

**ATTITUDE AND PSYCHOLOGICAL SUPPORT OF HEALTH CARE PERSONNEL AS  
PREDICTORS OF MENTAL WELL-BEING AMONG PATIENTS WITH TERMINAL  
ILLNESS IN JALINGO TOWN**

**BY**

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**CERTIFICATION**

We certified that this thesis titled “Attitude and Psychological Support of Health Care Personnel as Predictors of Mental Wellbeing among Patients with Terminal Illness in Jalingo Town” has been duly presented by Tomen Egbe Agu (BSU/PSY/Ph.D/14/7490) of the Department of Psychology, Faculty of Social Sciences, Benue State University, Makurdi and has been approved by the examiners.

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## **DEDICATION**

This work is dedicated to God Almighty, the alpha and omega.

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## **ABSTRACT**

This study examined attitude and psychological support as predictors of mental wellbeing among patients with terminal illness in Jalingo town. The ex post facto research design was employed for the study. The instruments used were attitude scale, the psychological support scale and mental wellbeing scale. A total of 270 respondents took part in the study. Simple and Multiple Regression Analysis and Four- Way- ANOVA were used for data analyses. Findings revealed that attitude predicted mental wellbeing. Findings also indicated that psychological support predicted mental wellbeing. Results further showed that attitude and psychological support jointly predicted mental wellbeing. However, there was no significant interaction effect of religion, age, sex and marital status on mental wellbeing. Based on these findings, it was recommended among other things that health care personnel should give more time and energy to help terminally ill patients cope with the illness and treatment. Moreover, attention should be given to increasing the functional coping strategies of patients with terminal illness and more specific approach can be followed that will allow focus on building stress resistance in patients with terminal illness, reliefs suffering and provide comfort to patients with terminal illness to improve their mental wellbeing.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Mental wellbeing among patients with terminal illness is an inherently personal experience that affects patients and the family differently. Coping with the pain, grief and anxiety brought about by the terminal illness is not only physically draining but it also affects the patient's mental wellbeing. Psychologists, doctors, nurses and other health personnel care, is a patient centered care that focuses on optimizing mental wellbeing before death. To effectively improve the mental wellbeing of patients, it utilizes holistic provision of psychological support and attitude to competent management of symptoms, prevention and relief of suffering. Patients diagnosed with terminal illness often report that health personnel providing care do not understand their psychological needs and in particular their mental wellbeing, they do not consider psychological support an integral part of their care and are unaware of psychological health care resources. They fail to adequately treat, evaluate or offer referral for depression or other ramifications of stress resulting from the illness in patients and their families (Maly, 2005).

Providing care by the health care personnel through preventing and relieving suffering can have a positive influence on the mental wellbeing of patients until death (World Health Organization, 2002). To live with an incurable disease can limit one person's life and lead to a feeling of being trapped and unable to liberate from the condition. If the person is able to cope with the condition; the feeling of freedom can be present despite the disease. With professional and well functioned caring, it is

possible for the patient to increase the feeling of mental wellbeing even though the limitations of the incurable disease still exist (Dahlberg & Segesten, 2011).

Mental wellbeing is a feeling that is subjective and can be described as a condition that appears when one person is relieved from pain and suffering (Torunn Bjork & Breievne, 2006). To care for terminally ill patients, caring for terminally ill patients can be stressful, but previous study shows that, psychologist, doctors and registered nurses (RN) and other health care personnel were strongly committed to care for the patients in best possible way at the end of life (Johansson & Lindahl, 2009). It is important to be aware of how the work situation can affect the psychologist, doctors, nurses and other health care personnel which also can lead to lack of quality in caring for the patients. To be aware of this fact could lead to better care for the patients (Dahlberg & Segesten, 2010).

Mental wellbeing is the focus among patients with terminal illness, it is necessary to acknowledge the health care personnel's health and work situation. The aim of focusing on the health care personnel health is therefore to be aware of the fact that it can have an impact on the patients' mental wellbeing (Dahlberg & Segesten, 2010).

Mental wellbeing is about enhancing competence of the patients and enables them to achieve their self-determined goal (Colombo, 2007). Mental wellbeing should be a concern for all of us, rather than only for those who suffer from the illness. Terminal illness often generates misunderstanding, prejudice, confusion and fear. Some people with terminal illness report that the stigma can at times be worse than the illness

itself. People may be less willing to offer support and empathy if someone is suffering from a terminal illness.

Providing palliative care means to prevent and relieve suffering by increasing mental wellbeing. It also includes caring for the patient's psychological and physiological needs (World Health Organization, 2002). A previous study shows that patient's mental wellbeing is important in palliative care; it is an essential part of health care personnel all along the line but especially when caring for terminally ill patients because of their need of expressing their thoughts and feelings (Hench, Danielsson, Strang, Browall & Melin-Johansson, 2013)

Levi (1987) defined mental well-being as a dynamic state characterized by reasonable amount of harmony between individual's abilities, needs and expectations, environmental demands and opportunities. Mental well-being has more to do with the management of the existential challenges of life such as having meaning in one's life growing and developing as a person. According to Diener (1999) psychological well-being is how people evaluate their lives, these evaluations are may be in the form of cognitive or affective. The cognitive part is an information based appraisal of conscious evaluative judgments about one's satisfaction with life, and the affective part is a hedonic evaluation guided by emotions and feelings such as experience of pleasant unpleasant moods in reaction to their lives.

Mental well-being is a dynamic concept that includes subjective, social, and psychological dimensions as well as health-related behaviors (Ryff, 1989). The concept mental well-being was originally construed as a challenge in overcoming the hedonistic concept of mental well-being in psychology and with the aspiration of making a

distinction between the hedonistic state of comfort and eudaimonic process of growth and development by which happiness, and finally also pleasure, is achieved by the patients (Ryff, 1989).

There is a link between well-being and attitude (Tedeschi & Calhoun, 1996). The characteristic reaction of an individual under different situations that is enduring and consistent is called attitude (Costa & McCrae, 1989). Individual behavior reflects the person's attitude. Evidence has pointed to the robustness of attitude in the explanation of mental wellbeing (Costa, & McCrae, 1998; David & Suls, 1999). This has been admitted and applied in psychology, sociology and management.

Health care personnel positive attitude are more likely to be warm, pleasant, kind, and cooperative; they may experience positive changes in their interpersonal relationships with friends and family during the adverse effects of terminal illness and also tend to be dependable, responsible, efficient, productive, organized, planful, able to delay gratification, reliable, responsible, and ethical (McCrae & John, 1992). As a result, patients will tend to cope better with terminal illness.

Allport (1961) posited that an attitude is "mental and neural state of readiness organized through experience, exerting a dynamic influence upon the individual response to all objects or to situations with which it is related".

Zimbardo and Ebbesen (1969) further assert that, affective component of our attitude consists of a patient's evaluation of liking or emotional response to health care personnel. The cognitive component refers to the way the health care personnel are perceived. It is in fact the mental picture formed in the in patients brain. This includes the patient's thoughts, beliefs and knowledge about the health care personnel. The

behaviour component involves the health personnel overt acts directed towards the patients. Health care personnel make attributions in respect of their attitudes towards people with terminal illness. They in most cases do this naively (Ugwuegbu, Attribution theory as postulated by (Heider, 1998) states the rules patients use to infer the causes observed behaviour. He divides this process into two: dispositional and situational attribution processes. The dispositional attribution is the process where health care personnel actions are attributed to internal dispositions (attitudes, traits, motives). While situational attribution is attributing patient's action to factors in the environment such as lifestyles, witchcraft, poverty, beliefs, and so forth.

Besides attitudes, another factor that this study examines its predictive power on mental well-being among patients with terminal illness is psychological support. Psychological support is the comfort given to patients by the psychologist, doctors, nurses and other health care personnel including our families, friends, coworkers and others (Onyishi, Okongwu & Ugwu, 2012). These psychological supports could help patients cope with varying life challenges.

Psychological support is emotionally beneficial to the mental well-being of the terminally ill patients (Cohen & Wills, 2005). While the relationship between psychological support and well-being is likely reciprocal, in that patients who are healthy and happy may elicit positive social relations, there is a growing belief on the concept that psychological support leads to increased mental well-being and general health (Seeman, Berkman, Charpentier, Blazer, Albert & Tinetti, 1995; Walen & Lachman, 2000). A wealth of research has focused on the positive outcomes of

psychological support; another avenue of study reflects the assumption that psychological support have on mental wellbeing.

Psychological support is important not only to patients but also to the health care personnel providing that care. Patients consistently report having significant informational and emotional needs that are often unmet during their illness journey (Sussman & Baldwin, 2010). Health care personnel provide both care and psychological support with verbal and written advice to patients. Written information is especially important for newly diagnosed patients who may not retain a lot of information due to an overload of information at initial diagnosis. This allows patients to base their understanding of terminal illness and wellbeing on sound information rather than anecdotes and misinformation (Moody, 2003). Health personnel play a pivotal role in the psychological support of terminal ill patients throughout their journey. Doctors and nurses see patients at their worst and at their best; from diagnosis, through treatment, through to cure or palliative and end of life care, it is a long journey which is shared between patient and health care practitioner. There are two important issues in the delivery of psychological support to cancer patients: recognition of distress and the available mental health resources (Muriel et al, 2009).

Psychological support involves the culturally sensitive provision of psychological, social and spiritual care (Hodgkinson, 2008). Health workers play a unique role in supporting patients; by building dialogue with patients, health care personnel can begin to understand how patients view themselves as individuals, what is important to them, and how their relationship with others may affect their decisions and their ability to live with those decisions during their treatment and beyond (Ellis et al,



2006). Good communication and assessment skills are essential to building a rapport with patients and can help the health personnel develop a clinical relationship with the patient and their family. In some cases cancer can be considered a chronic disease, and with that the patient and their family will be hospitalized throughout their disease trajectory. This gives hospital based health personnel the optimal chance of building and gaining patients trust and initiating support for patients and their family. Personnel strive to treat patients individually as each patient requires specific physical, symptomatic and psychosocial care (Watts, Botti & Hunter, 2010). The provision of good psychological support has been shown to be beneficial for patients by reducing both psychological distress and physical symptoms through increasing mental wellbeing enhancing coping and reducing levels of pain and nausea with a consequent reduction on demands for hospital resources (Ellis et al 2006; Carlson & Bultz, 2003).

Providing good psychological support comes down to good communication skills, both verbal and non-verbal. Communication in the context of cancer care includes general interactional skills to convey empathy and support and to provide medical information that is understood and retained. A relationship of health care providers with patients is based on trust, being open and honest, understanding, being present, respect, setting mutual goals and providing social support (Ritchie, 2001). This relationship can be an important support and buffer for terminally ill patients experiencing distress (Rodin et al, 2009). Non-verbal communication can convey a great deal to patients who may scrutinize their doctors or nurses for nuances of expression or demeanour (Fallowfield & Jenkins, 1999). Non-verbal communication is seen by patients as indicators for good or bad news just as much as the actual words

spoken. Verbal communication is crucial to building and maintaining this relationship, to transmit information, to provide support and to negotiate treatment decisions (Rodin et al, 2009). The relationships health care providers build with patients can also vary among patients; the age and gender of the patient can have an impact on the relationship built. There can be a difference in tactics when discussing the same complex issues with patients of different ages. It is important to provide informational support that consists of the availability and provision of concrete and age appropriate information (Zebrack et al, 2010).

Health care personnel use psychological support to help establish therapeutic relationships. These relationships are built through psychological, social, and spiritual care. Today, effective high quality care for the terminal illness is viewed as involving more than just the delivery of therapy. Increasingly service providers are required to address patients supportive care needs (Harrison et al, 2009). As hospital health providers we see the patient and their family throughout their illness journey and are in a unique position to monitor a patients' psychological coping and distress. Empowering patients through support and education enables them to have some feeling of control. Health care professionals that use empathy, understanding, and reassurance contribute to positive psychological outcomes for patients (Lin & Bauer- Wu, 2003). Patients feel supported in a holistic approach that focuses on their mental wellbeing, intimate relationships, and social situation (Sundquist & Yee, 2003).

Physicians, Nurses, psychologist as well as other practitioners need to create an environment in which the patient feels comfortable and safe to relate and communicate. This therapeutic relationship plays a vital role to patients and their families and they do

rely on health staff for the emotional journey. Oh and Kim (2010) have shown that psychological issues can influence terminal illness recovery with patients that experience psychological distress such as anxiety and depression often experiencing increased physical side effects and more difficulty managing their self care and experiencing an overall reduced mental health. Vodermaier et al (2009) state that relatively brief but validated questionnaires would seem to be the tools of choice for routine screening of terminally ill patients emotional distress. An advantage to systematic screening of cancer patients for emotional distress is that it is likely to promote equal access to psychological services, where as a system based only on physician or patient initiated referrals might fail to identify and/or overlook a substantial proportion of emotionally distressed patients who are in need of supportive treatment. Cancer in particular is known to be a highly stressful experience associated with emotional difficulties (Lin & Bauer- Wu, 2003).

Attitude and psychological support are emotionally beneficial to the mental well-being of terminally ill individual (Cohen & Wills, 2005). While the relationship between health care personnel attitudes, psychological support and mental well-being is likely reciprocal, in that people who are healthy and happy may elicit positive social relations, there is a growing belief on the concept that positive attitudes and psychological support leads to increased mental well-being and health (Seeman, Berkman, Charpentier, Blazer, Albert & Tinetti, 1995; Walen & Lachman, 2000).

In spite of the potential for distress and suffering caused by the challenges of terminal illness, some patients describe themselves as happy and satisfied with their lives (Sahlberg-Blom, Ternstedt, & Johansson, 2001); they are able to maintain

mental well-being (McMillan & Weitzner, 2000). Blinderman and Cherny (2005) interviewed people with terminal illness and found that while they had considerable existential concerns, many were not in distress. The researchers attributed this finding to the early timing of psychological support palliative care, attitudes, effective coping strategies and religious beliefs.

Terminal illness, on the average, has a negative impact on individuals' mental well-being, physical well-being, and relationship well-being and life satisfaction. A positive relationship between terminally ill rates and indices such as mortality, heart disease, mental health, heavy drinking, life satisfaction and the use of mental health services have been portrayed (McKee-Ryan, Song, Wanberg & Kinicki, 2006). However, these relationships have been criticized on a number of grounds, including its inability to allow generalization to an individual level.

Therefore, this research is interested in the attitude and psychological support of health care personnel in predicting mental wellbeing among the terminally ill in Jalingo town. This is because one variable alone may not provide the explanation we need regarding mental well-being among the terminally ill hence the combination of the two independent variables. Therefore, it is more commendable to examine the predictive power of attitudes and psychological support on mental well-being of patients with terminal illness. This is because evidences abound that over the years these two factors have been found to correlate positively with mental well-being.

## **1.2 Statement of the Problem**

Mental wellbeing among patients with terminal illness is an inherently personal experience that affects patients and the family differently. Coping with the pain, grief

and anxiety brought about by the terminal illness is not only physically draining but it also affects the patient's mental wellbeing. Mental well being is important to all human beings because satisfaction or happiness of life determines the overall performance and recovery from illness. Patients already down with illness and how they think and feel about themselves and others is directly linked to confidence and ability to control things in life (Lyubomirsky, 2005). The mental wellbeing of patient is affected by factors of attitude and psychological support of healthcare personnel. The attitude of health care personnel such as psychologist, doctors and nurses can be predictors of mental wellbeing to patients with terminally ill condition. The attitude and manner in which health care personnel look after the terminally ill patients will determine their state of joy, happiness and confidence which will enable them to live longer. However poor attitude of health care personnel among the terminally ill patients can worsen their condition as they may become worried and sad therefore affecting their mental health. The problem here is to show how attitude and psychological support predict the mental health of terminally ill patients. It may be argued that the attitude and psychological support of health care personnel may not make any difference on the mental wellbeing of the patients.

Apart from attitude of healthcare personnel, the psychological support provided to terminally ill patients can predict their mental health. Psychological support is provided by health care personnel are generally beneficial to the mental well being of patients with terminal illness: Terminally ill patients who are happy through provision of psychological support are likely to improve in mental well being and make correct judgment. The comfort provided by healthcare personnel is often called psychological

support (Onyishi, Okongwu & Ugwu, 2012). This has a predictive power on the patients with terminal illness. The problem here is to what extent or how will health care personnel through the provision of psychological support affect the mental health of patients with terminal illness. This may likely affect their mental wellbeing positively or negatively.

The relationship between health care personnel attitude, psychological support can predict mental well-being of patients with terminal illness. There is a growing belief on the concept that positive attitudes and psychological support leads to increased mental well-being and health (Seeman, Berkman, Charpentier, Blazer, Albert & Tinetti, 1995; Walen & Lachman, 2000).

The main problem of the study is to determine whether attitude and psychological support provided by the health care personnel will in any way predict the mental wellbeing of patients with terminal illness in Jalingo town. Providing care by the health care personnel through preventing and relieving suffering can have a positive influence on the mental wellbeing of patients until death (World Health Organization, 2002). To live with an incurable disease can limit one person's life and lead to a feeling of being trapped and unable to liberate from the condition. If the person is able to cope with the condition; the feeling of freedom can be present despite the disease. With professional and well functioned caring it is possible for the patient to increase the feeling of mental wellbeing even though the limitations of the incurable disease still exist (Dahlberg & Segesten, 2011).

Terminal illness, on the average, has a negative impact on individuals' mental well-being, physical well-being, and relationship well-being and life satisfaction. A

positive relationship between terminally ill rates and indices such as mortality, heart disease, mental health, heavy drinking, life satisfaction and the use of mental health services have been portrayed (McKee-Ryan, Song, Wanberg & Kinicki, 2006). However, these relationships have been criticized on a number of grounds, including its inability to allow generalization to an individual level.

### **1.3 Aim and Objectives of the Study**

This study is aimed at assessing the attitude and psychological support of healthcare personnel as predictors of mental wellbeing among patients with terminal illness in Jalingo town is motivated by the following aim and objectives to the uptake of this work:

- (i) To examine the influence of health care personnel attitudes on mental well-being of patients with terminal illness in Jalingo town.
- (ii) To examine whether health care personnel's psychological support will predict mental well-being among patients with terminal illness in Jalingo town.
- (iii) To evaluate the joint influence of attitudes and psychological support of health care personnel on mental health of terminally ill patients in Jalingo town.
- (iv) To examine whether personal factors of religion, age, sex and marital status will jointly predicts mental wellbeing of patients with terminal illness in Jalingo town.

### **1.4 Research Questions**

Walliman (2005) indicates that the subject of the research question gives a clear understanding of the subject to be investigated. Therefore, for a clear understanding of the subject the following questions are formulated to guide the study.

- (i) How will health care personnel attitudes influence mental well-being among patients with terminal illness in Jalingo town?
- (ii) How will health care personnel psychological support influence mental well-being among patients with terminal illness in Jalingo town?
- (iii) What is the joint influence of attitude and psychological support of health care personnel on mental health of terminally ill patients in Jalingo?
- (iv) How will personal factors of religion, age, sex and marital status relate to the level of mental wellbeing of patients with terminal illness in Jalingo town.

### **1.5 Significance of the Study**

The present research is significant for the understanding of mental well-being among patients with terminal illness. In its broadest sense the study is aimed at improving on the existing literature and contributing to the growing body of knowledge on issues relating to predictability of attitudes and psychological support on mental well-being among the terminally ill in Taraba State and Jalingo town in particular.

- (i) It is hoped that the study will help health care personnel develop a better understanding of the patient's mental wellbeing and the patient's adequate knowledge of their illness.
- (ii) It will help readers have the basic knowledge about terminally ill patient's mental wellbeing and stimulate further research on the topic; it will also reduce the stigma on the terminally ill patient in the eye of the health care personnel and the public.
- (iii) The study will show the role of attitude and psychological support in understanding mental well-being among the terminally ill and will provide the literature with another important piece of the puzzle concerning attitudes and psychological



support in predicting mental well-being. Evidence from this study will add to the academic literatures on well-being and offers several practical implications for mental well-being among the terminally ill.

- (iv) In addition, the study would serve as a catalyst to stimulate more research into the subject matter, as well as close the gap between states, Africa and the western countries concerning mental well-being among patients with terminal illness since studies of this nature are rare in this area. The outcome of this research and its components can be utilized by researchers, who intend to examine the extent of the relationship between attitudes and psychological support on mental well-being.

## **1.6 Scope of the Study**

The study covers the whole mental wellbeing of terminally ill patients in Taraba State, but due to limited number of patients with this condition in the state, the study was limited to cover only Jalingo town the capital of Taraba state where there were two major existing hospitals (Federal Medical Centre and Specialist Hospital Jalingo). The research is limited to attitude, psychological support and mental well-being among patients with terminal illness in Jalingo town and covers a limited period of three years and focused on patients with terminal illness in Jalingo only.

## **1.7 Operational Definitions of Terms**

**Attitude:** Perceived patients satisfaction of health care personnel's behaviour.

**Health Care Personnel:** Professionals that belongs to the health team responsible for medical and related services aimed at maintaining good health, especially through the prevention and treatment of terminal illness.

**Psychological Support:** Form of support and empathy of health care personnel exhibited or demonstrated aimed at helping patients with terminal illness enhance their mental health.

**Terminal Illness:** An incurable, progressive illness that will end in death despite treatment.

**Mental Wellbeing:** Feeling good and functioning well, favourable thoughts and satisfaction with life, ability to be self sufficient and possessing a sense of happiness.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

This chapter reviews conceptual framework as it relates to the variables of the study. The chapter also reviews theories on attitudes, psychological support and mental wellbeing. Finally, empirical review was carried out. The empirical review was done to include attitudes and mental wellbeing, psychological support and mental wellbeing.

#### **2.1 Conceptual Review**

##### **2.1.1 Concept of Attitude**

Attitude is a multifaceted concept with a broad meaning. In this thesis, the researcher used a definition by Eagly and Chaiken (1993). Attitude is a psychological tendency expressed by evaluating a particular entity with some degree of favour or disfavour. It is in line with Fishbein and Ajzen's (1975) definition of attitude as the degree of positive or negative affect consistently associated with a person's response to a well defined class of psychological objects.

Fazio (1995) also claimed that attitude is essentially an association between a given object and a given evaluation, which may range in nature from very hot to a cold cognitively, based judgment of the favourability of the attitude object. Although death is a common existential matter, people's attitudes, beliefs and practices related to death are diverse in different societies because they are based on the individual. Attitudes are thus influenced and shaped by the social and cultural context, including religious belief systems (Holloway, 2006).

OBrien and Moorey (2010) Speculated that positive attitude is associated with better emotional adjustment to terminal illness. OBrien and Moorey used the term

“positive attitude” to describe people who have optimism about survival, belief in their ability to affect the disease, and determination to adjust to their illness. An optimistic attitude has been attributed to improved well-being in people with life-threatening illness.

In a correlational study to determine the relationship between treatment-specific optimism (the belief that a specific treatment will cure one’s illness) and depressive symptoms with advanced cancer patients, Cohen, de Moor, and Amato (2001) found that optimism and mental wellbeing was associated with fewer depressive symptoms. The authors extrapolated that when people have optimism and mental health about the effectiveness of their treatment, they may adjust better to their illness, even if they are aware that the treatment is not likely to cure them, than those who are pessimistic. Furthermore, they state that a generalized optimistic view of the world may also be associated with better mental wellbeing to advanced illness.

Winterling, Wasteson, Sidenvall, Sidenvall, Glimelius, and Sjoden (2006) used the Hospital Anxiety and Depression Scale (HADS) and the Life Orientation Test to explore the relationship between attitude and psychological support of patients with terminal illness who felt they could live a good life with terminal illness like advanced cancer had less depression and anxiety and were more optimistic. Furthermore, participants who scored as being highly optimistic had high mental health.

Cohen and Leis (2002) recognized that many studies of attitude with advanced cancer patients have used measurement instruments to quantify patient’s mental wellbeing. Although mental wellbeing is defined in many different ways in other studies, these researchers defined it as “subjective well-being.” They stated that it is

important to use qualitative methods to ask people with advanced cancer what they see as crucial to their own well-being. The researchers interviewed 60 participants and asked them what was important to their mental wellbeing. After analysis, they reported five determinants of mental wellbeing: the participant's physical, psychological and cognitive functioning, quality of the care they received, their physical environment, social relationships, and positive attitude. They conceptualized attitude as a domain that included existential well-being, spirituality, and hope, coping, and being able to find joy in life.

Positive attitude had a significant impact on the participant's mental wellbeing, regardless of their physical circumstances. The researchers found that people with similar physical concerns could describe their mental wellbeing as terrible or quite good, depending on the person's attitude. Participants said that their mental wellbeing was enhanced by a positive attitude that involved being able to find pleasure in the simple things of life, accepting the life-limiting nature of their illness, focusing on others, being settled spiritually, and finding meaning.

Similarly, when Thomsen, Rydahl-Hansen, and Wagner (2010) conducted a review of attitudes factors relevant to coping with terminal illness, they found that creating meaning and positive reframing attitudes of negative aspects of illness were important for mental well-being. They also reported that some studies had described participants as being able to be lifted out of the suffering by experiencing joy and pleasure from positive attitudes.

