

MIZORAM UNIVERSITY

MAY, 2013

DECLARATION

I, Ramengmawii Renthlei, hereby declare that the subject matter of this dissertation is the record of the work done by me, that the contents of this dissertation did not form basis of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to Mizoram University for the degree of **Master of Philosophy** in **Social Work**.

Date: 10th May 2013
Place: Aizawl , Mizoram

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MIZORAM UNIVERSITY

MAY, 2013

CERTIFICATE

This is to certify that the dissertation “Mental Health, Coping and Social Support Across Gender Among Persons Living with Cancer in Mizoram”, submitted by Ms Ramengmawii Renthleii for the award of Master of Philosophy in Social Work is carried out under my guidance and incorporates the student’s bonafide research and this has not been submitted for award of any degree in this or any other university or institute of learning.

Date: 10th May 2013

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(RAMENGMAWII RENTHLEI)

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LIST OF ABBREVIATIONS

1. HPV	Human Papilloma Virus
2. HAD	Hospital Anxiety & Depression Scale
3. LOC	Locus of Control
4. CES-D	Center for Epidemiologic Studies-Depression
5. FBOC	Familial Breast and Ovarian Cancer
6. HNPCC	Hereditary non-Polyposis Colorectal Cancer
7. EORTC-QLQ	European Organization for Research and Treatment of cancer- Quality of Life Questionnaire
8. LQ	Loneliness Questionnaire
9. MPSS	Multidimensional Scale of Perceived Social Support
10. QOL	Quality of Life
11. BDI	Beck Depression Inventory
12. ZSAS	Zung Self-rating Anxiety Scale
13. HRQOL	Health Related Quality of Life
14. LOT-R	Life Orientated test
15. HS	Hopelessness Scale
16. FS	Family Support
17. SOC	Sense of Coherence
18. POC	Problem Oriented Coping
19. FACT	Functional Assessment of Cancer Therapy
20. MPSS	Multidimensional Scale of Perceived Social Support
21. PSS-P	Perceptions of Support Survey-Patient Version
22. LOT-R	Life Oriented Test
23. PAIS	Psychosocial Adjustment to Illness Scale

Mental Health, Coping and Social Support Across Gender among Persons Living With Cancer in Mizoram

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Semi Structure Interview

I. Socio- Demographic Profile Of The Respondent:

1. Age (in years)							
2. Sex	Male	Female					
3. Marital Status	Unmarried	Married	Divorced	Widow/ Widower	Remarried	No Response	
4. Education	Below X	Class X	Class XII	Graduate	Post Graduate	Any other	
5. Religion	Christian	Hindu	Muslim	Jewish	Any other	No Response	
6. Denomination	Presbyte- rian	UPC (NE)	UPC (MIZ)	Adventist	Salvation	Catholic	Baptist Others (Specify)
7. Geographical location	Rural	Urban					
8. Respondent Status	Primary Earner	Secondary Earner	Dependent	No Response			
9. Occupation	Not Employed	Self Employed	Govt. Employed	Private Employed	No Response		
10. Age at marriage(In years)							
11. No. of children	No child	1	2- 3	4- 6	7 Above	No Response	
12. Age at first child (In years)							
13. Age at last child (In years)							
14. Average spacing between children (In years)							

II. Family Details:

1. Size Of Family	1-3	4-6	6-9	10 Above	No Response	
2. Type Of Family	Nuclear	Joint	Extended	Reconstituted	No Response	
3.No. of earners in the family	1	2	3	4	5 & above	No Response
4. Monthly Family Income (In Rupees)	Below 1000	1000-3000	3000-5000	5000-7000	7001 Above	No Response
5. a)History Of cancer In the family	Yes	No	No Response			
5. b) If Yes, Who	Parent	Sibling	Spouse	Child	Others (Specify)	No Response
6. a)Tobacco use in family	Yes	No	Don't Know	No response		
6.b)If Yes, Who and what form	Parent	Sibling	Spouse	Child	Smoke	Smokeless

III. Details About Cancer

1.Location of Cancer	Breast	Lung	Leukemia	Kidney	Thyroid	Colon & Rectal	Cervix	Neck	Others (Specify)
2. Time Of Diagnosis									
3. From whom did you know the diagnosis?	Doct or	Nurses	Relatives	Friends	Self	Others			
4.a)Past History Of Cancer	Yes	No	Do Not know	No response					
4.b) If Yes, specify									
5. Since How long have you taken the treatment?	1 - 3 months		4 - 6 months		7 - 9months		10 - 12months		
5. Have you undergone any surgery for cancer?	Yes	No	No Response						
6. What kind of treatment are you taking?	Chemotherapy		Radiotherapy		Both				

7. a) Have you gone outside Mizoram for treatment?	Yes	No							
7.b) If yes, where and why?									
8. What is your average cost of treatment in a month?									
9. a) Do you have any financial support (Not for Cancer treatment)?	Yes	No							
9.b) If yes, from whom?									
10. Have you experienced any of the following before the diagnosis	Unexplained Weight Loss	Fever	Fatigue	Blockage in the heart	Change In Bowels	Unusual Bleeding	Indigestion	Tumour	others
11. Towards medical treatment do you receive any help?	Yes	No							
12.b) If Yes, From whom									
13.a) 13. Towards household chores do you receive any help	Yes	No							
13.b) If Yes, specify									
14. How many times do you pray per day	1 time		2 times		3 times		5 times		Many times

IV. Pattern of Tobacco Use

1. Do you use tobacco	Yes		No	
2. Age at first tobacco intake				
3. Form of tobacco used	Smoke		Smokeless	
4. Monthly average expenditure on tobacco	Less 500	501-700	701-900	901 Above
5. At home are you exposed to	First hand smoke	Secondhand Smoke	Multiple Smoke	Not Exposed
6. At work place are you exposed to	Firsthand smoke	Secondhand Smoke	Multiple Smoke	Not Exposed

V. How do you perceive your health to be

Very Good	Good	Normal	Poor	Very Poor
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VI. Pattern Of Substance Use

Substance	Yes	No
1. Cigarette		
2. Gutkha		
3. Alcohol		
4. Betel Nut		
5. Dendrite		
6. Proxyvon (s.p)		
7. Heroin (No. 4)		
8. Others(Specify)		
9. <i>Tuibur</i>		
10. <i>Sahdah</i>		

VII. Coping

Statement	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
1. When I am in disagreement with medical authorities I can get them to change their opinion.					
2. I try not to think about my disease					
3. I don't want to share my feelings with					

another.					
4. I often talk about my condition to someone in order to learn more about it.					
5. I am very critical of myself and accept self blame.					
6. I often Wish that my cancer would go away or somehow be over.					
7. Following my diagnosis I doubled my efforts to complete my work.					
8. After I knew I had cancer I tried to become a better person.					
9. I express anger to the person(s) who cause the problem.					
10. I continue with life as if I don't suffer from cancer.					
11. I cannot think about anything other than my disease.					
12. I talk to people who can be of help to me.					
13. My condition of cancer has occurred because of me.					
14. I nurse hopes that a miracle would happen					
15. I make a plan of action and follow it.					
16. I have come out of the experience better than when I went in.					
17. I don't bottle up my feelings, I let it out somehow.					
18. I don't let my condition get to me					
19. I am preoccupied with what I should do or say.					
20. I look for understanding and sympathy from people.					
21. I made a promise to myself that I will improve my behavior next time.					
22. I fantasize about becoming completely well very soon.					
23. I Just concentrate on what I have to do next.					
24. I had begun to trust in God more.					
25. I sometimes take decisions that involve big risks					
26. I try to look on the bright side of things					

27. I used to think about how my role model would handle the situation if s/he has cancer.					
28. I talk about my condition only with medical persons.					
29. If my cancer is because of me I will make amends for it.					
30. I try to make myself feel better by eating, drinking, smoking, using drugs or medication, and so forth.					
31. I come up with a couple of different solutions to the problem.					
32. I don't feel like spending time with general people					
33. Due to my cancer I have changed something about myself significantly.					
34. Refused to believe that I have cancer.					
35. When I get angry I let it out to others.					

VIII. SOCIAL SUPPORT

Availability of someone to:

STATEMENT	YES	NO	SOURCES (Name and Relationship)	ADEQUATE/ INADEQUATE	SATISFIED/ NOT SATISFIED
1.Help if confined to bed					
2.Take to doctor					
3.Financial help					
4.Prepare meals					
5.Help with daily chores					
6.Show love and affection					
7.Do something enjoyable with					
8. To confide in					
9.Understand your problems					
10.Turn to for suggestions					

XI.HAVE YOU RECENTLY:

STATEMENTS				
1. Been able to concentrate on what you're doing	(0) better than usual	(1) same as usual	(2) less than usual	(3)much less than usual
2. Lost much sleep over worry	(0) Not at all	(1)not more than usual	(2)rather more than usual	(3)much more than usual
3. Felt that you are playing a useful part in things	(0) Not at all	(1)not more than usual	(2)rather more than usual	(3)much more than usual
4. Felt capable of making decisions about things	(0)more so than usual	(1) same as usual	(2) less so than usual	(3)much less than usual
5. Felt constantly under strain	(0) Not at all	(1)not more than usual	(2)rather more than usual	(3)much more than usual
6. Felt you couldn't overcome your difficulties	(0) Not at all	(1)not more than usual	(2)rather more than usual	(3)much more than usual
7. Been able to enjoy your normal day to day activities	(0)more so than usual	(1) same as usual	(2) less so than usual	(3)much less than usual
8. Been able to face up to your problems	(0)more so than usual	(1) same as usual	(2) less so than usual	(3)much less than usual
9. Been feeling unhappy or depressed	(0) Not at all	(1)not more than usual	(2)rather more than usual	(3)much more than usual
10. Been losing confidence in yourself	(0) Not at all	(1)not more than usual	(2)rather more than usual	(3)much more than usual
11. Been thinking of yourself as a worthless person	(0) Not at all	(1)not more than usual	(2)rather more than usual	(3)much more than usual
12. Been feeling reasonably happy, all things considered	(0)more so than usual	(1) same as usual	(2) less so than usual	(3)much less than usual

XII. Suggestion.

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Semi-Structure Interview

I. CHHANGTU CHANCHIN:

1. Kum (in years)									
2. Sex	Mipa	Minu							
3. Kawppui chungchang	Nei lo	Nei	Inthen	Nupui/pasal sun tawh	Nei tha leh	Chhang lo			
4. Zirna	X hnuai	Class X	Class XII	Graduate	Post Graduate	A dang			
5. Sakhua	Christian	Hindu	Muslim	Jewish	Any other	Chhang lo			
6. Pawl	Presbyterian	UPC (NE)	UPC (MIZ)	Adventist	Salvation	Catholic	Baptist	Others (Specify)	
7. Chenna	Rural	Urban							
8. Chhangtu dinhmun	Eizawngtu ber	Thachhang dawltu	Chhungte chawm	Chhang lo					
9. Eizawna	Hnathawk lo	Mahni a thawk	Sawrkar hnathawk	Private-a thawk	Chhang lo				
10. Kawppui i neih ni a kum zat(In years)									
11. Fa neih zat	Nei lo	1	2- 3	4- 6	7 chunglam	Chhang lo			
12. Fa hmasa ber I neih laia kum zat (In years)									
13. Fa hnuhnumg ber I neih laia kum zat(In years)									
14. Fa I neih kum in kar hlat zat (In years)									

II. CHHUNGKAW CHANCHIN:

1.Chhngkaw member zat	1-3	4-6	6-9	10 chunglam	Chhang lo	
2. Chhungkaw awmdan	Nu/pa leh fate nen	Nu/Pa, fate leh tu te nen	Pi leh pute nen	Nu hrawn/ Pa hrawn/ Fa hrawn te nen	Chhang lo	
3.Chhungkua a hna thawk awm zat	1	2	3	4	5 chunglam	Chhang lo
4. Thla khata chhungkua a pawisa lak luh zat (In Rupees)	1000 hnuailam	1000-3000	3001-5000	5001-7000	7001 chunglam	Chhang lo
5. a)Chhungkua ah cancer vei in awm tawh em?	Awm	Awm lo	Chhang lo			
5. b) Awm chuan, tuge?	Nu/ Pa	Unau	Nupui/Pasal	Fa	A dang (Sawi fiah)	Chhang lo
6. a)Vaihlo chhungkua ah hmang in awm em	Awm	Awm lo	Hre lo	Chhang lo		
6.b)Awm chuan tuge, eng ang in nge?	Nu/Pa	Unau	Nupui/Pasal	Fa	Zuk chi	Hmuam chi

III. CANCER CHUNGCHANG

1.Cancer veina	Hnute	Chuap	Thisen	Kal	Hrawk/ Chaw kawng	Ril	A dang (Sawi fiah)
2. Cancer I ni tih an hriat chhuah ni/thla							
3. Tu hnen atangin nge I hriat?	Doctor	Nurses	Chhungte	Thian	Mahni	A dang (Sawi fiah)	
4.a)A hma in cancer I vei tawh em?	Vei tawh	Vei lo	Hre lo	Chhang lo			
4.b) Vei tawh chuan(sawi fiah)							
5. Engtia rei nge enkawlna I lak tawh?	Thla 1 - 3		Thla 4 - 6		Thla 7 - 9		Thla 10 - 12
6. Cancer avang hian zai I tawh tawh em?	Tawh tawh		Tawh lo		Chhang lo		
7. Eng ang enkawlna nge I lak	Chemotherapy		Radiotherapy		A pahnih in		

8. a) Mizoram pawnah in enkawltur in I kal tawhem?	Kal tawh	Kal lo	Chhang lo					
8.b) Kal tawh chuan khawihmunah, engvangin?								
9. Thlakhatah atlang puiin inenkawl nan engzat nge in sen?								
10. a) Sum lamah tanpuina I dawng ngai em(Cancer atan ni lo)?	Ngai	Ngai lo	Chhang lo					
10.b) Ngai a nih chuan tu hnen atang in nge ?								
11. Cancer I vei ani tih I hriat hma in henge hi nei ngai em	Rihna tla hnam	Khaw -sik	Taksa kham	Vun inthlak	Zun leh ek danglam	Thisen chhuak	Pum pai nuam lo	A dang
12.a) Damdawi lam in enkawl na ah tanpuina I dawng ngai em?	Ngai	Ngai lo	Chhang lo					
12.b) Ngai chuan tu hnen atangin ?								
13. a) Inchung sekrek khawih turin tanpuina I dawng ngai em?	Ngai	Ngai lo	Chhang lo					
13. b) Ngai chuan tu hnen atangin?								
14. Nikhatah wavi engzat nge i tawngtai thin?	Vawi khat	Vawi hnih	Vawi thum	Vawi nga	Vawi tam tak			

IV. VAHLO HMAN DAN

1. Vaihlo I hmang ngai em	Ngai		Ngai lo	
2. Vaihlo I hman hmasak berin kum eng zat nge I nih?				
3. Vaihlo I hman dan	Zuk chi in		Hmuam chi in	
4. Thlakhatah vaihlo a I hman ral zat	Rs 500 hnuai	Rs 501- Rs 700	Rs 701- Rs 900	Rs 901 chunglam
5. Inah hetiang hi I tawng/ching ngai em?	First hand Smoke	Secondhand Smoke	Multiple Smoke(Thil	Tawng lo

	(Zu tu)	(Midang zuk hip tu)	khu dang reng reng)	
6. I hnathawhna hmunah hetiang hi I tawng/ching ngai em?	First hand Smoke (Zu tu)	Secondhand Smoke (Midang zuk hip tu)	Multiple Smoke(Thil khu dang reng reng)	Tawng lo

V. I HRISLNA ENGTIN NGE I NGAIH

Tha lutuk	Tha	Vantlang	Tha lo	Tha lo lutuk
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VI. RUIHHLO HMAN DAN

Ruihhlo	Hmang	Hmang lo
1. Cigarette		
2. Gutkha		
3. Zu		
4. Kuh va		
5. Dendrite		
6. Proxyvon (s.p)		
7. Heroin (No. 4)		
8. <i>Tuibur</i>		
9. <i>Sahdah</i>		
10. A dang (Sawi fiah)		

VII. BEIH LET DAN

DINHMUN	Dik lutuk	Dik	Ngaidan neilo	Dik lo	Dik lo lutuk
1. Damdawi lam thiam ten en inhnia buaina kan neihin, an rilru ka thlak tir thei.					
2. Ka natna hi ngaihtuah loh ka tum thin					
3. Midang bulah ka rilru put hmang k sawi duh lo					
4. Tue maw hnenah k natna chungchang hi k sawi fo, k hriatchian leh zual nan					
5. Ka diklo a, ka thiamloh ani ka ti					
6. Cancer hian min kiansan emaw reh tawh se tiin duhthu ka sam fo thin.					
7. Ka natna avang hian ka hnathawhah a letin ka thawkrim, ka hna ka thawh zawh theih nan.					
8. Cancer k vei tih ka hriat hnu chuan ka nun ka uluk .					
9. Buaina min siamtu chungah thinrimna ka ti lang thin.					
10. Cancer vei lo ang mai in ka nun hi ka					

hmang zui zel.					
11. Ka natna chungchang lo chu thildang ka ngaihtuah thei lo.					
12. Ka tana tangkai thei tu bulah ka natna chungchang ka sawi fo thin.					
13. Cancer hi keimah thiam loh vanga tuar ka ni.					
14. Thil mak lo thleng tur hian ka beisei fo thin.					
15. Beih let na atan ruahmanna ka siama chu chu k zawm thin.					
16. Ka vei tirh ai chuan thiamna ka nei hnem tawh hle.					
17. Ka rilru put hmang te ka pai reng lo, ka sawi chhuak thin.					
18. Cancer hi ka in hneh tir duh lo					
19. Engnge ka tih anga, engnge ka sawi ang tih ka ngaihtuah reng thin.					
20. Mi min hriathiamna leh khawngaihna k beisei fo thin					
21. Nakinah chuan k nun ka uluk tawh ang tiin ka in tiam.					
22. Dam taka ka awm hun tur ka suangtuah fo thin.					
23. A dawta ka tih leh tur chuah ka ngaihtuah.					
24. Pathianah rinna ka nghat zual sauh.					
25. A chang chuan thu tlukna hlauhawm tak tak pawh ka siam thin.					
26. A eng lam zawngin thil thlir ka tum thin.					
27. Ka mi ngaihsan leh en tawn ten engtingnge an beih let ve ang tiin ka ngaihtuah fo thin.					
28. Ka natna chungchang hi damdawi lam thiam ho bulah chauh ka sawi thin					
29. Cancer hi keimah vanga thleng anih chuan keiman ka siamtha leh ang.					
30. Ka awm a nawm theih nan eitur te, zu te, drug te, meizial te leh damdawi te ka ti thin.					
31. Cancer ka hneh theih dan tur kawng chi hrang hrang ka ngaihtuah.					
32. Mipui mi mimir zingah ka awm peih lo.					
33. Cancer avang hian ka nundan ka thlak.					
34. Cancer ka vei hi ka awih duh lo.					
35. Ka thinrim in midang chungah ka tuan.					

VIII. CHHUNGKUA LEH KHAWTLANG ATANGA TANPUINA DAWN DAN:-

Hetiang tur hi mi an awm em:

DINH MUN	Aw	Aih	Puitu(Hming leh inkungkaih dan)	Tam tawk/ tam tawk lo	Lungawi/ lungawi lo
1.Khum beta natin pui tur					
2.Doctor hnena hruai tu tur					
3. Sum lama tanpui tur					
4.Ei leh in siam sak tu tur					
5.Inchhung chet pui tur					
6.Hmangaih leh lainattu tur					
7. Hun nuam tak hman pui tur					
8. Manganna sawi pui tur					
9. Harsatna lo hriathiam pui tu tur					
10. Thurawn kan mamawh em em min petu tur					

XI.HENGTE HI I NEI THIN EM :

Dinhmun				
1. Hna that takin ka thawk thei in ka hria.	(0) a hma aia tha in	(1) a hma nen inang	(2) a hma aia tha lo	(3) a hma aia tha lo fe in
2. Ka mangan avangin ka mu thei lo thin	(0) a hma aia tha in	(1) a hma nen inang	(2) a hma aia tha lo	(3) a hma aia tha lo fe in
3. Hmun pawimawh chang ve thinin ka in hria	(0) a hma aia tha in	(1) a hma nen inang	(2) a hma aia tha lo	(3) a hma aia tha lo fe in
4. Thutlukna ka siam thei thin	(0) a hma aia tha in	(1) a hma nen inang	(2) a hma aia tha lo	(3) a hma aia tha lo fe in
5. Ka tawt up up thin.	(0) a hma aia tha in	(1) a hma nen inang	(2) a hma aia tha lo	(3) a hma aia tha lo fe in
6. Ka harsatnate pumpelh thei ve lo turah ka in ngai thin	(0) a hma aia tha in	(1) a hma nen inang	(2) a hma aia tha lo	(3) a hma aia tha lo fe in
7. Ka nitin hun te hlim takin ka hmang ve thei thin	(0) a hma aia tha in	(1) a hma nen inang	(2) a hma aia tha lo	(3) a hma aia tha lo fe in
8. Ka buainate ka hmachhawn ngam	(0) a hma aia tha in	(1) a hma nen inang	(2) a hma aia tha lo	(3) a hma aia tha lo fe in
9. Hlim lo leh beidawng ngawih ngawih hian ka awm thin	(0) a hma aia tha in	(1) a hma nen inang	(2) a hma aia tha lo	(3) a hma aia tha lo fe in
10. In rin tawkna ka tlachham	(0) a hma aia tha in	(1) a hma nen inang	(2) a hma aia tha lo	(3) a hma aia tha lo fe in
11. Mi hman tlak loh takah ka in ngai thin	(0) a hma aia tha in	(1) a hma nen inang	(2) a hma aia tha lo	(3) a hma aia tha lo fe in
12. Engkimah lawmna chhan tur ka hmu zel	(0) a hma aia tha in	(1) a hma nen inang	(2) a hma aia tha lo	(3) a hma aia tha lo fe in

XII. Thurawn

PARTICULARS OF THE CANDIDATE

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Related Experience

Field Work at Synod Social Front: During the field work at this agency, the main focus is to study the nature of Drug users and abusers and people living with HIV/AIDS, its causes and consequences on individual, family and society. Conducted the Case Study and Group Work, and research on Lesbian.

