

**A TRANSITIVITY ANALYSIS OF MEDICAL BROCHURES WITH A
FOCUS ON CERVICAL AND BREAST CANCER**

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FOCUS ON CERVICAL AND BREAST CANCER**

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ORIGINAL LITERARY WORK DECLARATION

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ABSTRACT

This study analyzed four medical brochures consisting of Cervical Cancer and Breast Cancer. Medical brochures were chosen because they are important non-verbal tools that are used for creating awareness to the public about diseases. The study aimed to explore the transitivity choices used in medical brochures as well as the role of transitivity in creating meaning. The theory of Systemic Functional Linguistics by Hallidayanø and Matthiessenø (2004) is the theoretical framework of this study. The study also looked at Halliday (1994), Egginsø (2004) Thompson (2004), Bloor and Bloor (2004) and Martin et al (1997) System of Transitivity. This study confines itself to the written text hence, pictures and diagrams are not a part of this study. The findings reveal the predominantly used Process types in this study are Material processes (54%) and Relational processes (33%). The high usages of Material processes are due to general procedures that are included in these brochures and the Relational processes to give descriptions of diseases. Followed by other process types such as Mental processes (6%), Behavioural processes (1%), Verbal processes(4%) and Existential processes(2%). All these processes are insignificantly used in these brochures. The predominantly used Circumstantial elements are Circumstance of Location (41%), Circumstance of Manner (25%) and Circumstance of Extent (18%). Meanwhile other Circumstantial elements were least used in medical brochures. The use of proper choices of process types and sentence structures will present the information effectively. The findings obtained will be helpful in teaching, designing and producing brochures. Future research can be looking at interpersonal accepts and multimodality analysis for the pictures and diagrams.

ABSTRAK

Laporan penyelidikan ini menganalisis empat jenis risalah kesihatan iaitu Risalah kanser payudara dan kanser pangkal rahim. Risalah ini dipilih kerana ia memainkan peranan yang penting sebagai media untuk memberikan kesedaran kepada manusia. Penyelidikan ini menerokai semua jenis *Transitivity* yang digunakan serta mengetahui bagaimana *Transitivity* ini membantu dalam pembentukan makna. Kerangka teori yang digunakan adalah berdasarkan Hallidayan dan Matthiessen (2004) iaitu *Theory of Systemic Functional Linguistics* dan juga merangkumi Halliday (1994), Eggins (2004) Thompson (2004), Bloor and Bloor (2004) dan Martim et al (1997) *System of Transitivity*. Walaupun risalah ini mengandungi gambar-gambar namun ini tidak dianalisis dalam penyelidikan ini dan hanya unsur-unsur tulisan sahaja dianalisis. Berdasarkan hasil analisis, *Material process* (54%) dan *Relational process* (34%) adalah proses yang digunakan dalam risalah ini berbanding kepada; *Mental process*, *Behavioural process*, *Verbal process* dan *Existential process*. Bagi unsur *Circumstantial Elements* pula *Circumstantial of Location* (41%) adalah yang paling banyak digunakan diikuti dengan *Circumstantial of Manner* (25%) dan *Circumstantial of Extent* (18%). Manakala, *Circumstantial* lain tidak banyak digunakan. Secara keseluruhan, penyelidikan ini telah mencapai motif kajian ini dengan mengenalpasti semua unsur-unsur *transitivity* dalam risalah ini. Penggunaan jenis *Transitivity* telah membantu dalam pembentukan ayat yang sesuai dan mudah difahami. Selain itu, ia boleh juga membantu dalam pembuatan risalah baru. Penyelidikan ini membuka ruang untuk kajian yang lebih terperinci dengan menganalisis unsur-unsur gambaran. Akhirnya, penyelidikan ini telah mencapai objektifnya untuk penggunaan masa depan.

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Blessings from my guru, Om Sri Raghavendra gave me the courage to overcome all the challenges and hurdles I encountered during completing my research. With his blessings, everything went on successfully. -Om Sri Raghavendraya Namaha

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My mother, my soul, Annapoornam gave me the strength whenever I lost the confidence. She sacrificed her time for me when I needed her help. She was always there by me till this very moment. My dad and my brother gave me abundance of moral support and encouraged me to complete my studies. I am very blessed to have a beautiful family who stood by me all the time.

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CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION

This study focuses on analyzing medical brochures on cervical and breast cancer, using the System of Transitivity of Systemic Functional Linguistics (SFL). This study analyses the Transitivity choices used in both the texts and their effectiveness in creating meaning. Section 1.1 is the statement of the problem, while section 1.2 defines the research questions. Next, section 1.3 presents the significance of the study, section 1.4 covers the limitations and the implication of the study and section 1.5 describes the organisation of the research.

1.1 STATEMENT OF THE PROBLEM

The current study analyses medical brochures as a genre of print media, with specific focus on cervical and breast cancer, using the Systemic Functional Linguistics (SFL) approach of Transitivity. Previous local researches on Transitivity have been carried out, for example, the study on medical articles, literature essay writing among Year 4 students, love songs, chemistry texts, newspaper articles, novels and others. The current study hopes to shed some light on the language of medical brochures. It attempts to show the Transitivity aspects in cervical cancer and breast cancer medical brochures. A multimodality analysis is not carried out in this study. The findings will present the types of processes which occur in sentences in medical brochures.

1.1.1 MEDICAL BROCHURES

Medical brochures are printed materials used as communicational tools. These brochures can be found in private and government hospitals, clinics and in selected health awareness booths. There are a variety of brochures published on different topics. Medical brochures contain sufficient amount of information and give description about particular diseases. These brochures contain coloured illustrations and pictures that can attract the attention of readers and help in educating and creating awareness for early precautions in order to save lives.

1.2 AIMS AND RESEARCH QUESTION

This study focuses on two aims: firstly to explore the transitivity choices used in medical brochures published by different publishers. That includes the Transitivity choices in the sentences. Secondly is to justify the role of Transitivity in meaning creation for medical brochures.

The analysis of the brochures will be carried out based on three major questions. These research questions will explain how the experiential meaning is used in the medical brochures.

The research questions of the study are as follows:

- 1) What are the process types and participants used in medical brochures?
- 2) What are the types of Circumstantial elements used in medical brochures?
- 3) How do the choices in Transitivity contribute to the creation of meaning in medical brochures?

1.3 SIGNIFICANCE OF THE STUDY

The significance of the study is to capture the choices of sentences used in conveying the messages to the patients. It also looks at how the choices of words are used and how sentences are structured in the medical brochures. The findings exploit the sentences in the medical field, specifically in brochures. Brochures play a major role in giving information to the public. Therefore they should be written in a clear way that can be understood by the public. The lexico-grammar plays a major role in benefiting those who are planning to write medical brochures.

1.4 DELIMITATIONS

This study confines itself to the medical brochures that focus on cervical cancer and breast cancer. The diagrams in the brochures are not part of the study. The study uses the system of Transitivity as the tool for analyzing the data.

1.5 ORGANISATION OF PROJECT

This project is divided into five chapters which are introduction, literature review, methodology, analysis, and conclusion. The introduction chapter presents the overview of the research. The literature review provides reviews of past studies related to the research. The methodology chapter explains the theoretical framework of this study. The findings and discussions of the research are in the following chapter. Lastly, the conclusion will provide the summary of this study.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter aims to explore the literature review of this study. There are five sections in this chapter. Section 2.1 provides the explanation about brochures and section 2.2 provides a brief explanation of medical brochures. Section 2.3 covers the relevant research carried out on brochures. Section 2.4 gives the background of Transitivity. Section 2.5 presents the local research on Transitivity. Section 2.6 will conclude this chapter.

2.1 BROCHURES

2.1.1 History of brochures

About 450 years ago, Johannes Gutenberg invented the first movable printing press. During those years, printing was expensive and was only limited to the printing of the Bible and Educational material such as textbooks. After a great widespread in printing, more materials were printed, such as newspapers. During the 1800s, printing developed and had more impact on printed materials. Then in 1900s, printed materials had its important role in promoting products and services. The demand for printed materials increased and more materials like magazines were printed. At the same time, brochures were printed and they played an important role for businesses. During that era the brochures were only printed in black ink.

During the 1950s and 1960s, the use of offset printings was wide, and the materials were printed in colour. In the 1980s, due to the advancement in technology, the brochures were printed with various colours and designed using graphics software. The output of brochures was attractive and the demand for brochures increased. Now, many organisations prefer to use brochures as a tool of communication.

2.1.2 Types of brochures

There are a wide variety of brochures; those used in businesses, educations, medical aspects and many more. According to Bhatia, K. (2004), he has differentiated all the various types of brochures according to genres, registers and disciplines of that particular written discourse. Business brochures are widely used to sell or describe

products and services or even provide information. Halliday (1994) said that registers are often categorized based on specific configuration of three contextual factors: field, tenor and mode. Medical brochures belong to the discipline of science, with the genre of brochures and the register identified as medical discourse. This is the context which is analysed in this study.

2.1.3 Language of brochures

Language plays an important role in both written and spoken discourse. English has been the main medium in the Medical field and is also used as a medium of communication worldwide. Some of the medical brochures are presented in English. The purpose of medical brochures is to deliver information to a lay person, and therefore the language presented in the medical brochures should be simple-structured sentences and not include any scientific terms.

Bhatia (2004:5) explains that the functions of lexico-grammar in specialized texts vary according to a variation of registers. The texts in medical brochures are presented in the form of question and answer, where it is similar to a spoken discourse. Therefore the language style that is used is basically how the lay man speaks, similar to doctor-patient communication.

2.2 MEDICAL BROCHURES

This study focuses on medical brochures of two major cancers that are rated as the top five life-threatening cancers among females in Malaysia. The Ministry of Health has stated that one in every four Malaysians is at the risk of any Cancer. This is explained in Table 2.1 with evidence in section 2.2.1 Breast Cancer and section 2.2.2 Cervical Cancer.

Table 2.1: Cancer among males and females in Malaysia.

Males	Females
Colorectal	Breast
Lung	Colorectal
Nasopharyngeal	Cervical Uteri
Prostate	Ovary
Liver	Thyroid Gland
Bladder	Lung

Source: Malaysia Cancer Statistic Data and Figure Peninsular Malaysia (2006)

2.2.1 Breast Cancer

According to National Cancer Registry, breast cancer is the most common overall cancer and the most common in women amongst all races from the age of 20 years old in 2007. A percentage of 18.1 represent breast cancer among all the cancer cases and 32.1% of them are cancer cases among women in 2007. However, Malaysian rates for cancer are still lower compared to Western countries where the numbers of cases are increasing (National Cancer Registry, 2007).

2.2.2 Cervical Cancer

Cervical Cancer is the second most common cancer among women in Peninsular Malaysia in years 2003-2005 (National Cancer Registry 2003-2005). According to the National Cancer Registry, Cervical Cancer occurs at the peak of age 60 ó 69 years in Malaysia. The Star newspaper, one of the common newspapers in Malaysia, has published an article on May 22, 2011 about HPV and Cervical Cancer





2.2.3 Sample of Brochures

Samples of medical brochures used in this study are presented in Figure 2.1 and Figure 2.2 (refer to the following pages)

Figure 2.1 : Sample Brochure of Cervical Cancer





FACTS

Did you know ...




-  **Cervical Cancer is the 2nd most common cancer among Malaysian* women.**¹⁵
-  **4 women are diagnosed with cervical cancer in Malaysia each day.**¹⁶
-  **It is caused by a common virus called Human Papillomavirus (HPV).**³
-  **It is estimated that 8 out of 10 women will get HPV infection in their life time.**⁷

* Incidence of cervical cancer in the 2003 National Cancer Registry is for Peninsular Malaysia only.






What are cervical cancer and precancerous lesions?

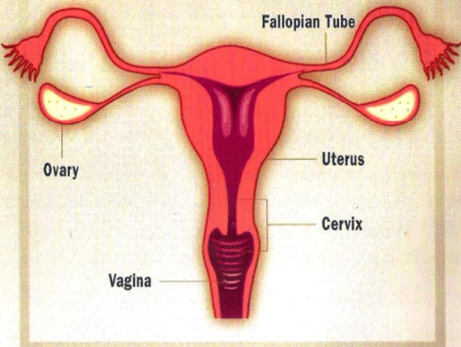
-  Cervical cancer is abnormal cell growth in the cervix.¹ The cervix is the part of the uterus that connects the upper part of the uterus (the womb) and the vagina.¹
-  Cervical cancer is a serious condition that can be life threatening. It begins when a woman becomes infected with certain types of Human Papillomavirus (HPV).²
-  If the immune system does not clear the HPV infection, normal cells can begin to grow abnormally and turn into precancerous lesions.³
-  If not discovered early and treated, this precancerous lesion can become cancer.³ Most often this can take a number of years, although in rare cases it can happen within a year.¹

Who gets cervical cancer and precancers?

-  Women who have been infected with certain types of HPV and have not been able to clear the virus can get cervical cancer and precancers.³
-  About half of all females diagnosed with cervical cancer are between 35 and 55 years old.⁴ Many of these women were most likely exposed to cancer-causing HPV types during their teens and 20s.⁵
-  Most of the women who get cervical cancer may have never had a Pap smear.³

What are the symptoms of cervical cancer?

-  Abnormal vaginal bleeding⁴:
 - Bleeding that occurs between regular menstrual periods
 - Bleeding after sexual intercourse, douching or a pelvic exam
 - Menstrual periods that last longer and are heavier than before
-  Bleeding after menopause⁴
-  Increased vaginal discharge⁴
-  Pelvic pain⁴
-  Pain during sexual intercourse⁴



Vulva is the external female genetalia.

Figure 2.2 : Sample Brochure of Breast Cancer

What is Breast Cancer?

Breast cancer is the most common cancer and the number one cause of cancer deaths amongst Malaysian women.

Cancer of the breast is the result of an uncontrolled growth of cells within the breast tissue. If not detected and treated promptly, breast cancer can spread to the lymph glands and to other parts of the body such as the bones, lungs, and liver.

WHAT CAUSES BREAST CANCER?

The exact cause of breast cancer is not known. Any woman aged 20 and above is at risk of getting breast cancer.

The following factors may increase a woman's risk of developing breast cancer:

- Increasing age.
- Family history of breast cancer.
- Early onset of menstruation (before age 12) or late menopause (after age 50).
- Childless or giving birth to first child after age 30.
- Diet high in animal fats.

What Can You Do To Fight Breast Cancer?

Breast cancer is curable if detected and treated early. Breast cancer is one of the cancer, that is easily detected.

Early detection is done through breast examination. All women aged 20 and above must do Breast Self-Examination (BSE) every month throughout their lifetime. For those above 30, they should also get a Breast Examination done by a doctor or other medical personnel yearly.

Regular breast examination will allow a woman to discover cancer of the breast at an early stage when treatment is more effective.

When To Do BSE ?

Every month. If you are menstruating, BSE should be performed between the 7th and 10th day after the start of your period.

If your periods are irregular or you no longer menstruate, BSE should be done on a fixed day every month. Pick an easy day to remember such as the first or last day of the month.

How To Do BSE ?

It can be done through 2 methods namely by looking for changes in front of the mirror and feeling for changes while lying down.

A Looking For Changes In Front Of A Mirror

Look for size, shape and symmetry of breasts and level of both nipples.



Position 1
Remove your clothing above the waist, and view yourself in front of a mirror.



Position 2
Raise both arms above your head. Examine your breasts from different angles.



Position 3
Stand in front of a mirror with your arms at your side and turn from side to side.



Position 4
Tighten your chest muscles by placing your hands on your hips and pressing in and down firmly.

Warning Signs To Look For During Examination

- Lump in the breast or armpit.
- Abnormal change in shape or size of the breast.
- Abnormal dimpling or puckering of the skin of the breast.
- Nipples become pulled in.
- Bleeding or unusual discharge from the nipples.

2.3 RELEVANT RESEARCH ON BROCHURES

There are several studies that were carried out using travel brochures, educational brochures, and business brochures.

Moya Guijarro (2006) has presented a discourse from the functional perspective titled; *The Continuity of Topics in Journal and Travel Texts*. This paper aims to study topic continuity strategies in news items and tourists brochures. Based on the findings, these two text types are of two different genres and register where the lexico-grammatical aspect varies between the tourist brochures and journals. Apart from that, the language in news items is concise and impersonal while the tourist brochures present language in more descriptive, persuasive and appealing forms. Therefore, the writer aims to clarify that different genres are presented differently in the aspects of linguistics strategies as well as in frequencies where each genre has its own purpose for communication.

Fauziah Taib (2010), with her research titled, *A Systemic Functional Multimodal analysis of Business Brochures*, carried out a multimodality analysis where both verbal and visual aspects were found in Business to Business (b2b) brochures. This study aimed to identify the functions and components that make up the brochures by identifying the verbal and visual elements in the study. This study has revealed that the brochures play important roles in providing information; therefore the verbal and visual components have to be organized well in the brochures. It aims to help the designers or even teachers of ESP by sharing the knowledge gained from the analysis on how effectively a brochure can be presented according to the context and purpose.

2.4 TRANSITIVITY

2.4.1 Systemic Functional Linguistics

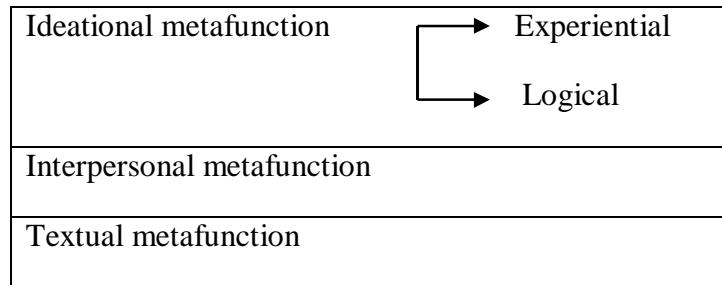
The origins of Systemic Functional Linguistics (SFL) can be traced from earlier works of the Prague School Formed in Europe in the 1920s. Michael Alexander Kirkwood Halliday is the founder of SFL. He expanded the theory from his teacher, JR Firth's work. Apart from M.A.K Halliday, there are many other linguists who have contributed to SFL, namely Bloor and Bloor (2004), Thompson (2004), Martin et.al (1997) and Eggins (2004). SFL is an approach that sees how the meaning of a language can be related to human experience. Many SFL oriented linguists begin an analysis with social context and discovered how languages act upon, and is constrained and influenced by this social context. This study adapts entirely the idea of M.A.K Halliday and Matthiessen (2004) and draws from Halliday (1994), Bloor and Bloor (2004), Thompson (2004), Eggins (2004) and Martin et.al (1997).

In Systemic Functional Linguistic, a language is a "system of meanings" (M.A.K Halliday). Halliday defines language as "a reason for making meaning, an indefinitely expandable source of meaning potential" (Halliday, 1994:16). Functional grammar is concerned with understanding the ways that language is used for different purposes and different situations that shape its structure. There are three distinct metafunctions that are closely related in functional interpretations of texts, the system and the elements of linguistic structures. They explain how the language realizes the meaning by comprising the functional components. These are the interpersonal, ideational, and textual metafunctions.

2.4.2 Metafunctions

Buhler's findings have great influence towards M.A.K. Halliday's three metafunctions of language (Bloor and Bloor, 2004). Halliday and Matthiessen (2004), used the term "metafunctions" so that it presents a fundamental component to SFL. Therefore, SFL is made up of three main metafunctions which have an important role in the system of language. These metafunctions are Interpersonal, Textual and Ideational. However, the ideational metafunction has two sub functions which are known as the experiential functions and logical functions (Bloor and Bloor, 2004:11).

Table 2.2: The types of metafunctions



Adapted from Bloor and Bloor (2004:9)

Halliday and Matthiessen (2004:29) have quoted Interpersonal metafunctions as "enacting our personal and social relationships with the other people around us". Interpersonal metafunctions are more personal interactions where it involves giving and demanding. The elements are usually presented by constituents, namely Mood and Residue.

