

**ROLE OF SOCIAL SUPPORT IN STRESS AND LIFE ADJUSTMENT AMONG
CANCER PATIENTS**



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Dissertation Approved


By



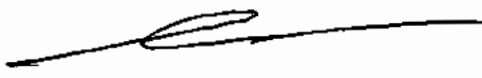
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CERTIFICATE

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Dedication

This thesis is dedicated to all that people who in the face of great odds have met the challenges of cancer diseases. Specially to my cousin, Zeeshan khan, who lost in the battle of liver cancer when he was only 17 years and to my aunt, Zeeshan's mother 52 years of age, who not only showed courage and survived from breast cancer but she give courage to other women having breast cancer and also live her life happily.

But most importantly, I would dedicate this dissertation to all those families, care giving e.t.c who talked with me on their journey of cancer. To each and every cancer patients, I gratefully dedicate this work.

Acknowledgement

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At last but not the least, I would like a lot of thank to my parents support me from an early age, the aspiration and assistances to obtain the Master's.

Abstract

Cancer is regarded a life threatening disease and a patient diagnose with a cancer is considered very stressful life event. Cancer patients experiencing numerous stressors and social adjustment problem and beside medical treatment, psychological treatment is also measured very essential. Social support is one of the intervention that protects cancer patients from the harmful effects of cancer related stress. The aim of this research is to examine the role of social support in stress and social adjustment among cancer patients. For this purpose 120 cancer patients (60 male and 60 female) that completed their chemotherapy or radiotherapy periods were nominated for this research study. Participants were selected from different cancer units and community of Khyber Pukhtoonkhwa. Data were gathered on demographic sheet, Social Support Survey, NCCN Distress Thermometer and Social adjustment Scale. In results it was found that social support negatively predicts stress and positively predicts social adjustment. Female cancer survivor shows higher stress responses on distress thermometer as matched with male cancer patients. Also older age cancer survivor score higher on stress as compared with younger age cancer patients. There was no effect of stress level on socioeconomic status of cancer patients. Results also showed that married cancer patients score lower on Distress thermometer as compared with single cancer patients. Research findings of this study confirms that social support has a prestigious role in releasing the level of stress and socially adjusts the cancer patients in their society. It is also clear from this research that female, single and old age cancer patients are at higher risk of stress and they are more needed social support for easing the stress level and socially adjustment. The effective use of social support should be encouraged in treating stress and social adjustment problem and it should also be encouraged to incorporate social support in the treatment plan for cancer patients, since it is an important and essential for the care of cancer patients.

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CHAPTER-I

Introduction

Nowadays cancer is considered as one of the most grievous disease which raising to be the most affrighting disease despite of crucial developments in its treatment (Elbi, 1991). Cancer upshot patients' lives as well as their families home routine one way or the other ways. Cancer diagnosis and their intervention wrecks many complication in patients and their personal way of living, in casual activities, work, socialization which is affiliated with patient of a high level of psychological stress (Zabalegui et al., 2005). That stress come out as anxiety or depression a patient of cancer are not affected physically, socially, psychologically and economically but also experiencing limitation in the way of their living style. Cancer is a disease which has the capacity for psychiatric disorders in patients (Dedeli et al., 2008).

Cancer is neoplastic disease in which abnormal and uncontrolled cell division takes place by which it can attack on almost every part of the body that growths of uncontrolled hierarchy could penetrate the surrounding tissue and can metastasize to an organ (WHO, 2012). Cancer is a malignant diseases characterized by cell division at abnormal way. Cancer effects organ system when impairments somatic cells divide uncontrollably to generate lumps or other masses of tissue called tumors (Medical News Today, 2014). National Cancer Institute (NCI) estimated that a total of 13.7 million cancer survivors on 1st January, 2012. The most common cancers among male survivors are prostate (43%), colon and rectum (9%), and melanoma (7%). With contrast to the female survivors having common cancers are breast (41%), uterine corpus (8%), and colon and rectum (8%) (ACS), 2012). Data from the last nineteen years suggest that total 63,881 cancer patients were at Shaukat Khanum Memorial Cancer Hospital and Research Center (SKMCH &

RC) out of which 60,805 were noted malignant and 3,076 were benign. The division seen among male and female were 30270 and 30535) (48.92% and 51.08%, respectively). About 89.15% tumors were diagnosed in adults whereas 10.85% were identified in children (SKMCH & RC, 2014). Cancer is the leading causes of death along the world has been estimated for 8.2 million deaths in 2012. Lung, liver, stomach, colorectal and breast cancers have a larger share among the deaths by means of cancer patient each year. About 30% of cancer deaths are occurs due to the 5 leading behavioral and dietary risks 1st one is high body mass index 2nd one is low fruit and vegetable intake 3rd lack of physical activity 4th tobacco use and 5th is alcohol use. A latest study of newly diagnosed cases reported distress respectively 67%, 50% of lung cancer patients and breast cancer patients (Carlson et al., 2010).

In 2008, 7.6 million people died of cancer contributing the share of 13% of all deaths worldwide. Approximately 70% of all cancer deaths occur in low- and middle-income economy countries (WHO, 2012).now days in American one 10th households has a family member who has been diagnosed with or intervened for cancer within the past 5 years (USA Today et al., 2006), and 41 percent of Americans has the chances of expect to be diagnosed with cancer at some point in their lifetime (Ries et al., 2007). In United States it is estimated that ten and half of millions peoples are living with diagnosis of cancer (Ries et al., 2007). Where as in America more than half a million citizens will apparently die due to cancer in 2007 (Jemal et al., 2007). The nature of the Cancer cells are neoplastic type in which cell has the uncontrolled dividing capacity and could reach to the any part of the body by arterial system etc. Cancer itself is complex class of mega disease having more than hundreds subtypes; for example the name of sub type of cancer associated with part of the body. Like, cancer cells that covers the colon with lumps is called colon

cancer; cancer cells that forms tumors in melanocytes of the skin known as melanoma e.t.c. (NCI, 2014).

Stress. With human nature it is stated that by diagnosis of cancer there must be a universally stressful life hours and that is sharply related with some push in distress at a population degree level. This fits the description of a stressful event (Cohen and Wills, 1985). The term "stress", as it is laterally used by Hans Selye, defined it as "the non-specific reflections to the demand change of the body (Hans, 1936)". All of the experimental psychological and clinical research reasserts that the absence of control over sense or having little is always distressful and that's what stress is known to be (American Institute of Stress, 2014). When a stimuli disturb physical or mental equilibrium Stress develops (Psychology Today, 2014).

Stress is simple response to a normal sensation which is endangered and facing challenges some body not sure to meet the incident. It could be chronic, means it will be long lasting sometimes permanent and become worse with passage of time, where as in severe cases stress could be trifle or acute, develops dramatically for short time space (Foundation for Women's Cancer, 2014). Stress can overwhelm you and make you feel forlorn. Slow and gradually get involve with the sense of well-being and confess you lose hope and give up the sign like that leads to depression (Foundation for Women's Cancer, 2014). Stress integrates with our body as well as mental states. That would be our own way of responding to environmental stimuli for example when patient in a situation that is stressful in response to that situation the brain produces hormones like sympathetic nervous system release of hormones that worn the body for their reaction as a result fast breathing begins, blood pressure increases which leads to highest heart rate, as a result more will be the sugar level because of this our pupils expands (Essays, 2013).

Cancer associated distress is a stress in which “bad emotional experience of a psychosocial, and spiritual nature that may be interfere with as well as lesser ability to cope efficiently with state of cancer. There are many symptoms with its treatment”. The term stress is characterized by psychological and sociological processes in reflection to the incident, event or any other circumstances that is perceived in sense menace or challenging (Baum, 1993). Stress is thought to be the exertion of neurotic and psychoneurotic effects on the body that increase vulnerability of body towards disease in part by encouraging dysfunctional behaviors (Cinway, 1981). Stress is defined as a process in which environmental demands strain an organism’s adaptive capacity admitting in both psychological demands as well as biological changes that could place for jeopardize to the way of illness (Cohen, 1995).

Social and Psychological stress depicts that what patient will feel when patient are under mental, physical and emotional pressure (Cancer.gov, 2015). Stress has been defined by as psychological stress the by product in case of particular relationship between patient’s and the environment that is appraised by means of person as taxing or exceeding his resources and endangering and bothering about his or her well-being (Lazarus & Folkman, 1984). Stress also could be defined as a real made by sense endanger in response to the physiological, social or psychological integrity of a patient which results in the physiological and behavioral adjustment. Perception varies with cultures In Eastern cultures, stress has been viewed as the absence of inner peace in contrast to the Western culture has viewed stress as a loss or absence of control (Rohit et al., 2011)

Social Support. There are two main reasons that the social environment is particularly important domain in the advancement study of cancer. 1st aspects of the social environment have been found that to endure well-being as well as to protect patient from the deleterious effects of

stressful life incidents of which cancer is one of first (Cohen & Wills, 1985). Social support as beliefs or perceptions which indicates that an individual the part of an interpersonal relationship that includes family, parents and peers (Meadows, 2007). As support may be informational like information that are accepted from others, family members who loved you, valued you, esteemed you, and cared for (Cohen & Wills, 1985).

National Cancer Institute states that Social Support is a chain community members, family, friends and neighbors that is reliable at time of need for giving informational, psychological, physical, and financial assistance (National Cancer Institute, 2014). The relationships that exist between a person and his or her friends, family and other community ties make an chrome and the structural and functional characteristics of the chrome are generally known to be the person's "social network" (Berkman et al., 2000). In modern cancer care social support is an important facet of that. Social support is relief or as all kinds of financial, informational and spiritual support that an individual get from one's close chromatic environment (Clark et al., 2006; Sorias, 1988). According (Katz & Bender, 1976) define a 'support group' as a structured group composed of few members' relatives and friends that can offer mutual support through interpersonal and confidential interactions. With contrast to, Atchley (2000), stated that social support having numbers of peoples we can count in crisis time by the provision of information, assistance, affirmation, ongoing emotional support. Whereas, an important facet of psychological and social care for the quality of life is social support. Which may describe in four words like emotional, informational, instrumental, and appraisal assistance (House & Kahn, 1985).

The main structural and functional feature of social support refer to the makeup of a social web and sources of endorsement where as basic functional characteristics concerns to the provision of particular resources and types of support (Stewart 1989; Komproe et al., 1997).

There are four different functions of social support or endorsement have been described: first emotional support, second instrumental support, third appraisal support, and fourth informational support. For instant family member proffers emotional support like esteem of being honor, concern, trust, and listening what he saying. Instrumental support refer to any kind of aid like , money, labor, and time Peers offer appraisal support that enhances the patient's self-esteem. Finally, informational support are that type of support in which suggestions for problem solving, directives, advices and information about problem (Gotay & Wilson, 1998; Katapodi et al., 2002).Some other researchers give more emphases and focus on the functional aspect of social support (here social support has been defined on the basis of its functions as resources and assets paid by others that could exchange the form of emotional support like 1st provisions of confident like support and attachment 2nd instrumental aid 3rd provision of tangible support, material aid); information 4th provision of advice, guidance, appraisal and problem solving and positive feedback as to one's importance, capabilities or self-worth honored (Oermann, 1991; House, 1981),

Supportive social interactions has three main types 1st emotional, 2nd informational, and 3rd instrumental (House, 1981; House & Kahn, 1985; Kahn & Antonucci, 1980; Thoits, 1985). In theory, each kind of support is influencing one's associative illness reactions described as below. Emotional support is concern involvement of the verbal and nonverbal communication of caring by listening, "being there," restoring confident and relieving anxiety with sympathizing and satisfying. Emotional support is better help to recover self-regard and lesser the feelings of personal inadequacy by sharing to the patient that he or she is valued and loved as a result permission to the expression of feelings that may reduce distress in patients. Emotional support leading attention for the improvement of interpersonal relationships by providing some purpose, experience and meaning for the disease. Informational support involves consultation of

information used to guide and advice patient's care. Patient can control, manage and cope with illness symptoms by providing informational support to improve the perception. Informational support also help to mate better the sense of confusion and distress that arises from being diagnosed with cancer by providing support the patient can understand the chemistry ,cause, course, and treatment of cancer. For Instrumental support provision of material goods involves, for instance assistance with household chores, money, and transportation. Providing instrumental support may proceed the loss of control of that patients feel during cancer treatment by providing tangible resources that patients can use to exert control over their experience. Provision of instrumental support, in patients also may increase feelings of dependency and undermine self-efficacy (Wortman & Dunkel, 1987).

On the bases of functions Social support has been defined described in many ways (Caplan, 1974) describes social support systems of concerning with peoples who can be relied upon to promote mastery, offer guidance, and provide feedback and validation about the patient's stressful experiences and coping mechanism and choices.

Life Satisfaction. In current study social adjustment is the indicator of life satisfaction in cancer patients. It is an individual effort made by to cope with standards, values and needs of a social society in order to be accepted their limitations can be defined as a psychological process (Preserve articles, 2015). Adjustment literally means behavior that permits one's people to meet the demands of the one's environment or extrovertiveness (Chauhan, 2013). Adjustment is the state of "symphonic relation to the environment where one could obtain satisfaction for most of one's requires and to meet well the demands, physical and social, put upon one" (English & English, 2015). Balancing of internal needs and external demands of the organism is known as

adjustment. Adjustment is interrelated with patient's compatibility in opinions and actions whether he or she has the capacity to maintain their inner and outer worlds (Psychology wiki, 2015).

Psychological adjustment to the illness mainly concern with the adaptation to disease without continued producing of psychological distress (e.g., anxiety, depression) as well as loss the role of function (i.e., social, sexual, vocational)" (Helgeson & Cohen, 1996). Adjustment is the establishment of satisfactory relationship, as representing, harmony with compatibility and conformance adaptation etc. Adjustment is psychosocial survival in with patient is insisted by numerous social problems which are promulgates in our daily life cycle. Social adjustment can be defined as a psychological process that involves to coping with new variables and values. In the technical language of psychology an individual getting along with the members of society as best one can know to be adjustment. The term adjustment use is varying with circumstances of social as well as interpersonal relation in the society. Thus adjustment is known to be the status in which reaction to the demands and pressures of the social environment imposed upon the individual. Social adjustment is the feeling of accomplishment and balance in social relationships normally aided by the appropriate application of social skills (Joysree & Amit, 2013).

Association between variables

Social support and stress. Cancer is one of the most lethal illness that is often characterized by stain or stigma therefore, cancer patients needs more additional social and psychological support for the completion of treatment process (Hunninghake, 2010). Social support referred to those support which patients receive by its social bonds, interaction, person, or relationship (Veiel & Bauman, 1992). Several studies indicated that social support having emphasis for the betterment of physical and psychological health. It has been clear that harmful consequences will be as a result of poor social support whereas the protective and communicative

effects of good social support in mental illness and other illness have been well documented (Ozbay et al., 2007). every definitions of social support reflex some type of good and positive interaction or helpful behavior provided to the patient in need of support (Hupcey, 1998). As cancer victims have more social support with social bonds available better would be individuals' immune system and well-being will become e.t.c (Baron et al., 1990).

It is demonstrated that higher mortality rates is mainly correlated with low levels of social support. Some other Research suggests that strong social support is beneficial in reducing the stress that is concern with patient's illness and life events will be better to helping the recipient of the better cope with problematic situations (Bliese & Britt, 2001; Caldwell, Pearson, & Chin, 1987; Cohen & Willis, 1985; DeVries, Glasper, & Detillion, 2003). The presence of a social support system has been shown to be beneficial to the recipient on multiple levels including physical, emotional, and health (Berkman & Syme, 1979). Social support or social networks are structures that consisting of family and relatives, friends, and other individuals who are willingly provide support. Through this mechanisms the interpersonal relationships and connections protect patients from the detrimental outcomes of stress. Social support is the key for any emotional safety of individual or patient because everyone has need to feel a part of a family or group of relatives and friends (Tilden & Weinert, 1987).

