incorrect most often defined "inflammable" as "nonflammable" or "flame resistant," "flame retardant" as "flame resistant" and "flame resistant" as "will melt but not burn when touched with a flame" (Appendix D, table 52). The results indicate that consumers were confused by these last three terms.

No entirely comparable set of terms was found to exist in the French language. As shown in table 6, five terms were tested: "inflammable," "non inflammable," "agent ignifuge," "ininflammable," and "retard à l'inflammation." "Inflammable" was the only term commonly understood (85 per cent correct), while terms "non inflammable" and "ininflammable" were understood by 56 per cent and 53 per cent respectively. Terms for flame retardance were poorly understood. Only 8 per cent correctly defined "agent ignifuge," while 31 per cent correctly defined "retard à l'inflammation." The distribution of responses for each term is shown in Appendix D, table 53.

In previous research with English-speaking consumers, Zentner et al. found consumers that did not know the meaning of "flame resistant" (1977). In their study, "flame retardant" and "flame resistant" were similarly defined as "will burn when touched with a flame, but stops burning when the flame is removed." Although in this research the terms

Table 5

Consumer Knowledge of Flammability Terminology and Legislation: English-Speaking Respondents

	Yes	No	No Response
Questionnaire I			
Have you heard about any government laws which prevent the sale of certain textile items because they present a danger?	172 36.4%	290 61.3%	11 2.3%

If yes, what are these items? What type of danger do these items present?	Correct	Partially Correct	Incorrect	No Response
Answer: Flammability Laws for Children's Sleepwear sizes 0-6X	30 6.3%	83 17.5%	52 11.0%	308 65.2%

Questionnaire II	Yes	No	I Do Not Know	No Response
Are there Canadian government laws which prevent the sale of certain textile items that burn easily? Children's sleepwear sizes 0-6X	189 40.0%	30 6.3%	249 52.6%	5 1.1%

What do the following words mean to you?	Correct	Incorrect	I Do Not Know	No Response
1. Flammable (will burn when touched with a flame).	430 90.9%	27 5.7%	6 1.3%	10 2.1%
2. Nonflammable (will not burn when touched with a flame).	373 78.9%	86 18.2%	- -	14 3.0%
3. Inflammable (will burn when touched with a flame).	165 34.9%	250 52.9%	31 6.6%	27 5.7%
4. Flame retardant (will burn when touched with a flame but will burn only for a short time after the flame is removed).	196 41.4%	219 46.3%	40 8.5%	18 3.8%
5. Flame resistant (will burn when touched with a flame but stops when the flame is removed).	85 18.0%	352 74.4%	20 4.2%	16 3.4%

row total = 473

Table 6

Consumer Knowledge of Flammability Terminology and Legislation: French-Speaking Respondents

	Yes	No	No Response
Questionnaire II Have you heard about any government laws which prevent the sale of certain textile items because they present a danger?	19 14.2%	112 83.6%	3 2.2%

	Correct	Partially Correct	Incorrect	No Response
If yes, what are these items? What type of danger do these items present? Answer: Flammability Laws for Children's Sleepwear sizes 0-6X	2 1.5%	7 5.2%	10 7.5%	115 85.8%

Questionnaire II	Yes	No	I Do Not Know	No Response
Are there Canadian government laws which prevent the sale of certain textile items that burn easily? Children's sleepwear sizes 0-6X	24 17.9%	18 13.4%	86 64.2%	6 4.5%

What do the following words mean to you?	Correct	Incorrect	I Do Not Know	No Response
1. "Inflammable" (will burn when touched with a flame).	114 85.1%	11 8.2%	9 6.7%	- -
2. "Non inflammable" (will not burn when touched with a flame).	75 56.0%	39 29.1%	20 14.9%	- -
←3. "Agent ignifuge" (will burn when touched with a flame but will burn only for a short time after the flame is removed).	10 7.5%	52 38.8%	56 41.8%	16 11.9%
4. "Ininflammable" (will not burn when touched with a flame).	71 53.0%	40 29.9%	23 17.2%	- -
←5. "Retard à l'inflammation" (will burn when touched with a flame but will burn only for a short time after the flame is removed).	42 31.3%	24 17.9%	43 32.1%	25 18.7%

wrong term

wrong terms

row total = 134

were differentiated, it would seem consumers were confused by both terms. In Abney's 1974 study, less than one-fourth of the respondents could correctly identify all four terms -- "flammable," "nonflammable," "flame resistant" and "flame retardant." Smythia (1972) and Laughlin (1974) found respondents defined "inflammable" incorrectly. Because so much vagueness exists with the flammability concept, the German Standards Institute avoids using "inflammable" altogether in the development of standards (Rieber, 1969). Clearly, the terminology confusion must be resolved, as misleading labels on garments can give the consumer a false sense of security. Furthermore, when questions of negligence and implied warranty arise from fabric-flammability-produced injuries and damages, who will accept responsibility? In the United States, manufacturers, apparel makers and retailers are increasingly vulnerable to consumer litigation ("Litigation as a Way of Life," 1975). Steps to ensure proper interpretation of care labels on flame-retardant garments obviously are required. Standardization of flammability definitions may be a prerequisite to the extension of standards in Canada.

For both the English- and the French-speaking sample, factor analysis was performed on the three questions concerning knowledge of children's flame-retardant sleepwear. These questions included knowledge of the children's sleepwear law in questionnaire one, knowledge of the law in questionnaire two, and knowledge of flammability terminology as listed in tables 5 and 6. In Appendix D, tables 54 and 55, the factor results are given. Because no clear or logical combination of knowledge questions existed, each question was treated separately in subsequent analyses. Also the English- and French-speaking samples were analysed separately because the terminology questions were different and because t tests for differences between means indicated a significant difference ($p < .001$) in knowledge of legislation for children's sleepwear sizes 0 to 6X. French-speaking subjects were much less knowledgeable.

In conclusion, Canadian consumers are not very knowledgeable about flammability terminology that relates to flame retardance or about legislation that currently concerns the flammability standards for children's sleepwear sizes 0 to 6X and other textile products. If flame-retardant products were to be marketed in Canada, additional efforts would be needed to increase knowledge so that products would be understood and used properly.

Question 3: What are consumers' attitudes towards textile flame retardancy?

Table 7

Consumer Attitudes Towards Children's Flame-Retardant Sleepwear: English-Speaking Respondents

Question	All Should be Made to Resist Burning		The Consumer Should Have the Choice Between Those Made to Resist Burning and Those Not Made to Resist Burning		None Should be Made to Resist Burning		I Have no Opinion		No Response	
	Number*	%	Number	%	Number	%	Number	%	Number	%
What do you think about the importance of having the following items made to resist burning?										
children's sleepwear (0 - 12 months)	377	79.7	83	17.5	2	0.4	4	0.8	7	1.5
children's sleepwear (18 - 24 months, 2 - 6X)	383	81.0	74	15.6	1	0.2	6	1.3	9	1.9
children's sleepwear (7 - 16)	341	72.1	118	24.9	1	0.2	5	1.1	8	1.7
What do you think about the importance of having all clothing for the following groups of people made to resist burning?										
young children (under 1 year old)	354	74.8	104	22.0	1	0.2	3	0.6	11	2.3
young children (ages 1 to 6)	359	75.9	100	21.1	1	0.2	3	0.6	10	2.1
older children (ages 7 to 14)	289	61.1	168	35.5	1	0.2	6	1.3	9	1.9

* row total = 473

Table 8

Consumer Attitudes Towards Children's Flame-Retardant Sleepwear: French-Speaking Respondents

Question	All Should be Made to Resist Burning		The Consumer Should Have the Choice Between Those Made to Resist Burning and Those Not Made to Resist Burning		None Should be Made to Resist Burning		I Have no Opinion		No Response	
	Number*	%	Number	%	Number	%	Number	%	Number	%
What do you think about the importance of having the following items made to resist burning?										
children's sleepwear (0 - 12 months)	90	67.2	23	17.2	2	1.5	13	9.7	6	4.5
children's sleepwear (18 - 24 months, 2 - 6X)	90	67.2	23	17.2	1	0.7	12	9.0	8	6.0
children's sleepwear (7 - 16)	81	60.4	33	24.6	1	0.7	13	9.7	6	4.5
What do you think about the importance of having all clothing for the following groups of people made to resist burning?										
young children (under 1 year old)	95	70.9	24	17.9	1	0.7	11	8.2	3	2.2
young children (ages 1 to 6)	94	70.1	25	18.7	-	-	8	6.0	7	5.2
older children (ages 7 to 14)	81	60.4	37	27.6	-	-	9	6.7	7	5.2

* row total = 134

Two questions were used to measure consumer attitudes towards children's flame-retardant sleepwear. Response distributions are shown in tables 7 and 8 for English- and French-language surveys, respectively.

The majority of consumers stated that all children's sleepwear up to size 16 should be made to resist burning, although French-speaking consumers were less in favour of this. Most consumers stated that they would accept flame-retardant sleepwear in size ranges 18 to 24 months and 2 to 6X; this was followed by sizes 0 to 12 months and, finally, sizes 7 to 16. Some consumers thought that there should be a choice in sleepwear for sizes 7 to 16; 0 to 12 months; and 18 months to 6X. Only one person in both surveys thought that none of the 18 months to 6X and 7 to 16 sizes should be made burn resistant; two people in both surveys thought only the 0 to 12 months sizes should not be made burn resistant. Approximately one per cent of the English- language survey had no opinion on the matter, while about ten per cent of the French had no opinion and five to six per cent did not answer the questions. The lower awareness and knowledge levels of the French sample may account for the increased numbers here.

Consumers were also asked about the importance of having other items made to resist burning. As shown in tables 56 and 57 of Appendix E, less than 50 per cent of consumers wanted adult sleepwear made burn resistant while 48 per cent of the English-speaking and 36 per cent of the French-speaking respondents thought they should have a choice. Approximately 17 per cent of the French-language survey had no opinion or did not answer. Over 50 per cent of both English- and French-speaking consumers preferred that other textile items be made burn resistant including mattresses, blankets, curtains and draperies, and rugs and carpets.

When asked about the importance of having children's clothing made to resist burning, 76 per cent of the English-speaking and 70 per cent of the French-speaking respondents said all should be burn resistant for children ages one to six (tables 7 and 8). Seventy-five per cent of the English-speaking and 71 per cent of the French-speaking respondents thought so for children under one year, and 61 per cent of English-speaking and 60 per cent of French-speaking respondents agreed for children aged seven to fourteen. The balance of consumers felt that they should have the choice and again 10 to 11 per cent of French consumers stated no opinion. Consumers were also asked about burn-resistant clothing for other groups of people (Appendix E, tables 58 and 59). Many preferred to have a choice for people aged 15

to 44 and 45 to 65. However, in the French-speaking sample, opinion was almost equally divided between those who thought all clothing should be made resistent to burning and those who felt consumers should have the choice. There was more support in both samples for burn-resistant clothing for people over 65 years old and for the disabled and handicapped.

These findings seem to agree with Patterson's 1977 study, which showed that American respondents favoured flame-retardant standards on clothing for children six and under and seven to fourteen. However, in the present research there was some evidence that consumers were slightly less accepting of flame-retardant clothing for small infants and for children seven to sixteen than for children's sizes 18 to 24 months and 2 to 6X. There was also a slight preference for children's burn-resistant sleepwear over all clothing being made burn resistant. Similar to Patterson's findings however, consumers thought that there should be standards for adults over 65 and for the disabled and handicapped but that people aged 15 to 64 should have a choice in the retail market.

Laughlin and Buddin noted in their 1977 study that consumers were not as accepting of flame-retardant children's sleepwear after the publicity in the United States that one of the flame retardants was a possible carcinogen. In the present research, six per cent of the English-speaking respondents and less than one per cent of the French listed cancer as a possible problem with children's flame-retardant sleepwear, three per cent of the English and one percent of the French said skin allergies, but 83 per cent of the English and 94 per cent of the French had not heard of any problems.

The statements listed in tables 7 and 8 were factor analysed for both the English- and French-language surveys to determine whether a single measure of consumer attitudes towards children's flame-retardant sleepwear could be formed. In both analyses one factor was formed with factor matrix values exceeding 0.50 for all six items (Appendix E, tables 60 and 61). Thus, a single score for attitude towards children's flame-retardant sleepwear could be formed for each consumer to be used in subsequent analyses. The scoring system is described by Gallagher (1978, pp. 64-65) and led to the categories of consumer attitude groups shown in tables 9 and 10. Somewhat different response distributions occurred between the English and French samples, largely due to a higher non-response rate among the latter.

Table 9

Categories of Attitudes Towards Children's Flame-Retardant Sleepwear: English-Speaking Respondents

Categories	Number	%
1. All children's sleepwear should be made flame retardant.	269	56.9
2. Some reservations about all children's sleepwear being made flame retardant.	99	20.9
3. Preferably consumers should have the choice between children's sleepwear made flame retardant and that not made flame retardant.	77	16.3
4. None should be made to resist burning.	1	0.2
5. No response.	27	5.7
Total	473	100.0

Table 10

Categories of Attitudes Towards Children's Flame-Retardant Sleepwear: French-Speaking Respondents

Categories	Number	%
1. All children's sleepwear should be made flame retardant.	70	52.2
2. Some reservations about all children's sleepwear being made flame retardant.	18	13.4
3. Preferably consumers should have the choice between children's sleepwear made flame retardant and that not made flame retardant.	22	16.4
4. None should be made to resist burning.	-	-
5. No response.	24	17.9
Total	134	100.0

Table 11

Awareness of the Flammability of Children's Sleepwear and Knowledge of Laws and Terminology: English-Speaking Respondents

Awareness cross-tabulated with...	Chi square	Degrees of freedom	Significance
Knowledge of law - Questionnaire I, question 14	31.464	6	0.000*
Knowledge of law - Questionnaire II, question 4	7.598	2	0.022*
Knowledge of "flammable"	4.877	2	0.087
Knowledge of "nonflammable"	0.288	2	0.866
Knowledge of "inflammable"	1.707	2	0.426
Knowledge of "flame retardant"	0.391	2	0.823
Knowledge of "flame resistant"	0.322	2	0.851

* significant beyond 0.050 level

Table 12

Awareness of the Flammability of Children's Sleepwear and Knowledge of Laws and Terminology: French-Speaking Respondents

Awareness cross-tabulated with...	Chi square	Degrees of freedom	Significance
Knowledge of law - Questionnaire I, question 14	12.920	2	0.002*
Knowledge of law - Questionnaire II, question 4	0.770	1	0.380
Knowledge of "inflammable"	0.094	1	0.759
Knowledge of "noninflammable"	0.064	1	0.800
Knowledge of "agent ignifuge" (wrong term)	1.681	2	0.432
Knowledge of "ininflammable"	0.000	1	0.994
Knowledge of "retard à l'inflammation" (wrong term)	10.031	2	0.007*

* significant beyond 0.050 level

F). Interestingly, most who knew the term "retard à l'inflammation" were also unaware of the children's sleepwear flammability issue (table 65, Appendix F).

In conclusion, many consumers in both surveys were neither aware of flammability dangers for children's sleepwear nor knowledgeable of the laws and terminology.

(b) Awareness and Attitudes. Consumer awareness levels of the flammability of children's sleepwear and their attitudes towards flame-retardant sleepwear were cross-tabulated. A significant relationship was found only in the English-language survey.

Of English-speaking consumers who had some reservations about all children's sleepwear being made flame retardant, a higher proportion were somewhat or fully aware of the flammability of children's sleepwear than those who said that all sleepwear should be flame retardant or those who preferred a choice (table 66, Appendix F).

Although many consumers said that all sleepwear should be made burn resistant, most also indicated they were not aware of the need for children's flame-retardant sleepwear. Thus, they appear to be forming attitudes without adequate awareness of the issue. Studies by Smythia (1972), Abney (1974), Laughlin (1974, 1976, 1977), Patterson (1977), and Zentner et al. (1977) showed that consumers highly favoured children's flame-retardant sleepwear. A 1977 study of actual consumer practice by Blum and Ames found that consumers refused to buy the treated sleepwear in the United States due to aesthetic and price changes. A similar situation could occur with Canadian consumers. Their stated preference for flame-retardant sleepwear could have been the result of an emotional reaction to burn accidents with children. If initially they did not see a need for the treated sleepwear, as was shown in the first questionnaire of the present research, it is questionable how successful the product would be if consumers were confronted with any additional aesthetic and price changes.

(c) Knowledge and attitudes. Each of the knowledge areas (laws and terminology) was cross-tabulated with consumers' attitudes towards children's flame-retardant sleepwear. The results for both surveys are summarized in tables 13 and 14. As well, for the results that are shown as significant in tables 13 and 14 detailed cross-tabulations appear in tables 67 and 68 of Appendix F.

Table 13

Knowledge Variables and Attitudes Towards Children's Flame-Retardant Sleepwear: English-Speaking Respondents

	Raw chi square	Degrees of freedom	Significance
Knowledge of children's sleepwear sizes 0-6X flammability laws (Questionnaire I) and attitudes	7.778	6	0.255
Knowledge of children's sleepwear sizes 0-6X flammability laws (Questionnaire II) and attitudes	11.399	2	0.003*
Knowledge of "flammable" and attitudes	1.655	2	0.437
Knowledge of "nonflammable" and attitudes	4.416	2	0.110
Knowledge of "inflammable" and attitudes	5.228	2	0.073
Knowledge of "flame retardant" and attitudes	1.172	2	0.557
Knowledge of "flame resistant" and attitudes	4.272	2	0.118

* significant beyond 0.050 level

Table 14

Knowledge Variables and Attitudes Towards Children's Flame-Retardant Sleepwear: French-Speaking Respondents

	Raw chi square	Degrees of freedom	Significance
Knowledge of children's sleepwear sizes 0-6X flammability laws (Questionnaire I) and attitudes	6.669	4	0.154
Knowledge of children's sleepwear sizes 0-6X flammability laws (Questionnaire II) and attitudes	7.614	2	0.022*
Knowledge of "inflammable" and attitudes	3.520	2	0.172
Knowledge of "noninflammable" and attitudes	3.443	2	0.179
Knowledge of "agent ignifuge" and attitudes ↓terme impropre	3.944	4	0.414
Knowledge of "ininflammable" and attitudes	3.276	2	0.194
Knowledge of "retard à l'inflammation" and attitudes ↓terme impropre	0.889	4	0.926

* significant beyond 0.050 level

Only knowledge of the law (Questionnaire II, question 4) was related to consumer attitudes for both the English- and French-language surveys. Knowledge of terminology was not related to attitudes for either group.

Of those who said that all children's sleepwear should be flame retardant, a slightly higher proportion knew the law compared to those who had reservations or who preferred a choice (tables 67 and 68, Appendix F). In general, however, most consumers favoured children's sleepwear being made resistant to burning but, at the same time, did not know of the present children's sleepwear law.

Question 5: Are awareness, knowledge and attitudes related to consumers' age, socio-economic status, family size and previous experience with fires involving textiles?

(a) Awareness and biographical characteristics. The levels of awareness of the flammability of children's sleepwear (fully aware, partially aware and not aware) were cross-tabulated with each of the biographical characteristics named in research question 5. No significant relationships occurred for the English-language survey, while age was related for the French-language survey (tables 15 and 16).

As shown in table 69 of Appendix G, a higher proportion of somewhat aware consumers were found in the 35 to 44 and 45 and older categories than in the 19- to 34-year-old group. However, most consumers were not aware of the potential flame hazard of children's sleepwear.

The testing of the relationship between awareness and biographical characteristics in the present research differs from that in the American research reported by Zentner et al. (1977), Patterson (1977), and Laughlin (1974). Although statistical testing was not conducted, Laughlin found a high level of concern for and awareness of the potential hazard of burn accidents involving children's sleepwear when he surveyed a predominately middle- to upper-middle socio-economic group. In the present research, the majority of consumers across all socio-economic levels were not aware of the potential hazard of flammable fabrics in children's sleepwear. In Laughlin's study, the high level of concern could possibly be attributed to the publicity surrounding the issue as the children's sleepwear sizes 0 to 6X law had been implemented and the sizes 7 to 14 law was in the process of being implemented in the United States. The Canadian law regulating the flammability of children's sleepwear has been in existence since 1969; however, there has been little media coverage up to the time of this

Table 15

Awareness of Children's Flame-Retardant Sleepwear
and Biographical Characteristics: English-Speaking Respondents

	Raw chi square	Degrees of freedom	Significance
Awareness and age	6.110	6	0.411
Awareness and socio-economic status	19.840	12	0.070
Awareness and family size	14.241	16	0.581
Awareness and previous textile fire experience	5.093	2	0.078

Table 16

Awareness of Children's Flame-Retardant Sleepwear
and Biographical Characteristics: French-Speaking Respondents

	Raw chi square	Degrees of freedom	Significance
Awareness and age	8.247	2	0.016*
Awareness and socio-economic status	3.112	4	0.539
Awareness and family size	7.974	4	0.093
Awareness and previous textile fire experience	0.188	1	0.664

* significant beyond 0.050 level

study. The Canadian law is much less stringent than the American law. Thus, its institution did not seriously alter the type of sleepwear used in Canada. In the United States, the institution of the children's flammable sleepwear laws has changed sleepwear fabric types considerably and, as a result, may have alerted consumers to the potential hazards.

(b) Knowledge and biographical characteristics. Each of the areas of knowledge -- knowledge of laws about children's sleepwear flammability and of flammability terminology -- was cross-tabulated with the biographical characteristics. The results are summarized in tables 17 and 18 for the English- and French-language surveys, respectively. For relationships with significant chi-squares, detailed cross-tabulations are given in tables 70 to 77 of Appendix G.

In the English-language survey, few areas of knowledge were related to biographical characteristics. Age of the consumer was significantly related to knowledge of the term "inflammable." Table 70 of Appendix G contains the detailed results of the contingency table analysis. The majority of consumers incorrectly defined "inflammable" and most consumer age groups appear to be confused by the term, although a higher proportion of the knowledgeable respondents were 35 to 44 years old.

Consumer knowledge of the terms "flammable" and "inflammable" was related to previous textile fire experience; knowledge of the other flammability terms and the flammability laws was not related to this factor. Most respondents knew the term "flammable." As shown in table 71 of Appendix G, however, more knowledgeable respondents had previously had a textile fire experience than those not knowledgeable. The majority of the respondents did not understand the term "inflammable" and had had no previous experience with textile fires (table 72, Appendix G). Of the respondents who were not knowledgeable, 45 per cent had been involved with a textile fire; of those who were knowledgeable, 34 per cent had had such previous experience.

Previously reported research had not tested such a relationship. Insufficient information from the present research prevents further interpretation of these findings. The limited and contradictory findings of this study make it impossible to speculate whether knowledgeable or unknowledgeable respondents have had more frequent involvement with textile fires. It might be expected that those not knowledgeable would have had more involvement. However, involvement with a textile fire could cause a consumer to become more aware and consequently more knowledgeable about fire.

Table 17

Knowledge of Children's Flame-Retardant Sleepwear and Biographical Characteristics: English-Speaking Respondents

	Raw chi-square	Degrees of freedom	Significance
Knowledge of laws (Questionnaire I) and:			
(a) age	15.112	9	0.088
(b) socio-economic status	20.994	18	0.280
(c) family size	17.071	24	0.846
(d) previous textile fire experience	1.859	3	0.602
Knowledge of laws (Questionnaire II) and:			
(a) age	1.569	3	0.666
(b) socio-economic status	8.413	4	0.078
(c) family size	7.145	4	0.128
(d) previous textile fire experience	0.824	1	0.364
Knowledge of "flammable" and:			
(a) age	2.378	3	0.498
(b) socio-economic status	3.748	4	0.441
(c) family size	5.894	4	0.207
(d) previous textile fire experience	4.153	1	0.042*
Knowledge of "nonflammable" and:			
(a) age	1.698	3	0.637
(b) socio-economic status	0.628	4	0.960
(c) family size	1.703	4	0.790
(d) previous textile experience	0.085	1	0.771

Knowledge of "inflammable" and:			
(a) age	18.486	3	0.001*
(b) socio-economic status	4.937	4	0.294
(c) family size	7.942	4	0.094
(d) previous textile fire experience	5.824	1	0.016*
Knowledge of "flame retardant" and:			
(a) age	5.121	3	0.163
(b) socio-economic status	0.692	4	0.952
(c) family size	6.644	4	0.156
(d) previous textile fire experience	0.044	1	0.833
Knowledge of "flame resistant" and:			
(a) age	6.096	3	0.107
(b) socio-economic status	3.803	4	0.433
(c) family size	0.751	4	0.945
(d) previous textile fire experience	0.008	1	0.930

* significant beyond the 0.050 level

Table 18

Knowledge of Children's Flame-Retardant Sleepwear and Biographical Characteristics: French-Speaking Respondents

	Raw chi-square	Degrees of freedom	Significance
Knowledge of laws (Questionnaire I) and:			
(a) age	4.151	4	0.386
(b) socio-economic status	6.594	8	0.581
(c) family size	5.918	8	0.656
(d) previous textile fire experience	0.751	2	0.687
Knowledge of laws (Questionnaire II) and:			
(a) age	10.105	2	0.006*
(b) socio-economic status	3.327	4	0.505
(c) family size	3.297	4	0.510
(d) previous textile fire experience	0.219	1	0.640
Knowledge of "inflammable" and:			
(a) age	3.719	2	0.156
(b) socio-economic status	3.912	4	0.418
(c) family size	1.036	4	0.904
(d) previous textile fire experience	0.025	1	0.875
Knowledge of "noninflammable" and:			
(a) age	7.953	2	0.019*
(b) socio-economic status	4.449	4	0.349
(c) family size	10.371	4	0.035*
(d) previous textile fire experience	0.028	1	0.867

Knowledge of "agent ignifuge" and: (terme impropre)			
(a) age	0.469	4	0.976
(b) socio-economic status	20.957	8	0.007*
(c) family size	12.649	8	0.125
(d) previous textile fire experience	1.604	2	0.449
Knowledge of "ininflammable" and:			
(a) age	0.675	2	0.714
(b) socio-economic status	7.783	4	0.100
(c) family size	0.491	4	0.974
(d) previous textile fire experience	0.034	1	0.853
Knowledge of "retard à l'inflammation" (terme impropre) and:			
(a) age	2.702	4	0.609
(b) socio-economic status	17.692	8	0.024*
(c) family size	3.107	8	0.927
(d) previous textile fire experience	1.769	2	0.413

* significant beyond the 0.50 level.