Textual metafunctions are realized by Theme and Rheme. Halliday (1994:38) defines theme as "the starting point of the message" and Rheme as "the ground from which the message is taking off". Bloor and Bloor (2004:71) explain that Theme resembles *Given* meanwhile Rheme resembles *New*. The textual metafunctions explain important information therefore the sentences have to be produced intuitively.

Ideational metafunction explains about the language used which expresses our perceptions towards our experiences and our own consciousness. Bloor and Bloor (2004) have divided into two sub-functions known as the experiential function and logical function. They define experiential function as a function that is largely concerned with content and ideas while logical is related to relationship with ideas. Ideational metafunctions are realized through the System of Transitivity. It configures the phenomena of the real world by looking at the process types, participant and circumstantial aspects of the ideational metafunctions. The System of Transitivity belongs to experiential metafunctions and is an overall grammatical resource for construing 'goings-on' (Martin et al, 1997). According to Eggins (2004:206) Transitivity analysis is "the organization of the clause to realize the ideational meaning, meaning about how we represent reality in language. Both Halliday's (1994) and Hopper & Thompson's (1980) contribution interpreted transitivity based on paradigmatic organization. Such paradigmatic interpretation serves as a complement to views that are based on fundamentally syntagmatic frames.

Although there are three metafunctions, this study narrows down to adapt the ideational metafunctions. Therefore, the theoretical framework of this study is based on

System of Transitivity as proposed by Halliday and Matthiessen (2004) and by other linguists who draw on Halliday (1994), Bloor and Bloor (2004), Thompson (2004), Eggins (2004) and Martin et.al (1997). Analyses using this function will construe the experience that can be realized by analysing the sentences using Transitivity. According to Halliday (1973), the System of Transitivity is a major contribution to text-based understanding and the text-based investigation. Tables below are models of Transitivity following Halliday.

Table 2.3 : Transitivity model adapted from M.A.K. Halliday

PROCESS TYPES	CATEGORY MEANING	PARTICIPANTS
material: action event	·doingø ·happeningø	actor, goal
behavioural	·behavingø	behave
mental: perception affection cognition desideration	·sensingø ·seeingø ·feelingø ·thinkingø ·wantingø	senser, phenomenon
verbal	·sayingø	sayer
relational: attribution identification	·beingø ·attributingø ·identifyingø	carrier, attribute token, value
existential	·existingø	existent

Table 2.4: Adapted from Thompson (2004:108)

PROCESS	MEANING	PARTICIPANTS
material	∓doing∅	actor, goal, beneficiary
mental	∓sensing∅	senser, phenomenon
relational attributive identifying	∓being∅ ∓attributing∅ ∓identifying∅	carrier, attribute value, token
verbal	∓saying∅	sayer, receiver, verbiage, target
behavioral	∓behaving∅	behavior
existential	∓existing∅	existent

Table 2.5: Bloor & Bloor identified the various process types and the participants.

PROCESS TYPES	PARTICIPANTS
material	actor, goal, beneficiary, scope, initiator (rare)
mental	senser, phenomenon
relational	carrier, attribute, identified, identifier
verbal	sayer, quoted/reported, verbiage, target, receiver
existential	existent
behavioural	behavior, behaviour (rare)

Several studies have been carried out using metafunctions, mainly looking at the theme and rheme. Therefore, this study would look at the System of Transitivity as the tool for medical brochure analysis. Various genres have been studied using Systemic Functional Linguistic, either for non-academic or academic genres. There are studies of medical journal articles (Azirah, 1996) and medical cases (Francis & Dahl, 1991). Recently, (Fauziah Taib, 2010) did her research on Business brochures in the area of discourse analysis as well Systemic Functional Linguistic. Since less study is carried out on medical related articles, especially medical brochures, therefore this study is based on medical brochures, by exploiting the System of Transitivity.

The System of Transitivity is the tool for analyzing this study because it provides the insights of creating the meaning of sentences in the medical brochures. Medical Brochures mainly share and give information pertaining to one's experience and consciousness of the particular reason of the medical brochures. Halliday and Matthiessen (1999:2) explained that language helps to construe our experiences.

The System of Transitivity consists of three main aspects known as the "Process, Participants and Circumstantial" (Ibid. p.11) where the clauses are made up of these three elements and each element is categorized accordingly. During the analysis, the clauses are divided into each category and by doing so the clauses will be understood easily. According to Halliday and Matthiessen (2004), they explained that the analysed clauses play an important role to link words to the meaning of the clauses.

2.5 LOCAL RESEARCH ON TRANSITIVITY

There are many studies carried out using the SFL features as the theoretical framework. The reason is because, SFL is used to analyse the clauses in detail by classifying them according to the groups based on the metafunctions. Researches that are carried out pertaining to SFL from various genres will be discussed in this section.

The research by Tan (1993), studies the features on the effectiveness in the essay writing. The aim of this study is to see the degree of effectiveness in literature essay writing among Year 4 students in schools. Tan, has selected both a top-ranked school and a low-ranked school to collect the data. The sentences are analyzed using the System of Transitivity, where the findings show that the Relational Process and the Mental process are used as the prime processes for expository essays. The results show that effective essays employ vivid macro structures where the ideas are developed appropriately by the top-ranking schools, but it is absent in less effective essays.

Azirah Hashim (1996) has carried out a research on medical articles, where it aims to study the syntactic choices and organization in medical research articles. The theoretical framework applied in this study is a combination of Swales' move of analysis and Halliday's Systemic Functional Grammar. The study elaborates on how the medical research article is structured along with the description of the lexicogrammar in terms of Mood, Transitivity and Theme. Therefore all these metafunctions are categorized as Interpersonally, Experientially and Textually. The results of her study present those medical articles as being represented using the Abstracts, Introductions, Methods,

Results, and Discussions. She determines that the features which appeared in medical articles vary from other types of text linguistically. Francis and Dahl (1991), used medical cases as the data for their research.

Hwang (2000) did a comparison between two mediums of the Federal Ordinance Act of Malaysia. The two mediums that were used are Bahasa Malaysia and English version of Act. Based on her studies, her findings present that the Material Processes are used more widely than Existential Processes. She proves that Relational Processes are not needed in academic text unlike what Halliday had claimed.

Sridevi Srinivass (2003) has carried out her research on the relationship between text and content. The aim of her study is exposing how the phenomenon was presented experientially in two Chemistry texts. The texts are narrowed to the introductory chapter of the Chemistry text and the other is about an experiment on chromatography. The findings show some similar and different features. However, both the texts deal with the same subject matter where it is about the specialization in the chromatography. The results present that the Relational Process gives explanations meanwhile the Material Processes indicated the actions that occurred in the text.

A Transitivity analysis is carried out by John (2004) to analyse love songs, in order to see how 'love' is expressed in the songs. In her study she had chosen eight love songs and her findings presents that Material Processes are the dominant processes in love songs. This is due to the expression of love which can be seen, and Mental Processes has the second most used processes while Behavioural processes were not found. However, other processes do exist in the songs but were not widely used.

Sim (2007) also carried out a research on Transitivity analysis which analysed six news reports taken from three main English newspapers in Malaysia with the title of "Crocodile Hunter". Her study explains that Material Processes are the most used process where it describes about the action that took place; meanwhile Existential Processes was not much identified unlike Material processes. Her results have proved that transitivity analysis has an important role in explaining the variety of themes.

Siow (2009) has presented a Systemic Functional Transitivity analysis of the Abridged and Unabridged version of the Novel "The Pearl". The study looks at the literary text and analysis using the System of Transitivity. Her findings presented that there are a variation of the types of processes used in the novel.

2.6 CONCLUSION

To conclude, this study stands firm in analyzing medical brochures to fill the gap of the previous studies. System of Transitivity has been used to analyse the variety of clauses from a variety of fields, but there were not any local analyses carried out on Medical brochures. Therefore this study does not overlap with other researchers' works.

CHAPTER THREE

METHODOLOGY

3.0 INTRODUCTION

This chapter will report on the theoretical framework of the research. It explains the method of how this study employed the System of Transitivity in analyzing medical brochures. This chapter begins with section 3.1 on the theoretical framework of the System of Transitivity. Section 3.2 is the methodology of the study and section 3.3 will conclude the chapter.

3.1 THEORETICAL FRAMEWORK

The theoretical framework of this study employs the System of Transitivity outlined by M.A.K. Halliday and Matthiessen (2004). It consults Halliday (1994), Eggins (2004), Bloor and Bloor (2004) and Thompson (2004) views on Systemic Functional Linguistics. Although the brochures consist of diagrams and pictures, these elements were not analyzed for a multimodality analysis. This study focuses purely on the System of Transitivity. Texts and extracts of texts accompanied by pictures from the brochures were extracted in its original form to illustrate the use of the various process types. These clauses were analyzed using the conceptual framework of Transitivity which is the lexico-grammatical aspects of process types, participants and circumstances.

3.1.1 Transitivity: The system of process, participants and circumstances.

According to Halliday and Matthiessen (2004), the System of Transitivity comprises of process types, participants and circumstances. These elements are realised by the verbal group, nominal group, adverbial group and prepositional phrase. They are presented in the Table 3.1.

*Table 3.1: Typical Experiential Functions of Group and Phrase Classes
(Adapted from Halliday and Matthiessen, 2004:177)*

Types of elements	Typically realized by
Process	Verbal group
Participants	Nominal group
Circumstances	Adverbial group and prepositional phrase

3.1.1.1 Material Processes

The Material Process is the main process type in the English Transitivity system. It is the process of doing which illustrates actions that involve physical movements. Some grammarians have their own explanation for Material Processes although it is foregrounded to the simple basic meaning which is physical action words. According to Halliday and Matthiessen (2004), the material process is a clause of doing and happening which goes through a change in the flow of the events. Bloor and Bloor (2004:110) define the Material Process as "doing-words" that are action-oriented words. Eggins defines it as "some entity (which) does something, undertakes some action" (Eggins, 2004:215). Based on the linguist's perspective, Material Processes are words that resemble an action which can be seen physically; that provides a change in the flow of events as taking place through some input of energy. These involve actions that are usually concrete and tangible. "What did X do?" is a question that merges well with Material Processes, since Material clauses are able to provide an answer for this question. Also the question "What happened to X?" is applicable. (Halliday and Matthiessen 2004),

Material clauses are associated with one major participant, the Actor. The Actor is an obligatory element that represents the "doer" of the process expressed by the clause. The action involves the Actor or the person doing something. Apart from Actor, another participant, the Goal, occurs frequently in Material clauses. The Goal is an optional participant that represents the person or entity affected by the process. Every Material clause has only one Goal. In certain circumstances Actor does not represent a human or an inanimate or abstract entity and the Goal may represent a human. This happens in a passive

Material sentence whereby the Goal plays the role of subject. Illustrations are presented in Example 3.1 and Example 3.2 that are taken from Bloor and Bloor (2004).

Example 3.1: Active

Jerry	opened	the door
Actor	Process: material	Goal

Example 3.2: Passive

The door	was opened	by Jerry
Actor	Process: material	Goal

There are two additional participants that are Beneficiary and Range which appear in Material clauses. According to Halliday and Matthiessen (2004), beneficiary resembles two participants in detail, which are recipient and client. Both these participants construe a beneficiary role; these participants obtain benefit from the action. Recipient mainly refers to a human or an abstract entity meanwhile client refers to services that are carried out. Example 3.3 and 4.4 presents the beneficiary role in active and passive sentences.

Example 3.3: Active (Bloor and Bloor, 2004).

He	Gave	Smith	some cash
Actor	Process: material	Beneficiary	Goal

Example 3.4: Passive (Bloor and Bloor, 2004).

Smith	was	given	some cash
Beneficiary	Process: material		Goal

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The Scope is another participant in Material clauses. Scope and goal play a distinguished role in the clauses but they are difficult to identify. Scope exists

independently of the process but indicates the domain over which a process takes place (Halliday & Matthiessen (2004). Eggins refers to Scope as range. In the transitive clauses which have only one direct participant, the Scope occurs. The distinction between Scope and Goal are that Scope cannot be probed by *do to* or *do with* meanwhile Goal can. Some examples are drawn from Bloor and Bloor (2004) as presented in example 3.5 and 3.6.

Example 3.5: Drawn from Bloor and Bloor(2004)

She	Climbed	the mountain
Actor	Process: material	Range

Example 3.6: Drawn from Bloor and Bloor(2004).

We	crossed	an alley
Actor	Process: material	Scope

3.1.1.2 Mental Processes

The Mental Process describes a state of mind or a psychological event (Bloor and Bloor, 2004:116) unlike Material Processes that involve physical actions. According to Halliday and Matthiessen, the Mental Process is our experience of the world of our consciousness (2004:197). Both the Material and Mental Processes are verbs but they refer to two different meanings as a whole. The Mental Process uses verbs like *think*, *hate*, *feel*, *know*, *admire*, and *see* among others. These are unseen feelings unlike the Material process.

In Mental clauses the participants are the Senser and Phenomenon. The Senser is referred to as a human who feels or senses. In fact, not just humans but anything which are endowed with consciousness (Halliday 2004:201). Bloor and Bloor

(2004:117) defines Phenomenon as “which is experienced”. Meanwhile Halliday (2004) defines Senser as “that which is felt, thought, wanted and perceived”. Therefore, Senser is referred to the subject of the sentence while the Phenomenon is the complement in sentences but this does not always occur. The Phenomenon can sometimes take the place of the subject and Senser. There are four sub-types of sensing which are perceptive, cognitive, desiderative and emotive as shown in Table 3.2. These are some examples of sensing adapted from Halliday and Matthiessen (2004:210).

Table 3.2: Types of senses

TYPES OF SENSING	EXAMPLES		
Perceptive	<i>He</i>	<i>didn't see</i>	<i>me</i>
	Senser	Process: mental	Phenomenon
	see, hear, glimpse, smell, taste,		
Cognitive	<i>He</i>	<i>knows</i>	<i>That Thaler came here.</i>
	Senser	Process: mental	Phenomenon
	think, believe, suppose, know, realize, imagine, understand, remember, recall, forgot, fear,		
Desiderative	<i>You</i>	<i>didn't want</i>	<i>Him</i>
	Senser	Process: mental	Phenomenon
	want, wish, desire, hope, plan, decide, refuse		
Emotive	<i>I</i>	<i>dislike</i>	<i>your manner</i>
	Senser	Process: mental	Phenomenon
	love, enjoy, regret, dislike, grieve, adore		

(Drawn from Halliday and Matthiessen 2004:210)

3.1.1.3 Relational Processes

The Relational Process is another process type. According to Halliday and Mathiessen (2004:211), Relational clauses are construed by the outer experience and inner experience, but they model this experience as *‘being’* rather than as *‘doing’* or *‘sensing’* (Halliday and Mathiessen 2004:211). Bloor and Bloor (2004:120) explain that relational clauses are typically realized by the verb *be* or some verb of the same class (known as the copular verb). For example, *seem*, *become*, *appear* and etc. Relational clauses of *‘being’* and *‘doing’* are identified into two different modes; the *‘attribution’* and *‘identification’*. These two modes make up the Relational clauses with the participants and they have their own.

Attributive Relational Processes are clauses of *‘being’*. Attributive clauses have two participants known as the Carrier and Attribute. Attribute clauses can probe questions like *‘What is X (the carrier) like?’* These clauses are not reversible and are indefinite clauses. The clauses are made of common nouns with no articles or indefinite articles like: *some*, *a few* and etc. It also refers to a class membership whereby it is a member of a class, subtype or type (Martin et al., 1997). Some examples are drawn from Bloor and Bloor (2004), presented in Example 3.7.

Example 3.7:

<i>She</i>	<i>was</i>	<i>in a ward on the third floor</i>
<i>The other four beds</i>	<i>were</i>	<i>empty</i>
<i>She</i>	<i>could have been</i>	<i>a girl of twenty-five or a woman of fifty-five</i>
Carrier	Process: relational	Attribute

Identifying Relational Processes function to identify one entity in terms of another. The key roles are identified and identifier. The clauses are reversible and are used for symbolization (Martin et al., 1997) or defining (Eggins, 2004). Token and Value are two participants in Identifying clauses. These clauses are definite clauses where there is a use of articles such as *the*, *this*, or possessive determiners like *my*, *I*, or even proper nouns like *Jack*, *Lisa* and etc. Questions that probe these clauses are: 'What/Which/Who is X (the Identified) ?'.

3.1.1.4 Verbal Processes

The Verbal Process is another important process in the experiential meaning. Verbal clauses are defined as the process of 'saying' by Martin et al. (1997). Bloor and Bloor explain that Verbal Processes fall between the Material Processes and the Mental Processes, yet the verbalization of thoughts are known as inner mind speech (2004:122). Thompson defines verbal clauses as that which 'transfer messages through language', and this falls between the Material and Mental Process. The process of 'saying' like asking, commanding, stating, are considered as verbal clauses.

Verbal clauses consist of main participant Sayer and other sub-participants such as Receiver, Verbiage and Target. The Sayer can be a human or human-like speaker (Martin et al., 1997). The Receiver represents the addressee of the speech said by the Sayer; therefore Bloor and Bloor (2004:101) note that the Receiver is also typically a human. Halliday refers to the receiver as 'directed' meaning to whom the speech is directed to and will be used with the preposition *to* or *of* (2004:255). Verbiage is the content of what is said or name of the saying, (Ibid, p.226). Target refers to 'targeted by

the processö (Bloor and Bloor, 2004:125) and it is a peripheral participant and does not occur in direct or indirect speech, except incidentally. Some examples are drawn from Halliday and Matthiessen (2004) presented in Example 3.8.

Example 3.8:

<i>John</i>	<i>Said</i>	<i>he was hungry.</i>
Sayer	Process: verbal	

3.2.1.5 Behavioural Processes

Behavioural Processes are processes that construe human behaviour. According to Bloor and Bloor (2004:126), Behavioral Processes are unable to produce a valid definition since Behavioural Processes fall between the grey area of Material and Mental Processes. Halliday and Matthiessen (2004:248) explain that, Behavioural Processes are related to physiological and psychological behavior like: breathing, coughing, smiling, dreaming and among others. The important participant in this process is Behavior, referring to the participant who is behaving, which typically a conscious is being (Halliday and Matthiessen, 2004:250). Examples in 3.9 are drawn from Halliday and Matthiessen (2004).

Example: 3.9

<i>Don't</i>	<i>breathe!</i>
<i>No one's</i>	<i>listening.</i>
Behavior	Process: behavioral

3.1.1.6 Existential Processes

Existential Processes represent things that exist or happen (Halliday and Matthiessen, 2004). Existential Processes are usually identified by the Subject there (Bloor and Bloor, 2004). It only has one participant, Existent, which refers to the object or event is followed by the Circumstance of Location. According to Halliday, these processes are used more often in narratives.

3.1.2 Circumstantial elements

Circumstantial elements are the third part of a sentence. Circumstantial elements can appear freely on any type of processes and they carry the same meaning wherever they are. However they are not able to stand alone and do not give any meaning when alone. Bloor and Bloor (2004:131) explain that Circumstantial $\text{carry a semantic load}$ where Circumstantial elements are more peripheral than participants. Eggins concluded that there are eight types of circumstances.

Halliday looks at circumstantial elements in three perspectives. The first perspective is $\text{circumstances associated with}$ or attendant on the processes (Halliday and Matthiessen 2004:263). These Circumstantial elements probe to answer four WH question forms; where, when, why and how. These are known as the traditional forms of explaining the Circumstantial elements. The second perspective is, by looking at the clauses itself where the circumstance is mapped onto Adjuncts, where they are not able to become a Subject in any clause. The last perspective is Circumstantial elements that can either be an adverbial group or prepositional phrases. They are not expressed typically in the nominal group (Halliday and Matthiessen 2004:261).

There are four main functions of Circumstantial elements, for example enhancing, extending, elaborating and projection. These main Circumstantials are divided into several types which are Extent, Location, Manner, Cause, Contingency, Accompaniment, Role and Matter.

