

Full Length Research Paper

Stress and coping with cervical cancer by patients: A qualitative inquiry

Katowa-Mukwato Patricia^{1*}, Mwape Lonia¹, Maimbolwa C. Margaret¹, Muleya C. Mutinta¹
and Namushi L. Beauty²

¹University of Zambia, Department of Nursing Sciences, Zambia.

²Cancer Diseases Hospital, Lusaka Zambia, Zambia.

Received 16 April, 2015; Accepted 9 July, 2015

Cervical cancer is the fourth most common cancer in women worldwide, and the most common cancer in women in resource limited settings. Regardless of the stage at which a diagnosis of cancer is made, individuals who receive such a diagnosis are stressed both psychologically and emotionally, thus they need to employ certain mechanism in order to cope. Using Lazarus and Folkman's Transaction Model of Stress and Coping, a qualitative descriptive phenomenological research was conducted to explore how patients react to a diagnosis of cervical cancer, and the coping strategies they utilize in order to adapt. A total of 19 cervical cancer patients were interviewed who had lived with cancer for three months and above. Data were analyzed using content analysis. Three main characteristic reactions/feelings at the time of diagnosis were identified including; fear of eminent death, self-pity, and disbelief. Fear of eminent death was the most profound. Meanwhile five themes emerged on how the patients were coping with their diagnosis; faith in God coupled with prayer, support from family, support from Church, support from medical personnel, and assurance from fellow patients and cancer survivors. In conclusion it was acknowledged that a diagnosis of cervical cancer is a stressful to those affected as evidenced by negative reactions from those who receive such diagnosis is stressful. Therefore, individuals who are diagnoses with cervical cancer irrespective of the stage, ought to employ certain coping mechanisms in order to adapt.

Key words: Stress, coping mechanisms, cervical cancer patients, adaptation.

INTRODUCTION

Cervical cancer is the fourth most common cancer in women worldwide, with an estimated 528,000 new cases in 2012. In 2012, there were an estimated 266,000 deaths from cervical cancer worldwide accounting for 7.5% of all female cancer deaths with almost nine out of ten (87%) deaths occurring in the less developed regions

of the world (International Agency for Research on Cancer-GLOBOCAN, 2013). In Zambia, cervical cancers rank the first most frequent cancer among women with an estimated 1,650 new cases and 1,340 deaths per year (World Health Organization/Institute Catala' d' Oncologia (WHO/ICO) Information Centre, 2010 and Zambia Cancer

*Corresponding author. E-mail: patriciakatowamukwato@gmail.com.

Author agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

Society, 2010). When compared globally, Zambia ranks second after Tanzania in cervical cancer incidence (WHO/ICO information Centre, 2010 and Zambia Cancer Society 2010).

According to Ignatavicius and Workman (2006), cervical cancer is clinically classified into four distinct stages: stage I, the carcinoma is strictly confined to the cervical wall; stage II, the carcinoma extends beyond the cervix but has not extended to pelvic wall; stage III, the carcinoma has extended to pelvic wall and involves lower third of the vagina while in stage IV carcinoma has extended beyond the true pelvis or has clinically involved mucosa of the bladder or rectum with metastasis to distant organs.

Regardless of the stage at which a diagnosis of cancer is made, individuals who receive such a diagnosis are stressed both psychologically and emotionally (Lewis et al., 2007). Those diagnosed in the early stages experience the stress of coming to terms with the diagnosis, the experience of complex and usually long treatment, and the side effects of the different treatment modalities. For individuals diagnosed in the late stages, they too have to come to term with their diagnosis, the fact that they will have to receive palliative as opposed to curative care and the fears and uncertainty about end of life. For the family, a diagnosis of cancer in a family member impacts on all facets of life, including physical demand for practical care, emotional strain, change in role and responsibilities, adjustment to work and career schedules and matters of personal and sexual intimacy (Kearney and Richardson, 2006).

In order to understand the concepts of stress and coping and apply them to cervical cancer, the study upon which this article is based was guided by Lazarus and Folkman's Transaction Model of Stress and Coping (Lazarus and Folkman, 1984). This model has been used by several researchers investigating how individuals cope with stressful situations (Doumit et al., 2010; Tung et al., 2008; Li and Lambert, 2007; Manual, 2007, Hack, 2004; Stanton, 2002; Glanz et al., 2002). The Transaction Model is built on the assumption that stress is a person-situation interaction, one that is dependent on the subjective cognitive judgment that arises from the interplay between the person and the environment (Zakowski et al., 2001). According to Lazarus and Folkman (1984), any individual faced with either physical or psychological situation performs what is known as primary appraisal. Primary appraisal is an evaluation of an event for its personal meaning. If primary appraisal results in the person identifying the event or circumstance as a harm, loss, threat or a challenge, then the person experiences stress. If stress is present, a person performs a secondary appraisal which focuses on possible coping strategies. There are two forms of coping strategies; Problem focused and emotional-focused coping.

Problem-focused coping attempts to find solutions to

resolve the problem causing the stress. It functions to alter the stressor by direct action, used when conditions are appraised as amenable. Strategies include learning new skills, finding alternative channels of gratification or developing new standards of behavior (Vitaliano et al., 1987; Folkman et al., 1986). On the other hand, emotion-focused coping involves managing the emotions that an individual feels when a stressful event occurs. Emotional focused coping mostly occurs when an appraisal has been made that nothing can be done to modify the harm, threat or challenge. Examples of emotional-focused strategies include wishful thinking, minimization, or avoidance.

Some coping strategies such as seeking social support serve both emotional and problem-focused functions (Vitaliano et al., 1987). Neither of the two forms of coping is inherently adaptive or maladaptive, thus in stressful situations individuals may use a combination. The key to successful coping is the use of coping flexibility. Coping flexibility involves ability to change, and adapt coping strategies over time and across different stressful conditions as different strategies work effectively than others depending on the circumstances (Lewis et al., 2004).