According to psychosocial Studies social support is mainly related with the patient's physical or mental health when he is under stress and protect patients from potentially pathogenic influences of distress times (Cohen & Wills, 1985). Past research articles argue that social support is good for patients in adjusting as well as adaptation to the stress of the cancer patients. Support may have of several types but emotional support is seen as great emphases and helpful for adjustment. Some types of support is mainly concern with cancer patient and also depends on who

provides them. The unevenness of stress amongst cancer patients liaised the frequency of social problems which concern between support and various indices of social adjustment (Dunkel, 1984).

Social support is regarded as a modifying constituent to coping with distress situation (Holahan & Moss, 1986). Coping mechanism seen as a complex psychosocial process in this way social support that buffers stress also a form of process. Social support is the part as well as one of the social resource of coping (Folkman et al., 1986). Physical health is vulnerable to differ kinds of environmental strains like psychological stress. The consequences of stress are mainly concern with coping stress management which is modified by social support and interfered by stressors. These afore said all complications contribute to the health status of a patient (Holahan & Moss, 1986). There is strong evidence that social relationships has causal impact on health of cancer patients (House et al., 1988). Social support protects the individual from the potentially harmful effects of stress by improving coping process (Temoshok, 1987). Several studies have demonstrated that sound social support may reduce stress in many ways (Norbeck, 1981).

In fact having social support and personality traits like optimism and problem-focused coping are concern with more positive results to stresses of care giving (Weitzner et al., 2000). Most of family and loved ones frequently reliable for substantial part of emotional and logistical support to cancer patient by hands-on inter personal and nursing care is an step to address these needs (Hayman et al., 2001; Kotkamp et al., 2005). On the base to these findings, few members of ASCO, ONS, and AOSW reported that social support groups are the second most frequent subject of patient inquiries about support services (Matthews et al., 2004). Peer support programs in which people communicate and share their experiences with others known as rapport building having personal experience which are strong enough mechanisms for reducing stress and building one's self capacity to produce desired effects. For instance belief that one has the capacity of carrying

out a course of action to get the goal (Bandura, 1997). The structure, range, and the degree of intellectual profundity of these relationships unite to settle up one's degree of social integration. Social networks of promoting well-being produce different types of support to cancer patients under distress time including emotional, instrumental and informational support. verbal and nonverbal communication of caring is concern with Emotional support including ,listening, 'being there, empathizing, reassuring, and comforting" (Helgeson & Cohen, 1996); informational support enhance knowledge and provides guidance for illness and provision of material or logistical assistance known to be instrumental support such as transportation, money, assistance with personal care and household chores (Cohen, 2004).

According to human nature strong evidences has founded that the perception of the availability and reliability of social support covers patients from psychological distress, anxiety, and other depression (Wills & Fegan, 2001; Cohen, 2004), in part by buffering them from the effects of stress (House et al., 1988; IOM, 2001). Conversely major research studies have demonstrated that social isolation is the main risk factor for mortality across all causes of stress in cancer patients (Berkman & Glass, 2000). Recent study 2,800 women of breast cancer for time space of 6 years, found that women who were socially integrated are less vulnerable to dying with contrast to those who socially isolated before their diagnosis had a 66 percent higher risk of dying by all kinds of disease during the observation period mortality rate from breast cancer were double (Kroenke et al., 2006). As aforesaid that unsupportive social interactions and gathering are strongly concern with greater psychological stress (Norton et al., 2005), as lesser social support functioning will be higher rates of post-traumatic stress disorder (PTSD) (Bruce, 2006; Figueiredo et al., 2004). Coping which involves related to seeking of social support, positive problem reframing and problem solving, information seeking and emotional expression improving patients way of coping

strategies will be efficient in reducing of psychological stress that will better for health behaviors and the management of cancer (Barton et al., 2003).

Multiple studies crunched demonstrated that positive social support such as emotional support primarily associated with better immune system functioning and resistance to stress. (Uchino et al., 1996; IOM, 2001; Uchino, 2006). In women with ovarian cancer higher levels of NK cell activity is predicted to higher levels of social support whereas patients with greater distress had more impaired NK cells (Lutgendorf et al., 2005). Although existing research provides only limited insight concerning the mechanisms of this effect and the associations between social support and health outcomes are well established possibility is that social support directly affect physiological responses to stress (Kamarck, 1990; Gerin, 1992).

When cancer-diagnosed patients receives social support provided by the families and friends resulting in positive signs in course of stress by affecting general wellness of the patients (Dedeli et al., 2008; Clark et al., 2006). According to couple of psychological studies indicated that social support can reduce the negative impact of the cancer diagnosis as well as its treatment and had positive influence on psychological welfare (Cohen & Wills, 1985; Ell et al., 1992). A social support group consist of formal and informal relationships and members which may provide information, advice, and knowledge emotions with love, comfort and security and also material services that help practical problems supports required to overcome with stress (Caplan, 1974). Social support is an important aspects of adjustment to the cancer patients for physical health and well-being (Hann et al., 2002; Parker et al., 2003; Ashing et al., 2004; Kartoglu & Saracoglu, 2005). Perceived social support act as a barrier against high-stress for cancer patient's commitments and help to protect and strengthen feelings of identity and their satisfaction (Sorias, 1992; Sahin, 1999; Kaymakcioglu, 2001).

Past and current studies of psychology stated that social support having great emphasis and also an important content of alleviating cancer patient's psychological distress (Revenson et al, 1983; Neuling & Winefield, 1988; Roberts et al, 1994; Hann et al, 1995). Interpersonal relationships that protect people from bad effects of distress incidents known as Social support (Wotman, 1984). Social support is thought to be capacity for sustaining the patient's behavioral adaptation by promoting in the face of threats to health like cancer (Cohen, 1988; House et al, 1988).

According to a case study carried out by Dunkel, 79 breast and colorectal cancer patients between 7 and 20 months following diagnosis in which Respondents were asked to describe the most helpful supportive behaviors and unhelpful behaviors and the sources of such behaviors. Behaviors were classified into four categories i.e. emotional (love, concern, understanding, reassurance, encouragement), instrumental (aid, assistance), informational (advice, problem-solving information), and appraise. First and often helpful support was Emotional support and instrumental support was clarified as a least often as helpful. Whereas in contrast to (Dakof & Taylor, 1990) got findings on emotional and informational support. They asked 55 cancer patients varies with cancer sites. Within 6 years of diagnosis or recurrence to identify the most helpful and unhelpful support behaviors. Dakof and Taylor classified Behaviors were into one of three subclasses first sub class was Emotional support included physical presence, empathy, concern, affection, and understanding. Second class was informational support included information, optimism about prediction for the course of disease, and being optimistic role of model third one was instrumental support (tangible support) concern with medical care and practical or physical assistance. Here again with relating to all kinds of support emotional support was the best one declared if provided by some groups or in case of absence will be the most dangerous when the

supportive source were a spouse, family member, or friend. When the source was a physician, informational support was the most helpful if present, and both informational and emotional support were harmful to the patients when absent. Instrumental support was identified as more helpful among poor-prognosis patients. The anecdotal research reports, clinical studies, a wealth of epidemiologic research results shows mortality rate in single, married, and divorced patients as well as sophisticated psycho physiologist and further laboratory experimental research confirms that as strong as will be social and emotional support the more powerful stress buster would be that improves physical health with prolongs life (Sharon, 2010). Tangible support is mark stress minimization way of the victim of cancer patient (Sharon).

Social support and social adjustment. Literature linking provide a great deal of social support and adjustment to cancer we conclude that only studies that examined specific forms of social support (Lindsey et al., 1981). These studies averaged over multiple kinds of social bonds by the help of these studies to compare the two perceived supports were strongly associated to adaptation and adjustment (Cohen & Hoberman, 1983; Cohen & Wills, 1985; Wethington & Kessler, 1986). When we want to describe the source of support. The sources support most often has been studied were close health care professionals family and friends. Results insisted only to emotional support in adjustment to cancer patients. All of aforesaid studies reflecting a positive association between emotional support and adjustment. Case study For instance 41 women who had mastectomies an average of 22 months prior to the interview resulting of one's who perceived greater emotional support from nurses, physician, surgeon, spouse, or children rated itself by having better emotional adjustment (Wellisch, & Pasnau, 1978).

A research findings stated that greater levels of better social and emotional adjustment was found to be inter linked of perceived emotional support like improve functioning, life satisfaction,

self-esteem, and reduced hostility in case study of 301 women with breast cancer (Zemore & Shepel, 1989). Social support has been demonstrated by positive effects on a wide range of results like social functioning, mental wellbeing and physical health (Wotman, 1984). Social support is the experience of vast members of social support group which has long been declared for its direct and buffering efficacy on emotional adjustment and well-fare in cancer (Akechi et al., 1998; Nausheen et al., 2007; Walker et al., 2006). Studies further has describe the value of social support in the sense of adjustment and well-being in distress events (Gottlieb, 1987). Findings any type of treatment social and intensity of symptoms will be important facet of adjustment in breast cancer (Budin, 1998).

Cross-sectional as well as psychological prospective research show social support is positive concern with perceived psychological adjustment in cancer treatment (Usta, 2012). The liaise possibility of link between adjustment and emotional support by coping was enlisted in the study of (Bloom, 1982). The regarding studies that focused on the received adequate means of emotional support argued important effects on survival of adjustment (Ell et al., 1992). Enhance general relationships and well-being among healthy individuals as well as those who's are distress in chronic diseases known as social support (Grunfeld et al., 2005).

Positive emotional support is associated with better psychological adjustment to cancer patients resulting to reducing of stress, anxiety and depression (Helgeson & Cohen, 1996; Wills & Fegan, 2001; Maly et al., 2005). Coping which concerns about attempting of emotional expression ,social support, information seeking, positive reframing and problem solving, can support and strengthen adjustment to stress in cancer patients (Holahan et al., 1997). Social support could be significant when it dealing with a distress situation great deal of research (Caplan and Killelea, 1976; Katz & Bender 1976; Taylor et al., 1986; Sarason et al., 1987; Samarel et al., 1997). Further

psychological interventions like support groups members, contribute enough to improving adjustment by reinforcing efficient coping mechanisms in cancer patient. Moreover, when any group member are sharing cancer experiences with patient has positive effects such as participating in the group helps to enhance emotional adaptation (Spiegel, 1981).

In addition, evidence reveals that social support is beneficial for cancer patients and there is positive relationship between emotional support from family members and the level of physical and psychological adjustment to cancer. Furthermore, research discriminates that the relationship between the social support provide during diagnosis stage with better lifespan shows the direct proportions between social support and psychological adjustment (Eylen, 2001). Though further more studies have also been examined social support among cancer patients that social support is pertained to improved psychosocial adjustment, (Carey, 1974; Gibbs et al., 1978; Jamison et al., 1978; Mages et al., 1979; Sheldon et al., 1970; Weisman et al., 1976). Patients of having social bond by which s/he could able to maintain close and satisfying relationships results with significant on the others demonstrated a bad adjustment to patient's illness those patients who did not have social bonds.

Social adjustment irrespective influence by social support and distressful life incidents. For instance social support can directly act upon adjustment by restoring patients confidence patients feel greater control. Some others would help them like encouragement and advice (Dohrenwend & Dohrenwend, 1981; Dohrenwend et al., 1982; Holahan & Moos, 1994; Kornblith, 1998; McLean & Link, 1994; Cohen & Syme, 1985). By adding past articles concepts points that the central role social support plays in relieving the impact of distress on the patients in facilitating adjustment in harsh times (Sharon, 2010). Social support promote adjustment with time of having high stress like cancer (Penninx et al., 1998).

Considerable evidence suggests that among patients at all stages of the cancer disease social bonds are important facilitator to improved social adjustment with reducing stress (Kornblith et al., 2001). Among all of psychosocial research pointed that the most prolific predictor of adjustment is social support. Many studies have shown that with lesser the social support more will be the stress on the other hand patient having better support minimize will their stress in case of chronic illness (Crothers et al., 2005; Helgeson et al., 2004; Schnoll et al., 2002).

Gender and stress. Stress in gender difference specific health problems in men and women reactivity have been profound as a potentially important risk factor (Goldstein, 2005; Kajantie, 2006). In general studies of psychology, consistently demonstrated that men's score lower on the stress-o-meter than of women. American Psychological Association (APA) carried survey research in 2006 of 43% of men compared to women totally rate 51 percent of women and discriminated reported that stress had differ impact on their lives gender (APA, 2006). According to journal of personality and individual differences conducted the study of 2,816 patients in the results the men score are lower than on the bases of vulnerability to chronic stress and disabilities (Matud & Pilar, 2004).

Men are under less distress than Women it is reported that women are having some limitation in social bonds in health the study noted refers to that about 46% of women profoundly concern about stress characterize by their physical health as poor or fair. On the other hand 29% of men are reported (APA, 2006). Stress in younger of female patients is higher than male patients of old age in chronic disease (Kavita et al., 2012) and as also shown in Harter's and Zabora's study (Zabora, 2001). Female patients indicates a profound level socio emotional support and experience more problematic significantly in psychosocial adjustment with contrast to male patients (Baider et al., 1989; Irwin et al., 1987). According to the APA survey, women are more risky than men to

report associated with distress health problems and face the stress in the form of physical symptoms such as depression, hypertension and anxiety (APA, 2010). Although psychosomatic symptoms are different in gender. In contrast with gender male perceived less problems such as depression sleeping problems, stress, tiredness, concentration, headache, and nervousness difficulties with memory and then female due its social activities (Aromaa, 1989).

According to cancer patient report that stress levels are too high in women where as in males the report are negative. Report further suggested that physical and emotional symptoms of stress are more likely concern with females than that of males such as stress in males are 20% on the other hand 28% in females data are collected through following scale (8, 9 or 10 on a 10-point scale). Almost 49 percent of all women surveyed reported that for the past five years their stress has increased with passage of time and with compared to four in 10 almost 39 percent about men. Report also prefer that physical and emotional symptoms of stress are highly associated with female than male patients like having felt as though female could cry 44 percent whereas status of males are 15 percent having had a headache 41 percent in women and 30 percent are of men (APA, 2010).

A laboratory experiment by Kirschbaum et al, physiological responses report that a pattern of gender differences in to social support that would be unchanging with the epidemiological findings on marriage. Although in case of marriage couple live together and male make sounds support during the harsh time of a stress showing lower cortisol levels than those of single female and male. Whereas for the women there will not benefited of having their male live together present during the time of expectation of a distress event. These differences of gender provides additional evidence for the stress (Kirschbaum et al., 1995). Specifically, women are at higher risk and vulnerable to developing Parkinson and Alzheimer diseases and showed higher levels of stress

with contrast to male patients (Kikuchi, 2009; Schuessel, 2004). In females diagnostic delay may also cause more psychological stress with respect to male cancer patients (Risberg, 1996).

Gender-specific analysis previous psycho-oncological studies showed that linking between SPD and cancer was only observed in women further female cancer patients are higher prevalence of stress (Hagedoorn, 2008; Harter, 2001). Recent reported shows higher level of stress among women of both patients and caregivers coping with chronic disease like cancer than among males (Hagedoorn et al., 2008).some studies that intended, a priori, to cross check with stress among female and male cancer patients, females are reported higher in stress (Keller & Henrich, 1999). According paucity of references on psychological adjustment of males to cancer may be a result of the apparently lower rates of depression and stress among males in the general population and specifically among male cancer patients. Women Rates of depression and stress are significantly higher than among male cancer patients (Namiki et al., 2009). Majority of males are providing less emotional support but also suffering less stress in the role of patient or spouse (Moynihan, 1998).

