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## The impact of workers knowledge of clothing care labels information on the adoption of appropriate clothing care methods

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### Abstract

The importance of clothing management and care has been discussed for several centuries, during which time strict methods and procedures have been proposed for the selection, storage, laundering, and mending of clothing in order to prevent fabrics from being impacted by elements that cause them to deteriorate, even before their expected functional lifespan. Yet, poorly maintained clothing can harm a person's physical appearance and the impression that others have of them. The purpose of the study was to determine how workers' knowledge of the information on clothing care labels affected their adoption of appropriate clothing care practices. 130 respondents from the three sectors were chosen using simple random sampling, and information was acquired using a questionnaire. With the aid of SPSS version 22, data was processed and shown in percentage distribution tables. According to the study, 65% of respondents had no idea what the symbols on clothing care labels meant. Respondents took care of their garments using techniques like brushing, stain removal, washing, bluing and starching, airing, and ironing and pressing. In conclusion, the results of the chi-square analysis of the hypothesis indicate that there is a correlation between respondents' awareness of clothing care label instructions and adherence to the instructions, with all P values 0.05. In order to ensure that all students acquire the fundamental skills in clothing maintenance early in life, the study suggests strategies such as emphasizing clothing care classes in Home Economics at the basic schools.

**Keywords:** Workers knowledge, clothing care labels information, appropriate clothing care

### Introduction

Many centuries ago, the need for clothing management and care was debated. Strict methods and procedures were proposed for clothing selection, storage, cleaning, and repair in order to prevent fabrics from being impacted by elements that shorten their intended useful lifespan (Jones, 1990, as cited in Scott, K. R., *et al.*, 2019) [13, 24]. Yet, many clothing consumers are unable to properly care for their clothing because they are unaware of the special qualities of materials. For instance, a lot of customers are unsure of whether it is preferable to hang up or fold a garment, dry it flat or on a hanger, utilize the available loops, or hang it by the shoulders.

Clothing maintenance is a skill that is mainly offered by family members or people who work outside the home. The development of specialist knowledge is essential for garment care. Fisher (2008) [14] claims that the United Kingdom (UK) government study on consumers' sustainable clothing practices revealed minimal evidence of repair work being done as a routine, regular activity and that it largely consisted of small activities like repairing missing buttons and re-stitching hems. They continued to state that many of the respondents in their study indicated they did not have the skills necessary to repair clothes due to an overall decline in repair skills within the culture, a trend that was tied to the decline in teaching clothing repair skills in school.

According to Anyokaha and Eluwa (2005) [4], unclean clothing rots because it makes them smell awful and can occasionally result in color loss. According to, improper clothes storage habits can also result in skin conditions, unpleasant odors, feelings of uncleanliness, and difficulty integrating into social groups (Marshall, Jackson, Stanley, Kefgen, & Touchie-Spect, 2004) [14]. Ohovoriole and Ugeru (2002) [18] further stated that understanding appropriate

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storage is crucial for caring for clothing. Consumers must possess the appropriate information and abilities for proper care in order to maintain the freshness of their apparel. Many people are not aware of the characteristics of fabrics, which prevents them from caring for their clothing as well as they could. The deterioration of "dry-clean only" clothing has reportedly been attributed more frequently to component failure than to the materials degrading or being negatively impacted by solvents (Mendelson, 2005) <sup>[20]</sup>. A lot of clothing is thrown out before it should be because of deterioration. Clothing items are pricey, though. To get the most out of them and ensure their durability, they must be carefully cared for.

The main purpose of the study is to investigate the impact of workers knowledge of clothing care labels information on the adoption of appropriate clothing care methods.

### Hypothesis

The following hypothesis was formulated to be tested.

**H1:** Workers knowledge of clothing care labels information has no effect on the adoption of appropriate clothing care methods.

**H0:** Workers knowledge of clothing care labels information has effect on the adoption of appropriate clothing care methods.

### Literature Review

**The Concept of Clothing:** One of a person's basic needs is clothes because everyone wears what is commonly referred to as a dress, garment, or other article of clothing (Bellis, 2015) <sup>[6]</sup>. The earliest humans employed raw textile fibers to create garments for protection in prehistoric times. As people's knowledge and inventiveness increased, they discovered how to turn fibers into yarns, weave them into fabric, and utilize that fabric to create clothing (Forster, 2014) <sup>[10]</sup>.