Field Work at Child Welfare Committee: Works for orphans and vulnerable children, and understand the problems, causes and consequences of children. Various welfare programs and schemes were also understand and conducted Case Study and Group Work.

Field Work in a Community (Bawngkawn, Hmar Veng), Mizoram: Understand the community structure and decision making process, work and contributions of local Non-Government Organisations and Church Based Organisations. Identification of the needs and problems of the community, organizing awareness campaign on Consumer rights, Disaster management and Solid Waste Management.

Project Work at Community (Bawngkawn, Hmar Veng), Mizoram: Conducted a project on “Child Rights: Issues and Challenges” studying the issues and challenges of children through the process of social study, assessment, intervention and evaluation.

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CHAPTER 1

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**MENTAL HEALTH, COPING AND SOCIAL SUPPORT ACROSS GENDER
AMONG PERSONS LIVING WITH CANCER
IN MIZORAM**

Ramengmawii Renthlei

Department of Social Work

*Submitted in partial fulfillment of the requirement of the Degree of Master of Philosophy to
the Department of Social Work, Mizoram University, Aizawl.*

**MENTAL HEALTH, COPING AND SOCIAL SUPPORT ACROSS GENDER
AMONG PERSONS LIVING WITH CANCER
IN MIZORAM**

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This study will attempt to understand the mental health burden, the coping strategies and social support of Persons living with Cancer.

1.1 Concept of cancer

The word cancer seems to imply a single disease, but actually cancers have widely various manifestations, and they belong to the group of tumors. Cancer, known medically as a malignant neoplasm, is a large group of different diseases, all involving unregulated cell growth. In cancer, cells divide and grow uncontrollably, forming malignant tumors, and invade nearby parts of the body. The cancer may also spread to more distant parts of the body through the lymphatic system or bloodstream (en.wikipedia.org/wiki/Cancer).

Human beings and other animals have had cancer throughout recorded history. So it's no surprise that from the dawn of history people have written about cancer. Some of the earliest evidence of cancer is found among fossilized bone tumors, human mummies in ancient Egypt, and ancient manuscripts. Growths suggestive of the bone cancer called osteosarcoma have been seen in mummies. Bony skull destruction as seen in cancer of the head and neck has been found, too. Our oldest description of cancer (although the word cancer was not used) was discovered in Egypt and dates back to about 3000 BC. It is called the Edwin Smith Papyrus and is a copy of part of an ancient Egyptian textbook on trauma surgery. It describes 8 cases of tumors or ulcers of the breast that were treated by cauterization with a tool called the fire drill. The writing says about the disease, "There is no treatment." (<http://www.cancer.org/cancer/cancerbasics/thehistoryofcancer/index>)

1.2 Cancer in the world

There were an estimated 12.7 million cancer cases around the world in 2008, of these 6.6 million cases were in men and 6.0 million in women. This number is expected to increase to 21 million by 2030.

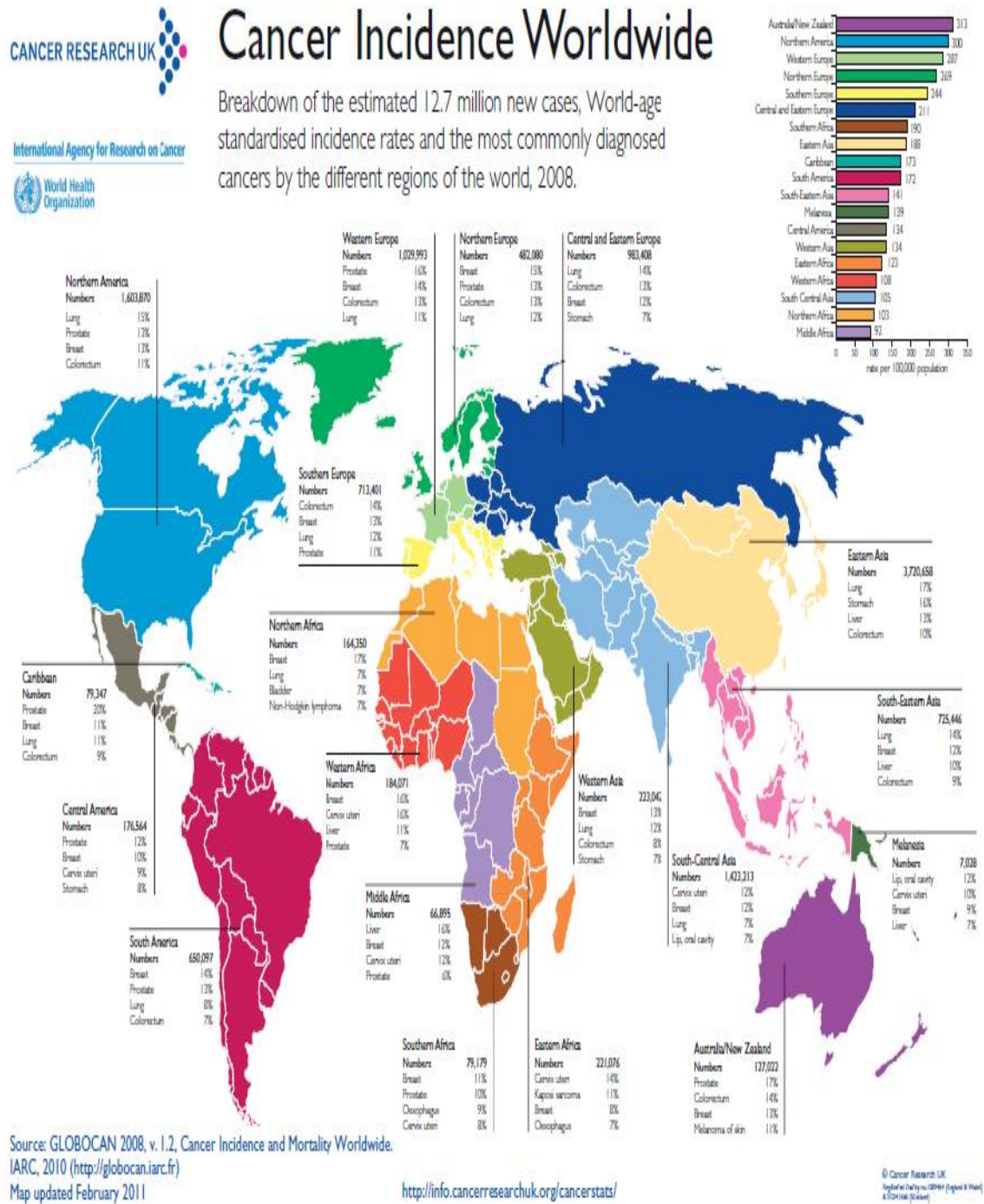
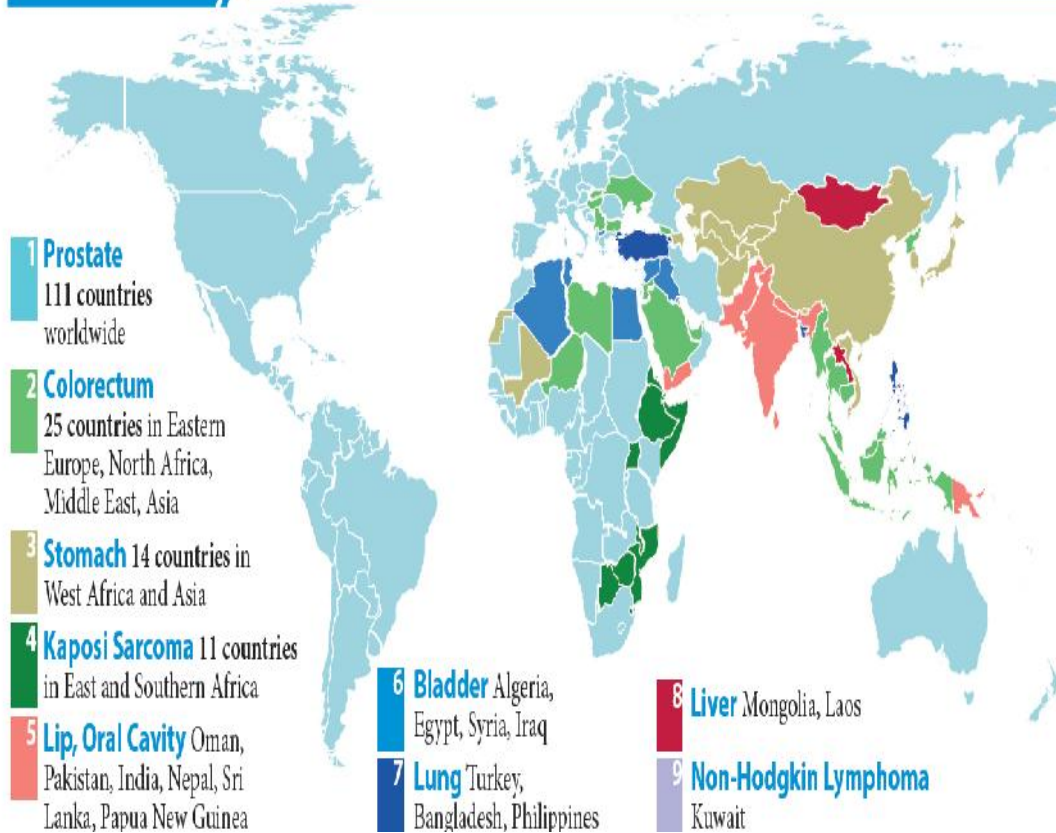


Fig 1.1(Above)

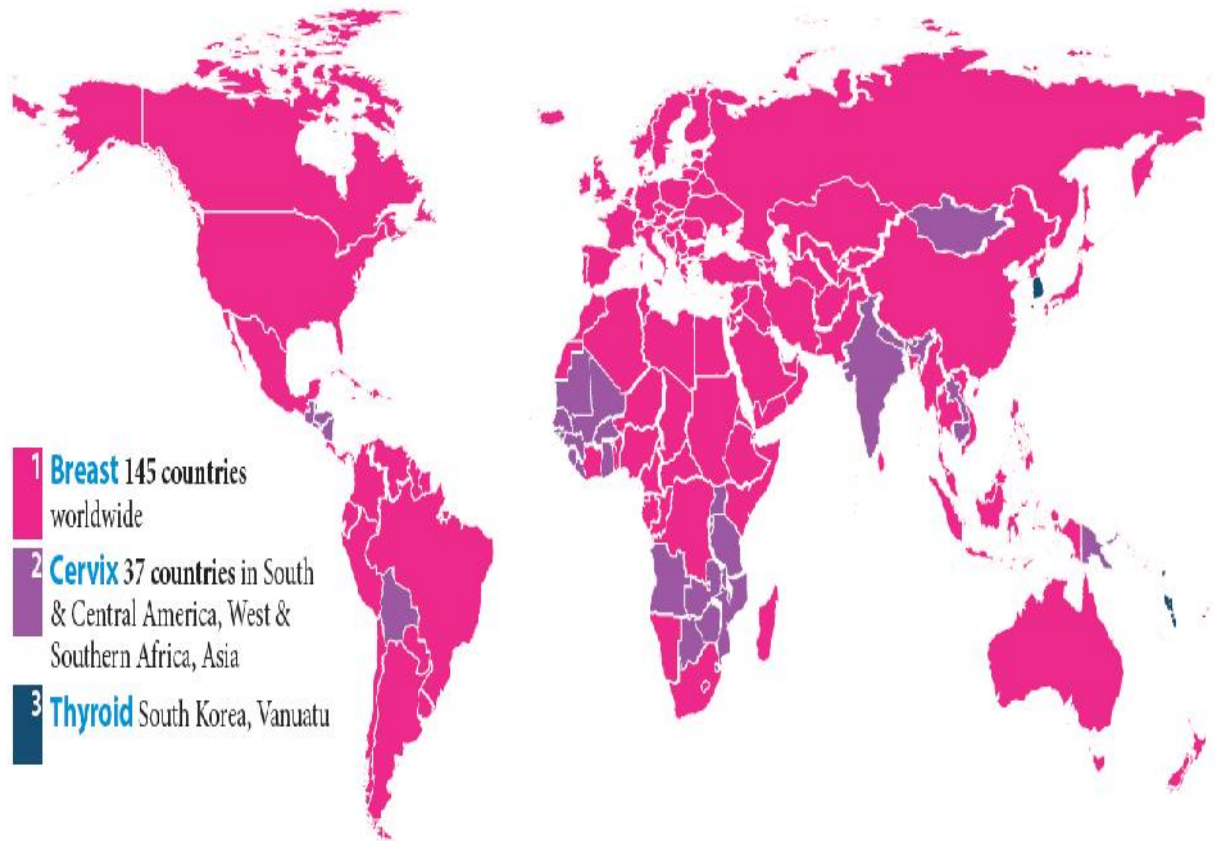
Prevalence 2008 // **Most prevalent cancer by country – males**



Source- GLOBACAN 2008 v 1.2. Cancer Incidence and mortality Worldwide IARC 2010 (<http://globacan.iarc.fr>)
Map updated 2011
<http://info.cancerresearchuk.org/cancerstats/>

Fig 1.2(Above)

Most prevalent cancer by country – females



Source- GLOBACAN 2008 v 1.2. Cancer Incidence and mortality Worldwide IARC 2010 (<http://globacan.iarc.fr>)
Map updated 2011
<http://info.cancerresearchuk.org/cancerstats/>

Fig 1.3 (Above)

In both the sexes*

- Lung cancer is the most common cancer worldwide contributing nearly 13% of the total number of new cases diagnosed in 2008.
- Breast cancer (women only) is the second most common cancer with nearly 1.4 million new cases in 2008.
- Colorectal cancer is the third most common cancer with over 1.2 million new cases in 2008.

For men*

- Lung cancer is the most common cancer worldwide in men contributing more than 16% of the total number of new cases diagnosed in 2008.
- The top three, lung, prostate and colorectal cancers, contributes about 40% of all cancers (excluding non-melanoma skin cancer).
- Other common cancers contributing more than 5% are stomach and liver.

For women*

- Breast cancer is the most common cancer worldwide in women contributing nearly 23% of the total number of new cases diagnosed in 2008.
- The top three, breast, colorectal and cervical cancers, contribute more than 40% of all cancers (excluding non-melanoma skin cancer).
- Other common cancers contributing more than 5% are lung and stomach.

About 30% of cancer deaths are due to the five leading behavioral and dietary risks: high body mass index, low fruit and vegetable intake, lack of physical activity, tobacco use, alcohol use. Tobacco use is the most important risk factor for cancer causing 22% of global

cancer deaths and 71% of global lung cancer deaths. Cancer causing viral infections such as HBV/HCV and HPV are responsible for up to 20% of cancer deaths in low- and middle-income countries. About 70% of all cancer deaths in 2008 occurred in low- and middle-income countries. Deaths from cancer worldwide are projected to continue rising, with an estimated 13.1 million deaths in 2030.

Cancer is a leading cause of death worldwide and accounted for 7.6 million deaths (around 13% of all deaths) in 2008. The main types of cancer are:*

- lung (1.37 million deaths)
- stomach (736 000 deaths)
- liver (695 000 deaths)
- colorectal (608 000 deaths)
- breast (458 000 deaths)
- cervical cancer (275 000 deaths).

(* GLOBOCAN 2008 database (version 1.2) <http://globocan.iarc.fr>)

Cancer incidence rates appeared to peak in 1992 and decreased an average of -2.2% per year from 1992 to 1996. Similar declines have been seen recently for specific leading cancer sites. Breast cancer incidence rates have remained approximately level during the 1990s; however, they appear to be decreasing in younger women. Decreases in colon and rectum cancer incidence rates began in the mid-1980s, in both male and female. A downturn in the incidence of lung and bronchus cancer in males began in the late 1980s, and between 1990 and 1996, incidence rates decreased significantly, -2.6% per year. Incidence rates of lung and bronchus cancer among females are stabilizing, and have begun to decline among

women aged 40 to 59. Prostate cancer incidence rates also declined significantly between 1990 and 1996, on average -2.0% per year. Prostate cancer deaths declined from a peak of 34,902 in 1994 to 32,891 in 1997. Colon and rectum cancer deaths among men were highest in 1990 at 28,635 and have declined to 28,075 in 1997. Breast cancer deaths were highest in 1995 at 43,844 and have declined to 41,943 in 1997. Colorectal cancer deaths among women have declined from a recent peak of 29,237 in 1995 to 28,621 in 1997, although these deaths reached their all-time high in 1984 at 29,522 (Robert T. G. 2000).

1.3 Cancer in India

In Kidwai Memorial Institute of Oncology, a research study conducted estimated number of new cancers in India per year to be about 7 lakhs and over 3.5 lakhs people die of cancer each year. *Out of these 7 lakhs new cancers about 2.3 lakhs (33%) cancers are tobacco related.* From a Times of India article dated 28th March 2012, India officially recorded over half a million deaths due to cancer in 2011 – 5.35 lakhs as against 5.14 lakh (2009) and 5.24 lakh (2010). The Union health ministry says there are about 28 lakh cases of cancer at any given point of time in India, with 10 lakh new cases being reported annually. World Health Organization (WHO) says, the estimated cancer deaths in India are projected to increase to 7 lakh by 2015. At nearly 23 per cent, oral cancer caused the most number of deaths among men. It was followed by stomach cancer (12.6 per cent) and lung cancer (11.4 per cent). In the case of women, cervical cancer was the leading cause (about 17 per cent), followed by breast cancer (10.2 per cent). (<http://nitawriter.wordpress.com/2007/04/26/india-has-one-of-the-highest-cancer-rates-in-the-world/>).

1.4 Cancer in Mizoram

Mizoram is situated between 92.15' to 93.29' E longitude and 21.58' to 24.35' N latitude and virtually land locked and situated between Myanmar in the east and Bangladesh in the west. The Mizo people have their ancestral origin in China. Tobacco smoking rate in Mizoram is very high among adults. A peculiar habit of using “*tuibur*” (tobacco smoke–infused water) has also been observed in Mizoram. The habit of chewing betel quid, containing fresh betel nut, slaked lime wrapped in betel leaf is also widespread in Mizoram. Tobacco is often used. Dried tobacco mixed with lime processed with tips of thumb on the palm of other hand into a powder that is place near the gum known locally as “Khaini” also chewed in Mizoram. In a study of 329 persons with stomach cancer in Aizawl Civil Hospital Aizawl, Mizoram it was found that tobacco users in the form of smoking or smokeless (chewing of tobacco only and *tuibur*) were found to be having high risk for stomach cancer (<http://cebp.aacrjournals.org/content/14/8/1892.full>).

The common types of cancer suffered by the men in Mizoram are cancers of the stomach, lungs, esophagus, hypo- pharynx, liver and naso-pharynx whereas women more commonly suffered cancer of the cervix, lungs, stomach, breast, ovary rectum and oesophagus (Population based Cancer Registry of Mizoram , 2 011).

	Males			Females		
	Incidence	Mortality	M/I %	Incidence	Mortality	M/I %
2003-2004	1209	591	48.9	949	375	39.5
2005-2006	1279	660	51.6	994	440	44.2
2007-2008	1269	706	55.6	1065	520	48.8
2009-2010	1393	778	55.8	1137	532	46.8

Fig 1.4 Source: Population based Cancer Registry of Mizoram, 2011.

In 2010 there were 606 new cases of men and 451 new cases of women diagnosed with cancer. 2011 report suggests that the incidence of cancer is 891.

Population Based Cancer Registry, Aizawl was established in 2003 under the auspices of National Cancer Registry Programme at Civil Hospital in the Department of Pathology, civil Hospital, Aizawl, with the main objectives of assessing the magnitude and types of cancer in the state. It covers the whole of Mizoram.

1.5 Statement of the problem

Mizoram is a small state of over ten lakh population but it ranks the highest in number of cancer patients in the whole of India. Every year on an average there are at least five hundred new cases diagnosed and every day there are three deaths that occur due to cancer, according to specialists in the field. Mizoram is one of the states with highest incidence of cancer in the country. There are only few treatment and care facilities in Mizoram where holistic treatment is available and that too is poorly equipped. Although physical treatment is available there is no psychological treatment offered in Mizoram. Therefore several patients go out of Mizoram for holistic and better treatment. While treatment itself is very limited, research in the area particularly with reference to coping and social support is almost entirely absent. *This study will be the first to document mental health of Mizo cancer patients and understand their psychological burdens. Specifically the study will seek to identify problems related to anxiety and depression among Mizo cancer patients.*

Positive mental health and adaptive coping mechanisms are likely to enhance physical health and response to treatment. Further, a strong social support has demonstrated benefits in improving health status of cancer patients. Mental health burdens, coping and social support are likely to vary across gender and this study seeks to explore this in the context of persons living with Cancer in Mizoram.

1.6 Objectives

- 1) To assess the mental health (anxiety and depression) of persons living with cancer in Mizoram.
- 2) To assess the coping strategies of persons living with cancer.
- 3) To identify the kind of social support (informational, emotional and instrumental) received by Mizos living with cancer.
- 4) To suggest measures for social work policy and intervention to help persons living with cancer.