Older adults and stress. Older peoples or adults have higher vulnerability for chronic disease like cancer that may affect cancer care, treatment, and recovery (Cancer.Net, 2014). Cancer can attack on anyone of any, but the vulnerability with respect to age. About 77% of all cancers cases are diagnosed in age of 55 and older peoples (Cancer.Net, 2014). Ages 64, Americans are more likely to report prostate cancer screening within the last year whereas the same way 50 % of Africans. However, between ages 79 and 65, the screening prevalence is lesser for black, and it is comparable for both classes starting around the age of 80 years (Jerant et al., 2004).

With passage of time limitations occurs in activities of daily routine in this way survivors of Cancer with 65 age or older reported more vulnerable to feebleness or frailty (Mohile, 2009), the high rates of stress, depression, mental deterioration incontinence and osteoporosis is mainly

concern with self-rated health and lower quality of life (Baker et al., 2003). Cancer are more approachable to adults than of younger due to frailty and other diseases. Promising area that has great emphasis is Stress is acquires analyses in older survivors of cancer. Especially important since by the year 2030, 70% (Kavita et al., 2012). Patients with age of 65 or older it is reported that more complexity and limitations occurs in lifestyle like less eating, using bathroom and bathing are accounted of 11% while other category of disabilities like walking and set or stand for couple of hours are reported 58% (Hewitt et al., 2003).

The preexisting chronic disease and occurrence change for disability in adults which could make stronger the stresses cancer patients (Hewitt et al., 2003). According to psychological evidence also indicates that with respects to younger adults are having less capacity and can easily insisted by risks adults for complications in health-related decision making stress (Finucane et al., 2002). Although in 1970 and 1986 adult patients of cancer diagnosed have survived 5 years or more indicated some limitations in daily activities like participating in sports, running, lifting heavy objects, walking, climbing a flight of stairs peregrinating, eating, dressing, using the toilet and bathing (Ness et al., 2005). U.S. comprehensive cancer center's study of 14 common forms of cancer they interviewed 4,500 adults patients age of 40 and older, the psychological stress reported profoundly from to 43% (Zabora et al., 2001). Continually recurring of chronic illnesses motivated in Declines health, are frequently leads to experienced form of stress in the age of 40 and so on, and these impact of such declines in health on psychological adjustment intensely profound (Zarit, 1980).

Marital Status and stress. There is not universal definition but possible explanation of the differences is that marital status has an intellectual effects on psychological states and lifestyles of the male as well as (Gove 1979). Some psychological Studies have demonstrated that

the married couples are happier and more satisfied with their life than those of the unmarried they are more social ties and less likely to be socially isolated. Survey findings suggest that fighting spirit to cancer and reducing psychological stress could enhance by being married as well as spousal support of men, where as that of being unmarried may be vulnerable to lower fighting spirit and psychological stress for men (Koji et al., 2003).

On a positive side, for huge psychological factor and affected spouses social support has great emphases for treatment. The immune system and well fare is significantly linked with social support like more the social support available to patients more will be the survival chances (Baron et al., 1990). Empirically (Luszczynska et al. 2012) found that for the enhancement of physical and psychosocial that patients acquire to perceived family support. Research study indicate that men of married had less psychological stress than those of unmarried men (Umberson, 1992). Lastly, married couples are associated with comfortable healthier and satisfy lifestyle behaviors of less stressful with contrast to unmarried couples (Krieger, 1992). Psychological study reported that better care and support by their partner to the married patient are profoundly concern tension free psychological state and less affected by the chronic illness than unmarried patients. According to Recent study single status patients reported not only lower levels of fighting spirit but also missing the feeling of forlornness than those of married cancer patients. On the other hand, male married patients and their female wife could make better to provide greater levels of support to their husbands. All of the psychological studies stated that with marriage men can attain the protector of social support and psychological well fare (Coombs, 1991). Many breast cancer study suggested that Perception of partner support were mainly concern with lower concurrent distress (Helgeson & Cohen, 1996; Nells, 1991).

Psychological fact that married couples satisfy to their life better health than those of divorced and unmarried individuals (Rebecca, 2009). A good marriage leads to social isolation mostly association established among depression, stress, social isolation and disease of heart good marriage might has capacity to protect the heart (Harvey & Simon, 2015). Aforesaid all research has shown that married patients reflecting less anxiety, depression and stress, as compared to the unmarried ones (Liz & USA Today, 2013).

SES and stress. Socioeconomic status (SES) is one of the most leading facet as well as vigorous social factors to effect physical health. The patients of lowest SES group are 2.5 times more vulnerable to be hospitalized than those of having highest SES further as lower the SES of patient more will he suffer activity limitations due to disease about 3.5 times as likely than those from high- SES groups (Braveman et al., 2010; National Center for Health Statistics, 2010).

Low income leads to financial stress, lack of health insurance, cost for health care as well as reduced employment and inflation in income are the well-known substantial of stress (NAP, 2015). Earning income which are cross that limits one's ability to avoid stresses that can accompany everyday life and to purchase medications, food, health care, transportation, and supplies necessary for health care as well as family expenditures (Kelly et al., 2006). APA case study results reported that 28 % of women rated that finances the prolific source of stress on the other hand compared to 19 % of men report the same source (APA, 2006). For cancer patients survivor's lower socioeconomic status is concern with less productive contextual support and strange source of psychological stress (ACS, 2008). Another close finding was that the cancer patient belonging to the of group with low SES reported significantly higher psychological distressful life as compared to patient of high SES as well as normal group of low SES (Agnes, 1980).

The findings of latest study demonstrated that regardless expression significantly higher stress attitude associated with lower as well as middle SES patients as compared to upper middle SES (Azibar, 2012). Empirical studies and various theoretical has also supported the findings that maintenance of many health problems and development prominently related to lower middle class of SES patients. (Haynes et al., 1980; Harburg et al., 1973) stated that the relation between hypertension and environmental stress appeared in both upper middle SES and lower middle SES people or patients, but that is less pronounced among high middle SES patients. The real means of passing life for is a bombardment stress not only that but also their recurring which is uncontrollable (Brady & Matthews, 2002). Most of the patient with high levels of education and income has resulted of less psychological stress (Carver & Antoni, 2004; Osborne et al., 2003; Parker et al., 2003; Schnoll et al., 2002).

CHAPTER-II

Method

Objectives

1. To examine the role of social support in the prediction of stress and social adjustment among cancer patient.
2. To explore the role of demographic in stress and social adjustment among cancer patient.

Hypotheses

1. Social support negatively predicts stress among cancer patient.
2. Social support positively predicts life satisfaction (i.e., social adjustment) among cancer patient.
3. Female cancer patients score higher on stress as compared to male cancer patients.
4. Older cancer patient score higher on stress as compared to younger age.
5. Lower socioeconomic status cancer patients score higher on stress as matched with higher socioeconomic status.
6. Married cancer patients score lower on stress as compared to single cancer patients.

Research design

Cross sectional survey research design

Study area

Study area for the study were different cancer hospital and private clinics of Khyber Pukhtoonkhwa i.e. IRNUM, North West Hospital, Rehman Medical Institute, hospitals in university town Peshawar and different private clinics (i.e., Khyber Medical Center, Khatak Medical Center e.t.c). Data were also collected from different community areas of Khyber

Pukhtoonkhwa like Malakand, Dir, Swat, Mardan, Peshawar, Swabi and Charsada.

Participants

Sample for this study were recovered cancer patients who just visited hospital for routine checkup and their chemotherapy and radiotherapy have been already completed. Total participants for the current study were ($N = 120$) out of which 60 were male and 60 female. Both married and single (unmarried, widow and divorced) participated in this research. Age of the cancer patient for this study were ranged from 15 and above and it was based on Erikson stages of psychosocial development i.e. Adolescence (15-18 years), young adulthood (19-40), middle adulthood (40-65), maturity (above than 65) (Erikson, 1959). The economic status of the participants were classified as lower (income up to 20000), middle (20- 50 thousand) and higher (above than 50 thousand).

Inclusion and Exclusion Criteria. The following were included in the study;

- a) Outdoor recovered Patients who visited for their normal checkup and their chemotherapy and radiotherapy and other treatment had been already completed.
- b) The recover cancer patients who were willing to participate in the study without any external force.
- c) Age range from 15 and above.

The following were excluded from the study;

- a) Outdoor or indoor cancer patients who were freshly diagnosed or their radiotherapy or chemotherapy had been start.
- b) Patients who were not willing to sign the prior informed consent.
- c) Age range below 15.

Sampling procedure

Sampling technique used for the study was purposive sampling.

Instruments

Demographic Information. The Demographical Information portion was contain age i.e. Adolescence (15-18 years), Young adulthood (19-40), Middle adulthood (40-65), Maturity (above than 65) Adolescents and young adulthood were consider younger and middle adulthood and maturity were considered older, sex, education (illiterate, primary, middle, high, bachelor, master and higher studies), marital status (married and single (single were unmarried, widow and divorced), family system (joint or nuclear), cancer duration, type of treatment (chemotherapy, radiotherapy, surgery), time duration after chemotherapy or radiotherapy, and socioeconomic status i.e. Lower (up to 20000), Middle (20- 50 thousand), Higher (more than 50000).

Medical Outcomes Study: Social Support Survey (MSSS). Social support were measured on the Medical outcome study: social support survey (MSSS). It is a revised version of the Social Support Survey developed as part of the Medical Outcomes Study in order to measure social support. (Sherbourne & Stewart, 1991). MOS social support survey is widely uses in cancer research like in other researches it is propose that MOS Social support is not only to assess older women but also it is use for female with breast cancer (Sherbourne & Stewart, 1991; Sherbourne et al., 1992; Ganz et al., 2003 & Silliman et al., 2002). Research findings suggests that use of modified social support survey is better for the assessment of aged women and particularly to women with breast cancer (Ander et al., 2012). The Medical outcome study: social support survey contains of 18 items. This tool also cover and measure other area (sub scale) of social support like emotional support, affective support, positive support and tangible support. Emotional support contains (8 items), tangible support (4 items), affective support (3 items), and positive support (4 items). These sub scales may also be helpful for researchers interested in testing hypothesis concerning these sub domains. The psychometric properties of the revised version of the Medical

outcome study: social support survey has a Cronbach's alpha of .97. The sub scale of social support survey are also highly correlated with each other and the Cronbach's alpha noted for Emotional/info support is 0.96, Tangible support 0.92, Positive interaction 0.94 and for Affection is 0.91 (Bland & Altman, 1997).

The Distress Thermometer (DT) and problem list. Stress of the cancer patients were assessed on the Distress thermometer and problem check list. The NCCN Distress Management Panel developed Distress Thermometer (DT). It is a well-known tool for assessing stress in cancer patient like in research results it was stated that the Distress Thermometer of NCCN is the suggested tool for measuring cancer related stress and it has been found very appropriate for assessing cancer related stress (Tara & Margaret, 2012). In other survey, 56 % of nursing and other staff reported that distress thermometer base assessment was very helpful while working with cancer patients (Mitchell et al., 2012). In other study of total 57 cancer adult patient (26 men and 31 women) completed the score on DT (Distress Thermometer). Effected site include head and neck, brain, breast, gynecologic, gastrointestinal, genitourinary, lung and lymphoma (Caryl & Tracy, 2007). The DT consist of 46 item with the initial item serve as a rough screening measuring distress (0= no distress, 10=extreme distress). The remaining item then composed of 5 sub scales i.e. practical problem (6 items), physical problem (22 items), family problems (4 items), spiritual or religious concern (1 item) and emotional problem (6 items). Response for each item is yes/no. The acceptable test-retest reliability for the tool is ($r=0.80$) (Zhang et al., 2014).

Social Adjustment Scale. It is a 45 item scale measure adjustment to different aspects. It was developed by cooper et al in 1982. The scale is divided into 7 sub scale i.e. work outside at home (6 items), work at home (6 items), social and leisure activities (9 items), extended family (6 items), marital (10 items), parental (4 items) and family unit (3 items). Item responses ranges from

(not at all=1) to (all the time=5). Score for some item will reverse in order to check fake responses. Reliability of the scale is ($r=0.740$) ranging from (0.54-0.79) for sub scales (Cooper et al., 1982).

Operational Definitions

Social support. Social support is referred to the emotional support, tangible support, affectionate and positive social interaction that are received from parents, spouse, siblings, peer groups, relatives and hospital staff. Medical Outcomes Study: Social Support Survey (MSSS) was used in order to measure social support (Sherbourne & Stewart, 1991).

Stress. Stress is the psychologically and physically responses of an individual to their problem. Stress is the conditions in which an individual faces some practical problem, physical problem, family problems and emotional problem. Stress is the situation in which an individual feel high palpitation, sweating, high breathing rate, and trembling, hot and cold flashes, fear of death, worthlessness e.t.c. Stress was measured on NCCN Distress Thermometer for Patients and problem list (NCCN, 2014).

Life Satisfaction. In the present study life satisfaction is how much the individual is socially adjusted with his/her life. Therefore life satisfaction was measured by Social Adjustment Scale (Cooper et al., 1982). Higher score on the Social Adjustment Scale indicated higher level of life satisfaction and low score indicated lower level of social adjustment among cancer patients.

Data analysis

The statistical analysis for the study was done through Statistical Package for Social Sciences (SPSS) software version 22. The descriptive statistics (mean, standard deviation, frequencies and percentage) were also carried out for the demographic profile of the participants like age, gender, marital status, socioeconomic status, area of living, family system e.t.c. A simple linear regression was computed to see the prediction of social support on stress and social

adjustment respectively. T-test was also computed to check the effect of stress on gender. ANOVA was also used to compute to see the difference of stress between different level of socioeconomic status, marital status and age.

Procedure and Ethical Consideration

Permission for the research conduction was approved by the ethical committee of Psychology department, International Islamic University Islamabad. Approval was also obtained from the head of different cancer units for assessing the cancer patients after briefing on the aim and objective of the present study. Inform consent were also signed from the participants and care givers prior interviewing. After explaining aim and objective of the study participants were told that your identity and all other information you provide will be kept confidential according to the professional ethics of research. They were briefed that your participation in this research is totally on voluntary basis you can quit at any stage if not willing to participate anymore. If you are not willing to participate in this research you will not be forced. Further they were also told that participation in this research and cooperation in providing the required information will be highly appreciated.

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CHAPTER-III

Results

Table I

Demographic characteristics of study participants (cancer patients) (n=120)

Variables	Categories	f	%
Gender	Male	60	50
	Female	60	50
Age	Adolescent (15-18) years	21	17.5
	Young adulthood (19-40) years	39	32.5
	Middle adulthood (40-65) years	40	33.3
	Older (65+)years	20	16.7
Marital status	Married	94	78.3
	Unmarried	17	14.2
	Widow	9	7.5
	Divorced	0	0
Socioeconomic status	Lower (up to 20000)	22	18.3
	Middle (20000-50000)	81	67.5
	Higher (50000+)	17	14.2
Educational level	Illiterate	46	38.3
	Primary	53	44.2
	High	18	15
	Bachelor	2	1.7
	Master	1	.8
Area	Rural	92	76.7
	Urban	28	23.3
Family system	Joint	101	82.2
	Nuclear	19	15.8

Table 1 shows different demographic characteristics of cancer patients (study population). Total participants participated in the study were 120, out of which 60 participants were male and same number of female i.e. (50 %) of both gender.