Coping does not imply success, according to Lazarus and Folkman (1984), but efforts to resolve a stressful situation. Several factors influence the stress-coping response. Some of the factors are related to the stressor such as; intensity, scope, duration, number and nature of concurrent stressors and predictability. Those related to the individual experiencing the stressor include level of personal control, feeling of competence, availability of social support, information and guidance, and access to facilities and supplies. Others are age at the time of stress and cognitive appraisal (Tung et al., 2008; Lewis et al., 2007).

For the purpose of this study a diagnosis of cervical cancer regardless of stage was regarded as a stressor which leads to primary appraisal. It was assumed that the diagnosis would primarily be appraised as harm, loss, threat or challenge or a combination of all or any of the four. The problem-focused (strategies to resolve issues surrounding the diagnosis) and the emotional-focused (strategies to live with the problem) represented the patient secondary appraisal. The secondary appraisal was thought to result in coping/adaptation which could either be adaptive (positive) or maladaptive (negative). The model of conceptual frame work is shown in **Figure 1**.

METHODS

Study design

Using Lazarus and Folkman's Transaction Model of Stress and Coping, a qualitative descriptive phenomenological study design was employed. A phenomenological approach was appropriate as it allowed description of phenomena as experienced by cervical

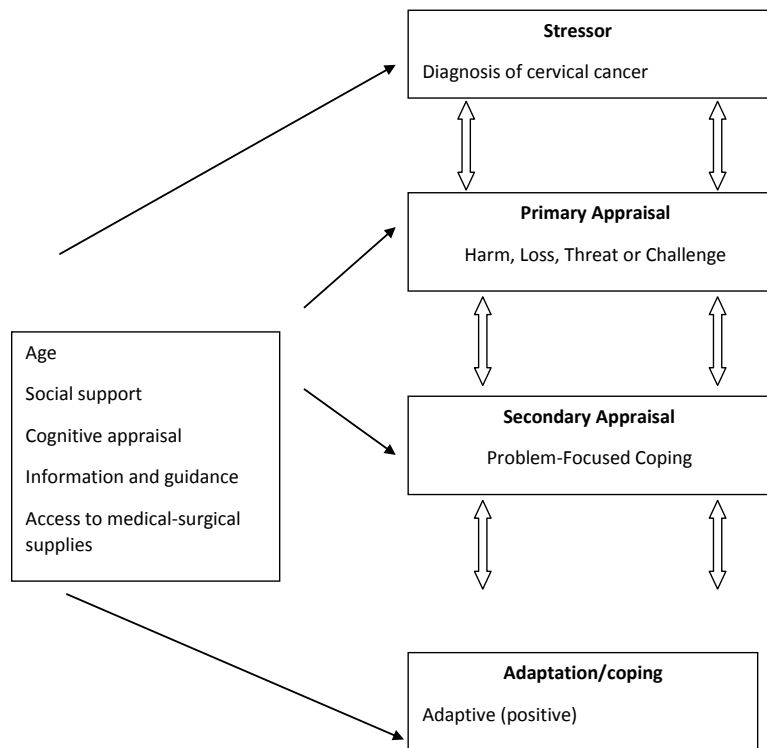


Figure 1. Diagram of conceptual framework of stress and coping with cervical cancer. Adapted from H.H. Tung et al. (2007).

cancer patients, and it offered an understanding of the internal meaning of the person's experience in the life-world (Doumit et al., 2010).

Participants

Cervical cancer patients were selected using purposive sampling, a recommended sampling method in naturalistic inquiries (Lincoln and Guba, 1995). Patients were identified using the Cancer Diseases Hospital Register. The sample size was determined using the data saturation principle (data collection ceases when exploring further data do not add to the insights already gained) where no new information is obtained and redundancy is attained (Tavarol et al., 2006). Saturation was reached after interviewing 19 patients. The following was the inclusion criteria; (a) confirmed diagnosis of cervical cancer, (b) willingness to participate in the study (c) without existence of other cancer or other chronic disease/s, (d) 18 years and above, and (e) agree to be interviewed without the presence of a third person to ensure liberty for the participant to express feelings and (f) three or more months of living with cervical cancer diagnosis. Interviews were conducted in participants' homes to allow for the naturalistic setting (Polit and Beck, 2012).

Despite international guidelines recommending screening for cervical cancer from the age of 21, for the present study, 18 years of age was put as minimum age for inclusion for two reasons: firstly due to high prevalence rate of HIV in Zambia with an average of 14% among adults (Central Statistical Office, Ministry of Health and ICF International, 2014). Even young people younger than 21 years who are HIV positive are at high risk of developing cervical cancer due to their reduced resistance to neoplasms as a result of reduced T cytotoxic cells. Secondly, 18 years is a minimum age at which a person can consent to participate in a research study in Zambia;

consequently this study intended to include those who are 18 as long as they had cervical cancer since they could consent and share their experiences.

Data collection

Data were collected using semi-structured interview schedules along with observation field notes. The interviewees were asked a broad question also known as a grand tour question, then guided through the interview via probes in order to facilitate participant description of their experiences. "Can you tell me how you are coping with a diagnosis of cervical cancer"? Probing questions allowed the researcher to get more useful or detailed information, such as "please tell me more about it" "tell me how you felt at that time" "Can you give an example of that"? The interviews were tape recorded and transcribed by the researcher.

Data analysis

Data were analyzed using content analysis. Content analysis involved analysis of narrative data to identify prominent themes and patterns among themes (Polit and Hungler, 1997; Polit and Beck, 2012). To analyze the data, the following process was undertaken.

Following each interview, the tape recorded interview was transcribed word by word in the participant's primary language for those participants who used languages other than English followed by translation into English by a qualified language translator. The transcriptions and field notes were then read and re-read. The researcher also listened to the audio tapes over and over to get immersed into the data also referred to as dwelling with the data (Burns and Grove, 2009). The reading and re-reading helped to

Table 1. Participants' feelings at the time of diagnosis.