2.1 Mental Health

It was in the late 19th century that attention was first drawn to the possible link of stress and cancer by Paget (1870) who observed that the cases are so frequent in which deep anxiety, deflated hope and disappointment are quickly followed by the growth and increase of cancer. Le Shan and Worthington compared one hundred and fifty two cancer patients and one hundred and twenty five patients with other or no illness, using a test developed by Worthington and observed that the cancer group differed in the following ways: (1) they had difficulty in expressing hostile feelings; (2) they had suffered the loss of a dear one prior to diagnosis; and (3) they showed greater potential anxiety about the death of a parent. In the initial period after diagnosis it is reported that cancer patients have depressive symptoms (McDaniel et al., 1995 in Schroevers, Ranchor, & Sanderman, 2003). A number of studies found a decrease in depressive symptoms in a year after diagnosis (Chaturvedi & Maguire In Schroevers, Ranchor, & Sanderman, 2003) whereas other studies found no significant decrease in depressive symptoms over time (Omne-Ponten et al., 1992 In Schroevers, Ranchor, & Sanderman, 2003). Patients commonly experience a number of negative reactions, such as anxiety, depression and inability to concentrate (Voogt et al., 2005 In Pinquart, Frohlinch, & Silbereisen, 2007).

In another study of four hundred and thirty one cancer patients the sample consisted of two hundred and seventy females and one hundred sixty one males. A total of seventy percent of the patients were married. The Inclusion criteria were a diagnosis of cancer for at least three months. The questionnaire includes The Hospital Anxiety and Depression (HAD) scale and the Cancer Locus of Control (LoC).

From the study it was found that diagnosis of cancer evokes a wide range of emotions, such as fear, anxiety, anger, depression, despair and helplessness. It can be a time of great emotional distress for patients. Having a clear understanding of the prevalence of common mental disorders in patients with cancer is important not only from the point of planning services geared towards holistic care, but also because there is evidence to indicate that untreated psychiatric co-morbidities in patients with cancer have a significant impact on disability and quality of life and they tend to worsen if not treated adequately.

Patients who scored highly on the anxiety and depression scale were much more likely to express dissatisfaction with the emotional support received. Patients who are lonely and depressed may well perceive few sources of emotional support for their deepest feelings and fears. Psychologists and psychiatrists were perceived as less important to this population. Many patients are also reluctant to be referred to mental health professionals because of the stigma or fear of having a mental illness label attached to them (Slevin, et al., 1996).

Patients who were recruited from twelve hospitals in the northern part of The Netherlands with the assistance of the Dutch Cancer Registration of the Comprehensive Cancer Centre North Netherlands were studied. Patients were selected on the basis of site and stage of disease. The criteria for inclusion in the study were as follows: (1) age 18 years or older, (2) newly diagnosed with cancer, (3) no distant metastases, (4) a life expectancy of at least one year, and (5) informed about the diagnosis. Patients who agreed to participate were interviewed and filled out a questionnaire at three points: 3 months, 9 months, and 15 months after diagnosis. The Center for Epidemiologic Studies-Depression (CES-D) scale which is a 20-item self-report instrument of depression was used and for socio- demographic factors (gender, age, education, and marital status) it was collected in a semi-structured interview.

Fifty eight studies on psychological problems among cancer patients, found that patients were significantly more depressed in the first months after diagnosis compared with the general population. Patients reported significantly more depressive symptoms at the initial stage and showed a significant decrease in the year after diagnosis. Younger patients, especially, experienced depressive symptoms in response to a diagnosis of cancer. It was also found that patients with more education and those with early stages of cancer reported a greater decrease in depressive symptoms over time. Patients may feel depressed and lack joy and interest in daily activities. (Schroevers, Ranchor, & Sanderman, 2003).

Two thousand one hundred and thirty four patients with advanced cervical cancer in the palliative care clinic of the Tata Memorial Hospital for the period of nine months were studied in 2003 and it was found that *anxiety and sadness is present in eighty percent of the patients with the occasional expression of suicidal ideation; guilt and regret for not going to the doctor earlier; anger directed at doctors for mismanaging their treatment and fear of the future.*

Many patients express sorrow and helplessness, at not being able to fulfill their family role. They feel a drain on their meager family resources. Anxiety about the children's future is often the most overwhelming concern. Approximately majority had low or no sexual interest, over half had mild to severe dyspareunia, and one-third were dissatisfied with their sexual life. The embarrassment and malodor associated with vaginal discharge or urinary incontinence is extremely distressing. Some women express intense worthlessness and helplessness, associated with depression and suicidal ideation. Others are more resilient and accept this as their *karma*. Sexual difficulties and fear of being deserted by the husband are the most common feelings (Muckaden, Marathe, Tulshan, Carvalho, Pinto, 2005).

Three hundred and thirty women at risk for familial cancers in absence of known mutations registered at the Section for Genetic Counseling at the Norwegian Radium Hospital belonging to familial breast and ovarian cancer (FBOC) (253 women from 120 families) and hereditary non-polyposis colorectal cancer (HNPCC) (77 women from 40 families) were invited to participate in the study. *Nearly half of the women with early breast cancer had depression, anxiety, or both in the year after diagnosis, less than one-third in the second, third, and fourth years, and fifteen per cent in the fifth year* (Burgess, C., Cornelius, V., Love, S., Graham, J., Richards, M. & Ramirez, A. 2005). Mental distress in women with familial breast and ovarian cancer and hereditary non- polyposis colorectal cancer has been investigated and it was observed that mental distress was higher in them than in women of the general population. Better physical Quality Of Life among women of the risk group who had lived in families with increased risk of cancer for generations, and had seen parents or close relatives affected or deceased by cancer, could be explained by more awareness and consciousness about health-promoting life style and of keeping physically fit. In a former study authors found that women in absence of known mutation had higher score on anxiety, but lower on depression compared to controls (Geirdal, Mahle, Heimdal, Stormorken, PalMoller, Dahl, 2006).

In millions of villages and small towns across India, women with breast cancer are looked down upon by their spouses, families and friends (Prabhakar, and Prabhakar, 2008). The study was conducted from August 2003 to January 2004. During this period, a total of one hundred sixty consecutive patients suffering from cancer who are above the age of eighteen years have been treated in a Palliative Care Unit and interviewed. Hospital Anxiety and Depression scale and European Organization for Research and Treatment of Cancer

Quality of Life Questionnaire version 3.0 (EORTC QLQ-C30 v.3) was used to measure anxiety and depression and quality of life.

From the results anxiety and/or depression are the most common mental disorders among whole populations of cancer patients. There was a significant positive association between age and depression. Individuals who were under anticancer treatment experienced statistically significantly more psychological distress and anxiety than those patients who were not receiving anti-cancer treatment. Patients with poor performance status experienced statistically significantly more psychological distress and anxiety than patients with moderate performance status.

The result highlights the social difficulties of cancer patients; patients who are depressed often do not derive pleasure from social interaction and may appear isolated and withdrawn. This results to a worsening spiral of isolation and depressed mood in patients who are depressed. Emotional functioning had a statistically significant association with both anxiety and depression (Mystakidou, Tsilika, Parpa, Katsouda, Galanos, Vlahos, 2005).

Hundred cancer patients were studied utilizing the Loneliness Questionnaire, the Multidimensional Scale of Perceived Social Support (MPSS), and the Sense of Coherence (SOC) questionnaires. From the study it was found that feelings of hopelessness, helplessness, and fear of death are present in the minds of patients during each stage, and patients typically lack the social and emotional support they desperately need, which may lead to feelings of loneliness. *Psychological distress was higher in those who knew their cancer diagnosis* (Cohen 1985 in Rokach, 2007).

In the study of one hundred twenty nine lung cancer patients, the analysis was restricted to those for whom both baseline and follow-up data were available. Anxiety and

depression were assessed using the Hospital Anxiety and Depression Scale (HADS). The HADS was administered at two points, baseline and follow-up. All suspected lung cancer patients were identified by respiratory consultants following referral from their general practitioners and the questionnaire administered at their first clinic visit, before the diagnosis was made. The follow-up assessment was scheduled three months after diagnosis and completion of initial management.

Ten percent of the patients had severe anxiety symptoms and twelve percent had symptoms of serious depression at their first presentation to the chest physicians. At follow-up these decreased by one percent for anxiety and increased by ten percent for depression as compared to the baseline assessments. Patients with borderline status of anxiety and depression were nearly doubled at follow-up (Motazeri, Milroy, Gillis, and McEwen,1997).

A study was conducted in a cross-sectional observational study of one hundred seventy eight cancer patients wherein The Hospital Anxiety and Depression Scale, the General Health Questionnaire, and many quality of life instruments were used to measure anxiety.

The idea of cancer is threatening, such that experiments which require anxiety-generating words may use the word cancer as a stimulus. The reported prevalence of anxiety problems in cancer patient populations varies widely between studies, but in comparisons within the general population pathological anxiety is commoner in people with cancer than in those without any chronic medical condition. In the general population, younger women are more prone to anxiety. However age, gender, marital status, social class and education are not associations consistently seen with anxiety in cancer patient populations. Anxiety levels are high soon after the onset of cancer symptoms, during investigation and diagnosis, but many

people adapt over time. Chemotherapy and radiotherapy are associated with anxiety. Anxiety appears to increase as illness progresses, such that more extensive disease is associated with higher prevalence of anxiety. In general, high levels of anxiety develop before surgery and abate afterwards. Chemotherapy and radiotherapy are associated with anxiety. It was also found that Panic disorder was present in sixteen patients and twenty four patients have phobia. (Fallowfield et al., 1994 in Stark, and House, 2000).

Literature was reviewed concerning psychosocial aspects of prostate and breast cancer. Experiences of psycho-oncologist and a general internist practicing in sex and gender medicine as well as discussions and scientific exchange with colleagues and nurses in these specialties were interviewed. From the interviewed it was found that the diagnosis of cancer is distressing; the cancer patients continue to be depressed or anxious six months after diagnosis. Disease stage, uncontrolled pain, and absence of social support correlate more with psychological distress than cancer site (Alexander, and Siegfried, 2001).

In a cross-sectional observational study of one hundred seventy eight patients with lymphoma, renal cell carcinoma, malignant melanoma, or plasma cell dyscrasia, they measure psychological symptoms, quality of life (QOL), and social support to standardized psychiatric interviews and cancer management. Hospital Anxiety and Depression Scale, past psychiatric history, QOL with the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire C30 (EORTC QLQC30), cancer-related concerns using the cancer concerns checklist, and social support with the Close Persons Questionnaire were utilize. It was collected within 3 weeks, in their own home or a hospital consulting room, further measures were made, including further anxiety measurement with the State-Trait Anxiety Inventory and a formal assessment of psychiatric problems by Present State Examination. In

the study of three hundred and five patients it has been found out that half of the patients have anxiety and 15 percent is also recorded of having depression (Stark, Kiely, M., Smith A., Velikova, G., House, A., and Selby, P., 2002).

A total number of one hundred seventy three hospitalized patients were studied in Isfahan Sayyed-o-shohada hospital. The Beck Depression Inventory (BDI) and Zung Self-rating Anxiety Scale (ZSAS) were applied to measure depression and anxiety respectively. The prevalence of anxiety and depression was found to be 18.5% and 32.9% respectively. Anxiety had a higher prevalence among anxiety ($P < 0.05$). Age or gender had no correlation with depression. Type of malignancy, duration of treatment and treatment method were not correlated with prevalence of depression and anxiety (Azadeh, Ahmad, Ahmadzaded, 2007).

Anorexia is a persistent and pathological form of satiety which is characterized by a gradual onset, a profound and persistent loss of appetite resulting in decreased food intake and leading to a progressive depletion of body energy stores. In cancer patients, the development of anorexia is frequently associated with the presence of cachexia, resulting in the cancer anorexia cachexia syndrome. This syndrome is observed in eighty percent of patients with advanced-stage cancer, and it is one of the most frequent causes of death. Weight loss has been shown to be a very powerful prognostic indicator of poor outcome and a poor quality of life. The same can be said for anorexia. Thus, a North Central Cancer Treatment Group study of patients with colorectal and lung cancer, showed that loss of appetite and appetite related variables predicted an early demise. Many patients tend to report a complete lack of hunger and amongst those patients who experience hunger; most are relieved with small amounts of oral intake. Reduced food intake may also result from multiple disease processes including

dysphagia, chronic nausea, abnormal gut motility, recurrent aspiration, pain, fear and depression (Perboni, and Inui, 2006).

The sample was recruited from the Helsinki University Central Hospital in 1997-2000. Baseline questionnaires were distributed to patients during their hospital visit at the time of diagnosis. In the study of two hundred and fifty five cancer patients, eighty eight (56.8%) were women and sixty seven (43.2%) men. The aim of this study was to investigate the role of dispositional optimism, hopelessness and partner support as predictors of Health Related Quality Of Life (HRQL) in cancer patients. Dispositional optimism was measured with the Finnish adaptation of the revised Life Orientation Test (LOT-R), Hopelessness was measured with a two-item Hopelessness Scale (HS), and partner support was assessed with a 12-item Family Support (FS) scale developed by Julkunen and Greenglass. Health-Related Quality of Life (HRQL) was measured with the Finnish version of the RAND 36-Item Health Survey at the follow-up, about eight months post diagnosis.

It was found that dispositional optimism has been found to be a predictor of good adjustment to a variety of somatic illnesses including different types of cancer. The different studies seem to suggest contradictory findings in reference to the mental health of patients with cancer. *It may be concluded that optimistic cancer patients seem to have better psychological health and better quality of life than less optimistic cancer patients.* Some studies also reveal the prevalence of anxiety symptoms in cancer patients. In general, anxiety is even more frequent in oncology patients than is depression (Gustavsson-Lilius, Julkunen, Hietanen, 2007).

Four hundred and twenty rectal cancer patients were interviewed, half with men and half with women to see whether they face stigmatization or not. The study was designed to

yield-information on the following groups of topics: quality of life; physical, emotional, and social health - as perceived by the patient and assessed by both the general practitioner and the health visitor, supplemented by the Leeds scales for the self-assessment of anxiety and depression. The scale was supported by additional questions about perceptions of changes since surgery- in self-esteem, in physical appearance when fully dressed, and in married life. Responses were cross classified by age, sex, presence or absence of a colostomy, and years since surgery, and tested for statistical significance using the chi-squared test.

Fifty percent said they felt anxious, depressed, vulnerable, lonely, weak or oversensitive as a result of bowel surgery; thirty eight percent with colostomies felt dirty, embarrassed, ashamed or self-conscious about the stoma, especially in public or in company; and twenty three percent never stopped thinking about their colostomy and bowel action, and their preoccupations them constantly of their abnormality. Patients who said that their married life had suffered since surgery, when asked to explain why, generally mentioned the shame and embarrassment caused by the colostomy. In both groups of patients, the stigmatized were more likely to sleep poorly (34% v 23%), to have a poor appetite (27% v 11%), and to have low energy (47% v 33%). Stigma among colostomy patients was associated with pain (44% v 28%), sexual incapacity (67% v 55%), other complications of surgery (58% v 46%), the use of analgesics (45% v 27%), and the use of tranquilisers (14% v 4%). A quarter of both colostomy and anastomosed patients said that they always looked weak, tired, and depressed.

Patients and those widowed subsequent to surgery were asked if their married life had changed as a result of the bowel condition. *The stigma of a deteriorating marriage was predominantly felt by men, by younger patients, and by those with a colostomy, but one fifth of the older men also suffered this problem.* There were no significant differences by years since

surgery. This indicator of stigma was twice as frequent among colostomy patients. Patients who said that their married life had suffered since surgery, when asked to explain why, generally mentioned the shame and embarrassment caused by the colostomy. Fifty three percent mentioned feelings of revulsion aroused by the stoma; the same proportion had had no sex since surgery; either because they were impotent or because their libido had suffered, presumably as a result of the bowel condition. Two patients said that the need to be nursed by their partner had worsened the relationship. Five said that they had never got on with their partner and that the bowel condition (MacDonald, and Anderson, 1984).

Some women react to breast surgery reasonably well, but many experience moderate to serious psychological difficulties. Those who do have significant difficulties communicate this in such ways as the following: "I no longer feel like a woman." "I feel like a freak." "I could never have sex again." "I feel like climbing in a hole and dying." "I feel sorry for my poor husband." For men also who are diagnose with prostate cancer they used to have the following kinds of comments: "My cancer took my manhood away." "I don't know which is worse? Having cancer or losing my sexuality." "If I can't have sex, I might as well be dead anyway."

Many colon-rectal patients need a colostomy, which necessitates the patient wearing a small plastic bag (a colostomy pouch) on his abdomen at a point where bowel waste empties out. Some patients adjust well to this, but many find it distressing. Typical comments of those who find it difficult: "I feel dirty all the time." "I feel like everyone can see and smell this bag." "This is the end of my sex life." "I just want to withdraw from people, including my family." Patients who go through periods of remission get their hopes up and may conclude that they have "beaten cancer," but often enough become ill again, creating frustration in

some and in others despair. Cancer, especially terminal cancer, can have a profound impact on their mental health (Cavanagh, 1994).

In the study of one hundred thirty two cancer patients from a university clinic for oncology and hematology in the eastern part of Germany, an Associations of Age and Cancer with Individual Goal Commitment was studied. It was found that cancer accelerate age-normative changes in goal commitment because cancer imposes an additional restriction on health resources and on time left to live. Therefore, older patients report the easiest-to-fulfill goals as those focused on the very near future. In addition, due to restricted resources, the oldest patients invest least effort in their goal attainment and show the greatest health-related barriers to goal pursuit. On the other hand, cancer has stronger effects on goal commitment in younger adults because, even before the diagnosis of cancer, older adults have already narrowed their range of goals to easy-to-fulfill short-term goals that can be attained even when faced with illness. Higher levels of worries with regard to the future in younger than older patient shows that younger cancer patients were more likely than older patients to perceive an increase in the subjective importance of transcendental and social goals (Pinquart, Nixdorf-Hanchen & Silbereisen, 2005).

2.2 Coping

When stress levels are high, resources are needed from people within the social environment to facilitate coping. A study on the influence of religion on physical health suggests that religion usually, but not always, plays a positive role. A positive influence has been found in research involving subjects of all ages, both genders, and a number of religions (i.e., Protestants, Catholics, Jews, Buddhists, and Muslims). Research investigating mental

health indicates a similar protective effect of religion. In a review of one hundred and thirty nine research studies using quantified measures of religious commitment, Larson et al. (1992) found that only over one-third reported any associations at all, but of these, over half were positive. Gartner (1996) reviewed the literature and found positive associations between religion, spirituality and well-being, marital satisfaction, and general psychological functioning; he found negative associations with suicide, delinquency, criminal behavior, and drug and alcohol use. Research shows that intrinsic religion also relates to constructive thinking and behavior, and aids the person in coping with life. Spiritual support when cancer strikes are normally provided by clergy. Of the one hundred and three respondents of breast cancer over two-thirds stated that religion was important to them, while less than a third considered religion unimportant. Studies on the influence of religion on physical health suggest that religion usually, but not always, play a positive role (Seybold, and Hill, 2001).

A study of one hundred and seventy six head and neck cancer patients at Regional cancer centre, Chennai were studied. The inclusion criteria were only head and neck cancer patients and irrespective of demographic variables and biomedical variables, all the patients who attended the Out Patient Department for the specific period. The age ranged from nineteen to eighty seven years. Among one hundred seventy six patients, one hundred and one were males and seventy five were females. Literates and illiterates and treated and untreated patients were included. Survival period ranged from one month to seventeen years.

The questionnaire used for assessing coping preferences was Jalowiec Coping Scale containing forty items with responses given on a 5-point scale. The questionnaire had twenty five problem-focused items and fifty emotion-focused items. Patients were engaged to fill up

the questionnaire. For those without sufficient educational background, the tool was administered and the response for each item was elicited from the patients by the first author.

The study revealed that social support and adequate information about the treatment lead to better coping methods and this enhances the quality of life. Patients undergoing surgery and radiation therapy with surgery have higher Problem Oriented Coping (POC) than newly diagnosed and terminally ill patients. Compared with newly diagnosed patients and treated patients, palliative care patients scored less in POC. This is because the palliative care patients do not have any hope for a cure. They do not have any other choice and this state of hopelessness might have lessened their preference for POC. Similarly, compared to the treated patients the newly diagnosed patients scored less in POC. This might be due to the emotional distress and trauma felt by the patients immediately after the diagnosis and also because they were still unaware of the treatment possibilities.

Patients treated with radiation therapy and surgeries were found to have higher scores on Problem Oriented Coping strategies. Advanced cancer patients preferred more of Emotion Oriented Coping rather than Problem Oriented Coping strategies (Vidhubala, Latha, Ravikannan, Mani, Karthikesh, 2006).

Prayer has also been treated as an active cognitive coping strategy. A poll conducted in America shows that ninety six percent of Americans believe in God or a universal spirit. Furthermore, eighty eight percent say that religion is important in their lives, and sixty seven percent claim they are a member of a church or synagogue. Of those polled, eighty eight percent reported that they pray, seventy nine percent reported that they believed in miracles, and seventy two percent believed in angels. This implies that the majority of the population believes that god can intercede in their lives. The belief that God plays a role in the life of an

individual can alter one's beliefs surrounding specific life events. The belief that God plays a role in the life of an individual can alter one's beliefs surrounding specific life events. For instance, some physically ill patients believe their illnesses are challenges designed to test or strengthen their faith in God, while other patients clearly perceive their illnesses as punishments by God (Taylor, 1983 in Taylor, 2001).

Throughout history, and in many primitive cultures today, the person responsible for a given community's religious rituals was often the same individual responsible for the community's mental health. Often, the shaman, priest, pastor, or native spiritual healer had the additional role of counselor or therapist. This has not changed much today. In fact, forty percent of the population seeking help with emotional problems first turned to a local religious leader before or instead of a psychologist. It has been, and continues to be, the role of ministers, rabbis, and priests to help members of their congregations move through the difficult life transitions that cause psychological distress. Adults indicated that prayer is an indicator of life satisfaction, happiness, and overall well-being (Taylor, 1983 in Taylor, 2001). According to this assessment, an illness can be either a *faith damaging or faith strengthening* event.