**Classifications of Clothing:** It is crucial to learn how to wear clothing properly in order to reap the benefits of doing so because there are many different ways and reasons for which it may be used (Forster, 2014) <sup>[10]</sup>. Undergarments, outerwear, innerwear, and accessories are the four basic categories in which clothing is typically categorized. Undergarment According to Forster (2014) <sup>[10]</sup>, undergarments are clothing worn close to the skin. Because they are used beneath clothing, they are often referred to as foundation garments. Brassies, all sorts of panties, corsets, panty girdles, underwear, and underskirts are examples of undergarments. Also, according to the Ministry of Education (1994) <sup>[24]</sup>, the fabric used to construct these garments should be durable, absorbent, cool, comfortable to wear, and simple to clean.

**Inner Garment:** They are the garments worn both underneath and above the outer clothing. They are available as top wear, tube tops, vest/waist coats, skirts, shirts, shorts, and trousers, which are also incorporated into the design of the outerwear that some clergy and people who work in air-conditioned offices typically wear (Forster, 2014) <sup>[10]</sup>.

**Outer Garment:** Outer garment are smartly looking clothing worn over the undergarment and inner garments to cover the body and seen by others. They send information about the wearer to onlookers during the day, evening or night. For instance, skirt, suits, coats, jackets, dresses, trouser, T-shirts, shorts, shirts and blouses are the outer garments worn by everybody out-doors to modify appearance and for working

purposes (Forster, 2014) <sup>[10]</sup>.

**Accessories:** Accessories are worn with outer garment to complete dressing. They include belts, scarves, hats, handbags, shoes, jeweler and hair bands. These items either complement our dressing by harmonizing or contrasting with our clothes (Forster, 2014) <sup>[10]</sup>.

**Care Labels:** Care instructions are included on the label of each article of clothing or material (Australian Protection and Consumer Commission [APCC], 2008 as cited in Young, Shafer, Rojas, & Seremetis, 2008) <sup>[40]</sup>. The symbols known as "care codes" are used to properly handle clothing when it has to be cleaned and ironed (Ghosh, Das, & Bhattacharyya, 2014) <sup>[8]</sup>. Care labels are those labels with these codes drawn or printed on them. A care label needs to be simple to locate, permanently affixed, written in English, and readable for the duration of the garment's life (Ghosh, Das, & Bhattacharyya, 2014) <sup>[8]</sup>.

**Clothing Care Methods and Practices:** Any treatments that are required to maintain the fresh look of a textiles product during use, cleaning or storage are referred to as care. Improper care procedures can result in items that are unattractive, not durable and are uncomfortable (Forster, 2014) <sup>[10]</sup>.

**Laundering:** An essential aspect of clothing maintenance is laundering. Over the course of its use, a garment goes through a variety of alternate wear and laundry cycles. The following steps make up a typical laundry process: filling the laundry with the garments, soap, and water; washing; draining; rinsing; and spinning (Anand, Brown, Higgins, Holmes, Hall & Conrad, 2002) <sup>[3]</sup>. Each step of a washing cycle and its associated parameters affect how the knitted fabric changes in terms of its dimensional qualities. A single washing cycle has little to no impact on the drape, shear, or bending characteristics of a cloth.

**Laundry Agents:** Problems with laundry can prove to be difficult. One factor is the significance of the many kinds of laundry agents that consumers can purchase on the market. According to Hauthal and Wagner (2004) <sup>[16]</sup>, modern cleaning agents must have the following qualities: effective cleaning, reasonable price, material care, environmental friendliness, consumer safety, and hygienic properties, as well as extra features like pleasant fragrance, convenience, and 2-in-1 products. Cleaning attitudes have been identified by Aalto (1996) <sup>[2]</sup> as sporal cleaning, evasive cleaning, routine cleaning, and developing cleaning procedures. It is reasonable to suppose that these sentiments are reflected in the cleaning chemicals that are used.

**Washing and Rinsing:** According to Taylor (1990) <sup>[25]</sup>, washing clothes should be done differently depending on the type of fiber used, the technique of manufacture, and the finish used. He continued by saying that fabric needs regular mechanical action, regular rinsing, and regular spinning; therefore, steeping items before washing them helps release the dirt and facilitate washing. Depending on whether specific treatment is required, 30 to 1 hour of steeping is sufficient. Forster (2014) <sup>[10]</sup> went on to say that before washing, detergent and water should be well mixed. She also firmly said that bar soap consumption is widespread in Ghana. Instead of rubbing bar soap on fabric surfaces, which puts the

fabric under a lot of stress, people can produce soap jelly from chopped up bar soap and use it to wash.