Different age patients out of which Adolescent (15-18) years were 21 (17.5%), Young adulthood (19-40) years were 19 (32.5%), Middle adulthood (40-65) years were 40 (33.55%) and Older (65+) years were 20 (16.7%) were interviewed.

Marital status of participants were i.e. married 94 (78.3%), unmarried 17 (14.2%) and widowed 9 (7.55) and there were no divorce participant recorded.

The socioeconomic status level of 18 (22.3%) were lower (up to 20 thousand), 81 (67.5%) were middle (20-50 thousand) and 17 (14.2%) were higher (more than 50 thousand).

The educational level of study participants noted that 46 (38.35) were illiterate, 53 (44.2%) were primary passed, 18 (15%) were high school, 2 (1.7%) had graduate 1 (.8%) was master degree holder.

Almost 92 (76.7%) of participants were living in rural area and 28 (23.3%) were living in urban area. Same 101 (82.2%) of participants belonged to joint family system and 19 (15.8%) were nuclear family system as shown in Table 1.

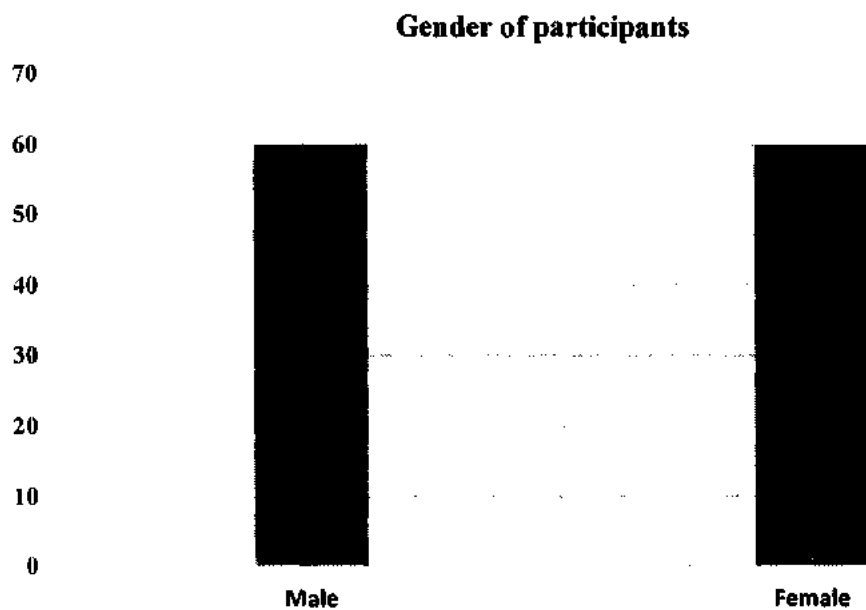


Figure 1. Graphical representation of participants on the basis of gender in the study.

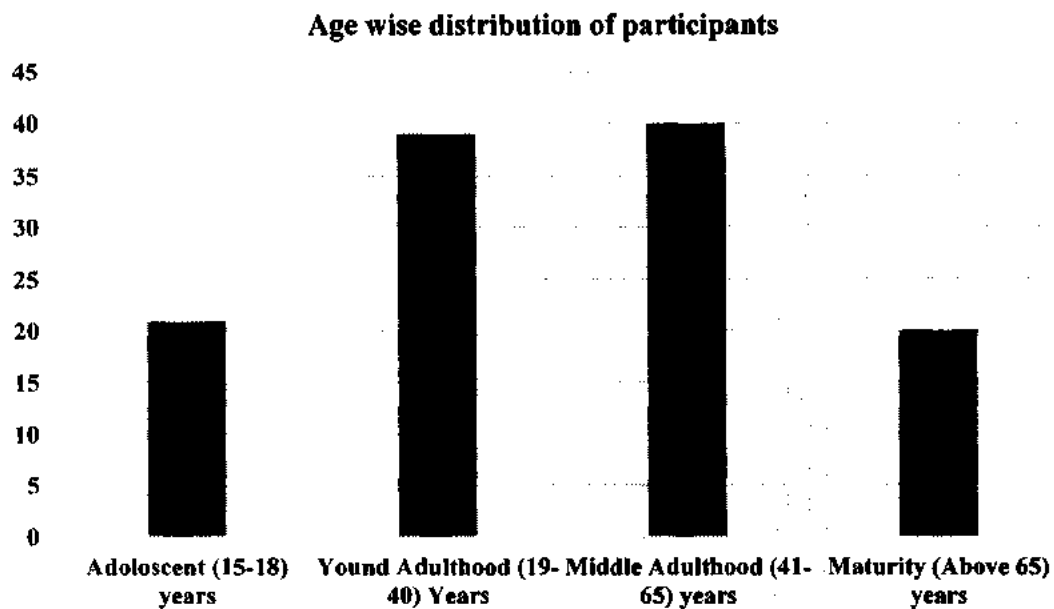


Figure 2. Graphical representation of age wise distribution of participants.

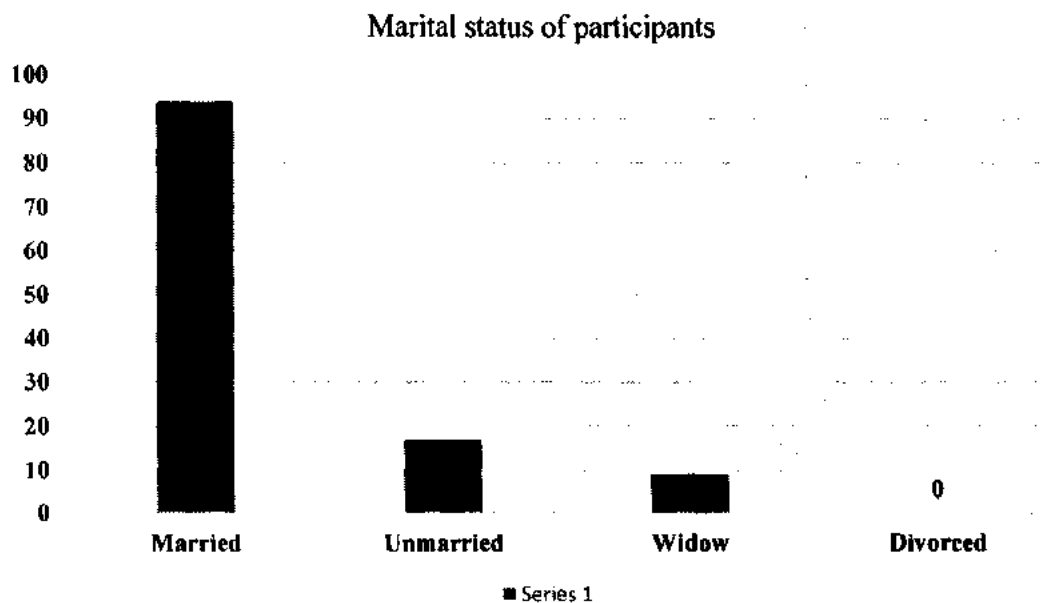


Figure 3. Graphical representation of participants on the basis of marital status.

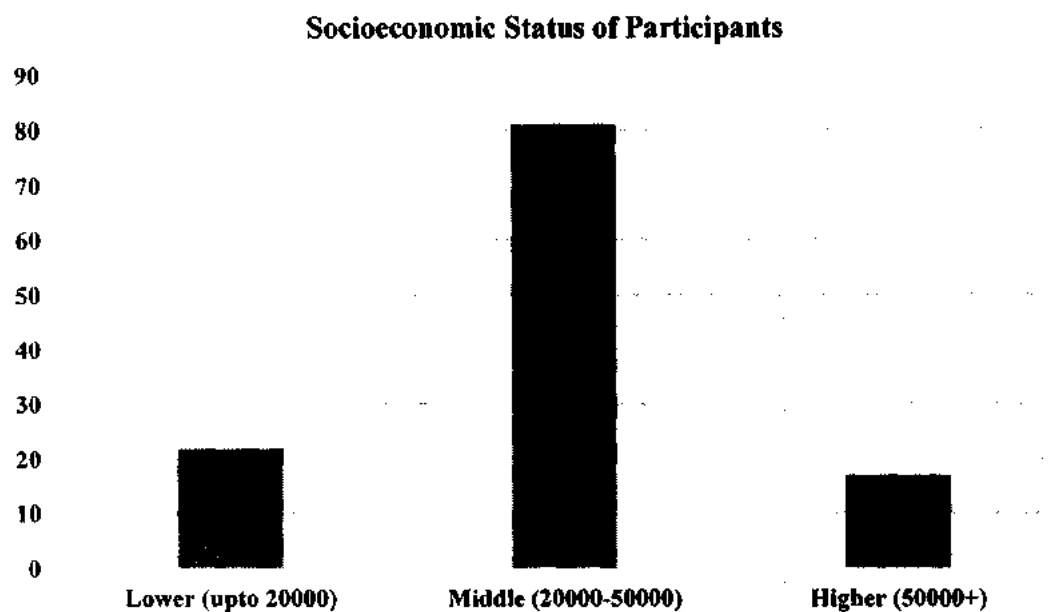


Figure 4. Graphical representation of participants on the basis of socioeconomic status.

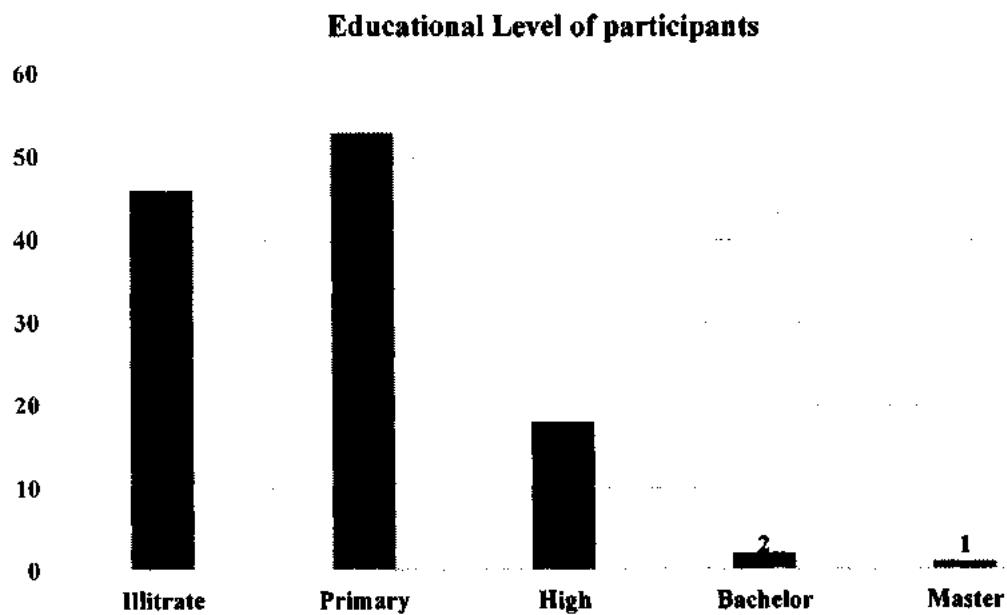


Figure 5. Graphical representation of participants on the basis of education.

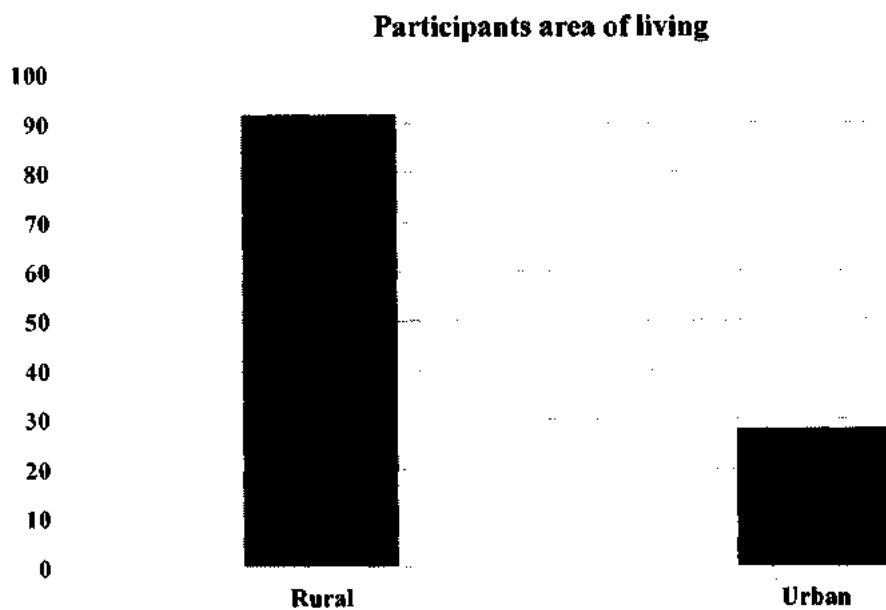


Figure 6. Graphical representation of participants on the basis of area of living.

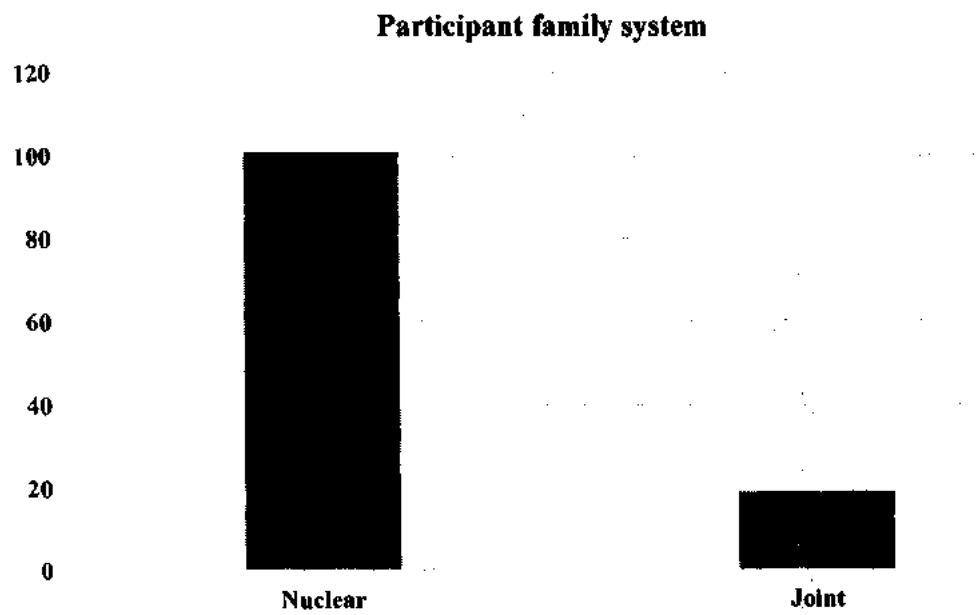


Figure 7. Graphical representation of participants on the basis of family system.

Table 2

Treatment related characteristics of participants

Variables	Categories	<i>f</i>	%
Duration (diagnosis) of cancer	0-2 years	49	40.8
	2-5 years	67	55.8
	5-10 years	3	2.5
	10+ years	1	.8
Type of treatment	Chemotherapy	58	48.3
	Radiotherapy	4	3.3
	Surgery	5	4.2
	All	52	43.3
Preferred center of treatment	IRNUM	77	64.2
	SKCMH	6	5
	NORI	11	9.2
	North West	12	10
	RMI	4	3.3
	Private Clinics	10	8.3

Table 2 shows treatment related characteristics of study participants i.e. duration (diagnosis) of cancer in which 49 (40.8%) had a duration of (0-2) years, 67 (55.8%) had (2-5) years, 3 (2.5%) had (5-10) years and 1 (.8%) had a duration of more than 10 years as participants reported. Chemotherapy (type of treatment) received by participants were 58 (48.3%), radiotherapy 4 (3.3%), surgery 5 (4.2%) and All type of treatment received participants were 52 (43.3%). IRNUM was the preferred center of treatment for 77 (64.2%) participants, SKCMH for 6 (5%), NORI for 11 (9.2%), North West for 12 (10%), RMI for 4 (3.3%) and private clinics for 10 (8.3%) participants as shown in Table 2.