In the French-language survey, several areas of knowledge were significantly related to biographical characteristics. As shown in table 18, age was related to knowledge of flammability laws (Questionnaire II) and to knowledge of the term "noninflammable." Family size was related to knowledge of the term "noninflammable;" socio-economic status was related to knowledge of the terms "agent ignifuge" and "retard à l'inflammation". (Tables 73 to 77, Appendix G, contain detailed results.)

As shown in Table 73 of Appendix G, knowledgeable and unknowledgeable consumers were equally distributed in the 18 to 34 years age bracket. However, French-speaking consumers who did not know about the current flammability standard for children's sleepwear far outnumbered those who were knowledgeable in the 35 years and over age brackets. In contrast, the ability to define the term "noninflammable" was higher among the 35 and over age brackets than for the 18 to 34 group (Table 74, Appendix G).

"Noninflammable" was understood by the majority of consumers (table 75, Appendix G). However, in families with five members and seven or more members this trend did not hold true; the majority of consumers from these families did not understand the term "noninflammable". Thus there was an inconclusive trend for consumers from larger families to be less knowledgeable of this term.

Tables 76 and 77 of Appendix G show significant relationships between socio-economic status, as measured on the Blishen scale, and knowledge of the terms "agent ignifuge" and "retard à l'inflammation." For "agent ignifuge" the highest proportion of knowledgeable consumers existed in levels three and four (approximately lower-middle to middle socio-economic classifications). Most consumers knowledgeable about the term "retard à l'inflammation" were in level five, which approximates an upper-middle socio-economic class. However, it should be noted that consumers generally lacked adequate knowledge of both terms across all socio-economic levels.

(c) Attitudes Towards Children's Flame-Retardant Sleepwear and Biographical Characteristics. No significant relationships occurred between consumers' attitudes towards flammability and their biographical characteristics for either the English- or French-speaking surveys (tables 19 and 20). These results agree with Zentner et al. and Patterson, whose studies showed that age and socio-economic status were not related to consumer attitudes.

Table 19

Attitudes Towards Children's Flame-Retardant Sleepwear and Biographical Characteristics: English-Speaking Respondents

	Raw chi-square	Degrees of freedom	Significance
Attitudes and age	6.820	6	0.338
Attitudes and socio-economic status	10.209	12	0.598
Attitudes and family size	12.587	16	0.703
Attitudes and previous textile fire experience	1.164	2	0.559

Table 20

Attitudes Towards Children's Flame-Retardant Sleepwear and Biographical Characteristics: French-Speaking Respondents

	Raw chi-square	Degrees of freedom	Significance
Attitudes and age	5.216	4	0.266
Attitudes and socio-economic status	10.293	8	0.245
Attitudes and family size	5.217	8	0.734
Attitudes and previous textile fire experience	2.588	2	0.274

Question 6: Do consumers' attitudes towards the regulation of product safety in general differ from their attitudes towards the regulation of textile flammability in particular?

Attitudes towards regulation of textile flammability were compared to attitudes towards regulation of general product safety. The attitude statements were ranked on a 1 to 5 agree- disagree Likert type of scale. The Wilcoxon Matched-Pairs Signed-Ranks Test was used as follows: in a paired comparison, higher positive than negative ranks indicated that the consumer agreed more with the statement on regulating general product safety than with the comparable statement on specifically regulating textile flammability. Higher negative than positive rankings meant that the consumer agreed more with the statement on regulating textile flammability than the one on regulating general product safety.

Paired comparison tests were conducted separately for the English- and French-language surveys. When response distributions for each attitude statement were compared between the two surveys, statistically significant t tests (p 0.050) occurred for over half of the statements.

Tables 78 and 79, Appendix H, contain the results of the matched-pair comparisons for the English- and French-language surveys respectively. Eight of the nine statements proved to be significantly different in the English survey; seven were significantly different for the French. Figures 2 and 3 illustrate the comparisons and show the extent of the differences in consumer opinion between the significant statements. The statements are discussed in the order that they were asked in the questionnaire.

In the paired comparison, 41 per cent of the English-speaking and 27 per cent of the French-speaking respondents thought it was the government's job to make sure that everything sold was generally safe rather than safe only from the danger of fire (tables 78 and 79, Appendix H, statement 1). Only 7 per cent of the English-speaking and 12 per cent of the French-speaking respondents indicated that fire safety was more important than general product safety. Observation of the frequency distributions of consumer responses to the statements showed a similar trend. However, 60 per cent of the English and 68 per cent of the French agreed with safety against fire danger, while nearly 83 per cent of the English and 79 per cent of the French said that the government should ensure that everything was safe for use (tables 80 to 83, Appendix H).

Figure 2

Comparison of Attitudes Towards the Regulation of General Product Safety and Textile Flammability (Wilcoxon Matched-Pairs Signed-Ranks Test): English-Speaking Respondents

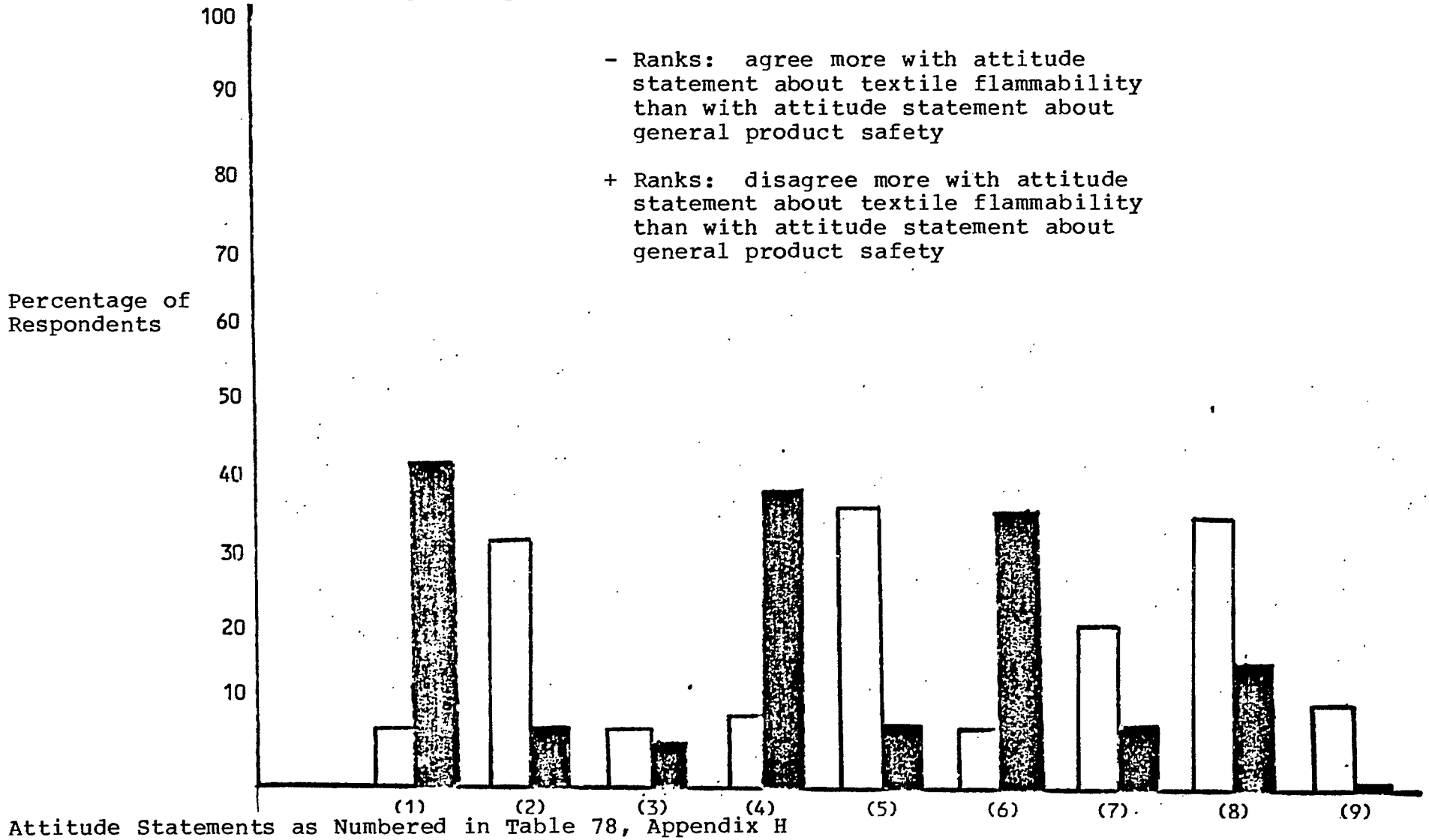
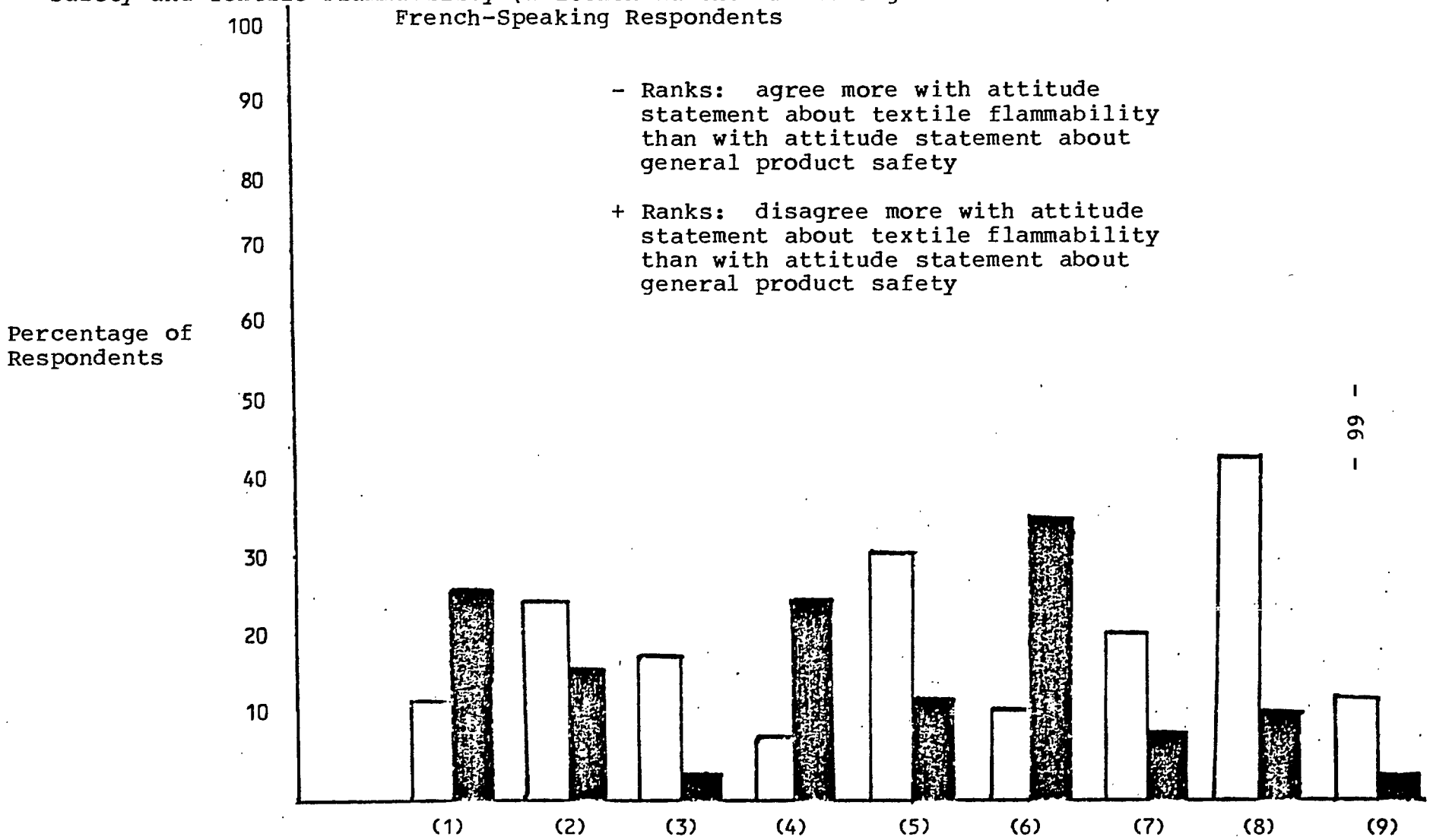


Figure 3

Comparison of Attitudes Towards the Regulation of General Product Safety and Textile Flammability (Wilcoxon Matched-Pairs Signed-Ranks Test): French-Speaking Respondents



Attitude Statements as Numbered in Table 79, Appendix H

Overall, both English- and French-speaking consumers disagreed that adults should have the freedom of choice and that the government was interfering with safety laws (tables 78 and 79, Appendix H, statement 2). However, English-speaking consumers generally disagreed more strongly with regard to general safety laws such as seat belt regulations, childproof medicine caps and guidelines for toys, than with regard to laws requiring that clothing and other materials be made to resist burning. No significant difference occurred for French-speaking respondents. Consumer response distributions indicated that 86 per cent of the English and 69 per cent of the French disagreed that adults should have the choice with general products, while 69 per cent of the English and 66 per cent of the French disagreed with clothing fire regulations (tables 80 to 83, Appendix H). About 20 per cent of both English- and French-speaking respondents said that consumers should have the choice of whether clothing and other materials were made fire resistant and that the government was interfering by making laws in this area; only 7 per cent of the English but 19 per cent of the French wanted a choice for products in general.

Comparison of the statements that safety laws and flammability laws were not needed because stores would not sell dangerous products or fabrics proved to be non-significant for the English-language survey (table 78, Appendix H, statement 3). Frequency distributions showed that approximately 92 per cent disagreed with both statements (tables 80 and 82, Appendix H). In the French-language survey, significant differences in responses occurred (table 79, Appendix H, statement 3). While 95 per cent of French-speaking consumers disagreed, feeling that laws were needed as general protection against the sale of dangerous products, only 73 per cent thought such laws were necessary to control textile flammability (tables 81 and 83, Appendix H, statement 3).

Consumers thought that clothing manufacturers and the government both had more of a responsibility to protect consumers from dangerous textile products in general than from textile products that might burn (tables 78 and 79, Appendix H, statements 4 and 6). Differences were most pronounced for English-speaking consumers. Frequency distributions showed that 88 per cent of the English agreed that clothing manufacturers should protect consumers from dangerous textile products; 70 per cent thought that manufacturers should protect consumers from flammable textiles (tables 80 and 82, Appendix H, statement 6). Similarly, 83 per cent agreed it was the government's responsibility to provide protection from all dangerous textiles, while only 65 per cent held this view with regard to flammable textiles

(statement 4). Approximately 25 per cent felt that the government was not responsible for consumer protection from flammable clothing or textiles. In the French-language survey, 86 per cent thought that government protection should be provided with regard to dangerous textiles in general and 73 per cent thought it should be provided with regard to flammable textiles (tables 81 and 83, Appendix H, statement 4). A non-significant difference occurred for manufacturer responsibility: 75 per cent thought manufacturers should protect consumers from dangerous textiles in general and 70 per cent thought that specific protection from flammable fabrics was the manufacturer's responsibility (tables 81 and 83, Appendix H, statement 6).

Comparing the statement that "the consumer should take the responsibility for clothing or other textile products which might be dangerous, not the government" to its counterpart with regard to flammable textiles, 36 per cent of the English and 31 per cent of the French disagreed more with the former than the latter (tables 78 and 79, Appendix H, statement 5). Only 9 per cent of the English and 12 per cent of the French disagreed more with the statement on flammable textiles than with the statement on dangerous textiles in general. In the response frequencies, 56 per cent of the English and 52 per cent of the French disagreed that the consumer, not the government, was responsible for flammable textile protection (tables 82 and 83, Appendix H). Seventy-four per cent of the English and 63 per cent of the French disagreed that the consumer should take the responsibility for dangerous textiles (tables 80 and 81, Appendix H).

In both surveys there was disagreement with the statements that the consumer would be better off if the government did not interfere with products in stores and that government safety checks are not needed since everyone is safety-minded (tables 78 and 79, Appendix H, statement 7). Consumers disagreed more when referring to products in general, however, than with regard to flammable clothing and materials (tables 80 to 83, Appendix H).

Most consumers in both surveys disagreed that, in order to eliminate more accidents, the government should carry out educational programs about dangerous products rather than pass safety laws (tables 78 and 79, Appendix H, statement 8). However, more consumers tended to favour educational programs on fire hazards to help eliminate accidents rather than more laws requiring fire-resistant clothing and material. In response frequencies, 48 per cent of the English and 42 per cent of the French disagreed with the need for educational programs on general product safety

rather than the alternative of passing more laws. Thirty-six per cent of the English and 18 per cent of the French had the same views on the most appropriate means of reducing the textile fire hazard (tables 80 to 83, Appendix H). However, 52 per cent of the English and 63 per cent of the French preferred educational programs on fire hazards over clothing flammability laws.

Statement 9 (tables 78 and 79, Appendix H), suggesting that everyone is safety-minded and thus that the government need not check product safety or textile safety, generally elicited a high level of disagreement. However, in both surveys consumers felt more strongly about the need for government to check product safety in general than to check the safety of clothing and textiles.

In summary, it would seem that consumers believe that government and clothing manufacturers should provide protection against all dangerous products and that more protection should be provided against dangerous products in general than flammable textile items in particular. Consumers were more inclined to think educational programs would be sufficient to help eliminate fire accidents, without passing flammability laws. However, they said laws would be more effective in eliminating accidents with products in general. The greatest difference in consumer opinions occurred with regard to statements about government and clothing manufacturers' responsibilities for consumer protection. Those statements which evoked the least difference in opinion referred to consumer responsibility and freedom of choice.

The statements used to measure attitudes towards regulation were adapted from those used by Patterson. However, she surveyed consumer attitudes about textile flammability legislation only. As in the present research, there was evidence that respondents thought that government and clothing manufacturers should bear responsibility for protecting consumers from dangerously flammable textiles and that consumers should not be responsible for their own protection. This study has shown, however, that consumer concern may be greater for dangerous products in general than for flammable textiles in particular.

Question 7: How do consumers' stated evaluative criteria and care practices for children's sleepwear currently used compare with their projected evaluative criteria and willingness to follow specific care directions for children's flame-retardant sleepwear?

The Wilcoxon Matched-Pairs Signed-Ranks Test at the 0.01 level of significance was used to test for differences between current and projected criteria and care practices. The results were interpreted as follows: the evaluative criteria of care practice receiving higher positive than negative ranks indicated that a given care practice was important to the consumer in selecting children's sleepwear and that the consumer would be less accepting of changes in that care practice for flame- retardant sleepwear. Conversely, a care practice receiving higher negative than positive ranks indicated that it was less important to the consumer in selecting children's sleepwear; the consumer would be more accepting of changes in that care practice for flame-retardant sleepwear.

Since "t" tests of response distributions for French and English respondents indicated some significant differences (p 0.050), the two surveys were analysed separately in the Wilcoxon Matched-Pairs tests.

Results of the tests are summarized in tables 84 and 85 of Appendix I. Figures 4 and 5 provide a graphic comparison of the results for the English- and French-language surveys respectively. Eleven of the 13 relationships yielded significant differences in the English-language survey; 12 were significantly different in the French-language survey. The following discussion describes the results for each item.

(a) Durability. Fabric durability was not found to be significant for English-speaking consumers in the Wilcoxon Test (table 84, Appendix I). A survey of the frequency distribution of responses showed that 93 per cent indicated long wear to be at least a somewhat important criterion when selecting sleepwear, yet only seven per cent would not accept less durability in return for flame-retardant sleepwear (tables 86 and 88, Appendix I). In all, 80 per cent would accept some loss of fabric strength.

Fabric durability was important to French-speaking consumers: 92 per cent rated it as at least somewhat important (table 87, Appendix I). However, far fewer French (54 per cent) than English would accept a loss of durability in return for flame-retardant sleepwear; 17 per cent definitely would not accept such a trade off and 25 per cent were uncertain whether they would or not (table 89, Appendix I). Hence, the Wilcoxon test yielded a significant result in the French survey due to respondents' greater unwillingness to accept a loss in fabric durability (table 85, Appendix I).

Figure 4

Comparison of Evaluative Criteria for Children's Sleepwear Currently Used and Children's Flame-Retardant Sleepwear Using Wilcoxon Matched-Pairs Signed-Ranks Test: English-Speaking Respondents

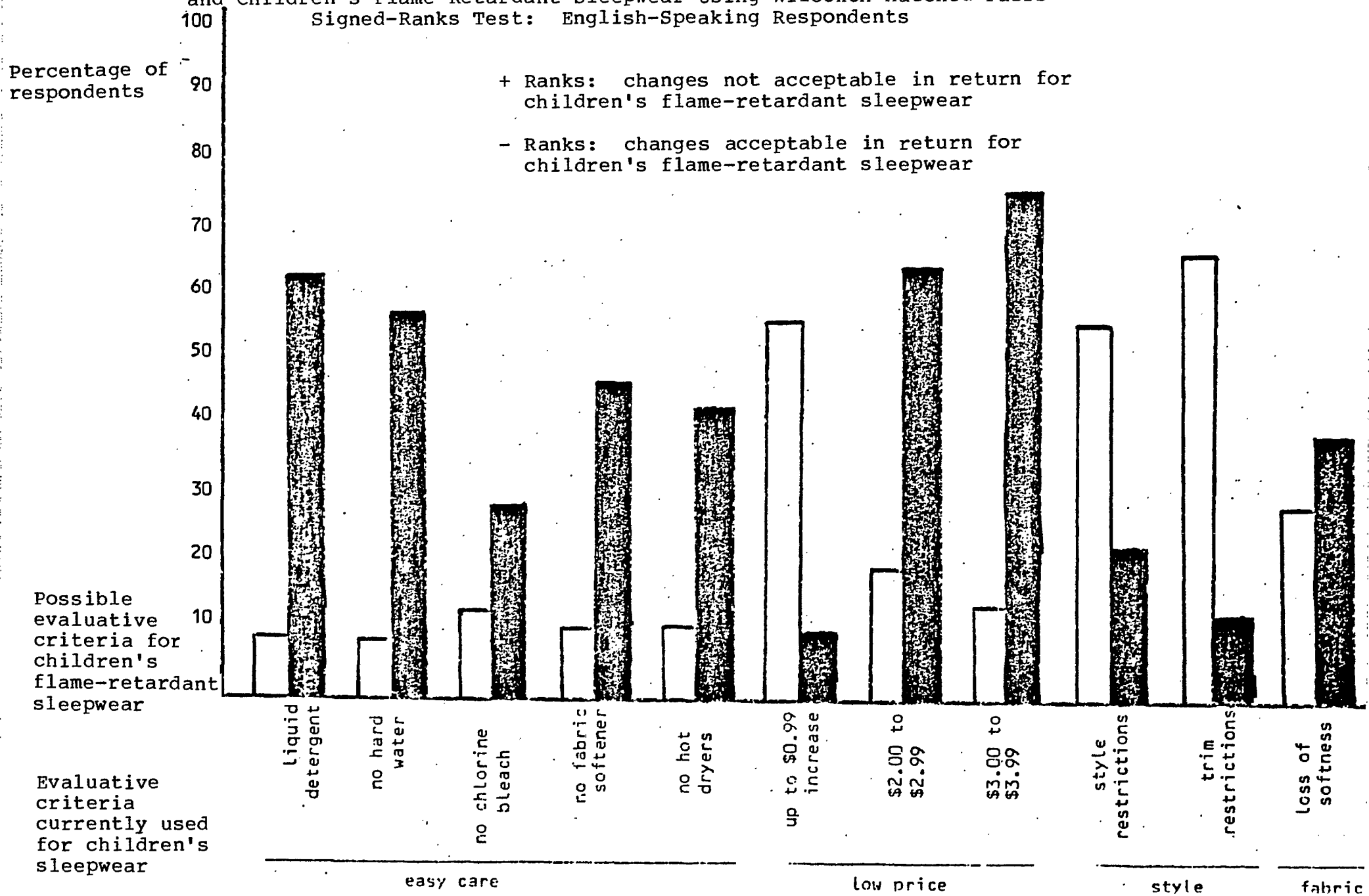
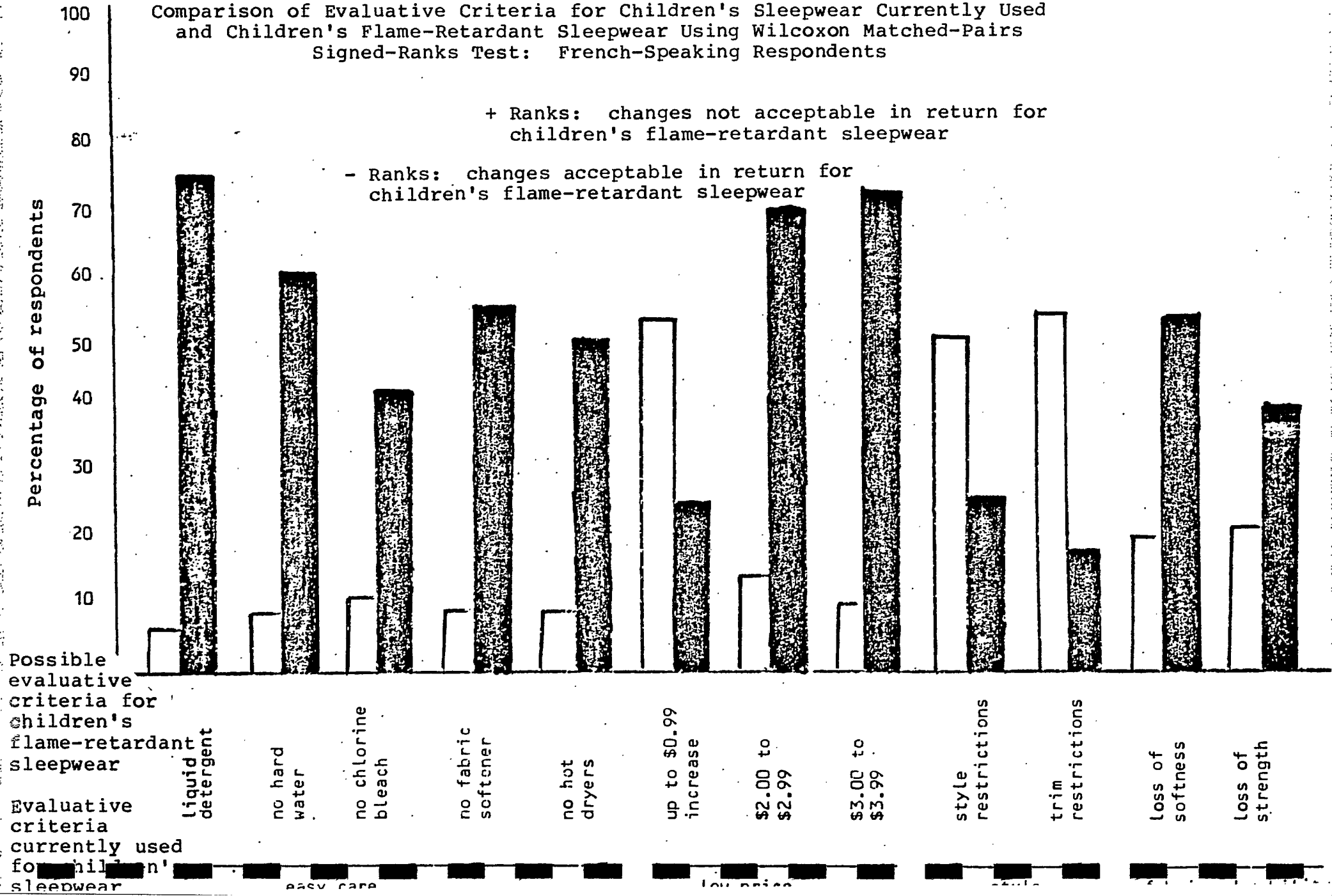


Figure 5


Comparison of Evaluative Criteria for Children's Sleepwear Currently Used and Children's Flame-Retardant Sleepwear Using Wilcoxon Matched-Pairs Signed-Ranks Test: French-Speaking Respondents
+ Ranks: changes not acceptable in return for children's flame-retardant sleepwear
- Ranks: changes acceptable in return for children's flame-retardant sleepwear
Percentage of respondents
100
90
80
70
60
50
40
30
20
10
Possible evaluative criteria for children's flame-retardant sleepwear
liquid detergent
no hard water
no chlorine bleach
no fabric softener
no hot dryers
up to $0.99 increase
$2.00 to $2.99
$3.00 to $3.99
style restrictions
trim restrictions
loss of softness
loss of strength
Evaluative criteria currently used for children's sleepwear
easy care

(b) Easy care. All items proved to be significant in both surveys when easy care for regular sleepwear was compared with the special care criteria for children's flame-retardant sleepwear in the Wilcoxon test (tables 84 and 85, Appendix I). In general, consumers were less willing to accept all special care requirements for flame-retardant sleepwear in comparison to the importance placed on easy care for sleepwear currently in use.