3.1.2.1 Extent

The Circumstance of Extent is one of the main types of Circumstantial elements. Based on the table, the Circumstance of Extent construes of spatial and temporal. The spatial and temporal are the sub-categories of the Circumstance of Extent and probes to answer questions like, *how far?*, *how long?*, *how many times?* and *how often?* These questions correspond to the Extent intervalø (Halliday and Matthiessen, 2004:264). Table 3.3 presents the examples of Circumstance of Extent.

Table3.3 : Circumstance of Extent

Circumstantial	Spatial	Temporal
Extent	Distance	Duration Temporal
	<i>How far?</i> <i>How long?</i>	<i>How often?</i> <i>How many times?</i>
Examples	<i>walk (for) seven miles</i>	<i>stay (for) two hours</i>

(Adapted from Halliday & Matthiessen, 2004:264)

3.1.2.2 Location

The next Circumstance is the Location, which is the same as the Extent whereby it construes the spatial and temporal. According to Halliday and Matthiessen (2004:263), the Circumstance of Extent and Location construe the unfolding of the process in space and

time. This Circumstance of Location probes the questions of *Where? When?*. These are usually adverbial groups or prepositional phrases. The sub-category of location is the place and time as presented in Table 3.4.

Table 3.4: Circumstance of Location

Circumstantial	Spatial	Temporal
Location	Place	Time
	<i>Where?</i>	<i>When?</i>
Example	<i>work in the kitchen</i>	<i>get up at six o'clock</i>

(Adapted from Halliday & Matthiessen, 2004:264)

3.1.2.3 Manner

The third Circumstantial element is the Circumstance of Manner. This Circumstance of Manner has four subcategories known as means, quality, comparison, and degree as shown in the Table 3.5:

Table 3.5: Circumstance of Manner

Types of manner	Wh-form	Examples
Means	How? What with?	(mend it) <i>with a fuse wire</i>
Quality	How?	(they sat there) <i>in complete silence</i>
Comparison	What like?	(he signs his name) <i>differently</i>
Degree	How much?	(they all love her) <i>deeply</i>

(Adapted from Halliday & Matthiessen, 2004:269)

Means plays the role of Agent, whereby a process takes place. It is usually expressed by prepositional phrases where it probes questions like *How?* and *What with?* (Halliday and Matthiessen, 2004:267). The Means phrases are usually made up of

prepositions like *by* and *with*. Quality is another subtype of manner which probes the question *how?*. Generally quality construes the adverbial phrases with the *-ly* adverb (Halliday & Matthiessen, 2004:268). Therefore, it is not realized in the prepositional phrase. Comparison is expressed with a prepositional phrase with *like* or *unlike*. It also expresses the similarity or comparison by adverbial phrase (Halliday and Matthiessen, 2004:268). Degree shows an indication of something measurable and is usually expressed through adverbial groups such as *much*, *good deal*, *a lot* or with adverbs such as *deeply*, *completely*, etc (Halliday and Matthiessen, 2004 :268).

3.1.2.4 Cause

The Circumstantial element of Cause construes the reason why the process is actualized (Halliday and Matthiessen, 2004:269). There are three subtypes that include reason, purpose and behalf. Some examples are presented in Table 3.6

Table 3.6: Circumstance of Cause

Types of cause	Wh-forms	Example
Reason	Why? How?	(they left) <i>because of the draught</i>
Purpose	What for?	(it's all done) <i>with a view to promotion</i>
Behalf	Who for?	(put in a word) <i>on my behalf</i>

(Adapted from: Halliday and Matthiessen, 2004:271)

Reason responds to questions like *why* and *how*, and is answered by using '*because*', or other prepositions like *through*, *from*, *due to*, *as a result of* and others (Halliday and Matthiessen, 2004:269). Purpose represents actions taking place to the incident behind. These correspond to the question 'what for' and are usually answered

through prepositional phrase "for" (ibid). Meanwhile expressions of 'behalf' represent people or typically the entity to show on behalf of the action that is taken. It probes the question "who for" that is referred to a person and it is represented by the prepositional clauses with "for" and other prepositions like ('as for the sake of, on behalf of, in favour of' (Ibid).

3.1.2.5 Contingency

The fifth Circumstantial element is Contingency, which consists of three subtypes; condition, concession and default. Circumstance of condition is obtained in order for the process to be actualized and have a sense of "if" which is expressed by the prepositional phrases: *in case of, in the event of, on condition of*. Circumstantial elements concession construes a frustrated cause sensed by the use of prepositions like: *although, despite, in spite of, regardless*. Meanwhile default Circumstantial elements represent a negative condition that uses prepositions like: *if not, unless and in the absence of* (Halliday and Matthiessen, 2004:272).

3.1.2.6 Other types of circumstantial elements

The next Circumstantial element is accompaniment. This circumstance extends the sentence by using "and", "or", "not" as circumstance, and has four subtypes of accompaniment shown in Table 3.7

Table 3.7: Circumstantial of Extending

	Wh-forms
Comitative, positive : -accompanied byø	Who/what with? And who/what else?
Comitative, negative : -not accompanied byø	But not who/what?
Additive, positive : -in addition toø	And who/what else?
Additive, negative : -as alternative toø	And not who/what?

(Adapted from: Halliday and Matthiessen 2004 :273)

Comitative represents the process of a single instance of a process; one in which two entities are involved or in some cases Comitative can be conjoined as a single element. (Halliday and Matthiessen 2004:273). Meanwhile additive represents two instances; here both entities clearly share the same participant function, but one represents the purpose of contrast.

The next Circumstantial element is the Role. It has two subtypes; Guise and Product. This circumstance construes the meanings of -beø and -becomeø in which guise is represented by -beø and product by -becomeø. The role corresponds to the Attribute or Value. The Guise corresponds to -what asø and product for -what intoø.

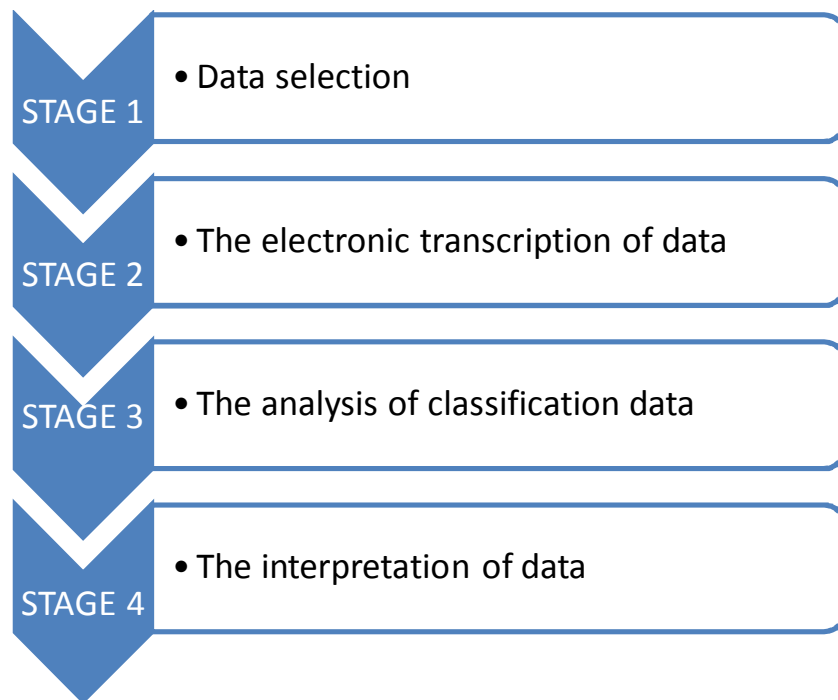
Projections are related to projecting -mentalø and -verbalø clauses. They have two Circumstances, which are Matter and Angle. Matter is related to the verbal processes, but sometimes comes frequently with both the Verbal and Mental process. The interrogative is -what about?ø and is expressed through prepositions like *as about, concerning, with reference to* or *of*.

Angle is the last Circumstantial element that represents either the Sayer in Verbal clauses or Sayer in mental clauses. It is represented by complex prepositions like *according to, in the words of, from the standpoint of, and in the view/opinion of*.

3.2 RESEARCH METHODOLOGY

This section provides the research design of the study which includes data selection, the electronic transcription of data, the analysis of classification of data and the interpretation of data. The research design of this study is presented in a flow chart shown in figure 3.1. As explained earlier in chapter 3.1, pictures are not included in a multimodality analysis while text extracts and text accompanied by pictures from the brochures are extracted in its original form to illustrate the use of system of Transitivity.

Figure 3.1: The research design of this study



3.2.1 STAGE 1: Data selection

After reviewing various types of brochures, this study has adapted medical brochures as the data. A number of medical brochures are collected from the private and

government hospital and clinics. Brochures about cancer were chosen because there is a growing interest in this disease as many people are dying from it.

The brochures that were selected are Cervical Cancer and Breast Cancer. Both these cancers are related to women where the seriousness of these cancers is increasing day by day. These data were selected as to date, there weren't any studies carried out using these medical brochures. The medical brochures were collected from a private hospital; Sime Darby Medical Centre, Subang Jaya. These medical brochures were chosen to look at the choice of words used to convey the message to a layperson without any medical background knowledge. The brochures that were chosen have been presented in the same way through 'question and answer'. These medical brochures are a tool for educating women about the cancerous illness. Since medical brochures are the essential tool, the language used in these brochures should be able to create an understanding about cancer to all women out there.

Although these brochures contain diagrams, the analysis is only carried out for the text and extracted text accompanied by the pictures. The pictures and diagrams are not analyzed. There will not be differences occurring in the field manner as these falls into the same medical field and this adds to a more valid finding.

This analysis employs the System of Transitivity as the foreground of the study by looking at the Process Type, Participants and Circumstantial elements which also show an out put on the choices of the lexico-grammar structures that were used in the experiential meanings.

3.2.1.1 Data description

The data comprises of two different medical topics which are breast cancer and cervical cancer. A total of four brochures were selected for each topic; two for breast cancer and two for cervical cancer. These medical brochures are published by four different publishers.

The first brochure of breast cancer is labeled as (B1), and is published by the Malaysian Health of Ministry; the second breast cancer brochure is labeled as (B2) and is published by the National Cancer Council (MAKNA). The first cervical cancer brochure is labeled as C1 is by MSD (Merck Sharp & Dohme Malaysia) while the second cervical cancer brochure is labeled as C2 is by GSK (GlaxoSmithKline). These brochures are in English and educate the public about the symptoms and ways to protect the cervical cancer. Table 3.8 summarizes the types of brochures.

Table 3.8: Data for the study

TOPIC	NUMBER OF BROCHURES	PUBLISHER
Breast Cancer	Two	i) MAKNA (National Cancer Council) ii) Bahagian Pendidikan Kesihatan, Kementerian Kesihatan Malaysia.
Cancer Cervical	Two	i) Merck Sharp & Dohme Malaysia ii) GlaxoSmithkline Pharmaceutical Sdn Bhd

The cover pages of the breast cancer and cervical cancer brochures used for this study are presented in Figure 3.2, Figure 3.3, Figure 3.4 and Figure 3.5

Figure 3.2: Breast Cancer brochure 1 (B1)

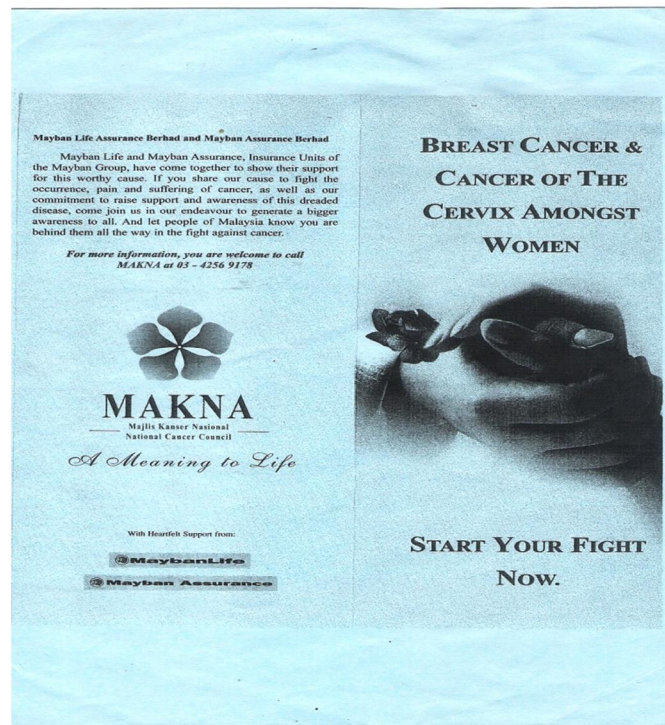


Figure 3.3: Breast Cancer brochure 2 (B2)

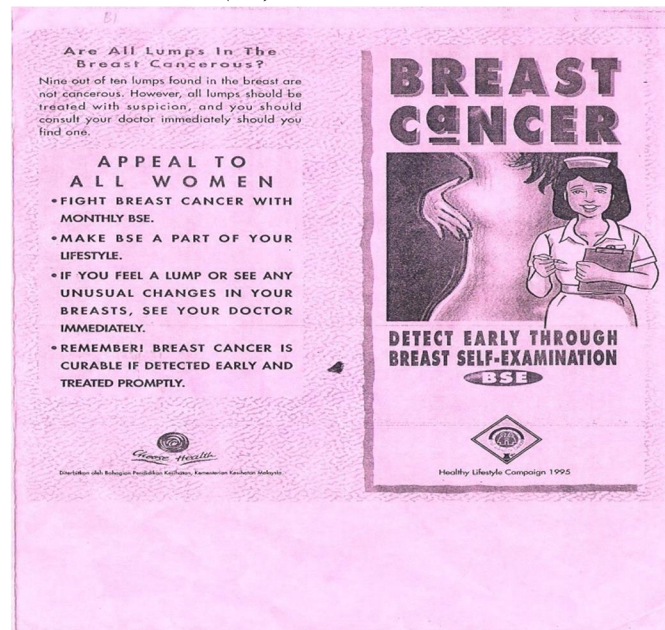


Figure3.4: Cervical Cancer brochure1 (CC1)

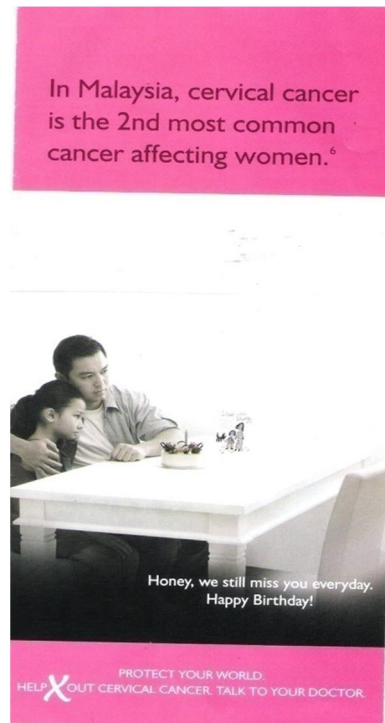
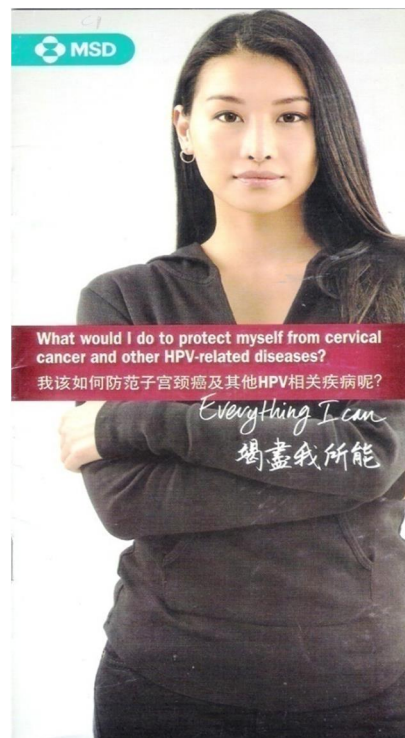


Figure3.5: Cervical Cancer brochure 2 (CC2)



3.2.2 STAGE 2: The electronic transcription of data

Firstly, the raw data are transcribed into the electronic form. Since there are four medical brochures, each brochure is labeled accordingly, for example Breast Cancer as BC1 and BC2, and Cervical Cancer is CC1 and CC2. After labeling the brochures, each sentence is then labeled. Since the raw data comprises of question and answer, to make a clearer understanding, the sentence are labeled as S1, S2 so on so forth. In conclusion, the sentences are labeled like BC1/S1; meaning it's the first sentence from breast cancer brochure one. The text extracted from the original data is shown in Table 3.9.

Table 3.9: Breast Cancer Brochure 1 (BC1)

What is breast cancer?

Breast cancer is the most common cancer and the number one cause of cancer deaths amongst Malaysian women. Cancer of the breast is the result of an uncontrolled growth of cells within the breast tissue. If not detected and treated promptly, breast cancer can spread to the lymph glands and to other parts of the body such as the bones, lungs and liver.

Every sentence is then broken down into clauses and will be labeled numerically based on the sentence sequence in the texts. For cervical cancer (CC), the sentences are labeled as CC1/S1, CC1/S2 and so on, while for the second brochure it is labeled as CC2/S1, CC2/S2 and so on. Medical brochures for breast cancer (BC) are labeled as, BC1/S1 and the second brochure as BC2/S1. After the coding of data, the clauses will be analyzed based on the theoretical framework. Table 3.10 shows the clauses and the labeling.

Table 3.10: Example of clauses drawn from the raw data

BC1/S1	What is breast cancer?
BC1/S2	Breast cancer is the most common cancer and the number one cause of cancer deaths amongst Malaysian women.
BC2/S3	Cancer of the breast is the result of an uncontrolled growth of cells within the breast tissue.

3.2.3 STAGE 3: The analysis of classification data

In this stage, the clauses will be analyzed using the theoretical framework of System of Transitivity as the basis for the analysis. These data will be labeled according to its **Process Types**, **Participants** and **Circumstantial elements** as proposed by Halliday and Matthiessen (2004) which are in turn based on Halliday (1994), Eggins (2004) Thompson (2004), Bloor and Bloor (2004) and Martim et al (1997). Table 3.11 presents the example of analysis from the data.

Table 3.11: Examples drawn from the data

BC1/S1	What	is	breast cancer?
	Attribute	Pr:Rel: Attributive	Carrier
BC1/S2	Breast cancer	is	the most common cancer and
	Carrier	Pr:Rel: Attributive	Attribute /
	the number one cause of cancer deaths amongst Malaysian women.		
	Circm: Cause		
BC1/S3	Cancer of the breast	is	
	Carrier	Pr:Rel: Attributive	
	the result of an uncontrolled growth of cells		within the breast tissue.
	Attribute		Circm:Location:Place

Entire clauses are analyzed except for certain choices of words which will not be considered into the analyses; components like conjunctions. The pictures and diagrams will not be analyzed along with certain clauses which are made of nominal groups. Abbreviations are used to label the data and the coding are presented in Table 3.12

Table 3.12: Coding used in analysis

ABBREVIATIONS	TERM
Pr:	Process
Rel:	Relational
Ident:	Identifying
Attrib:	Attribute
Circm:	Circumstantial

3.2.4 STAGE 4: The interpretation of data

At this stage, the analyzed clauses will be interpreted. Firstly all the process types will be identified, and findings are discussed using the examples drawn from the analysis on the participants and circumstances. Finally all the findings are gathered so that the research question and the aim of the study will be answered.

This data will be able to discuss the following questions:

- 1) What are the process types and participants used in medical brochures?
- 2) What are the types of Circumstantial elements used in medical brochures?
- 3) How do the choices in Transitivity contribute in the creation of the meaning?

The main research question will be discussing the choices of the process types and participants used in the medical brochures. These are the main areas that will be looked at in this research. Apart from that, the circumstantial elements are analyzed in the study and discussed.

3.3 CONCLUSION

This chapter discussed the theoretical framework and the research design employed for this study. The theoretical framework is used to analyze the data collected from the medical brochures. The next chapter will discuss and present the findings.