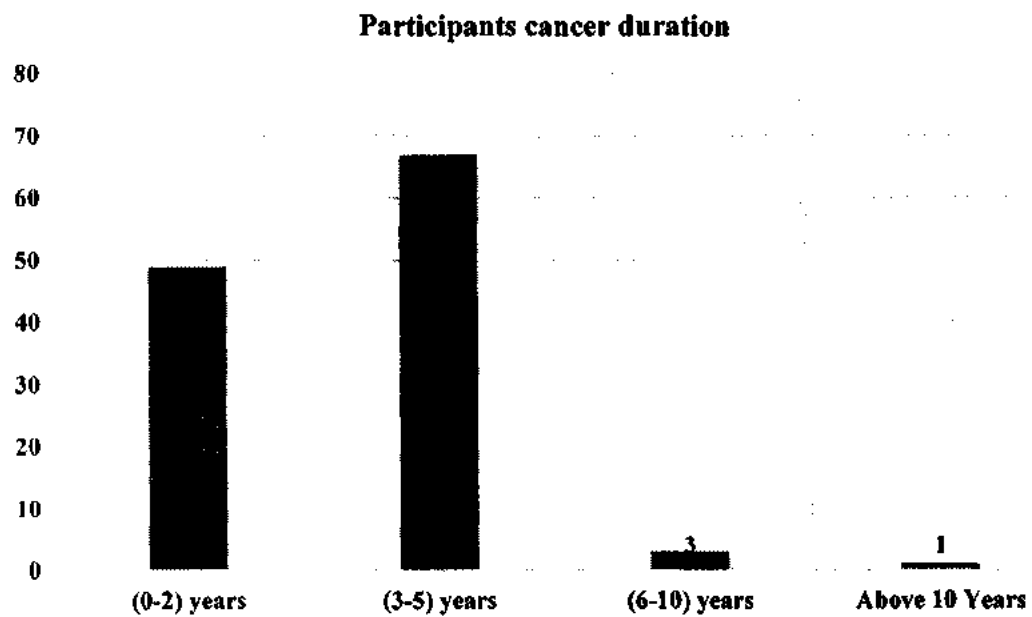


Figure 8. Graphical representation of participants on the basis of cancer duration (diagnosis).

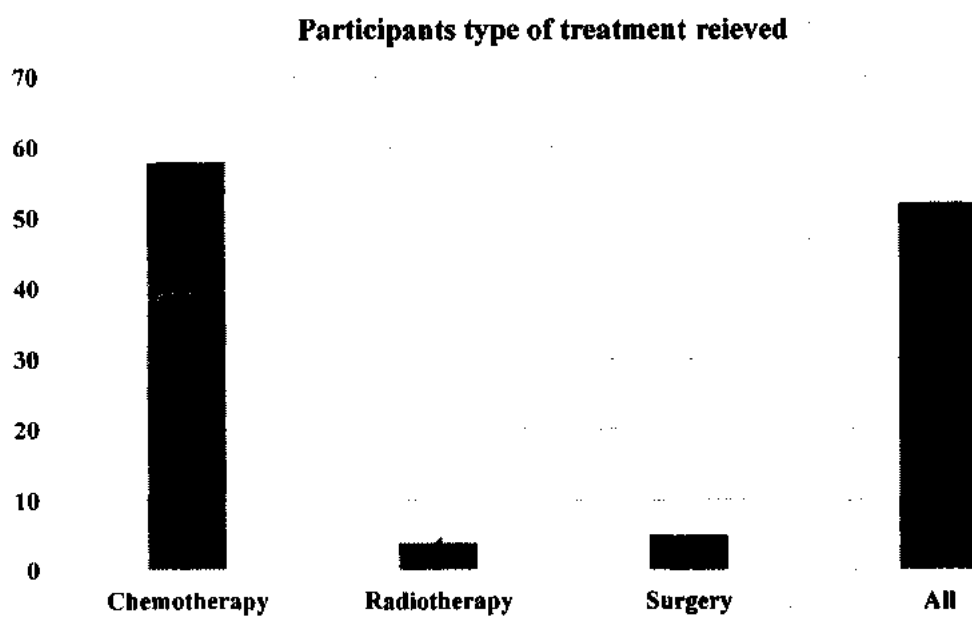


Figure 9. Graphical representation of participant's type of treatment received.

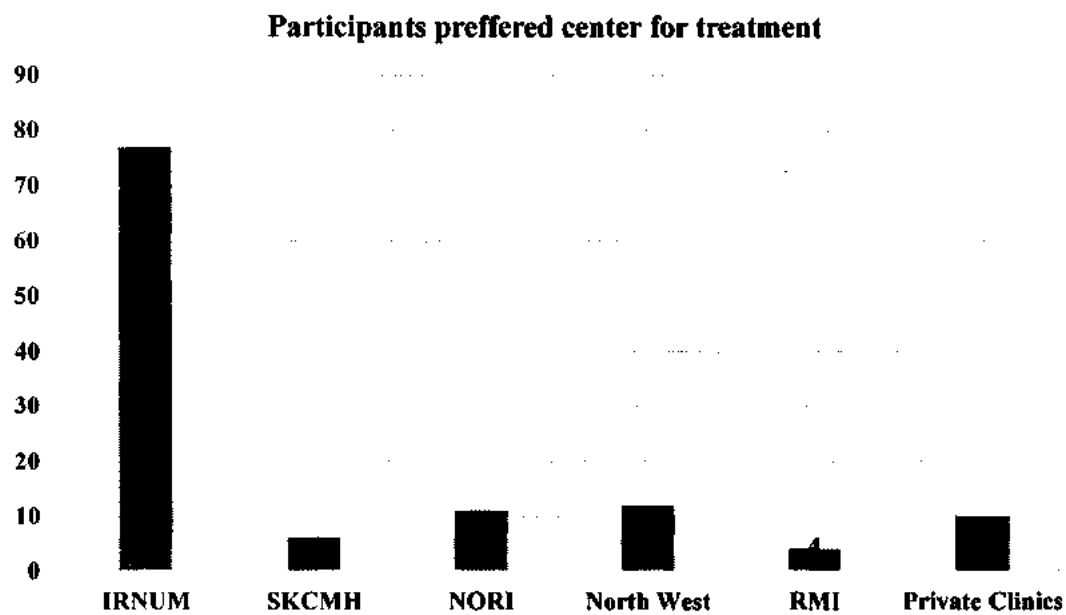


Figure 10. Graphical representation of participants preferred center for treatment

Table 3

Simple Linear Regression was computed to see Prediction of Social Support with Stress

Variables	Dependent: Stress		
	B	95% CI	
		LL	UL
Constant	15.99**	10.05	21.92
Social support	-.10*	-.17	-.03
F	9.31**		
R ²	.073		

Note. B = Unstandardized regression coefficients, CI = Confidence interval, LL = Lower limit, UL = Upper limit, * $p < .01$, ** $p < .001$,

In table 3 social support significantly negatively predicted stress, $\beta = -.271$, $p < .003$. Social support also explained a significant proportion of 73% variance in stress $F(1, 118) = 9.31$, $p < .003$.

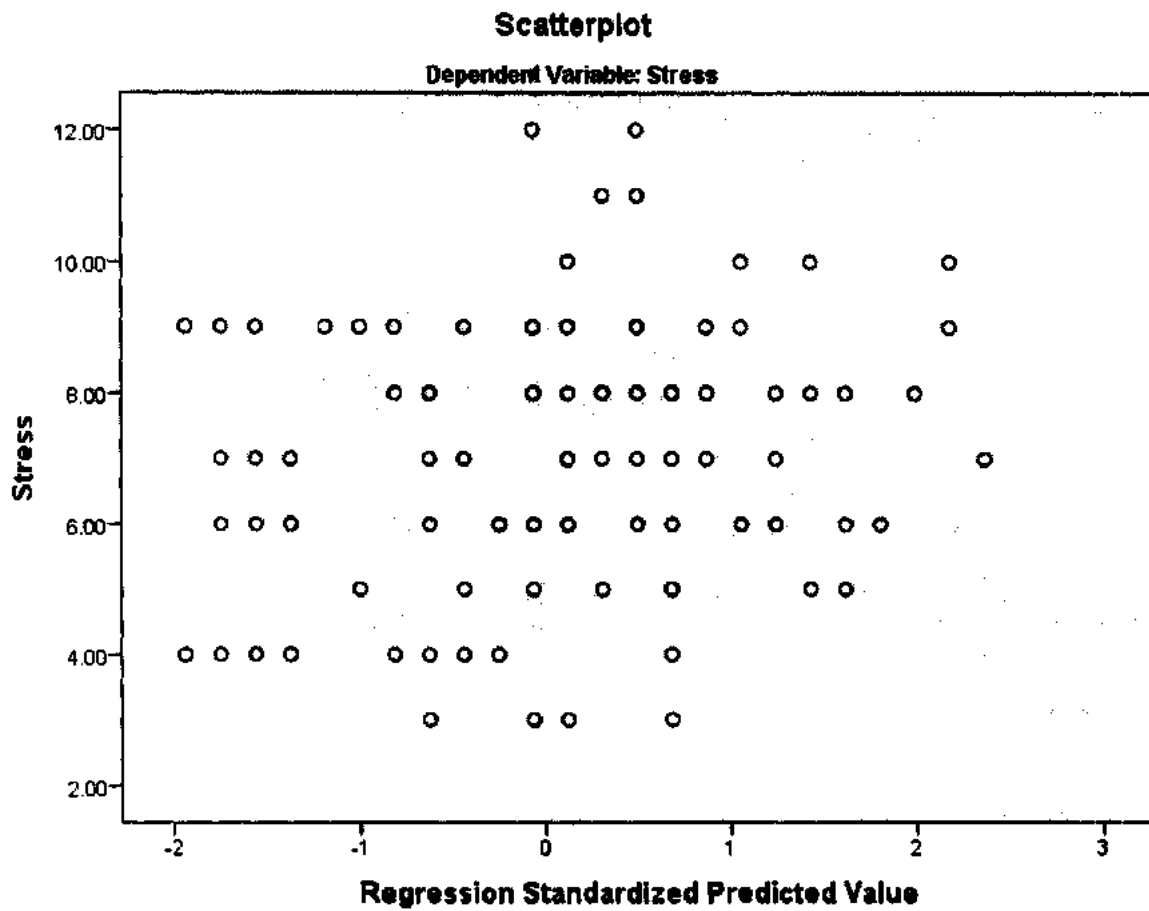


Figure 11. Scatterplot graphically representing the results of social support and stress.

Table 4

Simple linear regression was computed to see prediction of social support with social adjustment
 Dependent: Life Satisfaction (i.e., Social Adjustment)

Variables	<i>B</i>	95% CI	
		<i>LL</i>	<i>UL</i>
Constant	148.40**	120.06	176.74
Social support	.59*	-.26	-.91
<i>F</i>	12.58**		
<i>R</i> ²	.096		

Note. *B* = Unstandardized regression coefficients, CI = Confidence interval, LL = Lower limit, UL = Upper limit, **p* < .01, ***p* < .001,

In table 4 social support significantly positively predicted social adjustment, $\beta = .311$, $p < .001$.

Social support also explained a significant proportion of 96% variance in stress $F(1, 118) = 12.58$, $p < .001$.

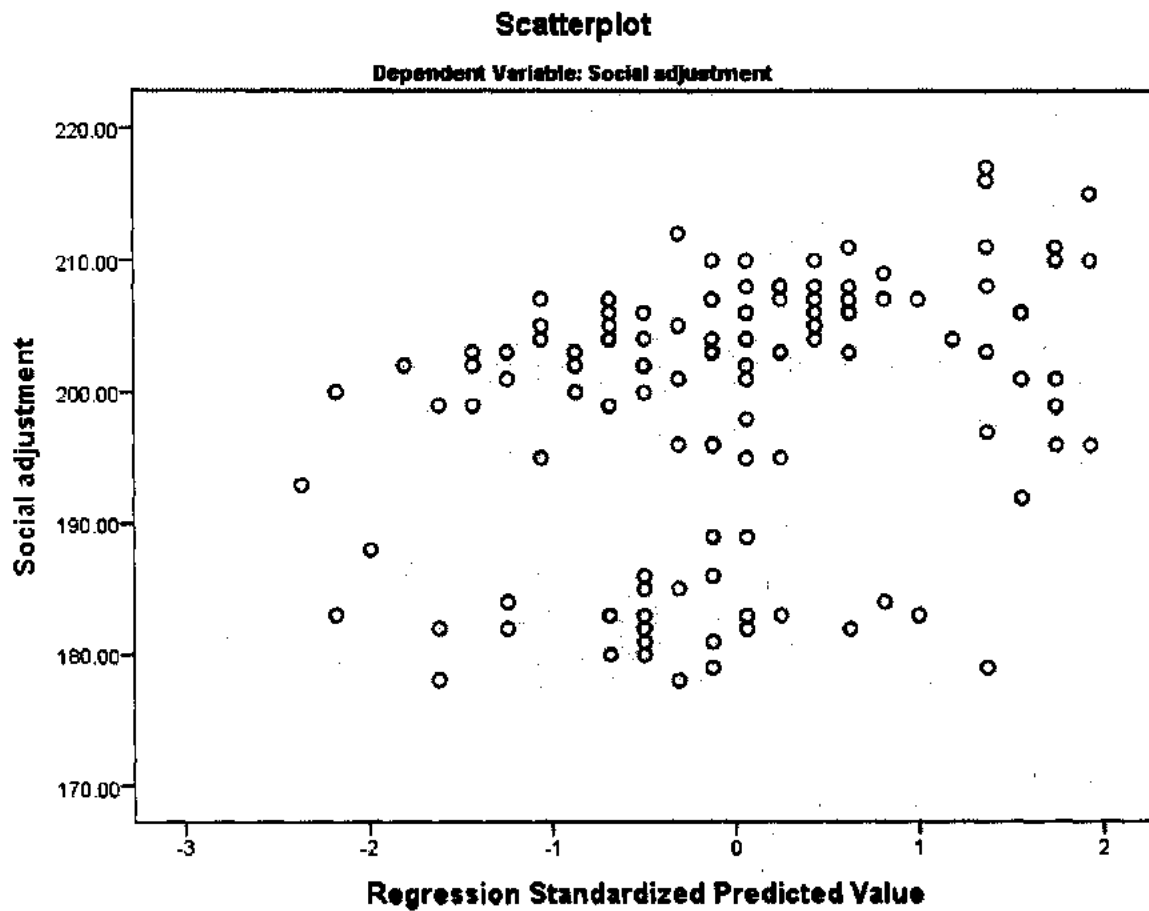


Figure 12. Scatterplot graphically representing the results of social support and social adjustment.

Table 5

T-test analysis to see difference between gender score on stress

Variables	Males (n = 60)		Females (n = 60)		t(118)	95% CI		Cohen's d
	M	SD	M	SD		LL	UL	
Stress	5.85	1.85	7.87	1.78	6.17**	2.70	1.39	.89

** $p < .01$, M = Mean, SD = Standard Deviation, CI = Confidence Interval, LL = Lower limit, UL = Upper limit

Table 5. an independent sample test indicate that stress score were highly significant for female than male, $t(118) = 6.17, p = .001$.