Feeling at the time of diagnosis	Participants' identification No	Total
Fear of Eminent Death	1,2,3,5,6,7,10,13, 14 and 19	10
Feeling of Self-Pity for Oneself "Felt Bad"	2,3,5,7,9,11,16,17 and 19	9
Disbelief and Hurt with the Diagnosis	8,11,12,14 and 19	5

*More than one feeling was experienced by some participants while 2 had no specific reaction as such total does not add to 19.

identify items/themes relevant to the research questions. Identified themes helped to clarify the nature and meaning of experiencing stress and coping with cervical cancer disease. Identified items/themes were then checked for frequency, omission and declaration. The process of reading and re-reading and listening to the audio tapes was followed by proofing the transcription against tape recorded interviews. Proofing of the transcriptions was conducted by all members of the research team as a way of validating the data.

Similar items/themes or topics that related to each other were then grouped to reduce the data. In the initial stage of data analysis, descriptive codes were used to identify emerging themes, that is, the terms participants used during the interview. Later interpretative codes were used, that is using participants' terms in attaching meaning. Finally explanatory codes were used after theoretical ideas from the study had begun to emerge.

FINDINGS

Demographic characteristics of the study sample

A total of 19 cervical cancer patients were interviewed. Participants were aged between 25 and 55 years, with most of them in their early 40s. Nine were married, four were widowed, three were single while two were divorced. Most of the participants had only primary level of education with some as low as grade three. Nine had primary level education, three junior secondary education and four with senior secondary education. Only two had high level education; one with college and another with university qualification. Out of the 19 participants, 15 were living within Lusaka the Capital City of Zambia where the only oncology hospital in the country is located. The other four were referred from different towns of the Copper belt Province. Of the fifteen from Lusaka Province, six were from high density usually low income settings, five from middle income locations and four from high income settings. The four who were referred from the Copper Belt Province, two were from low income settings and the other two from middle income settings.

Out of the 19 participants, 18 had children ranging from one to eleven. The other one had a child but the child passed away. All were Christians belonging to different denominations, mostly orthodox churches including Roman Catholic, Anglican, Reformed church, United Church, Christian Missions in Many Lands, Presbyterian and New Apostolic. A few belonged to Pentecostal churches such as Word Alive Tabernacle, Kaleb Ministries, Emanuel Congregation and Deeper life

Church. Two were Jehovah's Witness, while one was an Adventist. The interviewed participants had lived with cancer for a duration ranging from three months to more than three years. Only two had completed treatment, meaning that they were cervical cancer survivors but were still being followed up. One had not yet started treatment at the time of the interview as she was still being treated for anemia. The other 16 were on cancer treatment; twelve were on radiotherapy while the other four were on both chemotherapy and radiotherapy.

PARTICIPANTS' REACTIONS/FEELINGS AT THE TIME OF THE DIAGNOSIS

Three major themes emerged regarding how participants felt at the time they were informed of the cervical cancer diagnosis; fear of eminent death, feeling of pity for oneself, and hurt and disbelief. Most experienced at least two of the prominent feelings. Table 1 shows the distribution of participants' feelings at the time of diagnosis.

Theme 1: Fear of eminent death

More than half (10) of the 19 participants experienced the fear of death. The fear was mainly from the disease itself, in that most of the participants had heard that cervical cancer was incurable. With the understanding that the condition was incurable, some were scared of dying as they regarded the diagnosis as a "death sentence" as participant number 2 indicated *"Just hearing the word cancer put me off and I was gripped with fear"*. Participants also feared for their children, with the uncertainty regarding what would happen to their children if they died since most of them had younger children. It is worth noting that while 16 participants had negative reactions ranging from fear of death, to self pity and disbelief, two of the participants; number 4 and 18 had no prominent feelings/reactions. For example participant number 4 when asked how she felt at the time of diagnosis, stated *"it never really hurt me as I never understood what kind of a disease it was because all that came into my mind was that it's a disease like any other and I will be healed"*.

I was afraid that I thought I was going to die as a result of this disease. I was so scared of dying as I had heard

stories that cancer cannot be cured. Due to this, I thought no matter what I was going to do I was going to die. After getting advice from a lot of people I came to understand that the only person I could get help from was God and since I already had the disease there was nothing much I was going to do so I left everything in God's hands (Participant 1).

I felt bad as I knew that this illness could not be cured so I was scared of what was going to happen to me next. I also felt very bad as I lost a lot of weight and due to this I thought that this was now the end, for death was surely near. Because of this fear I lost interest in anything and wished to die instead of going through this kind of pain (Participant 3).

.....So I experienced sadness and self- pity as all that came into my mind was death which brought fear as to who was to keep my children for they were still young. I also wondered what kind of illness it was as I heard that it cannot be healed, so this made me have a lot of thoughts that were quite disturbing (Participant 5).

When the diagnosis of cervical cancer was disclosed to me, I was scared that I was going to die and it took me three days to come out of this situation. The fear I had did not make me act differently but I just felt lonely as if I had lost part of myself. I never stopped eating or sleeping and I was able to communicate and do other things as usual but I had that fear in me that I can't really explain exactly (Participant 6).

The first time I was diagnosed with cervical cancer, I felt bad; because I thought this was the end, death was approaching. The stories I have heard about cancer are that it can't be healed. This made me feel so bad, scared and disturbed that I even lost appetite (Participant 7).

The first time I was told I had cervical cancer was not a good day for me. I felt as if that was the end of the world for me and I was going to die. I was so low that I got depressed, stopped eating and was just crying a lot. I felt so bad because when I was depressed I would be in pain and bleed a lot. I used to be tired and feel irritated and asked a lot of questions as to why it had to be me with this disease (Participant 10).

At first the time when I was told that I have cancer, I was shaken, you know because they say cancer is a deadly disease it has no treatment. Everything come to a halt I started thinking of my children, think of death, and I started thinking like my days are now numbered (Participant 13).

Ninayopa_ati_nichani_chachitika_nanga_yachoka_kuti matenda "I was afraid, and I questioned the source of the illness, and was constantly asking myself whether I

would get better (Participant 14).

..... After being told so I thought of my children since all I knew is that I was dying. So I thought they were too young to lose a mother. After which I went to church and told my friends about it and they counseled me so it even got out of my mind and came to accept that everything has its own time (Participant 19).