CHAPTER FOUR

FINDINGS AND DISCUSSIONS

4.0 INTRODUCTION

Chapter four presents the findings of the data. At this stage the research questions and the aims of the study are justified. This qualitative study presents the findings from the data and discuss. Section 4.1 presents the findings on the types of processes which will be answering the first research question in this study. Section 4.2 presents the findings on the types of circumstantial elements and will be answering the second question in this study. Section 4.3 presents the summary of the findings and discussion and section 4.4 concludes this chapter.

4.1 FINDINGS: The process types and participants choices in medical brochures

The research question, *‘What are the process types and participants choices used in medical brochures?’* presents the variations in the number of processes that are being used. All the five processes; Material Process, Mental Process, Relational Process, Behavioural Process and Existential Process, are found in these medical brochures. Material Processes have been used widely, followed by Relational Processes. These process types are further discussed in depth in this chapter.

4.1.1 Material Process

Material Processes give a sense of physical action which strongly emphasizes the sense of *‘doing’*. According to the findings, the Material Processes are the most used processes in these medical brochures. Breast cancer medical brochures have the most number of Material Process, as shown in the table 4.1 below.

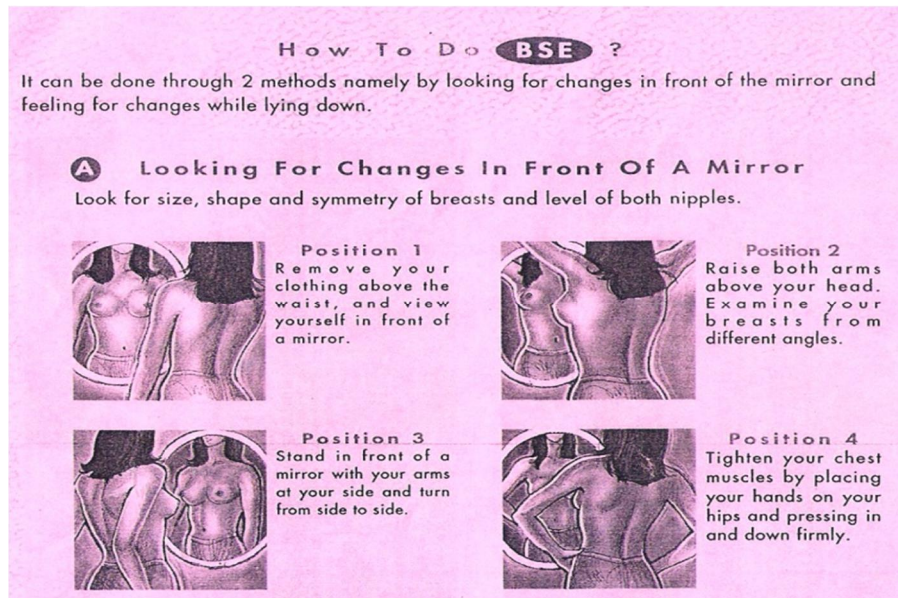
Table 4.1: Number of Material Processes

Brochures	Material Processes	
CC1	16	6%
CC2	17	7%
BC1	41	17%
BC2	61	25%
TOTAL	135	55%

$$* \frac{\text{Number of material processes}}{\text{Total number of all process types}} \times 100$$

As presented in Table 4.1, Material Processes occurred frequently in this study. Breast cancer medical brochures show the highest number of material processes because the author has included some simple steps on how to perform breast self-examination. The extract of the text is shown in Figure 4.1.

Figure 4.1: Extract from BC1



The Material Processes found in extract BC1/S25, BC1/S26 and BC1/S27 are *raise*, *examine*, *turn* and *tighten*. In BC1/S25, the word 'raise' in the sentence; *raise both arms above your head*, means to perform a physical action. Material Processes are used to give instructions to the reader to carry out the steps. It shows important physical actions that should be done according so that the steps produce an accurate result. This is presented in Example 4.1 below.

Example 4.1

BC1/S25	Raise	both arms	above your head.
	Pr:Material	Goal	Circm:Location
BC1/S26	Examine	your breast	from different angles.
	Pr:Material	Goal	Circm:Manner

The sentences that begin with Material Processes are known as imperative. Therefore *Actor or Goal* is not used at the beginning of the phrases. BC1/S27 shows an example where the Material Process is accompanied by a Circumstantial element; Stand *in front of*

a mirror with your arms at your side. The Goal is only mentioned in the later part of the sentence, as presented in Example 4.2

Example 4.2

BC1/S27	Stand	in front of a mirror	with	your arms	at your side
	Pr.Relational	Circm:Location		Goal	Circm:Manner
	and	turn	from side to side		
	/	Pr:Material	Circm:Manner		

In the sentence, BC1/S28 : *Tighten your chest muscles by placing your hands on your hips, here the writer is giving an instruction; Tighten* as the Material Process is followed by goal *your chest muscles*. This sentence shows that the action is emphasized followed by the goal, as shown in Example 4.3

Example 4.3

BC1/S28	Tighten	your chest muscles	by placing your hands on your hips		
	Pr:Material	Goal	Circm:Manner		
	and	pressing in and down firmly			
	/	Circm:Manner			

Diagrams are included (see: Figure 4.2) in the medical brochures to help the readers to have a better understanding. The Material Process is the main choice of process types because there are physical actions stated in the medical brochure.

4.1.2 Mental Process

Mental Processes are concerned with our experience of the world of our own consciousness (Halliday and Matthiessen, 2004:97). These clauses have to do with perception, emotion, cognition and desideration. Unlike Material Processes, Mental Processes are based on what one is undergoing. In certain circumstances, the Verbal clauses and Relational clauses appear similar to the Mental Process. However, based on the analysis, there are a few Mental Processes which occurred in the medical brochures. Table 4.2 shows the findings.

Table 4.2: The number of Mental Processes

Brochures	Mental Processes	
CC1	0	0%
CC2	6	2%
BC1	3	1%
BC2	6	2%
TOTAL	15	5%

$$* \frac{\text{Number of mental processes}}{\text{Total number of all types of processes}} \times 100$$

Table 4.2 shows that, in the CC2 (Cervical Cancer brochure 2), there are a few Mental Processes. However, in CC1 (Cervical Cancer brochure 1), there were no Mental processes identified. An extract from the raw data CC2 is shown in Figure 4.2

Senser and Phenomenon are usually found in Mental Processes, but this is not a must. A few examples are drawn from the medical brochures and presented respectively in Example 4.4.

Figure 4.2: Extract drawn for CC2/S15

What are the symptoms of cervical cancer?

- Abnormal vaginal bleeding⁴:
 - Bleeding that occurs between regular menstrual periods
 - Bleeding after sexual intercourse, douching or a pelvic exam
 - Menstrual periods that last longer and are heavier than before
- Bleeding after menopause⁴
- Increased vaginal discharge⁴
- Pelvic pain⁴
- Pain during sexual intercourse⁴

In Example 4.4, CC2/S15, the phrase ‘*pelvic pain*’ the verb, *pain* shows the feelings of the individual. The verb *pain* is unseen but could only be felt by that individual. Therefore, it is classified as the Mental Process.

Example 4.4

CC2/S15	Pelvic	<i>pain</i>
	Matter	Pr:Mental
	Pain	during sexual intercourse
	Pr:Mental	Circm:Matter

Sentence CC2/S43, *pain* and *painful*, express the psychological feelings which cannot be seen but can be felt. Another example can be seen from BC2/S28, *Feeling for any changes*. Here the word *feel*, represents the Mental Process where it is made clear that the individual cannot see the changes. Since the whole clause is about breast cancer it carries the meaning of the inner experience. Therefore, the writer has chosen to use these verbs to create a natural effect to it. These examples are shown in Example 4.5 and 4.6.

Example 4.5

CC2/S43	Painful	urination, constipation	and	continuous	pain
	Pr:Mental		/		Pr:Mental
	in the pelvis	may occur		with advanced vaginal cancer.	
	Circm:Location			Pr:Existential	Circm: Matter

Example 4.6

BC2/S28	Feeling for any changes	whilst lying down
	Pr:Mental	Circm:Manner: Means

4.1.3 Behavioural Process

Behavioural Processes fall very closely within the Material Processes and Mental Processes. According to Halliday (1994) and Eggins (1994), Behavioural Processes have mixed characteristics of the Mental Process and Material Process. These are very distinguished process types. However, there is also a combination of the physical and psychological behaviour. Behavior is the participant for Behavioural Processes. There are very few Behavioural Processes which are found in these medical brochures. The findings are presented in Table 4.3

Table 4.3: The number of Behavioural Processes

Brochures	Behavioural processes	
CC1	0	0
CC2	0	0
BC1	2	1%
BC2	1	0.5%
TOTAL	3	6%

* $\frac{\text{Number of behavioural processes}}{\text{Total number of all types of processes}} \times 100$

As explained in Example 4.7, Behavioural Processes are difficult to be distinguished as they look similar to Material and Mental Processes. In sentence BC1/S24, the verb *view* here is accompanied by a *Behaver; yourself* which actually resembles an action which is not considered as Material because of the participant that accompanied the verb and the meaning of the sentence.

Example 4.7

BC1/S24	Remove	your	clothing	above the waist,	and
	Pr:Material	Actor	Goal	Circm:Location	/
	<i>view</i>	<i>yourself</i>	in front of a mirror		
	Pr:Behavioural	Behaver	Circm:Location		

4.1.4 Relational Process

Relational Processes are the second most used process types in these medical brochures. According to Halliday & Matthiessen (2004:215), Relational clauses are construed by the outer experience and inner experience, but they model this experience as -beingø rather than as -doingø or -sensingø. Eggins (1994:257-259) has also presented the same view where Relational Process is either a form of the verb to be or to have or a synonym of these verbs. There are two sub-types of Relational Processes which are very subtle and complex, known as the Attributive and Identifying. Table 4.4 shows the findings obtained from the analysis.

Table 4.4: Number of Relational Processes

Brochures	Relational process			
	Attributive		Identification	
CC1	16	6%	5	2%
CC2	38	15%	2	1%
BC1	15	6%	-	0%
BC2	13	5%	4	2%
TOTAL	72	32%	11	5%

* $\frac{\text{Number of relational processes}}{\text{Total number of all types of processes}} \times 100$

Figure 4.3: Raw data drawn from Cervical Cancer 2 (CC2)

What is HPV (Human Papillomavirus)?

- HPV is a common virus that affects both females and males.³ There are more than 100 types of the virus.³ Most types of HPV do not cause any symptom, are harmless, and are cleared by the body.³
- About 30 types of HPV are known as genital HPV since they affect the genital area.³ Some types can cause cervical cancer or abnormal cells in the lining of the cervix that could turn into cancer.² Other types of HPV can cause genital warts and benign (noncancerous) changes in the cervix.³

Figure 4.3 shows an original text extracted from the Cervical Cancer brochure 2. The analyzed text is shown in Example 4.8. In sentence CC2/S17, the attribute in this sentence is ‘*a common virus*’ which explains the exact meaning for the whole sentence. The Relational process Attributive in this sentence is identified as $\text{-is}\emptyset$ and $\text{-affects}\emptyset$

Example 4.8: CC2/S17

CC2/S 17	HPV	is	a common virus	that	affects	both females and males
	Carrier	Pr:Rel:Attr ib	Attribute	/	Pr:Rel:Att rib	Attribute

Clause CC2/S17, uses Relational Process; attributive **is**, because it shows a strong $\text{-sense}\emptyset$ or action between the verb and the participants. The sentence here is stating a fact about the *HPV* which takes the role as a participant, **carrier**. Meanwhile the attribute explains about *a common virus*. Basically most of this Relational Processes are made of $\text{-be}\emptyset$ verbs or the verb synonym to it. In CC2/S20, an attributive **are known**, gives a similar meaning to *is/are*. The entire clause here states a fact pertaining to virus, therefore the writer chooses this verb so that it tells the truth as a cervical cancer brochure. Example 4.9 presents the clause CC2/S20.

Example 4.9: CC2/S20

CC2/S20	About 30 types of HPV	are known	as genital HPV since they affect the genital area.
	Carrier	Pr:Rel:Attrib	Attribute

The Identifying is another subtype of Relational Process clauses and the participants are Token and Value. Although the lay meaning is similar to Attributive clauses, Identifying clauses have the advantage of reversibility. This means that unlike Attributive clauses which cannot be reversed because they do not give the correct meaning of the sentence, identifying clauses are capable to do so. Clause CC1/S2 presents a good example; ***the cervix is the neck of the womb*** and ***the neck of the womb is the cervix***. The participants identified as Value and Token, define the part of a female organ that plays important role in identifying cancer as shown in Example 4.10.

Example 4.10: CC1/S2

CC1/S2	The cervix	is	the neck of the womb (uterus).
	Value	Pr: Rel: Ident	Token

Example 4.11, BC2/S6 is another example of Relational Process, and *All women above 20* labeled as *Token* and *at risk of developing breast cancer* as the *Value*. Since this is a medical brochure, the information provides the truth and fact about the cancer.

Example 4.11: BC2/S6

BC2/S6	All women above 20	are	atrisk of developing breast cancer.
	Token	Pr:Rel:ident	Value

4.1.5 Existential Process

Existential Process is another unique process that looks similar to Relational Process. However in Existential Processes, there is only one participant known as the Existent. Table 4.6 shows the findings of the Existential Processes.

Table 4.6: The number of Existential Processes

Brochures	Existential Processes	
CC1	-	-
CC2	4	2%
BC1	-	-
BC2	-	-
TOTAL	4	2%

$$* \frac{\text{Number of existential processes}}{\text{Total number of all types of processes}} \times 100$$

Clause CC2/S18 is an example for this Existential Process. The word *there* might look like a preposition but it is not. Here the word *there* does not play any role. However, *'more than 100 types of virus'* is the Existent. Existent is the only participant in this sentence. This is presented in Example 4.12.

Example 4.12: CC2/S18

CC2/S18	There	are	more than 100 types of the virus.
	/	Pr:Existential	Exists

4.1.6 Verbal Clauses

Verbal clauses are clauses of $\text{-saying}\emptyset$ according to Halliday and Matthiessen (2004:252). In Verbal clauses, there are two main participants; Sayer and Target. Halliday and Matthiessen (2004:260) also include Receiver and Verbiage as another two participants obliquely involved. There are minimum usages of Verbal Process in these texts. Findings obtained from the analysis are presented in the Table 4.6.

Table 4.6: Number of Verbal Processes

Brochures	Verbal Processes	
CC1	-	-
CC2	2	1%
BC1	1	0.5%
BC2	3	1.5%
TOTAL	6	3%

* $\frac{\text{Number of verbal processes}}{\text{Total number of all types of processes}} \times 100$

The example drawn from BC2/S64 here in this sentence gives an advice to the reader, whereby the patients were asked to *Consult your doctor immediately!* The verb *Consult* is the Verbal process and the Receiver is *your doctor*.

Example 4.13:BC2/S64

BC2/S64	Consult	your doctor	immediately!
	Pr:Verbal	Receiver	Circm:Manner

In Example 4.14, the participant is identified as Target and not as receiver. According to Halliday and Matthiessen (2004), they defined that if a Verbal process has a Target as the participant, then the sentence should be in Actor+Goal, of the Material Process. Back to the example, here *should be reported* is the Verbal Process and *to a doctor* is the Target.

Example 4.14: BC2/S12

BC2/S12	Any unusual changes	to your breast,	even after a mammogram,
	Pr:Material	Goal	Circm:Manner
	should be reported	to a doctor	as they may be an early warning sign.
	Pr:Verbal	Target	Circm:Cause

Meanwhile in BC2/S77, *doctors* played a Sayer role because the *doctor*: a nominal group shows an action of talking and the Verbal Process is identified as *recommend*. Here this sentence has a different structure. Therefore, the participants are also different.

Example 4.15:BC2/S77

BC2/S77	To achieve	the best outcome	doctors	do sometimes recommend
	Pr:Material	Goal	Sayer	Pr:Verbal
	a combination of therapies			
	Circm:Matter			

4.2 The circumstances choices in medical brochures

Circumstantial elements are also equally important as the Process Types and Participants. Circumstantial elements can freely occur in all types of processes and have the same significance wherever they occur, according to Hallidayan and Matthiessen (2004:260) theory. There are nine types of Circumstantial elements in their view for Circumstantial. Based on Hallidayan and Matthiessen (2004) categorization, this study has adapted it to analyze clauses. The findings are presented in Table 4.7 below:

Table 4.7: Distribution of Circumstantial elements in the medical brochures.

CIRCUMSTANTIAL ELEMENTS	CC1	CC2	BC1	BC2	TOTAL
Extent	2% (n=3)	3% (n=4)	10% (n=16)	3% (n=4)	18% (n=27)
Location: Place	4% (n=6)	6% (n=10)	12% (n=19)	18% (n=27)	40% (n=62)
Time					
Manner	3% (n=5)	3% (n=4)	6% (n=9)	12% (n=19)	24% (n=24)
Cause		1% (n=2)	1% (n=2)	6% (n=9)	8% (n=12)
Contingency	1% (n=2)		1% (n=2)	1% (n=2)	4% (n=6)
Accompaniment			1% (n=2)		1% (n=2)
Role	1% (n=2)	1% (n=2)			3% (n=4)
Matter		1% (n=2)		1% (n=2)	3% (n=4)
TOTAL =					100% (n=154)

* $\frac{\text{Number of each type of circumstantial element}}{\text{Total number of all types of circumstantial elements}} \times 100$

Based on the findings, the predominantly used Circumstantial elements are the Circumstance of Location; Place and Time. In medical brochures, Circumstance of Location plays an important role providing information. The breast cancer brochures have the highest number of this Circumstance because these brochures provide instructions to do own Breast Self-Examination (BSE), so the Circumstance of Locations is used. The majority of these Circumstances are Circumstance of Material clauses which explain how the patient can do the BSE. Meanwhile, Circumstance of time is important because the reader should be aware of when it is happening or occurring.

For example in BC1/S27; *Stand in front of a mirror.....in front of a mirror* represents the Circumstance of Location in this Relational clause. In BC1/S30; *Lump in the breast or armpit*, is another example of Circumstance of Location, which explains where the cancer occurs.

Circumstantial element of Manner is the second most used Circumstance. According to Halliday and Matthiessen (2004), there are four subtypes of Circumstance of Manner, namely means, quality, comparison and degree. These Circumstance answer the question "how" by understanding the characteristics of the cancer. Another reason is that these brochures are combinations of the question and answer based format. These are frequently asked questions and would be easier for the reader to understand about cancer.

Examples drawn from the analysis, in CC1/S4: *Cancer occurs when the cells of the cervix become abnormal and grown out of control*. Here *out of control...* is an example of Circumstantial of Manner, that answers to the question -howø

Circumstance of Extent is the third most frequently used Circumstantial element. This Circumstance probes the question -howø but specifically to distance, durations and frequency (Halliday and Matthiessen 2004:262). By including this Circumstance in the sentences, the author is adding information on the frequency of occurrence. Example 4.16 presents this below:

Example 4.16: CC1/S11

CC1/S11	Most HPV infections	occur without	any symptoms
	Carrier	Pr: Rel:Attb	Attribute
	and	will go away	without any treatment
	/	Pr: Material	Goal
	<i>over the course of a few months.</i>		
	<i>Circm: Extend : Duration</i>		

Based on the example above, *...over the course of a few months* clearly explains the duration on how long it occurs. It allows the reader to be well informed on the circumstances that appear before, during and after.

Although Circumstantial element has a minor role, it gives a better understanding on certain clauses. Apart from that, it provides more information by explaining in detail about the information that is shared.

4.3 DISCUSSION OF FINDINGS.

The discussion is divided into three main discussions in relation to the research question of this research report. The discussion will be based on findings obtained from the analyses.