**Dry-Cleaning:** According to Forster (2014)<sup>[10]</sup>, the process of using solvent with very little or no water to clean clothes that are not supposed to be washed is termed dry cleaning. Examples of such clothes are woolen suits, clothes which shrink or whose colour bleed as well as delicate fabrics such as silk and chiffon. Forster added that dry cleaning could be done commercially in a laundry or at home.

**Drying Method:** In most countries, drying is still done mainly by hanging clothes in the open air (line drying). To dry the clothes out of doors on lines has been the way of drying clothes for centuries. However, nowadays an increasing number of households dry their clothes artificially on drying cabinets or tumble dryers. Well dried clothes maintain their shapes (Foster, 2014)<sup>[10]</sup>. In western countries, drying is being increasingly done using tumble dryers.

**Ironing:** Various fibers have varying degrees of heat tolerance, so they require various ironing temperatures (Holland, 1988)<sup>[17]</sup>. Due to their high crystallinity and lengthy polymer structures, cellulosic fibers like cotton and linen can endure high temperatures. Cotton clothing wrinkles and creases badly because the cellulose fibers are rather inelastic due to the crystalline polymer structure. Wool, silk, polyester, and viscose are treated at a moderate temperature of 160 °C. For ironing heat-sensitive textiles, such as acrylics, acetate, nylons, and polyester, a minimum temperature of 120 oC is required. Although these materials are robust and do not wrinkle readily, they are vulnerable to high temperatures due to their plastic composition (Bruan and Stamminger, 2011)<sup>[7]</sup>.

**Clothing Storage Practices:** Clothing storage decisions include, among others, storage facilities, ways of storing specific items, factors that influence the procedures to adopt. Proper storage of clothes involves decision making, though decision making is the action taken in selecting from alternative courses of action (Anyakoha & Eluwa, 2005)<sup>[4]</sup>.

**Clothing Repair:** Clothing repair can envelop a wide range of activities varying from those requiring very little skills to those demanding a great deal of sewing skills and expertise. The rewards of mending vary from the self-satisfaction for a job well done to a substantial monetary savings by prolonging the life of a garment.

**Stain Removal, Bleaching, Bluing and Stiffening of Clothes:** While stains detract from the appearance of clothing, they are sometimes unavoidable. As they go about their everyday work, employees from a variety of industries come into contact with stains. For instance, clothing can be stained by ink, oil, grease, milk, fruit juice, paint, dye, and heat. Forster (2014)<sup>[10]</sup> noted that stains are typically impossible to remove with just water and detergent or regular cleaning. Furthermore, it was mentioned that time, heat, and sunlight all hasten the stain's removal process.

**Knowledge of Clothing Care Labels:** Consumers of textile goods should be aware of the information on clothing care labels. A care label is a permanent label or tag that includes instructions and information on routine maintenance, according to Eberle *et al.* (1995)<sup>[9]</sup>. In a similar vein, Forster (2014)<sup>[10]</sup> characterized clothing care labels as comments on

fabric pieces sewed onto the back of an article that provide specific clothing care instructions based on the fabric finish, trimming, and intended use of the item. They could be fastened to the waist seam, the side seam, or the neckline.

## Material and Method

A descriptive survey method was adapted for this study.

## Population of the Study

The population from which respondents for this research work were drawn was 1,300 male and female workers from the Education, Bank and Health sectors in the Ho Municipality. The structured questionnaire used in this survey contained open and close-ended items on the clothing care practices among the selected workers.

## Results and Discussion

### Section A: Demographic Characteristics of Respondents

The demographic data of the respondents covered their gender, age ranges and educational levels. Regarding gender, 52.0% were male while 48.0% were female. The distributions show a fair presentation of both genders. These characteristics were significant in this study because they could have an influence on the clothing care needs of the workers.

**Table 1:** Age Range of Respondents

Age	Freq.	Percentage
20-30 years	56	43.0
31-40 years	56	43.0
41-50 years	10	8.0
Above 50 years	8	6.0
Total	130	100

According to the table, 43% of respondents were, respectively, between the ages of 20 and 30 and 31 and 40. 8% and 6% of the respondents, who ranged in age from 41 to 50 and older, respectively, were among the respondents. These results indicate that the majority of respondents are young and energetic. The active working class in Ghana typically ranges in age from 15 to 49, so this result is consistent with the researcher's expectations (GLSS 6, 2012/2013).