The instruction "use only a heavy-duty liquid detergent" was the most unacceptable special care procedure, with 61 per cent of the English and 75 per cent of the French showing less willingness to accept this change in comparison to the importance of easy care (tables 84 and 85, Appendix I). In the frequency distribution of responses, 93 per cent of both the English and French felt that easy care was at least somewhat important while 32 per cent of the English and 47 per cent of the French would not accept the liquid detergent instruction (tables 86 to 89, Appendix I). Current laundering practices showed that 97 per cent of the English-speaking and 96 per cent of the French-speaking respondents used regular powdered low-phosphate detergent; only 2 per cent of the English and 1 per cent of the French used a liquid detergent (tables 41 and 42, Appendix B). As well, 63 per cent of the English and 44 per cent of the French said they would not purchase an item if the label read "wash separately." Obviously, using a heavy-duty liquid detergent would be a considerable change in the consumer's usual laundering practices and therefore would not be acceptable.

In both surveys more consumers said they would accept the other care instructions for flame-retardant sleepwear than said they would not (tables 88 and 89, Appendix I). However, in comparison to the importance of easy care for current sleepwear, they showed less willingness to accept these instructions in the following order: "do not launder in hard water," "do not use fabric softener," "do not dry in hot dryers," and "do not use chlorine bleach" (tables 84 and 85, Appendix I).

Surveys of American consumers have generally shown that consumers would launder flame-retardant sleepwear in the same manner as regular sleepwear despite labelling differences (Monk, 1975; Robinson, 1974; Zentner et al., 1977). Most of the respondents in Smythia's study reported using chlorine bleach even though the label indicated not to do so. Laughlin found that in five of the seven flammability test failures the consumer had used fabric softener and/or bleach. Although respondents in this survey stated a willingness to accept changes from their usual laundering practices, the high value placed on easy care when purchas-

ing children's sleepwear and the current practices and preferences for regular sleepwear would suggest that such intentions likely would not be put into practice. Vigorous educational efforts would be needed to ensure that the consumer understood the importance of practising proper care for flame- retardant items should flame-retardant sleepwear become mandatory in the Canadian marketplace.

(c) Price. The criterion of low price was compared to possible price increases for flame-retardant sleepwear. For both the English- and French-language surveys, the price categories of up to $0.99, $2.00 to $2.99 and $3.00 to $3.99 proved to be singificant; $1.00 to $1.99 was not significant when compared to the importance of price using the Wilcoxon test (tables 84 and 85, Appendix I).

In the English-language survey, 55 per cent showed a willingness to accept a price increase of up to $0.99 for flame- retardant sleepwear compared to 53 per cent of the French; 10 per cent of the English and 25 per cent of the French would not. Response frequencies indicated that low price was at least somewhat important to approximately 88 per cent of English and 76 per cent of French (tables 86 and 87, Appendix I). However, 84 per cent of the English and 70 per cent of the French said they would accept a $0.99 price increase for a children's sleepwear item that might cost $6.00 or $7.00 (tables 88 and 89, Appendix I). Low price is an important consideration to the consumer when selecting sleepwear, but an increase of up to $0.99 would still be acceptable.

The comparison of low price to a price increase of $1.00 to $1.99 was not significant for either sample (tables 84 and 85, Appendix I). The frequency distribution of responses showed moderate acceptance of this increase (tables 88 and 89, Appendix I); however, when compared with the low price criterion it proved not to be significant. It would appear then that consumers are somewhat ambivalent towards a $1.00 to $1.99 increase for flame- retardant sleepwear.

Both the $2.00 to $2.99 and $3.00 to $3.99 price categories proved to be unacceptable in both surveys. Approximately 63 per cent of the English and 70 per cent of the French showed an unwillingness to accept increases in the $2.00 to $2.99 range and 73 per cent of both the English and French were unwilling to pay between $3.00 and $3.99 more when compared with the importance that consumers attached to low prices for regular sleepwear (tables 84 and 85, Appendix I). The frequency distributions supported this finding (tables 88 and 89, Appendix I). Consumers were unwilling to pay over $2.00 for flame-retardant properties for a sleepwear item that might cost $6.00 to $7.00.

Zentner et al. found that respondents with lower socio-economic status would pay $1.00 more for flame retardancy, whereas respondents with upper socio-economic status would pay only 50 cents more. Laughlin's sample from upper-middle socio-economic levels were willing to pay $1.00 extra for flame-retardant sleepwear (1976). Respondents in this survey showed a definite willingness to accept a price increase up to $0.99 and ambivalence towards an increase up to $1.99 for flame-retardant sleepwear. Canadian consumers seem unlikely to pay over $2.00 for the added safety of flame retardancy. Connor has reported that today's garments could cost from $1.00 to $3.00 more per garment, depending on the size and style, if they were made flame-retardant, instead of the 25 cents to $1.00 range quoted in earlier studies by Zentner et al. and Laughlin.

A question was asked about piece goods that might be used to home-sew sleepwear. In both the English- and French-language surveys, consumers were prepared to pay an additional $0.50 per yard for a flame-retardant finish.

(d) Style. Style proved to be significant in both surveys. Fifty-five per cent of the English and 50 per cent of the French showed a greater willingness to accept restrictions on style in return for flame-retardant sleepwear in comparison to the importance placed on style for sleepwear presently in use (tables 84 and 85, Appendix I). In the frequency responses to the importance of style when selecting sleepwear, 50 per cent of the English and 35 per cent of the French found styling only somewhat important and 20 per cent of the English and 31 per cent of the French found it unimportant (tables 86 and 87, Appendix I). Approximately 60 per cent of the English and 48 per cent of the French said they would accept style changes and an additional 20 per cent to 30 per cent were uncertain (tables 88 and 89, Appendix I). Generally, consumers indicated that style was relatively unimportant when selecting sleepwear and therefore they would likely accept style restrictions for flame-retardant sleepwear.

(e) Trim. Style compared to trim proved to be significant in both surveys, with 65 per cent of the English and 54 per cent of the French accepting restrictions on trims in return for flame-retardant sleepwear (tables 84 and 85, Appendix I). In the frequency responses, 73 per cent of the English and 55 per cent of the French said they would accept changes to trims (tables 88 and 89, Appendix I). On the whole, English-speaking consumers responded positively to restricting trim on flame-retardant sleepwear, while French consumers were positive to a lesser extent.

(f) Fabric softness. By the Wilcoxon test, 38 per cent of the English-speaking and 54 per cent of the French-speaking consumers showed an unwillingness to accept a loss of fabric softness for flame- retardant sleepwear (tables 84 and 85, Appendix I). The frequency distributions indicated that, for 93 per cent of the English- and 84 per cent of the French-speaking respondents, fabric was at least somewhat important when selecting sleepwear. Fourteen per cent of the English and 31 per cent of the French were unwilling to accept a change such as loss of softness to obtain flame-retardant sleepwear; 58 per cent of the English and 34 per cent of the French indicated that they would consider accepting such a change (tables 88 and 89, Appendix I). Apparently, fabric softness is an important criterion for children's sleepwear and a significant number of consumers, especially French-speaking consumers, would not accept a loss of fabric softness in return for flame-retardant sleepwear.

To summarize, consumers' stated evaluative criteria for flame-retardant sleepwear differed from the criteria presently used when selecting children's sleepwear for several of the items tested. Consumers indicated some willingness to accept some changes with flame-retardant sleepwear, such as a price increase of $0.99 and restrictions on style and trim. They were less accepting of any special care instructions, loss of fabric softness, or a price increase of $2.00 or more. Generally, consumers did not value flame-retardant properties for children's sleepwear sufficiently to accept changes in variables they currently considered important in deciding to purchase untreated children's sleepwear.

If a new children's sleepwear standard was promulgated, it would require criteria changes acceptable to the consumer in order to be successful. Vickers stated that loose-fitting garments ignite and burn more readily than close-fitting garments. Britain and Australia have legislated restrictions on sleepwear design in recognition of that fact. This survey has shown that many more girls than boys wore nightgowns and that short and long, full nightgowns are the most preferred sleepwear type, particularly for girls two to fourteen years of age (tables 29 and 30, Appendix B). Consumers have indicated some willingness to accept style restrictions for flame-retardant sleepwear; further research on the extent to which they are willing to accept style restrictions for popular sleepwear items may be warranted.

CHAPTER V

SUMMARY AND POLICY IMPLICATIONS

Fabric flammability has been identified as an important issue in the growing concern over product safety. Canadian legislation to protect the consumer has led to mandatory standards which exceed the minimum textile flammability requirements for children's sleepwear sizes 0 to 6X, certain bedding items and carpeting. Further legislation may include an even stricter children's sleepwear law which would cover sleepwear sizes 7 to 14, as well as standards for children's and adult's clothing and for other household textiles. Yet, to date, any empirical evidence on consumer opinions about the importance of such legislation has been lacking. Furthermore, if Canada were to adopt a standard similar to the American children's sleepwear flammability legislation, only those textiles treated for flame retardancy or inherently flame retardant would be allowed in the marketplace. In the United States, flame-retardant sleepwear has often required trade offs of such desirable product attributes as fabric durability, easy care and lower cost. As well, the threat that the once commonly used finish Tris is a carcinogen has further complicated matters. This raises questions for both industry and government about the sacrifices consumers are willing to make in exchange for protection from fabrics which might burn easily.

The major purpose of this study was to investigate consumer awareness of the possible danger posed by children's sleepwear in burn accidents, to determine their knowledge of current flammability legislation and terminology, and to learn their attitudes about the importance of legislation for children's flame-retardant sleepwear. Certain biographical characteristics of the respondents were obtained. Consumers' attitudes were explored concering the regulation of product safety in general and textile flammability in particular, and concerning trade offs they would accept in return for children's flame-retardant sleepwear.

Data were analysed from a two-part questionnaire returned by 473 English-speaking and 134 French-speaking female members of a nationwide consumer mail panel. The samples were fairly representative of the demographic characteristics of the total samples surveyed. In both the English- and French-language surveys, the majority of the respondents were 25 to 44 years of age, not employed and with a mean family size of 4.4 for English-speaking and 4.7

for French-speaking respondents. The final samples consisted of a proportionate representation from each province and from both language groups. Preferences and practices for purchasing and laundering children's sleepwear were obtained for 974 children of English-speaking and 280 children of French-speaking families, with approximately the same number from both sexes. The sleepwear styles most often worn were regular tailored pajamas, followed by short or long nightgowns. Fabric blends of cotton and polyester were preferred in the summer, and all cotton, mainly flannelette, in the winter. Consumers said they looked for care instructions on children's sleepwear before purchasing. Many of the English-speaking but fewer of the French-speaking respondents could identify the Canadian care symbols that might appear on sleepwear items. "Hang to dry," "tumble dry - low," and "do not dry clean" were the most difficult symbols to define. Respondents generally washed sleepwear they were currently using in a wringer or automatic washer, used powdered detergent, rarely used bleach, frequently used fabric softener and dried the sleepwear most often in an automatic dryer (English) or dried it on a line outside (French).

A high importance was placed on the government and clothing manufacturers being responsible for product safety in general. However, both English- and French-speaking respondents indicated that it was more important to provide consumer protection from dangerous products in general than from flammable textile items in particular. Public education was considered more effective as a means of preventing accidents with fire, whereas laws were favoured to eliminate accidents with generally dangerous products. Respondents were less inclined to think that consumers should be responsible for protecting themselves from dangerous products in general.

Consumers stated a willingness to accept specified changes in sleepwear criteria in exchange for flame retardancy. However, several discrepancies occurred when these items were statistically compared with the evaluative criteria and care practices currently in use for sleepwear. Both English- and French-speaking consumers were less accepting of special care instructions, loss of fabric softness and price increases of $2.00 to $3.99. French-speaking consumers did not want to sacrifice any durability, although English-speaking consumers would, in return for flame retardancy. Consumers had shown that they were not aware of the dangers of flammable fabrics; therefore, it was expected that they would be unwilling to accept changes in important sleepwear purchase criteria in return for flame-retardant properties.

Consumers have thus shown by their responses that they are unaware of danger from sleepwear flammability and do not know about current federal government standards for children's sleepwear or for other textile items. They lacked sufficient knowledge concerning the terms associated with textile flammability. Consumers must be better informed on the subject. Without adequate awareness and knowledge, they cannot properly interpret the labels on flame-retardant items. If more stringent flammability standards were to be promulgated, the consumer would be affected by them in various ways. For example, choice in the marketplace would be altered and increased protection from burn injury could only be maintained if care instructions were followed. For an item such as children's sleepwear which must endure frequent cleaning, incorrect care can easily negate any benefits gained from flame-retardant finishes. Thus, government agencies, educators and industry would need to provide adequate consumer information.

It is questionable whether more legislation and consumer education on flammable fabrics would be worthwhile. Education programs might improve consumer awareness and understanding of the importance of such legislation. If educated as to the importance of proper care in maintaining flame-retardant textiles, perhaps consumers would be more willing to follow the recommended care instructions. Perhaps with promotional programs they would be willing to pay higher prices for flame-retardant protection. However, the results of this study indicate that a successful educational and/or legislative program would be challenging with so many obstacles to be overcome.

Can consumers be educated to assume more responsibility for their own personal safety from textile burn accidents? Educational efforts in Great Britain did not prove to be worthwhile (Richards and Wiles, 1969). However, Dean and Dolan (1978) were of the opinion that public education about fire safety would help to reduce the number of clothing fire accidents and preserve consumers' freedom of choice and parental responsibility more effectively than would government regulations. In the present research, consumers indicated that educational programs should be sufficient to eliminate accidents due to burn injury. At the same time, there were several conflicting attitudes and practices. Consumers' awareness and knowledge levels regarding sleepwear flammability were low. Yet when increased flammability standards were suggested, most said they would accept them until they were presented with the trade offs that might be necessary for flame-retardant sleepwear. Acquiescence then decreased; many consumers did not want to pay more, sacrifice fabric softness or easy care features.

Could consumer education and a mandatory extension of flammability standards overcome portended consumer resistance? Probably to some extent, but not as fully as is desirable.

Respondents were categorized into three groups according to their awareness that sleepwear was a possible fire hazard. The majority of French- and English-speaking respondents were classified as not aware, about one-fourth of the English and 13 per cent of the French were somewhat aware and few English- and no French-speaking respondents were fully aware. There was some increase in consumer concern after the fire hazard of children's sleepwear was mentioned in the second questionnaire. However, the overall conclusion was that the majority were not aware that flame-retardant children's sleepwear was needed for protection from burn injury.

Most consumers were not knowledgeable in the area of flame retardancy. Neither English- nor French-speaking respondents knew of the existing flammability legislation for children's sleepwear, nor of legislation for other textile products. Many could not define the associated terminology. A large portion of English-speaking respondents were confused by the terms "inflammable", "flame retardant" and "flame resistant." French-speaking respondents were especially confused by the terms "agent ignifuge" and "retard à l'inflammation." These findings would seem to indicate a need for consumer education about flammability legislation as well as these related terms.

Consumers generally responded favourably towards the flame retardancy of textile items, although French-speaking respondents were less favourable than English. Three classifications were formed measuring consumer attitudes towards children's flame-retardant sleepwear. The majority of the respondents stated that all children's sleepwear should be made to resist burning, less than one-fourth revealed some reservations about this and a small portion preferred a choice between regular and flame-retardant children's sleepwear items. There was strong support for burn-resistant clothing for people over 65 years and the disabled and handicapped. However, a preference was stated for the choice between regular and flame-retardant clothing for people aged 15 to 65. Over 50 per cent favoured other textiles, including mattresses, blankets, curtains, draperies, rugs and carpets, being burn resistant.

The conclusions drawn about the three major variables -- awareness, knowledge and attitudes -- are summarized as follows:

(i) It would appear consumers do not realize that children's sleepwear has a potential for burn accidents or that government laws currently regulate sleepwear fabric because of this potential danger.

(ii) Consumers were unaware of the need for children's flame-retardant sleepwear. Yet, when asked in the second questionnaire, many thought that all children's sleepwear should be made flame retardant. This could be an indication that consumers react emotionally to the mention of sleepwear burn accidents involving children and are willing to form opinions based on little prior awareness or knowledge of the issue.

(iii) There was some evidence that consumers wanted all sleepwear to be made flame retardant. At the same time, they were not familiar with any current regulations for children's sleepwear and possessed inadequate knowledge of basic terminologies related to flammability.

Several general conclusions were drawn when the three major variables -- awareness, knowledge and attitudes -- were tested with biographical characteristics. The majority of consumers were unaware of the burn injury hazard and did not know that a children's sleepwear law existed. However, French- speaking consumers 35 years and older were slightly more aware of the burn hazard than were younger consumers. Of the English- speaking respondents who could define "inflammable," most were between the ages of 35 and 44. However, most respondents could not define "inflammable" but did know the term "flammable." The majority of consumers had not previously been involved with a textile fire experience. Of those who had been involved, more knew the term "flammable" and fewer knew the term "inflammable" in comparison to consumers with no fire experience. No results were statistically significant when each of the three variables were analysed with socio-economic status and family size.

In the French-language survey, consumers 35 years and older were even less knowledgeable about current sleepwear flammability laws than were younger consumers although, in general, knowledge was low among all consumers. Family size was inversely related to knowing the term "noninflammable" with large families of seven persons or more being the least knowledgeable. Socio-economic status was related to

knowing the terms "agent ignifuge" and "retard à l'inflammation," with middle socio-economic level consumers being the most knowledgeable. Generally, however, consumers across all socio-economic levels lacked adequate knowledge of both terms.

Care instruction problems would have to be overcome if more stringent legislation was enacted. The current Canadian care symbol system was only partially understood by consumers. Also the system does not allow for such specific instructions as "use a heavy-duty liquid detergent," "do not launder in hard water," or "do not use fabric softener." Consumers preferred symbols used in combination with words, a possible solution if specialized instructions became necessary.

The American children's sleepwear standard has been shown to be cost effective. In cost-benefit analyses Polyzou and Dardis indicated that consumers are receiving benefits equal in value to the increased costs of sleepwear treated for flame retardancy (1977). It would seem logical that an extension of standards could produce similar benefits for Canadian consumers.

However, other alternatives could be considered. Consumers did indicate a greater willingness to accept changes in style and trim than to accept changes in other areas. Perhaps the Canadian government should consider legislation similar to that in Britain and Australia, where tailored designs are required because they are less susceptible to contact with ignition sources than are loose, flowing styles. Such regulations would maintain a level of protection for children against fire and allow time for the continuing development of safe and acceptable flame-retardant finishes and adequate test methods for measuring the standards. At the same time, consumer choice in the market would not be seriously restricted. Work would be needed to develop style guidelines that improved safety levels yet maintained reasonable levels of styling acceptability.

In conclusion, the following major policy directions are suggested:

- Education and information programs should be undertaken regardless of any other action by government. Consumers are sadly lacking in awareness that textiles, particularly children's sleepwear, can pose a serious fire hazard. Knowledge of flammability terminology is inadequate. For example, English-speaking consumers do not understand the word "inflammable" and therefore

its use should be discouraged. Improved understanding of the terminology for flame retardance and resistance by both English- and French-speaking consumers is critical. Many fire accidents involving textiles are caused by negligence. While standards for textile flammability may help reduce injury, consumer education is needed to reduce negligence due to ignorance or carelessness.

- Increased flammability standards for children's sleepwear should be considered carefully. The most acceptable step from the point of view of consumers, would be to develop styling regulations. Any regulations requiring standards similar to those in the United States could be negated by the commonly followed sleepwear care practices in Canada. Consumers most likely would continue their current practices unless an effective education program accompanied such legislation to make them aware of the need for special care. Even then, many may not comply since habit and convenience often may prevail if the benefits of flame retardancy are considered remote.

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A P P E N D I X A

QUESTIONNAIRES

A P P E N D I X B

BACKGROUND INFORMATION: CONSUMER DEMOGRAPHICS, PREFERENCES AND PRACTICES TOWARDS CHILDREN'S SLEEPWEAR

(TABLES 21 to 42)

Table 21

Demographic Data for Consumer Panel: English-Speaking Respondents

	Original Consumer Panel (N = 862)		Final Consumer Panel (N = 473)	
	Number	%	Number	%
Panelist Age				
19 - 24	52	6.0	19	4.0
25 - 34	379	44.0	198	41.9
35 - 44	319	37.0	187	39.5
45 +	112	13.0	68	14.4
No response			1	0.2
Panelist Employment Status				
Employed	323	37.0	177	37.4
Full-time	144	16.0	69	14.6
Part-time	179	21.0	108	22.8
Not employed	532	62.0	294	62.2
No response	7	1.0	2	0.4
Husband's Employment Status				
Employed	768	89.0	433	91.5
Full-time	750	87.0	424	89.6
Part-time	17	2.0	9	1.9
Not employed	34	4.0	16	3.4
No husband	17	2.0	19	4.0
No response	43	5.0	5	1.1
Family Size				
1	-	-	2	0.4
2	17	2.0	8	1.7
3	147	17.0	83	17.5
4	318	37.0	182	38.5
5	233	27.0	125	26.4
6	95	11.0	50	10.6
7	34	4.0	18	3.8
8	9	1.0	2	0.4
9 or more	9	1.0	3	0.6
Income				
under $10,000	132	15.0	84	17.8
$10,000 - 14,999	229	27.0	138	29.2
$15,000 - 19,999	205	24.0	114	24.1
$20,000 +	296	34.0	137	28.9
Socio-Economic Status	Not available			
1			3	0.6
2			118	24.9
3			65	13.7
4			70	14.8
5			56	11.8
6			96	20.3
7			25	5.3
No response			40	8.5
Province				
Maritimes	96	11.0	48	10.2
Quebec	29	3.0	17	3.6
Ontario	426	49.0	240	50.7
Prairies	186	22.0	99	21.0
British Columbia	125	15.0	69	14.6

Table 22

Demographic Data for Consumer Panel: French-Speaking Respondents

	Original Consumer Panel (N = 270) Number	%	Final Consumer Panel (N = 134) Number	%
Panelist Age				
19 - 24	13	5.0	2	1.5
25 - 34	120	44.0	58	43.3
35 - 44	97	36.0	59	44.0
45 +	40	15.0	15	11.2
No response			0	
Panelist Employment Status				
Employed	74	27.0	42	31.4
Full-time	45	16.0	21	15.7
Part-time	29	11.0	21	15.7
Not employed	189	70.0	87	64.9
No response	7	3.0	5	3.7
Husband's Employment Status				
Employed	222	82.0	109	81.3
Full-time	206	76.0	102	76.1
Part-time	16	6.0	7	5.2
Not employed	21	8.0	9	6.7
No husband	8	3.0	6	4.5
No response	19	7.0	10	7.5
Family Size				
1			1	0.7
2	5	2.0	3	2.2
3	49	18.0	25	18.7
4	89	33.0	40	29.9
5	68	25.0	32	23.9
6	35	13.0	20	14.9
7	11	4.0	5	3.7
8	8	3.0	4	3.0
9 or more	5	2.0	4	3.0
Income				
under $10,000	63	23.0	29	21.6
$10,000 - 14,999	98	36.0	60	44.8
$15,000 - 19,999	48	18.0	25	18.7
$20,000 +	61	23.0	20	14.9
Socio-Economic Status	Not available			
1			1	0.7
2			39	29.1
3			27	20.1
4			18	13.4
5			18	13.4
6			15	11.2
7			5	3.7
No response			11	8.2
Province				
Quebec	270	100.0	134	100.0

Table 23

Preferred Children's Sleepwear Type by Season: English-Speaking Respondents

Item	Summer Number	Summer %	Winter Number	Winter %
Regular pyjamas	384	39.4	335	34.4
Ski-type pyjamas	26	2.7	125	12.8
Sleepers	66	6.8	172	17.7
Long, full nightgowns	103	10.6	228	23.4
Short nightgowns or baby doll pyjamas	207	21.3	10	1.0
Underwear only	92	9.4	30	3.1
Regular daytime clothes	0	---	0	---
Combination of 2	58	6.0	59	6.1
Combination of 3 or more	20	2.1	6	0.6
No response	18	1.8	9	0.9
Total	974	100.0	974	100.0