The studies of mental health personnel attitude reviewed provided possible ways that people with terminal illness are able to experience mental well-being. Mental

well-being in one or more dimension seems to enhance over-all well-being or at least diminish distress in another dimension. Furthermore, the attitude people take to their life and the way they see the world seems to impact their ability to experience mental well-being in terminal illness.

### **2.1.2 Concept of Psychological Support**

Psychological support is thought to be one of the most effective means of reducing mortality and morbidity rate among people with terminal illness in Jalingo town. The psychological support addresses the role psychologist can play in reversing the trend. It considers the common characteristics of psychological support and reflects on how we can inform and improve interventions to promote mental health.

Psychological support is the active, holistic care of patients with advance progressive illness and their families. Care is focused on the total patient encompassing body, mind and spirit. Throughout the continuum of the disease, psychological support recognizes and addresses the needs of the patient and necessitates access to information, patient autonomy, and choice. Some of this needs maybe emotional, psychological, cultural, intellectual, spiritual, social and or physical. This care optimizes mental health by anticipating, preventing, alleviating suffering (WHO, 2002).

Psychological support can be given as the main focus of care or alongside life prolonging interventions. This support begins the moment an individual is diagnosed with a life-threatening disease and continues until a reversal is attained or death occurs. Its provision is indicated throughout the trajectory of the illness and should not be restricted to the end-of-life phase. Underlying the philosophy of a psychological support is a positive and open attitude towards death and dying. This philosophy points

out that the individual patient's own concept of what is good, mental wellbeing should direct all interventions of psychological support (Pantilat & Billings, 2003).

Psychological support care involves bereavement and grief support both for the family and other caregivers during the life of the patient and continuing after the death of the patient. Psychological support aims at maximizing quality of life for the dying patient psychological support is more than a physical experience, the effect of cultural, spiritual, emotional and mental wellbeing on the dying process asks for a style of care that doesn't look at death from a medical point of view rather it should be viewed as a process. Most psychological support patients desire an end of life experience that is peaceful and dignified, where they can exercise their own autonomy and remain in control to the greatest extent possible (Breier-Mackie, 2001).

Terminally ill patients can exhibit numerous emotions and reactions for example sadness, helplessness, hopelessness anxiety, fear and even distress. Psychological support is tailored and based on the individual patient's physical, mental wellbeing, and spiritual needs, because each patient is different from the other (Lawton & Carroll, 2005). Nurses must develop skills that will help terminally ill patients face these emotions, and support the patient's emotional and mental wellbeing. Psychological support renders treatment for symptoms regardless of whether the underlying illness is being cured. When diagnosis of a terminal illness is made patients initially react in shock and disbelief, often characterized by indifference, disbelief, and not acknowledging the reality of the diagnosis. Nurses are uniquely situated to address mental wellbeing issues and to establish trust and good therapeutic relationship with dying people and families. (Engler et al., 2004).

Psychological support is a network of reliable people for psychological or material support to cope efficiently during periods of illness (Knack, Waldrup & Jensen-Campbell, 2007). Another opinion about psychological support as one's reception of information, guidance, comfort, and help, from own community group (Malik, 2002). Similarly, Hafen, Karren, Frandsen and Smilth (1996) illustrated that psychological support is the degree to which a person's basic social, psychological, physical needs are met through interaction with other people. It is the resource in both tangible and intangible forms that other people provide. Psychological support is a person's perception that he or she can count on other people for help with a problem or help in time of crises. Uchino (2004) postulated that psychological supports are usually defined to include both the structure of an individual's social life (for example, group memberships or existence of familial ties) and the more explicit functions they may serve (for example, provision of useful advice or emotional support). Sarason, Sarason and Pierce (1994) defined psychological support as physical and psychological comfort provided by other people.

In general, psychological supports are thought to affect mental well-being through its influence on emotions, cognitions, and behaviors (Cohen, 1988). In the case of mental health, psychological support are thought to maintain regulation of these response systems and prevent extreme responses associated with dysfunction (Cohen, Gottlieb & Underwood, 2000).

Most studies of psychological support conceptualize it as the functions that are provided by interactions and relationships. These functions are usually organized along



two dimensions: What the health care psychological support are perceived to be available and what the psychological support are actually received or provided by others. What is perceived as available may or may not correspond to what is actually provided. Many researchers agree that health care psychological support provide or make available what can be termed emotional support, physical support, information support, and belonging support (Barrera, 2000). Uchino (2004) defined each component in isolation however; these functional aspects of psychological support are often highly related to each other and cannot be easily separated in everyday life.

Emotional Support is probably what most of us imagine when we think about psychological support of health personnel among patients with terminal illness. It is often defined as the expression of care and concern. Emotional support is thought to be beneficial because it provides the recipient with a sense of acceptance and may bolster one's self-esteem during life challenges (Wills, 1985). Informational support is a potent type of support usually received in form of guidance or suggestion and provides useful direction in the time of uncertainty, Of course, as noted by researchers such as Cobb (1976), such advice and guidance may also carry an emotional message. It is often the case that useful guidance from close friends can be seen as emotionally supportive in that the person cares enough to speak with you about important decisions. Tangible support refers to the direct provision of material aid.

Health personnel patient relationships are often characterized by high levels of tangible psychological support because important material resources such as clothing, shelter, and food are provided. Belonging support is a form of support that refers to the

presence of other people with whom one can engage in social activities. Belonging support may be beneficial because such positive social and leisure activities may enhance one's mood and sense of acceptance by others.

Psychological support has strong influences on many aspects of well-being, including physical well-being, psychological well-being, life satisfaction and resilience. Psychological supports are known to increase mental well-being and decrease levels of stress (Taylor, Sherman, Kim, Jarcho, Takagi & Dunagan, 2004).

### **2.1.3 Concept of Mental Wellbeing**

The concept of feeling good in palliative care encompasses positive emotions of happiness and contentment, together with interest, engagement, confidence, and affection, whereas the concept of functioning effectively entails developing an individual's potential, maintaining some control over his or her life, experiencing positive relationships and maintain a sense of purpose.

Early attempts to conceptualize mental well-being focused on the affective component, as illustrated in the work of Bradburn (2009) who proposed that well-being refers to the overall evaluations that people make about their life, in which they sum up essential life experiences along a continuum of positive and negative affect. From this perspective, well-being is seen as the balance or discrepancy between negative and positive affect. Put differently, wellbeing may be viewed as either positive affect alone, or as a dominance of positive affect (example, joy, contentment or pleasure) over negative affect (example, sadness, depression, anxiety or anger) in an individual's experience. Many studies assessing the affective component of well-being have

included measures of affect with scales such as the Affective Balance Scale (Bradburn, 2006) and the Positive and Negative Affect Schedule (PANAS) (Watson, Clark & Tellegen, 2008).

Cronin de Chavez (2005) has noted that mental wellbeing is difficult to define; there is currently no consensus as to what constitutes mental wellbeing, although generally speaking there is a convergence in theoretical understandings focalizing on three major aspects of physical, social and mental wellbeing (psychological wellbeing).

Patients with improved mental wellbeing develop emotionally, continue to initiate, develop and get involved in mutually satisfying personal relationships. They continue to develop individual resources such as self-esteem optimism, and a sense of mastery and coherence, they remain aware of others and empathize with them, and they use and enjoy solitude. From a subjective point of view an individual's level of mental wellbeing or happiness can be identified easily (Ryan & Deci, 2001).

Supporting the mental wellbeing of patients undergoing palliative care is an important aspect of their care. Mental wellbeing impacts many aspects of health and social functioning including survival (Danner and Snowdon et al., 2001).

Mental wellbeing encompasses the capacity to realize one's abilities, and live life with purpose and meaning, feeling connected and supported, experiencing contentment and peace of mind (Keyes & Dhingra et al., 2010).

The Public Health Agency of Canada (PHAC) defines mental wellbeing as the capacity of each and all of us to feel, think, and act in ways that enhance our ability to enjoy life and deal with the challenges we face. It is a positive sense of emotional and

spiritual well-being that respects the importance of culture, equity, social justice, interconnections and personal dignity (PHAC 2006).

According to the World Health Organization (WHO), mental health is “a state of well-being in which the individuals realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully and is able to make a contribution to his or her community (WHO 2001).

Researchers argued that mental wellbeing in palliative care is better understood in terms of overall happiness or satisfaction with life. However, other models Marks (2005), add two dimensions to this view. Satisfaction; this includes pleasure and enjoyment, Personal development; entails being engaged in life, curiosity, autonomy, fulfilling potential and feeling that life has meaning.

Mental health can also be defined as the emotional resilience that enables us to survive pain, disappointment and sadness. It can include many different experiences or situations that affect the health and wellbeing of an individual. Mental health is an important component of the overall wellbeing. Mental wellbeing details how people think and feel both for self and others, confidence and ability to control things in our life. Mental wellbeing goes beyond having mental health problems, and is not the presence or absence of a diagnosed mental ailment (Lyubomirsky et al., 2005).

According to Huppert (2009) mental wellbeing in palliative care is a sum total of feeling good and functioning effectively, this does not mean that the individual feels good all the time, painful emotions like grief, failure and unmet needs is a normal part of life. The ability to manage these negative emotions is important to supporting mental wellbeing. An individual’s resilience to cope with life’s difficulties and the potential of

enjoying life can be promoted by looking after his or her mental wellbeing. This can be done for example, through availing relaxation and social activities.

The most commonly used term for the affective component of well-being is happiness. This is measured either with a single question, how happy are you with your life-as-a-whole, or with the use of affective scales based on the assumption that positive and negative affect are separate and independent bipolar dimensions (Cummins, Gullone & Lau, 2002). The inadequacy of this position has recently been questioned by Cummins et al. (2002) in the context of an ongoing debate over whether positive affect and negative affect are bipolar opposites of the same construct or should be viewed as independent constructs (Martindale, 2010).

In their later investigations into mental well-being, Diener and Lucas (1999) argue that mental well-being consists of three interrelated components: life satisfaction, pleasant affect and unpleasant affect. Subjective well-being therefore refers to the evaluations that individuals make about their lives, either cognitive judgments of life satisfaction or affective evaluations of moods and emotions, or a combination of both, that individuals make about their lives. Life satisfaction, pleasant affect, and unpleasant affect are related but they are also conceptually separate and need to be studied independently for a complete overall picture of mental well-being.

Consistent with this view, Diener and Lucas (1999) defined mental well-being as a general area of scientific interest rather than a single specific construct. They argue that, as a general construct, suggestive well-being could be divided into a number of components. Satisfaction can be divided into satisfaction with one's current life, with past life and with future expected life. Satisfaction can be studied as satisfaction with

specific domains of life (example, marriage, work, recreation, friendship, etc.). Pleasant affect can be divided into specific emotions, such as joy, happiness, and affection. Similarly, unpleasant affect can be divided into specific negative emotions such as, guilt, sadness and anger (Diener & Lucas, 1999).

Mental well-being can be assessed at a global level, with a single question of how satisfied are you with your life-as-a-whole (Andrews & Withey, 1976) and also more explicitly by asking satisfaction questions about various life domains such as marital satisfaction and work satisfaction.

#### **2.1.4 Concept of Terminal Illness**

A diagnosis of terminal illness is universally feared due to its association with mortality and its potential impact on all spheres of life (Wells & Turney, 2001). The majority of persons view terminal illness as an "exogenous adversary" an enemy or deadly intruder to be hunted down and destroyed (Linder, 2004). Although the majority of terminal illnesses are now treatable, many people associate terminal illness with fears of pain, suffering and death (Gorman, 1998).

Being diagnosed with terminal illnesses such as AIDS, Alzheimer's disease, congestive heart failure, chronic obstructive pulmonary disease, dementia, heart disease, liver disease, multiple sclerosis, renal or respiratory disease and stroke disrupts one's life and can threaten one's security and sense of control. There is fear of physical devastation as one faces the rigors of surgery, chemotherapy, heart attack and or radiation as well as the insult to the spirit (Ferrell, 1998).

Some patients may feel ashamed or embarrassed by a diagnosis of terminal illness, especially if they feel some responsibility for getting the disease due to their

risk behaviors such as smoking, consuming alcohol, having multiple sexual partners (Linder, 2004).

As Ferrell (1998) so aptly states, one of the hallmarks of the terminal illness like cancer experience is that of loss. Loss begins with physical changes such as loss of hair or bodily parts.

Continued illness may lead to loss of relationships and roles, autonomy and independence, and the threat of loss of life itself. Loss of a sense of mental health and the potential loss of a future affects persons even if their prognosis is seemingly good (Ferrell, 1998). Issues experienced by the person with terminal illness vary according to the different stages of the disease experience: the initial diagnosis, treatment, post-treatment, recurrence and terminal illness (Christ, 1993). Wells & Tumey (2001)

The prevalence of terminal illness survivors has been associated with a shift in perceptions and attitudes towards the disease. Individuals began viewing cancer as a chronic illness (Avis & Deimling, 2008, Blank, 2009, Aziz, 2007). The change in definitions made it no longer sufficient to treat the disease until remission and forego any post-treatment care. Terminal illness survivors are unique as the effects of it and its treatment do not end at remission. Rather during remission, the disease presents a host of mental, social and physical complexities that go beyond the realm of biological implications (Avis & Deimling, 2008; Aziz, 2007; Mullan, 1985; Sanson-Fisher, 2009).

People who are diagnosed with terminal illness experience significant challenges because of their illness (Yarbro, Frogge, & Goodman, 2005). Terminal treatment and disease may lead to a variety of physical symptoms such as nausea, fatigue, hair loss, body structural changes, bowel changes, loss of appetite and body

weight, skin changes, and pain (Yarbro, Frogge, & Goodman, 2005). Physical symptoms have been shown to diminish well-being and have been correlated with depression and emotional distress (Chen & Chang, 2004; Lobchuk & Bokhari, 2008). As a result of physical changes, people may feel that their body is against them (Rydahl-Hansen, 2005).

Emotional suffering can also result from a diagnosis of terminal illness and may lead to disruption in a person's sense of value to society (Zalenski & Raspa, 2006). Such feelings often lead people to evaluate their contribution to the world throughout their lifetime (Kuhl, 2003).

Emotional suffering can also be caused by the challenge to retain a sense of identity in light of physical limitations (Zalenski & Raspa, 2006). An example would be a man who identifies himself as an athlete, and his illness prevents him from doing physical activity. This would increase the gap between his view of himself before and after the illness (Carter, MacLeod, Brander, & McPherson, 2004). When the perception of self is inconsistent, a person cannot feel "self-actualized" (Zalenski & Raspa, 2006). Self-actualization is described by Kuhl (2003) as being authentic and "living in the truth" of the losses that may occur because of terminal illness, one of the most salient for people is loss of control over what is happening to them (Herth, 2000). Patients often state they do not have a clear understanding of their diagnosis, prognosis, or what they will experience as their disease progresses (Beckstrand, Callister, & Kirchhoff, 2006).

The fear of the unknown and imagined scenarios of death can be overwhelming (Zalenski & Raspa, 2006). There is sometimes a spiritual crisis that occurs when a



person discovers they have an untreatable illness and begins to contemplate their death (Kuhl, 2003). This crisis may be due to a fear of the afterlife, as reflected in a Gallup poll in 1997 (cited in Breitbart, 2004) which asked people to identify their greatest fear of dying. Fifty to sixty percent of respondents reported their greatest concern was of not being forgiven by God or of being separated from a higher power. The crisis may also arise from existential anguish as they question the reason for their illness (Taylor, 2000).

Challenges to social relationships can also occur when people are diagnosed with a terminal illness. People may have a limited ability to give and receive affection because they are reluctant to be perceived as a burden, fear being unlovable because of physical changes, and may have a perception of not belonging (Chochinov, Krisjanson, Hack, Hassard, McClement, & Harlos, 2006; Downing, 1998; Kuhl, 2003; Zalenski & Raspa, 2006). Some people are concerned for their family, in the present time and after their anticipated death (Wayman & Gaydos, 2005). In spite of the potential for distress and suffering caused by the challenges of terminal illness, some people describe themselves as happy and satisfied with their lives (Sahlberg-Blom, Ternstedt, & Johansson, 2001). They are able to maintain social and spiritual well-being (McMillan & Weitzner, 2000). Blinderman & Cherny (2005) interviewed people with terminal illness and found that while they had considerable existential concerns, many were not in distress. The researchers attributed this finding to the early timing of palliative care, effective coping strategies, psychological support, and religious beliefs.

## **2.2 Theoretical Review**

This section review theories that are relevant to the study. The theories of attitudes, psychological support and well-being are reviewed and related to the study.

### **2.2.1 Leon Festinger's Cognitive Dissonance Theory of Attitude**

The central proposition of Festinger's theory is that if a person holds two cognitions that are inconsistent with one another, he will experience the pressure of an aversive motivational state called cognitive dissonance, a pressure which he will seek to remove, among other ways, by altering one of the two dissonant cognitions (Bem, 1967).

Festinger considered the need to avoid dissonance to be just as basic as the need for safety or the need to satisfy hunger (Griffin, 2006). Psychologists define a drive as any internal source of motivation that impels an organism to pursue a goal or to satisfy a need, such as sex, hunger, or self-preservation. The distressing (aversive) mental state termed cognitive dissonance is therefore conceptualized as an aversive drive.

In this thesis, the researcher is primarily interested in Festinger's theory as one of a diverse range of theories of health care personnel attitudes. Bormann (1989, as cited in Griffin, 2006) refers to health care personnel attitudes in interaction theory as an "umbrella term for all careful, systematic and self-conscious and analysis of personnel attitudes. Scholars have made many attempts to define attitudes but establishing a single definition has proved impossible (Littlejohn & Foss, 2005). For the purposes of the present discussion, attitudes of health care personnel will be taken to mean "all those processes by which people influence one another" (Ruesh & Bateson, 1951, as cited in Watson & Hill, 1989). Inasmuch as Festinger's theory is concerned with attitude change and attempts to discern how attitudes persuasive messages are processed in the minds of

terminally ill. That brings us to the next point, namely the categorization of cognitive dissonance theory. As has been noted above, it is firmly planted in the socio psychological tradition, which focuses on individual social behavior, psychological variables, perception, and cognition. At the same time, however, it is so infused with system thinking that it must be included in the cybernetic tradition as well. Festinger's theory is one of a group of cybernetic theories known as consistency theories, all of which begin with the same premise: people are more comfortable with consistency than inconsistency. In cybernetic language, people seek homeostasis, or balance, and the cognitive system is a primary tool by which this balance is achieved. The mind is imagined as a system that takes inputs from the environment in the form of information, processes it, and then creates behavioral outputs (Littlejohn & Foss, 2005).

There has been a great deal of research into cognitive dissonance, providing some interesting and sometimes unexpected findings. It is a theory with very broad applications, showing that we aim for a consistency between attitudes and behaviors, and may not use very rational methods to achieve it. It has the advantage of being testable by scientific means (Foss, 2005).

O'Keefe (2002). Explain that individual differences in whether or not people act as this theory predicts. Highly anxious people are more likely to do so. Many people seem able to cope with considerable dissonance and not experience the tensions the theory predicts. Cognitive dissonance theory suggests that we have an inner drive to hold all our attitudes and beliefs in harmony and avoid disharmony (or dissonance); it refers to a situation involving conflicting attitudes, beliefs or behaviors. This produces a feeling of

discomfort leading to an alteration in one of the attitudes, beliefs or behaviors to reduce the discomfort and restore balance. For example, when people smoke (behavior) and they know that smoking causes cancer (cognition).

Attitudes may change because of factors within the person. An important factor here is the principle of cognitive consistency, the focus of Festinger's (1957 as cited in Griffin, 2006 ) theory of cognitive dissonance. This theory starts from the idea that we seek consistency in our beliefs and attitudes in any situation where two cognitions are inconsistent.

Leon Festinger (1957) proposed cognitive dissonance theory, which states that a powerful motive to maintain cognitive consistency can give rise to irrational and sometimes maladaptive behavior. According to Festinger, we hold much cognition about the world and ourselves; when they clash, a discrepancy is evoked, resulting in a state of tension known as cognitive dissonance. As the experience of dissonance is unpleasant, we are motivated to reduce or eliminate it, and achieve consonance that is agreement.

Cognitive Dissonance Theory, developed by Festinger (1957 cited in Griffin 2010), is concerned with the relationships among cognitions. Cognition, for the purpose of this theory, may be thought of as a piece of knowledge. The knowledge may be about an attitude, an emotion, a behavior, a value, and so on. For example, the knowledge that you like the terminally ill patients is cognition; the knowledge that you like the color red is cognition; the knowledge that you caught a touchdown pass is cognition; the knowledge that the Supreme Court outlawed school segregation is cognition. People hold a multitude of cognitions simultaneously, and these cognitions form irrelevant, consonant or dissonant relationships with one another.

According to Aronson (2004), two cognitions are said to be dissonant if one cognition follows from the opposite of another. What happens to people when they discover dissonant cognitions? The answer to this question forms the basic postulate of Festinger's theory. A person who has dissonant or discrepant cognitions is said to be in a state of psychological dissonance, which is experienced as unpleasant psychological tension. This tension state has drive like properties that are much like those of hunger and thirst. When a person has been deprived of food for several hours, he experiences unpleasant tension and is driven to reduce the unpleasant tension state that results. Reducing the psychological state of dissonance is not as simple as eating or drinking however.

Smith (2003), to understand the alternatives open to an individual in a state of dissonance, the researcher must first understand the factors that affect the magnitude of dissonance arousal. First, in its simplest form, dissonance increases as the degree of discrepancy among cognitions increases. Second, dissonance increases as the number of discrepant cognitions increases. Third, dissonance is inversely proportional to the number of consonant cognitions held by an individual. Fourth, the relative weights given to the consonant and dissonant cognitions may be adjusted by their importance in the mind of the individual. If dissonance is experienced as an unpleasant drive state, the individual is motivated to reduce it. Now that the factors that affect the magnitude of this unpleasantness have been identified, it should be possible to predict what we can do to reduce it.

Brehm (1956, as cited in Aronson, 2004) that basically, this theory focuses on consequences of incompatibility between two cognitions. Dissonance which is perceived

as distressful and as causing tension is reduced by an acceptance of a more constant cognition. That is, when one's initial attitude is brought to tension by an opposing attitude or cognition about a situation, the individual actively engages in the process of changing his or her behavioral and attitudinal elements so as to reduce tension. A person values his or her so much so that a seeming threat to his or her health causes him or her to reduce the tension posed by the health threat by discrimination and redefining interaction with such a threatening condition.

Health care personnel understand the worth of good health status, so an unreserved exposure towards terminal illness patients they perceive an encroaching on their healthy status is reduced by changing their former attitudes of unconditional acceptance of other patients to discriminatory attitudes. This theory more than any other theory of attitude has generated more research and controversy.

### **2.2.2 Breer and Locke's Task Experience Theory**

Breer and Locke (1965) theorized that attitudes are shaped by three elements, in the cause of pursuing a goal; that the nature of the task; whether it is easy or hard; the nature of the operation required; whether it is socially cooperative or individualistic, and then the nature of the outcome; whether it was success or it was failure.

Hulin and Judge (2003). As the people are faced with life situations and inherent in their actions and responses lay these elements. And so their various outcomes tend to shape and sustain their attitudes. For example, this theory applies in the healthcare setting that, if health-care personnel includes that caring for terminally ill patients is a difficult task that is largely on their shoulders to carry out as an individual, and it becomes boring and difficult task is an indication of a personnel failure. Such

health care personnel will discriminate, avoid and even deny terminally ill patient's access to his or health facilities.

In this context, the theory posits that the change and nature of their attitudes are as a result of this inter-related elements present in the cause of caring for the mentally ill patients. This theory is criticized on the bases that it presents attitudes as changing at any giving point in time as against the empirical held view that core attitudes in adults of over thirty years of age are more stable than changing.

According to Locke's model (1965 cited in Judge, 2008), goal setting that motivates attitude has four motivational mechanisms;

#### **Goals Direct Attention**

Goals that are personally meaningful tend to focus one's attention on what is relevant and important. If for example, you have a term project due in a few days, your thoughts tend to revolve completing that project

#### **Goals Regulate Effort**

Not only do goals make health care personnel selectively perceptive, they also motivate them to act. The instructor's deadline for turning in your term project for mental wellbeing would prompt you to complete it, as opposed to going out with friends, watching television or studying for another course. Generally, the level of effort expended is proportionate to the difficulty of the goal.

#### **Goals Increase Persistence**

Within the context of goal setting, persistent represents the effort expended on a Task over an extended period of time. It takes effort to run 100 meters; it takes persistence to run a 42 kilometer marathon. Persistent health care personnel tend to see

obstacles as challenges to be overcome rather than as reasons to fail. A difficult goal that is important to an individual is a constant reminder to keep exerting effort in the appropriate direction.

### **Goals Foster Strategies and Action Plans**

If you are here and your goal is out there somewhere, you face the problem of getting from here to there. Goals can help because they encourage health care personnel to develop strategies and action plans that enable them to achieve their goals. By virtue of setting a goal, the health care personnel's may choose a strategy of exercising some responsibility towards achieving their goal. Breer and Locke's 1965 (cited in Fishbein, 1980), many goals setting studies of attitudes conducted over the last couple of decades have given the following five practical insights.