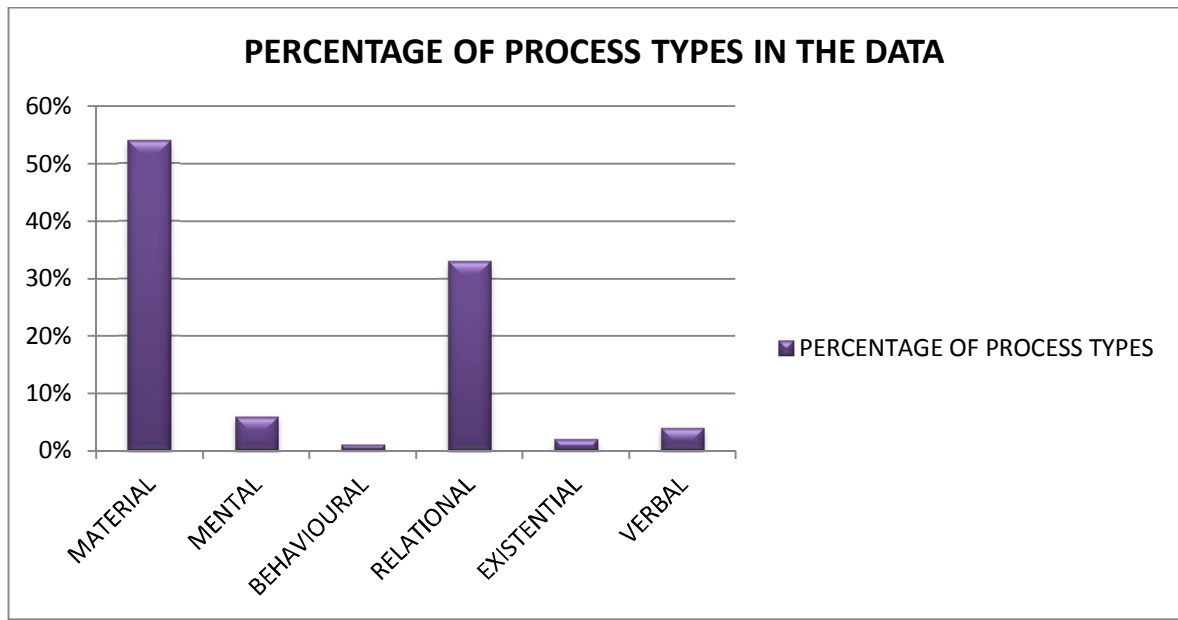
4.3.1 The Process Types and participants choices used in medical brochures

The findings presents that the most used Process types are the Material Processes, Relational Processes and Mental Processes. Table 4.8 shows the summary of findings in numbers as well in percentage (%). These findings are presented in a bar chart Figure 4.4.

Table: 4.8 Summaries of Process Types

PROCESS TYPES	NUMBER OF PROCESS TYPES	PERCENTAGE OF PROCESS TYPES $\frac{\text{number of each process types}}{\text{total number of all process types}} \times 100$
MATERIAL	135	54%
MENTAL	15	6%
BEHAVIOURAL	3	1%
RELATIONAL	83	33%
EXISTENTIAL	4	2%
VERBAL	8	4%
TOTAL PROCESS TYPES	248	100%

Figure 4.4: The percentage of types processes in this study.



In this study, the use of Material Process has dominated the texts. As mentioned earlier, Material clauses explain the *-doing* words. Therefore, in these brochures this process type had occurred frequently to present the information. Based on the analysis, it is seen that these Material clauses are very direct and the sentences begin with Material Processes and not the Actor, Goal or Circumstantial. This explains that the author is giving instructions and only presenting the relevant action without including any other information.

The second choice of process types is the Relational Process. This process functions in providing the fact or the truth with sentences having a *-being* component (Halliday and Matthiessen, 2004). It clearly presents that medical facts cannot be changed and the outcome, symptoms and effects of the cancer will be the same for all humans. Therefore, by creating sentences using these types of clauses, these help the reader to feel

the situations that they might encounter. The readers can imagine the situation and be able to be prepared if such situation occurs.

Finally, the Mental Processes were one of the Transitivity choices which is used in these brochures. This process explains the feelings and sensing, (Halliday and Matthiessen, 2004) that the reader or patients should be aware of. Mental clauses give a virtual experience to be experienced which will definitely help the targeted audience to understand it better.

The findings show that the usage of these process types helps the reader or patients to understand the information that is given in the brochures. Moreover, these brochures are also presented in a simplified way, that is the question and answer format. Meanwhile the choices of words are simple vocabulary items where a lay man without science background is able to understand the entire content of these medical brochures. This is proved by analyzing the clauses using Transitivity.

4.3.2 Circumstantial elements used in medical brochures.

The results of the findings show that, there are three major Circumstantial elements; namely Circumstance of Location, Circumstance of Extend and Circumstance of Manner.

Circumstance of Location has two subtypes which are Time and Place. This circumstantial element plays an important role to complete the process by explaining in detail about the exact location of the illness occurs and as well the time. The brochure has given a clearer picture of the whole scenario using these circumstantial elements.

Circumstance of Extend is another circumstantial that explains, *how long* and *how many times* and *how far* (Halliday and Matthiessen, 2004:262). In order to understand or be aware of a type of disease or illness, these questions will definitely arise in the reader or patient. Therefore, based on the results, it is proven that the authors have specified the exact situation that will be faced by the patients and only included important information.

Circumstance of Manners are circumstantial elements which look into answering the questions on *how* (Halliday and Matthiessen, 2004:262). This kind of question is quite common and most patients like to know what the symptoms of these diseases are. Another aspect will be that, these texts are structured in a question and answer format. Therefore, these allow the brochures to use the Circumstance of Manner by giving appropriate information regarding cancer.

4.3.3 Choices in transitivity in the creation of the meaning

Transitivity has an important role to play in the creation of meaning in Medical Brochures. These brochures are information tools that are published and distributed to educate people about types of illnesses or diseases. The publisher's aims are to send the message across effectively in order to create awareness in the reader. This study has adopted the System of Transitivity to analyse the clauses from the brochures.

The System of Transitivity is able to bring out the reality or effect of circumstances caused by that illness or diseases. The findings show that the clauses were constructed in a simple and straight forward manner. The reason is the brochures did not

use many scientific terms but restricted itself to using terms any lay person could understand.

Material clauses and Relational clauses are the most used clauses. The author has used Material Clauses widely in Breast Cancer brochure one and two. The reason is, these two brochures present the method on carrying out a BSE (Breast Self-Examination). So, the author has come up with simple instructions which are constructed using a Material Process and Goal together with the circumstances. Meanwhile the Relational Process was also used in medical articles because it explains the process of *ðbe verbö* or *þavingø*. In Medical Brochures, the author has to publish the fact and truth of the diseases and illnesses. Therefore these clauses are widely used.

4.4 CONCLUSION

This study shows that the sentences in the brochures are presented in a question and answer format. The sentences are constructed using selected verbs to send the message effectively. This simple method is used by giving explanations to the commonly asked questions and by providing the best knowledge about the cancer. It can be concluded that the aims of brochures are achieved by using the questions and answers sentence structures and diagrams to illustrate the information in the brochures.

CHAPTER FIVE

CONCLUSION

5.1 SUMMARY OF QUESTION 1 AND QUESTION 2.

Based on the first question, it can be concluded that the Transitivity choices used in medical brochures are summed up as the types of processes and circumstantial choices dominated by two Process types; Material Process and Relational Process.

By identifying the process types, we can conclude that both the medical brochures have presented the information in a different way. Cervical Cancer brochure one (CC1) and Cervical Cancer brochure two (CC2) are dominated by the Relational Processes where the author has produced sentences in a direct way by relating it to one's experience.

Meanwhile Breast Cancer brochure one (BC1) and Breast Cancer brochure two (BC2) are presented in a different way. Here, the author has given some simple instructions for the reader to do BSE (Breast Self-Examination). Therefore, the usage of Material Processes is the main choice in these medical brochures. The sentences are short and are presented in an instructional way, where most of the sentences begin from the Material Process.

There are other types of processes that occur which are Mental Process, Existential Process, Verbal Process and Behavioural Process. By analyzing the sentences using the System of Transitivity, explicit meaning on the real experience relates to that which the reader might or will have to experience. However, the entire study manages to achieve one of the aims, which is discovering all the process types used in these brochures.

The findings on the types of circumstantial elements answer the second question; where is a show that it is one of the important elements needed to complete a sentence in medical brochures. The circumstantial elements give a detailed explanation about the information in the brochures. They are very useful in medical brochures as it provides the circumstances that occur, which helps the reader to have a better understanding of the disease. This also causes the reader to be well informed about all types of possibilities as well as the symptoms that might appear. This is another way to create a strong awareness among the readers so that they could identify the symptoms easily and quickly.

5.2 SUMMARY OF QUESTION 3

Transitivity played a major role in these medical brochures, where it gives a clear overview on how the sentences are structured by the professionals and delivered to lay persons. Therefore, the findings that are presented will provide a better understanding on how to structure the medical brochures. These types of processes play an important role in the sentence structure as the sentences should be understood by everyone especially by those not in medical fields. By understanding the process types, it will be helpful in constructing meaning for the sentences.

5.3 IMPLICATION OF THE STUDY

Overall the study has given some beneficial results. Although the study had some clauses unanalyzed, yet the findings that are obtained have met the aims of the study. These brochures are presented in question and answer concept and are helpful for the reader because the brochures have been laid out with most frequently-asked questions. Since the brochures are both on the same topic but produced by different authors, the facts given are the same. However the sentence structures vary according to the writing style of each brochure. The results of the findings explain that the choices of process types and circumstantial elements vary according to the approach of each brochure. The theoretical framework for this study has contributed in providing a quality in research that has met the aims. The Transitivity tool used for analyzing the clauses has achieved the aim of the study. The contribution of this study, in the near future will serve as a guide line in producing better medical brochures with the most suitable choices of words.

5.4 FUTURE RESEARCH

This study gives way for further research in using medical brochures. The study has limited itself to the System of Transitivity's clause analysis. However, future research can be carried out by looking at the multimodality aspects, where in this study only the texts are analyzed and other elements in the brochures are omitted. Therefore future research could be in discourse analysis, where the entire presentation of brochures is studied. Apart from this, future research can look at variations of medical brochures, such as some brochures on supplements or medicine, dental, or even in other fields, whichever is suitable and relevant.

This study can also be compared with other genres or with more similar brochures in order to make the findings useful for ESP (English for Specific Purposes) teachers and students to understand and provide a better understanding based on the findings. Apart from that, brochures designers and writers will be more creative in sending the information to the targeted audience based on the purpose of the brochures.

5.5 CONCLUSION

In conclusion, it is hoped that the current study will contribute to those who are in contact with ESP (English for Specific Purposes) or other areas of language. The findings and explanations of this study will be able to design a better output of brochures. This study also gives way for other researches to be carried out.

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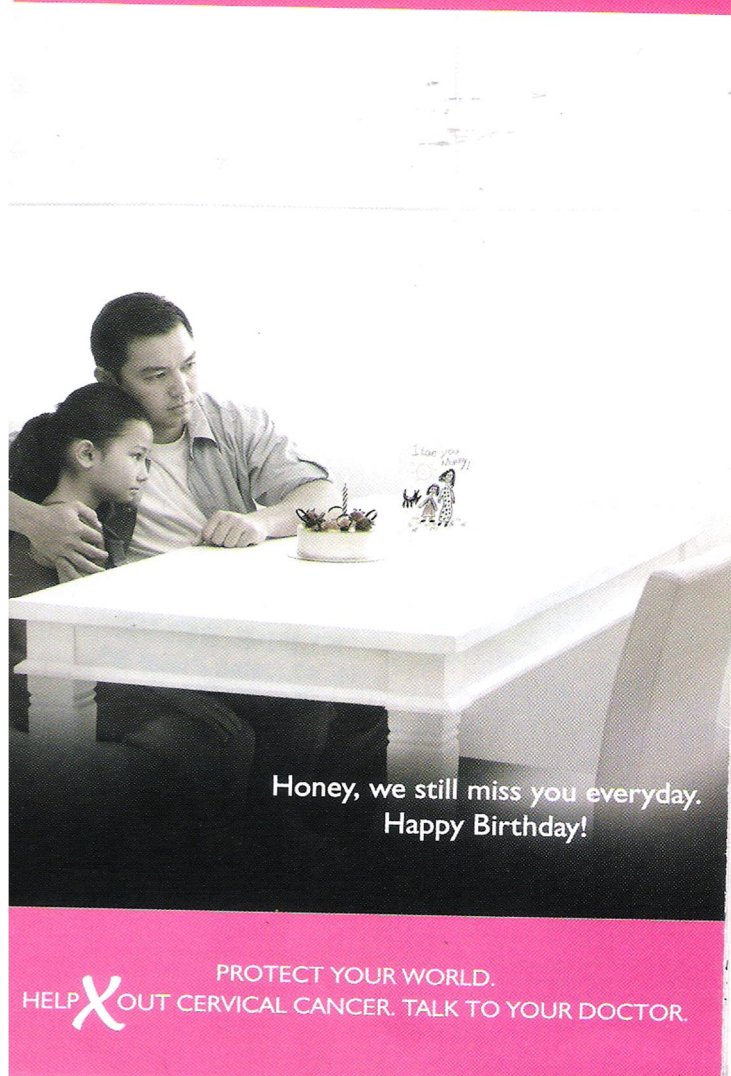
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i) **CERVICAL CANCER**
BROCHURE 1

In Malaysia, cervical cancer is the 2nd most common cancer affecting women.⁶



Honey, we still miss you everyday.
Happy Birthday!

PROTECT YOUR WORLD.
HELP **X** OUT CERVICAL CANCER. TALK TO YOUR DOCTOR.

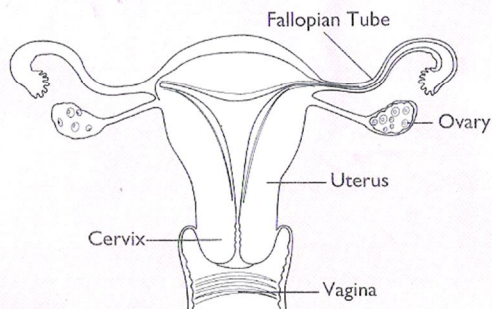
C2

Key Facts about cervical cancer in Malaysia

- Cervical cancer is the 2nd most common cancer affecting Malaysian women, after breast cancer⁶
- In 2002, cervical cancer accounted for 12.9% of all female cancer in Malaysia⁶
- Virtually every woman is at risk of cervical cancer, regardless of their age or lifestyle^{2-5,7}

Q: What is Cervical Cancer?

A: The cervix is the neck of the womb (uterus). It connects the body of the uterus to the vagina (birth canal). Cancer occurs when the cells of the cervix become abnormal and grow out of control. The cancer can spread to other parts of the body.



*But did you also know...
Cervical cancer is preventable.
All of us have a role to play in
saving women from cervical cancer.*

Q: What is HPV (human papillomavirus)?

A: Human papillomavirus (HPV) is a family of more than 100 viruses that is very common. Some types of HPV are associated with certain types of cancer. These are called “high-risk” cancer-causing HPVs¹.

Q: What is the relation between HPV and Cervical Cancer?

A: Most HPV infections occur without any symptoms and will go away without any treatment over the course of a few months⁸⁻⁹.

Infection by the “high risk” (cancer-causing) HPV is necessary for the development of cervical cancer. These infections are asymptomatic and majority will resolve without any need for treatment⁸⁻⁹.

However, in some cases, the infection can persist, leading to the risk of progression to cervical cancer. This process can take more than ten years⁸⁻⁹.

Therefore it is important to be protected against the “high-risk” (cancer-causing) HPVs.

Q: How is HPV transmitted?

A: HPV is a common virus that is transmitted through genital skin to skin contact so it can affect virtually any woman, regardless of her age or lifestyle. Sexual intercourse is not necessary to become infected².

It is estimated that about four out of five sexually active women will have an HPV infection during their lifetime, even if they've only had one or two sexual partners³⁻⁵.

Q: Will I still be at risk of HPV infection if I am already married?

A: The risk of HPV infection starts from the first

sexual encounter and lasts throughout a woman's life. It is estimated that up to 80% of women will acquire a genital HPV infection in their lifetime irrespective of their age or lifestyle³.

Q: Do condoms reduce the risk of HPV infection?

A: Condoms reduce the risk but are not fully protective².

Throughout her life every woman is at risk from the virus that causes cervical cancer^{2-5,7}.

Q: What is a Pap smear?

A: A Pap smear is a quick and simple test to find abnormal cells at the surface of the cervix. Usually cells are collected from the cervix and sent to a laboratory where they are tested for changes.

Q: Can Cervical Cancer be prevented?

A: Until recently the only way to prevent cervical cancer was regular Pap smear testing to look for early signs of the disease.

Vaccination is now available to prevent HPV infection and cervical cancer.

Talk to your Doctor about protecting yourself and your loved ones.

KLINIK SELVA
No. 30, Jalan Puteh 8/1,
Bandar Puteh,
47100 Puchong, Selangor.
Tel: 03-8088 3488
Fax: 03-8088 3888

A community health message brought to you by

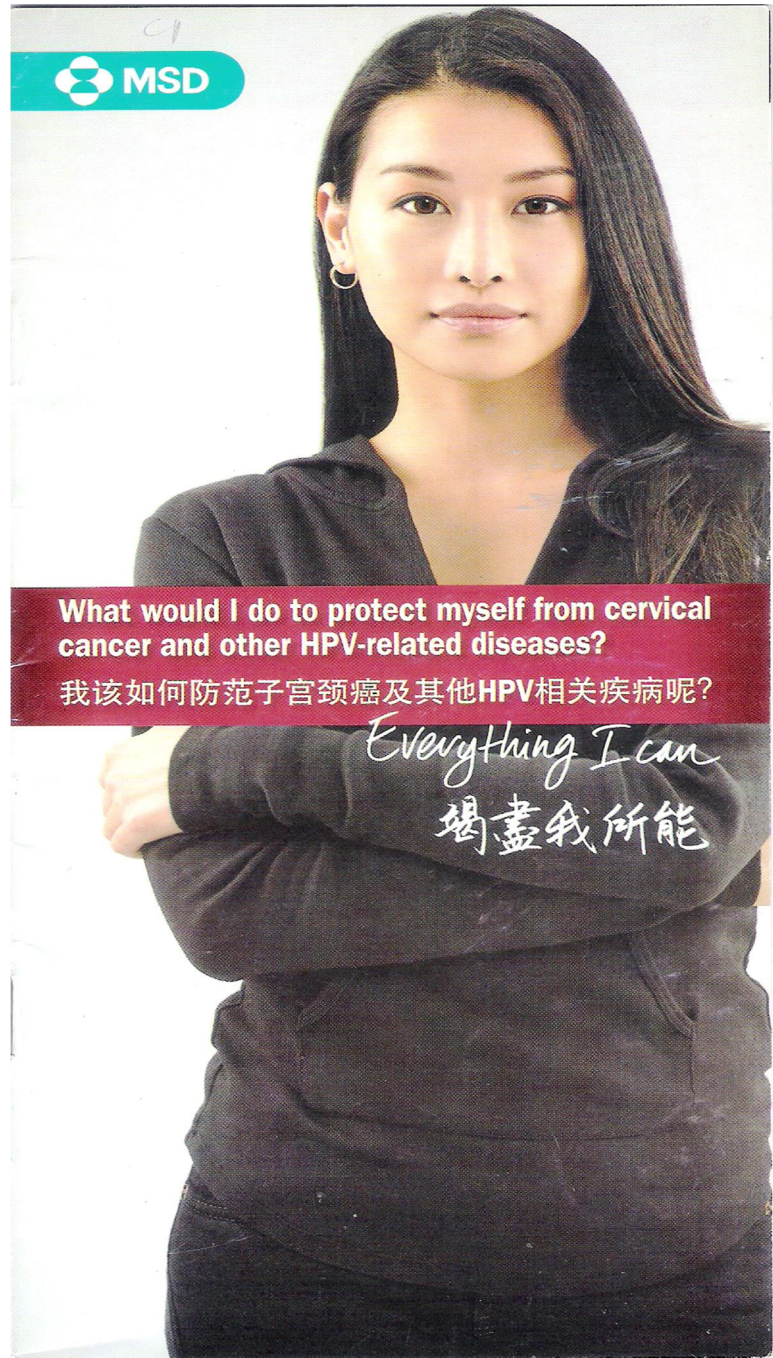


GlaxoSmithKline Pharmaceutical Sdn Bhd (3277-U)
8th Floor, Menara Lien Hoe, No. 8, Persiaran Tropicana,
47410 Petaling Jaya, Selangor Darul Ehsan, Malaysia.
Tel: (603) 7801 6400 Fax: (603) 7806 5912

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ii) CERVICAL CANCER
BROCHURE 2



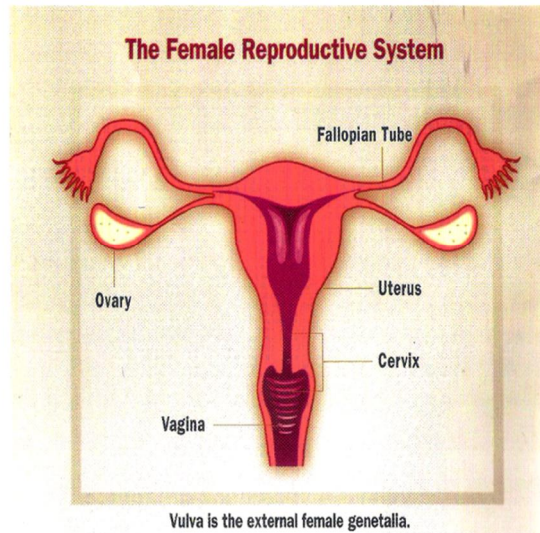
FACTS

What are cervical cancer and precancerous lesions?