Table 24

Preferred Children's Sleepwear Type by Season: French-Speaking Respondents

Item	Summer Number	Summer %	Winter Number	Winter %
Regular pyjamas	98	35.0	123	43.9
Ski-type pyjamas	5	1.8	32	11.4
Sleepers	10	3.6	32	11.4
Long, full nightgowns	29	10.4	45	16.1
Short nightgowns or baby doll pyjamas	42	15.0	3	1.1
Underwear only	36	12.9	9	3.2
Regular daytime clothes	1	0.4	0	---
Combination of 2	41	14.6	23	8.2
Combination of 3 or more	15	5.4	11	3.9
No response	3	1.1	2	0.7
Total	280	100.0	280	100.0

Table 25

Preferred Children's Sleepwear Fabric Type by Season: English-Speaking Respondents

Item	Summer Number	Summer %	Winter Number	Winter %
All cotton (100%)	220	22.6	416	42.7
(flannelette)	11	5.0	170	40.9
Over 50% cotton and some polyester	243	24.9	175	18.0
50% cotton and 50% polyester	289	29.7	168	17.2
Over 50% polyester and some cotton	69	7.1	37	3.8
All polyester (100%)	11	1.1	22	2.3
All nylon (100%)	10	1.0	8	0.8
Nylon and polyester blend	17	1.7	28	2.9
Nylon and acetate blend	8	0.8	8	0.8
Other: Acrylic	0	---	10	1.0
No response	107	11.0	102	10.5
Total	974	100.0	974	100.0

Table 26

Preferred Children's Sleepwear Fabric Type by Season: French-Speaking Respondents

Item	Summer Number	Summer %	Winter Number	Winter %
All cotton (100%) (flannelette)	71	25.4	116	41.4
Over 50% cotton and some polyester	61	21.8	43	15.4
50% cotton and 50% polyester	64	22.9	49	17.5
Over 50% polyester and some cotton	16	5.7	14	5.0
All polyester (100%)	10	3.6	9	3.2
All nylon (100%)	2	0.7	2	0.7
Nylon and polyester blend	10	3.6	5	1.8
Nylon and acetate blend	1	0.4	6	2.1
Other: Acrylic	0	---	5	1.8
No response	45	16.1	31	11.1
Total	280	100.0	280	100.0

Table 27

Preferred Boys' Sleepwear Style by Age and Season: English-Speaking Respondents

	1 year and under				2 to 6				7 to 14			
	Summer		Winter		Summer		Winter		Summer		Winter	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Regular pyjamas	4	10.0	0	---	141	75.4	91	48.7	172	62.8	148	54.0
Ski-type pyjamas	1	2.5	2	5.0	6	3.2	37	19.8	18	6.6	77	28.1
Sleepers	26	65.0	37	92.5	12	6.4	46	24.6	1	0.4	6	2.2
Long, full nightgowns	7	17.5	0	---	1	0.5	0	---	0	---		
Short nightgowns or baby doll pyjamas	0	---	0	---	0	---	0	---	0	---		
Underwear only	0	---	0	---	10	5.3	1	0.5	65	23.7	27	9.9
Regular daytime clothes	0	---	0	---	0	---	0	---	0	---		
Combination of 2	1	2.5	1	2.5	12	6.4	10	5.3	15	5.5	11	4.0
Combination of 3 or more	1	2.5	0	---	1	0.5	1	0.5	0	---	1	0.4
No response	0	---	0	---	4	2.1	1	0.5	3	1.1	4	1.5
Total	40	100.0	40	100.0	187	100.0	187	100.0	274	100.0	274	100.0

Table 28

Preferred Boys' Sleepwear Style by Age and Season: French-Speaking Respondents

	1 year and under				2 to 6				7 to 14			
	Summer		Winter		Summer		Winter		Summer		Winter	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Regular pyjamas	4	40.0	2	20.0	40	62.5	29	45.3	40	48.8	57	69.5
Ski-type pyjamas	0	---	1	10.0	2	3.1	15	23.4	1	1.2	8	9.8
Sleepers	3	30.0	7	70.0	2	3.1	12	18.8	1	1.2	1	1.2
Long, full nightgowns	0	---	0	---	0	---	1	1.6	1	1.2	1	1.2
Short nightgowns or baby doll pyjamas	0	---	0	---	0	---	0	---	0	---	0	---
Underwear only	2	20.0	0	---	9	14.1	0	---	25	30.5	9	11.0
Regular daytime clothes	0	---	0	---	0	---	0	---	0	---	0	---
Combination of 2	1	10.0	0	---	9	14.1	7	10.9	9	11.0	2	2.4
Combination of 3 or more	0	---	0	---	2	3.1	0	---	3	3.7	2	2.4
No response	0	---	0	---	0	---	0	---	2	2.4	2	2.4
Total	10	100.0	10	100.0	64	100.0	64	100.0	82	100.0	82	100.0

Table 29

Preferred Girls' Sleepwear Style by Age and Season: English-Speaking Respondents

	1 year and under				2 to 6				7 to 14			
	Summer		Winter		Summer		Winter		Summer		Winter	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Regular pyjamas	0	---	1	3.1	34	21.2	42	26.2	33	11.7	53	18.9
Ski-type pyjamas	0	---	0	---	1	0.6	6	3.7	0	---	3	1.1
Sleepers	21	65.6	26	81.3	3	1.9	34	21.1	3	1.1	23	8.2
Long, full nightgowns	2	6.3	1	3.1	39	24.4	59	36.9	61	21.7	168	59.8
Short nightgowns or baby doll pyjamas	3	9.4	2	6.3	60	37.5	2	1.2	144	51.2	8	2.8
Underwear only	2	6.3	0	---	5	3.1	0	---	3	1.1	0	---
Regular daytime clothes	0	---	0	---	0	---	0	---	0	---	0	---
Combination of 2	1	3.1	1	3.1	13	8.1	14	8.7	16	5.7	22	7.8
Combination of 3 or more	1	3.1	0	---	5	3.1	2	1.2	12	4.3	2	0.7
No response	2	6.3	1	3.1	0	---	1	0.6	9	3.2	2	0.7
Total	32	100.0	32	100.0	160	100.0	160	100.0	281	100.0	281	100.0

Table 30

Preferred Girls' Sleepwear Style by Age and Season: French-Speaking Respondents

	1 year and under				2 to 6				7 to 14			
	Summer		Winter		Summer		Winter		Summer		Winter	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Regular pyjamas	0	---	0	---	4	10.3	10	25.6	10	12.8	25	32.1
Ski-type pyjamas	1	14.3	2	28.6	0	---	2	5.1	1	1.3	4	5.1
Sleepers	1	14.3	4	57.1	2	5.1	7	17.9	1	1.3	1	1.3
Long, full nightgowns	1	14.3	0	---	8	20.5	11	28.2	19	24.4	32	41.0
Short nightgowns or baby doll pyjamas	2	28.6	0	---	17	43.6	2	5.1	23	29.5	1	1.3
Underwear only	0	---	0	---	0	---	0	---	0	---	0	---
Regular daytime clothes	0	---	0	---	0	---	0	---	1	1.3	0	---
Combination of 2	2	28.6	1	14.3	6	15.4	5	12.8	14	17.9	8	10.3
Combination of 3 or more	0	---	0	---	1	2.6	2	5.1	9	11.5	7	9.0
No response	0	---	0	---	1	2.6	0	---	0	---	0	---
Total	7	100.0	7	100.0	39	100.0	39	100.0	78	100.0	78	100.0

Table 31

Preferred Sleepwear Fabric: English-Speaking Respondents

Item	Number	%
Synthetic or man-made fabrics	129	13.2
Natural fabrics	130	13.3
Combination synthetic or natural fabrics	504	51.7
No preference	162	16.6
No response	49	5.0
Total	974	100.0

Table 32

Preferred Sleepwear Fabric: French-Speaking Respondents

Item	Number	%
Synthetic or man-made fabrics	42	11.5
Natural fabrics	47	12.0
Combination synthetic or natural fabrics	160	43.7
No preference	74	20.2
No response	43	11.7
Total	366	100.0

Table 33

Children's Sleepwear Acquisition: English-Speaking Respondents

Item	Number	%
Buy ready-made	717	73.6
Homemade	49	5.0
Passed down from older children	152	15.6
Combination	29	3.0
No response	27	2.8
Total	974	100.0

Table 34

Children's Sleepwear Acquisition: French-Speaking Respondents

Item	Number	%
Buy ready-made	218	59.6
Homemade	41	11.2
Passed down from older children	54	14.8
Combination	39	10.7
No response	14	3.8
Total	366	100.0

Table 35

Place of Children's Sleepwear Acquisition: English-Speaking Respondents

Item	Number	%
Discount store	75	7.7
Regular department store	565	58.0
Specialty store	17	1.7
Mail-order catalogue	105	10.8
Combination	40	4.1
Not bought ready-made	47	4.8
No response	125	12.8
Total	974	100.0

Table 36

Place of Children's Sleepwear Acquisition: French-Speaking Respondents

Item	Number	%
Discount store	36	9.8
Regular department store	187	51.1
Specialty store	21	5.7
Mail-order catalogue	18	4.9
Combination	26	7.1
Not bought ready-made	26	7.1
No response	52	14.2
Total	366	100.0

Table 37

Consumer Decision Not to Purchase Sleepwear Due to Care Label Instructions: English-Speaking Respondents

	Number*	%		
No	86	18.2		
Yes, when label says:	387	81.8		
	Yes		No	
	Number**	%	Number	%
"Do not bleach"	63	13.3	410	86.7
"Wash separately"	299	63.2	174	36.8
"Hang to dry"	150	31.7	323	68.3
"Hand wash"	336	71.0	137	29.0

* Column total = 473
** Row total = 473

Table 38

Consumer Decision Not to Purchase Sleepwear Due to Care Label Instructions: French-Speaking Respondents

	Number*	%		
No	39	29.1		
Yes, when label says:	94	70.9		
	Yes		No	
	Number**	%	Number	%
"Do not bleach"	20	14.9	114	85.1
"Wash separately"	59	44.0	75	56.0
"Hang to dry"	31	23.1	103	76.9
"Hand wash"	77	57.5	57	42.5

* Column total = 134
** Row total = 134

Table 39

Identification of Care Label Symbols: English-Speaking Respondents

Symbol for:	Correct		Incorrect		I do not know	
	Number*	%	Number	%	Number	%
Machine wash warm	348	73.6	95	20.1	30	6.3
Do not dry clean	279	59.0	68	14.4	126	26.6
Iron low	419	88.6	17	3.6	37	7.8
Hang to dry	182	38.5	106	22.4	185	39.1
Tumble dry low	204	43.1	166	35.1	103	21.8
No bleach	387	81.8	58	12.3	28	5.9
Hand wash warm	443	93.7	1	0.2	29	6.1

* Row total = 473

Table 40

Identification of Care Label Symbols: French-Speaking Respondents

Symbol for:	Correct		Incorrect		I do not know	
	Number*	%	Number	%	Number	%
Machine wash warm	47	35.1	66	49.3	21	15.7
Do not dry clean	63	47.0	28	20.9	43	32.1
Iron low	106	79.1	7	5.2	21	15.7
Hang to dry	51	38.1	45	33.6	38	28.4
Tumble dry low	53	39.6	50	37.3	31	23.1
No bleach	104	77.6	6	4.5	24	17.9
Hand wash warm	106	79.1	6	4.5	22	16.4

* Row total = 134

Table 41

Usual Laundering Procedure for Children's Sleepwear: English-Speaking Respondents

Item	Number*	%
Wash Procedure		
Wash by hand	0	---
Wash in wringer or automatic washer	468	98.9
No response	5	1.1
Drying Procedure		
Line dry inside	47	9.9
Line dry outside	17	3.6
Dryer dry	401	84.8
No response	8	1.7
Soap or Detergent		
Powder	459	97.0
Liquid	8	1.7
No response	6	1.3
Bleach		
No	373	78.9
Yes	83	17.6
Powder	42	8.9
Liquid	41	8.7
No response	17	3.6
Stained Item Although Label Says "Do Not Bleach"		
Bleach anyway	59	12.5
Use an all-fabric bleach	215	45.5
Stain removal product	45	9.5
Pre-soak product	19	4.0
Not use any bleach	82	17.3
Other	21	6.3
No response	23	4.9
Fabric Softener		
No	109	23.0
Yes	329	69.5
Liquid	179	37.8
Sheets	145	30.7
Aerosal spray	1	0.2
Dry solid	4	0.8
No response	35	7.4

* Item total = 473

Table 42

Usual Laundering Procedure for Children's Sleepwear: French-Speaking Respondents

Item	Number*	%
Wash Procedure		
Wash by hand	0	---
Wash in wringer or automatic washer	130	97.0
No response	4	3.0
Drying Procedure		
Line dry inside	4	3.0
Line dry outside	72	53.7
Dryer dry	47	35.1
No response	11	8.2
Soap or Detergent		
Powder	129	96.3
Liquid	1	0.7
No response	4	3.0
Bleach		
No	109	81.3
Yes	21	15.7
Powder	6	4.5
Liquid	15	11.2
No response	4	3.0
Stained Item Although Label Says "Do Not Bleach"		
Bleach anyway	23	17.2
Use an all-fabric bleach	42	31.3
Stain removal product	7	5.2
Pre-soak product	6	4.5
Not use any bleach	35	26.1
Other	7	5.2
No response	9	6.7
Fabric Softener		
No	35	26.1
Yes	87	65.0
Liquid	66	49.3
Sheets	21	15.7
Aerosal spray	0	----
Dry solid	0	----
No response	12	9.0

* Item total = 134

A P P E N D I X C

AWARENESS

(TABLES 43 to 49)

Table 43

Sources of Information About Clothing Made to Resist Burning: English-Speaking Respondents

Source	Used Number	%
Friends or family	67	14.2
Sales people	33	7.0
Newspaper or magazines	209	44.2
Bulletins or leaflets	35	7.4
Meetings or classes	13	2.7
Radio/television	185	39.1
Other	17	3.6

Table 44

Sources of Information About Clothing Made to Resist Burning: French-Speaking Respondents

Source	Used Number	%
Friends or family	3	2.2
Sales people	1	0.7
Newspaper or magazines	10	7.5
Bulletins or leaflets	0	---
Meetings or classes	1	0.7
Radio/television	13	9.7
Other	1	0.7

Table 45

Ownership of Textile Items Labelled Flame Resistant, Flame Retardant or Nonflammable: English-Speaking Respondents

Item	Yes		No		I Do Not Know		No Response	
	Number*	%	Number	%	Number	%	Number	%
Children's sleepwear and robes	78	16.5	265	56.0	114	24.1	16	3.4
Mattress pads	24	5.1	304	64.3	132	27.9	13	3.7
Curtains or draperies	94	19.9	244	51.6	123	26.0	12	2.5
Carpets or rugs	49	10.4	272	57.5	139	29.4	13	2.7
Bedspreads	19	4.0	307	64.9	133	28.1	14	13.0

* Row total = 473

Table 46

Ownership of Textile Items Labelled Flame Resistant, Flame Retardant or Nonflammable: French-Speaking Respondents

Item	Yes		No		I Do Not Know		No Response	
	Number*	%	Number	%	Number	%	Number	%
Children's sleepwear and robes	7	5.2	96	71.6	28	20.9	3	2.2
Mattress pads	9	6.7	86	64.2	34	25.4	5	3.7
Curtains or draperies	17	12.7	82	61.2	30	22.4	6	3.7
Carpets or rugs	18	13.4	76	56.7	34	25.4	6	4.5
Bedspreads	7	5.2	89	66.4	32	23.9	6	4.5
Other	2	1.5	0	----	0	----	132	98.5

* Row total = 134

Table 47

Attempts to Purchase Items Labelled Flame Resistant, Flame Retardant or Nonflammable: English-Speaking Respondents

Item	Yes		No		No Response	
	Number*	%	Number	%	Number	%
Children's sleepwear and robes	125	26.4	337	71.2	11	2.3
Mattress pads	34	7.2	423	89.4	16	3.4
Curtains or draperies	82	17.3	375	79.3	16	3.4
Carpets or rugs	46	9.7	410	86.7	17	3.6
Bedspreads	23	4.9	433	91.5	17	3.6

* Row total = 473

Table 48

Attempts to Purchase Items Labelled Flame Resistant, Flame Retardant or Nonflammable: French-Speaking Respondents

Item	Yes		No		No Response	
	Number*	%	Number	%	Number	%
Children's sleepwear and robes	18	13.4	111	82.8	5	3.7
Mattress pads	13	9.7	114	85.1	7	5.2
Curtains or draperies	23	17.2	102	76.1	9	6.7
Carpets or rugs	23	17.2	103	76.9	8	6.0
Bedspreads	10	7.5	117	87.3	7	5.2
Other	2	1.5	0	----	132	98.5

* Row total = 134

Table 49

Factor Analysis of Awareness Scale: Varimax
Rotated Factor Matrix: English-Speaking Respondents

	Factor 1
Questionnaire I, question 13	0.56888
Questionnaire II, question 1	0.64614
Questionnaire II, question 3a	0.31433

A P P E N D I X D

KNOWLEDGE

(TABLES 50 to 55)

Table 50

Knowledge of Canadian Government Flammability Laws (Questionnaire II): English-Speaking Respondents

Item	Yes		No		I Do Not Know		No Response	
	Number*	%	Number	%	Number	%	Number	%
Children's sleepwear, sizes 0 - 6X	189	40.0**	30	6.3	249	52.6	5	1.1
Children's sleepwear, sizes 7 - 14	105	22.2	49	9.7**	310	65.5	12	2.5
Blankets	92	19.5**	71	15.0	297	62.8	13	2.7
Mattresses	62	13.1	82	17.3**	313	66.2	16	3.4
Curtains and draperies	83	17.5	91	19.2	284	60.0	15	3.2
Rugs and carpets	71	15.0**	89	18.8	297	62.8	16	3.4

* Row total = 473
** Correct response

Table 51

Knowledge of Canadian Government Flammability Laws (Questionnaire II): French-Speaking Respondents

Item	Yes		No		I Do Not Know		No Response	
	Number*	%	Number	%	Number	%	Number	%
Children's sleepwear, sizes 0 - 6X	24	17.9**	18	13.4	86	64.2	6	4.5
Children's sleepwear, sizes 7 - 14	19	14.2	18	13.4**	91	67.9	6	4.5
Blankets	29	21.6**	19	14.2	80	59.7	6	4.5
Mattresses	19	14.2	23	17.2**	83	61.9	9	6.7
Curtains and draperies	26	19.4	24	17.9**	79	59.0	5	3.7
Rugs and carpets	22	16.4**	24	17.9	82	61.2	6	4.5

* Row total = 134
** Correct response

Table 52

Consumer Knowledge of Flammability Terminology: English-Speaking Respondents

	Response choice 1	2	3	4	5	6	No response	Total
1. Flammable.....	4	430*	14	8	1	6	10	473
	0.8%	90.9%	3.0%	1.7%	0.2%	1.3%	2.1%	100%
2. Nonflammable.....	373*	5	5	13	45	0	14	473
	78.9%	1.1%	4.9%	2.7%	9.5%	---	3.0%	100%
3. Inflammable.....	83	165*	67	42	58	31	27	473
	17.5%	34.9%	14.2%	8.9%	12.3%	6.6%	5.7%	100%
4. Flame retardant.....	28	1	113	196*	77	40	18	473
	5.9%	0.2%	23.9%	41.4%	16.3%	8.5%	3.8%	100%
5. Flame resistant.....	98	2	85*	49	203	20	16	473
	20.7%	0.4%	18.0%	10.4%	43.0%	4.2%	3.4%	100%

No. 1 - Will not burn when touched with a flame.

No. 2 - Will burn when touched with a flame.

No. 3 - Will burn when touched with a flame but stops when the flame is removed.

No. 4 - Will burn when touched with a flame but will burn for a short time only after the flame is removed.

No. 5 - Will melt but not burn when touched with a flame.

No. 6 - I do not know.

* Correct response

Table 53

Consumer Knowledge of Flammability Terminology: French-Speaking Respondents

	Response Choice 1	2	3	4	5	6	No Response	Total
1. Inflammable.....	6 4.5%	114* 85.1%	3 2.2%	2 1.5%	0 ---	1 0.7%	8 6.0%	134 100%
2. Noninflammable.....	75* 56.0%	6 4.5%	14 10.4%	7 5.2%	12 8.9%	8 6.0%	12 9.0%	134 100%
3. Agent ignifuge...terme impropre..	17 12.7%	3 2.2%	16 11.9%	10* 7.5%	32 23.9%	37 27.6%	19 14.2%	134 100%
4. Ininflammable.....	71* 53.0%	3 2.2%	9 6.7%	6 4.5%	23 17.2%	6 4.5%	16 11.9%	134 100%
5. Retard à l'inflammation... terme impropre	1 0.7%	2 1.5%	24 17.9%	41* 30.6%	23 17.2%	28 20.9%	15 11.2%	134 100%

No. 1 - Will not burn when touched with flame.

No. 2 - Will burn when touched with a flame.

No. 3 - Will burn when touched with a flame but stops when the flame is removed.

No. 4 - Will burn when touched with a flame but will burn for a short time only after the flame is removed.

No. 5 - Will melt but not burn when touched with a flame.

No. 6 - I do not know.

* Correct response

Table 54

Factor Analysis of Knowledge Scale: Varimax Rotated Factor Matrix: English-Speaking Respondents

	Factor 1	Factor 2	Factor 3	Factor 4
Questionnaire I, question 14	0.01606	-0.19240	0.12296	0.25150
Questionnaire II, question 2a	0.15328	-0.21911	0.12831	-0.01224
Questionnaire II, question 2b	-0.01102	0.04973	0.74870	-0.05058
Questionnaire II, question 2c	-0.04432	0.79172	0.19293	0.07081
Questionnaire II, question 2d	0.57830	-0.05886	0.03972	0.10200
Questionnaire II, question 2e	0.56172	-0.08491	-0.08067	-0.30994
Questionnaire II, question 4a	-0.02241	0.06240	-0.06787	0.25470

Table 55

Factor Analysis of Knowledge Scale: Varimax Rotated Factor Matrix: French-Speaking Respondents

	Factor 1	Factor 2	Factor 3	Factor 4
Questionnaire I, question 14	0.00346	0.00180	0.00794	0.43824
Questionnaire II, question 2a	0.73474	0.23523	0.04577	-0.00321
Questionnaire II, question 2b	0.22777	0.69006	0.13075	0.11997
Questionnaire II, question 2c	0.04247	0.36494	-0.22663	-0.01751
Questionnaire II, question 2d	0.40853	0.25170	0.09799	0.35042
Questionnaire II, question 2e	0.10930	-0.01745	0.72657	0.01277
Questionnaire II, question 4a	-0.38891	0.25637	-0.24860	0.01277

A P P E N D I X E

ATTITUDES

(TABLES 56 to 61)

Table 56

Importance of Items Made to Resist Burning: English-Speaking Respondents

Item	All Should Be Made to Resist Burning		The Consumer Should Have the Choice Between Those Made to Resist Burning and Those Not Made to Resist Burning		None Should be Made to Resist Burning		I Have no Opinion		No Response	
	Number*	%	Number	%	Number	%	Number	%	Number	%
Adults' sleepwear	222	46.9	226	47.8	8	1.7	7	1.5	10	2.1
Blankets	288	60.9	165	34.9	4	0.8	5	1.1	11	2.3
Mattresses	315	66.6	135	28.5	5	1.1	8	1.7	10	2.1
Curtains and draperies	283	59.8	166	35.1	9	1.9	5	1.1	10	2.1
Rugs and carpets	273	57.7	172	36.4	9	1.9	8	1.7	11	2.3

* Row total = 473

Table 57

Importance of Items Made to Resist Burning: French-Speaking Respondents

Item	All Should Be Made to Resist Burning		The Consumer Should Have the Choice Between Those Made to Resist Burning and Those Not Made to Resist Burning		None Should Be Made to Resist Burning		I Have no Opinion		No Response	
	Number*	%	Number	%	Number	%	Number	%	Number	%
Adults' sleepwear	61	45.5	48	35.8	2	1.5	14	10.4	9	6.7
Blankets	72	53.7	38	28.4	1	0.7	16	11.9	7	5.2
Mattresses	78	58.2	32	23.9	1	0.7	16	11.9	7	5.2
Curtains and draperies	72	53.7	39	29.1	3	2.2	12	9.0	8	6.0
Rugs and carpets	76	56.7	36	26.9	1	0.7	14	10.4	7	5.2

* Row total = 134

Table 58

Importance of All Clothing Made to Resist Burning: English-Speaking Respondents

Item	All Should Be Made to Resist Burning		The Consumer Should Have the Choice Between Those Made to Resist Burning and Those Not Made to Resist Burning		None Should be Made to Resist Burning		I Have no Opinion		No Response	
	Number*	%	Number	%	Number	%	Number	%	Number	%
People, ages 15 to 44	177	37.4	271	57.3	5	1.1	9	1.9	11	2.3
People, ages 45 to 65	183	38.7	262	55.4	5	1.1	10	2.1	13	3.7
People, over 65 years old	287	60.7	167	35.3	2	0.4	6	1.3	11	2.3
Disabled or handicapped	363	76.7	98	20.7	1	0.2	3	0.6	8	1.7

* Row total = 473

Table 59

Importance of All Clothing Made to Resist Burning: French-Speaking Respondents

Item	All Should Be Made to Resist Burning		The Consumer Should Have the Choice Between Those Made to Resist Burning and Those Not Made to Resist Burning		None Should be Made to Resist Burning		I Have no Opinion		No Response	
	Number*	%	Number	%	Number	%	Number	%	Number	%
People, ages 15 to 44	54	40.3	60	44.8	1	0.7	10	7.5	9	6.7
People, ages 45 to 65	59	44.0	54	40.3	2	1.5	10	7.5	9	6.7
People, over 65 years old	89	66.4	26	19.4	2	1.5	11	8.2	6	4.5
Disabled or handicapped	103	76.9	17	12.7	0	---	9	6.7	5	3.7

* Row total = 134

Table 60

Factor Analysis of Awareness Scale: Varimax
Rotated Factor Matrix: English-Speaking Respondents