### **Difficult Goals Lead to Higher Performance**

Goal difficulty reflects the amount of effort required to meet a goal. The positive relationship between goal difficulty and performance breaks down when goals are perceived to be Impossible, performance goes up when employees are given hard goals as opposed to easy or moderate goals. Performance then plateaus and drops as the difficulty of a goal goes from challenging to impossible. Specific, difficult goals lead to higher performance for simple rather than complex tasks. Goals specificity pertains to the quantifiability of a goal. Specific, hard goals led to better performance than did either easy, medium, do-your-best goal or none, On a positive note, however, a recent study demonstrated by Eagley and Chaiken (2011) that goal setting led gradual improvements in performance on complex task when people were encouraged to



explicitly solve the problem at hand. Finally, positive effects of goal setting were also reduced when people worked on interdependent tasks.

Feedback enhances the effect of specific difficult goals, feedback plays a key role in all our lives feedback lets people know if they are headed towards their-goals or if they are off course and need to redirect their efforts. Goals plus feedback is there commended approach. Goals inform people about performance standards and expectations so that they can channel their energies accordingly. In turn, feedback provides the information needed to adjust direction, effort, attitude and strategies for goal accomplishment.

Eagley and Chaiken (2011) reported that participative goals, assigned goals and self-set goals are equally effective. Both personnel and researchers are interested in identifying the best way to set goals. Should goals be participatively set, assigned or set by the personnel him or herself. Some personnel desire to participate in the process of setting goals whereas others do not. Personnel are also more likely to respond positively to the opportunity to participate in goal setting when they have greater task information, higher levels of experience and training, and greater levels of task involvement. Finally, a participative approach helps reduce employee's resistance to goal setting.

Goal commitment and monetary incentives affect goal-setting outcomes. Goal commitment is the extent to which an individual is personally committed to achieving a goal. In general, an individual is expected to persist to persist in attempts to accomplish a goal when he or she is committed to it. Researchers believe that goal commitment moderates the relationship between the difficulty of the goal and performance. That is,

difficult goal lead to high performance only when employees are committed to their goals. Conversely difficult goals are hypothesized to lead to lower performance when people are not committed to their goals.

Goals do four things: direct attention; mobilize task effort; encourage task persistence; and Facilitate development of task strategies (Locke & Latham 1966 cited in Kendal, 2010). In other words, goals provide us with a clear direction; inform us that we need to try hard; remind us that an end is in sight; and encourage us to think about the process of reaching that end by positive attitudes and form of support towards the patients with terminal illness.

### **2.2.3 Katz Motivational Construct Theory of Attitude**

Katz (1960) proposed that any attitude held by an individual served one or more of the four distinct personality functions. The more of these functions that contributed to an attitude system, the stronger and less likely it were that the attitude could be changed.

This theory was developed by Daniel Katz in 1960 and basically outlined the notion that, individuals hold attitudes towards objects, events and behaviours for various reasons (Katz, cited in Lutz, 2008). Katz identified four personality functions of attitudes as follows: (a) utilitarian function, (b) knowledge function, (c) ego-defensive function, and (d) value-expressive function. In order for attitude change to occur, there must be a discrepancy between the need being met by the attitude and the attitude itself. Attitude change is accomplished by recognizing the function of the attitude for the individual and designing strategies to produce a disparity between the attitude and one or more of the attitude functions.

The utilitarian function acknowledges the behaviorist principle that people are motivated to gain rewards and avoid punishments from their environment. Utilitarian attitudes are instrumental in securing positive outcomes or preventing negative ones. For example, patient's position to abusing drugs might be based on the utilitarian belief that it would be harmful to their health. Often, utilitarian beliefs are associations to stimuli.(Locander & Spivey, 2009).

The knowledge function of attitudes enables the individual to simplify their decision making process (Babin & Harris, 2013). The knowledge function is served by attitudes that assist the individual to find meaning and give clarity and consistency to the individual's view of the particular object as well as the world at large (Lutz, 1999).

This function helps individuals avoid undesirable situations and approach better alternatives (Babin & Harris 2013). Individual can use this function and even change a person's knowledge based attitude by providing the individual with factual information and realistic comparisons in their attitudes strategy (Dean, 2010).

The knowledge function of attitudes presumes a basic human need to gain a meaningful, stable, and organized view of the world. Attitudes supply a standard for organizing and simplifying perceptions of a complex and ambiguous environment. Attitudes provide a way of sizing up objects and events so they can be reacted to in a meaningful way. If people's attitudes toward health care are positive, then when they are asked about it they will be likely to say positive things without needing to think about it too much (Babin & Harris, 2013).

Katz's ego-defensive function emphasizes the psychoanalytic principle that people use defense mechanisms such as denial, repression, and projection to protect

their self-concepts against internal and external threats. People protect their feelings by developing convenient, if sometimes biased, attitudes that do not require active involvement in threatening or unfamiliar situations. This function of attitudes commonly serves as a defence mechanism for individuals as a way of protecting themselves from internal conflicts or unwanted attention from the external environment (Locander & Spivey, 2009).

Individuals will often avoid facts or information that will discount or affect their self-image (Babin & Harris, 2013). Although commonly associated as a defence mechanism, the ego-defensive function can also be associated with the development of positive attitudes towards people that enhance the self-image for an Individual (Babin & Harris, 2013).

Finally, Katz's value-expressive function acknowledges the importance of self-expression and self-actualization. Attitudes are a means for expressing personal values and other aspects of self-concept. A person who draws self-esteem from being a liberal and an environmentalist is motivated to hold attitudes that reflect these ideologies. The value-expressive function of attitudes allows people to express their own individual values and self concepts (Locander & Spivey, 2010).

The central theme of functional theories is that changing an attitude requires understanding its motivational basis or its function for the individual. Knowing what function an attitude performs for a person helps guide the designer of the persuasive message who wants to change the attitude. Whatever function attitudes perform they provide a frame of reference for comprehending and categorizing objects, persons, and events, and only by understanding an attitude's function can attitude change efforts be

successful. This function reveals an insight into the type of person an individual perceives them self to be and the values that they hold (Babin & Harris, 2013).

In some cases the value expressive attitude will encourage the individual to become closer to their own 'Ideal' self-concept (Lutz, 2012).

The knowledge (or object appraisal) function is based on the assumption that individuals are motivated to seek information to gain insight and give meaning to an otherwise chaotic world. The ego-defensive function emphasizes psychodynamic principles; attitudes serving the ego-defensive function enable people to protect their egos from real or imagined threats. Value-expressive attitudes enable us to define and express our personal, central values and our self-concept, while attitudes serving a social-adjustive function help people maintain, facilitate, or terminate, social relationships. Finally, the utilitarian function is based on the associative learning principle that people are motivated to gain rewards and avoid punishments.

The primary tenet of attitude functions theory is that attitudes are formed and changed in order to meet an individual's needs. Thus, a persuasive message must match an individual's needs. Three current approaches to testing this "matching hypothesis" have focused on pre existing individual differences in attitude functions, preexisting differences in the functions that attitude objects normally serve, and a priming approach. The, first two approaches, although co-relational in nature, have generated the most extensive research, Babin and Harris (2013).

Katz, 1960 (cited in Schlosser, 2010) believes there is an adjective function of motivation. He says people adjust attitudes to minimize harm and maximize happiness. This serves an ego-defensive function because it helps protect one's self respect. It also

serves a value-expressive function because one struggles with being true to one's beliefs. The knowledge function is served because this helps please man's need for a structured world. Katz points out three advantages of this theory: (i) it looks at personality, not mere exposure to media (ii) it doesn't over simplify and say attitudes are caused by one thing (iii) it recognizes motivation for behaviors.

Katz (1954) believed that motivation play an adjustable role or function. He posits that people attitudes to minimize harm and maximize happiness. This serves an ego-defensive function because it also serves a value-expressive function because one struggles with being true to one's personal belief and conviction. Man craves for a structured world and unstructured behavior might result into grave consequences since behaviour is motivated, Schlosser, (2008).

Katz, also pointed out three strengths of this theory: that it works at personality, not mere exposure to media or events. That it does not over simplify and say attitudes are caused by one thing in particular; and that it recognizes motivation for behaviors. (Katz, 1960 cited in Schlosser, 2010)

This theory holds that health care personnel's attitude toward people with terminal illness not unfounded or baseless; that these are the creation of a whole range of the factors and not just for the fact that terminal illness is deadly. Perhaps, attitude of the health care personnel could be a motivation for the terminally ill patient's attitudes. Knowing the difference between the components of attitudes and the functions of attitudes, we are able to see the importance of how health care personnel attitudes influence a patient's behaviour and why health care personnel should pay attention to the terminally ill patients attitudes and what functions these attitudes fulfill for them,

by doing this health care personnel can develop a support strategy that targets these particular functions which will result in a more successful campaign for them as well as satisfying the terminally ill.

#### **2.2.4 Jans and Mann's Conflict Theory of Attitude**

Janis and Mann developed a number of different conceptual schemes (Janis, 1959, Janis & Mann, 1968) that were later combined in their (1977) tome on decision making. Their complete model is structured as a rather complex decision tree. At the first stage of the decision making process, personnel's may be exposed to information that suggests that their current course of action involves serious risk. If they accept that there is risk associated with the way they are going, they enter the second stage, at which point they search for other alternatives and consider whether those are associated with serious risk. If the new alternatives are also risky, personnel find themselves in decision conflict, favoring and disfavoring each alternative and experiencing physiological arousal. They then consider whether they have hope of finding a better solution, and if not, resort to the response mode of defensive avoidance. In defensive avoidance, personnel first try to procrastinate and put the decision off until later; if that is impossible, they try to shift responsibility for making the decision to someone else, and if that does not work, they bolster the least objectionable alternative.

Janis and Mann, 1977(cited in Charles and Morris, 2008), explained that bolstering the least objectionable alternative can involve increases in the attractiveness of the chosen alternative or decreases in the attractiveness of the non chosen alternatives. They went on to list six bolstering tactics, three of which bear directly on the perceived advantage of the chosen alternative: exaggerating its favorable

consequences, minimizing its unfavorable consequences, and denying the unpleasantness of its disadvantages. Three other bolstering tactics involve ways of hiding from the problem so that personnel may convince themselves that no action will be required for a long time, that no one will know about their decision, or that they are not really responsible for their decision.

Conflict theory's decision specifies a set of necessary conditions for biased pre-decision processing when decision makers are in danger of experiencing negative consequences due to risks associated with two or more alternatives that is in conflict, have no hope of finding a better solution, and cannot delay or defer the decision, they can be expected to conduct selective information searches or report spreading evaluations of the alternatives. These steps are illustrated in a study reported by (Mann & Janis, 1969 cited in Charles and Morris, 2005). Mann et' al offered participants a choice between two kinds of aversive stimulation (conflict) and took repeated pre-decision ratings of the alternatives. Participants who were told that they would receive information about side effects of each kind of stimulation before choosing (no loss of hope) did not report significant spreading of evaluations before the choice (bolstering), but participants who were told they would not receive more information before they would have to choose (loss of hope) reported spreading evaluations of the alternatives. Man et' al also found that arousal (heart rate) increased during decision making, but arousal was not significantly moderated by loss of hope.

Janis and Mann, 1977 (cited in Charles and Morris, 2006) also suggested that personnel who experience anticipated regret or expect to have to make a commitment, process information in a more careful, less biased manner. They specified five



conditions that they thought would affect the likelihood of decision makers experiencing anticipated regret. They predicted greater anticipated regret (and hence less bolstering) when there is more than one attractive alternative, when negative consequences can be expected to materialize more quickly, when the decision involves greater social importance (or commitment), when more information is expected (similar to no loss of hope), and when there is no social pressure to decide quickly.

In this theory, according to Schvaneveldt and Adams, (2009) new information presents a challenge to existing attitudes. When this happens, the individual will seek out alternative actions. In Jan's and Mann's conflict theory of attitude it is based on the hypothesis that information including attempts at persuasion presents a challenge to existing attitudes and actions. This challenges and the resulting conflict motivate the individual to seek out and evaluate alternative courses of action. A five-stage process is proposed: appraisal of the challenge, appraisal of alternatives, selection of the best alternative, commitment to a new policy despite negative information. This fourth stage reflects the importance of commitment and of reactance, and if the feedback becomes negative enough, a return to the first stage, where upon the cycle will presumably be repeated.

Mann (1989) points out that utilitarian reinforcement for one self and for significant others, social reinforcement, and self evaluation play important roles in the development of new attitudes in response to challenges to old ones. These factors represent the functions that attitudes are to be serve, and conflicts revolve around the extent to which present and alternative attitudes do in to serve them. Jan's and Mann's

view conflict before and after a decision as a continuous process (Schvaneveldt & Adams, 2010)

The theory argues that attitudes that already exist in individual health care personnel are altered when the individual health care personnel is face with situations that are quite challenging. The individual health care personnel weighs the challenge, considers what chances and choices that are available to him or her, picks on the alternative that attract lesser consequence. He then commits to it as the new attitudes and how it suites the system in place within which he or she is operating.

#### **2.2.4.1 Theories of Mental Well-Being**

A number of theories have been developed to explain the underlying processes of mental well-being. These include theories such as, set-point range theory, adaptation level theory, multiple discrepancy theory and top-down and bottom-up theories, and the homeostatic theory of mental well-being.

#### **2.2.4.2 Set-Point Range Theory of Mental Well-Being**

Mental well-being and its importance to optimal human functioning is described by Headey and Wearing (1992) as being a fundamental objective of life, in which people exhibit a strong desire to both attain and experience high levels of well-being. Consequently, as previously mentioned, research indicates that regardless of objective social and economic conditions most people report high levels of well-being (Diener, Sandvik, Seidlitz & Diener, 1993). Furthermore, Headey and Wearing argue that mental wellbeing operates within an equilibrium state, so that within a stable life situation (that is, without the presence of recent major life changes) people achieve an equilibrium state of well-being in which their present life is viewed as considerably

better than the worst previous period and better than the life of the average person in the country.

To account for the consistently stable levels of mental well-being found in population surveys, Headey and Wearing (1989) proposed a dynamic equilibrium model. The authors argue that provided an individual's normal or equilibrium pattern is maintained, well-being will not be affected by pleasant or unpleasant events.

However, when events and experiences deviate from the equilibrium pattern, then a person's level of well-being changes. Such changes are most often temporary, as stable personality traits and social support exert a vital equilibrating function, and the person will revert to their previous normal level, referred to an idiosyncratic set-point baseline for well-being. This set-point represents the normal moment-to-moment range of well-being functioning that is particular to each individual and therefore can be thought of as involving some form of genetic determination.

Thus, according to Headey and Wearing, while people are responsive to life events, they return to their previous set-point level of pleasant or unpleasant affect some time after the occurrence of such events. Reverting to a normal or set-point level of mental well-being was demonstrated by Brickman, Coates and Janoff-Bulman (1978). In their widely cited study, they reported that a group of lottery winners did not have significantly higher well-being than a control group, and a group of individuals with spinal cord injuries did not have significantly lower mental well-being.

They argue from the perspective of adaptation level theory (Helson, 1964, 2001), that dramatic life events, in this case winning a lottery or experiencing a spinal cord injury, appears to have short term effect on people's mental well-being. The

authors coined the term —hedonic treadmill for this effect, in which the impact of good events temporarily affects well-being, as people adapted to their changed circumstances and then return to their pre-event level due to the process of habituation.

Applying this theory to the present study, this theory is of the view that mental wellbeing is maintained by stable positive attitude and openness to experience that predispose people to experience stable levels of favourable and/or adverse life events (Headey & Wearing, 1989).

Stable attitude and psychological support provide vital equilibrium function for the people with terminal illness.

#### **2.2.4.3 Adaptation Level Theory of Mental Well-Being**

The notion that adaptation is an essential component for a theory of mental well-being has been made by a number of authors (e.g., Andrews & Withey, 1976; Costa & McCrae, 1980; Diener & Lucas, 1999; Fujita & Diener, 2005). In this context adaptation is considered to be a psychological process in which people experience reduced reaction to some change in life circumstances over time (Helson, 1964).

In order to function at an optimal level, the human body is required to make adaptations to accommodate changes in the external environment, such as changes in heat, cold, or high altitude. In a similar manner adjustments are made to both good and bad life events, so that people are not in a constant state of either depression or joy (Diener & Lucas, 1999). Adaptation to stimuli that are affective in nature is known as hedonic adaptation. In a review of hedonic adaptation, Frederick and Loewenstein (1999) suggest that adaptation is any action, process or mechanism that reduces the effects (perceptual, physiological, attention, motivational hedonic, and so on) of a

constant or repeated stimuli. A related process involved with adaptation is habituation, which is a simple form of learning, to not respond to unchanging stimuli and only pay attention to novel stimuli or relevant changes in the environment (Carison & Buskit, 2007).

Adaptation level theory, described by Helson (1964) functions in the following manner. An individual's judgment of their current level of stimulation depends upon whether this stimulation is lower or higher than the level to which they have become accustomed. For any event to have an effect it must deviate from the adaptation level in respect to the relevance of discrepancy between an individual's current level of stimulation and past level.

Furthermore, the impact of an event will cause the adaptation level to reset to a new level of comparison. For example, winning a large amount of money can be viewed as a distinctive event that has relevance to many other life experiences, as well as providing an extremely positive comparison point, which then results in an upward shift in adaptation level (that is., the novel level has been added to the accustomed level of stimulation).

Consequently, ordinary events may seem less pleasurable, since they compare less favourably with past experience (that is., winning money). Thus, while winning a million dollars makes new pleasures available, it also has the effect of making old pleasures less enjoyable.

The process of adaptation and habitation applies for both positive and negative events (Brickman, Coates & Janoff-Bulman, 1978). In the short term, people who suffer extreme ill fortune (e.g., stroke, accidental paralysis, or loss of wealth), will over

time, have their mental well-being mitigated by a contrast effect that enhances mundane pleasures (i.e., loss of positive stimulation causes the adaptation level to fall), which are now contrasted with the extreme negative anchor of their misfortune. In the long term, the process of habituation, which works to erode the impact of the negative event, should mitigate the individual's unhappiness. With the change in adaptation levels, peoples' levels of mental well-being returns close to the levels they had experienced prior to the life event (Cummins & Lau, 2004).

In applying this theory to this study, one can argue that long-term levels of mental wellbeing are not solely determined by attitude and genetic dispositions but that changes in life events, in this case marital status (social support from spouse), produce a new baseline level of well-being or life satisfaction for individuals.

This theory does not provide a comprehensive explanation of mental well-being, as it only deals with external influences on mental well-being. Consequently, it overlooks the influence of attitude. The theory looks more on the contributions of psychological support to the mental well-being of the terminally ill.

#### **2.2.4.4 Multiple Discrepancy Theory of Mental Well-Being**

Life satisfaction assessments are commonly assumed to involve cognitive judgments. This view is central to multiple discrepancies theory (MDT) developed by Michalos (1985). He proposes that life satisfaction is a function of evaluations that an individual makes of their present self in relation to multiple standards of comparisons. This is conceptualized as a series of perceived gaps or discrepancies, between what one has and wants, what one believes that relevant others have, the best one has had in the

past, what one expected to have now, what one expects to have in the future, what one deserves, and what one needs.

Thus, MDT predicts that a set of perceived discrepancies directly influences mental well-being, such that high discrepancies will lead to low mental well-being and vice versa. From his study, Michalos demonstrated that perceived discrepancies explained 49% of the variance in ratings of happiness and 53% of the variance of global life satisfaction. As consequence, there is growing acceptance that the cognitive component of mental well-being is measured through questions of satisfaction. However, much like adaptation level theory, MDT does not recognize the influence of personality, control, self-esteem and optimism in the prediction of mental well-being.

This theory argued, like the adaptation theory, that attitude do not have effect on well-being of the terminally ill rather environmental factors such as the lifestyles support an individual receive from family members, friends and significant others determine the well-being of people with terminal illness while the attitude in which the terminally ill individual possesses does not influence his or her well-being. (Michalos, 1987).

The theory further state that to ensure mental well-being of the terminally ill individuals, family members, friends and significant others should help them bridge the perceived gaps, disagreements or differences, between what one has and wants, what one believes that relevant others have, the best one has had in the past, what one expected to have now, what one expects to have in the future, what one deserves, and what one needs. These perceived gaps, disagreements and differences can be bridged

with the psychological support of family members, friends and significant others who will from time to time advise them regarding the right thing to do.

#### **2.2.4.5 Top-Down, Bottom-Up Theory of Mental Well-Being**

While MDT is an elaborate theoretical framework to account for some underlying processes of mental well-being, it does not fully explain how satisfaction associated with various life domains relates to overall life satisfaction, and vice versa. That is, it does not address the issue of whether satisfaction with life-as-a-whole or global life satisfaction is the result of subjectively weighted aggregate of satisfaction that is cumulative satisfaction in relevant life domains, or whether domain satisfaction arises from the influence of overall life satisfaction, or whether the two influence each other.

Thus, one focus of mental well-being research has been to unravel the uncertainty about which variables cause mental well-being and which variables are consequences. Some of the variables that have been proposed as causes of mental well-being are domain satisfaction, psychological support, major life events and referenced standards (examples are expectations, aspirations, and sense of equity) (Headey, Veenhoven & Wearing, 1991). However, whether these are correlates of the well-being, consequences or both are uncertain.

The bottom-up approach attempts to identify the external situational factors that are proposed to account for mental well-being (Diener, 1984). Much of the early research into causes of well-being has used a bottom-up framework (e.g., McKennell & Andrews, 1983; Headey, Holmstrom & Wearing, 1985), with the rationale that changes in mental well-being can be achieved by addressing concerns within specific life



domains (Lance, Mallard & Michalos, 1995). From this perspective, judgments of satisfaction are made from a mental calculation that sums all passing pleasures and pains to produce a final judgment. Thus, satisfaction in domains such as, marriage, work, leisure, finances, and so forth, all contribute or cause satisfaction with life-as-a-whole.

The top-down approach identifies factors that influence mental well-being and focuses on the attitude processes within the individual, such as personality traits (Costa & McCrae, 1980), positive and negative affectivity (Watson, et al., 1988), and self-esteem (Lucas, Diener & Suh, 1996), particularly within Western society. The top-down perspective proposes that the individual has a propensity to experience life events in a positive way (Diener, 1984). This means, the individual's attitudes is considered to influence how they will react to their terminally ill condition. This theory further state that individuals experience pleasure and satisfaction with life because they have a happy disposition, not because positive events occur in their life.

Additionally, demographic variables account for very little variance in mental well-being, and attitudes variables show consistent relationship with well-being, this provides further evidence for a top-down explanation of mental well-being. However, most of the research into attitudes, psychological support and external events and subjective indices of well-being has been correlation and therefore, any conclusions about the direction of causal relations is unclear.

This theory further states that any causal relationship between satisfaction and measures of mental well-being are spurious as both sets of variables are dependent on stable positive attitude. Despite supporting a top-down approach, Diener (1984) also

suggested a bidirectional approach, arguing that his findings indicate some portion of happiness is due to positive attitude but important life (environmental or external which comprises of psychological support) events cannot be overlooked.

#### **2.2.4.6 Theoretical Framework**

In this study, the bottom up/bottom down model of mental well-being will be use as the basic theoretical framework in studying how the two independent variables affecting mental well-being.

With respect to this model, there are two determinants of mental well-being situational and dispositional factors (social support and attitude respectively). This theory of mental well-being concentrated on identifying the requisite needs for mental well-being. The assumption is that the timely satisfaction of these needs results in mental well-being, and that the persistence of unmet needs results in poor mental well-being. The focus is on situational factors (psychological support) forming a bottom-up approach to explaining mental well-being.

More recent models have placed an emphasis on identifying the role of internal processes or individual differences in well-being. This has resulted from the repeated discovery that objective circumstances do not generally account for much of the variance associated with mental well-being. Costa and McCrae (1980) reported that the effect size for external, objective variables is small, accounting for no more than 20% in the best instance. In a study, Kozma, Stone and Stones (1999) explored the relationship between stability in mental well-being and stability in the environment.

They found that all factors examined contributed somewhat, however stability in the environment made the smallest contribution.

Diener, Sub, Lucas and Smith (1999) describe the shift from external elements to personal aspects as an important theoretical advance. Known as top-down approaches, these models focus on structures within the person, particularly attitude that determines how that person perceives events and circumstances to explain mental well-being. While this study has a focus on attitude factors and psychological support, it should also be noted that other factors such as individual cognitions, goals, culture and adaptation coping efforts all moderate the influence of life circumstances and events on mental well-being.

Attitude factors are considered one of the strongest and most consistent predictors of mental well-being, with evidence coming from a variety of research methodologies and large number of studies (DeNeve & Cooper, 1998). Top-down approaches stress the importance of stable attitude that work on a global level and create a tendency to experience life in a positive or negative manner. This global tendency influences the interpretation of momentary events resulting in a propensity to interpret events in a particular manner that changes little over different life situations (Campbell, Converse & Rodgers, 1976).

Given this explanation, the bottom up/bottom down theory is adopted as the theoretical framework for this study as the theory has successfully integrate situational factors (psychological support) and dispositional factors (attitude) in explaining mental well-being. This theory has supported the work of Jahoda (1984) who conceded that it

is of benefit in recognizing the interplay of individual potentialities and environmental factors contribution in explaining mental well-being.