Theme 2: Feeling of self-pity for oneself "Felt Bad"

Another prominent theme was a feeling of extreme pity for oneself which was equally felt by nine out of the 19 participants. Participants described feeling extremely bad in a way that they could not express. As an expression of the "extreme bad feeling", most simply cried for a number of days.

The first time I was told I had cancer I felt bad because all I knew about this disease was that it does not heal so it was very bad for me to have such a disease that does not respond to any treatment. As a result of this, I cried a lot (Participant 2).

I felt bad as I knew that this illness could not be cured so I was scared of what was going to happen to me next. I also felt very bad as I lost a lot of weight and due to this I thought that this was now the end, for death was surely near. Because of this fear I lost interest in anything and wished to die instead of going through this kind of pain (Participant 3).

It was so bad that I would bleed a lot, become so pale and could faint and only be resuscitated at the hospital after blood transfusion. This made me feel bad because I had never heard of such a disease or seeing someone suffering from it. So I experienced sadness and self- pity as all that came into my mind was death which brought fear as to who was to keep my children for they were still young. I also wondered what kind of illness it was as I heard that it cannot be healed, so this made me have a lot of thoughts that were quite disturbing (Participant 5).

The first time I was diagnosed with cervical cancer, I felt bad; because I thought this was the end and death was approaching. The stories I have heard about cancer are that it can't be healed. This made me feel so bad, scared and disturbed that I even lost appetite (Participant 7).

The first time I was told that I had cancer I felt bad. Naishile unfwa kwati umtima waikatwa. Nali ne chikonko no kuyufwila ubulanda. I felt bad because all I had heard about cancer was that it does not heal. So because of this I was worried all the time and had fear. It was not easy at first because I was made to question why it had to be me with such a big disease that cannot even be

healed (Participant 9).

I was very hurt to have this disease because when I heard the risk factors I ruled out all of them for example I got married at twenty five years so to have this diseases made me have a lot of thoughts as to where it was coming from and why it had to be me (Participant 11).

I felt very bad because of the bleeding, because blood is life, and my Hemoglobin (HB) was going down and people were saying cancer cannot be treated (Participant 16).

Kwena chilatinya nalitinine sana nokunfwa nobulanda nalila no kulila sana BUT mukati nalitampa ukuikoselesha, ati ndi mwana wakwa lesa natile, malwele yalesa nokupola kuti napola; I was so afraid, I felt pity for myself and cried a lot but I gathered my inner strength and encouraged myself that I was a child of God and that diseases do occur, but still people get healing (Participant 17).

I felt bad to the extent that I cried all the way from the clinic though others did not notice that I was crying. So when I arrived home I bowed down and prayed. After which I told my husband that I have been told that I have cervical cancer. He told me that it happens; it is a disease which has come for women so you need to be strong. After being told so I thought of my children since all I knew is that I was dying. So I thought they were too young to lose a mother. After which I went to church and told my friends about it and they counseled me so it even got out of my mind and came to accept that everything has its own time (Participant 19).

Theme 3: Disbelief and hurt with the diagnosis

Disbelief with the diagnosis was another prominent feeling which 5 out of the 19 participants experience. One participant felt so hurt with the diagnosis because she ruled out all the risk factors and wondered how she ended up with the condition; as such she did not believe the diagnosis.

At first when I was just told that I had cancer, I couldn't believe it. I thought this was the end of my life as you know that some time back, people used to say cancer is incurable. So when I went back home, I reacted in the following manner, I stopped eating, could not talk to people and would just be in my bedroom crying (Participant 8).

.....I was very hurt to have this disease because when I heard the risk factors I ruled out all of them; for example, I got married at twenty five years so to have this disease made me have a lot of thoughts as to where it

was coming from and why it had to be me (Participant 11).

It was not easy at first due to the pain, bleeding and just the discomfort brought about by the disease itself. I now feel better both physically and emotionally because from the time I started treatment I am much better than before. From the time I started this treatment I have experienced a change that has given me hope that I will regain my health (Participant 12).

At first when I was told that I have cancer, I was shaken, you know because they say cancer is a deadly disease it has no treatment. You know everything came to a halt I started thinking of my children, think of death, and I started thinking like my days are now numbered (Participant 13).

I was hurt to an extent that I cried all the way from the clinic though others did not notice that I was crying. So when I arrived home I bowed down and prayed. After which I told my husband that I have been told that I have cervical cancer. He told me that it happens, it's a disease which has come for women so you need to be strong. After being told so I thought of my children since all I knew is that I was dying. So I thought they were too young to lose a mother. After which I went to church and told my friends about it and they counseled me so it even got out of my mind and came to accept that everything has its own time (Participant 19).

COPING STRATEGIES USED BY PATIENTS

Major themes under coping

When asked how they were coping and continued to live with the diagnosis of cervical cancer, participants indicated a number of coping strategies. Some used one coping strategy while others used more than one. Nine out of the 19 managed to live by having faith and obtaining strength from God; another nine managed to cope by receiving support from family and friends (children, mother's sisters), while five others gained strength to forge on after receiving treatment and seeing an improvement in their general condition. Yet others (five) copied by receiving encouragements from church through their pastors and fellow members of the church. In addition, getting assurance from other patients who were surviving was used as a coping strategy for six of the patients who were interviewed (Table 2).

Theme One: Having faith in God coupled with prayer

Those who utilized the above coping strategy describe it in a number of ways as follows:

Table 2. Coping strategies used by patients.

Coping strategy	Participants' identification No	Total
Having faith in God coupled with prayer	1,4,5,6, 8,11, 14,15 and 16	9
Support from family and friends	2,3,4, 5, 6,7, 11,13, and 15	9
Support from church	8,11, 13, 18 and 19	5
Support from medical personnel	3, 9, 11 and 17	4
Assurance from fellow patients and survivors	2, 7,8, 9 10 and 15	6

*More than one coping strategy was used by some participants as such total does not add to 19.

I left everything in God's hands as I knew that He is the only one who can cure. I find strength in prayer hence I pray every day (Participant 1).