**Table 2:** Educational Level of Respondents

Educational level	Frequency	Percentage
Diploma	40	31.0
Higher Nation Diploma	16	12.0
First Degree	74	57.0
Total	130	100

Table 2 shows a description of the educational level of respondents. The table suggests that 57% of respondents had a first degree, while 31% had a diploma and 12% had a national diploma as their minimum qualification. The educational level of the respondents made it easy for them to understand and answer the questionnaire without much assistance.

### Care methods used by workers to maintain their clothes

What care methods are used by the workers to maintain their clothes?

The results of the findings are presented in table 3.

**Table 3:** Care Methods used by Respondents

Responses	Freq.	%
Ironing/pressing	130	100
Washing	130	100
Airing	60	46.0
Stain removal	51	39.0
Replacement of missing buttons	45	35.0
Spot cleaning	38	29.0
Re-stitching of split seam	30	23.0
Re-stitching of lose hems	21	16.0
Clothes closet arrangement	19	15.0
Zipper replacement	12	9.0
Brushing	10	8.0
Bluing and starching	9	7.0
Patching hole, cuts, and stubborn stains	9	7.0
Bleaching	7	5.0
Total	665	515.0

Total > 130 due to multiple responses

These results showed that the respondent used different garment care techniques on their work outfits. Importantly, the higher score for washing and ironing/pressing indicates that respondents performed these tasks. One of the main justifications for washing garments is to remove odors and grime (Aalto, 1996) [2]. Either physical labor or a washing machine could be used for washing. Since labor-intensive behaviors are disappearing as a result of new technology, such as the invention of the electric washing machine, people are washing their clothes more frequently as a result of changes in social standards and technological advancements (Shove, 2003) [22]. Respondents iron/press their clothes to remove creases and also improve the appearance of their clothes. (Eberle *et al* (1995) [9] advised that the right temperature should be use when ironing or pressing. Respondent also aired their clothes to remove odour and to freshen it up (Shove, 2003) [22]. From the data gathered, respondents do not attach much importance to stain removal. Stains spoil the appearance of clothes but they cannot be avoided by workers, since they come into contact with stain as they carry on with daily duties. For example, ink, oil, grease, blood, milk, fruit juice, paint, soup, dye with heat can stain clothes of workers (Forster, 2014) [10].

Furthermore the result also indicated that respondents hardly repair their clothes because they do not know how to go about it considering the low values recorded for replacement of missing buttons, re-stitching of split seams, re-stitching of lose hems, zipper replacement, patching hole, cuts and stubborn stains. In some cases, on the part of workers, some may wear clothes that need repair work but they may lack time, tools or knowledge of repair method. To Baker (2007) [7] the time consumed on repair, and making own clothes has

reduced significantly in the past decades due to the fact that simpler techniques, where the potential to unique aesthetic expression has become more important. Repair can envelop a wide range of activities varying from those requiring very little skills to those demanding a great deal of sewing skills. This agrees with the findings of Alison (2014) [2] who stated that respondents' lack of skills to repair clothes was identified as one of the significant barriers to engaging with repair work. Aside sewing on buttons or stitching up hems, there is little evidence of repair work being undertaken as a normal, regular activity at home. Generally, clothes that are free from damages make workers look decent. Spot cleaning and brushing, also recorded low values which indicate that most workers do not perform those activities to keep their clothes clean. It could be that workers prefer washing their clothes to spots cleaning and brushing due to the fear of body odour and resulting social consequences, as well as attraction of "fresh" clothes. This finding confirms what Shove (2003) [22] stated that, laundering practices are constantly changing, influenced by social, cultural and moral norms which must be understood over time and across cultures. Again from the data bluing, starching and bleaching happens to be an activity not mostly performed by workers because they feel it is not very necessary or they think it could damage the appearance of their outer clothes if not applied well. Tortora and Collier (1997) [27] in their study found that bleaching damages fibres such as silk, wool and spandex, and even dyes, therefore bleaching is rarely recommended for dyed textiles. One reason for choosing a particular laundry agent may be to avoid some side effect (Timonen, 1996) [25]. Workers white clothes can be bleach and Blued to make it look whiter and brighter and starched to feel crisp, smooth and glossy. Finally, from the result of the study, few respondents perform clothes closet arrangement as a clothes care method due to the fact that, they may not be aware that good storage and packing practices in clothing care ensure the freshness of their clothes, life and look of their wardrobe. Pitts (2006) [27] stated that moth often damage clothes that are not stored properly, hence one needs to store his or her clothes in a cool, dry, clean and dark environment. Cook (1993) [8] asserts that, to maintain the good appearance and obtain the most wear out of a garment, it is essential to make good day to day care of the clothes and repair at the earliest signs of wear





**Knowledge workers have on clothing care label instructions**









**Analysis of Hypothesis**

**H<sub>0</sub>** Workers knowledge of clothing care label instructions has no relationship with their adherence to care label instructions.