Did you know ...

- ✔ **Cervical Cancer is the 2nd most common cancer among Malaysian* women.**¹⁵
- ✔ **4 women are diagnosed with cervical cancer in Malaysia each day.**¹⁶
- ✔ **It is caused by a common virus called Human Papillomavirus (HPV).**³
- ✔ **It is estimated that 8 out of 10 women will get HPV infection in their life time.**⁷

* Incidence of cervical cancer in the 2003 National Cancer Registry is for Peninsular Malaysia only.



- ⦿ Cervical cancer is abnormal cell growth in the cervix.¹ The cervix is the part of the uterus that connects the upper part of the uterus (the womb) and the vagina.¹
- ⦿ Cervical cancer is a serious condition that can be life threatening. It begins when a woman becomes infected with certain types of Human Papillomavirus (HPV).²
- ⦿ If the immune system does not clear the HPV infection, normal cells can begin to grow abnormally and turn into precancerous lesions.³
- ⦿ If not discovered early and treated, this precancerous lesion can become cancer.³ Most often this can take a number of years, although in rare cases it can happen within a year.¹

Who gets cervical cancer and precancers?

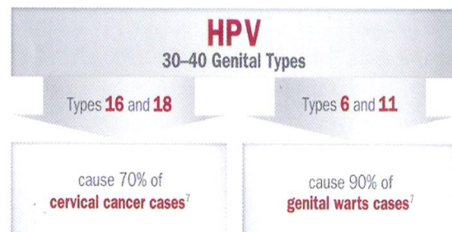
- ⦿ Women who have been infected with certain types of HPV and have not been able to clear the virus can get cervical cancer and precancers.³
- ⦿ About half of all females diagnosed with cervical cancer are between 35 and 55 years old.⁴ Many of these women were most likely exposed to cancer-causing HPV types during their teens and 20s.⁵
- ⦿ Most of the women who get cervical cancer may have never had a Pap smear.³

What are the symptoms of cervical cancer?

- ⦿ Abnormal vaginal bleeding⁴:
 - Bleeding that occurs between regular menstrual periods
 - Bleeding after sexual intercourse, douching or a pelvic exam
 - Menstrual periods that last longer and are heavier than before
- ⦿ Bleeding after menopause⁴
- ⦿ Increased vaginal discharge⁴
- ⦿ Pelvic pain⁴
- ⦿ Pain during sexual intercourse⁴

What is HPV (Human Papillomavirus)?

- HPV is a common virus that affects both females and males.³ There are more than 100 types of the virus.³ Most types of HPV do not cause any symptom, are harmless, and are cleared by the body.³
- About 30 types of HPV are known as genital HPV since they affect the genital area.³ Some types can cause cervical cancer or abnormal cells in the lining of the cervix that could turn into cancer.² Other types of HPV can cause genital warts and benign (noncancerous) changes in the cervix.³



- HPV has also been linked to other rare diseases including vaginal and vulvar cancers, as well as RRP (recurrent respiratory papillomatosis), a disease of the throat that makes breathing difficult.^{3,8}
- Anyone who has sexual activity involving genital contact could get genital HPV, even if there is no sexual intercourse.^{3,11}

How do I know if I have HPV infection?

- Because HPV infection usually has no sign or symptom, most people infected with HPV don't know they have it. Most HPV infections are first discovered as a result of abnormal Pap smear.³

What are the risk factors for HPV infection?

- Risk factors for HPV infection are related to sexual behavior, including the number of sex partner, lifetime history of sex partners, and the partners' sexual history. Most studies suggest that young age (less than 25 years) is a risk factor for infection.⁷
- Other risk factor, including young age at sexual initiation, inconsistent condom use, number of pregnancies, genetic factors, smoking, lack of circumcision of male partner, and oral contraceptive use.⁷

What are genital warts?

- Genital warts are flesh-colored growths that are most often caused by certain types of HPV.¹² Genital warts most often appear on the external genitals or near the anus of females and males. Less commonly, genital warts can appear inside the vagina and on the cervix.¹²
- It is estimated that approximately 10% of men and women will have genital warts in their lifetime.¹³

How do I know if I have genital warts?

- Genital warts often do not cause symptoms. In some cases, however, they may cause burning, itching, or pain.¹⁴ A healthcare professional can usually recognize genital warts just by seeing them.³ Sometimes they are discovered in follow-up visits after an abnormal Pap smear.



What is vaginal cancer?

- Vaginal cancer is a cancer that forms in the tissues of the vagina (birth canal).⁹
- Having cervical cancer or precancerous condition increases a woman's risk of developing vaginal squamous cell cancer. This is because cervical cancer and vaginal cancer have similar risk factors, such as HPV infection.⁹
- Certain types of HPV have been strongly associated with vaginal cancers.⁹

What are the symptoms of vaginal cancer?

- Abnormal bleeding (often after intercourse). Other signs and symptoms include an abnormal vaginal discharge, or pain during intercourse. Painful urination, constipation, and continuous pain in the pelvis may occur with advanced vaginal cancer.⁹



What is vulvar cancer?

- Vulvar cancer is cancer of the external female genitalia.¹⁰
- HPV infection is thought to be responsible for most of the vulvar cancer in younger women.¹⁰

What are the symptoms of vulvar cancer?

- About half of the women with vulvar cancer complain of persistent itching. Symptoms like pain, burning, painful urination, bleeding, and discharge not associated with the normal menstrual period.
- An ulcer that persists for more than a month is another sign.¹⁰

What is a Pap smear?

- A Pap smear is part of a gynecological exam and may help detect abnormal cells in the lining of the cervix before they have the chance to become precancers or cervical cancer.^{3, 6}

How may cervical cancer be prevented?

- Cervical cancer may be prevented if women are screened regularly with Pap smear. Women should talk to their healthcare professionals about having regular Pap smear screening and discuss the results with them.
- It is now possible to help prevent HPV infections through vaccination.

Now's the time to do **everything you can** to help protect yourself against a virus that can cause cervical cancer and other HPV related diseases — **before it's too late.**

iii) BREAST CANCER

BROCHURE 1

Are All Lumps In The Breast Cancerous?

Nine out of ten lumps found in the breast are not cancerous. However, all lumps should be treated with suspicion, and you should consult your doctor immediately should you find one.

APPEAL TO ALL WOMEN

- FIGHT BREAST CANCER WITH MONTHLY BSE.
- MAKE BSE A PART OF YOUR LIFESTYLE.
- IF YOU FEEL A LUMP OR SEE ANY UNUSUAL CHANGES IN YOUR BREASTS, SEE YOUR DOCTOR IMMEDIATELY.
- REMEMBER! BREAST CANCER IS CURABLE IF DETECTED EARLY AND TREATED PROMPTLY.



Diterbitkan oleh Bahagian Pendidikan Kesihatan, Kementerian Kesihatan Malaysia.

BREAST CANCER



DETECT EARLY THROUGH BREAST SELF-EXAMINATION

BSE



Healthy Lifestyle Campaign 1995

What Is Breast Cancer?

Breast cancer is the most common cancer and the number one cause of cancer deaths amongst Malaysian women.

Cancer of the breast is the result of an uncontrolled growth of cells within the breast tissue. If not detected and treated promptly, breast cancer can spread to the lymph glands and to other parts of the body such as the bones, lungs, and liver.

WHAT CAUSES BREAST CANCER?

The exact cause of breast cancer is not known. Any woman aged 20 and above is at risk of getting breast cancer.

The following factors may increase a woman's risk of developing breast cancer:

- Increasing age.
- Family history of breast cancer.
- Early onset of menstruation (before age 12) or late menopause (after age 50).
- Childless or giving birth to first child after age 30.
- Diet high in animal fats.

What Can You Do To Fight Breast Cancer?

Breast cancer is curable if detected and treated early. Breast cancer is one of the cancer, that is easily detected.

Early detection is done through breast examination. All women aged 20 and above must do Breast Self-Examination (BSE) every month throughout their lifetime. For those above 30, they should also get a Breast Examination done by a doctor or other medical personnel yearly.

Regular breast examination will allow a woman to discover cancer of the breast at an early stage when treatment is more effective.

When To Do

BSE ?

Every month. If you are menstruating, BSE should be performed between the 7th and 10th day after the start of your period.

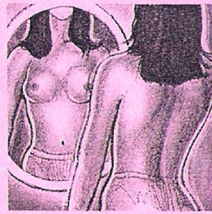
If your periods are irregular or you no longer menstruate, BSE should be done on a fixed day every month. Pick an easy day to remember such as the first or last day of the month.

How To Do **BSE** ?

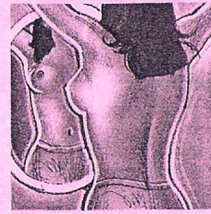
It can be done through 2 methods namely by looking for changes in front of the mirror and feeling for changes while lying down.

A Looking For Changes In Front Of A Mirror

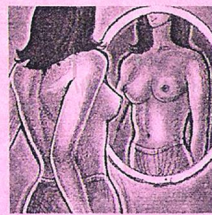
Look for size, shape and symmetry of breasts and level of both nipples.



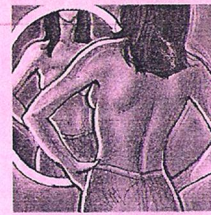
Position 1
Remove your clothing above the waist, and view yourself in front of a mirror.



Position 2
Raise both arms above your head. Examine your breasts from different angles.



Position 3
Stand in front of a mirror with your arms at your side and turn from side to side.



Position 4
Tighten your chest muscles by placing your hands on your hips and pressing in and down firmly.

Warning Signs To Look For During Examination

- Lump in the breast or armpit.
- Abnormal change in shape or size of the breast.
- Abnormal dimpling or puckering of the skin of the breast.
- Nipples become pulled in.
- Bleeding or unusual discharge from the nipples.

B Feeling For Changes Lying Down

Step 1: Getting Into Position

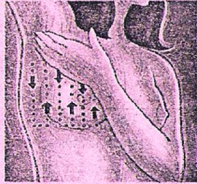
Begin with the **RIGHT BREAST**. First, lie on your left side with your knees bent. Put a pillow or folded bath towel underneath your right shoulder to raise the side you are going to examine. Then place your right hand under your head.



Use your left hand to examine your right breast. Hold your fingers flat to feel for any **LUMPS** or **THICKENING**.

Examine your breast using both the Vertical Strip Method and the Circular Method.

Step 2: Breast Examination - Vertical Strip Method

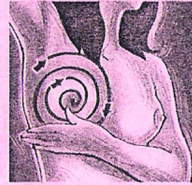


Examine all the breast area in a vertical strip pattern, from the collar bone at the top to the bra-line at the bottom and from mid-way between your breasts to an imaginary line down from the middle of your armpit.

Using your left hand, begin the first strip at your armpit. Make a circle of light, and then of firm pressure at this spot to feel for any lumps or thickening.

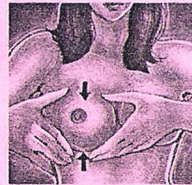
Move your hand gradually towards the bra-line, using circles of light and firm pressure at each spot. At the bottom of the bra-line, move across about two centimetres to the left and start working upwards to your collar bone, making circles all the time. Work up and down in strips and cover the full area indicated.

Step 3: Breast Examination - Circular Method



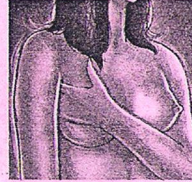
Starting at the top of your breast, make a large circle. Move all around the breast, looking for any unusual lumps or thickening. Make at least three smaller circles until you reach the nipple. Do this twice, once with light pressure and again with firm pressure. Do not forget to examine below the areola (dark area).

Step 4: Checking For Nipple Discharge



With both hands, apply firm pressure on the breast to see if there is any unusual discharge from the nipple.

STEP 5: CHECKING YOUR ARMPIT



Bring your right arm down by your side and feel your armpit firmly and carefully for any lumps.

LEFT BREAST EXAMINATION

Start again at Step 1 and repeat the procedure up to Step 5 for your **LEFT BREAST** in the same manner with the right hand.

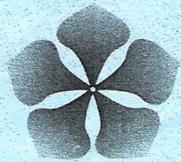
iv) BREAST CANCER

BROCHURE 2

Mayban Life Assurance Berhad and Mayban Assurance Berhad

Mayban Life and Mayban Assurance, Insurance Units of the Mayban Group, have come together to show their support for this worthy cause. If you share our cause to fight the occurrence, pain and suffering of cancer, as well as our commitment to raise support and awareness of this dreaded disease, come join us in our endeavour to generate a bigger awareness to all. And let people of Malaysia know you are behind them all the way in the fight against cancer.

*For more information, you are welcome to call
MAKNA at 03 - 4256 9178*



MAKNA

Majlis Kanser Nasional
National Cancer Council

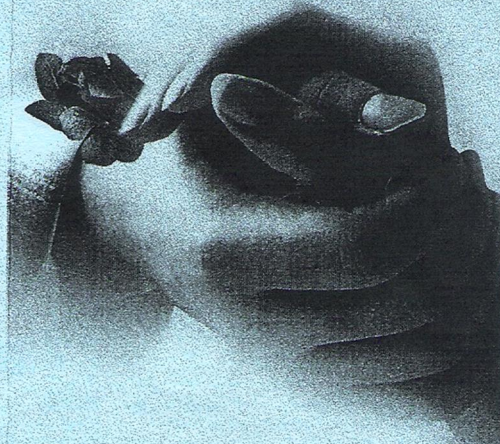
A Meaning to Life

With Heartfelt Support from:

 **MaybanLife**

 **Mayban Assurance**

BREAST CANCER & CANCER OF THE CERVIX AMONGST WOMEN



START YOUR FIGHT NOW.

BREAST CANCER

The most common cancer and the number one cause of cancer deaths amongst women in Malaysia is breast cancer. Breast cancer is the result of an uncontrolled growth of cell within the breast tissue. If not detected and treated promptly, breast cancer can metastasise, spreading to the lymph glands and other parts of the body including the lungs, bones and liver.

WHO IS AT RISK?

All women above 20 are at risk of developing breast cancer. There are a number of risk factors that have been identified. Some of these factors include:

- Age
The risk of developing breast cancer does increase with age. In fact, 70% of breast cancers occur in women aged 50 and above
- A family history of breast cancer
Women who have a mother, sister or daughter who developed breast cancer before the age of 50 are at an increased risk. The risk is further heightened if a woman has more than one immediate family member who has breast cancer
- Previous history of breast cancer
Women who have already been treated for cancer in one breast have an increased risk of developing cancer in the other breast
- Early menstruation (before age 12) or late menopause (after age 50)
- Never having a full-term pregnancy or giving birth after age 30
- Not having breast-fed
- High fat diet
- Low fibre diet
- Being obese in post-menopausal years
- Excessive alcohol consumption



CAN YOU FIGHT BREAST CANCER?

As breast cancer can be easily detected, you can do your bit to ensure that if breast cancer does develop, it can be treated early. Most women with early detected breast cancer go on to outlive their disease to live long, healthy and normal lives.

EARLY DETECTION

Great importance has been placed on the early detection of breast cancer. There are basically 4 methods of early detection:

1. Reporting of breast changes

Any unusual changes to your breast, even after a mammogram, should be reported to a doctor as they may be an early warning

sign. This includes the symptoms listed in this leaflet.

2. Breast examination by a doctor

For women over age 35 and above, an annual breast examination by a doctor is recommended. If you are going for a mammogram, it would be a good idea to first schedule the breast examination with a doctor.

3. Mammography (X-ray of the breast)

This method can detect breast cancer even before any lumps can be felt. It is especially useful for women between the ages of 50 and 69, and it is recommended that a mammogram should be scheduled one every 2 years. For younger women, because their breast tissue is more dense, the accuracy of a mammogram becomes less certain.

4. Breast self-examination (BSE)

Through BSE, you familiarise yourself with your breast and this makes it easier for you to notice any changes. It is recommended for women above age 35 and should be done once a month, between the 7th and 10th day after the start of menstruation. For non-menstruating women, BSE should be done at the same time every month.

HOW TO DO BSE?

There are two methods.



Method 1

Look for changes in front of the mirror. Pay attention to the size, shape and symmetry of your breast and level of both nipples.

Step 1: View both your naked breasts in front of a mirror

Step 2: Raise both arms above your head. Examine your breasts from different angles

Step 3: With your arms at your side, turn from side to side

Step 4: Tighten your chest by placing your hands on your hips and press down, applying pressure inwards

Method 2

Feeling for any changes whilst lying down.

Step 1: Getting into position

Begin with the RIGHT BREAST. First, lie on your left side with your knees bent. Put a pillow or folded bath towel underneath your right shoulder to raise the side you are going to examine. Then, place your right hand under your head. Use your left hand to examine your right breast. Hold your right fingers flat to feel for any LUMPS and THICKENING. Examine your breast using both the Vertical Strip Method and

the Circular Method.

Step 2: Breast Examination - Vertical Strip Method

Examine all the breast area in a vertical strip pattern, from the collarbone at the top to the bra-line at the bottom and from midway between your breast to an imaginary line down from the middle of your armpit. Using your left hand, begin the first strip at your armpit. Make a circle of light, and then firm pressure at this spot to feel for any lumps or thickening. Move your hand gradually towards the bra-line, using circles of light and firm pressure at each spot. At the bottom of the bra-line, move across about two centimetres to the left and start working upwards to your collarbone, making circles all the time. Work up and down in strips, and cover the full area indicated.

Step 3: Breast Examination - Circular Method

Starting at the top of your breast, make a large circle. Move all around the breast, looking for any unusual lumps or thickening. Make at least three smaller circles until you reach the nipple. Do this twice, once with light pressure and again with firm pressure. Do not forget to examine below the areola (dark area).

Step 4: Checking for Nipple Discharge

With both hands, apply firm pressure on the breast to see if there is any unusual discharge from the nipple.

Step 5: Checking your Armpit

Bring your right arm down by your side and feel your armpit firmly and carefully for any lumps.

Left breast examination

Start again at Step 1 and repeat the procedure up to Step 5 for your left breast in the same manner with your right hand.