I'm managing to cope with this disease because of the faith I have in God. I've put everything in God's hands as I believe that when He allows something to happen there is nothing much I can do but to accept and trust him, so because of this I pray and leave everything in His hands (Participant 4).

I think I got help from the faith that I had in God as I knew that he is the only one who could cure me. The other thing that gave me hope was coming to the hospital because I understood that once the disease is discovered help will be found and I will recover from this illness. My husband was also encouraging as he put his hope in God that He answers our prayers (Participant 5).

I'm coping well with this disease now, as I have come to understand that God said that there will be different diseases in the last days. I believe these are the diseases that were mentioned and because of that I have left everything in God's hands and I think this is making me go on in life without complaining or blaming God or anyone because of this illness (Participant 6).

After three days of this fear I got strength from within myself. I told myself that if illness comes it comes to us as human beings; so I had to accept that I had this disease and the only thing I could do was to look for treatment as there are a lot of people with different diseases and if you try to hide you may fail to seek treatment. I started praying and asking God to give me the strength and had hoped that when I start treatment I will be fine. The church members also were of great help as they kept encouraging me to go to the hospital and praying for me though there were some who had no hope and kept on saying there is no one who has survived from the disease like cancer. In this situation I put my trust in God and believe that he is the great physician and I will be fine one of these coming days. My family has been of great encouragement as they have been with me in this disease (Participant 6).

What helped in this situation was that I realized that if I keep on crying and not eating I was going to die early so I

called my Reverend who encouraged me a lot and then after that I told myself that this was just a disease like any other so I stated accepting the disease and having faith that I will recover (Participant 8).

The thing that assisted in this situation was that I was praying to God for mercy and healing. I think this really helped because it gave me peace that he will answer me. The other thing that helped was encouragement from the medical staff who were attending to me. My family members and the church were so encouraging too and this really gave me hope and strength to go on with life in the midst of this huge burden (Participant 11).

As I passed through this kind of discomfort, the only thing that kept me going was prayer because I left everything in God's hands and allowed him to do with me whatever he wanted to. This faith I had made me to accept the situation the way it was and I am currently peaceful (Participant 12).

.....I had faith in God that I would get better; if others have been healed I will also be healed (Participant 14).

.....It was just prayers which helped, I prayed to Jehovah for healing (Participant 15).

What helped to cope was faith in God and prayers by my Pastor even on phone and sisters in the Lord were encouraging me. But while I was sick my niece was helping me (Participant 16).

Theme 2: Support from church

What helped in this situation was that I realized that if I keep on crying and not eating I was going to die early so I called my Reverend who encouraged me a lot and then after that I told myself that this was just a disease like any other so I stated accepting the disease and having faith that I will recover (Participant 8).

.....My family members and the church were so encouraging too and this really gave me hope and strength to go on with life in the midst of this huge burden (Participant 11).

.....Church members also encouraged me as they

visited a lot and prayed with me. You know as a believer I was being encouraged by fellow church members, and the pastor (Participant 13).

I got encouragements from the Pastor and church members saying 'God has a miracle for you, you just have to be on the positive side' (Participant 18).

.....After which I went to church and told my friends about it and they counseled me so it even got out of my mind and came to accept that everything has its own time (Participant 19).

Theme 3: Support from family and friends

Nine out of the 19 patients cope with the condition due to the support they received from their family and friends.

When I was referred to cancer hospital I almost gave up but I got a lot of encouragement from my sister who kept on telling me that I will be fine since there was a hospital specifically for cancer. She went on telling me that even those with HIV started the same way where there was no treatment but they kept on having faith until now when they have treatment to prolong life so I should also have faith that one day I will recover. My mother has been of great encouragement to me as well as you can see that she is the one who even escorts me to the hospital. I was also encouraged when I saw my fellow patients recovering well after treatment (Participant 2).

At first it was difficult but as time moved on I am accepting the condition of living with this disease. I get a lot of encouragement from my family members who have been with me from the time I was diagnosed. I also got a lot of encouragement from my doctors who referred me to UTH (University Teaching Hospital) as they advised me never to give up but to go to the Cancer Hospital for treatment because I had almost given up since I knew that there was no treatment for this disease (Participant 3).

I get strength from my family members who have been there for me and keep on encouraging me that I will be fine soon. I have also left everything in God's hands and together with church members who visit and pray with me I believe I will be fine (Participant 4).

.....My husband was also encouraging as he put his hope in God that He answers our prayers (Participant 5).

.....My family has been of great encouragement as they have been with me in this disease (Participant 6).

I was helped to pass through this process of discouragement by my friends who were very encouraging to me as they kept on telling me that I will be fine. Church members were so encouraging to me also

as they kept on visiting and praying with me. The other encouragement also came after I started treatment because I feel much better than I was before. The discomfort that was there is no longer present such as excessive discharge, bleeding and abdominal pains, so due to this great improvement I really get encouraged that I will be fine one of these days (Participant 7).

..... like to my children, they are really helping me just from the word go, since I got sick; they are the ones helping me and my husband is always on my side, providing and doing everything. My employers have been very supportive; they have kept me on the pay roll and everything is intact (Participant 13).

The other thing that has really kept me positive is that I have a very encouraging family; my five children have been encouraging me a lot and my hope was rekindled and I decided to go to the hospital for treatment (Participant 15).

Theme 4: Support from medical personnel

Medical personnel were seen as a source of hope and consequently their assurance and support assisted a number of patients to cope as illustrated in the participants' statements below:

At first it was difficult but as time moved on I am accepting the condition of living with this disease. I get a lot of encouragement from my family members who have been with me from the time I was diagnosed. I also got a lot of encouragement from my doctors who referred me to UTH (University Teaching Hospital) as they advised me never to give up but to go to the Cancer Hospital for treatment because I had almost given up since I knew that there was no treatment for this disease (Participant 3).

Doctors encouraged me a lot that I would get better and that's how I was reassured, and also prayers from church and I would also pray for myself. I get encouragement from the fact that God heals all kinds of diseases and therefore it gives me self confidence that I can be alright. After starting treatment I heard encouraging stories from health workers on how patients have recovered from this illness (Participant 9).