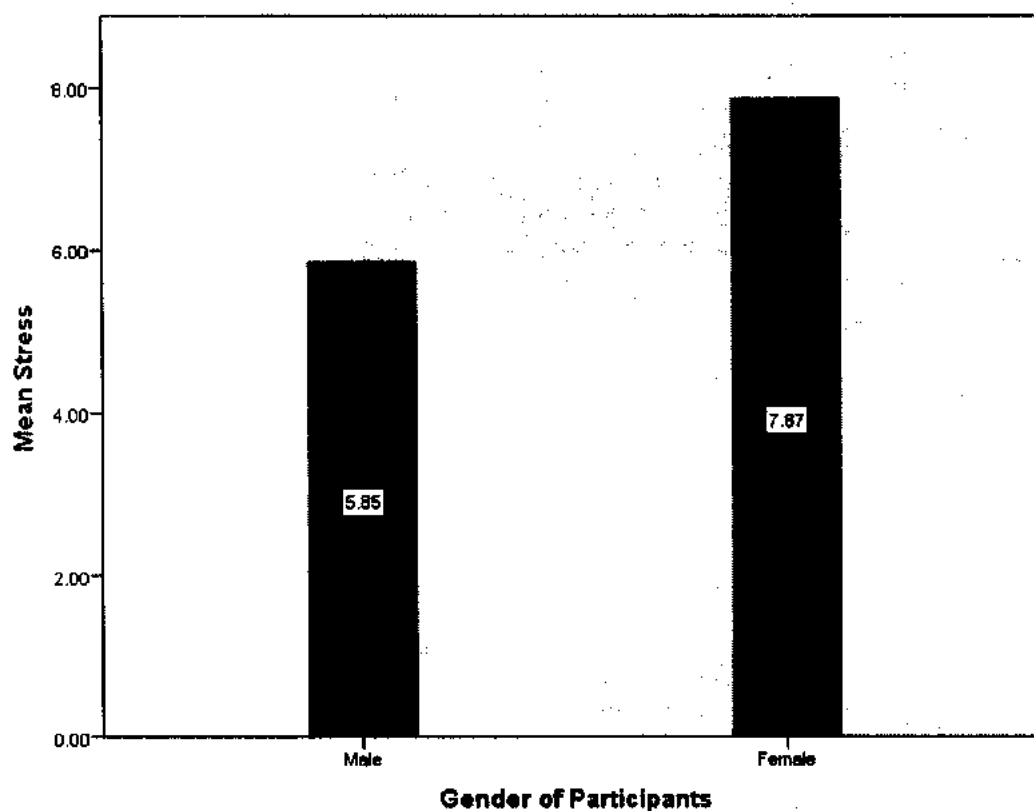


Figure 13. Graphical representation of gender (male & female) score on stress.

Table 6

ANOVA was computed to see score of different age group on stress

Variables	Adolescents (n = 21)		Young adulthood (n = 39)		Middle adulthood (n = 40)		Maturity (n = 20)		F	95% CI	
	M	SD	M	SD	M	SD	M	SD		LL	UL
Stress	6.14	1.93	6.56	2.01	7.68	2.26	6.55	2.08	3.68**	6.48	7.23

Note. ** $p < .01$, M = Mean, SD = Standard Deviation, CI = Confidence Interval, LL = Lower limit, UL = Upper limit

Table 6 ANOVA test indicate that stress score were highly significant for Older (Middle Adulthood and Maturity), $F(3, 16) = 3.68, p = 0.014$.

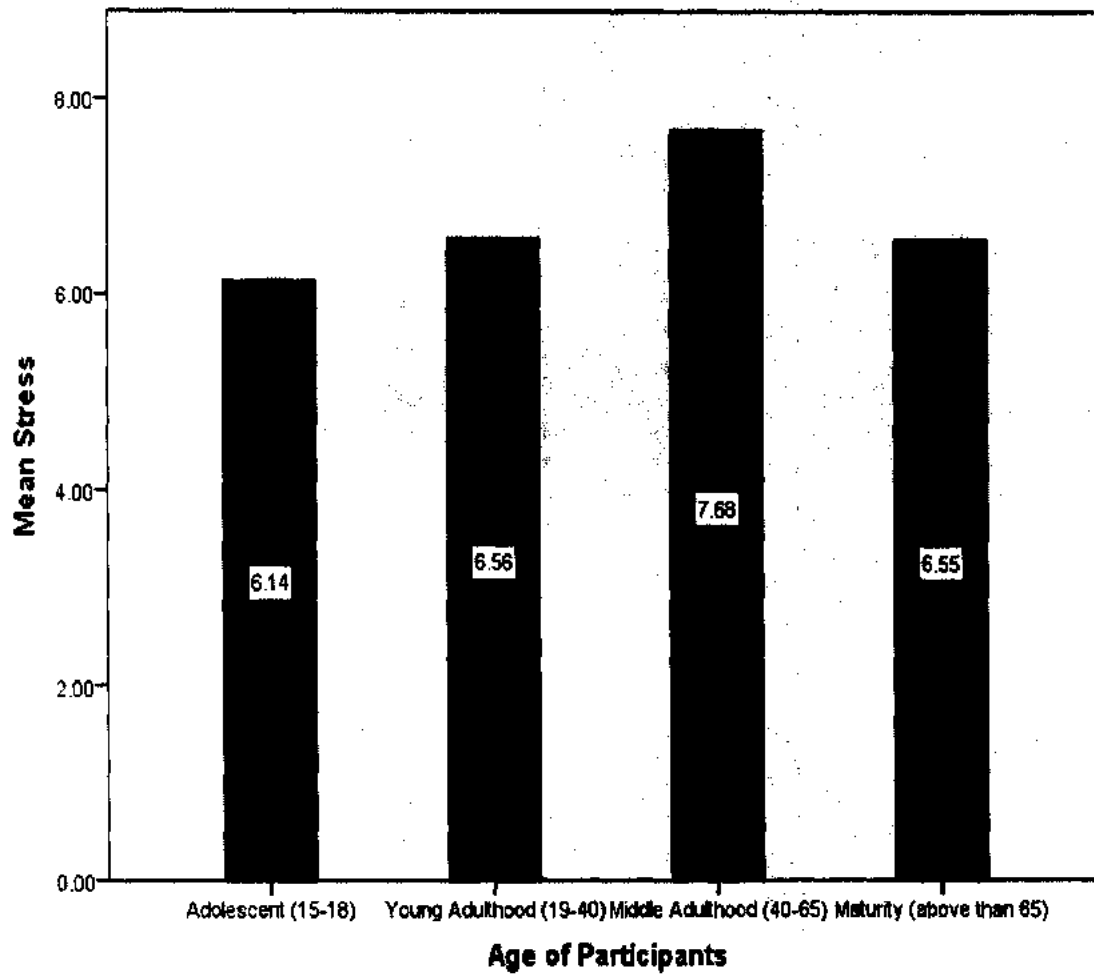


Figure 14. Graphically representation of different age participants score on stress.

Table 7

ANOVA was computed to see effect of socioeconomic status on stress.

Variables	Lower (up to 20 thousand) (<i>n</i> = 22)		Middle (20-50 thousand) (<i>n</i> = 81)		Higher (above 50 thousand) (<i>n</i> = 17)		<i>F</i>	<i>P</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Stress	6.54	2.30	6.97	2.06	6.82	2.37	.222	.70

Note. *M* = Mean, *SD* = Standard Deviation

Table 7 ANOVA test indicate that stress score were not significant for socioeconomic status, $F(2, 17) = 3.68, p = .222$ (*n.s*)

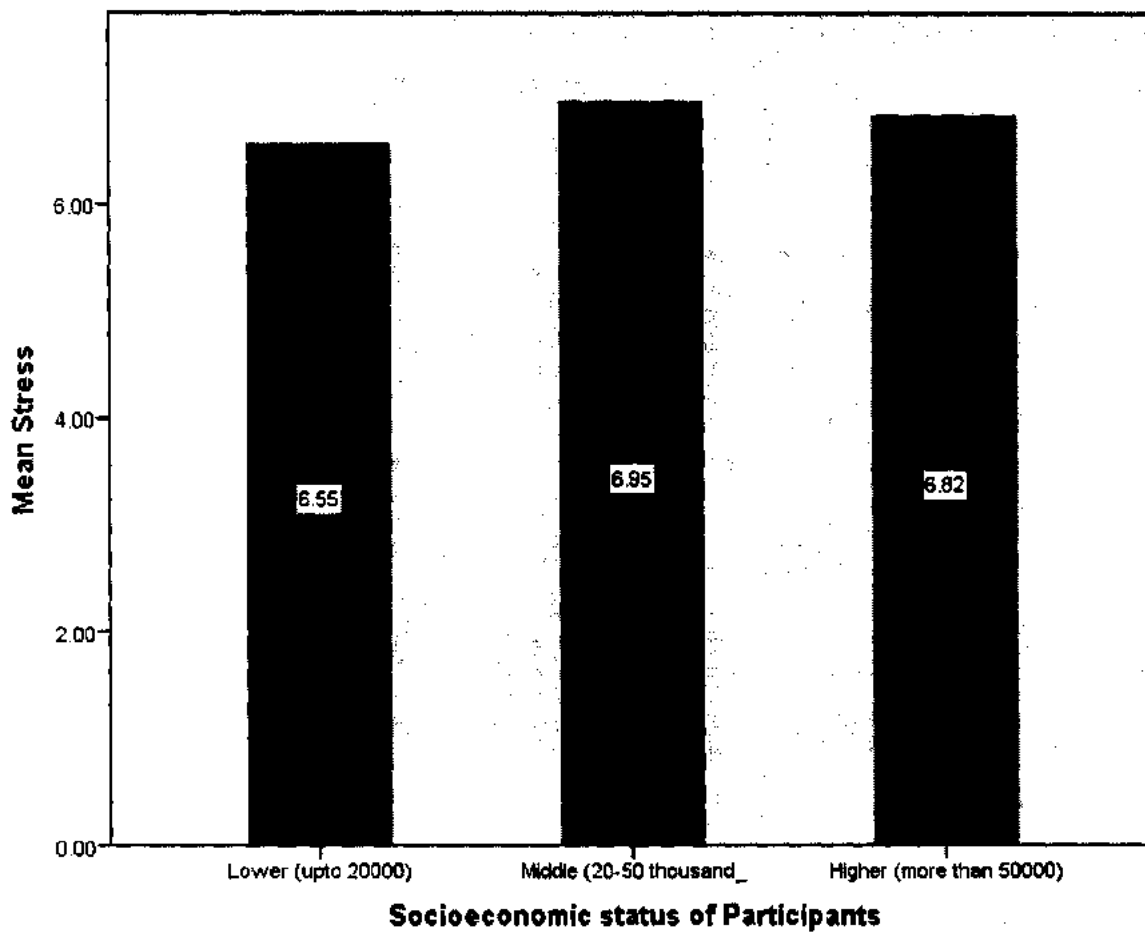


Figure 15. Graphically representation of participants having different socioeconomic status scores on stress.

Table 8

ANOVA was computed to see effect of marital status on stress

Variables	Married (<i>n</i> = 94)		Unmarried (<i>n</i> = 17)		Widow (<i>n</i> = 19)		<i>F</i>	<i>P</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Stress	6.86	2.17	6.17	1.70	8.33	1.93	3.29	.04*

Note. * = $p < .05$, *M* = Mean, *SD* = Standard Deviation

Table 8 ANOVA test indicate that stress score were significant for the marital status, $F(2, 17) = 3.29, p = 0.04$.

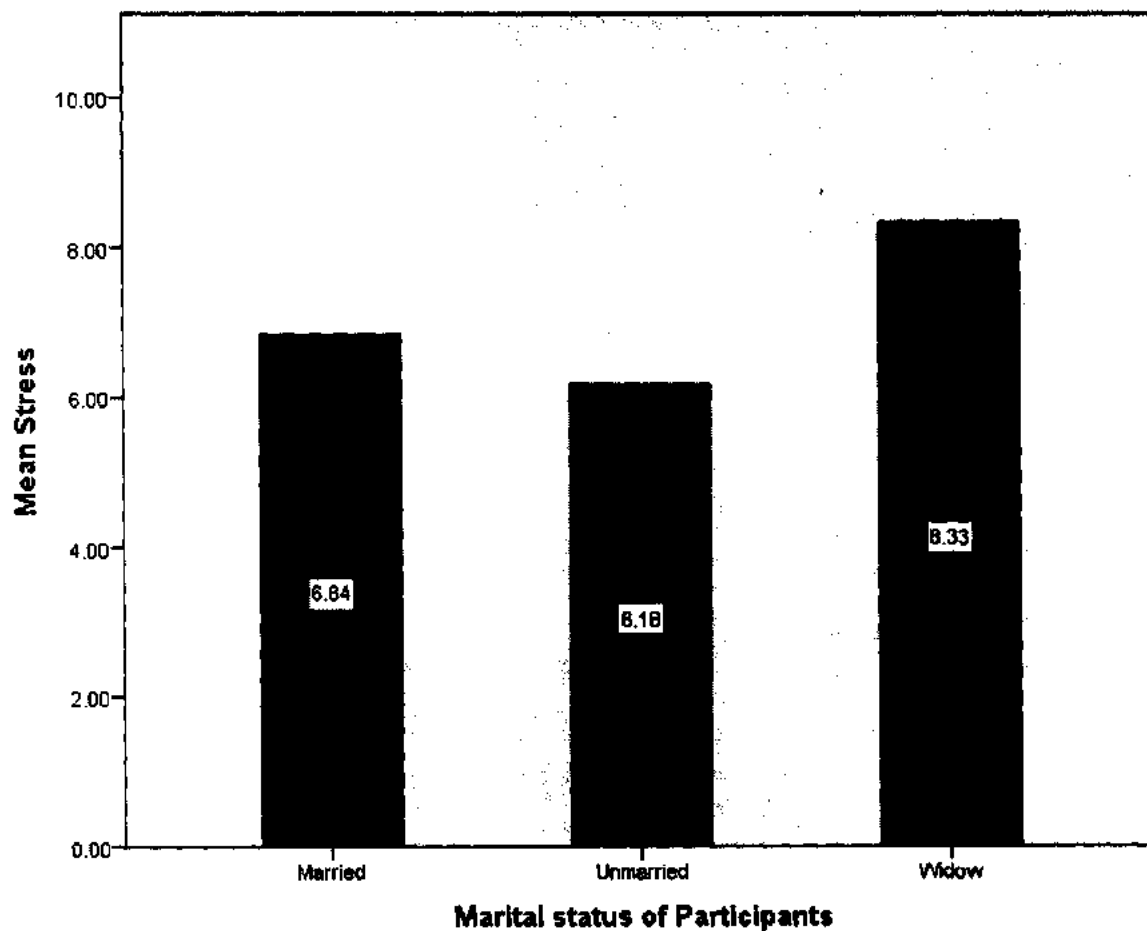


Figure 16. Graphically representation of participants having different marital status scores on stress.

CHAPTER-IV

Discussion

The main theme of this study to examine or estimate the role of social support in stress and social adjustment among cancer patients. This study also observe the role of demographic i.e. gender, age, marital status, socioeconomic status in releasing stress. Nowadays cancer is considered as a harmful illness and death causing and it will remain more alarming regardless an important improvements in its management and treatment (Elbi, 1991). Cancer is considered very alarming and threat full disease as we see that when someone with cancer is diagnose in a family or community we guess that this person is a guest of some days and think s/he will die nearby days. (Goyal, 2012) claimed that the second most common reason for death in less and more advanced countries in the world is cancer. Survey reports shows that in 2008, 7.6 million people were died worldwide out of which 13 % were shared by the cancer patients. The same survey reported that 70 % of death deceases happened in low and middle socioeconomic states (WHO, 2012).