SYMPTOMS OF BREAST CANCER

These are often the first indicators that breast cancer may be present. You should look out for:

1. A lump in your breast that persists after your period
2. Bleeding or discharge from the nipple
3. A change in the shape of the breast
4. Puckering or dimpling of the skin of the breast
5. New retraction (pulling in) of the nipple

If you see or experience any of these changes, don't hesitate. Consult your doctor immediately!

DIAGNOSIS

This may involve a number of different investigations. Depending on the patient's age and whether breast abnormality was picked up by screening mammography or due to other symptoms, and investigations may include:

- Mammography
- Ultrasound of the breast
- Needle aspiration or biopsy of the abnormal area

TREATMENT

The earlier breast cancer is detected, the higher the chances of a complete and successful treatment. This may involve:

- **Surgery**
This removes the cancer and some surrounding normal tissue to ensure a margin of safety. There are two ways of doing this:
Lumpectomy – Only a small or affected section of the breast is removed. This is increasingly being used. Because of mammography, many occurrences of breast cancer are detected when they are still very small.
Mastectomy – All the breast tissues are removed. With this type of treatment, a woman can opt to have a breast reconstruction to surgically rebuild the breast.
- **Radiotherapy**
High-powered x-ray waves are directed at the cancer site and surrounding tissue to help to destroy any remaining cancer cells.
- **Chemotherapy**
This requires the use of drugs or hormonal therapy to help destroy any remaining cancer cells.

To achieve the best outcome, doctors do sometimes recommend a combination of therapies.

ARE ALL LUMPS IN THE BREAST CANCEROUS?

Nine out of ten lumps found in breast are not cancerous. Still, any lump you feel, even the smallest ones, must be treated with suspicion. A doctor must be consulted with at the earliest opportunity.

APPENDIX B1 : CERVICAL CANCER

BROCHURE 1

CC1/S1	What	is	Cervical Cancer?
	Attribute	Pr: Rel : Attrb	Carrier
CC1/S2	The cervix	is	the neck of the womb (uterus).
	Value	Pr: Rel: ident	Token
CC1/S3	It	connects	the body of the uterus to the vagina (birth canal).
	Actor	Pr: Material	Goal Circm: place
CC1/S4	Cancer	occurs	when the cells of the cervix become abnormal and
	Carrier	Pr:Rel: Attrb	Attribute /
	grow		out of control.
	Pr: Material		Circm: manner:degree
CC1/S5	The cancer	can spread	to others parts of the body.
	Actor	Pr:Material	Circm: location: spatial
CC1/S6	What	is	HPV (human papillomavirus)?
	Attribute	Pr:Rel: Attrb	Carrier
CC1/S7	Human papillomavirus (HPV)	is	a family of more than 100 viruses
	Carrier	Pr:Rel:Attrb	Attribute
	that	is	very common.
	/	Pr:Rel: Attrb	Attribute
CC1/S8	Some types of HPV	are associated	with certain types of cancer.
	Carrier	Pr:Rel: Attrb	Attribute
CC1/S9	These	are called	“high-risk” cancer-causing HPVs
	Carrier	Pr:Rel: Attrb	Attribute
CC1/S10	What	are	the relation between HPV and Cervical Cancer?
	Attribute	Pr: Rel: Attb	Carrier
CC1/S11	Most HPV infections	occur without	any symptoms
	Carrier	Pr: Rel:Attb	Attibute
	and	will go away	without any treatment
	/	Pr: Material	Goal
	over the course of a few months.		
	Circm: Extend : Duration		

CC1/S12	Infection by the “high-risk” (cancer-causing) HPV	is	necessary
	Carrier	Pr:Rel:Attribute	
	for the development of cervical cancer.		
	Attribute		
CC1/S13	These infections	are	asymptomatic and majority will resolve
	Carrier	Pr: Rel: attribute	Attribute /
	without any need for treatment.		

CC1/S14	However in some cases	the infection	can persist,
	/	Carrier	Pr: Rel: attribute
	leading to the risk of progression		to cervical cancer.
	Attribute		Circm:location
CC1/S15	This process	can take	more than ten years.
	Actor (Value)	Pr: Material (Pr:Rel:ident)	Circm: Temporal : time (Token)

CC1/S16	Therefore	it	is	important to be protected against
		Carrier	Pr:Rel: Attb	Attribute
	the ‘high-risk’ (cancer-causing) HPVs.			

CC1/S17	How	is	HPV	transmitted?
	Circm:manner	Pr....	ActorMaterial

CC1/S18	HPV	is	common virus	that	is transmitted	through genital skin contact so
	Carrier	Pr:Rel: Attb	Attribute	/	Pr: Material	Circm: manner: place
	it	can affect	virtually any woman,	regardless of her age or lifestyle.		
	Value	Pr:Rel: Ident	Token		Circm:Cause	

CC1/S19	Sexual intercourse	is not necessary	to become infected.
	Carrier	Pr: Rel: attrb	Attribute

CC1/S20	It is estimated	that	about four out of five sexually active women	will have
		/	Actor	Pr: Material
	HPV infection	during their lifetime , even if	they’ve	only had one or two sexual partners.
	Goal	Circm: manner: duration	Pr:Material	Circm:manner

CC1/S22	The risk of HPV infection	starts	from the first sexual encounter	and
	Actor	Pr:Material	Goal	/
	lasts throughout a woman’s life.			
	Cirm: Manner			

CC1/S23	It is estimated that up to 80% of women	will acquire
	Value	Rel:Ident
	a genital HPV infection in their lifetime	irrespective of their age of lifestyle.
	Token	Circm : Manner: extent

CC1/S24	Do condoms	reduce	the risk of HPV infection?
	Actor	Pr:Material	Circm: manner

CC1/S25	Condoms	reduce	the risk	but	are not	fully protective.
	Actor	Material	Goal	/	Rel:Attrib	Attribute

CC1/S26	Throughout her life	every woman	is at risk	from the virus	that	causes cervical cancer
	Circm:manner:duration	Actor	Material	Goal	/	Circm:

CC1/S27	What	is	Pap smear?
	Carrier	Pr:Rel:Attb	Attribute

CC1/S28	A Pap smear	is	a quick and simple test to find abnormal cells
	Value	Pr:Rel:ident	Token
	at the surface of cervix.		
	Circm:Location		

CC1/S29	Usually	cells	are collected	from the cervix	and	sent	to a laboratory
	/	Actor	Pr:Material	Goal	/	Pr:Material	Circm:Location
	where	they	are tested	for changes.			
	/	Actor	Pr:Material	Goal			

CC1/S30	Can	cervical cancer	be prevented?
	Token	Value	Pr:Rel:Ident

CC1/S31	Until recently	the only way to prevent cervical cancer	was
	/	Carrier	Rel:attb
	regular Pap smear testing	to look	for early signs
	Attribute	Pr:Material	Goal
			Actor
CC1/S32	Vaccination	is now available	to prevent
	Actor	Circm:Temp:time	Pr:Material
			Goal
			HPV infection and cervical cancer.

APPENDIX B2 : CERVICAL CANCER

BROCHURE 2

CC2/S1	What	are	cervical cancer and precancerous lesion?
	Attribute	Pr: Rel:Attb	Carrier
CC2/S2	Cervical cancer	is	abnormal cell growth in the cervix.
	Carrier	Pr:Rel:Attb	Attribute
CC2 /S3	The cervix	is	the part of the uterus that connects
	Carrier	Pr:Rel:attb	Attribute / Pr:Material
	the upper part of the uterus (the womb) and the vagina.		
	Circm: Place		
CC2 /S4	Cervical cancer	is	a serious condition that can be life threatening.
	Carrier	Pr:Rel:attb	Attribute / Pr:Rel:attb
CC2 /S5	It begins when a woman becomes infected with certain types of Human Papillomavirus HPV.		
	Actor	Pr:Material	Goal
CC2 /S6	If the immune system does not clear the HPV infection, normal cells can begin		
	to grow abnormally and turn into precancerous lesions		
CC2 /S7	If not discovered early and treated,		this precancerous lesion can become cancer.
	Circm:Manner:duration		Carrier Pr:Rel:attb
CC2 /S8	Most often this can take a number of years,		although in rare cases
	Circm:Temporal:duration		Circm:manner
	it	can happen	within a year.
	Carrier	Pr:Rel:Attb	Circm: Time
CC2/S9	Who	gets	cervical cancer and precancers?
	Actor	Pr:Material	Goal
CC2/S10	Women who have been infected with certain types of HPV and have not been		
	Actor		
	able to clear the virus	can get	cervical cancer and precancers.
		Pr:Material	Goal
CC2/S11	About half of all females diagnosed with cervical cancer		are
	Carrier		Pr:Rel:Attb
	between 35 and 55 years old.		
	Attribute		
CC2/S12	Many of these women	are more likely to be exposed	to cancer-causing HPV types
	Carrier	Pr: Rel: attrb	Attribute
	during their teens and 20's.		
	Circm: Extent: temporal		
CC2/S13	Most of the women who get cervical cancer		may have never had a Pap smear.
	Goal		Pr:Material Actor
CC2/S14	What	are	the symptoms of cervical cancer?
	Attribute	Pr:Rel:Attribute	Carrier

CC2/S15	Abnormal vaginal bleeding ;				
	/				
	Bleeding	that	occurs between regular menstrual periods		
	Pr:Material	/	Circm : Contigency		
	Bleeding	after sexual intercourse, douching or pelvic exam			
	Pr:Material	Circm: Cause			
	Menstrual periods	that	last longer and heavier than before		
		/	Circm: Extent:Temporal		
	Bleeding	after menopause			
	Pr:Material	Circm: Cause			
	Increased vaginal discharge				
	Pelvic	pain			
	Matter	Pr:Mental			
	Pain	during sexual intercourse			
	Pr:Mental	Circm:Matter			

CC2/S16	What	is	HPV (Human Papillomavirus)?		
	Attribute	Pr:Rel:Attribute	Carrier		
CC2/S17	HPV	is	a common virus	that	affects both females and males.
	Carrier	Pr:Rel:Attribute	Attribute	/	Pr:Rel:Attribute Attribute
CC2/S18	There	are	more than 100 types of the virus.		
	Carrier	Pr:Rel:Attribute	Attribute		
CC2/S19	Most types of HPV do not cause any symptom,		are	harmless, and	
	Carrier		Pr:Rel:Attrib	...Attr	
	are cleared		by the body.		
	..bute		Circm: Role		
CC2/S20	About 30 types of HPV		are known	as genital HPV since they affect the genital area.	
	Carrier	Pr:Rel:Attrib	Attribute		
CC2/S21	Some types	can cause	cervical cancer and abnormal cells		in the lining of the cervix
	Carrier	Pr:Rel:Attrb	Attribute		Circm :Location
	that	could turn	into cancer.		
	/	Pr:Rel:Attrb	Attribute		
CC2/S22	Other types of HPV		can cause	genital warts and benign (noncancerous) changes	
	Carrier	Pr:Rel: Attribute	Attribute		
	in the cervix.				
	Circm: location				
CC2/S23	HPV	has also been linked	to other rare diseases including vaginal and vulvar cancers,		
	Carrier	Pr:Rel:Attb	Attribute		
	as well as RRP (recurrent respiratory papillomatosis) a disease of the throat				that
					/
	makes		breathing difficulty.		
	Pr:Material	Circm:Manner			
CC2/S24	Anyone who	has sexual activity	involving genital contact	could get	genital HPV,
	Actor	Pr:Material	Circm:Manner	Pr:Material	Goal

	even if	there	is	no sexual intercourse.			
		Carrier	Pr:Rel:Attrb	Attribute			
CC2/S25	How do	I	know	if	I	have	HPV infection?
	Circm:Manner	Senser	Pr:Mental		Carrier	Pr:Rel:Attrb	Attribute
CC2/S26	Because	HPV infection	usually has	no sign or symptom,		most people	infected
	/						
	with HPV	don't know	they	have it.			
CC2/S27	HPV infections	are		first discovered as a result of abnormal Pap smear.			
	Carrier	Pr:Rel: Attribute		Attribute			
CC2/S28	What	are		the risk factors for HPV infection?			
	Attribute	Pr:Rel: Attribute		Carrier			
CC2/S29	Risk factors for HPV infection		are		related to sexual behavior,		
	Carrier		Pr:Rel:Attrb		Attribute		
	including the number of sex partner, lifetime history of sex partners						
	and the partners' sexual history.						
CC2/S30	Most studies suggest that young age (less than 25 years)				is	a risk factor for infection	
	Carrier				Pr:Rel:Attrb	Attribute	
CC2/S31	Other risk factor, including young age at sexual initiation, inconsistent condom use,						
	number of pregnancies, genetic factors, smoking, lack of circumcision of male partner,						
	and oral contraceptive use.						
CC2/S32	Genital warts	are		flesh-coloured growths	that	are most often caused	
	Value	Pr:Rel: Ident		Token	/	Pr:Material	
	by certain types of HPV.						
	Goal						
CC2/S33	Genital warts	most often appear					
	Goal	Pr:Material					
	on the external genitals or near the anus of females and males.						
	Circm: Location						
CC2/S34	Less commonly,	genital warts	can appear	inside the vagina and on the cervix.			
	Circm:	Goal	Pr:Material	Circm:Location			
	It is estimated that approximately 10% of men and women					will have	genital warts
	Carrier					Pr:Rel:Attb	Attribute
	in their lifetime.						
	Circm: Temporal:						
CC2/S35	How do	I	know	if	I	have	genital warts?
	Circm:Manner	Senser	Pr:Mental		Carrier	Pr:Rel:Attrb	Attribute

CC2/S36	Genital warts	often	cause symptoms.	In some cases,	however,
	Goal		Pr:Material	/	/
	they	may cause	burning, itching, or pain.		
	Carrier	Pr:Rel:Attrb	Attribute		
	A health care professional	can usually recognize	genital warts	just	by seeing them.
	Actor		Pr:Material	Goal	/ Pr:Behavioural
	Sometimes	they	are discovered	in follow-up visits	after an abnormal pap smear.
	/	Actor	Pr:Material	Goal	Circm:Matter

CC2/S37	What	is	vaginal cancer?
	Attribute	Pr:Rel: Attribute	Carrier

CC2/S38	Vaginal cancer	is	a cancer that forms in the tissues of the vagina (birth canal)
	Carrier	Pr:Rel: Attribute	Attribute

CC2/S39	Having cervical cancer or precancerous condition	increases a	woman's	risk of
	pr:Existantial		Pr:Material	Actor
	developing vaginal squamous cell cancer.			
	Goal			

CC2/S40	This	is	because cervical cancer and vaginal cancer	have	similar risk factors,
		Carrier		Pr:Rel:Attrb	Attribute
	such as HPV infection				
	Circm: Manner				

CC2/S41	Certain types of HPV	have been strongly associated	with vaginal cancers.
	Carrier	Pr:Rel:Attrb	Attribute

CC2/S42	What	are	the symptoms of vaginal cancer?
	Attribute	Pr:Rel: Attributive	Carrier

CC2/S43	Abnormal bleeding (often after intercourse).				
	Pr:Material				
	Other signs and symptoms	include			
	Circm:Matter	Pr:Existantial			
	an abnormal vaginal discharge or pain during intercourse.				
	Existent				
	Painful urination, constipation	and	continuous	pain	in the pelvis
	Pr:Mental	/		Pr:Mental	Circm:location
	may occur	with advanced vaginal cancer.			
	Pr:Existantial	Circm: Matter			

CC2/S44	What	is	vulvar cancer?
	Attribute	Pr:Rel: Attributive	Carrier

CC2/S45	Vulvar cancer	is	cancer of the external female genitalia.
	Token	Pr:Rel: Identify	Value
	HPV infection	is	thought to be responsible
	Carrier	Pr:Rel: Attributive	Attribute
	for most of the vulvar cancer in younger women.		
	Circm:Cause	Circm:Accompaniment	

CC2/S46	What	are	the symptoms of vulvar cancer?
	Attribute	Pr:Rel: Attributive	Carrier

CC2/S47	About half of the women with vulvar cancer	complain	
	Sayer	Pr:Verbal	
	of persistent itching, symptoms like pain, burning, painful urination, bleeding, and discharge		
	Verbiage		
	not associated with normal menstrual period.		
	An ulcer	that persists	for more than a month is another sign.
	Existent	Pr:Existential	Circm:Temporal: Duration

CC2/S48	What	is	Pap smear?
	Attribute	Pr:Rel: Attributive	Carrier

CC2/S49	A Pap smear	is	a part of a gynecological exam	and	may help detect
	Carrier	Pr:Rel: Attributive	Attribute	/	Pr:Material
	abnormal cells	in the lining of the cervix	before		
	Goal	Circm:Location			
	they	have the chance	to become precancers or cervical cancer.		
	Carrier	Pr:Rel:Attributive	Attribute		

CC2/S50	How	may	cervical cancer	be prevented?
	Goal	Pr:....	Actor	..Material.

CC2/S51	Cervical cancer	may be prevented	if	women are screened regularly with pap smear.	
	Actor	Pr:Material	/	Goal	
	Women	should talk	to their healthcare professionals		
	Sayer	Pr:Verbal			
	about having regular Pap smear screening	and	discuss	the results	with them.
	Verbiage	/	Pr:Verbal	Verbiage	Receiver
	It	is now possible	to help prevent	HPV infections	through vaccination.
	Actor	Pr:Material	Goal	Circm:Manner:Means	