## **2.3 Empirical Review**

### **2.3.1 Attitude, Psychological Support and Mental Wellbeing**

Hasnain, Wazid and Hasan (2014) conducted a study to ascertain the contribution of attitude and psychological support in mental well-being of young adult Assamese males and females in India. It also investigated the difference between young adult Assamese males and females on psychological well-being, optimism, hope and happiness. A sample of 100 young graduate adults, 50 males and 50 females, residing in the Kamrup district of the state of Assam was taken. Ryff scales of psychological well being, life orientation test of Scheier and Carver for attitude, adult trait hope scale of Snyder and Oxford Happiness Questionnaire were used. Separate regression analyses were run to find out the percentage of variance contributed by attitude and psychological support in mental well-being of males and females.

In order to find out the difference between means of young adult Assamese males and females on different variables, t-test was applied. Significant combined contribution of variance of attitude and psychological support in mental well-being of young adult Assamese males and females were obtained. However, only hope in males and happiness in female individually contributed 63% and 53% significant variance respectively to their mental well-being. Significant difference between young adult Assamese males and females on mental well-being and happiness were obtained, where females were found to be higher on well being and males on happiness. Non-significant

differences between young adult Assamese males and females on attitude and psychological support were obtained.

Choudhury and Barman (2014) examined holistic model of mental well-being- A proposed model and exploration of contents in Silchar. The authors in their paper proposed the possibilities of holistic approach of the mental well-being. In developing approach, a model was developed to evaluate to cognitive judgment of individuals. The proposed model comprises of four parameters which forms the assessment weapon to provide the mental well-being a scientific angle and a space within the research context. The paper also focuses on how each of the parameter relate itself to the every aspect of lives which people regarded as an important factor to lead a good life and how each of them forms the overall mental well-being for their existence not only from the professional point of view but also from every aspect of life. This paper not only to provide the comprehensive framework covering the all possible element of attitude and psychological support on mental well-being, rather it is intended to serve as a base framework for any society. These dimension if bring into play will work as the wonderful guideline for the societal structure, which ultimately will help to understand the mental well-being of the people living with terminal illness.

Tsegaye (2013) conducted a study which the general objective of the study was to compare the attitude and psychological support of orphan and non-orphan children with terminal illness in Addis Ababa, Ethiopia and to explore the conditions or situation that could promote the mental well-being for the orphan. Both quantitative and qualitative methods were employed to achieve the research objectives. Three groups of respondents, recruited from three randomly selected schools in Yeka Sub-

city of Addis Ababa, participated in the study. The participants were: 120 orphan children, 120 non-orphan children, and 3 representatives of charity clubs in the selected schools. The orphan and non-orphan children were selected using systematic random sampling technique while the three representatives were purposively taken as a sample. A demographic questionnaire, a psychological wellbeing scale and interviews instruments was administered. Data from the quantitative survey were analysed using percentages, t-test, and Pearson correlation. The qualitative data were analysed using inductive thematic analysis. Using mean split technique on the psychological wellbeing scores of orphan and non-orphan children, orphan had low psychological wellbeing whereas the non-orphan had high psychological wellbeing. T-test for group mean difference on psychological wellbeing revealed that orphans were found to have a significantly lower psychological wellbeing as compared to the non-orphan children. Results from Pearson correlation analysis revealed that grade level was significantly and positively correlated with psychological wellbeing whereas parental status was significantly and negatively correlated with psychological wellbeing. Gender and age were not significantly related with psychological wellbeing. From the analysis of the qualitative data, encouraging the orphan's attitude and psychological support, enhancing their self-esteem, and respect and care by adults were identified as the major themes that could promote orphan children's with terminal illness sense of mental well-being.

Ogier-Price (2007) investigated whether positive attitude and psychological support can be taught through an intervention programme aimed at increasing levels of mental well-being in the terminally ill as measured by scales of self-reported happiness

and depression. Participants attending a course based on research into Positive Psychology that included the practice of multiple validated interventions made up the experimental group (N=33), and participants in other community education courses made up the control group (N=41). A pre-intervention, post-intervention and follow-up design was used, with participants completing sets of questionnaires designed to test levels of happiness and depression, and additional questionnaires capturing demographic information and signature character strengths. The results of this study suggested that the intervention had a positive effect on increasing happiness and reducing symptoms of depression. The non-randomized groups resulted in a more depressed experimental than control group prior to the intervention. Generally speaking, it was not true that any subgroups benefited more from the intervention than others, nor were happier or more depressed than others. The study appears to support earlier research that found that mental well-being could be increased through education on positive attitude and psychological support. Implications for the findings are discussed in relation to group education and therapeutic intervention both for increasing mental wellbeing as well as reducing symptoms of depression in the terminally ill.

O'Connor (2005) examined patient's mental well-being: From the dimension of attitude and psychological support among patients from an Australian university. The participants were 201 full-time, first-year on-campus university patients' from an Australian university, who completed an online questionnaire. It was predicted that patient's mental well-being would form a distinct factor, separate from personal well-being and neighbourhood well-being; that personal, patient's, and neighbourhood well-being would be significant predictors of life satisfaction and patient's life satisfaction;

and that the homeostatic model of mental well-being would be a better predictor of life satisfaction than multiple discrepancies theory. All analyses were tested using structural equation modeling. The first hypothesis was not supported, as patient's well-being did not form a dimension separate from personal and neighbourhood well-being. The second hypothesis gained some support, with findings that personal well-being and the general factor explained a significant proportion of the variance in life satisfaction, while neighbourhood well-being did not make a contribution. The patient's well-being scale alone measured patient's life satisfaction almost as well as the three-factor model. The third hypothesis also gained support, as the homeostatic model of mental well-being explained more variance in life satisfaction than multiple discrepancies theory. However, problems were identified with the homeostatic model, as a number of variables did not significantly predict life satisfaction. Patient's life satisfaction was not as highly controlled by the homeostatic system, supporting a proposed proximal-distal hypothesis. It was concluded that while patient's mental well-being did not form a distinct scale within the homeostatic model of mental well being, it was a well-fitting measure used in isolation, and could be used within university settings as a brief measure of patient's life satisfaction. Further, it was concluded that the homeostatic model requires investigation of its measurement structure using structural equation modeling.

Forgeard, Jayawickreme, Kern and Seligman (2011) reported that many experts now recognize that psychological support and attitude are not measure that alone captures the mental well-being of individuals, and governments around the world are starting to rethink the ways in which they measure the wellbeing of their citizens. Well-



being is best understood as a multifaceted phenomenon that can be assessed by measuring a wide array of subjective and objective constructs. In their review, they summarized the state of research on the various domains of well-being measured by psychologists and social scientists, and provided an overview of the main theoretical perspectives that integrate these domains. Among these theoretical perspectives they highlighted were well-being theory, which decomposes the mental wellbeing construct into five domains: Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment (PERMA). They conclude by formulating recommendations for future research on the measurement of mental well-being. These recommendations include the need to combine both objective and subjective indicators, and the use of a dashboard approach to measurement. This approach conveys the multifaceted nature of well-being and will help policy-makers and citizens understand which domains of well-being should constitute priorities for public policy.

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well-being and will help policy-makers and citizens understand which domains of well-being should constitute priorities for public policy.

Ryff, (2005) reported that measures of psychological well-being have little theoretical grounding, despite an extensive literature on the contours of positive functioning. Aspects of well-being derived from the literature on self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth were operationalised. Three hundred and twenty-one men and women, divided among young, middle-aged, and older adults, rated themselves on these measures along with six instruments prominent in earlier studies (i.e., affect balance, life satisfaction, self-esteem, morale, locus of control, depression). Results revealed that positive relations with others, autonomy, purpose in life, and personal growth were not strongly tied to prior assessment indexes.

Stocks, April and Lynton (2012) in their analyses explored the differences in locus of control and well-being in China and Southern Africa, including how these variables relate to each other in each region and how demographic variables relate to both subjective well-being and locus of control. One hundred and eleven professionals were studied across Southern Africa and China and the hypothesis that the different regions would yield different locus of control and subjective well-being profiles was supported, with different demographic variables affecting each region differently. Furthermore, locus of control and subjective well-being were differently correlated to one another, with China showing significant negative correlation between subjective well-being and locus of control and Southern Africa showing no significant correlation. Findings also indicate that gender has a significant relationship with locus of control in

Southern Africa but not in China; whereas China has a strong link between subjective well-being and gender.

### **2.3.2 Attitude and Mental Wellbeing**

A number of studies have pointed to the importance of attitude in understanding mental wellbeing (Chen, Tu & Wang, 2008; Joshanloo & Afsharia, 2011; Winkelmann & Winkelmann, 1998), and few studies have investigated the positive and negative factor of attitude (Shimmack, Oishi, Furr & Funder, 2004). In Shimmack et al's (2004) study attitude factors were found to be the strongest predictors of mental wellbeing. Other studies have also link attitude and mental wellbeing (Brakko & Sabol, 2006; Chen, Tu & Wang, 2008; Joshanloo & Afasharia, 20011). Patient's measurable attitude have shown to account for at least 35% of the between person – variance in mental wellbeing(Wood, Joseph & Maltby, 2008), and this is typically much higher than the explanation of demographic characteristics such as an individual religion (4%), sex (4%) and marital status (1-4%) (Anand, Hunter, Carter, Dowing, Guala & Van Hees, 2009). However, whilst there is academic value in knowing that attitude is an important predictor of high mental wellbeing from a purely applied perspective, attitude may only be interesting if it is something that changes (Ferrer-i-Carbonell, 2005).

A number of studies have pointed to the importance of attitudes in understanding mental well-being Creed and Evans (2013) examined attitudes, well-being and deprivation theory among university students in Queensland, Australia. Two hundred and thirty-eight university students were administered scales of the latent (social support, status, time use, collective purpose, and activity) and manifest (financial) benefits of terminal illness, and psychological well-being. Results indicated

that the latent and manifest benefits of terminal illness were significantly associated with well-being in a population sample that attitudes was able to account for a significant amount of the explained variance in well-being over and above the situational variables covered by the latent and manifest benefits. The results were examined in the context of a bottom-up/top-down explanatory model of well-being, and recommendations are made regarding an expanded role for manifest benefits, and for the inclusion of attitudes variables in the latent deprivation model (Jahoda, 1982), the most influential situation model accounting for deterioration in well-being.

Bauger (2011) study explored attitudes dimensions, as measured by the Junior Temperament and Character Inventory, passion, self-esteem, and well-being among junior elite athletes in Norway. In addition, the athletes were compared with non-athletic peers to investigate if they had an attitudes profile which appears to be more beneficial for athletes. Female athletes scored significantly higher on the attitudes dimensions reward dependence and cooperativeness, and significantly lower on self-esteem than their male counterparts. Both obsessive and harmonious passion was found to be more pronounced among those competing at an international level as compared with athletes competing at a local level. In addition, the athlete sample scored significantly higher on persistence and self-directedness and lower on Harm Avoidance than non-athletes. The use of the Junior Temperament and Character Inventory as a measure of attitudes yielded interesting results, which should be relevant for the sport psychology community and increase our understanding of the underlying factors and mechanisms of elite sport.

Steel, Schmidt and Shultz (2008) in their study on refining the relationship between attitudes and subjective well-being stated that understanding well-being has historically been a core human endeavor and presently spans fields from management to mental health. According to them, previous meta-analyses have indicated that attitudes are one of the best predictors. Still, these past results indicate only a moderate relationship, weaker than suggested by several lines of reasoning. This may be because of commensurability, where researchers have grouped together substantively disparate measures in their analyses. In their article, Steel, Schmidt and Shultz (2008) reviewed and address this problem directly, focusing on individual measures of attitudes; (Costa & McCrae, 1992) and categories of well-being (example life satisfaction). In addition, the authors take a multivariate approach, assessing how much variance attitudes account for individually as well as together. Results indicate that different attitudes and SWB scales can be substantively different and that the relationship between the two is typically much larger than previous meta-analyses have indicated. Total mental wellbeing variance accounted for by attitudes can reach as high as 39% or 63% disattenuated. These results also speak to meta-analyses in general and the need to account for scale differences once a sufficient research base has been generated.

Gutierrez, Jimenez, Hernandez and Puente (2005) examined the association between the attitudes components, the most relevant demographic factors (sex, age and relationship status), and mental well-being. A total of 236 nursing professionals completed the NEO Five Factor Inventory (NEO-FFI) and the Affect- Balance Scale (ABS). Regression analysis showed attitudes as one of the most important correlates of mental well-being. They found a positive association between openness to experience

and the positive and negative components of affect. Likewise, the most basic demographic variables (sex, age and relationship status) are found to be differentially associated with the different elements of mental well-being, and the explanation for these associations is highly likely to be found in the links between demographic variables and attitudes. In the same way as control of the effect of demographic variables is necessary for isolating the effect of attitudes on mental well-being, control of attitudes should permit more accurate analysis of the role of demographic variables in relation to the mental well-being construct.

In another study, Romero, Go' Mez-Fraguela and Villar (2012) examined the relationships between intrinsic/extrinsic aspirations and mental well-being (SWB; positive effect, negative effect, satisfaction with life) in a sample of 583 Spanish adults in Spain. Firstly, the results showed that high scores for mental well-being are related to high scores for intrinsic aspirations and, to a lesser extent, to low scores for extrinsic aspirations; their result also found that intrinsic aspirations are mainly related to positive indicators of well-being, whereas extrinsic aspirations are mainly associated with negative indicators. Secondly, the study also enabled exploration of the links between the domains of the Five- Factor Model and mental well-being; thirdly the results showed that Five-Factor Model predict mental well-being. The results demonstrate the importance of studying the content of human aspirations for understanding psychological health.

Buizza, Pioli, Ponteri, Vittorielli, Corradi and Minicuci (2005) conducted a study on community attitudes and mental health towards terminally ill and socio-demographic characteristics. Factor analysis of the CAMI revealed three component

physical distance and fear Social isolation and Social responsibility and tolerance. Factor 1 is associated with: people >61 years old; people being divorced/widowed/living separated; people who haven't participated in social or volunteer activities. Factor 2 is associated with: people >41 years old; people being schooled at a level that's higher than elementary level; unemployed people. Factor three doesn't present any associations.

Aghanwa (2004) conducted a study on attitude about terminal illness in Fiji islands. There is a dearth of information on the extent of knowledge about terminal illness and attitudes toward the terminally ill in Fiji. This study aimed to explore aspects of mental wellbeing, and also to determine the factors influencing it. A majority of the subjects attributed the cause of terminal illness to malignant substance, believed in the diversity of mental health, considered hospital as an important source of help and acknowledged the effectiveness of medication less than one-fifth of the subjects were willing to marry and be employed. About 42% of the sample would be deterred by embarrassment from seeking help. Educational attainment was correlated with knowledge about terminal illness, except with knowledge about early terminal symptom ( $p < 0.01$ ). Prestigious occupation, single marital status, female gender, younger age and urban dwelling were associated with positive disposition toward the terminally ill ( $p < 0.01$ ). Race was not significantly influential on almost all attitudinal variables.

Cleary, Siegfried and Walter (2003) conducted a study on attitude, experience of mental health staff regarding clients with a terminal illness. They found that survey of mental health staff attitudes regarding the management of client with a diagnosis of

terminal illness aimed to obtain baseline data to provide direction for developing planned education and determining staff willingness to participate in such training. Most staff (82%) believed that, as mental health professionals, they had a role in the assessment, management and referral of clients with terminal illness, as well as in educating and providing information. Although many staff believed they were knowledgeable about and confident in managing these clients, most staff also indicated difficulties posed by these clients and perceived a need for further education and training in improving their mental wellbeing.

Ponizovsky, Grinshpoon, Sasson, Ben Eliezer, and Shershevsky (2003) conducted a study on knowledge and attitudes about terminal illness among medical personnel's in relation to their mental wellbeing. To explore the attitudes of the personnel's towards terminal illness and patients mental wellbeing. The personnel were able to mention a fewer number of terminal cases in contrast to medical conditions based on their knowledge, used as reference criteria. They recognized stroke and depression as a terminal illness. Their attitudes revealed an ambivalent approach to the person with a terminal illness, including those that are students. Higher level of academic education was associated with positive attitudes which increase mental wellbeing, while personal familiarity with a terminally ill disturbed person was slightly associated with more positive school-related attitudes.

Gaebel, Baurmann, Witte & Zaeske (2002) investigated attitudes of the 7246 urban population in Germany towards people with terminal illness, and compared it with those of attitude surveys conducted by other research centre participating in the



World Psychiatric Association's (WPA) global anti - stigma programme, mental wellbeing "Fighting Stigma and Discrimination because of terminal illness - Open the Doors" (WPA 1998). The authors found that 33.1 % of the interviewees were able to name causes of terminal illness. 76.5 % of the interviewees believe that people with terminal illness often or very often need prescription drugs to control their symptoms and illnesses. It was suggested that improvements in the education of the public about terminal illness and provision of the opportunity for personal contact with the terminally ill people are considered to be important measures for promoting the acceptance of the terminally ill by the public.

Madianos, Economou, Hatjiandreou, Papageorgiou and Rogakou (1999) conducted a study on changes in public attitudes towards terminal illness in the Athens area. Opinions about mental wellbeing were measured, in 1994, in a probability sample consisting of 360 residents of two boroughs in greater Athens. The aim of this study was to compare the differences in attitudes and wellbeing towards terminal illness with a matched sample of 360 respondents drawn from the sample of the 1979/1980 attitudinal study, conducted in the same area. The recent study sample expressed more positive attitudes towards the social integration of the terminally ill, and did not favour the social discrimination against and restriction of terminally ill patients.

Wolff, Pathare, Craig and Leff (1996) conducted a study on health care personnel attitudes to terminal illness. The main determinants of Social Control were social class, ethnic origin, age, having suffered terminal illness and having children. The main determinants of Goodwill were mental wellbeing. The attitude factors were

predictive of respondent's behavioural intentions toward the terminally ill. Respondents with children and non - Caucasians were more likely to object to the terminally ill living in their neighbourhood.

Angeneyer and Matschinger (1996) conducted a study on the effect of personal experience with terminal illness on the attitude towards individuals suffering from terminal illness. Based on the results of two population surveys conducted in Germany during 1990 and 1993, we examined to what extent personal experience with terminal illness might influence attitudes towards the terminally ill. Results are all the more persuasive as we were able to demonstrate this relationship with mental wellbeing, personal experience with an attitude towards terminal illness for two independent samples. There were indications that personal exposure to terminal illness exerts a positive influence on a person's attitude and wellbeing on the illness and that our findings were not merely the results of possible selection effects, that is to say, that individuals with a more positive attitude towards the terminally ill would have been more inclined to stay in touch with the latter, therefore having greater experience of mental wellbeing.

Cowan (1994) conducted a study on health care personnel attitudes towards people with terminal health problems: a discourse analytic approach. It is suggested that a knowledge and understanding of attitudes towards the terminally ill has the potential to inform policy and practice regarding the establishment of patients mental health facilities in order to encourage their acceptance by the public. It is argued, that since this information is to be found in the language used to describe people with

terminal health problems and to express attitudes towards them, that discourse analysis is ideally suited to the study of attitudes towards the terminally ill. The potential utility of the approach is on mental wellbeing as demonstrated by an empirical example. Implications for practice are considered.

Brockington, Hall, Levings and Murphy (1993) conducted a study on the health care tolerance of the terminally ill. A survey of attitudes to terminal illness on mental wellbeing was conducted in a quota sample of about 2000 subjects in Malvern and Bromsgrove. Factor analysis showed three main components benevolence, authoritarianism, and fear of the terminally ill. Residents of Bromsgrove, which is served by a traditional terminal hospital, were slightly more tolerant than those living in Malvern, which has a community- based service, and has seen the closure of two palliative hospitals in its vicinity during the last 10 years. The main demographic determinants of tolerance are age, education, occupation, and acquaintance with the terminally ill.

Eker (1989) conducted a study on attitudes of health care personnel and mental wellbeing toward terminal illness: recognition, desired social distance, expected burden and negative influence on terminal health among Turkish. Attitudes toward three types of illness and a normal subject portrayed in vignettes were assessed among university students. Emotional and physical burden expected; and expected negative influence on one's mental health from association with the type of persons portrayed in the vignettes. Analysis revealed that, in terms of variables assessed, the most negative ratings were recorded for the cancer case and the most positive recorded for the normal subject. The simple hypertension and the anxiety neurosis/depression cases felt between the other

two cases. Finally with few exceptions, all the variables assessed were significantly correlate with each other.

Madianos, Madianou, Viachonikolis and Stefanis (1987) conducted a study on attitudes towards terminal illness in the Athens area: implications for community mental wellbeing intervention. Attitudes towards terminal illness were measured in a probability sample of 1574 male and female adults, residents of two boroughs in the greater Athens area before the development of community mental health services in the area. Among the socio-demographic variables age, education, occupational status and place of residence, reflecting social discrimination and restriction. Factor score underlying the need for social care and reintegration of the terminally ill into society were found to be socially invariant, implying the need for social care and more human treatment methods for terminal patients. Certain population groups responded with rejection or suspicion and considerable fear and discrimination of the terminally ill.

Nieradzik and Cochrane (1985) conducted a study on public attitudes towards terminal illness, the effects of behavior and roles. A questionnaire to assess various elements of public attitudes towards the terminally ill was given to 108 subjects. Attitudes of the general population towards the terminally ill will be influenced by the mental wellbeing of the terminally ill as well as by behaviour indicative of terminal illness. Public attitudes towards the terminally ill are more diverse than previous research would imply possible future research directions are discussed.

Msengi and Daynes (1988) conducted a study on community response to terminal illness in Transkei. In Transkei, responsible action in the event of terminal illness in a family is first taken by the relatives of the patient. Their action will depend

upon their culture, wealth and status in the community as well as on their understanding and knowledge of terminal illness, on their confidence and on available transport. The help given by neighbours is described, the quality of their assistance depending also upon their knowledge and attitudes. An outline of the management of terminal disease in clinics, hospitals and special centre is given and community preventive measures are suggested and mental wellbeing among the patients are being experienced.

In the study of Tedeschi and Calhoun (1996), it was found that attitude is significantly correlated with mental wellbeing. Moreover, attitude was also significantly associated with 'relating to others' factors of mental wellbeing. Similarly, attitude was stated to be related to higher levels of mental wellbeing among patients with terminal illness that experienced interpersonal relationship (Tashiro & Frazier, 2003). According to Tashiro and Frazier (2003), because patients high on this attitude are more likely to be warm, pleasant, kind and cooperative; they may experience positive changes in their interpersonal relationship with friends and family during illness which is an adverse event, thus affecting their mental wellbeing.

Radhakrishnan (1981) conducted a study on Mental Health Knowledge and multipurpose health workers. In India, the initial experimentation in organizing basic mental health care programme, was conducted at Chandigarh and Bangalore. Efforts were directed to develop a system of priority selection to train the existing primary health personnel to carry out basic mental health care risk. Training programme for the multipurpose health worker /Junior Health Assistants included the following components. Early recognition of terminal illness and all other forms of terminal illness.

Referral of the identified patients to the Primary Health Centres. Regular follow up of such patients in the community with feed back to the doctors at the Primary Health Centre's increases mental wellbeing. Education and motivation of the patient's family members and neighbours to look after the patients humanely.

### **2.3.3 Psychological Support and Mental Well-Being**

Studies of social networks frequently find a link between psychological support and increased psychological well-being and physical health, generally demonstrating beneficial effects (Ervasti & Venetoklis, 2010; Frijters, Johnston & Shields, 2011). However, much stands to be gained in understanding the processes involving social relationships and their effects on well-being (Sarason, Sarason, & Pierce, 1995 cited in Frijters et al., 2011). The relative contribution of psychological support to psychological wellbeing and physical health has been investigated, and researchers have found psychological support to be related to well-being in terminal illness (Walen & Lachman, 2000).

Numerous measures of psychological support in social support and positive relationships have been developed as a result, and most large-scale surveys examining mental well-being integrate questions on this topic. For instance, the World Health Organization 100 survey (WHOQOL-100; Bonomi, Patrick, Bushnell, & Martin, 2000) asks an array of questions such as 'how satisfied are you with the support you get from your friends? and do you feel happy about your relationships with your family members?' The Oxford Poverty and Human Development Initiative's Missing Dimensions of Poverty Relatedness module (Samman, 2007) similarly asks participants to rate three statements pertaining to social support (e.g., People in my life care about

me). The New Economics Foundation's National Accounts of Well-Being (Michaelson, Abdallah, Steuer, Thompson & Marks, 2009) also has two sections related to psychological support: Supportive Relationships (e.g., do you have anyone with whom you can discuss intimate and personal matters) and trust and belonging (e.g., to what extent do you feel like people in your area help one another?).