Initially when a person is diagnose with cancer s/he may starts worry and goes to the stress condition. The stressful situation may be that how s/he deal treatment process, fear of death, feeling of helplessness and hopelessness, feeling of loneliness, feeling of sadness, worry about social stigma, and worry about their family, children or it may be economic worry. As in the (Cohen & Wills, 1985) study, they proposed that it is universally fact that the diagnosis of cancer is one of the stressful incidence and it is obviously connected with the increase level of distress in patient and in the family. A report of (Foundation for Women's Cancer, 2014) suggest that stress can overcome you and it also make an individual feel helpless. It can destroy your sense of good well

and it may be the source to minimize your courage to be recover again and this feeling may lead to sadness and depression.

Cancer is a severe disease that needs all the required treatment and look after despite medical and ward treatment. The provision of psychosocial support is consider one of the most known and significant element in the overall good quality of life to handle the cancer patient (Matthews et al., 2004). There are a lot of details and studies that social networking or social support is mostly significant domain in the research area of cancer. In a research study it shows that social support have been shown to encourage happiness and good quality of health and to guard and shield a cancer patients from the harmful effects of stressful life incidence (Cohen & Wills, 1985). Social support is consider the help you receive from your parents, spouse, siblings, relatives, peer group, support from doctor and nurse and all family members. As National cancer institute define that social support is a link of family, peers, your nearby neighbors and other communal people that is accessible to give you psychological, physical and financial help (National Cancer Institute, 2014).

Social support is a significant feature of the cancer care in the current time, as research findings stated that social support is all type of economical and spiritual support that an individual gets from one accessible surrounding (Clark et al., 2006; Sorias, 1988). Also as (Atchely, 2010) told that social support is a network of close people who can provide you every type of support i.e. assertion, info, help and emotional support, particularly in emergency situation.

Social support and stress. Social support seems to be one of the most important feature in healing of stress in cancer patients. It can also be said that it is one of the coping mechanism for cancer patients helping in reducing their stress level healing. Research findings also propose that structure of social support is helpful in protecting someone from stress that is connected with

serious disease and life threatening occasions and thus who receives social support they manage their illness properly (Bliese & Britt, 2001; Caldwell, Pearson, & Chin, 1987; Cohen & Willis, 1985; DeVries, Glasper, & Detillion, 2003). Results support that social support is highly associated with good well when patient is in stress and it also keep guard a patient from the possibly effects of the traumatic situation (Cohen & Wills, 1985).

The research findings of this study also shows that social support significantly predict stress (see table no. 3). Social support in this study shows negatively prediction towards the stress mean that by increasing the level of social support the stress level decreases and vice versa. It shows that when a cancer patients have their family members, their peer groups, relatives, siblings, parents, spouse e.t.c. in term of social support then it will help him/her in releasing or reducing their stress level. The prediction of social support on stress is also shown in scatterplot (see figure 10 in result portion).

Social support was measure on "Medical Outcomes Study: Social Support Survey (MSSS): it is an improved version of the Social Support Survey developed as part of the Medical Outcomes Study in order to assess social support. (Sherbourne & Stewart, 1991). Stress was measure on "The Distress Thermometer (DT) and problem list", it is a well-known tool for initial screening of stress and it consist of some sub scales i.e. practical problem, physical problem, family problems and emotional problem. It was developed by The NCCN Distress Management Panel. Those patients who have strong social support system in terms of family member, parents, relatives, peer group, spouse e.t.c. scores high on social support survey scale and reported less score on distress thermometer and vice versa. It shows that social support has a greater influence on stress and it helps in releasing stress in cancer patients.

Research findings discussed earlier and the following results support my findings that social support keep the patients safe from the threatful and dangerous effects of stress and it also helps in improving the coping mechanism (Temoshok, 1987). Some other researchers have recommended that social support helps in decreasing the stress level (Norbeck, 1981). In numerous past researches, social support was considered as a vital feature that helps in easing psychological distress in cancer patients (Revenson et al, 1983; Neuling & Winefield, 1988; Roberts et al, 1994; Hann et al, 1995).

Social support seems in the study that it helps the patients in decreasing their stress related to practical problems, family problems, emotional problems and physical or bodily problems. As we see in our culture that when someone got ill special some serious illness like cancer then all of his/her family members and other people starts care of them. All of their family members are there to provide emotional support, informational support, tangible support and more other support and as a result the cancer patients feel more relax and feel free of stress.

Social support and social adjustment. Social support is consider one of the prominent factors that helps with cancer patients in social adjustment. Social support is a system through which cancer patients adjust within society, they adjust in home and outside home, they adjust in marital relationship and also fell relax with children. Social adjustment is strength or power of an individual to manage the rules and regulation, morale and ethics, norms and standard that are set by the society and that are accepted to the community. It can be also told as a psychological method (Preserve articles, 2015).

Social adjustment may also be define as when an individual feel relax in his/her home and outside the home, s/he can work in home and outside the home without any hesitation. Social adjustment is that they can maintain their social relationship, they can talk with their friends and

discussed issues with them, they can spend time on hobbies and visiting with their friends, feel relax with relatives and they have no parental or marital problems. Study results proposed that social support has an important role in bodily health, good well and further the most important it also helps the patients in adjustment to cancer (Hann et al., 2002; Parker et al., 2003; Ashing et al., 2004; Kartoglu & Saracoglu, 2005).

According to (Akechi et al., 1998; Nausheen et al., 2007; Walker et al., 2006), that social support is a phenomena which has been recommended from long time that it keep cancer patients safe from harmful and threat full effects of the disease and it also helps the cancer survivor in adjustment to society. Some other work on the construct that commonly social support is connected with better adjustment to all severe diseases but it shows highly connection specifically with cancer in adjustment and symptoms of cancer i.e. stress, anxiety and depression (Helgeson & Cohen, 1996; Wills and Fegan, 2001; Maly et al., 2005).

Research findings of this study also suggested that social support significantly predicted social adjustment (see table 4). Social support in the result shows positively prediction towards the social adjustment, it mean that when social support increases the level of social adjustment also increases and vice versa. Findings of this research confirms that when cancer patients have their family members or other close people that they can receive social support from them, then they will show highly adjustment to their society. The prediction of social support on social adjustment is also shown on scatterplot (see figure 11 in result portion).

Social support was measure on "Medical Outcomes Study: Social Support Survey (MSSS): it is a slightly modified version of the Social Support Survey developed as part of the Medical Outcomes Study in order to assess social support. (Sherbourne & Stewart, 1991). While social adjustment was measure on "Social Adjustment Scale", it is 45 item scale that

measure adjustment to different aspects. The scale is divided into 7 sub scale i.e. work outside at home, work at home, social and leisure activities, extended family, marital, parental and family unit (Cooper et al in 1982). Those patients who have strong social support system in terms of family member, parents, relatives, peer group, spouse e.t.c. scores high on social support survey scale and they also reported high score on social adjustment scale and vice versa. It shows that social support has a greater effect on social adjustment and it helps in social adjustment in cancer patients.

By adding other studies that support my findings tell us that social support looks very supportive for the cancer survival and noted positive association between social support from family members and well bodily and psychosocial adjustment to cancer (Usta, 2012). However there are little researches conducted on social support among cancer patients, the results proposed that social support is highly linked with healthier psychosocial adjustment to cancer (Carey, 1974; Gibbs et al., 1978; Jamison et al., 1978; Mages et al., 1979; Sheldon et al., 1970; Weisman et al., 1976). Amongst other psychosocial variables, past results indicate that social support is consider the most dominant factor in adjustment to cancer in cancer patients (Crothers et al., 2005; Helgeson et al., 2004; Schnoll et al., 2002).

Older adults and stress. In this study age of the cancer patient range from 15 and above and it was based on Erikson stages of psychosocial development i.e. Adolescence (15-18 years), young adulthood (19-40), middle adulthood (40-65), maturity (above than 65) (Erikson, 1959). In this research cancer patients aged above 40 (years) are consider older and below 40 (years) consider younger. Older age people have a greater risk of cancer and other illnesses that may disturb their rehabilitation process, care and treatment plan.

Cancer is a type of disease that can get anyone and at any age but the risk increase with the increase of age. A survey report tell us that almost 77 % people that diagnose cancer are in the age of 55 or more (Cancer.Net, 2014). Cancer patients who aged 65 or more account that they had great difficulties in performing daily routine activities, mostly feelings like weakness (Mohile, 2009), poor life standard, poor health, increase in memory problem, bone problem, depression and the most common higher level of stress was observed in older age cancer patients (Baker et al., 2003).

According to hypothesis, findings of this research also suggest that older cancer patients have higher rate of stress than younger cancer patients (see table 6 in results chapter). The results shows that older cancer patients are at higher risk of stress and they need more assistance in term of psychosocial support or any other. Mean of different age group cancer participants that was measure on ANOVA, also illustrate that older cancer patients whose age are more than 40 years have greater level of stress than younger cancer patients (below 40 years). Other studies that support this research findings also specifies that older patients are in more stressful situation and they also have problem in decision making related to their health than younger patients (Finucane et al., 2002). Stress in older cancer patients is vital and favorable research area that is compulsory to be studied as older age people have an increased risk of having cancer than young age people. It is particularly needed to be examine since by the year 2030, as a report account that 70 % of cancer survivors will be older people (Kavita et al., 2012).

As we see in table 6, there are no greater difference between the mean of adolescents, young adults and maturity but the difference with middle adult age range from (40-65) are at increased risk, this shows that that people need more attention and more emotional, instrumental, tangible, financial support e.t.c in term of social support. While in the case of maturity stage cancer

patients as their mean is not so much different from young adults and they have low level of stress than middle age adults. The reason for this may be that they receive more social support from family members and other relatives and they are known as respectful and caring in our culture. All the people are around from them, keeping them busy and they are free from stress and have no time to think for his/her illness. Score on stress by different age participants are also shown graphically in figure 13.

Gender and stress. Gender has also a worthy role in cancer patients facing stress. Individuals' Variability in reaction regarding stress has been suggested as possibly significant risk aspect for problems specifically effect male and female differently (Goldstein, 2005; Kajantie, 2006). In a survey 51 percent of female and 43 percent of male conveyed that stress had an influencing factor in their daily life routine activities, survey conducted by American psychological association (APA, 2006).

In the journal of personality and individual differences, 2, 816 showed their opinion on stress in which female were tend to score significantly greater than male in term of long lasting stress, also support the results of APA (Matud & Pilar, 2004). In some studies results showed that women have advanced level of emotional distress and they have also problems in psychological adjustment than men (Baider et al., 1989; Irwin et al., 1987). American psychological association report on cancer patients show that female are more prone to report higher level of stress than male, they (women) are also more prone to report physical and emotional symptoms of stress than men (APA, 2010).

Now according to hypothesis, the results of this study also suggest that female cancer patients have higher level of stress than male cancer patients (see table 5). Several researches on psycho oncology testified that the occurrence of stress in female is higher than male in cancer

patients (Hagedoom, 2008; Harter, 2001). In one of the several researches that made comparison between male and female cancer patients on distress level, male accounted lower distress level than female (Keller & Henrich, 1999) are also support this research findings.

Mean differences between male and female in the table also shows that female score higher on stress as compared to male. Independent sample *T-test* also confirms that females significantly score higher than male. Score on stress by both gender (male and female) are also shown graphically in figure 12. As we see in the study area mostly females are bound to their homes and they have counted people for the provision of psychosocial support. While on the other side males have more opportunity in term of psychosocial support. They may have many peer groups, they have opportunity for outing, games and they may have many more opportunity for refreshment and entertainment that helps in provision of psychosocial support. Other reasons for female higher level of stress may be child care, dealing with partner, housing and the most prominent transportation problem.

Marital Status and stress. Marital status has also a considering role in stress. A cancer patient with spousal support has a significant role in the reduction of stress level. Both married and single (unmarried, widow and divorced) participated in this research. It was noted that single people were at higher risk of stress than married people as in other researches also stated that married people have good well-being and very happy in their life as compare to unmarried or divorced people (Rebecca, 2009).

One potential reason for the variation and effect on the life-style and psychological condition of an individual is marital status (Gove, 1979). Results of some studies shows that married people are glad and very gratified in their life as compare to single people and they are more prone to have social gathering and links (David, 2015). Past researches also reveals that

patient with spouse presents low level of stress, anxiety and depression than patients with no spouse (Szabo & USA Today, 2013).

The findings of this research also propose that single cancer patients are at higher level of stress as match with married cancer patients (see table 8). In this study results shows that marital status is significant for stress in cancer patients. The results of other studies also reveals that level of psychological distress had significantly higher in single people than married and they have also decrease level to cope with distress, and people with marital support presented better to cope and manage with such difficulties. The results propose that marital status may have a key role in easing psychological state of stress and it make you able to promote a good well-being and handle with cancer particularly in men (Koji et al., 2003). Research findings of a study stated that the psychological distress were higher in single males than married males (Umberson, 1992). Other study that suggest that married people are found to involve in good daily routine behaviors and they were found in lower stressful behaviors as matched with single people (Krieger, 1992).

Mean difference between unmarried and widow was higher that shows the significant difference but the mean difference between married and unmarried was almost same and it shows that the marital status has no much effect on stress. The reasons for this may be bad and poor spousal relationship as other studies also suggest that normally unmarried people are noted to have low level of distress than those who have miserable and poor marital relationship (Glenn, 1981; Pearlin & Leiberman, 1970). Information on a connection between marital relationship and health: (Rene, 1971) also proposed that miserable marital couples account worse health status than divorced or happily married couples having same sex, age and cast.

Socioeconomic status and stress. Socioeconomic status was also noted in cancer patients with a prominent role in stress. Financial (socioeconomic) status consider one of most leading and

prominent social feature that can affect bodily health (Edith & Gregory, 2012). Those people who belong to a group of low socioeconomic status are 2.5 time more probably to visits casualty department or hospitalized and also 3.5 times they have difficulty in performing their daily routine activities than those who belong to the group of higher socioeconomic status (Braveman et al., 2010; National Center for Health Statistics, 2010). That people with lower socioeconomic status face more difficulties to adjust with stress as compare to people having higher socioeconomic status (Brydon, 2004).

Cancer patients with low socioeconomic status is link with less social support, and show association with higher stress in cancer patients (ACS, 2008). Some other related research also suggest that patient cancer group of having low socioeconomic status accounted an increase level of stressful life incident as matched with the group of cancer patient having higher socioeconomic status (Agnes, 1980). According to the study (Azibar, 2012), that despite the nature of an individual and their gender, low middle socioeconomic status people tend to score higher on stress as associated with higher middle socioeconomic status. Mostly studies on cancer and socioeconomic status reveal that patients with higher levels of economic status found low level of distress (Carver & Antoni, 2004; Osborne et al., 2003; Parker et al., 2003; Schnoll et al., 2002).

In contrast, findings of this study propose that socioeconomic status of cancer patients have no role in releasing their stress level, as in (table 7) it's clearly showed that there are no difference in stress level of lower, middle or high socioeconomic status cancer patients. Mean score of stress also clarify that there is no difference in the stress level of cancer patients having lower, middle and higher socioeconomic status. The stress level of cancer patients having different socioeconomic status also shown graphically (figure 14) in results chapter. The reason for this no difference in level of stress in cancer patients with different socioeconomic status may be that in

our culture we support each other like tangible support, emotional support, spiritual support and the most important financial support. Further there are different social welfare organizations and district and provincial usher and zakat committees are also there to support cancer patients financially in term of treatment. There are also some welfare hospitals like Shaukat Khanum cancer hospital and research center to provide free cancer treatment to patients. The management of Shaukat Khanum cancer hospital and research center claims that 75 percent of its patients are being treated free of cost. In 2013, the hospital admitted 9,211 new cancer patients while the hospital recorded nearly 175,000 visits of cancer patients in the outpatient department. About 33,783 patients received chemotherapy and 53,451 got radiation treatment in 2013 (The NEWS, 2014). The management has decided a huge budget of R.s 6.8 billion for the year 2014 for the completion of continuing projects and to provide treatment to cancer maximum patients (The NEWS, 2014). Other reason for this no difference in stress level of cancer patients having variation in their socioeconomic status may be that people with lower socioeconomic status are not able to access proper medical treatment and they remain untreated, so these people might not be part of this study due to their unavailability in cancer hospitals.