APPENDIX B3 : BREAST CANCER

BROCHURE 1

BC1/S1	What	is	breast cancer?		
	Attribute	Pr:Rel: Attributive	Carrier		
BC1/S2	Breast cancer	is	the most common cancer	and	
	Carrier	Pr:Rel: Attributive	Attribute	/	
	the number one cause of cancer deaths amongst Malaysian women.				
	Circm: Cause				
BC1/S3	Cancer of the breast	is			
	Carrier	Pr:Rel: Attributive			
	the result of an uncontrolled growth of cells		within the breast tissue.		
	Attribute		Circm:Location:Place		
BC1/S4	If not detected and treated promptly,		breast cancer	can spread	
	Circm:Contingency : Condition		Actor	Pr:Material	
	to the lymph glands and to other parts of the body such as the bones, lungs and live				
	Goal				
BC1/S5	What	causes	breast cancer?		
	Attribute	Pr:Rel: Attributive	Carrier		
BC1/S6	The exact cause of breast cancer		is	not known.	
	Carrier		Pr:Rel: Attributive	Attribute	
BC1/S7	Any woman aged 20 and above		is at risk of getting	breast cancer.	
	Actor		Pr:Material	Goal	
BC1/S8	The following factors may increase a woman's risk of developing breast cancer.				
	Increasing age				
	Family history of breast cancer				
	Early onset of menstruation (before age 12) or late menopause (after age 50)				
	Childless or giving birth to first child after age 30				
	Diet high in animal fats				
BC1/S9	What	can	you	do to fight	breast cancer?
	Range	Pr:...	Actor	..Material	Goal
BC1/S10	Breast cancer	is	curable	if	detected and treated early.
	Carrier	Pr:Rel: Attributive	Attribute	/	Circm: Manner:Quality
BC1/S11	Breast cancer	is	one of the cancer,		
	Carrier	Pr:Rel: Attributive	Attribute		
	that	is	easily detected .		
	/	Pr:Rel: Attributive	Attribute		
BC1/S12	Early detection	is done	through breast examination.		
	Carrier	Pr:Rel:Attributive	Attribute		
BC1/S13	All women aged 20 and above		must do	Breast Self-Examination (BSE)	
	Actor		Pr:Material	Goal	

	throughout every month their lifetime.			
	Circm : Extent			
BC1/S14	For those above 30,	they	should also get	a Breast Examination
	Circm:Accomp	Carrier	Pr:Rel:Attributive	Attribute
	done	by a doctor or other medical personnel		yearly.
	Pr:Material	Actor		Circm: Location:Time
BC1/S15	Regular breast examination	will allow	a woman	to discover cancer of the breast
	Carrier	Pr:Rel:Attrib	Attribute	Pr:Material
	at an early stage when	treatment	is	more effective
	Circm:Time	Carrier	Pr:Rel:Attrib	Attribute
BC1/S16	When	to do	BSE?	
	Goal	Pr:Material	Actor	
BC1/S17	Every month.			
	Circm: Time			
BC1/S18	If you are menstruating,	BSE	should be performed	
	Circm:Manner	Goal	Pr:Material	
	between the 7 th and 10 th day after the start of your period.			
	Circm:Extent			
BC1/S19	If your periods are irregular or you no longer menstruate,	BSE	should be done	
	Circm:Manner	Goal	Pr:Material	
	on a fixed day every month.			
	Circm:Extent			
BC1/S20	Pick	an easy day	to remember	such as the first or last day of the month.
	Pr:Material	Goal	Pr:Mental	Circm:
BC1/S21	How	to do	BSE?	
	Goal	Pr:Material	Actor	
BC1/S22	It can be done through 2 methods namely by			
	looking for changes			
	Pr:Behavioural	in front of the mirror		and
	Circm:			
	feeling for changes			
	Pr:Material	while lying down.		
	Circm:Manner: Means			
BC1/S23	A) Looking for the changes in front of a mirror			
	Look	for size, shape and symmetry of breasts and level of both nipples		
	Pr:Material	Circm:Cause:Purpose		
BC1/S24	Remove	your	clothing	above the waist, and
	Pr:Material	Actor	Goal	Circm:Location /
	view	yourself	in front of a mirror	
	Pr:Behavioural	Behaver	Circm:Location	
BC1/S25	Raise	both arms	above your head.	
	Pr:Material	Goal	Circm:Location	
BC1/S26	Examine	your breast	from different angles.	
	Pr:Material	Goal	Circm:Manner	
BC1/S27	Stand	in front of a mirror	with	your arms at your side
	Pr:Material	Circm:Location	Goal	Circm:Manner

	and	turn	from side to side		
	/	Pr:Material	Circm:Manner		
BC1/S28	Tighten	your	chest muscles	by placing your hands on your hips	
	Pr:Material	Actor	Goal	Circm:Manner	
	and	pressing in and down firmly			
	/	Circm:Manner			
BC1/S29	Warning signs	to look for	during examination		
	Goal	Pr:Material	Circm: Time		
BC1/S30	Lump	in the breast or armpit			
	Goal	Circm:Location			
BC1/S31	Abnormal change	in shape and size		of the breast	
	Goal	Circm:Manner		Actor	
BC1/S32	Abnormal dimpling or puckering		of the skin	of the breast	
	Goal		Circm:Location	Actor	
BC1/S33	Nipples	become	pulled in		
	Actor	Pr:Material	Circm:Manner		
BC1/S33	Bleeding or unusual discharge		from the nipples		
	Pr:Material		Goal		
BC1/S34	B) Feeling for changes lying down				
	Step 1: getting into position				
BC1/S35	Begin with the RIGHT BREAST. First, bent.		lie	on your left side with your knees	
	Circm:		Pr:Material	Circm: Manner	
BC1/S36	Put a pillow or folded bath towel underneath your right shoulder to raise the side you are				
	going to examine. Then place your right hand under your head				
BC1/S37	Use	your left hand	to examine	your right breast.	
	Pr:Material	Actor	Pr:Material	Goal	
BC1/S38	Hold	your fingers flat	to feel	for any LUMPS or THICKENING.	
	Pr:Material	Actor	Pr:Material	Goal	
BC1/S39	Examine your breast using both the Vertical Strip Method and the Circular Method				
BC1/S40	Step 2 : Breast Examination- Vertical Strip Method				
BC1/S41	Examine	all the breast area	in a vertical strip pattern,		
	Pr:Material	Goal	Circm:Manner		
	from the collar bone at the top to the bra-line at the bottom and from mid-way between				
	Circm:Location				
	your breasts to an imaginary line down from the middle of your armpit.				
	Circm:Location				
BC1/S42	Using	your left hand,	begin the first strip at your armpit.		
	Pr:Material	Actor	Circm:Location		
BC1/S43	Make a circle of light,	and	then of firm pressure	at this spot	to feel for
	Pr:Material	/	Pr:Material	Circm:Location	Pr:Mental

	any lumps or thickening.					
	Phenomenon					
BC1/S44	Move	your hand	gradually towards the bra-line, using circles of light and			
	Pr:Material	Goal Circm:Man.....			
	firm pressure at each spot.					
ner..					
BC1/S45	At the bottom of the bra-line,		move			
	Circm:Location		Pr:Material			
	across about two centimeters to the left		and	start working	upwards to	
	Circm:Location		/	Pr:Material	Circm:Location	
	your collar bone,	making circles	all the time			
	Goal	Pr:Material	Circm:Extent:Duration			
BC1/S46	Work	up and down in strips	and	cover	the full area indicated.	
	Pr:Material	Circm:Manner	/	Pr:Material	Goal	
BC1/S47	Step 3: Breast Examination – Circular Method					
BC1/S48	Starting	at the top of	your breast,	make a large circle.		
	Pr:Material	Circm:Location	Goal	Pr:Material		
	Move	all around	the breast,	looking for		
	Pr:Material	Circm:Location	Goal	Pr:Material		
	any unusual lumps or thickening.					
	Goal					
	Make	at least three smaller circles	until you reach the nipple.			
	Pr:Material	Goal	Circm:Location			
BC1/S49	Do	this twice, once with light pressure	and	again with firm pressure.		
	Pr:Material	Circm:Location:Time	/	Circm:Manner		
BC1/S50	Do not forget	to examine	below the areola (dark area)			
	Pr:Mental	Pr:Material	Circm:Location			
BC1/S51	Step 4: Checking For Nipple Discharge					
BC1/S52	With both hands,	apply	firm pressure	on the breast		
	Actor	Pr:Material	Goal	Circm:Location		
	to see	if there	is	any unusual discharge	from the nipple	
	Pr:Material	/ Carrier	Pr:Rel:Attributive	Attribute	Circm:Location	
BC1/S53	Step 5: Checking Your Armpit					
BC1/S54	Bring	your right arm down	by your side	and	feel	your armpit
	Pr:Material	Goal	Circm:Location	/	Pr:Mental	Senser
	firmly and carefully for any lumps.					
	Circm:Manner					
BC1/S55	Are	all lumps in the	breast cancerous?			
	Pr:Rel:Attributive	Carrier	Attribute			
BC1/S56	Nine out of ten lumps	are found	in breast are not cancerous.			
	Carrier	Pr:Rel:Attributive	Attribute			
BC1/S57	However,	all lumps	should be treated	with suspicion	and	you should consult
	/	Actor	Pr:Material	Goal	/	Sayer Pr:Verbal
	your doctor	immediately should you find one.				
	Senser	Circm: Cause				

APPENDIX B4 : BREAST CANCER

BROCHURE 2

BC2/S1	Breast cancer

BC2/S2	The most common cancer	and	the number one cause of cancer deaths amongst women in
	Attribute	/	... Circm:Cause
	Malaysia	is	breast cancer.
	Pr:Rel:Attributive	Carrier
BC2/S3	Breast cancer	is	the result of an uncontrolled growth of cell
	Carrier	Pr:Rel:Attributive	Attribute
	within the breast tissue.		
	Circm:Location:Place		
BC2/4	If not detected and treated promptly,	breast cancer	can metastasise
	Circm:Contingency : Condition	Actor	Pr:Material
	spreading to lymph glands and other parts of the body including the lungs, bones and liver		
	Goal		

BC2/S5	Who	is	at risk?
	Token	Pr:Rel:ident	Value

BC2/S6	All women above 20	are	at risk of developing breast cancer.
	Token	Pr:Rel:ident	Value
	There are a number of risk factors that have been identified. Some of these factors include:		
	Age		
	<i>The risk of developing breast cancer does increase with age.</i>		
	<i>In, fact 70% of breast cancers occur in women aged 50 and above.</i>		
	A family history of breast cancer		
	<i>Women who have a mother, sister or daughter who developed breast cancer before</i>		
	<i>age of 50 are at an increased risk.</i>		
	<i>The risk is further heightened if a woman has more than one immediate family member who</i>		
	<i>has breast cancer.</i>		
	Previous history of breast cancer		

	<i>Women who have already been treated for cancer in one breast have an increased risk</i>
	<i>of developing cancer in the other breast.</i>
	Early menstruation (before age 12) or late menopause (after age 50)
	Never having full-term pregnancy or giving birth after age 30
	Not having breast fed
	High fat diet
	Low fiber diet
	Being obese in post-menopausal years
	Excessive alcohol consumption

BC2/S7	Can	you	fight	breast cancer?
	Pr:...	Actor	..Material	Goal

BC2/S8	As	breast cancer	can be easily detected,	you	can do your bit	
		Actor	Pr:Material	Actor	Pr:Material	
		to ensure that if breast cancer	does develop,	it	can be treated	early.
		Goal	Pr:Material	Goal	Pr:Material	Circm:Extent
BC2/S9		Most women with early detected breast cancer		go on	to outlive their disease	
		Actor		Pr:Material	Goal	
		to live long, healthy and normal lives				
		Circm:Manner				

BC2/S10	Early detection				
BC2/S11	Great importance	has been placed	on the early detection	of breast cancer.	
	Token	Pr:Rel:Ident	Circm:Time	Value	
	There are basically: 4 methods of early detection				
	Reporting of breast changes				
BC2/S12	Any unusual changes	to your breast,	even after a mammogram,		
	Pr:Material	Goal	Circm:Manner		
	should be reported	to a doctor	as they may be an early warning sign.		
	Pr:Verbal	Senser	Circm:Cause		
BC2/S13	This includes the symptoms listed in this leaflet.				
	Breast examination	by a doctor			
	Pr:Material	Actor			
BC2/S14	For women over age 35 and above,	an annual	breast examination by a doctor		
	Circm:Accomp	Circm:Time	Token		

	is	recommended				
	Pr:Rel:Ident	Value				
BC2/S15	If you are going for a mammogram, it would be a good idea to first schedule					
	/ Actor	Pr:Material	Goal	Existent	Pr:Existential	
	the breast examination with a doctor					
	Actor	Pr:Material	Goal			
	Mammography (x-ray of the breast)					
BC2/S16	This method can detect breast cancer even before any lumps can be felt.					
	Actor	Pr:Material	Goal	Circm:Cause	Goal	Pr:Material
BC2/S17	It is especially useful for women between the ages of 50 and 69,					
	Carrier	Pr:Rel:Attributive	Attribute			
	and it is recommended that a mammogram should be scheduled					
	/ Carrier	Pr:Rel:Attributive	Attribute			
	one every 2 years.					
	Circm:Extent					
BC2/S18	For younger women, because their breast tissue is more dense,					
	Actor	Circm:Cause				
	the accuracy of a mammogram becomes less certain					
	Goal	Pr:Material				
	Breast self-examination (BSE)					
BC2/S19	Through BSE, you familiarize yourself with your breast and					
	Circm:Manner	Actor	Pr:Material	Goal	/	
	this makes easier for you to notice any changes.					
	Carrier	Pr:Rel:Attributive	Attribute	Pr:Behavioural	Phenomenon	
BC2/S20	It is recommended for women above age 35 and					
	Carrier	Pr:Rel:Attributive	Attribute			
	should be done once a month, between the 7 th and 10 th day after the start of					
	Pr:Material	Circm:Extent				
BC2/S21	For non-menstruation women, BSE should be done at the same time every month.					
	Circm:Manner	Goal	Pr:Material	Circm: Time		

BC2/S22	How to do BSE?					
	Goal	Pr:Material	Actor			
	There are two methods: Method 1:					
BC2/S23	Look for changes in front of the mirror.					
	Pr:Behavioural	Circm:Location				
	Pay attention to the size, shape and symmetry of your breast and level of both nipples.					
	Pr:Material	Circm:Cause:Purpose				
BC2/S24	Step 1: view both your naked breasts in front of a mirror					
	Pr:Material	Goal	Circm:Location			
BC2/S25	Step 2: Raise both arms above your head.					
	Pr:Material	Goal	Circm:Location			

	Examine	your breast	from different angles.	
	Pr: Material	Goal	Circm:Manner	
BC2/S26	Step 3: with your arms	at your side,	turn	from side to side
	Goal	Circm:Manner	Pr:Material	Circm:Manner
BC2/S27	Step 4: Tighten	your chest	by placing your hands on your hips and press down,	
	Pr:Material	Actor	Goal	Circm:Manner
	applying	pressure inwards.		
	Pr:Material	Circm:Manner		

	Method 2:			
BC2/S28	Feeling for any changes	whilst lying down		
	Pr:Mental	Circm:Manner: Means		
BC2/S29	Step 1 : Getting into position			
	Begin with the RIGHT BREAST.			
BC2/S30	First, lie	on your left side with your knees bent.		
	Pr:Material	Circm: Manner		
BC2/S31	Put	a pillow or folded bath towel	underneath your right shoulder	
	Pr:Material	Goal	Circm: Location	
	to raise the side	you	are going to examine.	
	Circm:Cause	Actor	Pr:Material	
BC2/S32	Then place	your right hand	under your head.	
	Pr:Material	Goal	Circm: Location	
	Use	your left hand	to examine	your right breast.
	Pr:Material	Actor	Pr:Material	Goal
BC2/S33	Hold	your fingers flat	to feel	for any LUMPS or THICKENING.
	Pr:Material	Actor	Pr:Material	Goal
BC2/S34	Examine your breast using both the Vertical Strip Method and the Circular Method			

BC2/S35	Step 2 : Breast Examination- Vertical Strip Method			
BC2/S36	Examine	all the breast area	in a vertical strip pattern,	
	Pr:Material	Goal	Circm:Manner	
	from the collar bone at the top to the bra-line at the bottom and from mid-way between			
	Circm:Location			
	your breasts to an imaginary line down from the middle of your armpit.			
	Circm:Location			
BC2/S37	Using	your left hand,	begin the first strip at your armpit.	
	Pr:Material	Actor	Circm:Location	
BC2/S38	Make a circle of light,	and	then of firm pressure	at this spot
	Pr:Material	/	Pr:Material	Circm:Location
	to feel for any lumps or thickening.			
	Pr:Mental Phenomenon			
BC2/S40	Move	your hand		
	Pr:Material	Goal		

	gradually towards the bra-line, using circles of light and firm pressure at each spot.					
	Circm:Manner					
BC2/S41	At the bottom of the bra-line,	move	across about two centimeters to the left and			
	Circm:Location	Pr:Material	Circm:Location	/		
	start working	upwards to	your collar bone,	making circles	all the time.	
	Pr:Material	Circm:Location	Goal	Pr:Material	Circm:Extent:Duration	
BC2/S42	Work	up and down in strips	and	cover	the full area indicated.	
	Pr:Material	Circm:Manner	/	Pr:Material	Goal	

BC2/S43	Step 3: Breast Examination – Circular Method					
BC2/S44	Starting	at the top of	your breast,	make a large circle.		
	Pr:Material	Circm:Location	Goal	Pr:Material		
BC2/S45	Move	all around	the breast,	looking for	any unusual lumps or thickening.	
	Pr:Material	Circm:Location	Goal	Pr:Material	Goal	
BC2/S46	Make	at least three smaller circles	until you reach the nipple.			
	Pr:Material	Goal	Circm:Location			
BC2/S47	Do	this twice, once with light pressure	and	again with firm pressure.		
	Pr:Material	Circm:Location:Time	/	Circm:Manner		
BC2/S48	Do not forget	to examine	below the areola (dark area)			
	Pr:Mental	Pr:Material	Circm:Location			

BC2/S50	Step 4: Checking For Nipple Discharge					
BC2/S51	With both hands,	apply	firm pressure	on the breast		
	Actor	Pr:Material	Goal	Circm:Location		
	to see	if	there	is	any unusual discharge	from the nipple
	Pr:Material	/	Carrier	Pr:Rel: Attributive	Attribute	Circm:Location
BC2/S52	Step 5: Checking Your Armpit					
BC2/S53	Bring	your right arm down	by your side	and	feel	your armpit
	Pr:Material	Goal	Circm:Location	/	Pr:Mental	Senser
	firmly and carefully for any lumps					
	Circm:Manner					
BC2/S54	LEFT BREAST EXAMINATION					
BC2/S55	Start again step 1 and repeat the procedure up to step 5 for your LEFT BREAST in the same manner the right hand.					
BC2/S56	Symptoms of breast cancer					
BC2/S57	These are often the first indicators that breast cancer may be present.					
	You should look out for					
	Actor	Pr:Material				
BC2/S58	A lump	in your breast	that	persists	after your period	
	Goal	Circm:Location		Pr:Material	Circm:Time	
BC2/S59	Bleeding of discharge		from nipple			
	Pr:Material		Goal			

BC2/S60	A change	in the shape of	the breast	
	Goal	Circm:Manner	Actor	
BC2/S61	Puckering or dimpling	of the skin of	the breast	
	Goal	Circm:Location	Actor	
BC2/S62	New retraction (pulling in) of the nipple			
	Goal	Actor		
BC2/S63	If	you	see or experience	any of these changes, don't hesitate.
	/	Senser	Pr:Mental	Phenomenon
BC2/S64	Consult	your doctor	immediately!	
	Pr:Verbal	Receiver	Circm:Manner	
	Diagnosis			
BC2/S65	This may involve a number of different investigations.			
BC2/S66	Depending on the patient's age and whether breast abnormality			was picked up
	Carrier			Pr:Rel:Attributive
	by screening mammography or due to other symptoms, and investigations may include:			
	Attribute			
	Mammography			
	Ultrasound of the breast			
	Needle aspiration of biopsy of the abnormal area			
	Treatment			
BC2/S67	The earlier	breast cancer	is	detected,
	Circm:Manner	Carrier	Pr:Rel:Attrb	Attribute
	the higher the chances of a complete and successful treatment.			
	Circm: Matter			
	This may involve:			
BC2/S68	Surgery			
BC2/S69	This	removes	the cancer and some surrounding normal tissue	
	Actor	Pr:Material	Goal	
	to ensure a margin of safety.			
	Circm: Contingency			
	There are two ways of doing this:-			
	<i>Lumpectomy</i>			
BC2/S70	only a small or affected section of		the breast	is removed.
	Actor		Goal	Pr:Material
BC2/S71	This	is	increasingly breast being used.	
	Carrier	Pr:Rel:Attrb	Attribute	
BC2/S72	Because of mammography,	many occurrences of breast cancer		are detected
	Circm:Cause	Carrier		Pr:Rel:Attrb
	when they are still very small			
	Attribute			
	<i>Mastectomy –</i>			
BC2/S73	All the breast tissue	are	removed.	
	Carrier	Pr:Rel:Attrb	Attribute	

BC2/S74	With this type of treatment,	a woman	can opt to have
	Circm:cause	Actor	Pr:MAterial
	a breast reconstruction to surgically rebuild the breast		
	Goal		
	Radiotherapy		
BC2/S75	High-powered x-ray waves	are directed	at the cancer site and surrounding tissue
	Actor	Pr:Material	Goal
	to help to destroy	any remaining cancer cells	
	Pr:Material	Goal	
	Chemotherapy		
BC2/S76	This requires	the use	of drugs or hormonal therapy
	Actor	Pr:Material	Goal
	to help destroy	any remaining cancer cells.	
	Pr:Material	Goal	
BC2/S77	To achieve	the best outcome,	doctors do sometimes recommend
	Pr:Material	Goal	Sayer Pr:Verbal
	a combination of therapies		
	Cirm:Matter		

BC2/S78	Are	all lumps in the	breast cancerous?
	Pr:Rel: Attribute	Attribute	Carrier

BC2/S78	Nine out of ten lumps are found in breast	are not	cancerous.
	Carrier	Pr:Rel:Attributive	Attribute
	Still, any lump	you feel, even the smallest ones,	must be treated with suspicion.
	/ Actor	Pr:Mental Circm:Manner	Pr:Material Goal
	A doctor	must be consulted	with at the earliest opportunity
	Senser	Pr:Verbal	Circm: Cause