Findings by Gore (1978) Pearlin, Menaghan, Morton and Mullan (1981); Thoits (1995) have shown that psychological support is beneficial to health and mental well-being while facing stressful events, although they cannot prevent all damaging effects. Utilizing different respondents, Asane (2012) investigated the association between age, gender, social support and the psychological well-being in Ghana. Using a cross-sectional data containing information on demographics, psychological support and psychological well-being (stress, depression, and anxiety), which were collected from 107 men and women living with HIV/AIDS to explore age group differences, respondents were stratified by age (< 39 vs. 40+ years). Three anonymous self-administered questionnaires were used, namely, the demographic data questionnaire, psychological support scale, and the Depression Anxiety Stress Scale (DASS- 42). Correlation analyses revealed that was negatively associated with depression, stress and anxiety. Compared with males living with HIV, women reported higher levels of stress, depression and anxiety. Female gender and low social support were significant predictors of depression and stress after controlling for selected independent variables. Older participants experienced higher levels of stress than their younger counterparts. The author concluded that public health personnel professionals may consider further interventions to promote psychological health in HP//AIDS-positive individuals. More

attention should be paid to the social environment of individuals diagnosed with HIV as the quality of social relationships may be particularly important for successful psychological adaptation to HIV.

In a related study, Adedimeji, Alawode and Odutolu (2010) examined the impact of social, economic, psychological and environmental factors on health and well-being among People living with HIV/AIDS living in southwest Nigeria. Using qualitative participatory methodology, 50 HIV positive people, 8 health personnel and 32 care providers were interviewed to explore how psychological support affect well-being in view of constraints to accessing antiretroviral drugs. Analysis of data used the grounded theory (GT) approach to identify themes, which are considered crucial to the mental well-being of People living with HIV/AIDS. The findings highlight several factors, apart from antiretroviral drugs, that impact the well-being of People living with HIV/AIDS in southwest Nigeria. These include concerns about deteriorating physical health, family and children's welfare, pervasive stigma, financial pressures and systemic failures relating to care among others. They further described how psychosocial and psychological support can considerably contribute to improving health outcomes among them because of how they affect the functioning of immune system, self-care activities and other illness behaviours.

In a different study, Calvete and Connor-Smith (2006) found support from family and friends to reduce the impact of psychological problems among the terminally ill. This finding is supported by Dollete Steese, Phillips and Matthews (2004) found that psychological support could act as a protective factor that could decrease



psychological problems among people with terminal illness such as stress. A study by Wentzel (1998) found that psychological support positively influence the terminally ill well-being and performance. This study is supported by the study by Quomma and Greenberg (1994) who found that poor psychological support from these sources would lead to poor mental well-being and failure. And, in a meta-analysis of mental wellbeing correlates, Pinquart and Sorensen (2000) found that life satisfaction, self-esteem, and happiness showed a stronger relationship with ratings of social contact quality than with social contact quantity (i.e. social embeddedness).

In a similar finding, Savelkoul, Post, de Witte and van den Borne (1999) conducted a cross-sectional study which purpose was to examine the relationship between psychological support, coping, and psychological well-being by testing three hypotheses: (1) psychological support influences well-being via coping; (2) coping influences well-being via psychological support; (3) there is a reciprocal relationship between psychological support and coping, and both concepts influence well-being. Data were analyzed from 628 patients with one or more chronic rheumatic disorder(s) affecting the joints, in some patients combined with another rheumatic disease (no fibromyalgia). Although causal inferences are not possible, the results present a plausible causal sequence in supporting the second hypothesis. This is only true, however, for coping by awaiting/avoidance: coping by awaiting/avoidance led to psychological support and this poor psychological support negatively influenced wellbeing.

In their study, Siedlecki, Salthouse, Oishi and Jeswani (2013) examined the relationship between psychological support and psychological well-being across age. The relationships among types of psychological support and different facets of psychological well-being (i.e. life satisfaction, positive affect, and negative affect) were examined by the authors in a sample of 1,111 individuals between the ages of 18 and 95 years. Using structural equation modeling they found that life satisfaction was predicted by enacted and perceived psychological support, positive affect was predicted by family embeddedness with positive psychological support, and negative affect was predicted by the perceived psychological support. When attitude variables were included in a subsequent model, the influence of the psychological support variables were generally reduced. Invariance analyses conducted across age groups indicated that there were no substantial differences in predictors of the different types of psychological well-being across age. This finding is supported by the work of Walen and Lachman (2000) who conducted a study whose aimed was to (1) examine the association of psychological support and strain with psychological well-being and health, (ii) investigate whether these associations depended on relationship-type (partner, family, friend), (iii) examine the buffering effects of psychological support on strain (both within and across relationship- type), and (iv) test the extent to which these associations differed by age and sex. The sample contained 2,348 adults (55% male) aged 25 to 75 years (M=46.3), who were married or cohabitating. Positive and negative social exchanges were more strongly related to psychological well-being than to health. For both sexes, partner psychological support and strain and family psychological support were predictive of well-being measures; partner strain was also predictive of

health problems. However, family strain was predictive of mental well-being and health outcomes more often for women. Further, while they did find evidence that supportive networks could buffer the detrimental effects of strained interactions, friends and family served a buffering role more often for women than for men.

#### **2.3.4 Mental Wellbeing of Patients with Terminal Illness**

Terminal illness, as a life-threatening illness, is an assault on the whole person - physical, psychological, social, and spiritual. Mount, Boston and Cohen (2007) and the dying experience affects all dimensions of an individual (Prince-Paul, 2008). It could be predicted, then, that patients with terminal illness would experience suffering holistically. For example, if they had severe physical symptoms, they would also experience distress emotionally, socially, and spiritually. However, as Mount, Boston, and Cohen (2007) observed in their phenomenological study, some people with significant pain or other physical symptoms may not be suffering overall, and conversely, others without any physical symptoms may suffer terribly.

Other researchers have also found that mental well-being in one or more dimensions of self can result in overall well-being in spite of suffering in one dimension. As Cohen and Mount (1992) suggest: It would appear that considerable suffering in one domain [dimension] may be overridden by an enhanced sense of personal meaning in another, resulting in mental wellbeing, in spite of the co-existing suffering.

The presence, number, and severity of physical symptoms has been associated with poor emotional (Chen & Chang, 2004; Lloyd-Williams, Dennis, & Taylor, 2004; Lobchuk & Bokhari, 2008) and psychological well-being (Steginga, Lynch, Hawkes,

Dunn, & Aitken, 2009) in people with life-threatening illness. Chen and Chang (2004) using the Hospital Anxiety and Depression Scale (HADS) for participants with terminal illness, found that physical symptoms were significantly associated with anxiety and/or depression. In addition, participants with multiple symptoms had higher rates of depression than those with only one symptom. Lloyd-Williams, Dennis, and Taylor (2004) were testing a verbal screening tool for depression with participants from a palliative cancer clinic. While the researchers found that the new screening tool was not effective for identifying depression, they did confirm that physical symptoms were associated with depression when it was diagnosed by interviews with a psychiatrist.

Tuesnissen, de Graeff, Voest, and de Haes (2007) used the Hospital Anxiety and Depression Scale (HADS), the Edmonton Symptom Assessment System (ESAS), and a single yes/no question to determine if patients hospitalized with advanced cancer were anxious and/or depressed. They assessed physical symptoms of the participants using ESAS and a semi-structured interview. In contrast to other studies, these researchers found that physical symptoms were not significantly associated with mental wellbeing. The authors hypothesized that the difference between their findings and those of other researchers may be due to their participant group, who had lower functional status and were closer to death than participants in the majority of other studies.

The participants in Chen and Chang study (2004) had a high mean functional status and were earlier in the disease trajectory and Lloyd-Williams, Dennis, and Taylor (2004) participants were mobile with little assistance. Tuesnissen, de Graeff,

Voest, and de Haes postulated that the association between depressed mood and symptom severity may decrease as disease progresses. This may be the case and would require further research. However, other studies have shown that for some people, well-being in other dimensions of their lives (emotional, social, or spiritual) enables them to experience a general sense of mental well-being despite physical symptoms or decreased functional abilities.

Patients with terminal illness may experience diminished emotional well-being due to the physical effects of their disease (Beckstrand, Callister, & Kirchhoff, 2006; Kuhl, 2003; Zalenski & Raspa, 2006), fear about anticipated physical symptoms (Kuhl, 2003), or a perception of uncertainty (Beckstrand, Callister, & Kirchhoff, 2006; Heyland, Dodek, Rucker, Groll, Gafni, Pichora, et al., 2006). However, this may not always be the case. Many people seem to be able to see positive aspects of their illness even when they are aware they will likely die from it. They may find that, while their circumstances are very difficult, they discover or develop an inner strength to effectively cope (Kendall, 2006; Lipsman, Skanda, Kimmelman, & Bernstein, 2007). Sahlberg-Blom, Ternstedt, and Johansson (2001) used the EORTC QLQ-C30 (European Organization for Research and Treatment of Cancer Quality of Life Questionnaire) and a psychosocial well-being questionnaire to assess the mental health of 47 cancer patients in their last month of life. Although the participants physical functioning was much lower than the general population on the EORTC QLQ-C30, they had similar emotional functioning to people without cancer on the same questionnaire. As well, on the other psychosocial well-being questionnaire, about one-

third of participants rated themselves as happy or somewhat happy and half were satisfied or somewhat satisfied overall.

Zalenski and Raspa (2006) postulate that patients who are dying will experience mental well-being if they have reached the highest level of needs achievement in Maslow's hierarchy (Maslow, 1970). Maslow's pyramid of human needs starts with physiological needs and progresses in ascending order to needs of safety, love / belonging, esteem and finishing with self-actualization. Zalenski and Raspa applied their theory to one palliative care patient who they used as an exemplar. They found that once his needs on the lower levels of the hierarchy were met, he was able to progress to meeting needs on the higher levels. In conclusion, they stated a person who is able to meet the range of human needs described in the pyramid could be considered healed despite the absence of a cure for terminal illness.

Although many studies have reported that life-threatening illness poses a significant challenge to social relationships (Blinderman & Cherny, 2005; Chochinov et al., 2006; Downing, 1998; Kuhl, 2003; Wayman & Gaydos, 2005; Zalenski & Raspa, 2006), other studies have found that social relationships have been maintained (McMillan & Weitzner, 2000) or strengthened at end-of-life (Prince-Paul, 2008). Furthermore, Lobchuk and Bokhari (2008) found that while depression was associated with physical symptoms, the experience of these symptoms seemed to be mitigated by the presence of empathic psychological support.

McMillan and Weitzner (2000) did a secondary analysis of data from a previous study (McMillan & Weitzner, 1998) which used the Hospice Quality of Life Index

(HQLI) with 231 patients with terminal illness. The HQLI asks the participants to rate their well-being from 0 (severe problem) to 10 (no problem) for 28 potential problem areas. The secondary data analysis revealed that the participants had the lowest scores for psychological well-being and the highest scores for social/spiritual well-being. The researchers concluded that patients are able to maintain satisfactory relationships with family and friends as well as with God despite psychological decline in mental wellbeing and physical symptoms.

Prince-Paul (2008) conducted a qualitative study interviewing eight terminally ill patients to understand the meaning of psychological well-being at the end of life. Although psychological supports were challenged by changes in role function and physical decline, the participants reported that their connection to others was strengthened overall. The knowledge that they were dying increased the value they placed on relationships. Relationships that were previously strained had moments of healing and reconnection. Participants expressed a need to be surrounded by family and friends, stating that participating in social activities gave them a purpose and a feeling of belonging. Another theme that arose was the need to give back to others in acts of gratitude. The participants all expressed a strong desire to express their love and to feel connected to their loved ones.

A diagnosis of terminal illness may lead to psychological crises and diminished psychological well-being (Breitbart, 2004; Kuhl, 2003; Taylor, 2000). Alternatively, psychological support may be a source of mental well-being for patients who use psychological practices to find meaning and purpose (Baldacchino and Draper, 2001).

Terminal illness may or may not be linked to psychological wellbeing, but usually includes a connection to a transcendent to higher mental wellbeing (Sand, Olsson & Strang, 2008).

Psychological well-being was associated with physical and spiritual well being of 95 terminally ill patients in a study by Laubmeier, Zakowski, and Bair (2004), which used a questionnaire developed for the study to measure perceived life threat. The researchers also used the psychological well-being Scale, the Brief Symptom Inventory, and the Functional Assessment of Terminal Therapy-General Scale. Laubmeier et al. found that high levels of psychological well-being were associated with less overall distress and symptom severity regardless of how life-threatening the participants perceived their illness to be. Similarly, Meraviglia (2004) surveyed 60 adults with lung cancer using the Life-Attitude Profile-Revised, Adapted Prayer Scale, Index of Well-Being, Symptom Distress Scale, and a cancer characteristics questionnaire. She found that spirituality, meaning in life, and prayer had a positive effect on psychological well-being and overall well-being.

Tatsumura, Maskarinec, Shumay, and Kakai (2003), used semi-structured interviews with 143 cancer survivors to determine the role of psychological well-being in their illness experience. Connection to health care personnel was found to serve many purposes for participants; some stated that health care personnel, God had healed them of their cancer while others said that prayer and daily connection with God helped them make treatment decisions, bear emotional pain, and have inner peace. It seemed to be the connection to something beyond the physical that helped the participants to



cope with their illness: Somehow, if you rely on a power source beyond yourself, you can bear a lot more things. Whether it is physical pain or whether it is emotional pain, like worrying, you know you are able to just let go and let God worry about it.

The way people approach their illness may reflect how they have reacted to adversities in previous times of their lives. Many studies have found that a positive view of oneself and past successful coping enhances well-being in life-threatening illness (Block, 2001; Lethborg, Aranda, Bloch, & Kissane, 2006; Lipsman, Skanda, Kimmelman, & Bernstein, 2007; Mount, Boston, & Cohen, 2007; Ramfelt, Severinsson, & Lutzen, 2002; Reb, 2007). According to Coyle (2006), people with a pattern of maintaining control of their lives and having an optimistic philosophy towards difficulty may be better equipped to maintain mental well-being with a diagnosis of terminal illness.

Loss of control has been identified as one of the most salient concerns of patients with terminal illness (Cohen & Leis, 2002; Reb, 2007). It makes sense, then, that patients who are able to maintain some control have enhanced well-being (Carter, MacLeod, Brander & McPherson, 2004; Coyle, 2006; Reb, 2007). Carter, MacLeod, Brander, and McPherson (2004) interviewed 10 patients living with terminal illness to ascertain what their priorities were. This research group had noted that standard assessment tools may have limited ability to capture the holistic nature of people's experience. Using grounded theory, they asked open-ended questions rather than asking about themes that had been determined beforehand. Following data analysis, "taking charge" emerged as the most dominant theme. The participants were actively

engaged in their dying process and needed to be in control of the entire experience, from management of their symptoms to developing their own philosophy of living in the face of death.

Reb (2007) also used grounded theory to explore the ways that 20 women who had been diagnosed with advanced ovarian cancer transformed a death sentence into hope. He found that the participants went through three phases of transformation: shock, aftershock, and rebuilding. In each phase, they used strategies in mental wellbeing to maintain control. They controlled the nature and amount of information they received from health care providers, who would form their support network, how their symptoms would be managed, and what goals they would attempt to achieve. This sense of control from mental wellbeing was identified by the participants as crucial to their ability to hope.

Henselmans, Sanderman, Helgeson, de Vries, Smink, and Ranchor (2010), using questionnaires and face-to-face interviews, found that a strong sense of control over illness was related to capacity for adaptation for women with breast cancer. The participants stated that their mental wellbeing was enhanced by maintaining a positive attitude, accepting treatment, and adopting a healthy lifestyle. Furthermore, the people who reported feeling of mental wellbeing over their illness also had a strong sense of control over their lives as a whole. The researchers stated that patients with a sense psychological well-being over their illness are better able to adapt their life to accommodate the challenges associated with illness.

In Coyle (2006) exploratory study, seven patients with terminal illness were interviewed using a semi-structured format. Similar to Reb (2007), Coyle also found that the participants were all actively engaged in maintaining mental wellbeing by designing their own support system, finding meaning, creating legacy, making lifestyle choices, and choosing treatments. Some participants believed in their ability to control their illness even to the point of curing themselves. His participants described their efforts to maintain mental wellbeing as the hard work of living in the face of death.

### **2.3.5 Religion, Age, Sex, Marital Status and Mental Wellbeing**

Many psychologists have asked questions regarding religion and mental wellbeing. In fact, the interaction between religiosity and psychological wellbeing is an ever growing subject. Religious affiliation has, in many cases, been demonstrated to offset the effects of anxiety and stress, as well as promote well-being (Huang, Hsu, M., & Chen, T., 2010; Chai P., Krageloh, C., Shepherd, D., & Billington, R., 2012). In one study conducted by Wachholtz and colleagues, (2007) religious involvement even improves tolerance of physical pain. Researchers have concluded through numerous studies (e.g., Huang, et al, 2010; Abdel-Khalek, 2010; Kang, et al, 2012) that religion or religious involvement has a positive effect on many aspects of life, ranging from depression to mental wellbeing. However, much of the research regarding the theory that religion affects mental wellbeing is largely focused on patients with cancer or another severe illness (Kang, et al, 2012; Winkelman, et al, 2011; Lazenby, M., & Khatib, J. 2012). Often in these situations, religion is seen to increase overall mental wellbeing.

Cohen, et al (2001) conducted a study via questionnaire following patients in a palliative care facility in Canada over several months, and found that after admission, patient mental health increased, as well as spirituality and relationships. However, as Strang and Strang (2001) conjecture in their small study in Sweden, this increase in spirituality and religiosity could be a form of coping for terminal patients or a direct result of existential questions that arrive late in life.

Krause and Liang (2002) examined the ability of religious practices, religious coping, and belief in the afterlife to reduce the negative effects of bereavement on hypertension. Researchers surveyed a random national sample of 1723 older adults (>60) in Japan at in 1996 and then again in 1999. The survey included religious items, questions about stressors (including bereavement), and about mental health conditions. Results showed that belief in a good afterlife at the baseline interview buffered against the development of self-reported hypertension in the follow- up interview.

Very few studies have used healthy participants in an average setting, despite the assumption that such a study design, if successful, would provide evidence in favor of the idea that religious affiliation affects mental wellbeing even in the absence of the threat of death. This begs the question, how does religion promote mental wellbeing? Does religion promote mental wellbeing in only a specific stratum of people? Is this promotion of quality mental wellbeing statistically significant in the lives of elderly patients? Finding the answer to the latter question is the goal of the intriguing study conducted by Huang, et al (2010). To begin exploring this idea, the researchers analyzed how much religion affects day to day living and thought processes. They

cited several studies that conjecture that religious involvement reduces depression, increases mindfulness if focused on in a meditative way, and establish the little known fact that religion is used in multiple forms of therapy worldwide. Having established the actuality that religion aids in situations such as those seen above, the researchers began their study. Huang, et al gathered a total of 115 elderly participants from an outpatient clinic in Taiwan and asked them preliminary questions such as age: nationality, living conditions, level of anxiety, and frequency of attendance of religious services. For these questions, a variety of tools were used, such as the Beck Anxiety Inventory, the Center for Epidemiological Studies-Depression Scale, and the Quality of Life Index. These surveys and scales attempted to quantify the level of anxiety, depression, and even the mental health of patients being studied. An analysis of the results revealed that 56.5% of the participants claimed to associate with a particular religion, but only half revealed that they had ever attended a religious ceremony. Also, 74.8% of the participants suffered from mild to severe anxiety, and anxiety was often comorbid with depression. The average rate of psychological problems lasted 22.57 months. The statistics showed that the further the patient went in school, the less likely they were to become depressed and more likely to have better mental wellbeing. The same was found for religion. Religious involvement reduced symptoms of anxiety and depression, as well as promoted an overall mental wellbeing. Based on their findings, the authors concluded that religion has a moderating effect on anxiety, depression, and mental wellbeing in older patients, possibly due to a reduced level of worry and stress.

Kaufman, Anaki, Binns and Freedman (2007) examined the effects of religiosity and mental wellbeing on rate of cognitive decline in Alzheimer's disease

(AD). Subjects were 70 patients (ages 49 to 94 years, mean age 78) with probably AD, and cognitive function was assessed over 12 months using the Mini- Mental State Exam (MMSE). All subject met standard neurological criteria for probably AD or AD with cerebrovascular disease, and had MMSE scores of 10 or higher. Religious variables were religious attendance, private religious activity, intrinsic religiosity (based on DUREL), and self-ratings of religiosity and spirituality. Controlling for baseline cognitive function, age, gender, and marital status subjects scoring higher on self-rated spirituality ( $p=0.01$ ) and private religious practices ( $p=0.003$ ) had a significantly slower rate of cognitive decline; 17% of the variance in cognitive decline was explained by these variables. Religious attendance, self-rated religiosity, intrinsic religiosity, and mental wellbeing were unrelated to cognitive decline. Lack of an effect for mental wellbeing suggests that another mechanism must explain how spirituality/religion affects cognitive function other than by improving mental wellbeing.

Balboni, Vanderwerker, Block, Paulk, Lathan, Peteet and Prigerson (2007) surveyed 230 patients with advanced cancer (and failure of first-line chemotherapy) and their caregivers in Boston, MA (Coping with Cancer Study at Harvard). Patients rated to what extent either their religious community or the medical system supported their spiritual needs on a scale from 1 (not at all) to 5 (completely supported). Findings indicated that 88% of patients said that religion was at least somewhat important. However, just under half (47%) said that their spiritual needs were minimally or not at all met by their religious community; furthermore, nearly three-quarters (72%) said that their spiritual needs were minimally or not at all met by the medical system (i.e.,

doctors, nurses, or chaplains). Patients who indicated that either the religious community or the medical system was providing spiritual support reported significantly higher mental wellbeing ( $p < 0.0005$ ).

Bowen, Baetz, & D'Arcy (2006) explored coping and motivation factors related to treatment response in 56 patients with panic disorder participating in a clinical trial. Subjects were treated with group cognitive-behavioral therapy, and then were followed up at 6 and 12 months after baseline evaluation. Self-rated importance of religion was a significant predictor of panic symptom improvement and lower perceived stress at the 12-month follow-up. Investigators concluded that high importance of religion reduced panic disorder symptoms by decreasing level of perceived stress and increasing mental wellbeing.

Becker, Momm, Ter, Bartelt, Ter-Heinz, Budischewski, Domin, Henke, Adamietz and Frommhold (2006) examined the role of religion in coping with disease and treatments for cancer. Data were prospectively collected in 105 patients with cancer who were receiving radiotherapy and were involved in a double blind multi-center trial. Patients were divided into "believers" and "non-believers." Investigators reported that, "On average, believers felt better on mental wellbeing in all categories of side effects at all points of time before, during and after therapy.

Krause (2006) examined the effects of religion-based support, age vs. psychological support in predicting mental wellbeing in later life for African-American and white persons. Data analyzed were from a national random sample of older adult Christians in U.S. The sample was composed of 548 older Christians who attended

church services more than twice a year, 238 older Christians who attend religious services less frequently. The investigator found that church-related psycho-support reduced the effects of financial strain on self-rated health; in contrast, social support from secular sources did not. These effects are particularly strong in African-Americans. The author concluded that there may be something unique about church-related psycho-social support in terms of its relationship to mental health that distinguishes it from secular support.

Saxena (2006) examined relationships between marital status, age, sex, religious and mental wellbeing in 5,087 adults in 18 countries around the world. The World Health Organization's mental wellbeing Instrument was used for assessment. Researcher found that marital status, age, sex and religious were highly and significantly correlated with mental wellbeing. The strongest correlations, however, were found for the psychological and social domains and for overall mental wellbeing. When mental wellbeings was examined in a subsample of 588 persons who reported poor health, only four domains predicted overall mental.

Yoshimoto, Ghorbani, Baer, Cheng, Bantia, Malcarne, Sadler, Ko and Greenbergs (2006) surveyed 101 patients with prostate cancer and their spouses, examining the quality of their problem solving and their mental wellbeing. Subjects were assessed at baseline and 10 weeks later. Subjects were classified into four groups based on whether or not they used marital coping: (1) husband only, (2) wife only, (3) both husband and wife, and (4) neither husband nor wife. Results indicated that if both husband and wife used marital coping, then there was a significant reduction in wife's



dysfunctional problem solving between baseline and follow-up in mental wellbeing, compared to the wife only group.

Regnerus and Burdette (2006) examined the influence of adult marital status on relationships with parents and satisfaction with their families. Researchers analyzed data from two waves (1995 and 1996) of the National Longitudinal Study of Adult Marital Health (random sample of adult age 35- 65). Found that increase in the importance of marital status in life between waves was independently and positively related to better family relationship even after controlling for increased substance use (i.e., negative behavioural change). Increase in importance of marriage was positively associated with improvements in mental wellbeing in mother-child relationship ( $B=0.19$ ,  $p<0.001$ ), in father-child relationship ( $B=0.18$ ,  $p<0.05$ ), and family satisfaction ( $B=0.17$ ,  $p<0.001$ ).

Rummans, Clark, Sloan, Frost, Bostwick, Atherton, Johnson , Gamble, Richardson, Brown, Martensen, Miller, Piderman, Huschka, Girardi and Hanson (2006) researchers conducted a randomized clinical trial involving a multi-disciplinary intervention (including age component) in 103 radiation therapy patients with advanced cancer who had expected 5-year survival rate of 0%-50%. The five domains of mental wellbeing that were addressed in the intervention arm were cognitive, physical, emotional, spiritual, and social functioning. These were addressed during eight 90-minute sessions. Investigators found that the 49 patients randomized to the intervention group experienced a 3-point increase in mental wellbeing from baseline, compared to a 9-point decrease in the standard care control group ( $p<0.01$ ).