	Factor 1
Questionnaire II, question 5a	0.84769
Questionnaire II, question 5b	0.88679
Questionnaire II, question 5c	0.81355
Questionnaire II, question 6a	0.87810
Questionnaire II, question 6b	0.87484
Questionnaire II, question 6c	0.73077

Table 61

Factor Analysis of Awareness Scale: Varimax
Rotated Factor Matrix: French-Speaking Respondents

	Factor 1
Questionnaire II, question 5a	0.88285
Questionnaire II, question 5b	0.85921
Questionnaire II, question 5c	0.79704
Questionnaire II, question 6a	0.85109
Questionnaire II, question 6b	0.80929
Questionnaire II, question 6c	0.75069

A P P E N D I X F

INTERRELATIONSHIPS OF AWARENESS, KNOWLEDGE AND ATTITUDES

(TABLES 62 to 68)

Table 62

Awareness of the Flammability of Children's Sleepwear and Knowledge of Children's Sleepwear Flammability Law (Questionnaire I, Question 14): English-Speaking Respondents

			Level of Awareness			Row Total
			Not Aware	Somewhat Aware	Fully Aware	
Knowledge of Law	Identified law	Count	5	15	9	29
		Row %	17.2	51.7	31.0	6.7
		Column %	2.1	11.6	13.4	
		Total %	1.2	3.5	2.1	
	Partially identified law	Count	35	30	16	81
		Row %	43.2	37.0	19.8	18.7
		Column %	14.8	23.3	23.9	
		Total %	8.1	6.9	3.7	
	Incorrectly identified law	Count	23	19	7	49
		Row %	46.9	38.8	14.3	11.3
		Column %	9.7	14.7	10.4	
		Total %	5.3	4.4	1.6	
	Have not heard of the law	Count	174	65	35	274
		Row %	63.5	23.7	12.8	63.3
		Column %	73.4	50.4	52.2	
		Total %	40.2	15.0	8.1	
Column			237	129	67	433
Total			54.7	29.8	15.5	100.0

raw chi square = 31.46407 with 6 degrees of freedom

significance < 0.0001

number of missing observations = 40

Table 63

Awareness of the Flammability of Children's Sleepwear and Knowledge of the Children's Sleepwear Flammability Law (Questionnaire I, Question 14): French-Speaking Respondents

Knowledge of law		Awareness: Not Aware	Awareness: Somewhat Aware	Row Total
Identified law	Count	3	5	8
	Row %	37.5	62.5	6.5
	Column %	2.9	23.8	
	Total %	2.4	4.0	
Incorrectly identified law	Count	8	2	10
	Row %	80.0	20.0	8.1
	Column %	7.8	9.5	
	Total %	6.5	1.6	
Have not heard of the law	Count	92	14	106
	Row %	86.8	13.2	85.5
	Column %	89.3	66.7	
	Total %	74.2	11.3	
Column		103	21	124
Total		83.1	16.9	100.0

raw chi square = 12.92070 with 2 degrees of freedom

significance = 0.0016

number of missing observations = 10

Table 64

Awareness of the Flammability of Children's Sleepwear and Knowledge of Children's Sleepwear Flammability Law (Questionnaire II, Question 4): English-Speaking Respondents

			Level of Awareness			Row Total
			Not Aware	Somewhat Aware	Fully Aware	
Knowledge of law	Yes	Count	83	64	30	177
		Row %	46.9	36.2	16.9	41.0
		Column %	35.3	50.0	43.5	
		Total %	19.2	14.8	6.9	
	No	Count	152	64	39	255
		Row %	59.6	25.1	15.3	59.0
		Column %	64.7	50.0	56.5	
		Total %	35.2	14.8	9.0	
Column			235	128	69	432
Total			54.4	29.6	16.0	100.0

raw chi square = 7.59784 with 2 degrees of freedom

significance = 0.0224

number of missing observations = 41

Table 65

Awareness of the Flammability of Children's Sleepwear and Knowledge of the Term "Retard à l'inflammation:" French-Speaking Respondents

Knowledge		Awareness: Not Aware	Awareness: Somewhat Aware	Row Total
Yes	Count	57	5	62
	Row %	91.9	8.1	50.0
	Column %	55.3	23.8	
	Total %	46.0	4.0	
No	Count	30	7	37
	Row %	81.1	18.9	29.8
	Column %	29.1	33.3	
	Total %	24.2	5.6	
Do not know	Count	16	9	25
	Row %	64.0	36.0	20.2
	Column %	15.5	42.9	
	Total %	12.9	7.3	
Column		103	21	124
Total		83.1	16.9	100.0

raw chi square = 10.03100 with 2 degrees of freedom

significance = .0066

number of missing observations = 10

Table 66

Awareness of the Flammability of Children's Sleepwear and Attitudes Towards Children's Flame-Retardant Sleepwear: English-Speaking Respondents

			Level of Awareness			Row Total
			Not Aware	Somewhat Aware	Fully Aware	
Attitudes	All children's sleepwear should be made flame retardant	Count	140	68	43	251
		Row %	55.8	27.1	17.1	61.1
		Column %	62.2	56.2	66.2	
		Total %	34.1	16.5	10.5	
	Some reservations about all children's sleepwear being made flame retardant	Count	34	37	17	88
		Row %	38.6	42.0	19.3	21.4
		Column %	15.1	30.6	26.2	
		Total %	8.3	9.0	4.1	
	Preferably consumers should have the choice between children's sleepwear made flame retardant and that not made flame retardant	Count	51	16	5	72
		Row %	70.8	22.2	6.9	17.5
		Column %	22.7	13.2	7.7	
		Total %	12.4	3.9	1.2	
Column			225	121	65	411
Total			54.7	29.4	15.8	100.0

raw chi square = 18.65826 with 4 degrees of freedom

significance = 0.0009

number of missing observations = 62

Table 67

Knowledge of the Children's Sleepwear Flammability Law (Questionnaire II) and Attitudes Towards Children's Flame-Retardant Sleepwear: English-Speaking Respondents

			Knowledge of Law		Row
			Yes	No	Total
Attitudes	All children's sleepwear should be made flame retardant	Count	121	148	269
		Row %	45.0	55.0	60.9
		Column %	66.9	56.7	
		Total %	27.4	33.5	
	Some reservations about all children's sleepwear being made flame retardant	Count	42	55	97
		Row %	43.3	56.7	21.9
		Column %	23.2	21.1	
		Total %	9.5	12.4	
	Preferably consumers should have the choice between children's sleepwear made flame retardant and that not made flame retardant	Count	18	58	76
		Row %	23.7	76.3	17.2
		Column %	9.9	22.2	
		Total %	4.1	13.1	
Column			181	261	442
Total			41.0	59.0	100.0

raw chi square = 11.39871 with 2 degrees of freedom

significance = 0.0033

number of missing observations = 31

Table 68

Knowledge of the Children's Sleepwear Flammability Law (Questionnaire II) and Attitudes Towards Children's Flame-Retardant Sleepwear: French-Speaking Respondents

			Knowledge of Law		Row
			Yes	No	Total
Attitudes	All children's sleepwear should be made flame retardant	Count	19	50	69
		Row %	27.5	72.5	63.3
		Column %	82.6	58.1	
		Total %	17.4	45.9	
	Some reservations about all children's sleepwear being made flame retardant	Count	4	14	18
		Row %	22.2	77.8	16.5
		Column %	17.4	16.3	
		Total %	3.7	12.8	
	Preferably consumers should have the choice between children's sleepwear made flame retardant and that not made flame retardant	Count	0	22	22
		Row %	----	100.0	20.2
		Column %	----	25.6	
		Total %	----	20.2	
Column			23	86	109
Total			21.1	78.9	100.0

raw chi square = 7.61370 with 2 degrees of freedom

significance = 0.0222

number of missing observations = 25

A P P E N D I X G

AWARENESS, KNOWLEDGE, ATTITUDES AND BIOGRAPHICAL CHARACTERISTICS

(TABLES 69 to 77)

Table 69

Awareness of the Flammability of Children's Sleepwear and Age of the Consumer: French-Speaking Respondents

Age		Awareness		Row Total
		Not Aware	Somewhat Aware	
19 to 34	Count	53	4	57
	Row %	93.0	7.0	46.0
	Column %	51.5	19.0	
	Total %	42.7	3.2	
35 to 44	Count	40	12	52
	Row %	76.9	23.1	41.9
	Column %	38.8	57.1	
	Total %	32.3	9.7	
45 and older	Count	10	5	15
	Row %	66.7	33.3	12.1
	Column %	9.7	23.8	
	Total %	8.1	4.0	
Column		103	21	124
Total		83.1	16.9	100.0

raw chi square = 8.24708 with 2 degrees of freedom

significance = 0.0162

number of missing observations = 10

Table 70

Knowledge of the Term "Inflammable" and Age: English-Speaking Respondents

			Age				Row Total
			19-24	25-34	35-44	Over 45	
Knowledge of "inflammable"	Correct	Count	8	71	105	38	222
		Row %	3.6	32.0	47.3	17.1	47.0
		Column %	42.1	35.9	56.1	55.9	
		Total %	1.7	15.0	22.2	8.1	
	Incorrect	Count	11	127	82	30	250
		Row %	4.4	50.8	32.8	12.0	53.0
		Column %	57.9	64.1	43.9	44.1	
		Total %	2.3	26.9	17.4	6.4	
Column			19	198	187	68	472
Total			4.0	41.9	39.6	14.4	100.0

raw chi square = 18.486 with 3 degrees of freedom

significance = 0.001

number of missing observations = 1

Table 71

Knowledge of the Term "Flammable" and Previous Experience with Textile Fires: English-Speaking Respondents

			Fire Experience		Row
			Involving Textiles	No Experience	Total
Knowledge of "Flammable"	Correct	Count	183	244	427
		Row %	42.9	57.1	90.3
		Column %	93.8	87.8	
		Total %	38.7	51.6	
	Incorrect	Count	12	34	46
		Row %	26.1	73.9	9.7
		Column %	6.2	12.2	
		Total %	2.5	7.2	
Column			195	278	473
Total			41.2	58.8	100.0

raw chi square = 4.153 with 1 degree of freedom

significance = 0.042

number of missing observations = 0

Table 72

Knowledge of the Term "Inflammable" and Previous Experience with Textile Fires: English-Speaking Respondents

			Fire Experience		Row Total
			Involving Textiles	No Experience	
Knowledge of "Inflammable"	Correct	Count	56	111	167
		Row %	33.5	66.5	35.3
		Column %	28.7	39.9	
		Total %	11.8	23.5	
	Incorrect	Count	139	167	306
		Row %	45.4	54.6	64.7
		Column %	71.3	60.1	
		Total %	29.4	35.3	
Column			195	278	473
Total			41.2	58.8	100.0

raw chi square = 5.824 with 1 degree of freedom

significance = 0.016

number of missing observations = 0

Table 73

Knowledge of the Law (Questionnaire II) and Age: French-Speaking Respondents

			Age			Row Total
			18-34	35-44	Over 45	
Knowledge of law	Correct	Count	7	8	9	24
		Row %	29.2	33.3	37.5	18.8
		Column %	5.0	14.3	15.5	
		Total %	5.5	6.3	7.0	
	Incorrect	Count	7	48	49	104
		Row %	6.7	46.2	47.1	81.3
		Column %	50.0	85.7	84.5	
		Total %	5.5	37.5	38.3	
Column			14	56	58	128
Total			10.9	43.8	45.3	100.0

raw chi square = 10.105 with 2 degrees of freedom

significance = 0.006

number of missing observations = 6

Table 74

Knowledge of the Term "Noninflammable" and Age: French-Speaking Respondents

		Age			Row Total
		18-34	35-44	Over 45	
Knowledge of "Noninflammable"					
Correct	Count	5	29	41	75
	Row %	6.7	38.7	54.7	56.0
	Column %	33.3	49.2	68.3	
	Total %	3.7	21.6	30.6	
Incorrect	Count	10	30	19	59
	Row %	16.9	50.8	32.2	44.0
	Column %	66.7	50.8	31.7	
	Total %	7.5	22.4	14.2	
Column		15	59	60	134
Total		11.2	44.0	44.8	100.0

raw chi square = 7.953 with 2 degrees of freedom

significance = 0.019

number of missing observations = 0

Table 75

Knowledge of the Term "Noninflammable" and Family Size: French-Speaking Respondents

		Family Size					Row Total
		1-3 people	4 people	5 people	6 people	7-9 people	
Knowledge of "noninflammable"							
Correct	Count	17	27	14	14	3	75
	Row %	22.7	36.0	18.7	18.7	4.0	56.0
	Column %	56.7	67.5	43.8	70.0	25.0	
	Total %	12.7	20.1	10.4	10.4	2.2	
Incorrect	Count	13	13	18	6	9	59
	Row %	22.0	22.0	30.5	10.2	15.3	44.0
	Column %	43.3	32.5	56.3	30.0	75.0	
	Total %	9.7	9.7	13.4	4.5	6.7	
Column		30	40	32	20	12	134
Total		22.4	29.9	23.9	14.9	9.0	100.0

raw chi square = 10.371 with 4 degrees of freedom

significance = .035

number of missing observations = 0

Table 76

Knowledge of the Term "Agent ignifuge" and Socio-Economic Status: French-Speaking Respondents

terme impropre

			Socio-Economic Status					Row Total
			1 & 2	3	4	5	6 & 7	
Knowledge of "agent ignifuge" (terme impropre)	Correct	Count	2	6	0	1	0	9
		Row %	22.2	66.7	---	11.1	---	7.3
		Column %	5.0	22.2	---	5.6	---	
		Total %	1.6	4.9	---	0.8	---	
	Partially correct	Count	4	2	5	0	5	16
		Row %	25.0	12.5	31.3	---	31.3	13.0
		Column %	10.0	7.4	27.8	---	25.0	
		Total %	3.3	1.6	4.1	---	4.1	
	Incorrect	Count	34	19	13	17	15	98
		Row %	34.7	19.4	13.3	17.3	15.3	79.7
		Column %	85.0	70.4	72.2	94.4	75.0	
		Total %	27.6	15.4	10.6	13.8	12.2	
Column			40	27	18	18	20	123
Total			32.5	22.0	14.6	14.6	16.3	100.0

raw chi square = 20.957 with 8 degrees of freedom

significance = 0.007

number of missing observations = 11

Table 77 → terme impropre

Knowledge of the Term "Retard à l'inflammation" and Socio-Economic Status: French-Speaking Respondents

			Socio-Economic Status					Row Total
			1 & 2	3	4	5	6 & 7	
Knowledge of "retard à ~~l'information~~" l'inflammation → terme impropre	Correct	Count	15	2	5	9	8	39
		Row %	38.5	5.1	12.8	23.1	20.5	31.7
		Column %	37.5	7.4	27.8	50.0	40.0	
		Total %	12.2	1.6	4.1	7.3	6.5	
	Partially Correct	Count	6	11	2	3	2	24
		Row %	25.0	45.8	8.3	12.5	8.3	19.5
		Column %	15.0	40.0	11.1	16.7	10.0	
		Total %	4.9	8.9	1.6	2.4	1.6	
	Incorrect	Count	19	14	11	6	10	60
		Row %	31.7	23.3	18.3	10.0	16.7	48.8
		Column %	47.5	51.9	61.1	33.3	50.0	
		Total %	15.4	11.4	8.9	4.9	8.1	
Column			40	27	18	18	20	123
Total			32.5	22.0	14.6	14.6	16.3	100.0

raw chi square = 17.692 with 8 degrees of freedom

significance = 0.024

number of missing observations = 11

A P P E N D I X H

ATTITUDES TOWARDS GOVERNMENT REGULATION: GENERAL VS. FLAMMABILITY OF TEXTILES

(TABLES 78 to 83)

Table 78

Results of Attitudes Towards Regulation of General Product Safety and Textile Flammability Using Wilcoxon Matched-Pairs Signed-Ranks Test: English-Speaking Respondents

*Statements	-Ranks	+Ranks	No Opinion Change	Total Cases	Order by Rank Difference	Z-Value	P-Value (2-tailed)
1. It is the government's job to make sure that everything sold is safe (1) for use. (2) against the danger of fire.	31 7.0%	182 41.0%	230 52.0%	443 100.0%	1	-9.914	0.000**
2. Adults should have complete freedom of choice in buying and, therefore, the governement is interfering where it shouldn't when it passes laws like (1) the one requiring seat belts in cars, child-proof medicine bottle caps and safety guidelines for toys. (2) one requiring clothing and other materials be made to resist burning.	141 32.0%	31 7.0%	271 61.0%	443 100.0%	5	-7.455	0.000**
3. We do not need laws requiring that products be made (1) safe, (2) flame resistant, because stores would not sell products that are dangerous.	32 7.0%	22 5.0%	395 88.0%	449 100.0%	-	-0.451	0.645

Table 78 (continued)

4. It is the responsibility of the government to protect consumers from clothing or other textile products that might (1) be dangerous. (2) burn.	41 9.0%	163 37.0%	242 54.0%	446 100.0	3	-7.655	0.000**
5. Consumers should take the responsibility for clothing or other textile products that might (1) be dangerous, (2) burn, not the government.	159 36.0%	42 9.0%	243 55.0%	444 100.0%	4	-7.368	0.000**
6. It is the responsibility of clothing manufacturers to protect consumers from clothing or other textile products which might (1) be dangerous. (2) burn.	26 5.8%	158 35.5%	261 58.7%	445 100.0%	2	-8.395	0.000**
7. The consumer would be better off if the government would not interfere with (1) what is being bought in stores. (2) clothing bought in stores.	95 21.0%	31 7.0%	325 72.0%	451 100.0%	7	-5.158	0.000**

Table 78 (continued)

8. In order to eliminate more accidents, the government should carry out programs to educate the public about (1) products that might be dangerous, (2) such things as fire hazards, rather than pass laws requiring that (1) products be made safe. (2) clothing and other materials be made to resist burning.	157 34.4%	72 16.3%	214 48.3%	443 100.0	6	-4.795	0.000**
9. Since everyone is safety-minded today, the government does not need to check (1) products (2) clothing and other materials for safety before they are sold.	52 12.0%	9 2.0%	391 86.5%	452 100.0%	8	-4.938	0.000**

*Within each statement the division '(1)' refers to those statements about regulation of general product safety in questionnaire one; '(2)' refers to those statements about regulation of textile flammability in questionnaire two.
**Significant beyond 0.050 level.

Table 79

Results of Attitudes Towards Regulation of General Product Safety and Textile Flammability Using Wilcoxon Matched-Pairs Signed-Ranks Test: French-Speaking Respondents

*Statements	-Ranks	+Ranks	No Opinion Change	Total Cases	Order by Rank Difference	-Value	P-Value (2-tailed)
1. It is the government's job to make sure that everything sold is safe (1) for use. (2) against the danger of fire.	15 11.9%	31 24.6%	80 63.4%	126 100.0%	7	-2.027	0.043**
2. Adults should have complete freedom of choice in buying and, therefore, the governement is interfering where it shouldn't when it passes laws like (1) the one requiring seat belts in cars, child-proof medicine bottle caps and safety guidelines for toys. (2) one requiring clothing and other materials be made to resist burning.	30 25.0%	20 16.7%	70 58.4%	120 100.0%	9	-0.584	0.559
3. We do not need laws requiring that products be made (1) safe, (2) flame resistant, because stores would not sell products that are dangerous.	21 17.5%	3 2.5%	96 80.0%	120 100.0%	5	-2.957	0.003**

Table 79 (continued)

4. It is the responsibility of the government to protect consumers from clothing or other textile products that might (1) be dangerous. (2) burn.	9 7.6%	29 24.4%	81 68.1%	119 100.0%	3	-3.125	0.002**
5. Consumers should take the responsibility for clothing or other textile products that might (1) be dangerous, (2) burn, not the government.	37 30.6%	14 11.6%	70 57.9%	121 100.0%	2	-2.920	0.004**
6. It is the responsibility of clothing manufacturers to protect consumers from clothing or other textile products which might (1) be dangerous. (2) burn.	13 10.9%	31 26.1%	75 63.0%	119 100.0%	4	-1.902	0.057
7. The consumer would be better off if the government would not interfere with (1) what is being bought in stores. (2) clothing bought in stores.	26 21.5%	9 7.4%	86 71.1%	121 100.0%	6	-3.358	0.001**

Table 79 (continued)

8. In order to eliminate more accidents, the government should carry out programs to educate the public about (1) products that might be dangerous, (2) such things as fire hazards, rather than pass laws requiring that (1) products be made safe. (2) clothing and other materials be made to resist burning.	54 44.3%	13 10.7%	55 45.1%	122 100.0%	1	-4.969	0.000**
9. Since everyone is safety-minded today, the government does not need to check (1) products (2) clothing and other materials for safety before they are sold.	16 13.4%	3 2.5%	100 84.0%	119 100.0%	8	-2.213	0.027**

* Within each statement the division "(1)" refers to those statements about regulation of general product safety in questionnaire one; "(2)" refers to those statements about regulation of textile flammability in questionnaire two.

** significance beyond 0.050 level.

Table 80

Statements of Attitudes Towards Regulation of General Product Safety: English-Speaking Respondents

Statement	Agree (1)	(2)	No Opinion (3)	(4)	Disagree (5)	No Response
1. It is the government's job to make sure that everything that is sold is safe for use.	326 68.9%	64 13.5%	20 4.2%	16 3.4%	26 5.5%	21 4.4%
2. Adults should have complete freedom of choice in buying and, therefore, the government is interfering where it shouldn't when it passes laws like the one requiring seat belts in cars, childproof medicine bottle caps and safety guidelines for toys.	22 4.7%	13 2.7%	14 3.0%	22 4.7%	384 81.2%	18 3.8%
3. We do not need laws requiring that products be made safe because stores would not sell products that are dangerous.	16 3.4%	1 0.2%	4 0.8%	9 1.9%	428 90.5%	15 3.2%
4. It is the responsibility of the government to protect consumers from clothing or other textile products that might be dangerous.	332 70.2%	58 12.3%	17 3.6%	12 2.6%	40 8.5%	14 3.0%
5. Consumers should take the responsibility for clothing or other textile products that might be dangerous, not the government.	42 8.9%	41 8.7%	24 5.1%	37 7.8%	311 65.8%	18 3.8%
6. It is the responsibility of clothing manufacturers to protect consumers from clothing or other textile products which might be dangerous.	361 76.3%	54 11.4%	12 2.5%	6 1.3%	24 5.1%	16 3.4%
7. The consumer would be better off if the government would not interfere with what is being bought in stores.	2 0.4%	8 1.7%	30 6.3%	27 5.7%	392 82.9%	14 3.0%
8. In order to eliminate more accidents, the government should carry out programs to educate the public about products that might be dangerous rather than pass laws requiring that products be made safe.	143 30.2%	48 10.1%	36 7.6%	27 5.7%	200 42.3%	19 4.0%
9. Since everyone is safety-minded today, the government does not need to check the products for safety before they are sold.	3 0.6%	0 ---	6 1.3%	14 3.0%	437 92.4%	13 2.7%

*row total = 473

Table 81

Statements of Attitudes Towards Regulation of General Product Safety: French-Speaking Respondents

Statement	Agree (1)	(2)	No Opinion (3)	(4)	Disagree (5)	No Response
1. It is the government's job to make sure that everything that is sold is safe for use.	99 73.9%	7 5.2%	6 4.5%	1 0.7%	15 11.2%	6 4.5%
2. Adults should have complete freedom of choice in buying and, therefore, the government is interfering where it shouldn't when it passes laws like the one requiring seat belts in cars, childproof medicine bottle caps and safety guidelines for toys.	23 17.2%	2 1.5%	4 3.0%	2 1.5%	91 67.9%	12 9.0%
3. We do not need laws requiring that products be made safe because stores would not sell products that are dangerous.	3 2.2%	3 2.2%	1 0.7%	118 88.1%	0 ---	9 6.7%
4. It is the responsibility of the government to protect consumers from clothing or other textile products that might be dangerous.	104 77.6%	11 8.2%	3 2.2%	1 0.7%	6 4.5%	9 6.7%
5. Consumers should take the responsibility for clothing or other textile products that might be dangerous, not the government.	19 14.2%	8 6.0%	12 9.0%	5 3.7%	80 59.7%	10 7.5%
6. It is the responsibility of clothing manufacturers to protect consumers from clothing or other textile products which might be dangerous.	91 67.9%	10 7.5%	9 6.7%	1 0.7%	12 9.0%	11 8.2%
7. The consumer would be better off if the government would not interfere with what is being bought in stores.	3 2.2%	2 1.5%	8 6.0%	5 3.7%	106 79.1%	10 7.5%
8. In order to eliminate more accidents, the government should carry out programs to educate the public about products that might be dangerous rather than pass laws requiring that products be made safe.	40 29.9%	9 6.7%	20 14.9%	3 2.2%	53 39.6%	9 6.7%
9. Since everyone is safety-minded today, the government does not need to check the products for safety before they are sold.	2 1.5%	0 ---	4 3.0%	4 3.0%	115 85.8%	9 6.7%

*row total = 134

Table 82

Statements of Attitudes Towards Regulation of Textile Flammability: English-Speaking Respondents

Statement	Agree (1)	(2)	No Opinion (3)	(4)	Disagree (5)	No Response
1. It is the government's job to make sure that everything sold is safe against the danger of fire.	211 44.6%	73 15.4%	41 8.7%	31 6.6%	106 22.4%	11 2.3%
2. Adults should have complete freedom of choice in buying and, therefore, the government is interfering where it shouldn't when it passes laws like one requiring clothing and other materials be made to resist burning.	52 11.0%	39 8.2%	41 8.7%	48 10.1%	280 59.2%	13 2.7%
3. We do not need laws requiring that fabrics be made flame resistant because stores would not sell fabrics that are dangerous.	11 2.3%	1 0.2%	17 3.6%	16 3.4%	419 88.6%	9 1.9%
4. It is the responsibility of the government to protect consumers from clothing or other textile products which might burn.	220 46.5%	88 18.6%	36 7.6%	40 8.5%	75 15.9%	14 3.0%
5. Consumers should take the responsibility for clothing or other textile products that might burn, not the government.	93 19.7%	66 14.0%	36 7.6%	48 10.1%	217 45.9%	13 2.7%
6. It is the responsibility of clothing manufacturers to protect consumers from clothing or other textile products which might burn.	246 52.0%	84 17.8%	42 8.9%	23 4.9%	64 13.5%	14 3.0%
7. The consumer would be better off if the government would not interfere with clothing that is being bought in stores.	18 3.8%	11 2.3%	57 12.1%	36 7.6%	341 72.1%	10 2.1%
8. In order to eliminate more accidents, the government should carry out programs to educate the public about such things as fire hazards rather than pass laws requiring that clothing and other materials be made to resist burning.	189 40.0%	57 12.1%	45 9.5%	45 9.5%	126 26.6%	11 2.3%
9. Since everyone is safety-minded today, the government does not need to check clothing and other materials for safety before they are sold.	9 1.9%	6 1.3%	26 5.5%	26 5.5%	398 84.1%	8 1.7%