A study conducted in Tata memorial Hospital used a descriptive research design. The intention was to measure the variables as they are, and no attempt was made to change any behavior or condition. For this study, men and women patients ($N = 80$) suffering from *head and neck cancers* were selected. Out of them, patients suffering from squamous cell carcinomas of the oral cavity, hypopharynx, oropharynx, and larynx, who had undergone surgery as their primary treatment, were taken as sample for the study. The inclusion criteria included post-surgery patients, interviewed within 15 days of the surgery, with advanced

stage cancer (third and fourth stage) to better understand the experiences of those people in the advanced stages of the illness, immediately after post operation. Further fresh cases (no relapse) between the age group of 30 years to 60 years (working age group), with a minimum 2 months' history of being symptomatic were interviewed for the study. In a span of 3 months of data collection, a sample of 80 patients using random sampling procedure was selected from the in-patient wards of the Head and Neck Oncology sections of the hospital.

For the purpose of the study, an interview schedule was constructed to understand the impact of cancer on patients and to explore their coping mechanisms.

The study reveals that the various strategies used by the patients to cope with the disease were denying the presence of the illness, inculcating a positive attitude, prayer and meditation, taking appropriate medicines and treatment for illness, exercise/other activities to divert attention, and keeping faith in doctor and his treatment. Patients' with lower levels of education (primary) denied the presence of illness or reported having feelings of impending doom after the diagnosis of the illness. Patients in the lower-income category resorted to prayer and meditation whereas those in the higher income used the strategy of taking medication/treatment in dealing with the side effect (Jagannathan, & Juvva, 2009).

Rituals such as *puja* (worship and devotional offerings to god) and religious fasting strengthen an individual's relationship with God, it is also believe it can clean one's spirit, and serve as a more relevant coping mechanism (Navsari, & Petersen, 2007). Cancer is caused by psychological factors and can be controlled or cured by strategies such as positive thinking, visualization, meditation or simply the desire to heal (Edelman, 2005).

Two hundred and fifty women with breast cancer, who were told that their cancer had recurred or progressed within the previous month, were asked to participate in this study.

Women were recruited from four large oncology centers and several satellite oncology clinics in the Midwest. At the time of the baseline assessment, 3 women (1.5%) had Stage 1 disease; 8 (4%) had Stage 2 disease; 23 (11.5%) had Stage 3 disease; and 166 (83%) had Stage 4 disease. Only women with advanced disease (Stages 3 and 4) were included in these analyses resulting in a final sample size of 189 dyads. The average age of patients was 54 years.

Coping strategies were measured with the Brief Coping, a shorter version of the original 60-item COPE scale. Quality of life was measured with the Medical Outcomes Study-SF-36 which consists of 36 items that comprise eight health concepts: physical functioning, role limitations due to physical or emotional concerns, bodily pain, vitality, social functioning, mental health and general health.

It was found that acceptance was the coping strategy used most often over time, whereas behavioral disengagement was used least. Coping strategies used by patients and caregivers were similar and included active strategies such as direct action, seeking social support, and seeking information. *It was also found that although active coping strategies were beneficial to adaptation in the hospitalization stage, avoidant coping strategies such as denial were positively associated with adaptation in the chemotherapy stage. These results suggest that avoidant coping strategies may help cancer patients minimize the psychological distress caused by the side effects of their treatment (Kershaw, Northouse, Kritpracha, Schafenacker, & Mood, 2004).*

In private and public hospitals in New York, 132 patients, ages 33-83, with advanced breast, ovarian, lung, colorectal, or other cancers were studied. It was found that the coping strategies distancing, cognitive escape-avoidance, and behavioral escape-avoidance were related to psychological distress. Distancing was negatively related ($r = -0.25$) and cognitive

escape-avoidance ($r = 0.38$) and behavioral escape-avoidance ($r = 0.38$) were positively related to psychological distress ($p < 0.01$). Collectively, the coping strategies explained 36% of the variance of psychological distress. *The most important coping mechanism contributing to overall psychological distress was behavioral escape-avoidance, followed by cognitive escape-avoidance* (Zabalegui A., 1999).

In another study of two hundred ninety two cancer outpatients, it was observed that the following kinds of coping strategies such as music, breathing exercises, meditation, prayer, muscle relaxation, visualization/imagery, hypnosis/self-hypnosis and four coping strategies offered through supportive care services such as individual counseling, family counseling, support groups, religious support were used. Of all the coping strategies presented, prayer was used by the highest number ($n = 186$) of participants (64%). Music was the next most commonly used strategy, used by 43% ($n = 124$) of participants, and all other strategies were used by less than 30% of participants (Zaza, Sellick, & Hillier, 2005).

In the study of young adults aged sixteen to twenty years of age the kinds of coping strategies used were *emotion-focused, appraisal-focused and problem-focused coping strategies*. The major coping strategies were social support, belief in recovery and getting back to normal life as soon as possible. The family was the most important source of emotional support. Also, gaining knowledge about cancer and its treatment was a good coping strategy. Moreover, a positive life attitude, belief in one's own resources, belief in God, earlier life experiences and willingness to fight against the disease were resources for coping with cancer (Kyngas, et al., 2001).

Participants of breast and prostate cancer patients who had undergone surgery for Stage I or II cancer between 1992 and 1999 participated in a study. Cancer staging was determined through pathology post-surgery rather than clinical assessment. Participants were at least one year post-surgery, free of cancer recurrence, and were receiving continuing care at the University of Iowa Hospital and Clinics. Two hundred and seventy prostate cancer patients and three hundred and thirty one breast cancer patients met these criteria and were mailed a packet including enrollment materials, questionnaires, and a postage-paid return envelope in 2000 and 2001. Of the six hundred and one potential participants, one hundred and ninety five breast cancer patients (59%) and one hundred and twenty six prostate cancer patients (47%) provided consent, returned the packet and granted permission to access their medical records.

The Center for Epidemiological Studies Depression Scale (CES-D) was used to measure depression, to measure Quality of life, The Functional Assessment of Cancer Therapy (FACT) scale. Participants were asked to indicate whether or not they were presently involved in a cancer support group or receiving counseling/ psychotherapy to address cancer concerns. A cancer discussion scale was used to know the frequency of cancer.

The Coping strategies such as discussion of cancer or emotional expression can be adaptive only to the extent that the social network is receptive and that discussions or expressions promote additional, adaptive coping efforts. Studies found that cancer discussion may be an indication of higher distress or may hypothetically serve to exacerbate mood disturbance. Furthermore, the nature of discussions and contextual factors may determine whether or not cancer discussion is helpful (Ullrich, Rothrock, Lutgendorf, Jochimsen, & Williams, 2008).

Hundred women who had been diagnosed with primary breast cancer at one of two time points in their medical treatment were studied. This study examined distress, coping, and group support among a sample of rural women who had been recently diagnosed with breast cancer. Women completed a battery of demographic and psychosocial measures prior to being randomized into a psycho educational intervention study and then again 3 months later at a follow-up assessment. The focus of this article is on the women's self-reported psychosocial status at baseline.

Many of the women experienced considerable traumatic stress regarding their breast cancer. The average woman considered her diagnosis of breast cancer to be among the four most stressful life events that she had ever experienced. Also, women on average reported a high level of helplessness/hopelessness in coping with their cancer. On average, women felt that they “often” (but not “very often”) received instrumental assistance, emotional support, and informational support. Women varied considerably in which kind of social group provided them with the most support, with as many reporting that they found the greatest support in spiritual/church groups or within their family units as with breast or general cancer groups. (Koopman, et al., 2001).

2.3 Social Support

Social support refers to a wide variety of phenomenon that characterizes the social environment, or the people who surround individuals in their network. Social support is a broad term, which includes the supportive ways that different people behave in the social environment. The source of support may influence which kind of support is effective. *There is some evidence that among the three different types of support (Informational, emotional and*

Instrumental), *emotional support* shows the strongest relation to quality of life. Emotional support is helpful no matter who the source is. Emotional support is helpful if it comes from family and friends or if it comes from healthcare professionals, such as physicians and nurses. Informational support, by contrast, is not perceived as helpful from all sources. People want informational support from the experts, i.e. from nurses and physicians. People are not always fond of informational support provided by family and friends. This may be viewed as unwanted advice. It is not clear if the source of support influences whether instrumental support is perceived as helpful.

The kind of support needed depends on the nature of the stressor. For patients, the only type of support related to reduce distress six months later was informational support. For spouses, the only type of support related to reduce distress was instrumental support. The patients, who are recently discharged from the hospital, would probably need *informational support*. They would need information on how to make lifestyle changes and how to prevent the disease. On the other hand spouses would probably need *instrumental support* to assist them with the household activities. The severity of the stressor also might indicate what type of support is going to be most strongly related to quality of life. It has been argued that if the stressor is controllable, informational support may be the most helpful kind of support since people can provide information about how to actually alter the stressor. If the stressor is uncontrollable, *emotional support* may be most beneficial. The timing of the stressor may influence the support needed. Support given by family or partner has been the best type of support for somatic illness and for the betterment of quality of life in cancer patients. Some recent studies have suggested that support given by family or friends enhances optimism or reduce hopelessness (Helgeson, 2003).

Hundred cancer patients were studied utilizing the Loneliness Questionnaire, the Multidimensional Scale of Perceived Social Support (MPSS), and the Sense of Coherence (SOC) questionnaires. When the ability to cope with the disease decreases, the quality of cancer patients' social interactions also decreases (Cohen 1985 in Rokach, 2007). It has been argued that social support promotes mental and physical well-being, especially in the face of stressful experience (Jacobson, 1987). It is generally accepted that supportive relationships are a resource for an individual facing stressful life circumstances. Support from family and friends seems to facilitate one's ability to cope with stressful and often non-modifiable life circumstances, yet for many, supportive relationships are not available at the time they are most needed (Lin & Light 1985). It seems that the cultural issues and the way we provide information for cancer patients have an important role in their improved or decreased psychological status (<http://www.biomedcentral.com/1471-230X/7/28>).

According to Wortman and Lehman (1985), when people have the opportunity to openly express their feelings and contact with others it was considered helpful for chronic patients. A study carried out in Canada reported on the content analysis of eighty seven interviews with women who had undergone a modified radical mastectomy six to twenty six months earlier. The most common concerns reported by this group were the inability to engage in vigorous physical activity, the fear that the cancer would return, and worry regarding the quality of care received. About ten *per cent* reported problems resulting from the stigmatizing effect of cancer. Due to these factor women cannot interact with the society and cannot receive the social support they need. It is also said that physical health and social support link with each other. In a study of eighty six women with metastatic breast cancer, the women's activity level and perception of family support was related to their social

functioning. If the individual's opportunities to interact are reduced due to energy loss, her ability to receive social support is reduced as well. Women who were able to visit and be visited, carry out simple errands, and go shopping had opportunities to interact with others and receive social support and have better mental health (Bloom and Spiegel 1984).

An association between social support and immunity was studied since the immune system is responsible for the body's defense against infectious and malignant (cancerous) diseases. In general, the available studies suggest that social support is related to a stronger immune response (Uchino, Uno, Holt-Lunstad, 1999). One large prospective study (Reynolds & Kaplan, 1990 in Sarah E., 2006) found inadequate social support to be associated with increased risk of cancer diagnosis and mortality among women only, while inadequate social support was associated with shorter survival among male cancer patients. In contrast, three large prospective studies (Joffres, Reed, & Nomura, 1985 in Edelman, 2006) and one large limited prospective study failed to find evidence for a relationship between social support and cancer diagnosis (Edwards et al., 1990 in Edelman, 2006).

Two thousand eight hundred and thirty five women, who were diagnosed with stages one to four breast cancer were studied. The study population consisted of women aged 46–71 years in 1992 from the Nurses' Health Study who responded to a health-related quality-of-life assessment in 1992 or 1996. Mental Health Index was used to study depression. Women were found that who were socially isolated before diagnosis had a subsequent sixty six percent increased risk of all-cause mortality and a two-fold increased risk of breast cancer mortality compared with women who were socially integrated. Women without close relatives, friends, or living children had elevated risks of breast cancer mortality and of all-cause mortality compared with those with the most social ties. Neither participation in religious or community

activities nor having a confidante was related to outcomes. Women with depressive symptoms had less healthy lifestyle behaviors than those without; they were slightly more likely to be overweight, were more likely to smoke, engaged in lower levels of physical activity, had a higher energy intake, and ate more red and processed meat. (Koopman, et al., 2006).

One hundred forty two cancer support group attenders and ninety two nonattenders at British, Colombia and Canada, were studied using *Perceptions of Support Survey–Patient Version*, the PSS-P was developed for the unique purposes of the present study: namely, to assess social support. From the study it was found that attenders and nonattenders alike cited their spouse or partner far more often than other sources as being most helpful in providing emotional and instrmental support. However, differences emerged regarding informational support. For this support, attenders were significantly more likely to cite fellow patients as being most helpful and were significantly less likely to cite medical staff than were nonattenders. Nonattenders cited medical staff most often in this category among patients with prostate cancer (Poole, 2001).

In the study of 342 cancer patients it was found that a larger social support network was associated with less severe depression for female patients and for younger patients but not for male patients or older patients. For the entire sample, greater perceived adequacy of support and more satisfaction with family functioning were related to less severe depression (Hann, et al., 2002).

Emotional support is important for most cancer patients during their illness and can be gained from different people and services. A total of four hundred and thirty four cancer patients were studied. The aim of the study was to find out who patients would use as providers of emotional support if all sources of emotional support were freely available, and

to rate their satisfaction with the support systems used already. The questionnaire also covered patients' views on the value of support groups and information sources as ways of gaining emotional support. Information sources included pamphlets and telephone counseling services. Inclusion criteria were a diagnosis of cancer for at least three months, awareness of the diagnosis and ability to understand and read English.

The results revealed that the three most important sources of emotional support were senior registrars (73%) and family (73%), followed by consultants (63%). Patients would prefer doctor- and nurse-led support groups to patient only-led groups (26% vs 12%). A total of fifty two percent of patients would also use friends for emotional support and fifty percent would use the ward sister. There was clearly a high level of satisfaction for the three most important sources, family, senior registrar and consultant, around eighty percent appearing satisfied with the support received. Satisfaction was lower with the more junior staff; fifty nine percent had used house officers and, of those, about half would use them again. Pamphlets, such as the BACUP booklets, proved the most important of the informational sources sought (50%). A total of eighty six percent of patients were satisfied or very satisfied with the emotional support received. Patients who expressed dissatisfaction with their emotional support were significantly more likely to be anxious and depressed ($P < 0.001$). *Patients who used information sources were more likely to have a higher locus of control over the course of their disease.* Patients rated emotional support from senior doctors at least as highly as that from their family, and more important than any other source. It is the senior doctors who are perceived as having the most information and who make the decisions, thereby having most control over patients' well-being. Patients' satisfaction with the emotional support received (Slevin, et al., 1996).

Patients with early-stage breast cancer at an outpatient breast clinic of a university hospital were recruited and requested to participate in a questionnaire survey. Eligibility criteria included the following: the patient (1) been definitively diagnosed with primary breast cancer by histopathology, (2) been diagnosed as stage I or II, (3) received surgical treatment for breast cancer, (4) was 20 years or older, (5) did not have any mental disorder such as dementia, delirium or schizophrenia, (6) had the ability to answer a self-administered questionnaire and (7) provided oral and written consent. The purposes of this study were to examine the structure of support which the patients assessed as not supportive (even though they perceived it to stem from the supportive intent of the support provider) and to identify the effects of negative support on patients' psychological adjustment.

Overprotection and protective buffering, classified as negative support, were reported to negatively affect patient psychological distress and spousal satisfaction. When significant others avoid patients, such avoidance has been associated with negative feelings. Excessive engagement represents three subordinate factors: overprotection, encouragement and management. The underestimation factor reflects situations where the significant others underestimate the effects of the disease on the patients. Although positive interactions between significant others and cancer patients are helpful because they encourage patients to actively deal with the disease, there are instances where being positive or imposing can lead to a suppression of negative feelings in patients. (Shiozaki, Hirai, Koyama, Inui, Yoshida, & Tokoro, 2011)

Literature was reviewed concerning psychosocial aspects of prostate and breast cancer. Experiences of psycho-oncologist and a general internist practicing in sex and gender medicine as well as discussions and scientific exchange with colleagues and nurses in these

specialties were interviewed. From the interviewed it shows that partners are the most important emotional and social support for cancer patients. To support and care for others is a core feature of female but not male gender identity. A recent study found that female partners possessed a more accurate understanding of their husband's experience with prostate cancer than male partners had of women's breast cancer experience. In the few studies comparing psychological distress of patients with prostate cancer and their wives, the wives were more distressed than the husbands (Kiss, & Meryn, 2001).

In the longitudinal study consisting of three rounds of annual surveys between 2006 and 2009 among a cohort of patients diagnosed with breast, prostate, or colorectal cancers in Pennsylvania, two thousand and thirteen female and male cancer patients were studied.

The most common type of exposure to emotional support among cancer survivors came from discussions with their physicians (23.8%), followed by coming across emotional support from lay interpersonal sources when they were not actively looking for it (16.1%). Seeking from interpersonal sources (15.5%) and scanning from media sources (13.2%) occurred less frequently. Seeking from media sources occurred least frequently (9.5%). The prevalence of physician discussions about emotional support appeared to be significantly higher than seeking and scanning from interpersonal and media sources. Physician discussions led to an increased awareness of psychological symptoms among cancer survivors at a lower threshold or degree of anxiety/depression. Such heightened awareness may have enabled survivors to seek help earlier, thus reducing the likelihood that symptoms interfered with daily activities over time. Nevertheless, increased awareness of these symptoms could also be reasonably interpreted as a negative outcome, especially for patients who did not

receive or respond to subsequent psychological care. (Mello, Tan, Armstrong, Schwartz, & Hornik, 2012).

The sample was recruited from the Helsinki University Central Hospital in 1997-2000. Baseline questionnaires were distributed to patients during their hospital visit at the time of diagnosis. In the study of two hundred and fifty five cancer patients, eighty eight (56.8%) were women and sixty seven (43.2%) men. The aim of this study was to investigate the role of dispositional optimism, hopelessness and partner support as predictors of Health Related Quality Of Life (HRQL) in cancer patients. Dispositional optimism was measured with the Finnish adaptation of the revised Life Orientation Test (LOT-R), Hopelessness was measured with a two-item Hopelessness Scale, and partner support was assessed with a 12-item Family Support (FS) scale developed by Julkunen and Greenglass. Health-Related Quality of Life (HRQL) was measured with the Finnish version of the RAND 36-Item Health Survey at the follow-up, about eight months post diagnosis.

Social support has been suggested to be more important for women than for men. Partner support was a stronger predictor of HRQL in women than in men. The results of this study suggest that female cancer patients who perceive high levels of partner support display more optimistic appraisals and have better quality of life (Gustavsson-Lilius, Julkunen, Hietanen, 2007).

2.4 Gender

The social adjustment and psychological distress of forty nine patients (34 women and 15 men) undergoing active medical care (chemotherapy and radiation) was assessed. Socio-demographic and medical parameters were also examined to account for differences in

adjustment. Three questionnaires were used: A personal information questionnaire; a Psychosocial Adjustment to Illness Scale (PAIS-SR, 1983); and a psychological distress one (Derogatis & Spencer, 1982). The purpose of this article is to examine gender differences in social and psychological adjustment among cancer patients.

Both men and women experienced some kind of psychological distress in all dimensions. Generally, men seem to undergo more difficulties than women do in social adjustment and psychological distress, particularly in dealing with fear, paranoia, anxiety, hostility and depression about the disease and medical treatments. Men who deal with cancer, have difficulties in adjustment to dependency and loss of control, emotional communication with others and accepting psychological advise (Peleg-Oren, Sherer, & Soskolne, 2003).

One hundred and twenty eight male and female cancer patients diagnosed with one hundred thirty eight primary cancers ranging in age from 23 to 79 years of age were studied. From the results, Women reported better psychosocial adjustment to their cancer due to their greater use of family support and emotion-focused coping strategies. In contrast, men were more likely to use the support of health professionals to adjust to their illness instead of family members, and to use avoidance techniques such as denial. Instead of discussing their emotions openly, men tend to minimize or deny them. *Men tend to focus on information and women on emotional support* (Manii, & Darcy, 2008).

Four hundred and twenty rectal cancer patients were interviewed, half with men and half with women to see whether they face stigmatization or not. The study was designed to yield-information on the following groups of topics: quality of life; physical, emotional, and social health - as perceived by the patient and assessed by both the general practitioner and the health visitor, supplemented by the Leeds scales for the self-assessment of anxiety and

depression. The scale was supported by additional questions about perceptions of changes since surgery- in self-esteem, in physical appearance when fully dressed, and in married life. Responses were cross classified by age, sex, presence or absence of a colostomy, and years since surgery, and tested for statistical significance using the chi-squared test.

On the basis of the self-rating, half the patients were classified as feeling some degree of stigmatization. Among men, this perception declined with advancing age, but among women few differences were observed among different age groups. Feelings of stigma were significantly more common among colostomy patients but were not related to years since surgery. Overall sixteen percent of patients felt severely stigmatised, the proportion being higher in younger than in older patients younger patients, particularly men, felt more stigmatized than older patients, according to the stigma self-rating and the indicator of quality of married life. Women of all ages were more likely to feel the stigma of a noticeably changed appearance (MacDonald, & Anderson, 1984).

In a longitudinal study of eight thousand and fifty four cancer patients, the study reveals that cancer has more adverse psychological implications for men than women. Higher levels of depression are reduced after adjustment for adherence to masculinity ideals of strength, independence and invincibility. Cancer poses a threat to the masculine identity because it entails lack of control over one's body and other consequences incompatible with traditional masculinity (Pudrovska, 2000).

The lack of information on the effect of quality of life of different treatments for prostate cancer makes it more difficult for men to decide about treatment. During stressful times most women with breast cancer want to talk about it and share their feelings with others—most men with prostate cancer would rather not. Most men with prostate cancer

avoided disclosure about their illness where possible and placed great importance on sustaining a normal life. Factors related to limiting disclosure included men's low perceived need for support, fear of stigmatization, the need to minimize the threat of illness to aid coping, practical necessities in the workplace, and the desire to avoid burdening others (Kiss, & Meryn, 2001).