.....The other thing that helped was encouragement from the medical staff who were attending to me. My family members and the church were so encouraging too and this really gave me hope and strength to go on with life in the midst of this huge burden (Participant 11).

Doctors encouraged me a lot that I would get better and that's how I was reassured, and also prayers from church and I would also pray for myself. I got encouragements from the fact that God heals all kinds of diseases and

therefore it gives me self confidence that I can be alright (Participant 17).

Theme 5: Assurance from fellow patients and cancer survivor

Six respondents indicated that they managed to cope with the disease mainly when they saw others with the same condition who were improving while receiving treatment and by those who had completed treatment. Another source of reassurance was by participants themselves seeing improvements in their own conditions after they had commenced treatment

..... I was also encouraged when I saw my fellow patients recovering well after treatment (Participant 2).

The discomfort that was there is no longer present such as excessive discharge, bleeding and abdominal pains, so due to this great improvement I really get encouraged that I will be fine one of these days (Participant 7).

.....The treatment I have gone through also helped me in that I believed that God will work through the professionals to heal me. I too got encouragements from my fellow patients who were quiet inspiring (Participant 8).

..... My fellow patients were also helpful as they told stories on how they had wished to die when they were told that they had cancer but were encouraged by the word of God which is found in the bible that there will be a lot of diseases and these were the diseases that were being talked about. Because of the stories I was encouraged to go on with life even if I had this big disease (Participant 9).

The people I found at Cancer Diseases Hospital with this illness were too many that I got encouraged that I was not the only person affected with cancer. My fellow patients were also very encouraging (Participant 10).

I also get encouragement from my friend who had cancer but now is healed; as a result of seeing her well I get encouraged and have hope that I will be okay too (Participant 15).

CHANGES IN LIFE STYLE

Participants had similar challenges regarding their life styles while living with cervical cancer. At the time of interview, all of them had stopped work (farming, formal work or casual work). They also had limited social interactions. For example they could not visit friends or relatives; go to church or parties mainly due to the side

effects of the treatment or bodily changes brought about by the disease and or treatment. They also had limitations in carrying out daily activities. The changes in life style due to cervical cancer and its treatment are evident in participants' statements below:

I do not really avoid anything as a result of the diagnosis its only that I am now limited in a number of things I freely did such as walking , I cannot walk long distances cause I feel tired and have body pains. I cannot even cultivate as I am a farmer neither can I go to church or visit my friends because of the illness (Participant 1).

I am free with anyone whether relatives or friends and I don't avoid them because I believe that there is no one who choses what kind of disease to suffer from. I only have limitations because of the disease. I was a business lady but now I cannot continue because I am not as strong as I was before (Participant 2).

I used to work as a maid but I stopped because I had to come to the hospital for treatment and was in pain so I couldn't work as before. I'm limited now because I have to come for treatment every day (Participant 3).

I'm not avoiding any situation. I'm just being limited because of my illness. I was a business lady selling chickens and travelling to Nakonde buying clothes and selling them but now I can't manage because of this illness. I cannot go to places like church and parties because of the side effects of treatment and general weakness due to the illness itself. I have no problems when it comes to finances because my relatives have been very helpful in this. I have no problem with those who want to visit I think I'm free with anyone (Participant 4).

There is a big difference between the way I was before this illness started and now, because I could do everything I wanted to without relying on others to help. This time I can't go to the fields and cultivate for me to have money for food and other things, I can't even be home to look after my children so we left them with relatives to take care of them. I can't even breast feed the baby because I once received chemotherapy and was advised not to. These are the problems that this illness comes with. For visitation to other places I don't visit much because I'm not an outgoing person (Participant 5).

The only thing that I have avoided is sex because my husband and I agreed that we should stop having it as you know that when you have a wound you don't need to be pricking on it because you will disturb the process of healing. The other things that I may not be doing due to this illness are the businesses I was doing. I used to buy and sell fish but I stopped because of bleeding (Participant 6).

I was not avoiding anyone, the only problem is that I started feeling uncomfortable moving from one place to another because of the discharge and bleeding I was experiencing. As a result of this discomfort and weakness I also stopped doing business which involved selling potatoes as you know this makes someone move a lot (Participant 7).

I was one of the people who liked parting but due to this illness I fail to do that because I am scared that I may mess up due to bleeding (Participant 8).

There were times when bleeding was too much that I had to avoid certain things I used to do such as going to church. I was a farmer but due to illness I could not continue I had to give people to help me (Participant 9).

I was a business woman but now I can't do it because I was feeling too weak to work. I stopped going for prayers because of bleeding a lot. I stopped being very social as before because I was disturbed and started feeling shy and was not free of having cancer (Participant 10).

I have stopped doing things I used to do before I became ill because of bleeding and the discharge which was making me uncomfortable to move around or visit people. It's not possible to go and visit people or places while bleeding; it gives fear of being embarrassed in case you stain yourself. The other thing is that I was so weak because of bleeding. The only thing I was avoiding was to have coitus with my husband because of bleeding, discharge, pain and general body malaise (Participant 11).

I was a Hair dresser in South Africa and I had to come back to Zambia as a result of the illness and this has finically drained me because I was making money there. I am not able to do anything because of weakness and the side effects of treatment. I avoid certain places like town center because the people who knew me before I left like commenting when they see me that I have lost weight (Participant 12).

I am not able to interact with others well because I have watery discharge and frequency of urination, to an extent that if you are not fast you end up urinating in your pants (Participant 14).

A lot has changed, I don't go to parties, I don't go to worship, BUT I have no one I avoid as at now, neighbors and relatives they all know, although not everyone (Participant 15).

..... I don't attend functions but I do go to Church, but I have to sit at the entrance so that when I want to urinate I rush out (Participant 16).

I was working but sometimes you feel tired and you just want to rest most of the time so I couldn't do much of the

chores even some of the things at home you can't even manage them. Yes, like when I was in Chingola there could be times when I could sleep the whole day. So you just look for a maid to do your work (Participant 18).