* row total = 473

Table 83

Statements of Attitudes Towards Regulation of Textile Flammability: French-Speaking Respondents

Statement	Agree (1)	(2)	No Opinion (3)	(4)	Disagree (5)	No Response
1. It is the government's job to make sure that everything sold is safe against the danger of fire.	80 59.7%	11 8.2%	20 14.9%	4 3.0%	16 11.9%	3 2.2%
2. Adults should have complete freedom of choice in buying and, therefore, the government is interfering when it shouldn't when it passes laws like the one requiring clothing and other materials be made to resist burning.	20 14.9%	7 5.2%	16 11.9%	7 5.2%	81 60.4%	3 2.2%
3. We do not need laws requiring that fabrics be made of flame-resistant material because stores should not sell dangerous products.	10 7.5%	4 3.0%	12 9.0%	4 3.0%	98 73.1%	6 4.5%
4. It is the government's responsibility to protect consumers in clothing or other textile items which might burn.	87 64.9%	11 8.2%	11 8.2%	6 4.5%	12 9.0%	7 5.2%
5. Consumers should take the responsibility for clothing or other textile products that might burn, not the government.	31 23.1%	16 11.9%	12 9.0%	5 3.7%	65 48.5%	5 3.7%
6. It is the responsibility of clothing manufacturers to protect consumers from clothing or other textile items that might burn.	77 57.5%	17 12.7%	15 11.2%	2 1.5%	18 13.4%	5 3.7%
7. The consumer would be better off if the government would not interfere with clothing that is being bought in stores.	7 5.2%	3 2.2%	24 17.9%	7 5.2%	89 66.4%	4 3.0%
8. In order to eliminate more accidents, the government should carry out programs to educate the public about such things as fire hazards rather than pass laws requiring that clothing and other materials be made to resist burning.	75 56.0%	9 6.7%	22 16.4%	5 3.7%	19 14.2%	4 3.0%
9. Since everyone is safety-minded today, the government does not need to check clothing and other materials for safety before they are sold.	6 4.5%	2 1.5%	8 6.0%	6 4.5%	105 78.4%	7 5.2%

*row total = 134

A P P E N D I X I

EVALUATIVE CRITERIA FOR SLEEPWEAR CURRENTLY USED AND FOR FLAME-RETARDANT SLEEPWEAR

(TABLES 84 to 89)

Table 84

Comparison of Evaluative Criteria for Children's Sleepwear Currently in Use and Children's Flame-Retardant Sleepwear Using Wilcoxon Matched-Pairs Signed-Ranks Test: English-Speaking Respondents

Item	-Ranks	+Ranks	No Opinion Change	Total Cases	Order by Rank Difference	Z-Value	P-Value (2-tailed)
1. long wearing/loss of fabric strength	122 27.4%	109 24.5%	214 48.1%	445 100.0%	-	-0.157	0.875
2. easy care/use heavy-duty liquid detergent	30 7.0%	263 61.0%	138 32.0%	431 100.0%	2	-13.039	0.000
3. easy care/no hard water	36 9.0%	240 57.0%	142 34.0%	418 100.0%	4	-12.002	0.000
4. easy care/no chlorine bleach	53 13.0%	118 28.0%	251 59.0%	422 100.0%	10	-5.448	0.000
5. easy care/no fabric softener	42 10.0%	194 46.0%	183 44.0%	419 100.0%	7	-10.215	0.000
6. easy care/no hot dryers	45 10.0%	179 42.0%	207 48.0%	431 100.0%	9	-8.977	0.000
7. low price/price increase up to $0.99	233 55.0%	44 10.0%	144 34.0%	421 100.0%	5	-9.416	0.000
8. low price/price increase $1.00 to $1.99	182 44.0%	126 30.4%	106 25.6%	414 100.0%	-	-1.770	0.077
9. low price/price increase $2.00 to $2.99	77 19.0%	253 63.0%	70 18.0%	400 100.0%	6	-10.614	0.000
10. low price/price increase $3.00 to $3.99	52 13.0%	294 73.0%	57 14.0%	403 100.0%	1	-13.056	0.000
11. style/restrictions on style	239 55.0%	96 22.0%	99 23.0%	434 100.0%	8	-7.095	0.000
12. style/restrictions on trims	284 65.0%	62 14.0%	91 21.0%	437 100.0%	3	-11.528	0.000
13. fabric/loss of softness	125 28.0%	169 38.0%	150 34.0%	444 100.0%	11	-4.307	0.000

Table 85

Comparison of Evaluative Criteria for Children's Sleepwear Currently in Use and Children's Flame-Retardant Sleepwear Using Wilcoxon Matched-Pairs Signed-Ranks Test: French-Speaking Respondents

Item	-Ranks	+Ranks	No Opinion Change	Total Cases	Order by Rank Difference	Z-Value	P-Value (2-tailed)
1. long wearing/loss of fabric strength	25 20.2%	49 39.5%	50 40.3%	124 100.0%	12	-3.324	0.001
2. easy care/use heavy-duty liquid detergent	7 5.8%	90 75.0%	23 19.2%	120 100.0%	1	-8.130	0.000
3. easy care/no hard water	8 7.0%	68 59.1%	39 33.9%	115 100.0%	3	-6.927	0.000
4. easy care/no chlorine bleach	12 10.2%	49 41.9%	56 47.9%	117 100.0%	9	-5.100	0.000
5. easy care/no fabric softener	8 6.8%	64 54.2%	56 47.4%	118 100.0%	5	-6.734	0.000
6. easy care/no hot dryers	8 6.7%	59 49.5%	52 43.7%	119 100.0%	6	-6.037	0.000
7. low price/price increase up to $0.99	59 52.7%	28 25.0%	25 22.3%	112 100.0%	10	-2.851	0.004
8. low price/price increase $1.00 to $1.99	41 38.3%	37 34.6%	29 27.1%	107 100.0%	-	-0.931	0.352
9. low price/price increase $2.00 to $2.99	15 14.3%	73 69.5%	17 16.2%	105 100.0%	4	-6.487	0.000
10. low price/price increase $3.00 to $3.99	9 8.5%	77 72.6%	20 18.9%	106 100.0%	2	-7.060	0.000
11. style/restrictions on style	57 50.0%	29 25.4%	28 24.6%	114 100.0%	11	-2.250	0.024
12. style/restrictions on trim	61 53.9%	20 17.8%	32 28.3%	113 100.0%	8	-4.332	0.000
13. fabric/restrictions (loss of fabric softener)	23 19.1%	65 54.2%	32 26.7%	120 100.0%	7	-4.581	0.000

Table 86

Evaluative Criteria for Children's Sleepwear Currently in Use: English-Speaking Respondents

Item	Very Important (1)	(2)	Somewhat Important (3)	(4)	Unimportant (5)	No Response
long wearing	291 61.5%	58 12.3%	91 19.2%	5 1.1%	7 1.5%	21* 4.4%
low shrinkage	365 77.2%	46 9.7%	40 8.5%	1 0.2%	2 0.4%	19 4.0%
easy care	353 74.6%	38 8.0%	52 11.0%	1 0.2%	3 0.6%	26 5.5%
low price	169 35.7%	57 12.1%	190 40.2%	20 4.2%	10 2.1%	27 5.7%
styling	61 12.9%	48 10.1%	237 50.1%	49 10.4%	46 9.7%	32 6.8%
colour	32 6.8%	32 6.8	193 40.8%	71 15.0%	113 23.9%	32 6.8%
fabric	217 45.9%	95 20.1%	130 27.5%	4 0.8%	6 1.3%	21 4.4%

* row total = 473

Table 87

Evaluative Criteria for Children's Sleepwear Currently in Use: French-Speaking Respondents

Item	Very Important (1)	(2)	Somewhat Important (3)	(4)	Unimportant (5)	No Response
long wearing	85 63.7%	5 3.7%	33 24.6%	3 2.2%	3 2.2%	5 3.7%
low shrinkage	62 46.3%	18 13.4%	32 23.9%	1 0.7%	2 1.5%	19 14.2%
easy care	104 77.6%	8 6.0%	12 9.0%	1 0.7%	1 0.7%	8 6.0%
low price	39 29.1%	8 6.0%	55 41.0%	6 4.5%	10 7.5%	16 11.9%
styling	17 12.7%	10 7.5%	47 35.1%	9 6.7%	32 23.9%	19 14.2%
colour	14 10.4%	11 8.2%	37 27.6%	15 11.2%	45 33.6%	12 9.0%
fabric	63 47.0%	12 9.0%	38 28.4%	3 2.2%	8 6.0%	10 7.5%

* row total = 134

Table 88

Consumer Acceptance of Changes in Evaluative Criteria for Children's Flame-Retardant Sleepwear: English-Speaking Respondents

Item	Definitely Would Accept (1)	(2)	Uncertain (3)	(4)	Definitely Would Not Accept (5)	No Response
a. loss of fabric strength	314	65	55	11	21	7*
	66.4%	13.7%	11.6%	2.3%	4.4%	1.5%
b. loss of softness	193	81	122	24	44	9
	40.8%	17.1%	25.8%	5.1%	9.3%	1.9%
c. special care:						
use heavy-duty liquid detergent	148	51	104	36	116	18
	31.3%	10.8%	22.0%	7.6%	24.5%	3.8%
no hard water	164	55	83	23	117	31
	34.7%	11.6%	17.5%	4.9%	24.7%	6.6%
no chlorine bleach	292	48	57	15	33	28
	61.7%	10.1%	12.1%	3.2%	7.0%	5.9%
no fabric softener	208	41	97	21	75	31
	41.0%	8.7%	20.5%	4.4%	15.9%	6.6%
no hot dryer	238	49	79	22	68	17
	50.3%	10.4%	16.7%	4.7%	14.4%	3.6%
d. style restrictions	231	48	95	27	64	8
	48.8%	10.1%	20.1%	5.7%	13.5%	1.7%
e. trim restrictions	304	40	74	21	29	5
	64.3%	8.5%	15.6%	4.4%	6.1%	1.1%
f. price increase:						
up to $0.99	363	34	25	5	18	28
	76.7%	7.2%	5.3%	1.1%	3.8%	5.9%
$1.00 to $1.99	207	91	79	12	49	35
	43.8%	19.2%	16.7%	2.5%	10.4%	7.4%
$2.00 to $2.99	68	42	116	50	146	51
	14.4%	8.9%	24.5%	10.6%	30.9%	10.8%
$3.00 to $3.99	52	26	76	49	222	48
	11.0%	5.5%	6.1%	10.4%	46.9%	10.1%

* row total = 473

Table 89

Consumer Acceptance of Changes in Evaluative Criteria for Children's Flame-Retardant Sleepwear: French-Speaking Respondents

Item	Definitely Would Accept (1)	(2)	Uncertain (3)	(4)	Definitely Would Not Accept (5)	No Response
a. loss of fabric strength	63	9	34	4	19	5
	47.0%	6.7%	25.4%	3.0%	14.2%	3.7%
b. loss of softness	32	14	42	10	32	4
	23.9%	10.4%	31.3%	7.5%	23.9%	3.0%
c. special care: use heavy duty liquid detergent	28	6	30	5	58	7
	20.9%	4.5%	22.7%	3.7%	43.3%	5.2%
no hot water	46	7	24	7	37	13
	34.3%	5.2%	17.9%	5.2%	27.6%	9.7%
no chlorine bleach	71	9	20	1	21	12
	53.0%	6.7%	14.9%	0.7%	15.7%	9.0%
no fabric softener	51	13	24	5	31	10
	38.1%	9.7%	17.9%	3.7%	23.1%	7.5%
no hot dryer	58	11	23	4	29	9
	43.3%	8.2%	17.2%	3.0%	21.6%	6.7%
d. style restrictions	47	7	39	4	34	3
	35.1%	5.2%	29.0%	3.0%	25.4%	2.2%
e. trim restrictions	61	13	29	3	23	5
	45.5%	9.7%	21.6%	2.2%	17.2%	3.7%
f. price restrictions: up to $0.99	81	13	11	5	16	8
	60.4%	9.7%	8.2%	3.7%	11.9%	6.0%
$1.00 to $1.99	42	17	25	6	27	17
	31.3%	12.7%	18.7%	4.5%	20.1%	12.7%
$2.00 to $2.99	12	5	23	12	63	47
	9.0%	3.7%	17.2%	9.0%	47.0%	14.2%
$3.00 to $3.99	11	5	14	9	79	16
	8.2%	3.7%	10.4%	6.7%	59.0%	11.9%

* row total = 134

Questionnaire I (1-5)
(6)-1

1 Quand vous achetez des vêtements de nuit pour enfants, quelle importance attachez-vous aux facteurs suivantes? Diriez-vous qu'elles sont...

	TRES IMPORTANTES 1	2	ASSEZ IMPORTANTES 3	4	PAS IMPORTANTES 5	
Durabilité.....	( )	( )	( )	( )	( )	(7)
Faible rétrécissement.....	( )	( )	( )	( )	( )	(8)
Entretien facile.....	( )	( )	( )	( )	( )	(9)
Bas prix.....	( )	( )	( )	( )	( )	(10)
Style.....	( )	( )	( )	( )	( )	(11)
	1	2	3	4	5	
Couleur.....	( )	( )	( )	( )	( )	(12)
Tissu.....	( )	( )	( )	( )	( )	(13)
Autre facteur (veuillez inscrire)						
_____	( )	( )	( )	( )	( )	(14)
_____	( )	( )	( )	( )	( )	(15)

2 Avez-vous l'habitude de vérifier l'étiquette d'instructions de lavage et d'entretien sur un vêtement de nuit, avant de l'acheter pour votre enfant?

OUI.....( )1 NON.....( )0 (16)

3a Vous est-il arrivé de <u>ne pas</u> acheter un article à cause des instructions de lavage et d'entretien?

OUI.....( )1 NON.....( )0 (17)

3b Si "OUI", quand? (Cochez "✓" tout ce qui s'applique)

Quand l'étiquette dit "Ne pas javeler".....( )1 (18)
Quand l'étiquette dit "Laver à part".....( )1 (19)
Quand l'étiquette dit "Suspendre pour sécher".....( )1 (20)
Quand l'étiquette dit "Ne laver qu'à la main".....( )1 (21)

Autre raison_____
(VEUILLEZ INSCRIRE)

4 Cette question traite de la signification des symboles que l'on trouve sur les étiquettes d'entretien. Veuillez inscrire, à côté de chacun des symboles ci-dessous, le numéro correspondant à l'énoncé qui décrit le mieux la signification du symbole. Voici les énoncés parmi lesquels vous pouvez choisir:

1 Sécher à la machine à température moyenne-élevée
2 Lavable à la machine à l'eau chaude
3 Suspendre mouillé, non essoré
4 Nettoyer à sec, sécher à basse température
5 Lavable à la machine à l'eau tiède
6 Sécher à la machine, à basse température
7 Ne pas blanchir
8 Suspendre pour sécher
9 Repasser à basse température
10 Ne pas nettoyer à sec
11 Lavable à la main à l'eau tiède
12 Je ne sais pas

(jaune) ____ (22)


(rouge) ____ (23)


(jaune) ____ (24)


(vert) ____ (25)


(jaune) ____ (26)

(rouge) ____ (27)


(jaune) ____ (28)

Questionnaire I (suite)

5 J'aimerais que vous donniez une réponse aux questions ci-dessous pour chacun de vos enfants âgés de 14 ans ou moins. Il y a des espaces pour 5 enfants âgés de 14 ans ou moins. Veuillez commencer par la colonne de gauche, "Cadet des enfants de 14 ans ou moins", et inscrire l'âge et le sexe du plus jeune enfant. Faites la même chose à la deuxième colonne pour l'avant-dernier des enfants de 14 ans ou moins. Continuez aux autres colonnes jusqu'à ce que vous ayez répondu pour tous vos enfants de 14 ans ou moins. Un espace a été prévu pour inscrire leur nom au cas où cela pourrait vous aider à répondre aux questions.

Une fois que vous avez inscrit l'âge et le sexe de chacun de vos enfants de 14 ans ou moins, veuillez lire la question 5a et cocher "√" la réponse relative à chaque enfant. Passez ensuite à la question 5b et ainsi de suite jusqu'à ce que vous ayez répondu à toutes les parties de cette question.

	Cadet des enfants de 14 ans ou moins	À L'USAGE EXCLUSIF DU BUREAU (1-5)dup (6)-2 (7-63)dup	(1-5) (6)-3 (7-63)dup	(1-5)dup (6)-4 (7-54)dup	(1-5)dup (6)-5 (7-54)dup Aîné des enfants de 14 ans ou moins
Prénom	_____ (64)____	_____ (64)____	_____ (64)____	_____ (64)____	_____ (64)____
Âge (en nombre d'années, veuillez inscrire)	(65)____	(65)____	(65)____	(65)____	(65)____
Sexe (garçon ou fille)	_____ (66) Garçon.( )1 Fille..( )2	_____ (66) Garçon.( )1 Fille..( )2	_____ (66) Garçon.( )1 Fille..( )2	_____ (66) Garçon.( )1 Fille..( )2	_____ (66) Garçon.( )1 Fille..( )2

5a Veuillez indiquer le genre de vêtement de nuit porté généralement par chaque enfant en ÉTÉ ("√" UNE SEULE FOIS PAR ENFANT)

	(67)	(67)	(67)	(67)	(67)
Pyjama ordinaire (manches longues ou courtes, jambes de pantalon longues ou courtes)....( )1					
Polojama (pyjama en tricot collant).....( )2					
Dormeuse (avec ou sans pieds).....( )3					
Chemise de nuit longue et ample.....( )4					
Chemise de nuit courte ou nuisette (Baby doll)...( )5					
Sous-vêtements seulement (caleçon, culotte, chemise, couches).....( )6					
Vêtement de jour ordinaire (robe, pantalon, chemise et blouse).....( )7					

5b Veuillez indiquer de quel genre de tissu sont généralement faits les vêtements de nuit portés par chaque enfant en ÉTÉ ("√" UNE SEULE FOIS PAR ENFANT)

	(68)	(68)	(68)	(68)	(68)
Tout coton (100%).....( )1					
Coton (plus de 50%) avec polyester.....( )2					

Questionnaire I (suite)

Veuillez inscrire de nouveau l'âge et le sexe de chacun de vos enfants âgés de 14 ans ou moins, commençant par la colonne de gauche et en suivant le même ordre qu'à la page précédente.

	Cadet des enfants de 14 ans ou moins				Aîné des enfants de 14 ans ou moins
Prénom	_____	_____	_____	_____	_____
Âge (en nombre d'années, veuillez inscrire)	_____	_____	_____	_____	_____
Sexe (garçon ou fille)	Garçon.( ) Fille..( )	Garçon.( ) Fille..( )	Garçon.( ) Fille..( )	Garçon.( ) Fille..( )	Garçon.( ) Fille..( )

5b Veuillez indiquer de quel genre de tissu sont généralement faits les vêtements de nuit portés par chaque enfant en ÉTÉ ("√" UNE SEULE FOIS PAR ENFANT)

	(68)	(68)	(68)	(68)	(68)
50% coton et 50% polyester.....	( )3	( )3	( )3	( )3	( )3
Polyester (plus de 50%) avec du coton.....	( )4	( )4	( )4	( )4	( )4
Tout polyester (100%)..	( )5	( )5	( )5	( )5	( )5
Tout nylon (100%).....	( )6	( )6	( )6	( )6	( )6
Mélange de nylon et polyester.....	( )7	( )7	( )7	( )7	( )7
Mélange de nylon et acétate.....	( )8	( )8	( )8	( )8	( )8
Autre genre_____ (PRÉCISEZ)	( )	( )	( )	( )	( )
Je ne sais pas.....	( )0	( )0	( )0	( )0	( )0

5c Veuillez indiquer le genre de vêtement de nuit porté généralement par chaque enfant en HIVER ("√" UNE SEULE FOIS PAR ENFANT)

	(69)	(69)	(69)	(69)	(69)
Pyjama ordinaire (manches longues ou courtes, jambes de pantalon longues ou courtes).....	( )1	( )1	( )1	( )1	( )1
Polojama (pyjama en tricot collant).....	( )2	( )2	( )2	( )2	( )2
Dormeuse (avec ou sans pieds).....	( )3	( )3	( )3	( )3	( )3
Chemise de nuit longue et ample.....	( )4	( )4	( )4	( )4	( )4
Chemise de nuit courte ou nuisette (Baby doll)...	( )5	( )5	( )5	( )5	( )5
Sous-vêtements seulement (caleçon, culotte, chemise, couches).....	( )6	( )6	( )6	( )6	( )6
Vêtement de jour ordinaire (robe, pantalon, chemise et blouse).....	( )7	( )7	( )7	( )7	( )7

Questionnaire I (suite)

Veuillez de nouveau incrire l'âge et le sexe des enfants en suivant le même ordre qu'à la page précédente.

	Cadet des enfants de 14 ans ou moins				Aîné des enfants de 14 ans ou moins
Prénom	_____	_____	_____	_____	_____
Age (en nombre d'années, veuillez inscrire)	_____	_____	_____	_____	_____
Sexe (garçon ou fille)	Garçon.( ) Fille..( )	Garçon.( ) Fille..( )	Garçon.( ) Fille..( )	Garçon.( ) Fille..( )	Garçon.( ) Fille..( )

5d Veuillez indiquer de quel genre de tissu sont généralement faits les vêtement de nuit portés par chaque enfant en HIVER ("√" UNE SEULE FOIS PAR ENFANT)

	(70)	(70)	(70)	(70)	(70)
Tout coton (100%).....	( )1	( )1	( )1	( )1	( )1
Coton (plus de 50%) avec polyester.....	( )2	( )2	( )2	( )2	( )2
50% coton et 50% polyester.....	( )3	( )3	( )3	( )3	( )3
Polyester (plus de (50%) avec coton.....	( )4	( )4	( )4	( )4	( )4
Tout polyester (100%)..	( )5	( )5	( )5	( )5	( )5
Tout nylon (100%).....	( )6	( )6	( )6	( )6	( )6
Mélange de nylon et polyester.....	( )7	( )7	( )7	( )7	( )7
Mélange de nylon et acétate.....	( )8	( )8	( )8	( )8	( )8
Autre genre_____ (PRÉCISEZ)	( )	( )	( )	( )	( )
Je ne sais pas.....	( )0	( )0	( )0	( )0	( )0

5e Comment chacun des enfants obtient-il généralement la plupart de ses vêtements de nuit? ("√" UNE SEULE FOIS PAR ENFANT)

	(71)	(71)	(71)	(71)	(71)
Acheté tout-fait.....	( )1	( )1	( )1	( )1	( )1
Fait à la maison.....	( )2	( )2	( )2	( )2	( )2
Hérité d'enfants plus âgés.....	( )3	( )3	( )3	( )3	( )3
Autrement_____ (PRÉCISEZ)	( )	( )	( )	( )	( )

Questionnaire I (suite)

Veuillez de nouveau inscrire l'âge et le sexe des enfants en suivant le même ordre qu'à la page précédente.

	Cadet des enfants de 14 ans ou moins				Aîné des enfants de 14 ans ou moins
Prénom	_____	_____	_____	_____	_____
Age (en nombre d'années)	_____	_____	_____	_____	_____
Sexe (garçon ou fille)	Garçon.( ) Fille..( )	Garçon.( ) Fille..( )	Garçon.( ) Fille..( )	Garçon.( ) Fille..( )	Garçon.( ) Fille..( )

5f Pour chaque enfant dont les vêtements de nuit sont généralement "achetés tout-faits", veuillez indiquer dans quel genre de magasin vous les achetez le plus souvent. ("√" UNE SEULE FOIS PAR ENFANT)

	(72)	(72)	(72)	(72)	(72)
Magasin de vente au rabais	( )1	( )1	( )1	( )1	( )1
Magasin à rayon	( )2	( )2	( )2	( )2	( )2
Magasin spécialisé en vêtements d'enfants	( )3	( )3	( )3	( )3	( )3
Commande postale d'après cataloque	( )4	( )4	( )4	( )4	( )4
Ailleurs_____ (PRECISEZ)	( )	( )	( )	( )	( )
Pas acheté tout-fait	( )0	( )0	( )0	( )0	( )0

5g Quel genre de tissu préférez-vous quand vous achetez des vêtements de nuit pour enfants ou quand vous achetez de quoi faire des vêtements de nuit pour enfants? ("√" UNE SEULE FOIS PAR ENFANT)

	(73)	(73)	(73)	(73)	(73)
Tissus synthétiques	( )1	( )1	( )1	( )1	( )1
Tissus naturels (de source végétale ou animale)	( )2	( )2	( )2	( )2	( )2
Tissus faits d'un mélange de produits synthétiques et naturels	( )3	( )3	( )3	( )3	( )3
Pas de préférence	( )4	( )4	( )4	( )4	( )4

(74)_____

Questionnaire I (suite)

Pour chacune des questions suivantes, j'aimerais que vous pensiez seulement au cadet de vos enfants âgés de 14 ans ou moins (celui ou celle de la première colonne, question 5). Veuillez inscrire de nouveau l'âge et le sexe de votre cadet(te). Veuillez ensuite répondre aux questions 6 à 11 concernant la façon dont vous prenez soin des vêtements de nuit que cet(te) enfant porte habituellement.

Age (en nombre d'années) _____ (29)_____ (30)_____

Sexe (garçon ou fille)
Garçon...( )1
Fille....( )2 (31)

6 Comment lavez-vous habituellement les vêtements de nuit portés d'habitude par votre cadet(te) à cette époque-ci de l'année?

("√" UNE CASE)
A la main.....( )1 (32)
A la machine à laver à essoreuse ou automatique.....( )2
Autrement_____
(VEUILLEZ PRÉCISER)

7 Comment faites-vous sécher habituellement les vêtements de nuit portés d'habitude par votre cadet(te) à cette époque-ci de l'année?