Limitation of the study

The study area for this research were limited only to Khyber Pukhtoonkhwa and it is needed to examine the role of social support and to note responses to social support and stress in other area of the Pakistan. The nature of this study was quantitative and restricted to close ended question. It is needed to focus on quantitative work in order to discover more factors related to cancer survivor mental health. The study was limited to assess outdoor cancer patients and only those patients were assessed who just visited hospital for routine checkup. This study did not approach to the sub domains of the scales and it is necessary to explore that what type of social support is more helpful to cancer survivors and what type of stress is at higher risk for the cancer patients to deal with.

This research is only specific to measure stress in cancer patients and it is also required to assess anxiety, depression and other psychological problems in cancer patients as well. This study was limited to above 15 years cancer patients and it is also essential to explore the psychological state of children having cancer. The cancer patients that assessed only recovered patients, recovered mean that they completed their chemotherapy and radiotherapy phase. Now it is needed to assess the psychological state of cancer patients in early diagnostic stage. There are no psychological intervention seems in the study to assess their effectiveness on cancer patients. In this there is no touch to the care giver of cancer patients, although they people may also suffer from stress and other mental health problems due to care giving of cancer patients.

Conclusion

The main theme of the study was to assess the role of social support in stress and life satisfaction (i.e. social adjustment) among cancer patients. As cancer is consider lethal disease and despite medical treatment, cancer patients also needed to be cure psychologically because they may

experience stress, social adjustment problems and other. In studies social support seem one of the coping mechanism that relief cancer patients from stress and also help in social adjustment. In this study total 120 (60 male and 60 female) participants were selected from different cancer units and community of Khyber Pukhtoonkhwa. Social support was measured on Medical outcome study: social support survey while stress and social adjustment were measured on NCCN Distress thermometer and social adjustment scale respectively. Results of this study indicated that social support has an immensely role in stress and social adjustment. Social support significantly predicted stress negatively while social adjustment was significantly predicted positively by social support. Results of stress on gender and age related showed that female and older age cancer patients have higher rate of stress as compared with male and younger age cancer patients. Socioeconomic status was seem as that there are no role of lower or higher socioeconomic status on stress regarding cancer survivor. Marital status was appear a greater role in stress and it showed that cancer patients with spousal relationship (married) have lower of stress level as matched with single cancer patients. Findings of this study clarify that social support is an essential domain for the cancer patients that helps in easing their stress level and also assist in social adjustment. Further as results stated that female, older, single and older cancer patients are at higher risk of stress so it is needed to provide them better psychosocial support to heal their stress level. Findings of this research also helps in future that if someone diagnose with cancer then it would also better to offer them psychosocial support beside medical treatment to normalize their cancer related stress. It would also be better and encouraged to include social support in the treatment plan for cancer patients, since it is an important and essential for the care of cancer patients.

Applied significance of the study

The rates of cancer increases worldwide while survival decreases, thus, there seems an effect of social support on patients associated with stress amid cancer. Moreover, previous studies rated social support among the preventive repertoires of the patients of cancer. Although, this attempt also identify the accuracy between previous and this study to estimate that cancer be socially supported in the context of Pakistani multicultural population.

- 1 The findings of this research also help Psychiatrists, Clinical psychologists and other professionals who study and deal the problems related to mental health in cancer patients.
- 2 The findings of this research are also very supportive and affective to incorporate social support in the treatment management plane for cancer patients.
- 3 This findings also confirm that there is a great effect of social support on decreasing the level of stress and increasing life satisfaction (i.e., social adjustment) in the cancer patient.
- 4 The findings of this research reported that female and older cancer patients are at higher risk of stress, so it is signifying that these people are more need of social support.
- 5 Findings of this research also helps in future that if someone diagnose with cancer then it would also better to offer them psychosocial support despite medical treatment to normalize their cancer related stress.
- 6 To increase awareness about the social support services available and effect of social support on cancer patients.
- 7 It can also create internship and job opportunities for professionals to deal cancer patients in hospitals or other welfare set up.

Future research

As this study has some limitation as discussed earlier, so it is needed to take it under concentration in future researches. Like:

- 1 It would be measure that who can best provide social support to cancer patients either it is family member, parents, spouse, siblings, friend, and relative e.t.c.
- 2 It is needed to address other mental health problems i.e. anxiety, depression e.t.c associate to cancer survivors.
- 3 It may also be consider in future research to assess the psychosocial causes of having cancer.
- 4 Future research may also look for that how much cancer patients receive social support from each other.
- 5 It is also necessary to check the effect of psychological intervention in healing different mental health problems in cancer patients.
- 6 Having cancer patient in family may also effect the care giver psychosocially, so it is also important to assess the psychosocial status of the care giver.
- 7 It may also be needed to evaluate the stage and type of cancer because this factors may also effect the mental health status of cancer patients.
- 8 The last point that is essential to focus on qualitative research because it may explore other factors that helps to cancer patients.

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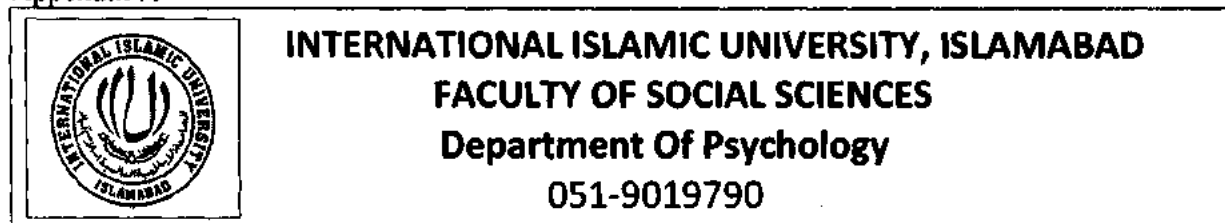
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Appendices

Appendix A



No. HOD/PSY-2015

Dated: 22-01-2015**Dear Sir/ Madam**

Greetings from Department of Psychology, International Islamic University, Islamabad. May I introduce **Mr. Omer Zahid**, he is an MS scholar in the department of Psychology, International Islamic University- Islamabad. He is doing his research on the topic **“Role of Social support in Stress and Social adjustment among Cancer Patients”**. In this regard, your institution’s cooperation is highly needed. If your kind office allows Mr. Omer Zahid to collect data from the O.P.D cancer patients of your prestigious institute **“Oncology unit”**, it would be a great assistance to our student to accomplish his research study. He will also acknowledge your kind cooperation in his dissertation and, upon your request, would share the findings of his research study.

Looking forward for the growing cooperation.

Regards

Dr. Muhammad Tahir Khalily,

Head of Oncology unit.

Appendix B

Consent form

I am doing M.S in Psychology from International Islamic University Islamabad. I am hereby conducting my research on "Role of social support in stress and social adjustment among cancer patient" which will be very valuable to understand mental health issues and other significant factors.

Your contribution in this research and cooperation in providing the required information will be highly respected.

Your identity & all other information you provide will be kept confidential according to the professional ethics of research. Your participation in this research is totally on voluntary basis and you can quit at any stage if not willing to contribute anymore. If you are not willing to participate in this research you will not be forced.

If you are willing to participate in this research without feeling any kind of pressure please do sign this consent form.

Participant name: _____

Sign: _____

Appendix C

Demographic Information.

Name _____

Sex: Male, FemaleAge: Adolescence (15-18 years) Young adulthood (19-40), Middle adulthood (40-65) Maturity (above than 65).Marital Status: Married Unmarried Divorced WidowSES: Lower (up to 20000) Middle (20- 50 thousand) Higher (more than 50000).Education: Illiterate Primary High Bachelor Master Higher studies.Family System: Joint Nuclear.Area of Living: Rural UrbanCancer duration: 0 -2 years 3-5 years 5-10 years above than 10 years.Type of treatment: Chemotherapy Radiotherapy Surgery AllCenter of treatment: IRNUM SKCMH NORI North West RMI other private Hospitals & clinics.

Appendix D

MOS Social Support Survey

Next are some questions about the support that is available to you.

1. About how many close friends and close relatives do you have (people you feel at ease with and can talk to about what is on your mind)?

Write in number of close
friends and close relatives:

People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to YOU if you need it?

(Circle One Number On Each Line)

	<u>None of the Time</u>	<u>A Little of the Time</u>	<u>Some of the Time</u>	<u>Most of the Time</u>	<u>All of the Time</u>
2) Someone to help you if you were confined to bed1	2	3	4	5	
3) Someone you can count on to listen to you when you need to talk1	2	3	4	5	
4) Someone to give you good advice about a crisis1	2	3	4	5	
5) Someone to take you to the doctor if you needed it1	2	3	4	5	
6) Someone who shows you love and affection1	2	3	4	5	
7) Someone to have a good time with1	2	3	4	5	
8) Someone to give you information to help you understand a situation..1	2	3	4	5	
9) Someone to confide in or talk to about yourself or your problems1	2	3	4	5	
10) Someone who hugs you1	2	3	4	5	
11) Someone to get together with for relaxation..1	2	3	4	5	
12) Someone to prepare your meals if you were unable to do it yourself..1	2	3	4	5	
13) Someone whose advice you really want..1	2	3	4	5	
14) Someone to do things with to help you get your mind off things1	2	3	4	5	

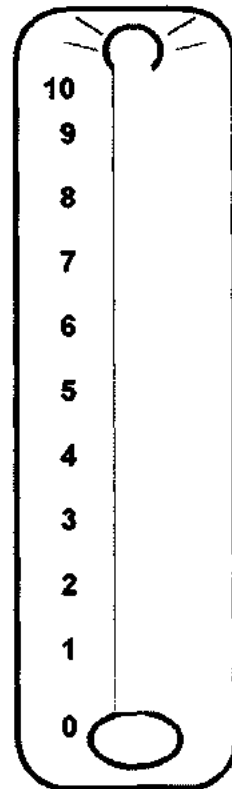
15) Someone to help with daily chores if you were sick...1	2	3	4	5
16) Someone to share your most private worries and fears with..1	2	3	4	5
17) Someone to turn to for suggestions about how to deal with a personal problem1	2	3	4	5
18) Someone to do something enjoyable with1	2	3	4	5
19) Someone who understands your problems1	2	3	4	5
20) Someone to love and make you feel wanted1	2	3	4	5

NCCN Distress Thermometer for Patients

SCREENING TOOLS FOR MEASURING DISTRESS

Instructions: First please circle the number (0-10) that best describes how much distress you have been experiencing in the past week including today.

Extreme distress



No distress

Second, please indicate if any of the following has been a problem for you in the past week including today. Be sure to check YES or NO for each.

YES NO Practical Problems

- Child care
- Housing
- Insurance/financial
- Transportation
- Work/school
- Treatment decisions

Family Problems

- Dealing with children
- Dealing with partner
- Ability to have children
- Family health issues

Emotional Problems

- Depression
- Fears
- Nervousness
- Sadness
- Worry
- Loss of interest in usual activities

- Spiritual/religious concerns

YES NO Physical Problems

- Appearance
- Bathing/dressing
- Breathing
- Changes in urination
- Constipation
- Diarrhea
- Eating
- Fatigue
- Feeling Swollen
- Fevers
- Getting around
- Indigestion
- Memory/concentration
- Mouth sores
- Nausea
- Nose dry/congested
- Pain
- Sexual
- Skin dry/itchy
- Sleep
- Substance abuse
- Tingling in hands/feet

Appendix F

Social Adjustment Scale (sas-m)

<i>this questionnaire asks about how you have been during the last two weeks at work, spare time activities and in family life – please read each statement and then put a tick (✓) in the box to the right to indicate how much the statement has applied to you <u>during the last two weeks</u></i>		<i>= not at all</i>	<i>= about half the time</i>	<i>= most of the time</i>	<i>= all the time</i>
<u>work outside the home:</u> <i>the following questions are about how things have been in your job (full or half-time – if you do not have a job go straight on to the next section) – over the last 2 weeks have you:</i>					
1	missed any time from work?*				
2	been doing your job well?				
3	felt ashamed of how you have been doing your work?*				
4	got angry with or argued with people at work?*				
5	felt upset, worried or uncomfortable at work?*				
6	been finding your work interesting?				
<u>housework:</u> <i>the following questions are about how the housework has been – over the last 2 weeks have you:</i>					
7	done the necessary housework each day?				
8	been doing the housework each day?				
9	felt ashamed of how you have been doing the housework?*				
10	got angry with or argued with salespeople/tradesmen/neighbours?*				
11	felt upset, worried or uncomfortable while doing the housework?*				

12	found the housework boring, unpleasant or a drudge?*					
<i>social and leisure activities:</i> the following questions are about your friends and what you have been doing in your spare time – over the last 2 weeks have you:						
13	been in touch with any of your friends?					
14	been able to talk about your feelings openly with your friends?					
15	done things socially with your friends (e.g. visiting, entertaining, going out together)?					
16	spent your available time on hobbies or spare time interests?					
17	got angry with or argued with your friends?*					
18	been offended or had your feelings hurt by your friends?*					
19	felt ill at ease, tense or shy when with people?*					
20	felt lonely and wished for companionship?*					
21	felt bored in your free time?*					

<i>extended family:</i> the following questions are about your extended family, i.e. parents, or brothers, sisters, in-laws, and children not living at home (please do not include your partner or children living at home) – over the last 2 weeks have you:						
22	got angry with or argued with any of your relatives?*					
23	made an effort to keep in touch with your relatives?					
25	been able to talk about your feelings openly with you relatives?					
26	depended on your relatives for help, advice or friendship?					

27	been feeling that you have let your relatives down at any time?*						
28	been feeling that your relatives have let you down at any time?*						
marital: the following questions are about how things have been between you and your partner. If you are not living with your partner or living with a person in a steady relationship, go straight on to the next section. Over the past 2 weeks have you:							
29	got angry with each other or argued with one another?*						
30	been able to talk about your feelings/problems with your partner?						
31	been making most of the decisions at home yourself?						
32	tended to give in and let your partner have their own way when there was a disagreement?*						
33	and your partner shared the responsibility for practical matters that have arisen?						
34	had to depend on your partner to help you?*						
35	been feeling affectionate towards your partner?						
36	and your partner had sexual relations/? About how many times?						
37	had any problems during sexual intercourse (e.g. pain or difficulty with climax)?*						
38	enjoyed your sexual relations with your partner?						
parental: the following questions are about how things have been with your children (if you do not have children living at home go straight to the next section) – over the last 2 weeks?							
39	been interested in your children's activities, e.g. school/friends/etc?						
40	been able to talk to and listen to your children?						

41	been shouting at or arguing with your children?*					
42	been feeling affectionate towards your children?					
<i>family unit: the following questions are about how things have been with your immediate family, that is your partner and children at home. If you do not have an immediate family, please ignore this section. Over the past 2 weeks have you:</i>						
43	been worrying more than necessary about things happening to your family?*					
44	been feeling that you have let your immediate family down at all?*					
45	been feeling that your immediate family has let you down at all?*					