DISCUSSION

A diagnosis of cancer can have a shocking impact on the individual and their families (Kushwaha, 2014). This shocking impact occurs regardless of the type of cancer or the staging at which the diagnosis is made (Lewis et al., 2004). In order to adapt/cope with a diagnosis the patient ought to employ certain coping strategies. Hunter et al. (2007) assert that individuals with terminal illnesses who utilize coping strategies have better quality of life compared to those who do not. In the present study, apart from finding out how participants coped with cervical cancer, their feelings at the time of diagnosis and changes in their life styles following the diagnosis were explored.

Individuals react in several ways upon receiving a diagnosis of cancer. Initial reactions include shock, disbelief, extreme fear, distress and grief, while some patients have a sense of guilt that they did something to cause their cancer (American Cancer Society, 2014). In the present study, three themes emerged regarding how patients felt at the time of diagnosis. The most profound was fear of eminent death which was experienced by 10 out of the 19 participants. Other reactions were self-pity and disbelief regarding the diagnosis. The fear of death was mainly because most patients had a misconception that once diagnosed with cancer regardless of the stage, the final outcome was death. Most participants indicated that before they had interacted with other patients, survivors or health care professionals, they did not know that in the early stages cancer could be cured.

Closely related to the fear of eminent death was feeling of self-pity. Nine participants described feeling extremely bad in a way that they could not express. As an expression of the "extreme bad feeling", most simply cried for a number of days. The fact that almost all (17 out of 19) respondents reacted negatively (fear of death, self-pity and disbelief), to the diagnosis of cervical cancer entails that they primarily appraised the diagnosis as a loss, threat, harm or challenge (Lazarus and Folkman, 1984). Following the initial reactions, they proceeded into secondary appraisal that resulted into the use of coping strategies as a means to adaptation. Worth noting that despite most respondents reacting negatively, two did not experience any negative reaction; for example participant number 4 when asked how she felt at the time of diagnosis, she stated "it never really hurt me as I never understood what kind of a disease it was because all that came into my mind was that it's a disease like any other and I will be healed".

With regard to coping, five themes emerged on how cervical cancer patients were coping with their diagnosis;

faith in God coupled with prayer, support from church, support from family, support from medical personnel, and assurance from fellow patients and cancer survivors. All the five coping mechanisms utilized by participants in the study are emotional focused-coping mechanisms. However all the 19 sought treatment for their cancer which is regarded as a problem focused coping strategy although none of them reported seeking treatment as a copying mechanism.

Findings of the present study with regard to the coping mechanisms of patients with cervical cancer are similar to those of other investigators. Several studies that have investigated the experiences and coping strategies of individuals diagnosed with cancer have identified spirituality (faith in God and prayer), relationship with or support from medical personnel and family members as main coping strategies (Li and Lambert, 2007; Manual, 2007, Hack and Degner, 2004; Kimlin et al., 2004). For example, in a qualitative multiethnic study, conducted by Kimlin et al. (2004), social support, spirituality and religiosity were identified as major coping strategies. Participants across ethnicity expressed the importance of support from immediate and extended family members. Mothers, spouses/partners and children were the principal sources of support. Regarding religion, all African Americans agreed on the importance of (a) prayer and seeking God's guidance in coping with the illness (b) doctors as God's instruments in healing.

In the present study, more than half (10 out of 19) of the participants in the present study utilized faith in God and prayer as a major coping mechanism. Additionally about 9 out of 19 participants were able to cope due to support from family and friends. They described that the support given to them by their mothers, children and husbands encouraged them to forge on despite the diagnosis of cancer. One participant stated *"My mother has been of great encouragement to me as well as you can see that she is the one who even escorts me to the hospital". Another one stated how her children and husband supported her "my children really helping me just from the word go, since I got sick they are the ones helping me and my husband he is always on my side, providing and doing everything"*. Doumit et al. (2010) conducted a study on coping with breast cancer and found that social support and spirituality were important factors in coping. Participants described cancer as a "cut in their lives that they had to deal with". Participants spoke of facilitating and hindering factors to coping. Facilitating factors included reliance on God, positive support from work, family and husband, sharing with people who know (living the same experience) and considering cancer as any other disease in particular diabetes. Doumit et al. (2010) further reported that full reliance on God gave participants hope that God was in control and that the disease was from him. Both the findings of our study and those from previous ones suggest that belief in God helped the participants to

accept the diagnosis and cope with the disease. Such findings imply that the care given to cancer patients should have a spiritual component irrespective of an individual's religion.

In addition to coping through faith in God and prayer, support from family, friend and church another important coping strategy was support from medical personnel. Four participants describe how encouragements from medical personnel aided them in coping. The encouragement from doctors and other medical personnel was as regarded as reassurance that the patient would get. This finding is similar to what was reported by Kimlin et al. (2004) as earlier indicated where doctors were seen as God's instruments for healing.

Notwithstanding the similarities with other earlier studies, the present study had unique and interesting findings. Irrespective of the devastation patients experience upon receiving the diagnosis, six respondents indicated that they managed to cope with the disease mainly by seeing improvements in their conditions after they had commenced treatment and seeing others with the same condition who were improving while receiving treatment and those who had completed treatment. The later underscores the importance of introducing newly diagnosed patients to other patients who are improving while on treatment as source of counsel and support compared to receiving support from individuals who have not lived the experience. Interesting, two participants managed to cope through what they described as "inner strength". this is where patients draw strength to cope from within themselves after realizing that it was upon themselves to be strong. They described it as having gathered inner strength and encouraged themselves that despite being children of God diseases do occur, but still people get healed".

Due to the impact of the disease, most patients had to make some life style adjustments. As earlier indicated, all participants had stopped working at the time of the interviews (formal work, farming or casual work). They also had limited social interaction, for example they could not visit friends or relatives, go to church or go to parties mainly due to bodily changes brought about by the disease and or treatment side effects. This finding is contrary to some previous reports. For example, Turhal et al (2013) in a study to evaluate lifestyle changes in cancer patients after diagnosis indicated that most of the respondents did not make any major changes in their lifestyles after their diagnosis of cancer. In Turhal et al's study, most of the respondents of between diagnosis and cancer continued interacting with friends and relatives which was not the case in our study. This difference could be attributed to culture openness of some societies in the Western world compared to the Zambia society.