Breast and prostate cancer patients who had undergone surgery for Stage I or II cancer between 1992 and 1999 were studied. Cancer staging was determined through pathology post-surgery rather than clinical assessment. Participants were at least one year post-surgery, free of cancer recurrence, and were receiving continuing care at the University of Iowa Hospital and Clinics. Two hundred and seventy prostate cancer patients and three hundred and thirty one breast cancer patients met these criteria and were mailed a packet including enrollment materials, questionnaires, and a postage-paid return envelope in 2000 and 2001. Of the six hundred and one potential participants, one hundred and ninety five breast cancer patients (59%) and one hundred and twenty six prostate cancer patients (47%) provided consent, returned the packet and granted permission to access their medical records.

The Center for Epidemiological Studies Depression Scale (CES-D) was used to measure depression, to measure Quality of life, The Functional Assessment of Cancer Therapy (FACT) scale. Participants were asked to indicate whether or not they were presently involved in a cancer support group or receiving counseling/ psychotherapy to address cancer concerns. A cancer discussion scale was used to know the frequency of cancer.

Women who are troubled about cancer may talk about their concerns more because they are more willing and able to access social supports than are men. Men may be less likely to express emotions or self-disclose when coping with difficulties. Furthermore, female social

networks may offer more diverse forms of emotional social support. It may also be that men are treated differently than women when they are distressed. As compared to women, men may be less likely to receive emotional support, and more likely to receive unsupportive responses from others when they discuss problems. Amount of cancer discussion were associated with lower depression scores and greater well-being. Mood disturbance was positively related to perceived social support among women but not men (Ullrich, Rothrock, Lutgendorf, Jochimsen, & Williams, 2008).

In the study of one hundred eighty three men who ranged in age from 31 to 94 years. Gender role conflict refers to the state of internal conflict that arises from the negative consequences associated with the socialized masculine gender role and was measured using the Gender Role Conflict Scale. Brief Coping Scale was used to measure the coping strategy; Cancer-specific intrusive thoughts were measured with the impact of events scale –Intrusion subscale. Centre for Epidemiologic Studies Depression Scale was used to measure depression. The social constraints scale, developed by Lepore and Ituarte (1999) was used to assess participants' perceived inadequacy of social support.

From the results older men utilized less emotional expression and processing, and reported less cancer-related intrusions, depressive symptoms and negative effect. Age was negatively related to emotional expression, emotional processing, cancer-related intrusions, depressive symptoms (Hoyt, 2009).

Patients who were recruited from twelve hospitals in the northern part of The Netherlands with the assistance of the Dutch Cancer Registration of the Comprehensive Cancer Centre North Netherlands were studied. Patients were selected on the basis of site and stage of disease. The criteria for inclusion in the study were as follows: (1) age 18 years or

older, (2) newly diagnosed with cancer, (3) no distant metastases, (4) a life expectancy of at least one year, and (5) informed about the diagnosis. Patients who agreed to participate were interviewed and filled out a questionnaire at three points: 3 months, 9 months, and 15 months after diagnosis.

The Center for Epidemiologic Studies-Depression (CES-D) scale which is a 20-item self-report instrument of depression was used and for socio demographic factors (gender, age, education, and marital status) it was collected in a semi structured interview. Patients reported significantly more depressive symptoms at the initial stage and showed a significant decrease in the year after diagnosis.

Analyses of variance (ANOVAs) was used to examine the relationships between socio-demographic factors and the presence of depressive symptoms in the patient and the reference group separately. Gender was significantly related to depressive symptoms in both groups, indicating that women reported significantly more depressive symptoms than men did. In general, women, people between the ages of 20 and 50, people with less education, and people who are separated, divorced, or widowed are more prone to develop depressive symptoms than are their counterparts. Furthermore, younger patients seemed to experience more depressive symptoms and psychological problems than older patients did.

From the results we can know that cancer patients reported significantly more depressive symptoms at 3 months after diagnosis and began to decrease, but in about fifteen months there is an increase in depression again. Medical factors were not independently related to the presence of expressive symptoms when examined simultaneously with the socio-demographic factors. Fourth, we found that patients with more education and those with

early stages of cancer reported a greater decrease in depressive symptoms over time (Schroever, Ranchor, & Sanderman, 2003).

A hospital-based study of oral cancer was conducted between 1981 and 1990. Case patients were men and women between the ages of 21 and 80 years with newly diagnosed histologically confirmed cancer of the oral cavity and pharynx

The majority of studies have reported considerably higher risks of lung cancer in male smokers compared with female smokers. Cigarette smoking is the predominant cause of cancer of the lung, oral cavity, and pharynx. The risk of lung cancer is higher in women than in men per cumulative dose of cigarette smoking and there is limited evidence that women have a higher susceptibility to tobacco smoke carcinogens than men. There are gender differences in the smoking-related risks for oral cancer and in the risk for nonsmoking-related oral cancer as well (Muscat, Richie, Thompson, and Wynder, 1996).

There is some evidence that being the patient or the caregiver makes more difference for men than for women. In total, 173 couples facing various forms of cancer (two samples) and a control group of 80 couples completed the CES-D and Cantril's Ladder. Analyses of variance revealed that both female patients and female partners of patients perceived more psychological distress and a lower quality of life than women in healthy couples. In contrast, role did have an effect on men. Specifically, male patients scored as high on psychological distress and as low on quality of life as female patients and female partners, but psychological distress and quality of life did not differ between male partners of patients and their healthy controls. However, this effect was found in only one patient sample. The finding that female partners perceived more psychological distress and a lower quality of life than male partners

could not be accounted for by differences in the physical condition of the patient or the partner (Hagedoorn, Buunk, Kuijer, Wobbes, & Sanderman, 2000).

3.1 Profile of the Study Area

The study restricted itself to respondents registered in the Mizoram State Cancer Institute because majority of the patients visit this centre for treatment. Mizoram Cancer State Institute was established in February 4th 1998 as a separate hospital following its separation from Civil Hospital Aizawl. First it was named Cobalt Therapy Unit, in October 2010 it was changed to Regional Cancer Centre and from 2011 it was again changed to Mizoram Cancer State Institute. The pioneer doctors are Dr. H.M. Pathak, Dr. P.C.Lalramenga, Dr. R.Zodingliana, Dr. Zoramthanga. This institute has been controlled by Baba Atomic Research Centre, Mumbai and all the funds come from this centre.

The Institute is situated on a hill of Zemabawk community, Aizawl. At present there are eight medical consultants, twelve staff nurses and twenty grade IV workers. The institute is divided into two blocks. In the first block Services of chemotherapy and radiation therapy are available and in the second block chemotherapy alone is available. In the first block there are twenty beds and there can be no in-door patients whereas in the second block there are ten indoor patient beds and ten outdoor patient beds. The main treatments available are chemotherapy and radiotherapy, while surgery can also be done here. They are also referred to Civil Hospital, other hospitals and outside the state as well. But the referred patients must be through the medical board. There is one Cancer guest centre in which there are 15 beds, which is very important for patients from outside Aizawl city. Here they can stay for the night in case they don't have a place nearby to stay. Caregivers and guests pay a nominal amount of Rs 30/- per head.

The treatment here is very good however it ought to be integrated so that the patients can have a holistic development. They don't receive adequate counseling which is required.

Family caregivers too do not receive any counseling support and patients have no access to day care or rehabilitation facilities either.

3.2 Results of Pilot Study

For this study a pilot study was first conducted among key informants at various hospitals like Mizoram Cancer State Institute, Grace Hospital, Civil Hospital and Nazareth Hospital Aizawl to ensure what kind of mental health problems cancer patients experience, how they cope and how and from whom they receive social support.

From the pilot study it was found that almost all the cancer patients were registered at Mizoram Cancer State Institute and therefore this institute was selected as a nodal agency to collect the data. From the pilot study it was also learnt that cancer patients have some psychological problems like anxiety and depression but that they are often in *denial* and/or feel reluctant and do not know how to deal with it. The pilot study also revealed that the social support is generally perceived as being very good but Mizos often do not know how to react, sometimes are over protective and show too much of care which , in itself, leads to negative effects. The coping skill used by Mizo Cancer patients, according to the Key informants was mostly praying. Informants also opined that as the *Mizo* are Christian, they find contentment in God, and believed that the disease suffered is for their own good.

3.3 Methodology

This study is a cross -sectional in nature. The study employs a descriptive design. Both Quantitative Data and Qualitative data were collected. A semi-structured Interview Schedule was constructed and administered to collect the quantitative data. Prior to conducting the

interview, the purpose of the study was explained and informed consent was taken from each and every one of the patients to be interviewed. A total number of fifty male and fifty female cancer patients who were diagnosed with cancer for a one year period from 1st July 2011-31st July 2012. The patients were above the age of eighteen years, literate and resided in Aizawl district. Qualitative data was collected using Focus Group Discussions and Key informant Interviews.

3.3.1 Source of Data

Primary data was collected from the patients themselves through semi-structured interview schedule; focus group discussion was also conducted with the patients themselves and the nurses. Key informant interviews were conducted with three Cancer specialists namely Dr. Jerry Lalrinsanga Pautu, Dr B. Zothankima and Dr. Lalhlupuii.

Secondary data on incidence and prevalence of cancer as well as the psychosocial aspects was accessed through journals, books, and government documents.

3.3.2 Sampling

Multi- stage sampling was used. In *the first stage* Aizawl district was selected purposively due to the fact that highest incidence of cancer is reported here. (Population Based Cancer Registry)

In *the second stage* using purposive sampling the Mizoram Cancer State Institute which registers most of the cases for care and treatment was selected.

In *the third stage* a list of all patients registered in the Mizoram Cancer State Institute (admitted in the period 1st July 2011-31st July 2012 and with at least six months after care and treatment), was obtained.

In *the fourth stage*, proportionate sampling was used to draw male and female patients with the following inclusion criteria.

1. Diagnosis of any type of cancer.
2. All stages of Cancer.
3. Male and female patients who were diagnosed with cancer in a one year period (1st July 2011-31st July 2012) and are willing to give informed consent.
4. Literate patients above eighteen years.
5. Residence in Aizawl city.

3.3.3 Tools Of Data Collection

1. Semi structured interview schedule was used to collect primary data. The schedule contains different sections which sought information on the socio-demographic particulars, family profile, details about cancer (location and duration of the cancer) and other information. Information pertaining to patterns of tobacco and substances used was also asked. The availability and satisfaction of social support were also asked to know the patterns of support received.

2. Scale constructed by Susan Folkman and Richard S. Lazarus, 1985 (Ways Of Coping) was used to assess Coping Patterns.

3. General Health Questionnaire (GHQ) 12 point scale was utilized to assess mental health.

4. Focus Group Discussion among male and female cancer patients was conducted to explore data from patients on fears, anxieties and depression. Further information related to social support and coping strategies was also collected.
5. Three Key Informant Interviews were conducted with oncologists to augment data on mental health, coping and social support.
6. Participatory Rural Appraisal techniques were used to collect data on services and opportunities of persons living with cancer.

3.3.4 Data Processing and Analysis

The data collected through field survey was processed through Microsoft excel and with the help of computer software SPSS package. Qualitative data was processed with use of transcripts and has been presented in the form of reports.

4. Introduction

Results from the study are presented within this chapter and the findings are interpreted in relation to relevant and available literature.

In any study of this nature socio-demographic particulars are very important to understand the population being studied. It is with this intention that the data was collected on socio demographic particulars.

Table 1: Demographic Profile

SI.No		Gender		Total N = 100
		Male n = 50	Female n = 50	
I	Age Group (in years)			
	Young (18-35)	4 (8.0)	3 (6.0)	7 (7.0)
	Middle (36 - 60)	29 (58.0)	36 (72.0)	65 (65.0)
	Old (60 and above)	17 (34.0)	11 (22.0)	28 (28.0)
	Mean Age	52.46	51.62	52.04
	SD	14.125	14.125	13.048
II	Marital Status			
	Unmarried	1 (2.0)	5 (10.0)	6 (6.0)
	Married	31 (62.0)	24 (48.0)	55 (55.0)
	Divorced	3 (6.0)	4 (8.0)	7 (7.0)
	Widowed	6 (12.0)	11 (22.0)	17 (17.0)
	Remarried	8 (16.0)	7 (14.0)	15 (15.0)
III	Education			
	Below	34 (68.0)	32 (64.0)	66 (66.0)
	Class X	5 (10.0)	12 (24.0)	17 (17.0)
	Class XII	3 (6.0)	3 (6.0)	6 (6.0)
	Graduate	8 (16.0)	2 (4.0)	10 (10.0)
	Post Graduate	0 0.0	1 (2.0)	1 (1.0)
IV	Religion			
	Christian	48 (96.0)	50 (100.0)	98 (98.0)
	Hindu	0 (0.0)	2 (4.0)	2 (2.0)

Source: Computed

Figures in parentheses are percentages

Cntd.

SI.No		Gender		Total N = 100
		Male n = 50	Female n = 50	
V	Denomination			
	Christian	28 (56.0)	24 (48.0)	52 (52.0)
	UPC(NE)	4 (8.0)	4 (8.0)	8 (8.0)
	UPC(MIZ)	3 (6.0)	4 (8.0)	7 (7.0)
	Adventist	1 (2.0)	2 (4.0)	3 (3.0)
	Salvation	2 (4.0)	5 (10.0)	7 (7.0)
	Catholic	2 (4.0)	3 (6.0)	5 (5.0)
	Baptist	6 (12.0)	6 (12.0)	12 (12.0)
	Others	4 (8.0)	2 (4.0)	6 (6.0)
VI	Area Of Residence			
	Rural	25 (50.0)	20 (40.0)	45 (45.0)
	Urban	25 (50.0)	30 (60.0)	55 (55.0)

Source: Computed Figures in parentheses are percentages

1. Age: Age is an important variable in any research. The age group (in years) was classified into Young (18-35), Middle (36-59) and Old (60 and above). From the findings the respondents between 36-60 Years (middle- age group) constituted the highest number among both men and women consisting of almost two-thirds (65%) of the respondents. The respondents in the category ‘Old’ constituted second highest consisting of more than a quarter of the respondents. Among women this was more than a fifth of the respondents (22%) while among men it constituted more than a third(34%).The ‘young’ were very few across genders . *The mean age of men was 52.96 years and that of women was 51.62 years making it comparable.* The standard deviation of men and women respondents was 14.125 revealing that the age range of men varies from 38 years to 66 years while the women fell in an age range between 37 years to 65 years. To quote a study at The Ottawa Hospital Cancer

Centre, participants ranged in age from 23 to 79 years with a mean age of 64.04 ($SD = 10.46$). Sixty-nine percent ($n = 88$) were retired. Of those who were not retired, only 21.9% reported that they continued to work through their cancer diagnosis (Diane M. & Darcy A., 2008).

2. Marital Status: More than half of the respondents (55%) were married. More men respondents 31(62%) and 24 women respondents (48%) were married. Of the total, more than a sixth (15%) were remarried, 6 percent were unmarried, more than a sixth (17%) were widowed and 7 percent were divorced. Marriage is an important indicator for social support and hence these findings are very significant. Divorced women were slightly more as compared to divorced men. The Ottawa Study reported that most (78.1%) were married or living with a partner (Diane M. & Darcy A., 2008).

3. Educational Status: Educational levels achieved are likely to signify standard of living and are also important to understand whether or not a person is literate and can have access to information. Therefore information on the educational status of the respondents was sought pertaining to highest class achieved (below class X, class X, class XII, graduate, post graduate and other qualification). Two-thirds of the respondents (66%) have studied below class X, More than a sixth of the respondents (17%) of both male and female respondents studied up to class X, Class 12, graduate and only one respondent studied up to post graduate. In the Ottawa Study most (90.6%) had achieved at least a high school diploma, and many (46.1%) reported having some college, university, or post graduate level training. (Diane M. & Darcy A., 2008).

4. Religion: Mizos are predominantly Christian. Church and religious activities and church activities occupy their time and energies. Religion is also a main form of coping with stresses of daily living and therefore information on this is considered important. Christians

constituted the highest number (98%) while there was a minority of respondents who were Hindu and were not Mizos but have lived / settled in Mizoram since several years (2%).

5. Denomination: Data on denomination of the respondents reveal that *Presbyterians* constituted more than half the respondents (52%), *Baptist* constituted more than a one-tenth (12 %) *United Pentecostal Church* (North East), *United Pentecostal Church* (Mizoram), *Seventh day Adventist*, *Salvation Army*, *Catholic* and others constituted one-tenth of the population (10%). This finding is comparable to the over-all State break-up of denominations.

6. Area of Residence: Information on *locality* (Rural/Urban) was obtained from respondents and it reveals that less than half (45%) resided in rural areas and more than half (55%) reside in Urban areas. Of the total female respondents, those who reside in urban locality consisted of *sixty percent*. In reference to males respondents were equally distributed across urban and rural areas (50% each).

Table 2: Respondent Status

Sl.No		Gender		Total N =100
		Male n = 50	Female n = 50	
I	Respondent Status			
	Primary Earner	34 (68.0)	12 (24.0)	46 (46.0)
	Secondary Earner	8 (16.0)	23 (46.0)	31 (31.0)
	Dependent	8 (16.0)	15 (30.0)	23 (23.0)
II	Occupation			
	Not Employed	6 (12.0)	10 (20.0)	16 (16.0)
	Self Employed	26 (52.0)	22 (44.0)	48 (48.0)
	Govt. Employed	13 (26.0)	9 (18.0)	22 (22.0)
	Private Employed	2 (4.0)	4 (8.0)	6 (6.0)
	Pensioner	2 (4.0)	5 (10.0)	7 (7.0)
	Others	1 (2.0)	0 0.0	1 (1.0)

Source: Computed

Figures in parentheses are percentages

1. Respondent status: The respondents were asked whether they are *primary earners*, *secondary earners* or *dependents*. Primary earners were the highest in number, they constituted less than a half (46%) of all respondents, Less than a third (31%) were secondary earners and less than a quarter(23%) were dependent upon their spouse or family.

2. Occupation: The occupation was divided into *not employed*, *self employed* (*mistiri*, tailoring, petty business etc) are included. The other categories include *government employed*, *private employed*, *pensioner* and *others*. Self employed constitute less than half (48%) of the respondent in both the sexes, Less than a quarter of the respondents (22%) were government employees. Less than a sixth of the respondents (16%) are not employed. A very small minority (6%) reported that they were privately employed (private shopkeeper, drivers etc). The others (8%) composed of pensioner and other occupation.

Table 3: Marital Status

Sl.No		Gender		Total
		Male	Female	
		n = 50	n = 50	N = 100
I	Age at Marriage (In Years)			
	Adolescent (13-17)	5 (10.0)	9 (18.0)	14 (14.0)
	Early adulthood (18-35)	40 (80.0)	36 (72.0)	76 (76.0)
	Late adulthood (36-59)	4 (8.0)	0 (0.0)	4 (4.0)
	No response	1 (2.0)	5 (10.0)	6 (6.0)
II	No. of children			
	No child	5 (10.0)	8 (16.0)	13 (13.0)
	1	4 (8.0)	1 (2.0)	5 (5.0)
	2 to 3	15 (30.0)	18 (36.0)	33 (33.0)
	4 to 6	24 (48.0)	22 (44.0)	46 (46.0)
	7 Above	1	1	2
III	Age at first Child Birth			
	Adolescent (13-17)	6 (12.0)	6 (12.0)	12 (12.0)
	Early adulthood (18-35)	39 (78.0)	36 (72.0)	75 (75.0)
	No response	5 (10.0)	8 (16.0)	13 (13.0)
IV	Age at last child Birth			
	Adolescent (13-17)	3 (6.0)	1 (2.0)	4 (4.0)
	Early adulthood (18-35)	23 (46.0)	28 (56.0)	51 (51.0)
	Late adulthood (36-59)	19 (38.0)	13 (26.0)	32 (32.0)
	No response	5 (10.0)	8 (16.0)	13 (13.0)
V	Average spacing between children (in years)			
	1	2 (4.0)	6 (12.0)	8 (8.0)
	2	22 (44.0)	25 (50.0)	47 (47.0)
	3	11 (22.0)	7 (14.0)	18 (18.0)
	4	3 (6.0)	1 (2.0)	4 (4.0)
	5	7 (14.0)	3 (6.0)	10 (10.0)

Source: Computed

Figures in parentheses are percentages

1. Age at marriage: Age at Marriage (in years) were classified into *adolescents (13-17)*, *early adulthood (18-35)*, *late adulthood (36-59)* and *old (60 and above)*. Respondents (both men and women) report having got married in early adulthood (76%), less than a sixth (14%) at adolescent ages and the rest (10%) are married at late adulthood or reported not being married. Age at Marriage and reproduction are linked with Some Cancers like Cervical cancer. In the study of five hundred and three women it was sought to estimate the effects of parity, and of age at first marriage, first delivery and last delivery. The highest risk was observed in woman who had undergone several pregnancies early in life (D. J. Jussawalla, 2006).

2. No of children: Less than half of the respondents (46%) have between 4-6 children, one-third of the respondents (33%) are having 2-3 number of children, less than a sixth (13%) are have no child while the rest are having one child or above 7 children respectively.

3. Age at first child: The age at which they had their first child (in years) might be particularly useful in understanding some cancer incidence among women such as cervical cancer, therefore this question was asked. Also men were asked the question regarding their children to try and understand the level of support they enjoy as well as to understand how many people are dependent on them. From the results three-quarters of the patients (75%) reported bearing a first child in their early adult period. Less than a third of the patients (12%) report their first child during their adolescent. Research suggests that men who are sexually promiscuous when they are young lead to prostate cancer often decades later. The research also suggests sex with lots of partners increases the risk of exposure to the human papilloma

virus (HPV) and that such infections may kick-start the chain of genetic mutations that lead to cancer, often decades later. HPV infects many women in their late teens and early 20s and it *leads to cervical cancer*. (Jonathan L. 2004)

4. Age at last child: More than half of the patients (51%) had their last child during their early adulthood; nearly one-third of the patients (32%) had their last child in their late adulthood and the rest (4%) when they were adolescents.