("√" UNE CASE)
Sur corde à linge à l'intérieur.....( )1 (33)
Sur corde à linge à l'extérieur.....( )2
Dans une sécheuse.....( )3
Autrement_____
(VEUILLEZ PRÉCISER)

8 Quelle marque de savon ou de détergent employez-vous habituellement pour laver les vêtements de nuit portés d'habitude par votre cadet(te) à cette époque-ci de l'année? Veuillez indiquer si vous vous servez de la forme liquide ou en poudre de cette marque.

	Poudre	Liquide	
_____	( )	( )	(34)_____
MARQUE (VEUILLEZ PRÉCISER)			(35)_____

9 Avez-vous l'habitude de blanchir les vêtement de nuit portés généralement par votre cadet(te) à cette époque-ci de l'année? Si oui, veuillez inscrire la marque d'agent de blanchiment que vous employez habituellement et préciser s'il est liquide ou en poudre.

Non, je n'emploie généralement pas d'agent de blanchiment.....( )0 → PASSEZ A LA QU.10 (36)_____
Oui, j'emploie généralement un agent de blanchiment.....( ) (37)_____

	Poudre	Liquide
_____	( )	( )
MARQUE (VEUILLEZ PRÉCISER)		

10 S'il est inscrit "Ne pas javeler" sur l'étiquette du vêtement de nuit de votre enfant et que l'article est taché ou très sali, que faites-vous? (38)

Je le blanchis quand-même.....( )1
J'utilise un agent de blanchiment pour tous les tissus.....( )2
Je n'utilise aucun agent de blanchiment.....( )3
Autre chose_____
(VEUILLEZ PRÉCISER

11 Utilisez-vous d'habitude un assouplissant textile sur les vêtements de nuit portés généralement par votre cadet(te) à cette époque-ci de l'année? Si oui, veuillez inscrire la marque d'assouplissant textile que vous employez habituellement, et s'il est liquide, en feuilles ou en vaporisateur.

(39)_____

Non, je n'utilise pas d'habitude d'assouplissant textile.....( )0 → PASSEZ À LA QU.12

Oui, j'utilise d'habitude un assouplissant textile.....( ) (40)_____

_____
MARQUE (VEUILLEZ PRÉCISER)

Liquide	Feuilles	Vaporisateur Aérosol
( )	( )	( )

12 Veuillez lire attentivement les 9 énoncés ci-dessous. Pour chacun des énoncés suivants, quelle est la réponse qui exprime le mieux votre opinion? (Veuillez cocher "√" une réponse par énoncé)

	D'ACCORD 1	2	PAS D'OPINION 3	4	PAS D'ACCORD 5	
C'est au gouvernement qu'il incombe de s'assurer que tout ce qui est vendu peut être utilisé sans danger.....	( )	( )	( )	( )	( )	(41)
Les adultes devraient avoir toute liberté de choix dans leurs achats et, par conséquent, le gouvernement se mêle à tort des affaires des particuliers quand il passe des lois telles que celles qui exigent le port obligatoire de la ceinture de sécurité en auto, les capsules de flacons de médicaments à l'épreuve des enfants et des directives de sécurité pour les jouets.....	( )	( )	( )	( )	( )	(42)
Nous n'avons pas besoin de lois exigeant que les produits soient sans danger car les magasins ne vendraient pas des produits dangereux.....	( )	( )	( )	( )	( )	(43)
C'est la responsabilité de gouvernement de protéger les consommateurs des vêtements ou autres produits textiles qui risquent d'être dangereux.....	( )	( )	( )	( )	( )	(44)
Ce sont les consommateurs et non le gouvernement qui doivent prendre la responsabilité de s'assurer que les vêtements et autres produits textiles soient sans danger.....	( )	( )	( )	( )	( )	(45)
C'est la responsabilité des fabricants de vêtements de protéger les consommateurs des vêtements ou autres produits textiles qui risquent d'être dangereux.....	( )	( )	( )	( )	( )	(46)
Il serait plus avantageux pour le consommateur que le gouvernement ne se mêle pas de ce qui se vend en magasin.....	( )	( )	( )	( )	( )	(47)
Pour aider à éliminer les accidents, le gouvernement devrait créer et diriger des programmes d'éducation du public sur les produits qui risquent d'être dangereux plutôt que de passer des lois exigeant que les produits soient rendus sûrs.....	( )	( )	( )	( )	( )	(48)
Puisque de nos jours tout le monde se soucie de sécurité, le gouvernement n'a pas besoin de vérifier si les produits sont sans danger avant qu'ils soient mis sur le marché.....	( )	( )	( )	( )	( )	(49)

13 Trouvez-vous que les vêtements de nuit pour enfants présentent un danger quelconque pour votre enfant, ou non?

OUI.....( )1 NON.....( ) → PASSEZ À LA QU.14 (50)

Veuillez écrire ci-dessous le(s) genre(s) de danger que présentent les vêtements de nuit pour enfants. Pour chaque genre de danger que vous inscrivez, veuillez indiquer le degré de danger que les vêtements de nuit pour enfants présentent.

GENRE DE DANGER	TRÈS GRAND DANGER		DANGER MODÉRÉ		DANGER TRÈS LÉGER	
_____	( )	( )	( )	( )	( )	(51)_____ (52)_____
_____	( )	( )	( )	( )	( )	(53)_____ (54)_____
_____	( )	( )	( )	( )	( )	(55)_____

14 Avez-vous entendu parler de lois gouvernementales qui empêchent la vente de certains articles textiles à cause du danger qu'ils présentent?

OUI.....( ) NON.....( ) → MERCI - VOUS AVEZ COMPLÉTÉ LE QUESTIONNAIRE

(56)_____
(57)_____
Quels sont ces artiles? (Veuillez préciser) (58)_____
(59)_____

_____

_____

(60)_____
Quels genres de danger ces articles présentent-ils? (Veuillez préciser) (61)_____
(62)_____
(63)_____

_____

_____

MERCI D'AVOIR REMPLI CE QUESTIONNAIRE

Questionnaire II (1-5) (6)-1

1a. Trouvez-vous que les vêtements de nuit pour enfants présentent certains dangers particuliers d'accident par brûlure?

OUI.....( )1 NON.....( )0 → PASSEZ À LA QU.2 (7)

1b. Quel degré de danger d'accidents par brûlure présentent les vêtements de nuit pour enfants?

TRÈS GRAND DANGER		DANGER MODÉRÉ		DANGER TRÈS LÉGER
( )-1	( )-2	( )-3	( )-4	( )-5

1c. En quoi pensez-vous que les vêtements de nuit pour enfants présentent un danger particulier?

_____ (8)

_____ (9)
(10)
_____ (11)

2. Que veut dire pour vous chacun des mots suivants? Pour chaque mot, veuillez écrire à côté du mot le numéro de l'énoncé qui décrit le mieux ce mot.

ÉNONCÉS	MOTS	
1 - Ne brûle pas quand touché par la flamme	Inflammable....._____	(12)
2 - Brûle quand touché par la flamme		
3 - Brûle quand touché par la flamme, mais s'arrête de brûler quand on éloigne la flamme	Non-inflammable.._____	(13)
4 - Brûle quand touché par la flamme, mais ne brûle que pour peu de temps lorsqu'on éloigne la flamme	Agent ignifuge..._____	(14)
	Ininflammable...._____	(15)
5 - Fond mais ne brûle pas quand touché par la flamme	Retard a	
6 - Je ne sais pas.	l'inflammation..._____	(16)

3a. Avez-vous entendu parler de vêtements faits pour résister à la combustion?

OUI.....( )1 NON.....( )0 → PASSEZ À LA QU.4 (17)

3b. Si "oui", où avez-vous entendu parler de vêtements faits pour résister à la combustion? (Cochez toutes les sources de renseignements applicables)

Amis ou famille.....( ) (18)
Personnel de vente.....( ) (19)
Journaux ou magazines.....( ) (20)
Bulletins or ou feuilles/dépliants...( ) (21)
Réunions ou cours.....( ) (22)
Radio/télévision.....( ) (23)
Ailleurs_____ (24)
(VEUILLEZ PRÉCISER)

4. Le gouvernement canadien a-t-il des lois qui empêchent la vente de certains articles textiles parce qu'ils brûlent facilement? (Cochez une réponse pour chacun des articles suivants)

ARTICLES	OUI	NON	JE NE SAIS PAS	
Vêtements de nuit pour enfants, tailles 0 à 6X	( )1	( )2	( )3	(25)
Vêtements de nuit pour enfants, tailles 7 à 14	( )	( )	( )	(26)
Couvertures	( )	( )	( )	(27)
Matelas	( )1	( )2	( )3	(28)
Rideaux et tentures	( )	( )	( )	(29)
Tapis et carpettes	( )	( )	( )	(30)

5. Que pensez-vous de l'importance qu'il y a à rendre les articles suivants réfractaires à la combustion?

	ILS DEVRAIENT TOUS ÊTRE RENDUS RÉFRACTAIRES À LA COMBUSTION	LE CONSOMMATEUR DEVRAIT AVOIR LE CHOIX ENTRE CEUX QUI SONT RENDUS RÉFRACTAIRES À LA COMBUSTION ET CEUX QUI NE LE SONT PAS	AUCUN NE DEVRAIT ÊTRE RENDU RÉFRACTAIRE À LA COMBUSTION	JE N'AI PAS D'OPINION À CE SUJET	
Vêtements de nuit pour enfants (de 0 à 12 mois)	( )1	( )2	( )3	( )4	(31)
Vêtements de nuit pour enfants (de 18 à 24 mois, 2 à 6x)	( )	( )	( )	( )	(32)
Vêtements de nuit pour enfants (de 7 à 16 ans)	( )	( )	( )	( )	(33)
Vêtements de nuit pour adultes	( )	( )	( )	( )	(34)
Couvertures	( )1	( )2	( )3	( )4	(35)
Matelas	( )	( )	( )	( )	(36)
Rideaux et tentures	( )	( )	( )	( )	(37)
Tapis et carpettes	( )	( )	( )	( )	(38)
Autre article_____ (PRÉCISER)	( )1	( )2	( )3	( )4	(39)

6. Que pensez-vous de l'importance qu'il y a à rendre tous les vêtements des groupes de personnes suivants réfractaires à la combustion?

	ILS DEVRAIENT TOUS ÊTRE RENDUS RÉFRACTAIRES À LA COMBUSTION	LE CONSOMMATEUR DEVRAIT AVOIR LE CHOIX ENTRE CEUX QUI SONT RENDUS RÉFRACTAIRES À LA COMBUSTION ET CEUX QUI NE LE SONT PAS	AUCUN NE DEVRAIT ÊTRE RENDU RÉFRACTAIRE À LA COMBUSTION	JE N'AI PAS D'OPINION À CE SUJET	
Bébés de mois d'un an	( )1	( )2	( )3	( )4	(40)
Enfants de 1 à 6 ans	( )	( )	( )	( )	(41)
Enfants de 7 à 14 ans	( )	( )	( )	( )	(42)
Personnes de 15 à 44 ans	( )	( )	( )	( )	(43)
Personnes de 45 à 65 ans	( )1	( )2	( )3	( )4	(44)
Personnes de plus de 65 ans.	( )	( )	( )	( )	(45)
Les infirmes ou les handicapés	( )	( )	( )	( )	(46)

7. Avez-vous des articles textiles dont l'étiquette porte les mots "ininflammable", "agent ignifuge" ou "non inflammable"? (Cochez une réponse pour chacun des articles suivants)

ITEM	OUI	NON	JE NE SAIS PAS	
Vêtements de nuit et peignoirs pour enfants.....	( )1	( )2	( )3	(47)
Couvre-matelas.....	( )	( )	( )	(48)
Rideaux ou tentures.....	( )	( )	( )	(49)
Tapis ou carpettes.....	( )1	( )2	( )3	(50)
Couvre-lits.....	( )	( )	( )	(51)
Autre article_____ (PRÉCISER)	( )	( )	( )	(52)

8. Avez-vous déjà essayé d'acheter des articles textiles portant l'étiquette "ininflammable", "agent ignifuge", ou "non inflammable"?

	OUI	NON	
Vêtements de nuit et peignoirs pour enfants.....	( )1	( )2	(53)
Couvre-metalas.....	( )	( )	(54)
Rideaux ou tentures.....	( )	( )	(55)
Tapis ou carpettes.....	( )1	( )2	(56)
Couvre-lits.....	( )	( )	(57)
Autre articles_____ (PRÉCISER)	( )	( )	(58)

9. En supposant que le gouvernement fédéral ait résolu que tous les vêtements de nuit pour enfants, jusqu'à la taille 16, doivent être faits de matières ignifuges après 1978, que feriez-vous? Diriez-vous que ...

Vous achèteriez les vêtements de nuit traités.....	( )1	(59)
Vous coudriez vous-même les vêtement du nuit en utilisant des tissus non traités.....	( )2	
Vous utiliseriez d'autres genres de vêtements (sous-vêtements, pantalons, culottes, chemises).....	( )3	
Vous ne savez pas.....	( )4	

10. Il est possible que le tissu pour vêtements de nuit d'enfants change dans une certaine mesure si des lois plus sévères exigent que les vêtements de nuit pour enfants, jusqu'à la taille 16, soient faits de tissu ignifuge. Vous trouverez ci-dessous quelques-uns de ces changement. Veuillez les lire et indiquer pour chacun séparément dans quelle mesure vous êtes prête à l'accepter. Veuillez cocher une fois par énoncé.

	ACCEPTERAIS CERTAINEMENT		INCERTAINE	N'ACCEPTERAIS CERTAINEMENT PAS		
a. Tissu ayant perdu un peu de sa solidité (ex. un vêtement qui aurait pu durer 2 ans et supporter 100 lessives, peut ne durer que 1½ ans et 75 lessives).....	( )1	( )2	( )3	( )4	( )5	(60)
b. Tissu ayant perdu un peu de sa souplesse (ex. les nouveaux vêtements de nuit en finette risquent d'être légèrement plus raides, moins doux que ceux qui sont présentement sur le marché).....	( )	( )	( )	( )	( )	(61)
c. Tissu nécessitant des soins particuliers (ex. il se peut que l'étiquette d'entretien du vêtement de nuit dise):						
N'utiliser que du détergent liquide très puissant (ex. Wisk).....	( )	( )	( )	( )	( )	(62)
Ne pas laver à l'eau dure/calcaire..	( )	( )	( )	( )	( )	(63)
Ne pas blanchir au chlore (ex. Javex).....	( )1	( )2	( )3	( )4	( )5	(64)
Ne pas utiliser d'assouplissant textile.....	( )	( )	( )	( )	( )	(65)
Ne pas faire sécher en sécheuse à haute température.....	( )	( )	( )	( )	( )	(66)

	ACCEPTERAIS CERTAINEMENT		INCERTAINE		N'ACCEPTERAIS CERTAINEMENT PAS		
d. Restrictions de coupe (ex. il se peut qu'on ne permette pas les chemises de nuit amples ou à grandes manches non-ajustées).....	( )	( )	( )	( )	( )		(67)
e. Restriction de garnitures (ex. il se peut qu'on ne permette pas d'orner les vêtements de nuit avec de la dentelle et des rubans).....	( )1	( )2	( )3	( )4	( )5		(68)
f. Prix (ex. un vêtement de nuit qui, présentement, coûte $6 ou $7 peut-être augmenté de):							
Jusqu'à $ .99.....	( )	( )	( )	( )	( )		(69)
$1.00 à $1.99.....	( )	( )	( )	( )	( )		(70)
$2.00 à $2.99.....	( )	( )	( )	( )	( )		(71)
$3.00 à $3.99.....	( )1	( )2	( )3	( )4	( )5		(72)

11. En supposant que vous vouliez acheter du tissu de flanelle à environ $1.50 la verge. Combien seriez-vous prête à payer en plus pour le même tissu, sachant qu'il a été apprêté avec un produit ignifuge?

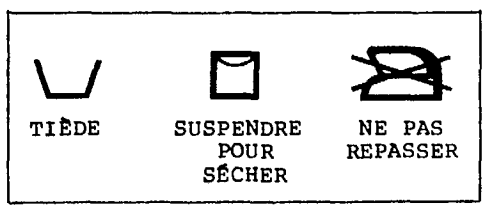
Rien.....( )1 (73)
25¢ la verge.....( )2
50¢ la verge.....( )3
75¢ la verge.....( )4
$1.00 la verge.....( )5
Plus d'$1.00 la verge.....( )6

12. Parmi les étiquettes suivantes, laquelle, à votre avis, explique le mieux comment laver et prendre soin d'un vêtement de nuit ignifuge? (N'en cochez qu'une)

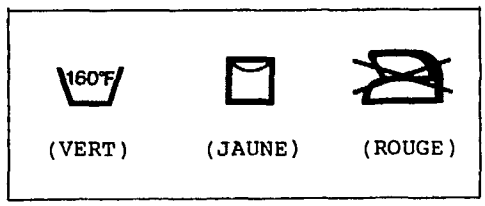
Mots seulement.....( )1 (74)

LAVER À LA MACHINE À L'EAU TIÈDE
SUSPENDRE POUR SÉCHER
NE PAS REPASSER

Mots et symboles.....( )2



Symboles employant les couleurs des feux de circulation pour "allez-y", "attention" ou "arrêt" pour chaque procédé.....( )3



13a. Avez-vous entendu parler, dans les bulletins d'information de problèmes possibles concernant les vêtements de nuit ignifuges pour enfants?

OUI.....( )1 NON.....( )2 → PASSEZ À LA QU.14 (75)

13b. Qu'avez-vous entendu dire?

_____

_____

_____

(76)_____
(77)_____
(78)_____
(79)_____

14. Veuillez lire attentivement les 9 énoncés ci-dessous. Pour chacun d'eux, quelle est la réponse qui exprime le mieux votre opinion? (Veuillez cocher "✓" une réponse par énoncé)

	D'ACCORD		PAS D' OPINION		PAS D'ACCORD	
C'est au gouvernement qu'il incombe de s'assurer que tout ce qui est vendu peut être utilisé sans danger de s'enflammer.....	( )1	( )2	( )3	( )4	( )5	(7)
Les adultes devraient avoir toute liberté de choix dans leurs achats et, par conséquent, le gouvernement se mêle à tort des affaires des particuliers quand il passe des lois exigeant, par exemple, que les vêtements ou autres tissus soient faits pour résister à la combustion.....	( )	( )	( )	( )	( )	(8)
Nous n'avons pas besoin de lois exigeant que les produits soient résistants à la combustion, car les magasins ne vendraient pas des produits dangereux.....	( )	( )	( )	( )	( )	(9)
C'est la responsabilité du gouvernement de protéger les consommateurs des vêtements ou autres produits textiles qui risquent de brûler.....	( )	( )	( )	( )	( )	(10)
Ce sont les consommateurs et non le gouvernement qui doivent prendre la responsabilité de s'assurer que les vêtements et autres produits textiles peuvent brûler.....	( )1	( )2	( )3	( )4	( )5	(11)
C'est la responsabilité des fabricants de vêtements de protéger les consommateurs des vêtements ou autres produits textiles qui risquent de brûler.....	( )	( )	( )	( )	( )	(12)
Il serait plus avantageux pour le consommateur que le gouvernement ne se mêle pas des vêtements qui sont achetés dans les magasins.....	( )	( )	( )	( )	( )	(13)
Pour aider à éliminer les accidents, le gouvernement devrait créer et diriger des programmes d'éducation du public pour l'informer au sujet des risques de feu plutôt que de passer des lois exigeant que les produits soient apprêtés pour résister à la combustion.....	( )	( )	( )	( )	( )	(14)
Puisque de nos jours tout le monde se soucie de sécurité, le gouvernement n'a pas besoin de vérifier si les vêtements et autres tissus sont sans danger avant qu'ils soient mis sur le marché.....	( )1	( )2	( )3	( )4	( )5	(15)

15a. Y a-t-il déjà eu chez vous un accident à cause du feu?

OUI.....( )1 NON.....( )2 → PASSEZ À LA QU.16a (16)

15b. Quand est-ce arrivé?

(17.18) (19.20)

MOIS_____ ANNÉE_____

15c. Parmi les articles suivants, y en a-t-il qui aient pris feu? (Cochez tout ce qui s'applique)

Vêtements	( )	(21)
Couvertures	( )	(22)
Matelas	( )	(23)
Rideaux ou tentures	( )	(24)
Tapis ou carpettes	( )	(25)
Meubles capitonnés	( )	(26)
Aucun de ces articles n'a pris feu	( )	(27)

15d. Quelqu'un a-t-il été blessé dans cet incendie?

OUI.....( )1 NON.....( )2 → PASSEZ À LA QU.16a (28)

15e. La (les) personne(s) blessée(s) l'a-t-elle (l'ont-elles) été parce que l'un des articles suivants avait pris feu? (Cochez tout ce qui s'applique, indiquant l'âge de la (des) personne(s) blessée(s))

ARTICLES	(29.30) (ans)	(39.40) (ans)	(49.50) (ans)
Vêtements de nuit	( )(31)	( )(41)	( )(51)
Vêtements de jour	( )(32)	( )(42)	( )(52)
Couvertures	( )(33)	( )(43)	( )(53)
Matelas	( )(34)	( )(44)	( )(54)
Rideaux ou tentures	( )(35)	( )(45)	( )(55)
Tapis ou carpettes	( )(36)	( )(46)	( )(56)
Meubles capitonnés	( )(37)	( )(47)	( )(57)
Aucun de ces articles	( )(38)	( )(48)	( )(58)

16a. Y a-t-il quelqu'un parmi votre parenté qui a été victime d'un accident causé par le feu, dans sa demeure?

OUI.....( )1 NON.....( )2 → PASSEZ À LA QU.17 (59)

16b. Quand est-ce que cet incident est survenu?

(60.61) (62.63)

MOIS_____ ANNÉE_____

16c. Parmi les articles suivants, y en a-t-il qui ont pris feu? (Cochez tout ce qui s'applique)

Vêtements	( )	(64)
Couvertures	( )	(65)
Matelas	( )	(66)
Rideaux ou tentures	( )	(67)
Tapis ou carpettes	( )	(68)
Meubles capitonnés	( )	(69)
Je ne sais pas	( )	(70)
Aucun de ces articles	( )	(71)

16d. Quelqu'un a-t-il été blessé par cet incendie?

OUI.....( )1 NON.....( )2→ PASSEZ À LA QU.17 (7)

16e. La (les) personne(s) blessée(s) l'a-t-elle (l'ont-elles) été parce que l'un des articles suivants avait pris feu? (Cochez tout ce qui s'applique, indiquant l'âge de la (des) personnes(s) blessée(s))

ARTICLES	(8.9) (ans)	(19.20) (ans)	(30.31) (ans)
Vêtements de nuit	( )(10)	( )(21)	( )(32)
Vêtements de jour	( )(11)	( )(22)	( )(33)
Couvertures	( )(12)	( )(23)	( )(34)
Matelas	( )(13)	( )(24)	( )(35)
Rideaux ou tentures	( )(14)	( )(25)	( )(36)
Tapis ou carpettes	( )(15)	( )(26)	( )(37)
Meubles capitonnés	( )(16)	( )(27)	( )(38)
Je ne sais pas	( )(17)	( )(28)	( )(39)
Aucun de ces articles	( )(18)	( )(29)	( )(40)

17. Pour nous permettre de mettre nos dossiers à jour, veuillez compléter ce qui suit:

Avez-vous un emploi en dehors de la maison?

	(41)		(42)
VOUS-MÊME	( )1 Oui, à plein temps	VOTRE ÉPOUX	( )1 Oui, à plein temps
	( )2 Oui, à temps partiel		( )2 Oui, à temps partiel
	( )3 Non, pas d'emploi en dehors de la maison		( )3 Non, pas d'emploi en dehors de la maison

Quelle est la profession de cette personne? _____ _____

Décrivez ses fonctions. _____ _____

_____ _____

MERCI D'AVOIR REMPLI CE QUESTIONNAIRE

Questionnaire II

(1-5)
(6)-1

1a Do you feel that children's sleepwear presents any unusual danger for burn accidents?

YES.....( )1 NO.....( )0 → SKIP TO QUESTION 2 (7)

1b How much of a danger for burn accidents does children's sleepwear present?

VERY GREAT DANGER		MODERATE DANGER		VERY SLIGHT DANGER
( )-1	( )-2	( )-3	( )-4	( )-5

1c In what way do you feel that children's sleepwear presents an unusual danger?

_____ (8)

_____ (9)
(10)

_____ (11)

2 What do each of the following words mean to you? For each word, please write in beside the word the number of the phrase which you feel best describes that word.

PHRASES

1 - Will not burn when touched with a flame.
2 - Will burn when touched with a flame.
3 - Will burn when touched with a flame but stops when the flame is removed.
4 - Will burn when touched with a flame but will burn for a short time only after the flame is removed.
5 - Will melt but not burn when touched with flame.
6 - I do not know.

WORDS

Flammable....._____ (12)
Nonflammable....._____ (13)
Inflammable....._____ (14)
Flame retardant.._____ (15)
Flame resistant.._____ (16)

3a Have you heard about clothing that is made to resist burning?

YES.....( )1 NO.....( )0 → SKIP TO QUESTION 4 (17)

3b If "yes," where have you heard about clothing that is made to resist burning? (Check all sources of information that apply.)

Friends or family.....( ) (18)
Sales people.....( ) (19)
Newspaper or magazines.....( ) (20)
Bulletins or leaflets.....( ) (21)
Meetings or classes.....( ) (22)
Radio/television.....( ) (23)
Other_____ (24)
(PLEASE WRITE IN)

4 Are there Canadian government laws which prevent the sale of certain textile items that burn easily? (Check one answer for each of the following items.)

ITEM	YES	NO	I DO NOT KNOW	
Children's sleepwear size 0 - 6X.....	( )1	( )2	( )3	(25)
Children's sleepwear size 7 - 14.....	( )	( )	( )	(26)
Blankets.....	( )	( )	( )	(27)
Mattresses.....	( )1	( )2	( )3	(28)
Curtains and draperies.....	( )	( )	( )	(29)
Rugs and carpets.....	( )	( )	( )	(30)

5 What do you think about the importance of having the following items made to resist burning?

	ALL SHOULD BE MADE TO RESIST BURNING	THE CONSUMER SHOULD HAVE THE CHOICE BETWEEN THOSE MADE TO RESIST BURNING AND THOSE NOT MADE TO RESIST BURNING	NONE SHOULD BE MADE TO RESIST BURNING	I HAVE NO OPINION	
Children's sleepwear (0 to 12 months).....	( )1	( )2	( )3	( )4	(31)
Children's sleepwear (18 to 24 months, 2 to 6X)..	( )	( )	( )	( )	(32)
Children's sleepwear (7 to 16).....	( )	( )	( )	( )	(33)
Adults' sleepwear.....	( )	( )	( )	( )	(34)
Blankets.....	( )1	( )2	( )3	( )4	(35)
Mattresses.....	( )	( )	( )	( )	(36)
Curtains and draperies.....	( )	( )	( )	( )	(37)
Rugs and carpets.....	( )	( )	( )	( )	(38)
Other_____ (WRITE IN)	( )1	( )2	( )3	( )4	(39)

6 What do you think about the importance of having <u>all clothing</u> for the following groups of people made to resist burning?