Huguelet, Mohr, Borrás, Gillieron and Brandt (2006) interviewed 100 outpatients with schizophrenia (mean age 39) to determine the relationship between age characteristics and mental wellbeing. Thirty-four clinicians caring for these patients were also interviewed on their age and what they know about the age of patients. Findings were that a majority of patients reported that age was significant in their daily lives.

Schanowitz and Nicassio (2006) examined relationships between coping behaviors and mental health in 100 older adults living in residential care (skilled, intermediate, assisted-living). Focused on active, passive, meaning-based (positive reappraisal), positive and negative coping strategies on mental wellbeing. There was no relationship between positive coping and psychosocial outcomes, but negative coping was related to greater depression (negative affect).

Wink and Scott (2005) examined data collected over 40 years on 155 persons from 1959 to 1999, studying the relationship between age and fear of death, dying late life and mental health among patients with terminal illness. Findings indicated that moderately aged patients feared death more than either the older. Analyses were controlled for sociodemographic variables, life satisfaction, social support, and stressors.

Wink, Larsen, Dillon (2005) examined the relationship between age, spirituality, depression, and physical health in a representative sample of subjects born in the San Francisco area during the 1920s. These persons were then followed into their 60s and 70s. Age was measured as the extent to which institutionalized beliefs and practices

played a central role in the respondent's life indication. Age was measured as the extent to which non-institutionalized beliefs and practices played a central role in the individual's life, such as a person's awareness of sacred connectedness with God, a Higher Power, or nature, and their systematically engaging in intentional spiritual practices (e.g., meditation, Shamanistic journeying, centering, or contemplative prayer) on a regular basis. Results indicated that aged buffered against depression associated with poor mental health in later life, with the highest level of depression being found in those with lower age and poor physical health. This effect was independent of social support and was predicted longitudinally by age that was assessed 30 years previously.

Benjamins (2004) examined relationship between mental wellbeing and functional ability in 4,071 persons aged 72 to 103 (mean age 78) who participated in the Assets and Health Dynamics Among the Oldest Old Survey. This is a nationally representative, longitudinal data set. Activities in 1995 were examined as predictors of change in physical functioning between 1995 and 2000, controlling for baseline functional limitations. Investigator reported that frequent attendance predicted mental wellbeing.

Abdel-Khalek (2006) examined the relationships between sex, happiness, physical health, mental health, and religiosity in sample of 2,210 volunteer Kuwaiti terminally ill patients (52% female) by gender. Results indicated that women were significantly more religious than men. Relationships between sex, religiosity and happiness, physical health, and mental wellbeing were all positive and significant in

this Muslim sample. Regression analysis revealed that sex accounted for around 15% of the variance in happiness, even more so than did self-ratings of physical health.

Silvestri and Knittig (2003) surveyed 100 male and female patients with advanced lung cancer, their caregivers, and 257 medical oncologists attending an annual meeting of the American Society of Clinical Oncology asked participants to rank the importance of the following seven factors that might influence treatment decisions on whether or not to accept chemotherapy. These factors included the oncologist's recommendation, mental wellbeing, and faith in God, ability of treatment to cure the disease, side effects of the chemotherapy, family doctor's recommendation, spouse's recommendation, and children's recommendation. Patients, family, and physicians each ranked these factors from 1 (most important) to 7 (least important). Although patients and family members both ranked "faith in God" as No. 2 (outranked only by the recommendation of the oncologist mental wellbeing).

Francis and Kaldor (2002) surveyed a probability sample of 989 adults in an Australian community survey to examine the relationship between psychological well-being, sex and religious belief/practice. Well-being was measured using the Bradburn Affect Balance Scale together. Religious belief/practice was measured by belief in God, personal prayer, and church attendance. Results of regression analyses showed a positive relationship between all three variables and mental well-being.

Hebert, Dan and Schulz (2006) examined the relationship between religion, age, marital status and complicated grief in dementia caregivers, both currently providing care or bereaved of their loved one. Surveyed 1,229 caregivers multiple sites across the

U.S. Caregivers were followed prospectively for up to 18 months. Religion was measured by frequency of religious attendance or other religious community activities, frequency of prayer or meditation, and importance of religious faith, age and marital status. Results indicated that religious beliefs, age and marital status were important to the majority of caregivers, with 77% praying nearly every day, 70% indicating that their spiritual/religious faith was “a great deal” important, and 42% attending services at least weekly. Beliefs and practices were similar for bereaved (n=225) and non-bereaved caregivers. Analyses were stratified by bereavement status of caregivers. In non-bereaved caregivers, all three measures of religion, age and marital status were significantly associated with less depressive symptoms, controlling for caregiver age, caregiver physical health, caregiver burden, and social integration (p values ranging from 0.018 to 0.001). In bereaved caregivers, only frequency of religious attendance was associated with fewer depressive symptoms (p=0.007) and less complicated grief (p=0.0017), controlling for depression at study entry, caregiver physical health, caregiver burden, social integration, and negative interactions.

Wong, Tsai, Lin, Poon, Chao and Hsiao (2006) examined social and demographic factors including religion, family background, sex, age and marital status influencing the mortality of patients with oral cancer in Taiwan. Researchers reviewed the medical records of 1010 patients with oral cancer. The 5-year survival rate for all patients as a group was 63 percent. After controlling for other predictors of survival (including clinical features) using survival analyses, researchers reported that patients without demographic factors influence on mental wellbeing were more than twice as

likely to die during the follow-up period compared to those with demographic factors influence on mental wellbeing (Relative Risk=2.06,  $p<0.001$ ).

Ai, Park, Huang, Rodgers and Tice (2007) examined religious coping styles, marital status, age and social support as possible mechanisms for religion's effects on reducing postoperative psychological distress in 309 cardiac patients. Using structural equation modelling, researchers found that after controlling for preoperative distress, gender, and other baseline covariates, religiousness, age and marital status was positively correlated with positive religious coping, which influenced post-operative psychological distress through effects on social support and hope. At baseline, negative religious coping was associated with greater preoperative psychological distress, and prospectively predicted greater post-operative distress through the same pathways as positive religious coping (but in the opposite direction).

Galea, Ciarrocchi, Piedmont and Wicks (2007) studied age, marital status, sex and spirituality as predictors of mental wellbeing in Maltese college students. The Researchers investigated whether spirituality, sex, marital status and religious practices would predict psychological well-being (PWB) in a sample of Maltese undergraduates, over and above personality and a history of child abuse. Participants (N = 214) were selected randomly from students who volunteered for such studies. In this sample, the percentages of abuse and neglect were similar to rates found in the United States. Hierarchical regression analysis with total child abuse history entered on step one, personality (as measured by the five-factor model) in the second step, and either spirituality, sex, marital status or religiosity in step three, showed that spirituality, sex,

marital status contributed an additional 4% of variance to positive affect and 2% to cognitive well being. Religious practices had no incremental validity. While personality was a partial mediator, this evidence suggests that spirituality may be an asset for persons with an abuse history, and worthy of study as a component of human flourishing.

## **2.4 Hypotheses**

Based on the literature review considered above, the following hypotheses were formulated.

- (i) Attitudes of health care personnel will significantly predict mental well-being among patients with terminal illness in Jalingo town.
- (ii) Psychological support of health care personnel will significantly predict mental well-being among the terminally ill in Jalingo town.
- (iii) Attitude and psychological support of health care personnel will significantly predict mental well-being among the terminally ill patients in Jalingo town.
- (iv) Personal factors of religion, age, sex and marital status of health care personnel will jointly significantly predict mental wellbeing among patients with terminal illness in Jalingo town.

## **CHAPTER THREE**

### **METHOD**

This chapter explained the method of data collection for this study. The chapter first and foremost explained the design of the study; followed by the participants, instruments and method of data analysis.

#### **3.1 Design**

This study employs the ex-post facto research design. The method is expected to show relationships amongst the variables in the study. It implies that none of the variables in the study was manipulated. The predictor variables are attitude and psychological support; the criterion variable is mental well-being which is measured as a single or composite construct.

In ex post facto research design, the investigator cannot directly manipulate the variables. In this design, the dependent variable (which in this study is mental well-being) is observed, while independent variables (in this study are attitudes and psychological support) are being looked for. No artificial setting is created in ex post facto research design.

#### **3.2 Study Population**

The population of terminally ill patients in Jalingo town for the period of this study was 1,203 (Taraba State Ministry of Health, 2016). A breakdown of the population showed that male patients with terminal illness were 756 while females were 447



### **3.3 Sampling Technique**

The researcher used multistage sampling technique for data collection. Three sampling techniques of purposive, convenience and criterion sampling were used to sample patients with terminal illness for inclusion into the study. Purposive or judgmental sampling according to Polit and Beck (2010) involves purposely selecting patients judged to be typical of the population or particularly knowledgeable about the subject. Convenience sampling involves selecting the most readily available patients as participants (Polit & Beck, 2010). Selection of terminally ill patients started with those who were present and readily available to participate in the study. Criterion sampling, as Polit and Beck (2010) point out, involved consciously selecting the personnel from the target population who met the selection criteria of:

- i Patients with terminal illness residing in Jalingo Local Government Area.
- ii. Consenting and willing to participate in the study.
- iii. Expressing readiness to share their lived experiences via responding to questionnaire.
- iv. Demonstrate the ability to competently respond to the questionnaire.

### **3.4 Sample Size Determination**

The population of terminally ill patients in Jalingo town for the period of this study was 1,203 (Taraba State Ministry of Health, 2016). Taro Yamane Formula was used to determine sample size for this study.

Formula

$$n = \frac{N}{1+N(e)^2}$$

Where:

$n$  = Estimated sample size.

$N$  = Total number of the population

1 = Constant value

$e$  = Estimated level of confidence interval

$$n = \frac{1203}{1 + 1203 (0.05)^2}$$

$$n = \frac{1203}{1 + 1203 \times 0.0025}$$

$$n = \frac{1203}{1 + 3.0075}$$

$$n = \frac{1203}{4.0075}$$

$$n = 300$$

### 3.5 Participants

The total numbers of participants for the study were selected using convenience sampling to take part in the study. Out of this 165 were male and 135 were female. The age range of the participants is between 15 and 76 years. Therefore, three hundred copies of questionnaires were administered to patients with terminal illness in Jalingo town. However, only two hundred and seventy questionnaires were used for the final analysis. This is because some respondents did not return their questionnaires while others were discarded due to incomplete filling of the questionnaires.

### **3.6 Instruments**

In order to collect data for the study, the researcher made use of three validated instruments with subscales. Which include; Attitudes scale, Psychological Support and Mental Well-being scale.

#### **3.6.1 Attitude Scale**

A modified version of the Risser (1975) Attitude Scale (AS) was used to elicit the research data. The version implemented here is the one produced by Hinshaw and Atwood (1982) which compared to the original Risser scale differs at the 7<sup>th</sup> item of the “technical-professional” subscale where the phrase “over the telephone” was deleted. This version was psychometrically tested in five studies with a total of 600 patients, primarily medical-surgical inpatients. The results showed stable internal consistency estimates in the different studies with the average coefficients alpha values reported being 0.79, 0.78 and 0.88 for the three subscales respectively. The AS was designed to measure patients’ attitudes towards health workers and originally contained three subscales with a total number of 25 items defined as follows:

1. Technical-Professional (TP) domain contains seven items concerning technical issues on care and measurement of the nurses behaviors.
2. Educational Relationship (ER) domain contains seven items concerning nurses attitude with patients, the exchange of information between the nurse and patient.
3. Trusting Relationship (TR) domain approaches eleven interpersonal relationship situations between nurses and patients the verbal and nonverbal communication that occurs between the nurse and client.

Each question is assessed on a five point Likert-type measurement scale ranging from “Strongly agree” (=1) to “Strongly disagree” (=5). The negative sentences are assessed in reverse, and the higher the AS score is, the higher is the patient satisfaction with the nursing care provided.

### **3.6.2 Psychological Support Scale:**

Jefferson Scale of Psychological Support is a 5-item instrument developed by Gregory et al (2006) item intended to measure patient’s perceptions of his/her physician’s empathic concern and understanding. Patients are required to response to each item on their physicians empathy by using a 5-point Likert-type scale (from = 1strongly disagree to 5 = strongly agree). It takes a few minutes to answer the scale. It has an item total correlation of 0.90 thus making it reliable for use.

### **3.6.3 General Health Questionnaire (GHQ-12): The 12-Item Mental Wellbeing Scale**

(GHQ-12) developed by Goldberg and Williams (1988) consists of 12 items, each one assessing the mental status over the past few weeks using a 4-point Likert-type scale (from 0 to 3). The score was used to generate a total score ranging from 0 to 36. The positive items were corrected from 0 (always) to 3 (never) and the negative ones from 3 (always) to 0 (never). High scores indicate worse health.

## **3.7 Reliability**

Pilot study was carried out using 30 samples on patients with terminal illness in Ardo-Kola Local Government of Taraba State. A reliability coefficient of .71, .60, and .62 (see appendix II) was obtained for attitude scale, psychological scale and mental wellbeing respectively and this confirmed a good reliability of the instrument.

In the current pilot study conducted by the researcher, the attitude instrument has a Cronbach's alpha of .71 which indicates that the test items are reliable. With regards to validity the total variance explained is 76.247 which mean that the test items measured 76.2% of the variable of interest.

Psychological support scale for pilot study conducted by the researcher has a Cronbach's alpha of .60 indicating that the test items are reliable with the validity total variance explained is 63.046 which means that the test items measured 63% of the variable of interest.

The pilot study conducted using the mental wellbeing questionnaire has a Cronbach's alpha of .62 which indicates that the test items are reliable. With regards to validity the total variance explained is 77.652 which indicate that the test items measured 77.7% of the variable of interest.

### **3.8 Procedure**

The researcher made contacts with the terminally ill during their follow up to the health centre. The researcher sought the assistance of the health centre and solicits their cooperation towards ensuring that the questionnaires were distributed. This was done with the assistance of the management. Terminally ill who came to enroll and follow up in the centre were often given questionnaire to respond and return it while returning their forms of enrollment and follow up.

The instruments were given to the participants with the help of the guidance/interpreter for those that cannot read or write. The purpose was explained to them and was assured of confidentiality that their response will not be used against

them; they were informed that no answer is right or wrong. Therefore, they should feel free to express their opinion.

The questionnaires contained information regarding the aim of the study, respondents consent and an introduction letter soliciting the organization/ respondents' cooperation.

### **3.9 Data Analysis**

Responses to questionnaires were coded and entered into the SPSS, and SPSS was used in the statistical analyses. The analysis included reliability assessment of the scale (Cronbach alpha) for pilot study.

Simple and multiple regression analysis was used to determine the individual and joint influence of independent variables on dependent variable and Inter-correlation among the study variables was examined using Four- Way- Anova to ascertain the relationship between the variables used in the study.

## CHAPTER FOUR

### RESULTS

This study examined attitude of health care personnel and psychological support as predictors of mental wellbeing among patients with terminal illness in Jalingo Town. With regard to this, data were collected and tested and this chapter presents results derived from data analysis according to the stated hypotheses.

#### 4.1. Hypotheses Testing

##### 4.1.1 Hypotheses I

This hypothesis states that attitude of health care personnel will significantly predict mental wellbeing among patients with terminal illness in Jalingo Town.

This hypothesis was tested using Regression Analysis and the results are tabulated and interpreted as shown below.

**Table 4.1: Simple Regression Analysis showing the influence of attitude of healthcare personnel on mental wellbeing among patients with terminal illness**

Variables	<i>R</i>	<i>R</i> <sup>2</sup>	<i>F</i>	<i>β</i>	<i>t</i>	<i>p</i>
Constant	.436	.190	49.179		8.440	.000
Attitude				.436	7.013	.000

Dependent Variable: Mental Wellbeing

The results presented in table 4.1 above showed that attitude of healthcare personnel significantly predict mental wellbeing among terminally ill patients ( $R = .436$ ,  $R^2 = .190$  ( $F(1, 208) = 49.179$ ,  $t = 8.4480$ ,  $p < .05$ ). This means that attitude of healthcare personnel contributed 19.0% to variation in mental wellbeing. This finding

implies that higher level of positive attitude of healthcare personnel is likely to bring about higher degree of mental wellbeing among terminally ill patients. Therefore, this hypothesis has been accepted and the null hypothesis rejected.

#### 4.1.2 Hypotheses II

This hypothesis states that psychological support will significantly predict mental wellbeing among patients with terminal illness in Jalingo town.

This hypothesis was tested using Simple Regression Analysis and the results are tabulated and interpreted as shown below.

**Table 4.2: Simple Regression Analysis showing the influence of psychological support on mental wellbeing among terminally ill patients**

<b>Variables</b>	<b><i>R</i></b>	<b><i>R</i><sup>2</sup></b>	<b><i>F</i></b>	<b><i>β</i></b>	<b><i>t</i></b>	<b><i>P</i></b>
Constant	.247	.061	13.550		10.217	.000
Psy. Support				.247	3.681	.000

Dependent Variable: Mental Wellbeing

The results presented in table 4.2 above indicated that psychological support significantly predicted mental wellbeing among terminally ill patients ( $R = .247 = R^2 = .061$  ( $F(1, 208) = 13.550, t = 10.217, p < .05$ ). This means that psychological support contributed 6.1% to variation in mental wellbeing. This finding implies that higher level of psychological support is likely to leads to higher level of mental wellbeing among terminally ill patients. Therefore, this hypothesis has been accepted and the null hypothesis rejected.



### 4.1.3 Hypotheses III

This hypothesis states that attitude of healthcare personnel and psychological support will jointly influence mental wellbeing among terminally ill patients in Jalingo town.

This hypothesis was tested using Multiple Regression Analysis and the results are tabulated and interpreted as shown below.

**Table 4.3: Multiple Regression Analysis showing the joint influence of attitude and psychological support on mental wellbeing among terminally ill patients**

<b>Variables</b>	<b><i>R</i></b>	<b><i>R</i><sup>2</sup></b>	<b><i>F</i></b>	<b><i>β</i></b>	<b><i>t</i></b>	<b><i>p</i></b>
Constant	.437	.191	24.480		7.680	.000
Attitude				.442	5.771	.000
Psy. Support				-.009	-.117	.907

Dependent Variable: Mental Wellbeing

The results presented in table 4.3 above revealed that there was a significant joint influence of healthcare personnel attitude and psychological support on mental wellbeing among terminally ill patients ( $R = .437 = R^2 = .191$  ( $F(2, 207) = 24.480, p < .05$ ). This means that healthcare personnel attitude and psychological support jointly contributed 19.1% to variation in mental wellbeing among terminally ill patients. The results further showed that healthcare personnel attitude significantly makes the strongest unique contribution to explaining mental wellbeing, when the variance explained by psychological support is controlled for ( $\beta = .442, p < .05$ ). The Beta value of psychological support made no significant contribution ( $\beta = -.009, p > .05$ ) lower than attitude indicating that it made no unique contribution to mental wellbeing when

attitude of healthcare personnel is controlled for. Therefore, this hypothesis has been accepted and the null hypothesis rejected.

#### **4.2 Incidental Findings**

A part from the hypotheses tested, some other demographic factors were examined. The results are presented in table 4 below.

This hypothesis states that personal factors of religion, age, sex and marital status of the patients will have main and interactive effects on mental wellbeing among terminally ill patients in Jalingo town.

This hypothesis was tested using Four-Way ANOVA and the results are tabulated and interpreted as shown below.

**Table 4.4: Four-Way-Anova summary table showing the main and interactive effects of religion, age, sex and marital status on mental wellbeing of terminally ill patients**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	21226.682 <sup>a</sup>	62	342.366	1.838	.002	.437
Intercept	64442.621	1	64442.621	346.014	.000	.702
Religion	2164.857	2	1082.429	5.812	.004	.073
age2	1676.123	3	558.708	3.000	.033	.058
Sex	1036.169	1	1036.169	5.564	.020	.036
Marital	1349.525	4	337.381	1.812	.130	.047
Religion * age2	1394.397	6	232.399	1.248	.285	.048
Religion * Sex	468.218	2	234.109	1.257	.288	.017
Religion * Marital	4445.011	7	635.002	3.410	.002	.140
age2 * Sex	879.681	3	293.227	1.574	.198	.031
age2 * Marital	3755.226	7	536.461	2.880	.008	.121
Sex * Marital	440.369	2	220.184	1.182	.309	.016
Religion * age2 * Sex	1177.222	6	196.204	1.053	.393	.041
Religion * age2 * Marital	2614.821	7	373.546	2.006	.058	.087
Religion * Sex * Marital	345.250	4	86.312	.463	.762	.012
age2 * Sex * Marital	440.436	5	88.087	.473	.796	.016
Religion * age2 * Sex * Marital	256.071	2	128.035	.687	.504	.009
Error	27377.699	147	186.243			
Total	231652.000	210				
Corrected Total	48604.381	209				

a. R Squared = .437 (Adjusted R Squared = .199)

Results in Table 4.4 showed that there was a significant main effect of religion on mental wellbeing among terminally ill patients ( $F(1, 147) = 5.812, p < .05$ ). This implies that religion is likely to determine 7.3% ( $Eta\ Square = .073$ ) of the mental wellbeing of terminally ill patients.

Therefore, this aspect of the hypothesis has been confirmed. Also, the results indicated that there was a significant main effect of age on mental wellbeing among terminally ill patients ( $F(3, 147) = 3.000, p < .05$ ). This implies that age is likely to determine 5.8% ( $Eta\ Square = .058$ ) of mental wellbeing among terminally ill patients. Therefore, this hypothesis has been accepted and the null hypothesis rejected.

Moreover, the results in Table 4.4 indicated that there was a significant main effect of sex difference on mental wellbeing of terminally ill patients ( $F(1, 147) = 5.564, p < .05$ ). This implies that the gender of terminally ill patients determines 3.6% ( $Eta\ Square = .036$ ) of their mental wellbeing. Therefore, this hypothesis has been confirmed and the null hypothesis rejected. Results further indicated that there was no significant main effect of marital status on mental wellbeing of terminally ill patients ( $F(4, 147) = 1.812, p > .05$ ). This implies that marital status of terminally ill patients does not determine their mental wellbeing.

Finally, the results of the incidental findings presented in Table 4.4 revealed that there was no significant interactive effect of religion, age, sex and marital status on mental wellbeing ( $F(2, 147) = .687, p > .05$ ). This means that the interplay of religion, age, sex, and marital status is less likely to determine mental wellbeing of terminally ill patients. This further implies that religion, age, sex and marital status are not co-determinants of mental wellbeing. Therefore, this aspect of the hypothesis has been rejected and the null hypothesis accepted.

## **CHAPTER FIVE**

### **DISCUSSION, CONCLUSION AND RECOMMENDATION**

This research examined attitude and psychological support of health care personnel as predictors of mental wellbeing among patients with terminal illness in Jalingo town. The previous chapter presented the results of the data analyses. This chapter presents the discussion of the results presented in Chapter four. The discussion is centered on the hypotheses formulated for the study. The chapter also presents the implication of the study, limitations and future research, conclusions and recommendations.

#### **5.1 Discussion of Major Findings**

In the discussion of findings in the literature, researchers hypothesized on mental well-being. In the present study the mental wellbeing scale patterning to terminally ill were tested. The mental wellbeing was regressed on the attitude factors and psychological support factors. The Four- Way- Anova, simple and multiple regression analysis conducted revealed that all the predictor variables jointly and independently predicted mental well-being. However, there was no interplay and significant interactive effect of religion, age, sex and marital status on the mental wellbeing where marital status was not found to predict mental well-being. Based on the findings presented in the previous chapter, all the hypotheses formulated for the study were supported.

The current findings lend credence to the works of Shimmack, Oishi, Furr and Funder (2004); Chen, Tu and Wang (2008); Joshanloo and Afsharia (2011); and Onyishi, Okongwu and Ugwu (2012) who in their separate studies found correlations among attitude and psychological support on mental well-being.

Hypothesis 1 of the study was tested to find out whether attitude significantly predicts mental well-being among patients with terminal illness in Jalingo town, it was also found that attitude specifically predicted mental well-being of the terminally ill patients as the result of the analysis found a positive correlation between attitude and mental well-being. This implies that attitude have significant effect on the mental well-being of patients with terminal illness in Jalingo town. This finding supports the work of Shimmack et al. (2004) who found attitude to be the predictor of mental well-being. In a related development, this finding corroborates with those of Vitterse (2001); Brakko and Sabol (2006); Chen, Tu and Wang (2008); Joshanloo and Afasharia (2011), who in their separate studies linked attitude to relate with mental well-being.

This finding lends credence to the work of McCrae and Costa (1991) that showed in their study that positive attitude increases the probability of positive experiences in ill situations, and this, in turn, is directly related to mental well-being. Similarly, the finding supports those of Tedeschi and Calhoun (1996) who found attitude to significantly correlate with mental well-being. Similarly, Tashiro and Frazier (2003) found attitude to relate to higher levels of mental well-being. This finding also corroborates with those of Shultz, et al. (2006) who found a significant positive correlation between attitude and mental wellbeing. Even though the results of multiple

regression and correlation showed that attitude correlates or predicts mental well-being, this does not support Sheikh's (2004) view. He failed to find a significant correlation between these two variables — which the non-significant result may be due to the nature of participants he used.