5. Average Spacing: The average spacing between their children is one of the crucial variables. Nearly half of the respondents (47%) are keeping a space of two years between their children. More than a sixth (18%) had three years gap, one-tenth (10%) reported five years gap. Eight *percent* had only a one year gap and the rest four *percent* reported four years gap between their children.

Table 4: Details of Family

Sl.No		Gender		Total N = 100
		Male	Female	
		n = 50	n = 50	
I	Size Of Family			
	1 to 3	11 (22.0)	5 (10.0)	16 (16.0)
	4 to 6	24 (48.0)	25 (50.0)	49 (49.0)
	6 to 9	11 (22.0)	19 (38.0)	30 (30.0)
	10 Above	4 (8.0)	1 (2.0)	5 (5.0)
II	Type Of Family			
	Nuclear	31 (62.0)	29 (58.0)	60 (60.0)
	Joint	17 (34.0)	17 (34.0)	34 (34.0)
	Extended	2 (4.0)	2 (4.0)	4 (4.0)
	Reconstituted	0 0.0	2 (4.0)	2 (2.0)
III	No. of earners in the family			
	1	15 (30.0)	11 (22.0)	26 (26.0)
	2	21 (42.0)	20 (40.0)	41 (41.0)
	3	5 (10.0)	13 (26.0)	18 (18.0)
	4	4 (8.0)	1 (2.0)	5 (5.0)
	5 and Above	5 (10.0)	5 (10.0)	10 (10.0)
IV	Monthly Family Income (In rupees) ₹			
	Below 1000	5 (10.0)	1 (2.0)	6 (6.0)
	1001-3000	1 (2.0)	3 (6.0)	4 (4.0)
	3001-5000	8 (16.0)	5 (10.0)	13 (13.0)
	5001-7000	8 (16.0)	13 (26.0)	21 (21.0)
	7001 Above	28 (56.0)	28 (56.0)	56 (56.0)

Source: Computed

Figures in parentheses are percentages

1. Size of the Family: The size of the family is important to understand the size of their social support as well as perceived burdens if they are earners. Nearly half of the respondents (49%) are from families that are between 4 – 6 members, less than a one third-third (30%) of the respondents is from 6-9 member family. Less than a sixth (16%) and a very less number 5 percent are from families that are 1-3 members' size and above 7 size family respectively.

2. Type of family: Nuclear family constituted the highest constituting nearly two-thirds (60%) of the respondents, joint family comprised more than one-third (34%) of the respondents and extended and reconstituted family comprised of only six percent each.

3. Number of earners in the family: The unavailability of adequate amount of money can create lots of problem for the family. How many earners are there in the family and the amount they earned was assessed. Nearly half of the respondents (41%) have two person earners in the family. More than one-fourth of the respondents (26%) have one person earner in the family. There was less than one-fifth (18%) of three earners family and one-tenth (10%) of the respondents have above five earners in the family. A very small percentage (5%) has four earners in the family.

4. Monthly family income: The income of the family can have a great impact on the ability to cope and with reference to impact on mental health of a person so it was considered necessary to be studied. More than half of the respondents (56%) have income of above ₹ 7001/-. More than one-fifth (21%) of the respondents have income between ₹ 5001-7000/-, more than a tenth (13%) have ₹ 3001- 5000/- income and one-tenth (10%) have income below ₹ 3000/-.

Table 5: History of cancer in the family

Sl.No		Gender		Total N = 100
		Male n = 50	Female n = 50	
I	History Of cancer In the family	20 (40.0)	37 (74.0)	57 (57.0)
II	Suffered by Grandparents	3 (6.0)	7 (14.0)	10 (10.0)
III	Suffered by Parents	9 (18.0)	16 (32.0)	25 (25.0)
IV	Suffered by Siblings	6 (12.0)	13 (26.0)	19 (19.0)
V	Suffered By Spouse	1 (2.0)	9 (18.0)	10 (10.0)
VI	Suffered by Children	1 (2.0)	2 (4.0)	3 (3.0)
VII	Suffered by Uncle/Aunty	5 (10.0)	11 (22.0)	16 (16.0)

Source: Computed Figures in parentheses are percentages

The history of cancer in the family was asked to find out whether respondents reported cancer as hereditary or not. The study reveals that more than half of the patients (57%) have the incidence of cancer in the family. One-tenth (10%) of the patients said cancer was suffered by at least one of their grandparents, A quarter (25%) of the patients said that they had experienced a cancer in either parent. Less than a fifth (19%) report that they had siblings who suffered cancer and a sixth (16%) have an uncle/aunt who had earlier been diagnosed with cancer. One-tenth (10%) reported that their spouse had had cancer while only three percent have children suffering cancer.

The above findings may be corroborating earlier studies .In a study of two hundred and thirty nine women cancer patients, two hundred and one (84%) had affected parents. Seventy (29%) women had paternal inheritance and one hundred sixty nine (71%) women had maternal inheritance. Forty (17%) had 2 affected relatives, eighty nine (38%) had 3-4 affected relatives and one hundred and five (45%) had 5 or more affected relatives (Amy O. G. et al., 2006).

Table 6: Patterns of tobacco used in the family

SI.No	Patterns of Tobacco Use	Gender		Total N = 100
		Male n = 50	Female n = 50	
I	Tobacco use in family	43 (86.0)	46 (92.0)	89 (89.0)
II	Used by Father	14 (28.0)	14 (28.0)	28 (28.0)
III	Used by Mother	13 (26.0)	12 (24.0)	25 (25.0)
IV	Used by Siblings	11 (22.0)	13 (26.0)	24 (24.0)
V	Used by Spouse	24 (48.0)	30 (60.0)	54 (54.0)
VI	Used by Children	23 (46.0)	26 (52.0)	49 (49.0)

Source: Computed

Figures in parentheses are percentages

The pattern of tobacco used in the family reveals indulgence of tobacco in families of respondents. From the results a majority of the families of respondents (89%) were using tobacco. More than half of the respondents (54%) had spouses who were using tobacco. Nearly half of the respondents (49%) report tobacco use among their children. More than a quarter of the respondents said that it was used by their father (28%), mother (25%) and siblings (24%).

Table 7: Details about Cancer

SI.No		Gender		Total N = 100
		Male n = 50	Female n = 50	
I	Location of Cancer			
	Breast	0 0.0	30 (60.0)	30 (30.0)
	Lung	4 (8.0)	0 0.0	4 (4.0)
	Leukemia	2 (4.0)	0 0.0	2 (2.0)
	Colon & Rectal	10 (20.0)	7 (14.0)	17 (17.0)
	Cervix	0 0.0	13 (26.0)	13 (13.0)
	Head and Neck	26 (52.0)	0 0.0	26 (26.0)
	Others	8 (16.0)	0 0.0	8 (8.0)
II	Source of Information on Diagnosis			
	Doctor	44 (88.0)	41 (82.0)	85 (85.0)
	Nurses	1 (2.0)	0 0.0	1 (1.0)
	Relatives	4 (8.0)	8 (16.0)	12 (12.0)
	Friends	1 (2.0)	0 0.0	1 (1.0)
	Self	0 0.0	1 (2.0)	1 (1.0)
III	Past History of Cancer			
	Yes	1 (2.0)	1 (2.0)	2 (2.0)
IV	Location of Cancer in the Past			
	No response	49 (98.0)	49 (98.0)	98 (98.0)
	Breast	0 0.0	1 (2.0)	1 (1.0)
	Neck	1 (2.0)	0 0.0	1 (1.0)

Source: Computed

Figures in parentheses are percentage

Cntd. Table 7:

V	Duration of Treatment	M	F	Total
	1 to 3 months	22 (44.0)	9 (18.0)	31 (31.0)
	4 to 6 months	16 (32.0)	18 (36.0)	34 (34.0)
	7 to 9months	4 (8.0)	7 (14.0)	11 (11.0)
	10 to 12months	8 (16.0)	16 (32.0)	24 (24.0)
VI	Undergone Surgery For Cancer			
	Yes	12 (24.0)	23 (46.0)	35 (35.0)
VII	Kind of treatment Undergoing			
	Chemotherapy	31 (62.0)	23 (46.0)	54 (54.0)
	Radiation therapy	3 (6.0)	6 (12.0)	9 (9.0)
	Both	16 (32.0)	21 (42.0)	37 (37.0)
VIII	Gone Outside Mizoram for Treatment			
	Yes	4 (8.0)	8 (16.0)	12 (12.0)
IX	Places Of Treatment			
	No response	45 (90.0)	43 (86.0)	88 (88.0)
	Mumbai	3 (6.0)	3 (6.0)	6 (6.0)
	Kolkata	2 (4.0)	0 0.0	2 (2.0)
	Assam	0 0.0	3 (6.0)	3 (3.0)
	Imphal	0 0.0	1 (2.0)	1 (1.0)

Source: Computed

Figures in parentheses are percentages

1. Location of the Cancer: Among women the most common type of cancer is *Breast cancer*. Out of fifty respondents thirty reported breast cancer constituting nearly two-thirds (60%) of the respondents. *Cervix cancer* constituted the second highest incidence (26%) and the rest were having *colon and rectal cancer* (14%).

Among men, *Head & neck cancer* is the most prevalent cancer constituting more than half (52%) of the respondents while there are one-fifth (20%) of the respondents having *colon*

and rectal cancer. A very small minority eight *percent* and four *percent* of the respondents were having *lung cancer and leukemia* respectively. The rest 16 *percent* were having other kinds of cancer.

2. Source of Information: The source of information can affect the perception of patients either negatively or positively. Often there is misinformation even regarding cancer. Therefore it is very important to know how patients first learnt of their diagnosis. Almost all of them (85%) said they got the information from Doctors. More than a tenth (12%) said they knew it from their relatives and the rest one *percent* each from nurses, friends and those they had acquired information themselves.

3. Past History: The past history of the cancer was enquired to see if there can be any reoccurrence of the disease. Almost all of them (98%) reported that they didn't have any cancer in the past while only 2 *percent* said they had already had a cancer in the past.

4. Location of Cancer in the Past: There are only two persons having a history of cancer in the past and they were cancer in the breast and neck

5. Duration of Treatment: The duration of the treatment can be very distressing if they have to take the treatment for a long time. Patients taking treatment for a period of one – three months comprised of nearly one-third (31%) of the patients. A period of four – six months treatment seekers comprised of more than a third (34%) of the patients. Nearly a quarter

(24%) of the patients took treatment for a period of ten – twelve months and the rest 11 percent took treatment for seven – nine months period.

6. Undergone Surgery: This variable reveals how many patients have undergone surgery for their cancer treatment. Majority (65%) said they have not undergone surgery *and the rest (35%) had undergone surgery* for their cancer treatment.

7. Kinds of Treatment: More than half of the respondents (54%) took only chemotherapy for their treatment, while very little (9%) took only radiation therapy, and *more than one-third of the respondents (37%) took both chemotherapy and radiation therapy.*

8. Treatment Outside Mizoram: More than one-tenth of the respondents (12%) said they have gone outside Mizoram for treatment and the rest (88%) said they have not.

9. Places of Treatment: As there are some respondents who had gone outside Mizoram for cancer treatment, the location of treatment was asked. Six percent said they have gone to Mumbai, three percent had gone to Assam, two percent had gone to Kolkata and one had gone to Imphal.

Table 8: Symptom Experience

SI.No		Gender		Total N = 100
		Male n = 50	Female n = 50	
I	Tumor	7 (14.0)	23 (46.0)	30 (30.0)
II	Change in Bowels	10 (20.0)	4 (8.0)	14 (14.0)
III	Indigestion	7 (14.0)	7 (14.0)	14 (14.0)
IV	Fever	4 (8.0)	9 (18.0)	13 (13.0)
V	Unusual Bleeding	3 (6.0)	10 (20.0)	13 (13.0)
VI	Unexplained weight loss	10 (20.0)	2 (4.0)	12 (12.0)
VII	Fatigue	9 (18.0)	3 (6.0)	12 (12.0)
VIII	Blockage of Heart	3 (6.0)	1 (2.0)	4 (4.0)
IX	Other	25 (50.0)	14 (28.0)	39 (39.0)

Source: Computed

Figures in parentheses are percentages

In the study of 1,000 patients on initial referral to the Palliative Medicine Program of the Cleveland Clinic, it was found that the ten most prevalent symptoms were pain, easy fatigue, weakness, anorexia, lack of energy, dry mouth, constipation, early satiety, dyspnea, and greater than 10% weight loss. The prevalence of these 10 symptoms ranged from 50% to 84%. Younger age was associated with 11 symptoms: blackout, vomiting, pain, nausea, headache, sedation, bloating, sleep problems, anxiety, depression, and constipation. Gender was associated with 8 symptoms. Males had more dysphagia, hoarseness, greater than ten percent weight loss and sleep problems; females, more early satiety, nausea, vomiting, and anxiety (Declan W., 200).

In this study the respondents were asked their experience of symptoms of cancer. Closed options of most common symptoms were asked and there were many other symptoms which are not included in the schedule which accounted for more than a third (39%) of the responses. Nearly one-third of the respondents (30%) said that they were having *tumor* which is the most common sign of cancer. For colon and rectal cancer patients the most common sign were *change in bowels and indigestion* and they constituted the same percent (14%). Fever and unusual bleeding both were 13 *percent* respectively. *Unexplained weight loss and fatigue* were also the symptoms of cancer and constituted the same percent which was 12 *percent* each. The least occurrence of cancer symptoms from the respondents was *blockage of heart* which consists only four *percent*.

Table 9: Support Received

Sl.No		Gender		Total N = 100
		Male n = 50	Female n = 50	
I	Help Towards Household Chores	5 (10.0)	4 (8.0)	9 (9.0)
A	Relatives	5 (10.0)	4 (8.0)	9 (9.0)
III	Receiving Financial Support (Other Than Treatment)			
	No support from any source	50 (100.0)	50 (100.0)	100 (100.0)
IV	Financial help Towards Medical Treatment			
A	From Relatives	38 (76.0)	45 (90.0)	83 (83.0)
B	From Churches	34 (68.0)	39 (78.0)	73 (73.0)
C	From Government	28 (56.0)	25 (50.0)	53 (53.0)
D	Non Government organization	33 (66.0)	31 (62.0)	64 (64.0)
E	Neighbor	34 (68.0)	37 (74.0)	71 (71.0)
V	Average Cost of Treatment (In Rupees)			
	1000 – 15800	22 (44.0)	26 (52.0)	48 (48.0)
	15801 – 31600	18 (36.0)	21 (42.0)	39 (39.0)
	31601 – 47400	6 (12.0)	0 0.0	6 (6.0)
	47401 – 63200	3 (6.0)	2 (4.0)	5 (5.0)
	63201 – 80000	1 (2.0)	1 (2.0)	2 (2.0)

Source: Computed

Figures in parentheses are percentages

A very small minority (9%) of the respondent said they received help from relatives only. *No other source of support was found towards household chores.* All the respondents (100%) *said they did not receive any financial help towards expenses other than treatment.* On the other hand for the treatment of cancer *more than three-quarters (83%) of the respondents said that they received financial help from their relatives.* Churches were very helpful in times of need, this can be seen in almost three-quarters (73%) of the respondents. Government used to give some concession and medical reimbursement to its citizen especially for people who are suffering from terminally ill disease and Below Poverty Line people. From the results it is known that more than half (53%) *of the respondents were receiving financial help from the government.* Non government organization (Church based and Community based organization) also help the needy in terms of finance. Nearly two-thirds (64%) of the respondents said they received help from non-government organization and the rest (36%) don't. Neighbors and friends are one of the most useful source of help in times of need, this can be seen that *more than two-thirds (71%) of the respondents received help from them.*

The average cost of treatment per month was also examined as the treatment itself can create lot of burden for the patient as well as their family. Respondents spending between ₹ 1000-15,800/- in a month constitute the highest percent, constituting nearly half of the respondents (48%). More than one-third (39%) spent ₹ 15,801-31,600/-; a smaller number six percent spent ₹ 31,601-47,400/-. Five percent were incurring an expenditure of ₹ 47,401-63,200/- and two percent ₹ 63,201-80,000/-.

Table: Frequency of prayer

SI.No		Gender		Total N = 100
		Male n = 50	Female n = 50	
I	Frequency of Prayer			
	2 times per day	3	0	3
		(6.0)	0.0	(3.0)
	3 times per day	5	3	8
		(10.0)	(6.0)	(8.0)
	5 times per day	7	12	19
		(14.0)	(24.0)	(19.0)
	Many Times per day	35	35	70
		(70.0)	(70.0)	(70.0)

Source: Computed

Figures in parentheses are percentages

It is a common perception that most people who do not experience unusual stress and strain in their life tend to pray less. But when troubles and difficulties in life are encountered, people tend to turn towards prayer. The results in this study reveal that majority (70%) prayed several times per day. They sought God's help and tried to find contentment and relaxation in God through prayer.

Table 11: Tobacco use Pattern

Sl.No		Gender		Total N = 100
		Male n = 50	Female n = 50	
I	Tobacco use	44 (88.0)	45 (90.0)	89 (89.0)
II	Age Group At First Intake (In Years)			
	Late Childhood (6-12)	15 (30.0)	14 (28.0)	29 (29.0)
	Adolescent (13-18)	28 (56.0)	24 (48.0)	52 (52.0)
	Adult (19-59)	2 (4.0)	6 (12.0)	8 (8.0)
III	Form of tobacco used			
	Smoke	22 (44.0)	9 (18.0)	31 (31.0)
	Smokeless	7 (14.0)	23 (46.0)	30 (30.0)
	Both	16 (32.0)	12 (24.0)	28 (28.0)
IV	Monthly average expenditure on tobacco (in rupees)			
	Less than 500	34 (68.0)	45 (90.0)	79 (79.0)
	501 to 700	6 (12.0)	2 (4.0)	8 (8.0)
	901 above	2 (4.0)	0 0.0	2 (2.0)
V	Exposed to Smoke at Home	50 (100.0)	50 (100.0)	100 (100.0)
V(a)	First Hand Smoke	39 (78.0)	25 (50.0)	64 (64.0)
V(b)	Second Hand Smoke	6 (12.0)	20 (40.0)	26 (26.0)
V(c)	Multi Smoke	5 (10.0)	5 (10.0)	10 (10.0)
VI	Exposed to Smoke at Work Place	50 (100.0)	50 (100.0)	100 (100.0)
VI(a)	First Hand Smoke	39 (78.0)	25 (50.0)	64 (64.0)
VI(b)	Second Hand Smoke	10 (20.0)	20 (40.0)	30 (30.0)
VI(c)	Multi Smoke	1 (2.0)	5 (10.0)	6 (6.0)

Source: Computed

Figures in parentheses are percentages

1. Tobacco use: Tobacco use is very common in Mizo society and the same is evident from the results related to the patterns of tobacco use by the patients. Links have been established between tobacco use and cancer (Eric Z. et al., 2005) and it is one of the crucial information required for the study. From the results it may be seen that *majority of them (89%) were using tobacco.*

2. Age at first intake: Less than one-third (29%) of the patients reported tobacco intake first in the period of late childhood. More than half of the patients (52%) started taking tobacco during adolescent phases and eight *percent* started tobacco use only from their adulthood.

3. Form of tobacco used: The form of tobacco that respondents reported using includes both smoke and smokeless forms. Nearly one-third of the respondents (31%) said they used tobacco in *smoke* form, and also nearly one-third (30%) also said they used it in *smokeless* form, and the rest (28%) said they used in both *smoke and smokeless form.*

4. Monthly average expenditure: Information was sought with reference to the monthly average expenditure on tobacco. From the results it may be observed that a majority of the respondents (79%) said they spend less than ₹ 500/- per month on tobacco, eight *percent* said they spent between ₹ 501-700/- and 2 *percent* said they spent more than ₹ 700/-.

5. Exposed to smoke at home: This variable reveals whether the respondents are exposed to smoke at home or not. From the results it may be seen that all the respondents were exposed to smoke. This is a very significant finding since exposure to smoke and Cancers are directly

linked. Women generally had less exposure to cigarettes than men among both lung cancer cases and controls. The majority of studies have reported considerably higher risks of lung cancer in male smokers compared with female smokers (M Kreuzer et. al. 2000).

5 (a). First Hand Smoke: Almost two-thirds (64%) were exposed to first hand smoke while the rest more than one-third (36%) were not.

5 (b). Second hand Smoke: Even though the patients might not be a smoker, he/she can inhale a lot of smoke which can lead to cancer. Due to that this question was asked and it was observed that more than one-third of women respondents (40%) as compared to men (12%) were *exposed to second hand smoke*. These gender differentials need further research.

5 (c). Multiple Smoke: Multiple smoke refers to exposure of respondents to more than one source of smoke (Cigarette, firewood and fuel, Vehicular etc) The respondents were asked whether they are exposed to multiple smoke or not. Only Five *percent* of men and women perceived themselves as exposed to *multi smoke at home*.

6. Exposed to smoke at work place: Even if a person is not indulging in smoking they can be exposed to smoke which can cause cancer. This question sought information on whether they were exposed to smoke in work place. From the results, all the respondents (100%) said that they are exposed to smoke at work.

6 (a). First hand smoke: Two-thirds of the respondents (64%) said that they were *first hand smokers* at work place.

6 (b). Second hand smoke: Nearly one-third (30%) of the respondents said that they were *second-hand smokers* and more than two third of the respondents (70%) said they are not.

6 (c). Multiple smokes: Only six *percent* of the respondents said that they were exposed to multiple smokes at work place and the rest (94%) were not exposed to multiple smokes.