**H<sub>1</sub>** Workers knowledge of clothing care label instructions is related to their adherence to care label instructions.

**Table 4:** Chi-square Analysis of Knowledge of Respondents and adherence to Clothing Care Label Instructions

Symbols	Meaning	Have knowledge of clothing care Labels Freq. %	Adhere to clothing care label instructions Freq.	%	X <sup>2</sup> Value	P Value
	Iron medium temperature	74 57.0	47	20	6.03	0.01
	Iron high temperature	71 55.0	48	20	4.45	0.04
	Hand wash	57 44.0	25	11	11.86	0.01
	Do not wring/squeeze	53 41.0	36	15	3.25	0.01

	Use warm water (Washing Temperature)	49 38.0	25	11	7.78	0.05
	Dry clean	43 33.0	19 8		9.29	0.02
	Any bleach could be used when necessary	40 31.0	8	3	21.33	0.00
	Gentle/delicate washing	39 30.0	12	5	14.29	0.00
	Drip dry	36 28.0	6	3	21.43	0.00
	Do not dry	34 26.0	6	3	19.60	0.00
	Non-chlorine bleaches as needed	29 22.0	1	0	26.13	0.00
	Tumble dry no heat	22 17.0	3	1	14.44	0.00

All the Pvalues are  $< 0.5$  so are the significant. Hence the null hypothesis is rejected. Meaning, there is an association between the respondents' knowledge of care label instructions, and adherence to the instructions. Table 8 shows a Chi-square analysis which was used to investigate whether workers' knowledge of clothing care labels' instructions affected their adherence to the care instructions on the labels. Table 7 shows a difference in the various distributions regarding adherence to care label instructions. For example 49 respondents had knowledge about the (washing temperature) but 25 of them adhered to it i.e. they maintained their washing temperature according to the symbols instructions on the attached label. The Chi-Square value for the association between workers' knowledge of clothing care labels and adherence to instructions was obtained as 125.1 with 4 degrees of freedom and a Significance level of 0.00001, which is less than 0.05. There is there an association between workers knowledge of clothing care labels instructions for washing temperature and adherence to instructions for washing temperature. According to Schiffman and Kanuk (2007) <sup>[20]</sup>, the more knowledge consumers have about products and services, the more likely they are to develop attitude towards them, which can be either positive or negative.

## Summary, conclusions and recommendations

### Conclusions

Successful textile product care depends on proper care labeling, proper customer interpretation of care labels, and use of care information while caring for clothing. According to the study's findings, the following conclusions were made:

- 1 Respondents cleaned their garments using techniques such as spot cleaning, bleaching, washing, bluing, starching, brushing, airing, and ironing or pressing. Also, they fix rips, tears, and difficult stains; add missing buttons and zippers; re-stitch split seams and lost hems; and organize closets.
- 2 Respondents' knowledge level on clothing care label instructions presented by the researcher is moderate.
- 3 Respondents' issues with clothing care include time constraints, a lack of community laundromats, exhaustion, an inability to read and interpret clothing care labels, a lack of tools for clothing repair, and others. They

lack caring knowledge, skills, and facilities at home and in the community due to the shortage of mobile garment repairers.

### Recommendations

The following recommendations were made based on the findings and conclusions of the study:

1. While choosing their apparel, employees should always search for items that are likely to be simple to maintain.
2. The Ghana Standard Authority (GSA) in the Volta area should make sure that clothing manufacturers provide guidelines for proper care on the labels attached to the apparel they produce.
3. Home Economic education should lay emphasis on clothing care at the basic school level of education to ensure that pupils receive the basic knowledge about clothing care early in life
4. Entrepreneurs should open more laundries and mending shops to take advantage of the present need for such facilities in the municipality.

### Suggestions for further study

The following were recommended for further study: Workers who belong to other sectors that were not captured in this study should be considered by researchers for similar studies.

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