Also, the results support the hypothesis that psychological support will significantly predict mental well-being among terminally ill. This result corroborates earlier research findings (e.g., Young, 2006; Yeung & Fung, 2007; Au, et al., 2009) that psychological support significantly predicted mental well-being. The findings of the study showed that psychological support from health personnel predicted mental well-being.

Since the terminally ill patient's life has been found to be stressful, the presence of psychological support may have contributed to differences in mental well-being of patients with terminal illness. This finding lends credence to the work of Calvete and Connor-Smith (2006) who found psychological support from the health personnel to reduce the impact of psychological problems among patients. This finding also corroborates with Dollete et al. (2004) who also found that psychological support could act as a protective factor that could decrease psychological problems. In a related development, Wentzel (1998) found psychological support to positively influence mental well-being.

The hypothesis 3 of the study which stated that attitude and psychological support would significantly predict mental well-being was also confirmed. It was found that attitude and psychological support jointly predicted mental well-being. These

findings indicate that the combination of an individual's health care personnel attitude and psychological support determine the mental wellbeing of patients with terminal illness.

Furthermore, multiple regression analyses showed a significant interaction effect of attitude and psychological support on the mental well-being of patients with terminal illness. The results of this study showed a significant interaction effect of attitude and psychological support on mental well-being. The interaction effect between attitude and psychological support indicates a statistically significant interaction effect on mental well-being

The result on the interplay effect of attitude and psychological support indicates that health care personnel should increasingly make efforts to enhance not only their psychological support for the terminally ill but should understand their attitudes which have interacting relationship between psychological support and mental well-being. This study provides additional insights regarding how attitude's interaction effect and the link between psychological support and mental well-being of patients with terminal illness.

Altogether, the finding on the full interaction effect of attitude on the relationship between psychological support and mental well-being provides evidence that health care personnel effort towards dealing with adverse effect of terminal illness should be deemed as one of the critical success factors for enhancing their mental well-being.



## 5.2 Discussion of Incidental Findings

Results of incidental findings in Table 4.4 showed that there was a significant main effect of religion on mental wellbeing among terminally ill patients ( $F(1, 147) = 5.812, p < .05$ ). This implies that religion is likely to determine 7.3% (*Eta Square* = .073) of the mental wellbeing of terminally ill patients. Therefore, this aspect of the hypothesis has been confirmed. Also, the results indicated that there was a significant main effect of age on mental wellbeing among terminally ill patients ( $F(3, 147) = 3.000, p < .05$ ). This implies that age is likely to determine 5.8% (*Eta Square* = .058) of mental wellbeing among terminally ill patients. Therefore, this hypothesis has been accepted and null hypothesis rejected.

Moreover, the results in Table 4.4 indicated that there was a significant main effect of sex difference on mental wellbeing of terminally ill patients ( $F(1, 147) = 5.564, p < .05$ ). This implies that the gender of terminally ill patients determines 3.6% (*Eta Square* = .036) of their mental wellbeing. Therefore, this hypothesis has been confirmed and the null hypothesis rejected. Results further indicated that there was no significant main effect of marital status on mental wellbeing of terminally ill patients ( $F(4, 147) = 1.812, p > .05$ ). This implies that marital status of terminally ill patients does not determine their mental wellbeing.

Finally, the results of the incidental findings presented in Table 4.4 revealed that there was no significant interactive effect of religion, age, sex and marital status on mental wellbeing ( $F(2, 147) = .687, p > .05$ ). This means that the interplay of religion, age, sex, and marital status is less likely to determine mental wellbeing of terminally ill patients. This further implies that religion, age, sex and marital status are not co-

determinants of mental wellbeing. Therefore, this aspect of the hypothesis has been rejected and the null hypothesis accepted.

### **5.3 Implications of the Study**

The present study has made valuable contributions to the mental well-being literature by viewing mental well-being as a uni-dimensional construct. This study revealed that attitude and psychological support greatly influenced the terminally ill mental well-being. The results of this study suggest important practical implications for human relationship management especially in the area of management of patients with terminal illness. The health care personnel and government as well as counsellors are advised to use effective management processes in ensuring the mental well-being of patients with terminal illness in Jalingo town.

The study highlights the importance of psychological support for the terminally ill in Jalingo. The Jalingo social environment is characterized by community networks and patients tend to extend their pattern of living in the community to wherever they go. Patients therefore value others' support. It is also interesting to note that attitude and psychological support seems to be the most significant predictor of mental well-being among patients with terminal illness in Jalingo. This is understandable, for majority of the terminally ill spend the better part of their day at the health facility. Many of them also live in the family house. This means that support from family means a lot to them and may be very significant in their general mental well-being. Also, the results may be explained from the point of view of the nature of stress and depression patients with terminal illness undergoes.

Another important implication of this study is on the area of terminally ill patient's development. This also suggests that terminally ill patient's condition should be considered when deciding on the support that would be most satisfying to them. The results also have implications for clinical practices, especially as it relates to counselling. There is need to encourage interpersonal relationship and support groups among patients with terminal illness as well as within family members and friends, for these have implications for mental well-being.

Also, a number of policy implications arise from these findings. Firstly, initiatives designed to improve patient's psychological support and mental well-being are likely to improve the productivity of the patients and increase 'gross national happiness'. Terminally ill palliative programmes should include training that improves both human capital skills and psychological capital by enhancing core self-evaluations. Designing programmes to link up the terminally ill with services such as terminally ill palliative care service providers, more quickly may also help minimize the deterioration in psychological support and life span of the patients with terminal illness.

Investing in longer term initiatives to improve patient's health through the education system will help develop resiliency skills that reduce hysteresis-type and improve patient's ability to manage psychological and attitudinal challenges associated with terminal illness.

#### **5.4 Limitations of the Study**

Although this study contributes significantly to our understanding of the contributions of attitude and psychological support to mental well-being among patients with terminal illness in Jalingo town, there are some factors that limit the generalization of the results. One limitation of this study is that it focused on just Jalingo town. The replication of the current study in other areas of human functioning in the state or nation may be important in generalizing the results.

Another limitation of the study is on the number of the variables studied. Other variables such as socioeconomic, family background and general wellbeing could also contribute to mental well-being of the terminally ill beyond the effect of attitude and psychological support.

This study was based on an ex post factor design. The exploration of attitude, psychological support and wellbeing does not allow inferring causality from the present data. Therefore, these results need to be replicated to generalize the findings, preferably in a study with a longitudinal designed.

Finally, all measures in the present study were collected on a single questionnaire within three months. A longitudinal study may help us to establish cause and effects relationship.

## **5.5 Conclusion**

Despite the limitations of the present study, it expands our knowledge in many ways, Therefore, we can conclude, based on the findings of the study, that:

- i. Attitude significantly relates to mental well-being of patients with terminal illness in Jalingo town. Also, attitude was found to predict mental well-being of patients with terminal illness in Jalingo town.
- ii. Psychological support significantly relates to mental well-being of patients with terminal illness in Jalingo town. The study concluded that health care personnel psychological support predicted mental well-being.
- iii. It was also concluded, based on the findings, that attitude and psychological support jointly influence mental well-being among patients with terminal illness in Jalingo town.
- iv. And also, the results of the incidental findings presented in Table 4.1 concluded that no significant interactive effect of religion, age, sex and marital status on mental wellbeing of patients with terminal illness in Jalingo town. This further implies that religion, age, sex and marital status are not co-determinants of mental wellbeing of patients with terminal illness in Jalingo.

## **5.6 Recommendations**

### **5.6.1 Recommendations for Research**

- i. More attention is needed to discover the significant factors that influence mental well-being of terminally ill patients.
- ii. In future the current study could be replicated using larger groups of terminally ill patients from a greater variety of backgrounds and different states, to determine whether patients with terminal illness in different areas of Nigeria experience mental well-being differently.
- iii. The present study could encourage future longitudinal studies, where researchers do not only assess the mental well-being of patients with terminal illness, but also the long-term effects that high/low levels of mental well-being in the terminally ill have on an individual's life.
- iv. Research studies on satisfaction with life, hope, stressors and resources as well as coping can also make a positive contribution to our understanding of patients with terminal illness mental well-being and how to increase the terminally ill levels of mental well-being. Numerous variables that were not included in the current study such as positive/negative affect balance, self-esteem, locus of control, economic and social background, etc need to be investigated and their relationship with mental well-being need to be established.

### **5.6.2 Recommendation for Practice**

The findings of this research may contribute/lead to interventions that enhance and maintain terminally ill patient's mental well-being. This could lead to patients with terminal illness being better adjusted to their new roles and expectations. In the present study attitude and psychological support were indicated as correlates of mental well-being. It is therefore recommended that more time and energy should be given to help terminally ill patients cope with these specific stressors.

Detailed attention should also be given to increasing the functional coping strategies of patients with terminal illness while reducing the dysfunctional coping strategies used by them. A more specific approach can be followed that will allow focus on building stress resistance in patients with terminal illness.

The terminally ill could be encouraged to form patients support groups among themselves so as to support each other as well as serve as health talk for interaction and sharing of information regarding treatment.

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## APPENDIX I

School of Post Graduate  
Department of Psychology  
Benue State University  
Makurdi.

Dear Respondent

### Request to Complete Questionnaire

I am a post graduate student of the above named institution conducting research on the topic: **“Attitude and Psychological Support of Health Care Personnel as Predictors of Mental Well-Being Among Patients with Terminal Illness in Jalingo Town”** as one of the requirements for the award of doctorate degree (Ph.D) in clinical psychology. Please, answer the questions below honestly and be rest assured that any information given will be treated confidentially and only for the purpose of this research.

Thanks.

### Section A: Demographic Information

Please tick where appropriate

- (i) Religion [ ] (a) Christian [ ] (b) Muslim [ ] (c) Other religion [ ]
- (ii) Age (a) 15 – 30yrs [ ] (b) 31 – 45yrs [ ] (c) 46 – 60yrs [ ] (d) 61 – 75yrs [ ]  
(e) 76 – 91yrs
- (iii) Sex (a) Male [ ] (b) Female
- (iv) Marital Status (a) Single [ ] (b) Married [ ] (c) Separated [ ] (d) Widow [ ]

## Section B: Attitude Scale

**Instruction: Please tick the number that represents the option that most nearly suits your answer.**

**Strongly Agree 1; Agree 2; Undecided 3; Disagree 4; strongly disagree 5.**

S/N	Technical-Professional	1	2	3	4	5
1	The health worker is skilful in assisting the doctor in various procedures					
2	The health worker really knows what she is talking about					
3	The health worker is not precise in doing her work					
4	The health worker makes it a point to show me how to follow medical instructions.					
5	The health worker is too slow to do things for me					
6	The health worker is often too disorganized to look on top of things					
7	The health worker gives good advice					
	<b>Interpersonal-Educational</b>					
8	The health worker gives directions at the right speed					
9	The health worker asks a lot of questions but once she finds the answers, she doesn't seem to do anything					
10	I wish the health worker would tell me about the results of my tests more than she does					
11	The health worker explains things in simple language					
12	It is always easy to understand what the health worker is talking about					
13	Too often the health worker thinks you can't understand the medical explanation of your illness, so she just doesn't bother to explain					
14	The health worker always gives complete enough explanations of why tests are ordered					



	<b>Interpersonal-Trusting</b>					
16	The health worker is understanding in listening to a patient's problems					
17	The health worker should be more attentive than she is					
18	The health worker is just not patience enough					
19	When I need to talk to someone, I can go to the health workers with my problems					
20	The health worker is too busy at the desk to spend time talking with me					
21	The health worker is pleasant to be around					
22	I am tired of the health worker talking down to me					
23	The health worker is a person who can understand how I feel					
24	A person feels free to ask the health worker questions					
25	The health worker should be more friendly than she is					
26	Just talking to the health worker makes me feel better					

**Section C: Mental Wellbeing Scale**

**Instructions:** After each statement, tick the word that best describes how often you feel that way. There is no right or wrong answer.

**0 = Never, 1 = Sometimes, 3 = Frequently, 4 = Always**

<b>NO</b>	<b>Item</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
1	Lost much sleep over worry				
2	Felt constantly under strain?				
3	Been able to concentrate on what you are doing?				

4	Felt that you are playing useful part in things?				
5	Been able to face up to your problem?				
6	Felt capable of making decisions about things?				
7	Felt you could not overcome your difficulties?				
8	Been feeling reasonably happy, all things considered?				
9	Been able to enjoy your normal day to day activities?				
10	Been feeling unhappy or depressed?				
11	Been losing confidence in yourself?				
12	Been thinking of yourself as a worthless person?				

**Section D: Psychological Support Scale**

**Instruction: After each statement, tick the word that best describes how often you feel that way. There is no right or wrong answer.**

**1 = Strongly Disagree; 2=Disagree; 3=Undecided; 4=Agree; 5=Strongly Agree**

NO	Item	1	2	3	4	5
1	Health workers understand my emotions, feelings and concerns.					
2	Health workers seem concerned about me and my family.					
3	Health workers Can view things from my perspective (see things as I see them)					
4	Health workers ask about what is happening in my daily life.					
5	Is an understanding health worker.					

**APPENDIX II**  
**Result of Pilot Study**

GET

DATASET NAME DataSet1 WINDOW=FRONT.

RELIABILITY

/VARIABLES=Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18  
Q19 Q20 Q21 Q22 Q23 Q24 Q25 Q26

/SCALE('ATTITUDE SCALE') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL MEANS.

**Reliability**

**Scale: ATTITUDE SCALE**

**Case Processing Summary**

		N	%
Cases	Valid	31	100.0
	Excluded <sup>a</sup>	0	.0
	Total	31	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.713	26

**Item Statistics**

	Mean	Std. Deviation	N
Q1	2.2903	.86385	31
Q2	1.5161	.67680	31
Q3	2.1935	.83344	31
Q4	2.3548	1.47306	31
Q5	2.0323	.48193	31
Q6	1.6774	.83215	31
Q7	2.2258	.84497	31
Q8	2.7097	.64258	31
Q9	2.0968	.83086	31
Q10	1.7097	.73908	31
Q11	1.6774	.83215	31
Q12	1.1290	.99136	31
Q13	1.6129	1.20215	31
Q14	2.1935	1.10813	31
Q15	1.7742	1.28348	31
Q16	.8710	1.08756	31
Q17	1.0968	1.04419	31
Q18	1.6774	1.16582	31
Q19	1.0323	1.07963	31
Q20	1.0645	1.09348	31
Q21	1.0323	.94812	31
Q22	1.4516	1.15004	31
Q23	.9677	1.01600	31
Q24	1.7097	1.10132	31
Q25	1.8387	1.15749	31
Q26	2.2581	1.09446	31

**Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximum/Minimum	Variance	N of Items
Item Means	1.700	.871	2.710	1.839	3.111	.259	26

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q1	41.9032	76.557	.427	.966	.693
Q2	42.6774	82.626	.055	.829	.715
Q3	42.0000	80.067	.201	.952	.708
Q4	41.8387	81.273	.012	.928	.732
Q5	42.1613	81.073	.283	.948	.706
Q6	42.5161	80.125	.198	.891	.708
Q7	41.9677	77.766	.354	.926	.698
Q8	41.4839	80.325	.263	.855	.705
Q9	42.0968	77.090	.410	.849	.695
Q10	42.4839	78.525	.358	.795	.699
Q11	42.5161	78.058	.341	.908	.699
Q12	43.0645	76.262	.376	.887	.695
Q13	42.5806	77.185	.243	.719	.706
Q14	42.0000	78.733	.193	.892	.709
Q15	42.4194	76.185	.265	.862	.704
Q16	43.3226	80.626	.100	.937	.717
Q17	43.0968	77.624	.274	.889	.703
Q18	42.5161	75.925	.319	.855	.699
Q19	43.1613	82.540	.003	.898	.724
Q20	43.1290	75.716	.360	.928	.696
Q21	43.1613	80.406	.144	.902	.712
Q22	42.7419	80.398	.099	.978	.717
Q23	43.2258	76.847	.330	.804	.698
Q24	42.4839	75.525	.367	.903	.695
Q25	42.3548	73.503	.449	.940	.687
Q26	41.9355	75.662	.362	.914	.695

### Scale Statistics

Mean	Variance	Std. Deviation	N of Items
44.1935	83.761	9.15212	26

**FACTOR**

```
/VARIABLES Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18  
          Q19 Q20 Q21 Q22 Q23 Q24 Q25 Q26  
/MISSING LISTWISE  
/ANALYSIS Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18  
          Q19 Q20 Q21 Q22 Q23 Q24 Q25 Q26  
/PRINT INITIAL EXTRACTION  
/CRITERIA MINEIGEN(1) ITERATE(25)  
/EXTRACTION PC  
/ROTATION NOROTATE  
/METHOD=CORRELATION.
```

**Factor Analysis**

**Communalities**

	Initial	Extraction
Q1	1.000	.842
Q2	1.000	.771
Q3	1.000	.733
Q4	1.000	.730
Q5	1.000	.655
Q6	1.000	.759
Q7	1.000	.621
Q8	1.000	.750
Q9	1.000	.767
Q10	1.000	.750
Q11	1.000	.797
Q12	1.000	.863
Q13	1.000	.724
Q14	1.000	.611
Q15	1.000	.830
Q16	1.000	.781
Q17	1.000	.814
Q18	1.000	.711
Q19	1.000	.778
Q20	1.000	.828
Q21	1.000	.767
Q22	1.000	.901
Q23	1.000	.718
Q24	1.000	.660

Q25	1.000	.882
Q26	1.000	.782

Extraction Method: Principal Component Analysis.

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.022	15.470	15.470	4.022	15.470	15.470
2	3.189	12.265	27.735	3.189	12.265	27.735
3	2.701	10.387	38.122	2.701	10.387	38.122
4	2.209	8.496	46.618	2.209	8.496	46.618
5	1.920	7.383	54.001	1.920	7.383	54.001
6	1.805	6.943	60.944	1.805	6.943	60.944
7	1.493	5.742	66.687	1.493	5.742	66.687
8	1.337	5.141	71.827	1.337	5.141	71.827
9	1.149	4.420	76.247	1.149	4.420	76.247
10	.973	3.741	79.988			
11	.880	3.384	83.372			
12	.760	2.924	86.295			
13	.674	2.594	88.889			
14	.567	2.179	91.068			
15	.496	1.908	92.977			
16	.419	1.612	94.588			
17	.336	1.293	95.882			
18	.262	1.007	96.888			
19	.256	.986	97.875			
20	.191	.734	98.609			
21	.148	.569	99.178			
22	.081	.310	99.488			
23	.068	.263	99.751			
24	.046	.177	99.928			
25	.012	.047	99.975			
26	.006	.025	100.000			

Extraction Method: Principal Component Analysis.

**Component Matrix<sup>a</sup>**

	Component								
	1	2	3	4	5	6	7	8	9
Q1	.529	-.209	.335	-.043	-.143	.579	.200	-.095	-.008
Q2	-.199	.683	-.113	-.007	.473	.021	.084	.144	-.004
Q3	.492	-.287	-.249	.461	-.026	-.225	.095	-.104	.251
Q4	-.108	.109	.711	.010	.229	.243	.189	-.043	-.228
Q5	.501	-.155	-.304	-.313	.394	-.031	.071	-.144	-.084
Q6	.390	-.246	.193	-.434	-.530	-.024	-.087	.090	-.153
Q7	.360	.152	.423	.366	-.159	.130	.147	-.272	-.134
Q8	.523	-.067	-.465	.095	-.255	-.172	.242	.285	-.109
Q9	.457	.211	.200	.595	-.105	-.171	-.140	-.244	.017
Q10	.376	.367	.336	-.377	-.160	-.081	.097	-.415	-.073
Q11	.246	.569	-.306	-.067	.022	.548	-.116	.027	-.003
Q12	.391	.164	.402	-.136	.179	-.515	-.106	.349	.270
Q13	.393	-.043	.000	.329	.616	-.055	.093	.065	-.254
Q14	.359	.198	-.512	-.200	.209	-.048	.247	-.175	.052
Q15	.352	.196	.003	.288	-.455	-.145	-.047	.386	-.453
Q16	.024	.629	-.271	-.272	-.134	.192	-.421	-.050	-.050
Q17	.189	.656	.139	-.149	-.204	-.308	-.317	-.058	.257
Q18	.335	.507	-.215	-.058	-.336	.177	.336	.115	.148
Q19	-.174	.171	.435	-.093	-.005	.333	.402	.239	.436
Q20	.435	-.011	.586	-.341	.167	-.342	.140	.098	-.069
Q21	.099	.050	.263	.450	.135	.322	-.597	.045	-.050
Q22	.386	-.588	-.053	.122	-.110	.332	-.142	.252	.428
Q23	.378	.025	.115	-.229	.292	.182	-.223	.574	-.109
Q24	.629	-.208	-.231	-.220	.159	.213	.025	-.057	-.212
Q25	.727	-.143	.043	-.138	.223	.010	-.327	-.278	.282
Q26	.283	.582	-.036	.502	.073	-.003	.277	.105	.128

Extraction Method: Principal Component Analysis.

a. 9 components extracted.



## Reliability

### Scale: Mental Wellbeing

#### Case Processing Summary

	N	%
Valid	31	100.0
Cases Excluded <sup>a</sup>	0	.0
Total	31	100.0

a. Listwise deletion based on all variables in the procedure.

#### Reliability Statistics

Cronbach's Alpha	N of Items
.617	12

#### Item Statistics

	Mean	Std. Deviation	N
Q27	1.9032	1.10619	31
Q28	.8710	1.08756	31
Q29	.4194	.84751	31
Q30	.7419	.96498	31
Q31	1.1290	1.20394	31
Q32	.9032	1.04419	31
Q33	.6129	1.70641	31
Q34	.9032	1.73887	31
Q36	2.4516	1.45691	31
Q37	3.0645	1.48179	31
Q38	2.3226	1.30095	31
Q39	2.8710	1.28431	31

### Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	1.516	.419	3.065	2.645	7.308	.895	12

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q27	16.2903	48.013	-.179	.269	.665
Q28	17.3226	44.626	.047	.588	.631
Q29	17.7742	41.447	.397	.666	.583
Q30	17.4516	40.723	.393	.696	.580
Q31	17.0645	40.462	.299	.606	.590
Q32	17.2903	40.746	.349	.632	.584
Q33	17.5806	39.518	.189	.714	.619
Q34	17.2903	39.680	.173	.682	.624
Q36	15.7419	36.865	.424	.657	.561
Q37	15.1290	34.516	.562	.596	.526
Q38	15.8710	41.516	.196	.645	.610
Q39	15.3226	37.026	.500	.546	.549

### Scale Statistics

Mean	Variance	Std. Deviation	N of Items
18.1935	46.495	6.81870	12

FACTOR

```
/VARIABLES Q27 Q28 Q29 Q30 Q31 Q32 Q33 Q34 Q36 Q37 Q38 Q39  
/MISSING LISTWISE  
/ANALYSIS Q27 Q28 Q29 Q30 Q31 Q32 Q33 Q34 Q36 Q37 Q38 Q39  
/PRINT INITIAL EXTRACTION  
/CRITERIA MINEIGEN(1) ITERATE(25)  
/EXTRACTION PC  
/ROTATION NOROTATE  
/METHOD=CORRELATION.
```

### Factor Analysis

#### Communalities

	Initial	Extraction
Q27	1.000	.504
Q28	1.000	.818
Q29	1.000	.734
Q30	1.000	.838
Q31	1.000	.777
Q32	1.000	.757
Q33	1.000	.868
Q34	1.000	.817
Q35	1.000	.847
Q36	1.000	.760
Q37	1.000	.910
Q38	1.000	.688

Extraction Method: Principal  
Component Analysis.

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.059	25.495	25.495	3.059	25.495	25.495
2	2.093	17.438	42.932	2.093	17.438	42.932
3	1.663	13.862	56.794	1.663	13.862	56.794
4	1.345	11.205	67.999	1.345	11.205	67.999
5	1.158	9.653	77.652	1.158	9.653	77.652
6	.790	6.581	84.232			
7	.579	4.828	89.060			
8	.494	4.114	93.174			
9	.348	2.901	96.074			
10	.208	1.733	97.808			
11	.171	1.422	99.229			
12	.092	.771	100.000			

Extraction Method: Principal Component Analysis.

**Component Matrix<sup>a</sup>**

	Component				
	1	2	3	4	5
Q27	-.056	-.504	.284	.136	.385
Q28	.156	.152	-.869	.005	.127
Q29	.607	-.053	.478	-.359	-.070
Q30	.597	.182	-.318	-.472	.354
Q31	.366	.285	.427	.481	.386
Q32	.621	-.076	.304	-.382	.357
Q33	.019	.910	.189	.015	-.062
Q34	-.003	.878	.164	.001	-.139
Q36	.624	-.069	-.075	.661	-.101
Q36	.763	-.060	-.181	.372	.054
Q37	.510	-.289	.201	-.094	-.719
Q38	.745	.050	-.288	-.109	-.188

Extraction Method: Principal Component Analysis.

a. 5 components extracted.