	ALL SHOULD BE MADE TO RESIST BURNING	THE CONSUMER SHOULD HAVE THE CHOICE BETWEEN THOSE MADE TO RESIST BURNING AND THOSE NOT MADE TO RESIST BURNING	NONE SHOULD BE MADE TO RESIST BURNING	I HAVE NO OPINION	
Young children, under 1 year old.....	( )1	( )2	( )3	( )4	(40)
Young children, ages 1 to 6.	( )	( )	( )	( )	(41)
Older children, ages 7 to 14.....	( )	( )	( )	( )	(42)
People, ages 15 to 44.....	( )	( )	( )	( )	(43)
People, ages 45 to 65.....	( )1	( )2	( )3	( )4	(44)
People, over 65 years.....	( )	( )	( )	( )	(45)
Disabled or handicapped.....	( )	( )	( )	( )	(46)

7 Do you have any textile items that are labelled flame resistant, flame retardant, or nonflammable? (Check one answer for each of the following items)

ITEM	YES	NO	I DO NOT KNOW	
Children's sleepwear and robes	( )1	( )2	( )3	(47)
Mattress pads	( )	( )	( )	(48)
Curtains or draperies	( )	( )	( )	(49)
Carpets or rugs	( )1	( )2	( )3	(50)
Bedspreads	( )	( )	( )	(51)
Other_____ (WRITE IN)	( )	( )	( )	(52)

8 Have you ever tried to buy any textile items that are labelled flame resistant, flame retardant, or nonflammable?

	YES	NO	
Children's sleepwear and robes	( )1	( )2	(53)
Mattress pads	( )	( )	(54)
Curtains or draperies	( )	( )	(55)
Carpets or rugs	( )1	( )2	(56)
Bedspreads	( )	( )	(57)
Other_____ (WRITE IN)	( )	( )	(58)

9 Suppose the federal government has determined that all sleepwear for children up to size 16 must be made of flame-retardant material after 1978. What would you be likely to do?

Buy the treated sleepwear	( )1 (59)
Sew your own from untreated fabric	( )2
Substitute other clothing (underwear, pants, panties, shirts)	( )3
I do not know	( )4

10 Some degree of change in the fabric for children's sleepwear might occur if stricter laws require that all sleepwear for children up to size 16 be made of flame-retardant fabric. Some of the possible changes are shown below. Please read each one separately and indicate whether or not you would be prepared to accept it. Please answer each change separately and check one answer for each statement.

	DEFINITELY WOULD ACCEPT		UNCERTAIN		DEFINITELY WOULD NOT ACCEPT	
a. Some loss of fabric strength (e.g. a garment that might have lasted well through 2 years and 100 washings may now last 1½ years and 75 washings)	( )1	( )2	( )3	( )4	( )5	(60)
b. Some loss of softness (e.g. new flannelette sleepwear may be slightly stiffer, less soft than currently on the market)	( )	( )	( )	( )	( )	(61)
c. Special care (e.g. the care instructions on the sleepwear label may indicate):						
Use only a heavy-duty liquid detergent (e.g. Wisk)	( )	( )	( )	( )	( )	(62)
Do not launder in hard water	( )	( )	( )	( )	( )	(63)
Do not use chlorine bleach (e.g. Javex)	( )1	( )2	( )3	( )4	( )5	(64)
Do not use fabric softener	( )	( )	( )	( )	( )	(65)
Do not dry in hot dryer	( )	( )	( )	( )	( )	(66)

	DEFINITELY WOULD ACCEPT		UNCERTAIN		DEFINITELY WOULD NOT ACCEPT		
d. Style (e.g. loose flowing nightgowns or loose full sleeves may not be allowed).....	( )	( )	( )	( )	( )		(67)
e. Trims (e.g. lace and ribbons may not be allowed as trim on sleepwear).....	( )1	( )2	( )3	( )4	( )5		(68)
f. Price (e.g. an item of sleepwear that now costs $6 or $7 may increase by):							
Up to $ .99.....	( )	( )	( )	( )	( )		(69)
$1.00 to $1.99.....	( )	( )	( )	( )	( )		(70)
$2.00 to $2.99.....	( )	( )	( )	( )	( )		(71)
$3.00 to $3.99.....	( )1	( )2	( )3	( )4	( )5		(72)

11 Suppose you wanted to buy flannel yard goods at about $1.50 a yard. How much extra would you be willing to pay for the same material if you know it had been treated with a special retardant finish?

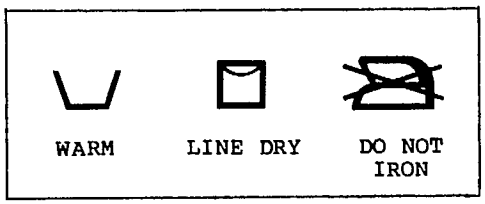
Nothing.....( )1 (73)
25¢/yard.....( )2
50¢/yard.....( )3
75¢/yard.....( )4
$1.00/yard.....( )5
Over $1.00/yard.....( )6

12 In your opinion which of the following would be the best way to explain laundering and care instructions on the label of flame-retardant treated sleepwear? (Check only one)

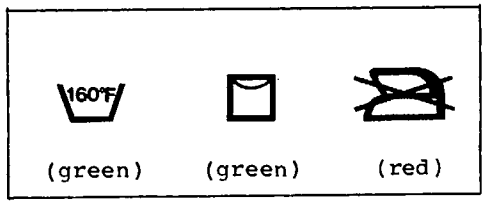
Words only.....( )1 (74)

MACHINE WASH WARM
LINE DRY
DO NOT IRON

Words and symbols.....( )2



Coloured symbols using traffic light colours for "go ahead," "caution" or "stop" for each procedure.....( )3



13a Have you heard anything in the news about possible problems with children's flame-retardant sleepwear?

YES.....( )1 NO.....( )2 → SKIP TO QUESTION 14 (75)

13b What did you hear?

_____

_____

_____ (76)_____

(77)_____

(78)_____

(79)_____

14 Please read carefully the 9 statements below concerning the flammability of clothing and textile products. For each of the following statements, which of the responses best expresses your opinion? (Check one response for each statement.)

	AGREE		NO OPINION		DISAGREE	
It is the government's job to make sure that everything sold is safe against the danger of fire	( )1	( )2	( )3	( )4	( )5	(7)
Adults should have complete freedom of choice in buying and, therefore, the government is interfering where it shouldn't when it passes laws like one requiring clothing and other materials be made to resist burning	( )	( )	( )	( )	( )	(8)
We do not need laws requiring that fabrics be made flame resistant because stores would not sell fabrics that are dangerous	( )	( )	( )	( )	( )	(9)
It is the responsibility of the government to protect consumers from clothing or other textile products which might burn	( )	( )	( )	( )	( )	(10)
Consumers should take the responsibility for clothing or other textile products that might burn, not the government	( )1	( )2	( )3	( )4	( )5	(11)
It is the responsibility of clothing manufacturers to protect consumers from clothing or other textile products which might burn	( )	( )	( )	( )	( )	(12)
The consumer would be better off if the government would not interfere with clothing that is being bought in stores	( )	( )	( )	( )	( )	(13)
In order to eliminate more accidents, the government should carry out programs to educate the public about such things as fire hazards rather than pass laws requiring that clothing and other materials be made to resist burning	( )	( )	( )	( )	( )	(14)
Since everyone is safety-minded today, the government does not need to check clothing and other materials for safety before they are sold	( )1	( )2	( )3	( )4	( )5	(15)

15a Has there ever been an accident with fire in your home?

YES.....( )1 NO.....( )2→ SKIP TO QUESTION 16a (16)

15b About when did this happen?

(17.18) (19.20)

MONTH_____ YEAR_____

15c Did any of the following items catch fire? (Check all that apply.)

Clothes.....( )	(21)
Blankets.....( )	(22)
Mattresses.....( )	(23)
Curtains or draperies.....( )	(24)
Rugs or carpets.....( )	(25)
Upholstered furniture.....( )	(26)
None of these caught fire.....( )	(27)

15d Was anyone injured by the fire?

YES.....( )1 NO.....( )2→ SKIP TO QUESTION 16a (28)

15e Was the person(s) injured by any of the following items catching fire? (Check all items that apply, indicate age(s) of person(s) injured.)

ITEMS	(29.30) _____(age)	(39.40) _____(age)	(49.50) _____(age)
Night clothes.....	( )(31)	( )(41)	( )(51)
Day clothes.....	( )(32)	( )(42)	( )(52)
Blankets.....	( )(33)	( )(43)	( )(53)
Mattresses.....	( )(34)	( )(44)	( )(54)
Curtains or draperies.....	( )(35)	( )(45)	( )(55)
Rugs or carpets.....	( )(36)	( )(46)	( )(56)
Upholstered furniture.....	( )(37)	( )(47)	( )(57)
None of these items.....	( )(38)	( )(48)	( )(58)

16a Do you have any friend or are you related to anyone else who has had an accident with fire in their home?

YES.....( )1 NO.....( )2→ SKIP TO QUESTION 17 (59)

16b About when did this happen?

(60.61) (62.63)

MONTH_____ YEAR_____

16c Did any of the following items catch fire? (Check all items that apply.)

Clothes.....( )	(64)
Blankets.....( )	(65)
Mattresses.....( )	(66)
Curtains or draperies.....( )	(67)
Rugs or carpets.....( )	(68)
Upholstered furniture.....( )	(69)
I do not know.....( )	(70)
None of these caught fire...( )	(71)

16d Was anyone injured by the fire?

YES.....( )1 NO.....( )2→ SKIP TO QUESTION 17 (7)

16e Was the person(s) injured by any of the following items catching fire? (Check all items that apply, indicate age(s) of person(s) injured.)

ITEMS	(8.9) _____(age)	(19.20) _____(age)	(30.31) _____(age)
Night clothes	( )(10)	( )(21)	( )(32)
Day clothes	( )(11)	( )(22)	( )(33)
Blankets	( )(12)	( )(23)	( )(34)
Mattresses	( )(13)	( )(24)	( )(35)
Curtains or draperies	( )(14)	( )(25)	( )(36)
Rugs or carpets	( )(15)	( )(26)	( )(37)
Upholstered furniture	( )(16)	( )(27)	( )(38)
I do not know	( )(17)	( )(28)	( )(39)
None of these items	( )(18)	( )(29)	( )(40)

17 Just to keep our records up to date, would you please complete the following:

Are you employed outside the home?

	(41)		(42)	
YOURSELF	( )1	Yes, full-time	HUSBAND ( )1	Yes, full-time
	( )2	Yes, part-time	( )2	Yes, part-time
	( )3	No, not employed outside the home	( )3	No, not employed outside the home

What is this person's occupation? _____ _____

Describe this person's duties? _____ _____

_____ _____

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

Questionnaire I

1 When you are purchasing children's sleepwear how important are the following items?

	VERY IMPORTANT 1	2	SOMEWHAT IMPORTANT 3	4	UNIMPORTANT 5	
Long wearing.....	( )	( )	( )	( )	( )	(7)
Low shrinkage.....	( )	( )	( )	( )	( )	(8)
Easy care.....	( )	( )	( )	( )	( )	(9)
Low price.....	( )	( )	( )	( )	( )	(10)
Styling.....	( )	( )	( )	( )	( )	(11)
	1	2	3	4	5	
Colour.....	( )	( )	( )	( )	( )	(12)
Fabric.....	( )	( )	( )	( )	( )	(13)
Other (please write in)						
_____	( )	( )	( )	( )	( )	(14)
_____	( )	( )	( )	( )	( )	(15)

2 Do you usually look for laundering and care instructions on your child's sleepwear before you purchase it?

YES.....( )1 NO.....( )0 (16)

3 Have you ever decided <u>not</u> to purchase an item because of laundering and care instructions?

YES.....( ) NO.....( )0 (17)

3a If "YES," when? (Check "✓" as many as apply)

When the label says "Do not bleach".....( )1 (18)
When the label says "Wash separately".....( )1 (19)
When the label says "Hang to dry".....( )1 (20)
When the label says "Hand wash only".....( )1 (21)

Other_____
(PLEASE WRITE IN)

4 This question concerns what the symbols on care labels mean. For each symbol below, please write in the number from beside the phrase which best describes the meaning of that symbol. Here are phrases from which to choose.

1 Tumble dry medium-high
2 Machine washable in hot water
3 Hang to dry soaking wet
4 Dry clean low
5 Machine washable in warm water
6 Tumble dry low
7 Do not bleach
8 Hang to dry
9 Iron low
10 Do not dry clean
11 Hand washable in lukewarm water
12 I do not know

(yellow) ____ (22)


(red) ____ (23)


(yellow) ____ (24)


(green) ____ (25)


(yellow) ____ (26)

(red) ____ (27)


(yellow) ____ (28)

5 For the questions below I would like you to provide an answer for each of your children 14 years old or younger. There are spaces provided for 5 children 14 years old or younger. Please start with the left column, "Youngest Child 14 or Under," and write in the age and sex of the youngest child. Then do the same in the second column for your second youngest child 14 years or younger. Continue with the other columns until you have indicated all your children 14 years or younger. There is a space to write in their names if that will help you answer the questions.

When you have filled in the age and sex for each of your children 14 years or younger, would you then read the question numbered 5a, and indicate with a "√" the answer for each child. Then go on to 5b, and so on, until you have answered all parts of this question.

	Youngest Child 14 or Under	OFFICE USE ONLY (1-5)dup (6)-2 (7-63)dup	OFFICE USE ONLY (1-5) (6)-3 (7-63)dup	OFFICE USE ONLY (1-5)dup (6)-4 (7-54)dup	Oldest Child 14 or Under (1-5)dup (6)-5 (7-54)dup
Name	_____ (64)____	_____ (64)____	_____ (64)____	_____ (64)____	_____ (64)____
Age (in years - please write in)	_____ (65)____	_____ (65)____	_____ (65)____	_____ (65)____	_____ (65)____
Sex (boy or girl)	(66) Boy....( )1 Girl...( )2	(66) Boy....( )1 Girl...( )2	(66) Boy....( )1 Girl...( )2	(66) Boy....( )1 Girl...( )2	(66) Boy....( )1 Girl...( )2

5a Please indicate what type of sleepwear each child usually uses in the SUMMER ("√" ONLY ONE FOR EACH CHILD)

	(67)	(67)	(67)	(67)	(67)
Regular pyjamas (long or short sleeves, long or short pants).....	( )1	( )1	( )1	( )1	( )1
Ski-type pyjamas (knitted, close-fitted pyjamas).....	( )2	( )2	( )2	( )2	( )2
Sleepers (with or without feet).....	( )3	( )3	( )3	( )3	( )3
Long full nightgowns...	( )4	( )4	( )4	( )4	( )4
Short nightgowns or baby doll pyjamas.....	( )5	( )5	( )5	( )5	( )5
Underwear only (pants, panties, shirts, diapers).....	( )6	( )6	( )6	( )6	( )6
Regular daytime clothes (dresses, pants, shirts and blouses).....	( )7	( )7	( )7	( )7	( )7

5b Please indicate the usual type of fabric for the sleepwear each child usually uses in the SUMMER ("√" ONLY ONE FOR EACH CHILD)

	(68)	(68)	(68)	(68)	(68)
All cotton (100%).....	( )1	( )1	( )1	( )1	( )1
Over 50% cotton and some polyester.....	( )2	( )2	( )2	( )2	( )2

Just to be sure, would you please write in again the age and sex of your children 14 years or younger, starting with the left column, using the same order as on the previous page.

	Youngest Child 14 or Under				Oldest Child 14 or Under
Name	_____	_____	_____	_____	_____
Age (in years - please write in)	_____	_____	_____	_____	_____
Sex (boy or girl)	Boy....( ) Girl...( )	Boy....( ) Girl...( )	Boy....( ) Girl...( )	Boy....( ) Girl...( )	Boy....( ) Girl...( )

5b Please indicate the usual type of fabric for the sleepwear each child usually uses in the SUMMER ("√" ONLY ONE FOR EACH CHILD)

	(68)	(68)	(68)	(68)	(68)
50% cotton and 50% polyester.....	( )3	( )3	( )3	( )3	( )3
Over 50% polyester and some cotton.....	( )4	( )4	( )4	( )4	( )4
All polyester (100%)...	( )5	( )5	( )5	( )5	( )5
All nylon (100%).....	( )6	( )6	( )6	( )6	( )6
Nylon and polyester blend.....	( )7	( )7	( )7	( )7	( )7
Nylon and acetate blend.....	( )8	( )8	( )8	( )8	( )8
Other_____ (WRITE IN)	( )	( )	( )	( )	( )
I do not know.....	( )0	( )0	( )0	( )0	( )0

5c Please indicate what type of sleepwear each child usually uses in the WINTER ("√" ONLY ONE FOR EACH CHILD)

	(69)	(69)	(69)	(69)	(69)
Regular pyjamas (long or short sleeves, long or short pants).....	( )1	( )1	( )1	( )1	( )1
Ski-type pyjamas (knitted, close-fitted pyjamas).....	( )2	( )2	( )2	( )2	( )2
Sleepers (with or without feet).....	( )3	( )3	( )3	( )3	( )3
Long full nightgowns...	( )4	( )4	( )4	( )4	( )4
Short nightgowns or baby doll pyjamas.....	( )5	( )5	( )5	( )5	( )5
Underwear only (pants, panties, shirts, diapers).....	( )6	( )6	( )6	( )6	( )6
Regular daytime clothes (dresses, pants, shirts and blouses).....	( )7	( )7	( )7	( )7	( )7

Again would you please write in the age and sex of the children in the same order as on the previous page.

	Youngest Child 14 or Under				Oldest Child 14 or Under
Name	_____	_____	_____	_____	_____
Age (in years - please write in)	_____	_____	_____	_____	_____
Sex (boy or girl)	Boy....( ) Girl...( )	Boy....( ) Girl...( )	Boy....( ) Girl...( )	Boy....( ) Girl...( )	Boy....( ) Girl...( )

5d Please indicate the usual type of fabric for the sleepwear each child usually uses in the WINTER ("√" ONLY ONE FOR EACH CHILD)

	(70)	(70)	(70)	(70)	(70)
All cotton (100%).....	( )1	( )1	( )1	( )1	( )1
Over 50% cotton and some polyester.....	( )2	( )2	( )2	( )2	( )2
50% cotton and 50% polyester.....	( )3	( )3	( )3	( )3	( )3
Over 50% polyester and some cotton.....	( )4	( )4	( )4	( )4	( )4
All polyester (100%)...	( )5	( )5	( )5	( )5	( )5
All nylon (100%).....	( )6	( )6	( )6	( )6	( )6
Nylon and polyester blend.....	( )7	( )7	( )7	( )7	( )7
Nylon and acetate blend.....	( )8	( )8	( )8	( )8	( )8
Other_____ (WRITE IN)	( )	( )	( )	( )	( )
I do not know.....	( )0	( )0	( )0	( )0	( )0

5e Where does each child usually get most of his/her sleepwear? ("√" ONLY ONE FOR EACH CHILD)

	(71)	(71)	(71)	(71)	(71)
Buy ready-made.....	( )1	( )1	( )1	( )1	( )1
Homemade.....	( )2	( )2	( )2	( )2	( )2
Passed down from older children.....	( )3	( )3	( )3	( )3	( )3
Other_____ (WRITE IN)	( )	( )	( )	( )	( )

Again would you please write in the age and sex of the children in the same order as on the previous page.

	Youngest Child 14 or Under				Oldest Child 14 or Under
Name	_____	_____	_____	_____	_____
Age (in years - please write in)	_____	_____	_____	_____	_____
Sex (boy or girl)	Boy....( ) Girl...( )	Boy....( ) Girl...( )	Boy....( ) Girl...( )	Boy....( ) Girl...( )	Boy....( ) Girl...( )

5f For each child whose sleepwear is usually "bought ready-made," please indicate in what kind of store you most often buy it. ("√" ONLY ONE FOR EACH CHILD)

	(72)	(72)	(72)	(72)	(72)
Discount store.....	( )1	( )1	( )1	( )1	( )1
Regular department store.....	( )2	( )2	( )2	( )2	( )2
Special store for children's clothing....	( )3	( )3	( )3	( )3	( )3
Mail-order catalogue...	( )4	( )4	( )4	( )4	( )4
Other_____ (WRITE IN)	( )	( )	( )	( )	( )
Not bought ready-made..	( )0	( )0	( )0	( )0	( )0

5g What kind of fabric do you prefer most when purchasing children's sleepwear or purchasing fabric to make children's sleepwear? ("√" ONLY ONE FOR EACH CHILD)

	(73)	(73)	(73)	(73)	(73)
Synthetic or man-made fabrics.....	( )1	( )1	( )1	( )1	( )1
Natural (vegetable or animal) fabrics.....	( )2	( )2	( )2	( )2	( )2
Combination synthetic and natural fabrics....	( )3	( )3	( )3	( )3	( )3
No preference.....	( )4	( )4	( )4	( )4	( )4

(74)_____

For this question, I would like you to think only about your youngest child 14 years or under (the one in the first column in Question 5). Just to be sure, would you write in again the age and sex of your youngest child. Then answer all the parts of this question about how you wash the sleepwear usually used by this child.

Age (in years - please write in) _____ (29)_____ (30)_____

Sex (boy or girl)
Boy.....( )1
Girl.....( )2 (31)

6 How do you usually wash the sleepwear that your youngest child usually wears at this time of year?

("√" ONE BOX)
Wash by hand.....( )1 (32)
Wash in wringer or automatic washer.....( )2
Other_____
(PLEASE WRITE IN)

7 How do you usually dry the sleepwear that your youngest child usually wears at this time of year?

("√" ONE BOX)
Line dry inside.....( )1 (33)
Line dry outside.....( )2
Dryer dry.....( )3
Other_____
(PLEASE WRITE IN)

8 What brand of soap or detergent do you usually use for washing the sleepwear that your youngest child usually wears at this time of year? Please indicate whether this brand is a liquid or a powder.

	Powder	Liquid	
_____ BRAND (PLEASE WRITE IN)	( )	( )	(34)_____ (35)_____

9 Do you usually bleach the sleepwear that your youngest child usually wears at this time of year? If yes, please write in the brand of bleach you usually use, and whether it is a liquid or powder.

No, do not usually use bleach.....( )0→ SKIP TO QUESTION 10 (36)_____
Yes, do usually use bleach.....( ) (37)_____

	Powder	Liquid
_____ BRAND (PLEASE WRITE IN)	( )	( )

10 If the label on your child's sleepwear says "Do not bleach," but the item is stained or heavily soiled, what would you do? (38)

Bleach anyway.....( )1
Use an all-fabric bleach.....( )2
Not use any bleach.....( )3
Other_____
(PLEASE WRITE IN)

11 Do you usually use a fabric softener on the sleepwear that your youngest child usually wears at this time of year? If yes, please write in the brand of fabric softener you usually use, and whether it is a liquid, sheets, or spray.

(39)_____

No, do not usually use a fabric softener...( )0→ SKIP TO QUESTION 12
Yes, do usually use a fabric softener.....( )

(40)_____

_____ BRAND (PLEASE WRITE IN)

Liquid	Sheets	Aerosol Spray
( )	( )	( )

12 Please read carefully the 9 statements below. For each of the following statements, which of the responses best express your opinion? (Check "✓" one response for each statement)

	AGREE 1	2	NO OPINION 3	4	DISAGREE 5	
It is the government's job to make sure that everything that is sold is safe for use.....	( )	( )	( )	( )	( )	(41)
Adults should have complete freedom of choice in buying and, therefore, the government is interfering where it shouldn't when it passes laws like the one requiring seat belts in cars, childproof medicine bottle caps and safety guidelines for toys.....	( )	( )	( )	( )	( )	(42)
We do not need laws requiring that products be made safe because stores would not sell products that are dangerous.....	( )	( )	( )	( )	( )	(43)
It is the responsibility of the government to protect consumers from clothing or other textile products that might be dangerous.....	( )	( )	( )	( )	( )	(44)
Consumers should take the responsibility for clothing or other textile products that might be dangerous, not the government.....	( )	( )	( )	( )	( )	(45)
It is the responsibility of clothing manufacturers to protect consumers from clothing or other textile products which might be dangerous.....	( )	( )	( )	( )	( )	(46)
The consumer would be better off if the government would not interfere with what is being bought in stores.....	( )	( )	( )	( )	( )	(47)
In order to eliminate more accidents, the government should carry out programs to educate the public about products that might be dangerous rather than pass laws requiring that products be made safe.....	( )	( )	( )	( )	( )	(48)
Since everyone is safety-minded today, the government does not need to check the products for safety before they are sold.....	( )	( )	( )	( )	( )	(49)

13 Do you feel children's sleepwear presents a danger to your child in any way, or not?

YES.....( )1 NO.....( )0→ SKIP TO QUESTION 14 (50)

Please write in below the kind(s) of danger children's sleepwear presents. For each kind of danger that you write in, please indicate how much of a danger children's sleepwear presents.

KIND OF DANGER	VERY GREAT DANGER		MODERATE DANGER		VERY LITTLE DANGER	
_____	( )	( )	( )	( )	( )	(51)_____ (52)_____
_____	( )	( )	( )	( )	( )	(53)_____ (54)_____
_____	( )	( )	( )	( )	( )	(55)_____

14 Have you heard about any government laws which prevent the sale of certain textile items because they present a danger?

YES.....( ) NO.....( )0 THANK YOU - YOU HAVE COMPLETED THE QUESTIONNAIRE

What are these items? (Please write in) (56)_____ (57)_____ (58)_____ (59)_____

_____

_____

What type of danger do these items present? (Please write in) (60)_____ (61)_____ (62)_____ (63)_____

_____

_____

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE

DATE DUE
DATE DE RETOUR