Table 12: Perceived Health Status

	Perceived Health	Gender		Total
		Male	Female	
		n = 50	n = 50	N = 100
Very Good		0	2	2
		0.0	(4.0)	(2.0)
Good		28	25	53
		(56.0)	(50.0)	(53.0)
Neither good nor Poor		15	15	30
		(30.0)	(30.0)	(30.0)
Poor		6	6	12
		(12.0)	(12.0)	(12.0)
Very Poor		1	2	3
		(2.0)	(4.0)	(3.0)

Source: Computed

Figures in parentheses are percentages

Information on the perceived health status of the respondents was asked . More than half (53%) of them said that they see themselves as having a *good* health status. Less than one-third of the respondents (30%) said that they are in *neither good nor poor* health status, More than one-tenth (12%) said they are in *poor* health and only two *percent* and three *percent* said that they are in *very good* health and *very poor* health respectively.

Table 13: Patterns of Substances Used

A study conducted at Tata Memorial Cancer Hospital, Mumbai, India, a sample of eighty persons diagnosed with cancer was drawn. The study reveals that majority of the respondents were men (83.3%) and had used a combination of substances such as tobacco, cigarette, alcohol and pan, betel, and nut (62.5%) prior to the diagnosis of cancer.

SI.No		Gender		Total N = 100
		Male n = 50	Female n = 50	
I	Cigarette	38 (76.0)	23 (46.0)	61 (61.0)
II	Alcohol	20 (40.0)	2 (4.0)	22 (22.0)
III	Betel Nut	32 (64.0)	34 (68.0)	66 (66.0)
IV	Tuibur(Tobacco Water)	5 (10.0)	30 (60.0)	35 (35.0)
V	Sahdah(Dry Tobacco mix)	22 (44.0)	32 (64.0)	54 (54.0)

Source: Computed

Figures in parentheses are percentages

1. Cigarette: The consumption of cigarettes can cause cancer and it is very important to know information on cigarette use for the study. Less than two-thirds of the respondents (61%) said that they did smoke cigarettes while more than one-third (39%) said they do not smoke cigarettes. In a study of 329 stomach cancer registered at Aizawl Civil Hospital, it was found that using of cigarette cause stomach cancer. (Eric Z. et al., 2005). Cigarette smoking is the major cause of lung cancer in both genders (M Kreuzer 2000).

2. Alcohol: There can be occurrence of cancer due to alcohol consumption and due to that this information was asked. From the results more than one-fifth (22%) of the respondents said they do consume alcohol while majority of the respondents (78%) said they do not. In the study of three hundred and twenty nine stomach cancer registered at Aizawl Civil Hospital, it was found that consumption of alcohol can cause cancer (Eric Z. et. al., 2005). Alcohol consumption is one of the most important known causes of human cancer after tobacco smoking, chronic infections, and possibly obesity (Paolo B. & Mia H., 2006)

3. Betel Nut: Betel Nut is largely use by the Mizo people and exactly two-thirds of the respondents (66%) consume Betel Nut. Persons chewing beetle nut are in a high risk group for stomach cancer (Eric Z. et. al., 2005).

4. Tuibur: *Tuibur* is one kind of substance which is popularly used by Mizo people. It is made up of tobacco water and it is perceived as a cause of cancer. From the results more than one-third (35%) of the respondent said that they were taking *Tuibur*. In a study of three hundred twenty nine stomach cancer patients in Civil Hospital Aizawl it was found that there is a significant relationship between consumption of *Tuibur* and stomach cancer (Eric Z. et. al., 2005).

5. Saldah: *Saldah* is the term used by Mizo people which is made from ground tobacco leaves; this is also very common in Mizoram and believed to be a cause of cancer as well. More than half of the respondents said they were using *Saldah* and less than half (46%) said they were not. A research found out that chewing of tobacco and paan masala leads to oral cancer (Frederick N., 2010)

Table 14: Patterns of Coping

Sl.No		Gender				Total	
		Male		Female			
		Mean	S.D	Mean	S.D	Mean	S.D
1	Positive Reappraisal	1	1	1	0	1	1
2	Escape Avoidance	1	1	1	1	1	1
3	Seeking Social Support	0	1	1	1	1	1
4	Distancing	0	0	1	0	1	0
5	Planful Problem Solving	1	1	0	0	0	1
6	Accepting Responsibility	0	1	0	1	0	1
7	Self Controlling	0	1	0	0	0	1
8	Confrontive Coping	0	1	0	0	0	1

Source: Computed

The pattern of coping was sought to find out the kind of coping strategies used. The scale is divided into eight points such as - *Positive reappraisal* (Scale 1) describes efforts to create positive meaning by focusing on personal growth (e.g., "changed or grew as a person in a good way," "I came out of the experience better than I went in") It also has a religious tone (e.g., "found new faith," "I prayed"). *Escape-Avoidance* (Scale 2) describes wishful thinking (e.g., "wished that the situation would go away or somehow be over with") and behavioral efforts to escape or avoid (e.g., "tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc."; "avoided being with people in general"; "slept more than usual"). These items, which suggest escape and avoidance, contrast with the items on the distancing scale, which suggest detachment. *Seeking social support* (Scale 3) describes efforts to seek informational support (e.g., "talked to someone to find out more about the situation"), tangible support (e.g., "talked to someone who could do something concrete about the problem"), and emotional support (e.g., "accepted sympathy and understanding from someone"). *Distancing* (Scale 4) describes efforts to detach oneself (e.g., "didn't let it get to

me—refused to think about it too much," "tried to forget the whole thing"). Another theme concerns creating a positive outlook (e.g., "made light of the situation; refused to get too serious about it," "looked for the silver lining—tried to look on the bright side of things"). *Planful problem-solving* (Scale 5) describes deliberate problem-focused efforts to alter the situation (e.g., "I knew what had to be done, so I doubled my efforts to make things work") coupled with an analytic approach to solving the problem (e.g., "I made a plan of action and followed it," "came up with a couple of different solutions to the problem"). *Accepting responsibility* (Scale 6) acknowledges one's own role in the problem (e.g., "criticized or lectured myself," "realized I brought the problem on myself") with a concomitant theme of trying to put things right (e.g., "I apologized or did something to make up," "I made a promise to myself that things would be different next time"). *Self-control* (Scale 7) describes efforts to regulate one's own feelings (e.g., "I tried to keep my feelings to myself," "kept others from knowing how bad things were") and actions (e.g., "tried not to burn my bridges, but leave things open somewhat," "I tried not to act too hastily or follow my first hunch"). *Confrontive coping* (Scale 8) describes aggressive efforts to alter the situation (e.g., "stood my ground and fought for what I wanted," "tried to get the person responsible to change his or her mind"). It also suggests a degree of hostility (e.g., "I expressed anger to the person(s) who caused the problem") and risk-taking (e.g., "took a big chance or did something very risky," "I did something which I didn't think would work, but at least I was doing something"). The scale has a 2 point for strongly agree, 1 for agree, 0 for neither nor agree nor disagree,-1 for disagree,-2 for strongly disagree.

In an earlier study of eighty men and women cancer patients at Tata memorial Cancer hospital, Mumbai, the analysis yielded that majority of the male patients (40.6%) resorted to

taking medications as their primary coping strategy whereas 45.5% of woman patients resorted to prayer and meditation to deal with the side effects of treatment. Whereas in this study on ‘ Mental Health, Coping and Social Support Across Gender Among Persons Living With Cancer in Mizoram’, the study reveals that men used positive reappraisal, escape avoidance and *planful (sic)* problem solving for their coping strategies. On the other hand women used positive reappraisal, escape avoidance, seeking social support and distancing for their coping strategies.

Table 15: Patterns of Instrumental Support

Sl. No		Gender				Total	
		Male		Female		F	%
		F	%	F	%		
I	Availability of someone to Help if confined to bed	50	100.0	50	100.0	100	100.0
	From Family	50	100.0	49	98.0	99	99.0
	From Neighbor	0	0.0	3	6.0	3	3.0
	From Relatives	2	4.0	4	8.0	6	6.0
	From Churches	1	2.0	0	0.0	1	1.0
	From NGO	1	2.0	1	2.0	2	2.0
	Adequacy	40	80.0	46	92.0	86	86.0
	Satisfaction	50	100.0	50	100.0	100	100.0
II	Availability of someone to Take to doctor	50	100.0	50	100.0	100	100.0
	From Family	50	100.0	49	98.0	99	99.0
	From Neighbor	0	0.0	2	4.0	2	2.0
	From Relatives	10	20.0	20	40.0	30	30.0
	From Churches	0	0.0	0	0.0	0	0.0
	From NGO	0	0.0	1	2.0	1	1.0
	Adequacy	40	80.0	47	94.0	87	87.0
	Satisfaction	50	100.0	48	96.0	98	98.0
III	Availability of someone to help financially	40	80.0	45	90.0	95	95.0
	From Family	34	68.0	40	42.0	74	74.0
	From Neighbor	34	68.0	37	74.0	71	71.0
	From Relatives	38	76.0	45	90.0	83	83.0
	From Churches	34	68.0	39	78.0	73	73.0
	From NGO	33	66.0	31	62.0	64	64.0
	Adequacy	8	16.0	9	18.0	17	17.0
	Satisfaction	32	64.0	23	46.0	55	55.0
IV	Availability of someone to prepare meals	50	100.0	45	90.0	95	95.0
	From Family	50	100.0	44	88.0	94	94.0
	From Neighbor	6	12.0	2	4.0	8	8.0
	From Relatives	3	6.0	3	6.0	6	6.0
	From Churches	0	0.0	1	2.0	1	1.0
	From NGO	0	0.0	2	4.0	2	2.0
	Adequacy	41	82.0	43	86.0	84	84.0
	Satisfaction	50	100.0	46	92.0	96	96.0
V	Availability of someone to help with daily chores	45	90.0	44	88.0	89	89.0
	From Family	45	90.0	44	88.0	89	89.0
	From Neighbor	0	0.0	1	2.0	1	1.0
	From Relatives	16	32.0	7	14.0	23	23.0
	From Churches	0	0.0	1	2.0	1	1.0
	From NGO	0	0.0	1	2.0	1	1.0
	Adequacy	34	68.0	38	76.0	72	72.0
	Satisfaction	44	88.0	44	88.0	88	88.0

Source: Computed

The respondents were asked whether there is availability of someone to help if they are confined to bed and both men (100%) and women (100%) said that they received such help. The source of help was mainly from family, relatives, church and non government organizations.

Family, relatives, neighbors and NGOs provided help in the form of instrumental support in taking or assisting people to go to the hospital as well and information on satisfaction and adequacy of such help was sought. Two-thirds and above of men (68%) and less than half (44%) of women receive financial help. Interestingly more women respondents than men received such help from relative's .Various denominations inside Mizoram used to give financial help to its church member when they need help. This can be seen that when more than half of men (68%) and more than two-thirds (78%) of women received it from church. Non-government organization like Young Mizo Association (YMA), Mizo Hmeichhe Insuihkhawm Pawl (MHIP), Mizoram Upa Pawl (MUP) and other church based organization used to contribute money for its member when they are in need of help.

Help in daily chores is very important because when one is unwell one is unable to work properly and requires much help towards this. An overwhelming majority (90%) of men said they got help from family while a smaller percentage (88%)of women *only* got help from family. Both men (32%) and women (14%) also received it from relatives. Men (68%) and women (56%) said it was adequate and both (88%) were satisfied with it.

Table 16: Patterns of Emotional Support

SI.No		Gender				Total	
		Male		Female			
		F	%	F	%	F	%
I	Availability of someone to Show love and affection	50	100.0	47	94.0	97	97.0
	From Family	50	100.0	45	90.0	95	95.0
	From Neighbor	0	0.0	6	12.0	6	6.0
	From Relatives	40	80.0	33	66.0	73	73.0
	From Churches	2	4.0	12	24.0	14	14.0
	From NGO	0	0.0	4	8.0	4	4.0
	Adequacy	41	82.0	46	92.0	87	87.0
	Satisfaction	50	100.0	46	92.0	96	96.0
II	Availability of someone to Do something enjoyable with	45	90.0	28	56.0	73	73.0
	From Family	45	90.0	28	56.0	73	73.0
	From Neighbor	0	0.0	1	2.0	1	1.0
	From Relatives	0	0.0	6	12.0	6	6.0
	From Churches	0	0.0	3	6.0	3	3.0
	From NGO	0	0.0	2	4.0	2	2.0
	Adequacy	19	38.0	20	40.0	39	39.0
	Satisfaction	44	88.0	30	60.0	74	74.0
III	Availability of someone to confide in	47	94.0	38	76.0	85	85.0
	From Family	48	96.0	37	74.0	85	85.0
	From Neighbor	1	2.0	2	4.0	3	3.0
	From Relatives	2	4.0	7	14.0	9	9.0
	From Churches	0	0.0	3	6.0	3	3.0
	From NGO	0	0.0	3	6.0	3	3.0
	Adequacy	35	70.0	28	56.0	63	63.0
	Satisfaction	48	96.0	37	74.0	85	85.0
IV	Availability of someone to Understand your problems	48	96.0	46	92.0	94	94.0
	From Family	48	96.0	44	88.0	92	92.0
	From Neighbor	3	6.0	10	20.0	13	13.0
	From Relatives	34	68.0	33	66.0	67	67.0
	From Churches	12	24.0	19	38.0	31	31.0
	From NGO	0	0.0	4	8.0	4	4.0
	Adequacy	25	50.0	26	52.0	51	51.0
	Satisfaction	46	92.0	47	94.0	93	93.0

Source: Computed

Information on love and affection received by respondents living with cancer was sought and 100% of men and majority (90%) of women said that they had received it from family. Majority (80%) of men and exactly two-thirds (66%) of women said that they received it from relatives. Nearly one-fourth (24%) of women and four *percent* of men also received love and affection from church. More than one-tenth (12%) and less than one-tenth (8%) of women only received it from neighbors and Non Government Organization. Majority of both men (82%) and women (92%) feel the adequacy of the love and affection received and 100% of men and 92% of women were satisfied.

Majority (90%) of men said that they have family to do something enjoyable with and have no other source while this number was smaller among women with (56%) of women reporting that they have their family, relatives (12%), to do something enjoyable with. More than one-third (38%) of men and less than half (40%) of women feel the adequacy but majority (88%) of men and nearly two-thirds (60%) of women were satisfied.

Almost all men (96%) and a majority of women (74%) found someone to confide in within their family. The need to share confidential information allays anxieties and 14% of women said they have their relatives, church (6%), non-government organization (6%) and neighbor (4%) while men did not receive this from any other source. From this we can know that women have more options and outlets for ventilation and sharing. More than two-thirds (70%) of men and more than half (56%) of women said that these outlets were adequate. Almost all the men (96%) of men and 74% of women were satisfied with this kind of source of support.

The availability of someone to understand their problems was also asked and majority (96%) of men and 88% of women said they have someone who understands their problems

within their family. More than two-thirds (68%) of men and women (66%) have their relatives as well who make for understanding companions. More than a third (34%) of men and (38%) of women also have church people to understand their problems. A small number of women (8%) of women said there are people within NGOs who understand their problem while men did not have. A small percentage of men and a fifth of women also have their neighbor to understand their problems. Half of the respondents among men and a little over a half (52%) of women expressed that the help they received was adequate. An overwhelming majority (92% of men and 94% of women) said that they were satisfied with the support they received.

In an earlier study interviews of 520 newly diagnosed cancer patients, including 129 male patients regarding their patterns of confiding were conducted. They found that significantly more men (45%) reported using only one confidante, compared to only 25% of women. Further, 27% of men versus 7% of women indicated that they confided in their partner only. Men do not like to seek professional counseling, but prefer to deal with their issues and problems on their own, perhaps with the support of their wives and discussions with medical staff (Diane M. & Darcy A., 2008).

Table 17: Patterns of Informational Support

SI.No		Gender				Total	
		Male		Female			
		F	%	F	%	F	%
I	Availability of someone to Turn to for suggestions	41	82.0	44	88.0	85	85.0
	From Family	41	82.0	42	84.0	83	83.0
	From Neighbor	11	22.0	19	38.0	30	30.0
	From Relatives	40	80.0	38	76.0	78	78.0
	From Churches	39	78.0	36	72.0	75	75.0
	From NGO	0	0.0	2	4.0	2	2.0
	Adequacy	10	20.0	14	28.0	24	24.0
	Satisfaction	41	82.0	42	84.0	83	83.0

Source: computed

Information support includes information on medical illness, diagnostics, treatment and prevention/cure. Majority of men (82%) and women (84%) have their family, 22% of men and 38% of women have their neighbor, and 80% of men and 76% of women have their relatives to turn to *for informational support*. Majority of both men (78%) and women (72%) said that they also *have church people* to turn to for suggestion and the least source accessed is *from non government organization*. Although they have so many sources very few (20%) of men and 28% of women said that the suggestions they received were adequate. Majority of men (82%) and women (84%) said that they were satisfied.

Table 18: General health Questionnaire

Level of Depression & Anxiety	Gender		Total
	Male	Female	
Normal	6	0	6
	(12.00)	0.00	(6.00)
Distress	15	18	33
	(30.00)	(36.00)	(33.00)
Severe Distress	29	32	61
	(58.00)	(64.00)	(61.00)
Mean	19.7600	20.5800	20.1700
Std. Deviation	4.27408	3.20134	3.77941

Source: Computed Figures in parentheses are percentages

Being male or female is an important basic human variable that affects health and illness throughout life. Men and women differ not only with regard to their reproductive organs and bodies but also in the way they think, feel, and behave.

The above result shows a significant level of distress across both the genders. A small number (6%) of the respondents were under the level of normal, none of the women (0%) were *within normal ranges* whereas only six percent of men were under the *within Normal*. Men (15%) are less distressed as compared to women (18%) and women (32%) are more *severely distressed* than men (29%).

Table 19: Suggestions

Suggestions	Gender	
	Male	Female
	Count	Count
More awareness	36 (72%)	43 (86%)
Improvement on infrastructure	24 (48%)	31 (62%)
Govt. should invest more for the treatment so that it will be less expensive	28 (56%)	31 (62%)
Transportation should be easily available.	14 (28%)	22 (44%)
Separate ward to stay for the night	16 (32%)	31 (62%)
Counseling- spiritually & treatment	43 (86%)	37 (74%)
Assistance for the family when the breadwinner is the patient	29 (58%)	41 (82%)
Doctors and nurses should be more punctual	16 (32%)	30 (60%)
We should have a strong heart	44 (88%)	43 (86%)

Source: computed

Figures in parenthesis are percentages

From the results it can be known that *more awareness* is very much needed *provision of counseling* and *having a strong heart* were the most frequently offered suggestions given by both the sexes. Women respondents suggested that there was a *tremendous need of assistance for the family* when the breadwinner is the patient. This is because if the breadwinner is the patient, not only his disease makes him/her distressed, but also thinking of his/her family everyday life and how they are going to pay for the bills can cause him/her distress. Women respondent feels the *need of having a separate ward* so that they can stay for the night and suggest that *government must invest* more for the treatment because the cost of treatment is very expensive; they also feel the need of *doctors and nurses to be more punctual*. Both the sexes give the least importance to *transportation* but still consider very important because the institute is a bit far from the city, and for patients who doesn't have private vehicles they have to hire Taxi which is very costly. They also suggest having a better infrastructure.

4.1 Focus Group Discussion

4.1.a) Focus Group Discussion with Men Living With cancer.

One Focus Group Discussion was conducted to probe into aspects related to the mental health, coping and social support of cancer patients. The discussion was held in *Cancer Guest House (sic)*, having seven participants with an age range between 36 – 71 years. The objective was to understand the issues related to mental health of cancer patients. From the discussion it was known that younger persons have more mental health problems and that older persons (above the age of 60 years) are better at coping and *feels lighter* as compared to younger people. However among men who were married or those who were the breadwinners of the family, preoccupations with coping and their disease was increased and this added a double burden for them. They were far much troubled by the disease, they did not want to share their feelings with others, in addition to that they don't want to be perceived as someone defeated by cancer (“as someone that cancer has eaten up”). They know if they don't have a *strong heart* trying to defeat cancer, it can affect their body image quickly. Therefore even if they have a deep distress they don't want to show it and they report that they pretend that they are alright and this makes them suffer alone. They don't want to burden their family/ spouse and hence they often pretend as if they are not afraid of cancer, while in fact, they are very scared.

Older persons were content about their disease because they feel they have enjoyed much of their lives, they don't have future to enjoy like the younger person and feel that it is time for them to take rest/ and die. This is why older persons report that they have a better mental health as compared to younger persons.

The kind of coping pattern was also discussed among participants. All of the participants said they trust in God and that ‘praying’ is one of the most frequent coping patterns used. As they are Christian they believe God can do everything and they also believe cancer is incurable and that the only way to defeat cancer is through faith in God, which makes the participant prayed a lot. Some cope through *denial*. They deny the fact that they have cancer, they pretend they are alright and try to live like non- cancer patients. Most men don’t seek social support and try to control their feelings. For social support, their family and spouse were the main source. They don’t seek emotional support because they don’t want to burden their family, who they perceive as being already burdened. The main support was *informational support*. They prefer to receive information on Cancer, diagnostics, treatment options etc from professionals (doctors and nurses).

4.1.b) Focus Group Discussion with Women Living with Cancer

Focus Group Discussion was also conducted with women living with Cancer on the same topic of discussion (Mental Health Issues, Coping and Social Support). The discussion was conducted *at day care ward*. The group had eight participants with an age range from 35 to 66 years. The issues related to mental health was first discussed and members opined that there were some patients who were unperturbed by the disease. They said that they were *disbelieving* when some cancer patients said that the disease doesn’t cause them any anxiety or distress. However, some expressed that “When we know we are not going to live long it will definitely affect our mental health”. Over-all they believe majority of the female cancer patients are likely to experience moderate to severe anxiety and depression.

The main coping strategy used by women, according to the group was *praying*. This was very similar to what was observed among the men. But unlike men counterparts, they claim that they seek social support, they talk about their disease with their women friends and among other cancer patients who make them feel decidedly more relieved. From the results as shown in Table 14, women still have more anxiety and depression than men. It can be known that a long lasting coping mechanism is not there to relieve the distress caused by the disease.