Conclusion

A diagnosis of cancer is a stressor to those affected

irrespective of the stage at which it is made. From our study, most respondents reacted negatively when they were first informed that they had cervical cancer. They developed an intense fear of impending death while others had self-pity and disbelief. The negative reaction is an indication that most of the participants appraised the initial diagnosis as harm, loss, threat or challenge, as such they need to employ certain mechanisms in order to adapt. From our study, all participants employed problem-focused coping mechanisms as they all sought treatment for their cancer in addition to the emotion-focused coping through; faith in God coupled with prayer and support from church, support from family, support from medical personnel and assurance from fellow patients and cancer survivors. However some elements of maladaptive coping strategies were seen in participants who avoided interacting with others and visiting certain social settings for fear of people's comments and stigmatization.

REFERENCES

- American Cancer Society (2014). Coping with Cancer in everyday Life. Available at www.cancer.org [Accessed 20th December, 2014]
- Burns N, Groves SK (2009). *The Practice of Nursing Research, Appraisal, Synthesis and Generation of Evidence*. St. Louis: W. B. Saunders.
- Central Statistical Office (CSO) [Zambia] Ministry of Health (MOH) [Zambia] ICF International (2014). *Zambia Demographic and Health Survey 2013-14*. Rockville, Maryland, USA.
- Doumit MAA, Huijjer HA, Kelley J, Nassar N (2008). The lived experiences of Lebanese family caregivers of cancer patients. *J. Cancer Nurs.* 31(4):36-42.
- Doumit MAA, Huijjer HA, Kelley JS (2010). Coping with breast cancer: Phenomenological Study. *Journal Cancer Nursing.* 33 (2): 33-39.
- Folkman S, Lazarus RS, Dunkel-Schetter C (1986). Dynamics of a stressful encounter: Cognitive appraisal, Coping and encounter outcomes. *J. Pers. Soc. Psychol.* 50:992-1003.
- Glanz K, Rimer BK, Lewis F (2002). *Health Behaviour and Health Education. Theory, Research and Practice*. San Fransisco. Wiley and Sons.
- Hack TF, Degner LF (2004). Coping responses following breast cancer diagnosis predict psychological adjustment three years later. *J. Psychooncol.* 13(4):235-247.
- Ignatavicius DD, Workman LM (2006). *Medical-Surgical Nursing Vol. 1&2*. St. Louis, Missouri. Elsevier Saunders.
- International Agency for Research on Cancer-GLOBOCAN, (2013). *Cervical Cancer Estimated Incidence, Mortality and Prevalence Worldwide in 2012*. Available at <http://globocan.iarc.fr/old/FactSheets/cancers/cervix-new.asp> [Accessed on 2nd July, 2015].
- Kimlin T, Ashing-Giwa K, Kagawa-Singer M (2004). Impact of cervical cancer and dysplasia: A multiethnic study. *Psychooncology* 13(10):709-728.
- Kushwaha GS (2014). Study of seeking Guidance and support coping strategy of cancer patients. *Int. J. Psychol. Counsel.* 6(5):66-73.
- Lazarus RS, Folkman S (1984). *Stress, Appraisal and Coping*. New York: Springer.
- Lewis LS, Heitkemper MC, Dirksen SR, O'Brien GP, Bucher L (2007). *Medical-Surgical Nursing: Assessment and Management of Clinical Problems*. St Louis. Mosby-Elsevier.
- Li J, Lambert VA (2007). Coping strategies and predictors of general wellbeing in women with breast cancer in the People's Republic of China. *J. Nurs. Health Sci.* 9(3):199-204.
- Lincoln YS, Guba EG (1995). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Manual J, Burwell S, Crawford S (2007). Young women' perception of coping with breast cancer. *Journal of Cancer Nursing.* 30(2):85-94.
- Parkin DM, Bray F, Ferlay J, Pisani P (2005). *Global Cancer Statistics*. *Cancer J. Clinicians* 55:74-108.
- Polit DF, Hungler CT (1997). *Essentials of Nursing Research Methods, Appraisal and Utilisation*. Philadelphia: Lippincot.
- Polit DF, Beck CT (2012). *Nursing Research: Generating and assessing Evidence for Nursing Practice*. Lippincott. Philadelphia.
- Polit DF, Beck TC (2012). Generalization in Quantitative and Qualitative research: Myths and Strategies. *International Journal of Nursing Studies*. doi.org/10.1016/j.ijnurstu.2010.06.004
- Tung HH, Hunter A, Wei JC (2008). Anxiety and Quality of life after coronary artery bypass graft surgery. *J. Adv. Nurs.* 61(6):651-663.
- Turhal NS, Koyyeri M, Kahraman B, Binicin M, Yilmaz M, Kocar M (2013). An evaluation of life style changes in cancer patients after diagnosis. *J. BUON.* 18(3):760-766.
- Vitaliano P, Russo JC (1985). The ways of coping Checklist. Revision and Psychometric properties. *Multivariate Behav. Res.* 20:2-36.
- Walboomers JM, Jacobs VM, Manos MM, Bosch FX, Kummer JA, Shah KV, Snider PJ, Peto J, Meijer CJ, Munoz N (1999). Human Papiloma Virus is a necessary cause of cervical cancer worldwide. *J. Pathol.* 189:12-19.
- WHO/ICO (2010). *Information Centre on Human Papiloma Virus and cervical Cancer, Summary report Update on HPV and related Cancers in Zambia*. Available at <http://www.who.int/hpvcentre> [accessed 14/04/2010].
- World Health Organization (2002). *National Cancer Control Programmes: Policies and Guidelines*, Geneva.
- Zambia Cancer Society (2010). *Cervical Cancer in Zambia*. Available at <http://www.zambiacancersociety> [accessed 19/04/10].