The discussion revealed that women receive good emotional support, instrumental support and informational support from friends and family but they felt that the way they receive it is sometimes negative and not always supportive. For example, while they recognize that people want to help and be of help, they don't want people to keep on asking how they are feeling at each given moment; they want to be treated like 'normal persons' (like people who do not have the disease). They try to forget the fact that they have cancer but people keep asking how they feel as a way of expressing that they care and this keeps reminding them that they are ill. Further some people give well meaning suggestions and information which, however, may not be scientific. This has a negative impact on the patients because they are in the process of trying to forget the disease and these questions and information provided by *lay persons* add to the stress perceived. Sometimes this even creates misinformation. *The suggestion that clearly emerges from this group discussion is that there is a strong need to educate people in the community on how to deal with cancer survivors and how to express care and affection.*

4.2 Key Informants Interview

Three KIIs were conducted and the main results are presented below.

Interview 1: Date and time of Interview: 31st July 2012, 9:30am Duration: 30min

Venue: Mizoram State Cancer Institute

The first interview was with Dr. Jerry Lalrinsanga Pautu, the director of Mizoram State Cancer Institute. The objective of this interview was to understand the mental health issues faced by Persons living with Cancer, and learn the strategies used by them for coping. Further, the interview had as its aim examining the social support of Persons living with Cancer. From the interview it was known that cancer patients need lots of counseling as they experience a tremendous deal of anxiety and depression. He said that the more women as compared to men patients were depressed. But due to the sharing of their feelings easily with others, they were able to cope however he opined that , in his opinion the effects of such coping did not last long and that ‘They easily fall and easily rise’, making the mood condition very labile.

In his observation, the coping skills mainly used by Persons living with Cancer were *denial, positive reappraisal* of which *praying* is the most frequently used.

The Key Informant also said that mizo people must be given awareness so that they can work effectively for the patient. This is because when doctors are prescribing medicines, one of their friends or neighbors who is diagnosed with cancer would say “*I don’t feel good with that medicine, don’t take it*”, (*Kha damdawi ang kha chu ei suh, kei pawh in ka ngeih lo*) and then that patient will just stop taking it. The kind of cancer may not be the similar with that person, and the medicine or treatment may be different. Influence of this nature, in his

opinion, is harmful and detrimental to recovery and treatment. Unfortunately it is very common as Mizos share a lot of their experiences and suffering. *Negative influences* such as this and *disinformation of this kind* has to be stopped according to him.

Interview 2: Date and time of Interview: 31st July 2012, 1:00pm Duration: 30min

Venue: Mizoram State Cancer Institute

The second interview was with Dr. Lalhlupuii, one of the oncologists at the institute, she was asked about the mental health, coping and social support of cancer patients. From her interview it is revealed that depression among cancer patients is not uncommon. Further her patients report insomnia, loss in appetite. Some of them get irrational in their thinking and appear in her opinion, a bit selfish. “They want everything which will heal their disease even if others going to suffer, they only think about themselves and their disease” (An damna tur a nih phawt chuan midangin an tawrh pawh pawh an ti lo, an natna leh an mahni chauh an in ngaihtuah). She said that women were more depressed than men, but, according to her, *depressed men were very hard to deal with*. The reason for this is that they don’t want to take any advice and are very hard to treat compared with women. Women are, in her opinion, more likely to obey doctors, take prescribed medicines and do not lose hope as some men tend to do. Further, this interview reveals that *Patients who have a history of cancer in the family have more anxiety than patients who have no family history*. Cancer patients mostly experience anxiety. To quote her, “Even if they have fever they thought it was due to cancer and they would call the doctor to clarify” (An khua a sik hlek pawn cancer avang emaw an ti tlath thin a, doctor minrawn be vat vat thin a, thil awmzia hriat fiah vat vat an duh thin). If they had bruises or diarrhea or anything abnormal, they thought it was the effect of cancer and

would rush to a doctor immediately”. (Pem leh khawthalo hlekah pawh cancer vang emaw an ti zel a, doctor minrawn be vat thin). *This reveals clearly the level of pre-occupation with the disease.*

The interview also emphasized the need for counseling and revealed that as Mizos and Christians, patients with Cancer place their trust in God, and the patients who trusted in God appeared calmer (Mizo te leh Christian cancer veite chu Pathianah an in nghat tlangpuia, Pathian-a rinna nghat chuan an tuar thiam bik). They prayed a lot and this was the main coping strategy used.

She also expressed that people in the community give lots of emotional support to each other however, in her opinion, this sometimes leads to distress. Instrumental support should be made more available particularly in relation to treatment of cancer which is very costly since this alone can create untold anxiety for patients. “Due to the costly treatment, the patients feel they are a burden to their family and hence they need relief in this regard”. Informational support must be given only by the professionals because mizo people according to her used to give lots of *wrong information* which used to create problems in the treatment.

Interview 3: Date and time of Interview: 31st July 2012, 2:30pm Duration: 30min

Venue: Mizoram State Cancer Institute

Dr.B.Zothankima is one of the radiation oncologists and the most senior doctor in the field of cancer. He was interviewed and also asked about the mental health, coping and social support of cancer patients. Just like the other two doctors, he also said that in his experience, a majority (80%) of cancer patients are depressed. Women were more depressed than men because women have a more *fragile heart* than men (Mipa aiin hmeichhia hian depression an

ngah zawk, an rilru a no zawk avangin). But on the other hand, women cope better than men because they disclosed their feelings easily to others which help them a lot. *They don't bottle up their feelings like men* do, which gives them a healthier mind (Mipa aiin hmeichhia in an tuar thiam zawk, an ngaihtuahna te hi midang hnenah an sawi chhuak a, mipa chuan an sawi ve mai mai ngai lo a ni. Heng avangte hian an rilru a hrisel zawk).

He said that religion is the most important coping strategy. Irrespective of the patient's religion, they cope best when they deal with their own belief and faith. *Acceptance* is one of the important coping strategies according to him since without accepting the fact that they have cancer, it is hard to deal with a condition such as cancer and hard to give treatment which also hampers their physical health (Mahni nihna pawm hi tawrh dan tha ber pakhat chu a ni a, an natna hi an pawm loh chuan enkawl an har em em a ni).

The doctor said that we have a poor social support, in his opinion since Mizo people do not know what to say and what to withhold, what to do in a situation and what not to do (Mizo te hian enge sawi tur a, sawi loh tur tih te, enge tih tura tih loh tur tih te hi kan hrelo hle a ni). He also found the need of awareness campaign in communities.

4.3 Services and Opportunities Map

4.3. a) Men

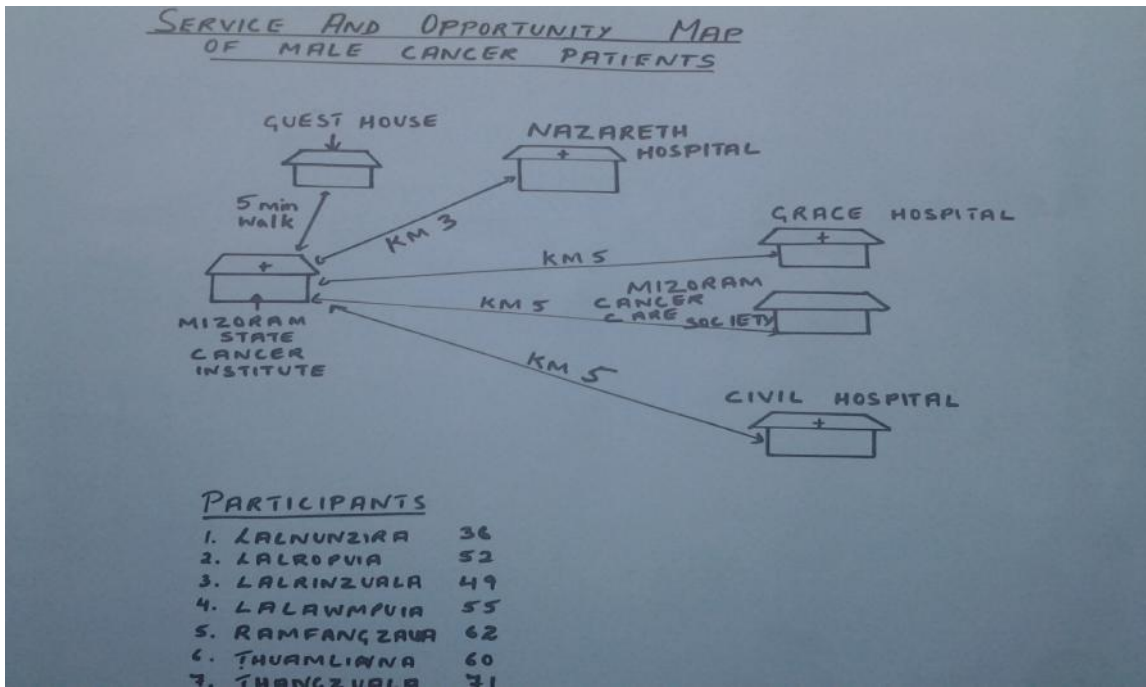


Fig 4.1 Services and Opportunities Map of men living with cancer

The services and opportunities map was drawn to know what kinds of services are available for them. They start plotting the map from Mizoram Cancer State Institute and from the above illustration it is evident that there were not many services available and the only services included a hospital. They have a society in which they can share their feelings with others however, this society is not functioning regularly either, so it does not meet the needs of the patients. Further since it is situated at a distance from the hospital, it is difficult to find the time to go there separately. They also discussed that at the hospital, they can get only medical treatment for their physical needs, but there is no agency that offers to serve their emotional needs, which was a must. Doctors used to give counseling but they feel it was

inadequate since they have a huge patient load. *The needs expressed from this exercise was that the overall services were inadequate and that they would like the services of counseling and if possible for these to be located at the same place.*

4.4. b) Women

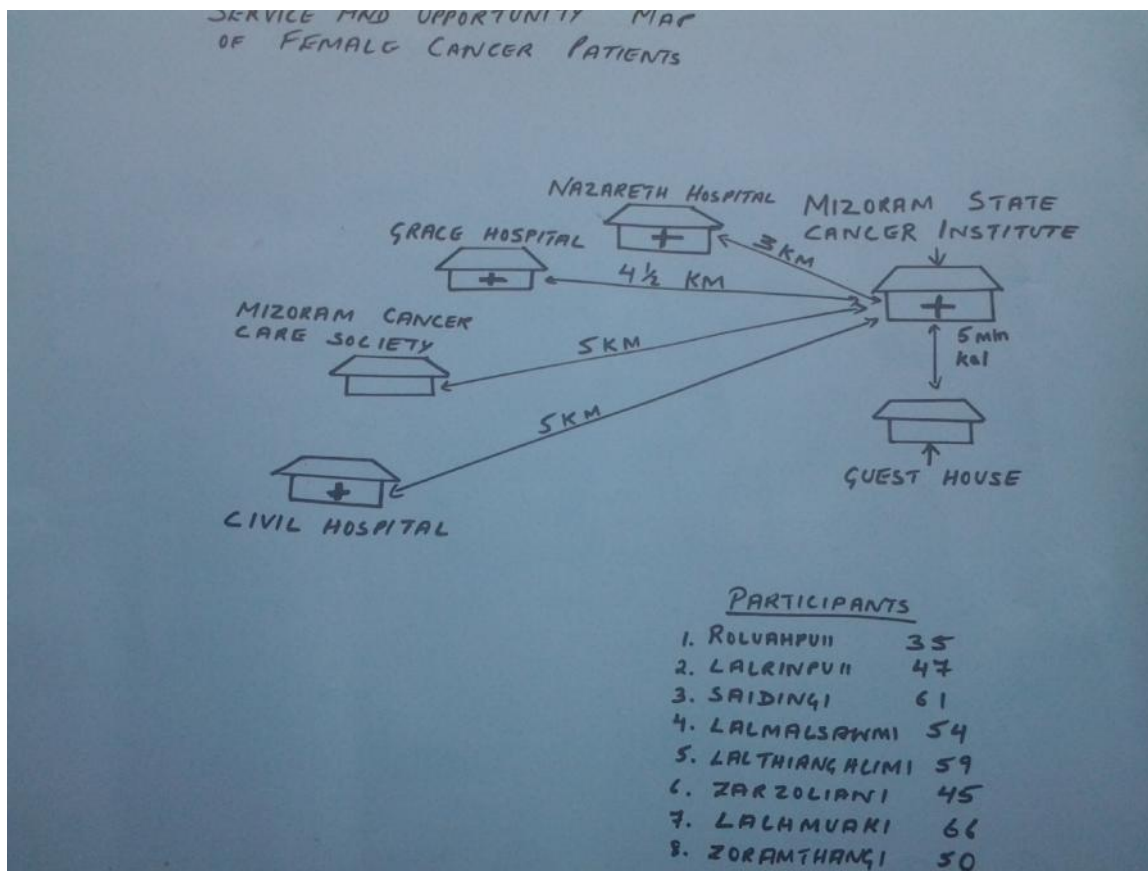


Fig. 4.2 Services and opportunities map of women living with cancer

The services and opportunities map of women cancer patients was also plotted by eight participants. Surprisingly, it was almost identical to that plotted by men. They also began from the institute and they also felt the need of more services. They also said that they have services only for their medical treatment.

The research titled, “Mental Health, Coping and Social Support across Gender among Persons Living with Cancer in Mizoram” is an attempt to study the mental health particularly anxiety and depression of Cancer patients, understand how cancer patients cope with their disease, from where they receive social support and to explore the kinds of support they receive. Information has been sought through both quantitative and qualitative means, from patients as well as from KIIs.

Mizoram is a state where tobacco is consumed in a large amount and it ranks the *highest incidence rate of cancer in the whole world* (Eric Z. et. al., 2005). The study is the first of its kind to research the mental health of cancer patients in this state. The Mizo people believe that cancer patients experience deep mental distress and yet there are no treatment facilities to handle mental health issue of cancer patients in the state and this study therefore attempts to explore this aspect.

The objectives of this study were to study the mental health (anxiety and depression) of people living with cancer, their coping strategies and the kind of social support (emotional, instrumental and informational) received by people living with cancer in Mizoram. Further, it hopes to suggest measures for social work intervention.

The study is descriptive in design and a cross- sectional in nature. Both qualitative and quantitative methods have been used to collect data on socio-demographic particulars, family profile, details about cancer (location and duration of the cancer) and information pertaining to patterns of tobacco and substances used. Further data was also collected on coping strategies, the availability and satisfaction of social support.

Multi- stage sampling was used. In *the first stage* Aizawl district was selected purposively due to the fact that highest incidence of cancer is reported here. (Population Based Cancer Registry).

In *the second stage* using purposive sampling the Mizoram Cancer State Institute which registers most of the cases for care and treatment was selected.

In *the third stage* a list of all patients registered in the Mizoram Cancer State Institute (admitted in the period 1st July 2011-31st July 2012 and with at least six months after care and treatment), was obtained.

In *the fourth stage*, proportionate sampling was used to draw male and female patients with the following inclusion criteria.

1. Diagnosis of any type of cancer.
2. All stages of Cancer.
3. Male and female patients who were diagnosed with cancer in a one year period (1st July 2011-31st July 2012) and are willing to give informed consent.
4. Literate patients above eighteen years.
5. Residence in Aizawl city.

The following tools were used in the study. a) Semi structured interview schedule was used to collect primary data. The schedule contains different sections which sought information on the socio-demographic particulars, family profile, details about cancer (location and duration of the cancer) and other information. Information pertaining to patterns of tobacco and substances used was also asked. The availability and satisfaction of social support were also asked to know the patterns of support received. b) Scale constructed by Susan Folkman and Richard S. Lazarus, 1985 (Ways Of Coping) was used to assess Coping

Patterns. c) General Health Questionnaire (GHQ) 12 point scale was utilized to assess mental health. d) Focus Group Discussion among male and female cancer patients was conducted to explore data from patients on fears, anxieties and depression and further information related to social support and coping strategies were also collected. e) Key Informant Interviews were conducted with oncologists to augment data on mental health, coping and social support. f) Participatory Rural Appraisal techniques to collect data on services and opportunities.

In conclusion the following have been observed.

The socio-demographic profile of Cancer patients in this study reveals that two-thirds were in their middle age having *a mean age of 52years (male) and 51 years (female)*. Two-thirds of respondents are married and majority of the respondents have studied up to class 10. Less than half of the respondents are primary earners and with regard to employment status most were *self-employed* indicating that their perceptions of burden was higher as they have to take care of their family and also tend to illness aspects. These double their burden and this burden is likely to affect their mental health.

There is a belief that cancer is a hereditary disease and the study within corroborates it since more than half of the patients have experienced the occurrence of cancer in their family already prior to their own diagnosis of cancer. A majority of the patients in this study indulge in tobacco use which clearly corroborates findings from earlier studies in Mizoram (Eric Z. et. al., 2005).

Breast cancer is the most prevalent cancer and cervix cancer comes next for women living with cancer in Mizoram in this study. *Head & Neck cancer* is the most common cancer for men and *colon and rectal cancer* come next. However studies done earlier in Mizoram report that Lung cancer is the most common cancer among women followed by cervical

cancer while for men the most common cancers are of stomach, lung and liver in that order (Jeremy Lalrinsanga Pautu, 2012). Majority of the patients in this study reports that they learnt the diagnosis from a doctor and relatives. Some of the patients said that they did not receive enough counseling as the doctors were always in a hurry dealing with them. On the other hand some patients said that while they are in the process of investigation, they prepare themselves knowing that they are likely to be diagnosed with cancer and that when the doctor delivered the diagnosis, they were not shocked at all. However they reported that they still *craved* for more information.

The average cost of treatment was very high and it placed a burden for the family. From the results it is also known that in the case of more than half the respondents, the total average income of the family is above ₹7000/- but the average expenditure for the cost of treatment per month for majority of the patients was between ₹1000\ to ₹15800\-. As discussed earlier the patients were mostly the bread winners who were in self employment. For them it was very hard to overcome their financial needs which caused a huge stress. Their preoccupations were on how they will pay their current treatment and if that was met with, they would be preoccupied with their next treatment. Likewise not just the disease itself the money involved creates a lot stress for the patients. Some also reported that they had an inferiority complex which made them think they were nothing but a waste of money, they sometimes feel they were not valuable for the family at all and that they were draining the family of resources.

From the study the symptoms most commonly reported was tumor, change in bowels and indigestion and weight loss and this was common in colon and rectal cancer patients.

To study the coping patterns different kinds of questions were asked on a scale constructed by Susan Folkman and Richard S. Lazarus. From the results it is observed that men tend to use *positive reappraisal and escape avoidance*. When patients try to avoid the occurrence of the disease it shows how deeply disturbed he may be. This also shows that some men usually try to fight back and look on the bright side of things. The way they use *planful problem solving* strategies shows that they have a positive thinking and show the effort made to overcome their disease.

On the other hand, women use *positive reappraisal and escape avoidance* just like men. But unlike their male counterparts they seek social support to alleviate their anxieties by ventilation on their problems. Men did not want to talk to others but women like to share their feelings with others which is of tremendous help. But this did not seem to have a lasting impact because women seemed to be experiencing more severe mental distress.

From the study we know that nearly two-thirds of cancer patients have severe mental distress. *Comparisons across gender found that women have more severe mental distress as compared to men*. When serious illness is encountered, it consumes the person's life and changes one's priorities and thinking of daily events.

From the Focus Group Discussion it may be concluded that there is one mizo practice which cancer patients want the community to stop doing. This refers to the practise that when a person is diagnosed with cancer, almost every person gathered around the house as if that cancer patient is going to die soon and they are afraid they will not have a chance of seeing him/her before s/he dies. *Emotional, instrumental and informational support were all sufficiently received by cancer patients but the way people offered it was not always perceived as supportive*. Sometimes the support received has a negative impact on their mental health.

The source of their support was mainly family, neighbor and close friends. But when they received it from a completely different person they don't always find it supportive, they sometimes feel it is negative. *Information received is sometimes misinformation or disinformation which can negatively impact treatment seeking.*

This was evidenced from the Key Informant interviews as well. Key Informant Interviews held with professionals at Mizoram State Cancer Institute found out that social support is very good but the kind of support received has differing impact.

Based on the study the following suggestions are made.

- There is a need of informational support like books, video, pamphlets etc., so that Persons living with Cancer can read up and know how to cope with their own disease without troubling the doctors.
- They also need more services where they can get counseling without having to go to the doctors who are very far from the main city/ or have little time due to their busy schedules.
- Transportation is also a problem for persons living with cancer. The institution that provides treatment is situated at the outskirts of the city and transportation is costly. Hence the suggestion is for the state government to enhance transport facilities for persons living with cancer to enable them to access services easily.
- There is need for more awareness and improvement in infrastructure. This suggestion is specifically to do with the building infrastructure for treatment services. For the high incidence of cancer in Mizoram, the building for the Mizoram Cancer State institute is very small and inadequate. When patients

are in a crowded space waiting for treatment, there is a huge probability of misinformation being shared and hence the need for space and comfort cannot be undermined. There is also a felt need to enhance the treatment and diagnostic facilities.

- There is also an expressed need of giving assistance for the family when the patient is the breadwinner of the family and the government is requested to invest more for the treatment. The state government of Mizoram has been prompted to set up a cancer hospital and research institute to address the growing number of cancer patients in the state (The Shillong Times, Oct 15, 2012).
- What is evident from the study is that Mizos, by virtue of being a close-knit, tribal society are accustomed to sharing of information and suffering. There is a lot of emotional support and instrumental and informational support available for people living with Cancer in this society. *However, while the emotional and the instrumental support is very welcome, it is revealed that informational support is to be tapered and to be provided only by professionals as otherwise it can have detrimental effects on help-seeking behavior.*
- This study has huge implications for social work profession since it is observed that there is a tremendous need to educate persons in the society on how to deal with Cancer in an appropriate manner, with adequate and positive use of emotional support. Information and awareness campaigns at community level are required and support groups can be created by Social workers and NGOs.

- Further, since cancer is a major health problem in Mizoram, which is a leading state in incidence of cancer, we do require having more Clinical and treatment centre for handling care and counseling services.

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