#### RELIABILITY

```
/VARIABLES=Q29 Q30 Q31 Q32 Q33  
/SCALE('PSYCHOLOGICAL SUPPORT') ALL  
/MODEL=ALPHA  
/STATISTICS=DESCRIPTIVE SCALE  
/SUMMARY=TOTAL MEANS.
```

#### Reliability

#### Scale: PSYCHOLOGICAL SUPPORT

#### Case Processing Summary

		N	%
Cases	Valid	31	100.0
	Excluded <sup>a</sup>	0	.0
	Total	31	100.0

a. Listwise deletion based on all variables in the procedure.

#### Reliability Statistics

Cronbach's Alpha	N of Items
.604	5

#### Item Statistics

	Mean	Std. Deviation	N
Q29	.4194	.84751	31
Q30	.7419	.96498	31
Q31	1.1290	1.20394	31
Q32	.9032	1.04419	31

Q33	.6129	1.70641	31
-----	-------	---------	----

**Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximum/Minimum	Variance	N of Items
Item Means	.761	.419	1.129	.710	2.692	.074	5

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q29	3.3871	9.178	.389	.265	.406
Q30	3.0645	9.129	.315	.304	.432
Q31	2.6774	8.226	.321	.200	.417
Q32	2.9032	8.557	.368	.335	.397
Q33	3.1935	7.695	.136	.093	.607

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
3.8065	11.895	3.44886	5

FACTOR

```

/VARIABLES Q29 Q30 Q31 Q32 Q33
/MISSING LISTWISE
/ANALYSIS Q29 Q30 Q31 Q32 Q33
/PRINT INITIAL EXTRACTION
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PC
/ROTATION NOROTATE
/METHOD=CORRELATION.

```

## Factor Analysis

### Communalities

	Initial	Extraction
Q29	1.000	.589
Q30	1.000	.606
Q31	1.000	.658
Q32	1.000	.674
Q33	1.000	.625

Extraction Method: Principal Component Analysis.

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.966	39.311	39.311	1.966	39.311	39.311
2	1.187	23.734	63.046	1.187	23.734	63.046
3	.852	17.041	80.087			
4	.580	11.602	91.689			
5	.416	8.311	100.000			

Extraction Method: Principal Component Analysis.

### Component Matrix<sup>a</sup>

	Component	
	1	2
Q29	.764	-.072
Q30	.705	-.330
Q31	.468	.662
Q32	.796	-.203
Q33	.181	.770

Extraction Method: Principal  
Component Analysis.  
a. 2 components extracted.

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### APPENDIX III

```
FREQUENCIES VARIABLES=Age  
  /STATISTICS=STDDEV MEAN  
  /ORDER=ANALYSIS.
```

### Frequencies

[DataSet1] C:\Users\User\Desktop\New folder\document\TOMEN DATA.sav

#### Statistics

Age

N	Valid	210
	Missing	0
Mean		24.9333
Std. Deviation		7.20615

```
FREQUENCIES VARIABLES=Sex age2 Marital Religion  
  /ORDER=ANALYSIS.
```

### Frequencies

[DataSet1] C:\Users\User\Desktop\New folder\document\TOMEN DATA.sav

#### Statistics



		Sex	age2	Marital	Religion
N	Valid	210	210	210	210
	Missing	0	0	0	0

## Frequency Table

**Sex**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	115	54.8	54.8	54.8
	Female	95	45.2	45.2	100.0
	Total	210	100.0	100.0	

**age2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16-25	33	15.7	15.7	15.7
	26-35	64	30.5	30.5	46.2
	36-45	75	35.7	35.7	81.9
	46 & above	38	18.1	18.1	100.0
	Total	210	100.0	100.0	

**Marital**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	73	34.8	34.8	34.8
	Married	82	39.0	39.0	73.8
	Divorced	37	17.6	17.6	91.4
	Widowed	11	5.2	5.2	96.7

Seperated	7	3.3	3.3	100.0
Total	210	100.0	100.0	

**Religion**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Islam	66	31.4	31.4	31.4
Christianity	70	33.3	33.3	64.8
Others	74	35.2	35.2	100.0
Total	210	100.0	100.0	

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT Wellbeing
/METHOD=ENTER Attitudes
/PARTIALPLOT ALL
/SCATTERPLOT=(*ZPRED ,*ZRESID)
/RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)
/CASEWISE PLOT(ZRESID) OUTLIERS(3) .

```

**Regression**

[DataSet1] C:\Users\User\Desktop\New folder\document\TOMEN DATA.sav

**Descriptive Statistics**

	Mean	Std. Deviation	N
Mental Wellbeing	29.5238	15.24981	210
Healthcare Personnel attitude	38.8143	20.72141	210

**Correlations**

	Mental Wellbeing	Healthcare Personnel attitude
--	------------------	----------------------------------

Pearson Correlation	Mental Wellbeing	1.000	.437
	Healthcare Personnel attitude	.437	1.000
Sig. (1-tailed)	Mental Wellbeing	.	.000
	Healthcare Personnel attitude	.000	.
N	Mental Wellbeing	210	210
	Healthcare Personnel attitude	210	210

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	Healthcare Personnel attitude <sup>b</sup>	.	Enter

- a. Dependent Variable: Mental Wellbeing
- b. All requested variables entered.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.436 <sup>a</sup>	.190	.187	13.74737	.191	49.179	1	208	.000

- a. Predictors: (Constant), Healthcare Personnel attitude
- b. Dependent Variable: Mental Wellbeing

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9294.422	1	9294.422	49.179	.000 <sup>b</sup>
	Residual	39309.959	208	188.990		
	Total	48604.381	209			

- a. Dependent Variable: Mental Wellbeing
- b. Predictors: (Constant), Healthcare Personnel attitude

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B
		B	Std. Error	Beta			Lower Bound
1	(Constant)	17.032	2.018		8.440	.000	
	Healthcare Personnel attitude	.322	.046	.436	7.013	.000	

a. Dependent Variable: Mental Wellbeing

**Coefficient Correlations<sup>a</sup>**

Model		Healthcare Personnel attitude
1	Correlations	Healthcare Personnel attitude
		1.000
	Covariances	Healthcare Personnel attitude
		.002

a. Dependent Variable: Mental Wellbeing

**Collinearity Diagnostics<sup>a</sup>**

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Healthcare Personnel attitude
1	1	1.883	1.000	.06	.06
	2	.117	4.005	.94	.94

a. Dependent Variable: Mental Wellbeing

**Casewise Diagnostics<sup>a</sup>**

Case Number	Std. Residual	Mental Wellbeing	Predicted Value	Residual
95	3.102	88.00	45.3530	42.64704
114	5.424	99.00	24.4344	74.56561

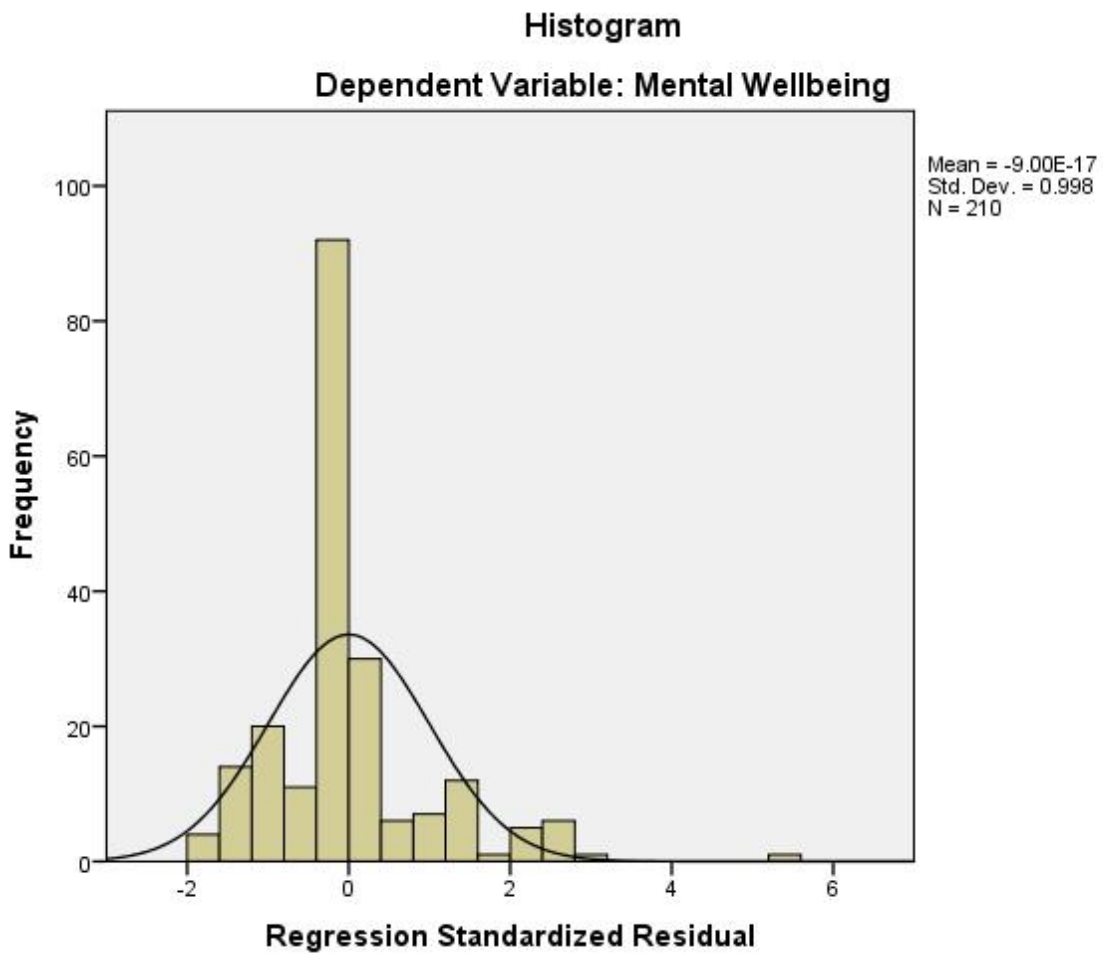
a. Dependent Variable: Mental Wellbeing

**Residuals Statistics<sup>a</sup>**

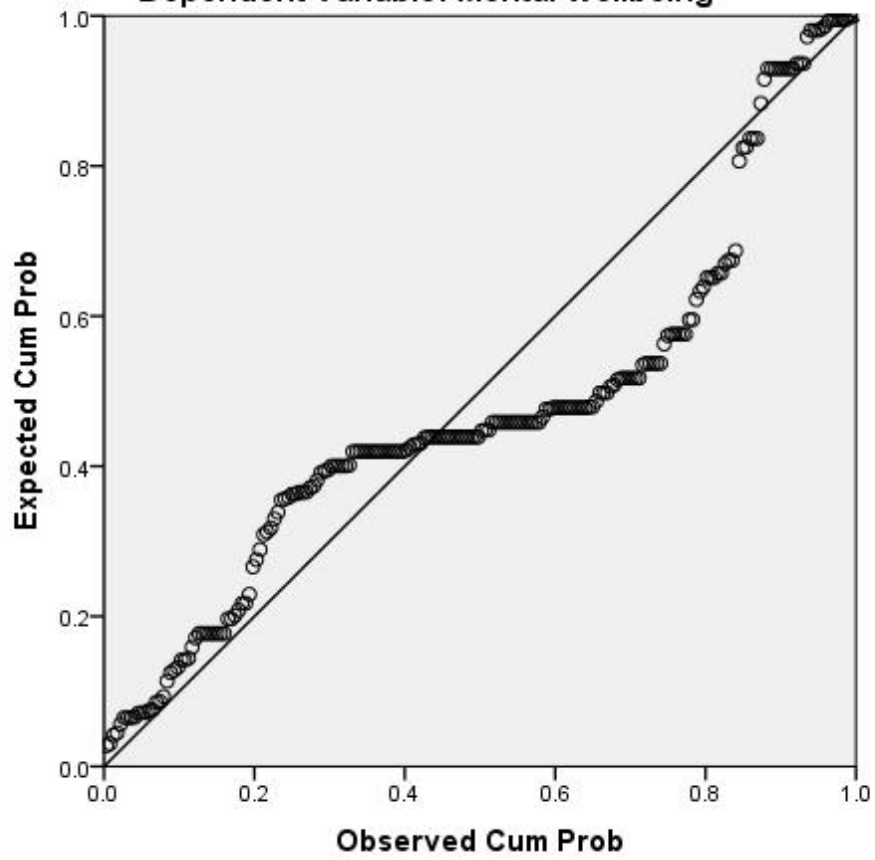
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	21.8598	45.3530	29.5238	6.66865	210
Residual	-26.35296	74.56561	.00000	13.71444	210
Std. Predicted Value	-1.149	2.374	.000	1.000	210
Std. Residual	-1.917	5.424	.000	.998	210

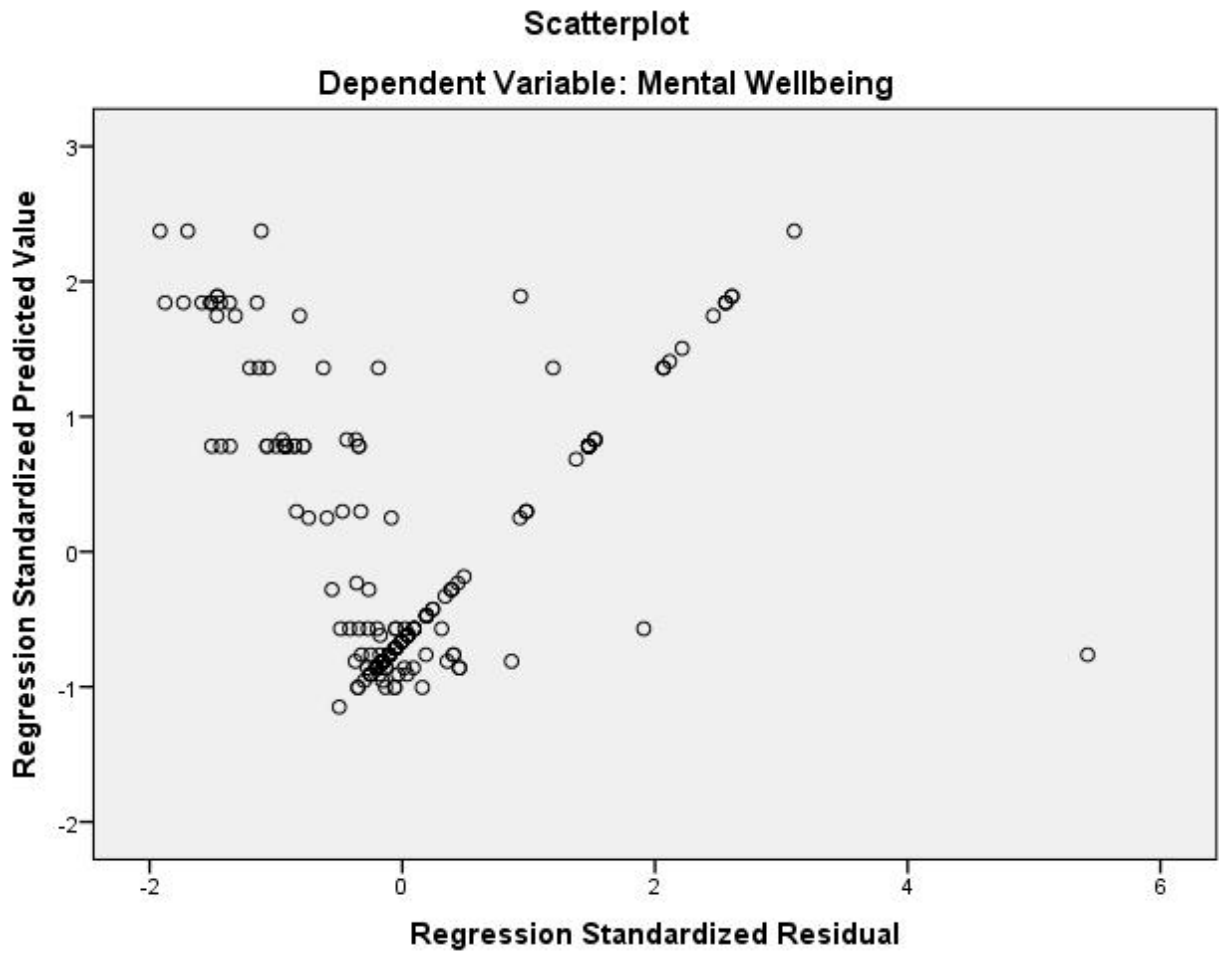
a. Dependent Variable: Mental Wellbeing

## Charts



Normal P-P Plot of Regression Standardized Residual  
Dependent Variable: Mental Wellbeing





```

REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Wellbeing
  /METHOD=ENTER Support
  /PARTIALPLOT ALL
  /SCATTERPLOT=(*ZPRED ,*ZRESID)
  /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)
  /CASEWISE PLOT(ZRESID) OUTLIERS(3) .

```

## Regression

[DataSet1] C:\Users\User\Desktop\New folder\document\TOMEN DATA.sav

### Descriptive Statistics

	Mean	Std. Deviation	N
Mental Wellbeing	29.5238	15.24981	210
Psychological Support	39.3762	20.81213	210

### Correlations

		Mental Wellbeing	Psychological Support
Pearson Correlation	Mental Wellbeing	1.000	.247
	Psychological Support	.247	1.000
Sig. (1-tailed)	Mental Wellbeing	.	.000
	Psychological Support	.000	.
N	Mental Wellbeing	210	210
	Psychological Support	210	210

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Psychological Support <sup>b</sup>	.	Enter

a. Dependent Variable: Mental Wellbeing

b. All requested variables entered.



**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.247 <sup>a</sup>	.061	.057	14.81158	.061	13.550	1	208	.000

a. Predictors: (Constant), Psychological Support

b. Dependent Variable: Mental Wellbeing

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2972.712	1	2972.712	13.550	.000 <sup>b</sup>
	Residual	45631.669	208	219.383		
	Total	48604.381	209			

a. Dependent Variable: Mental Wellbeing

b. Predictors: (Constant), Psychological Support

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error				Beta	Lower Bound	Upper Bound	Tolerance
1	(Constant)	22.388	2.191		10.217	.000	18.068	26.709		
	Psychological Support	.181	.049	.247	3.681	.000	.084	.278	1.000	1.000

a. Dependent Variable: Mental Wellbeing

**Coefficient Correlations<sup>a</sup>**

Model			Psychological Support
1	Correlations	Psychological Support	1.000
	Covariances	Psychological Support	.002

a. Dependent Variable: Mental Wellbeing

**Collinearity Diagnostics<sup>a</sup>**

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Psychological Support
1	1	1.885	1.000	.06	.06
	2	.115	4.041	.94	.94

a. Dependent Variable: Mental Wellbeing

**Casewise Diagnostics<sup>a</sup>**

Case Number	Std. Residual	Mental Wellbeing	Predicted Value	Residual
18	3.424	78.00	27.2811	50.71890
95	3.353	88.00	38.3350	49.66498
114	4.891	99.00	26.5562	72.44375

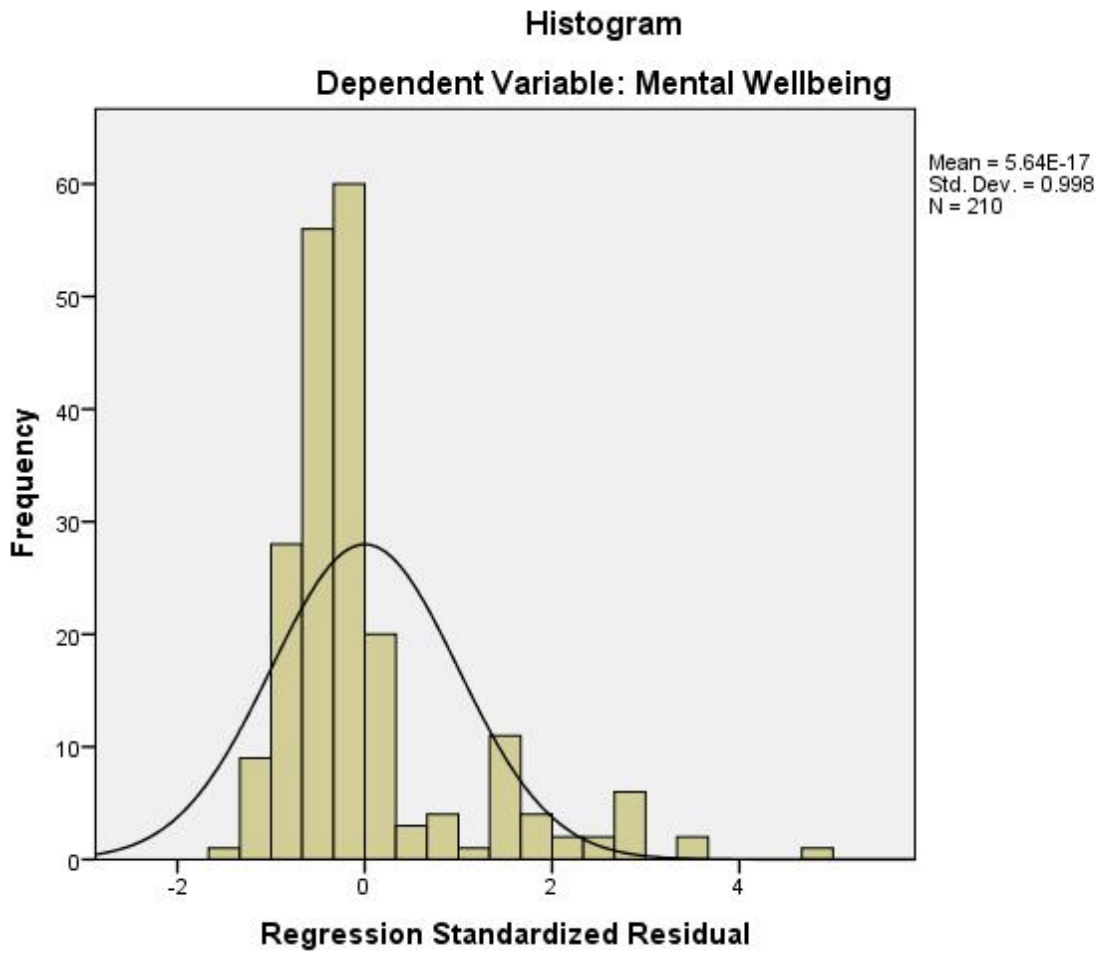
a. Dependent Variable: Mental Wellbeing

**Residuals Statistics<sup>a</sup>**

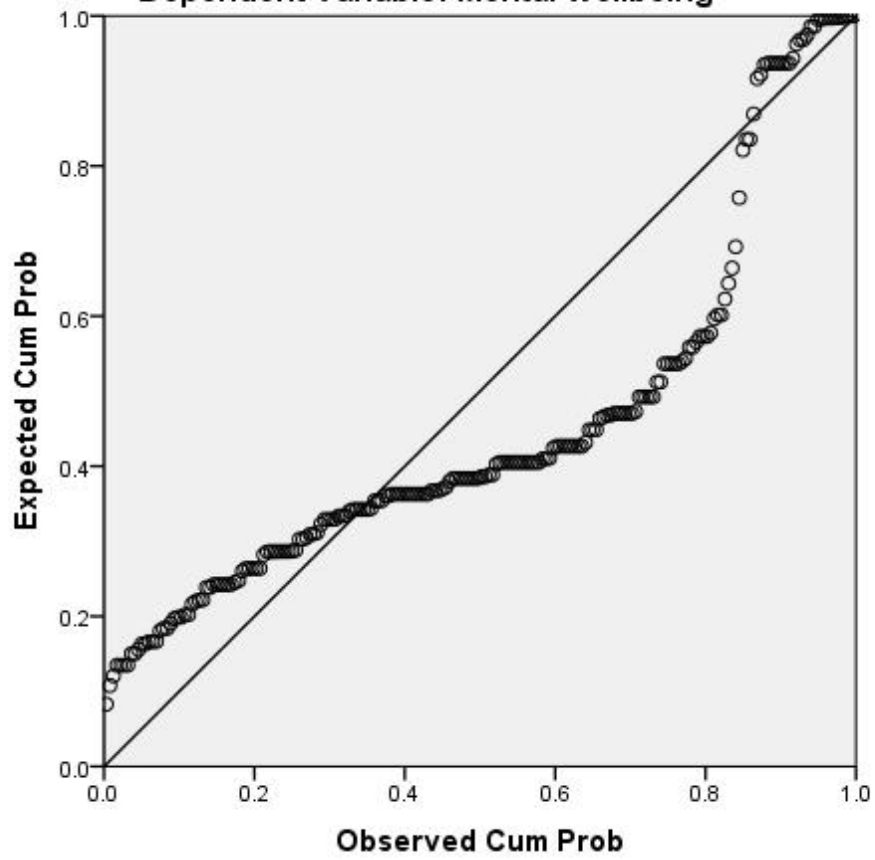
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	24.5629	38.3350	29.5238	3.77141	210
Residual	-20.52957	72.44375	.00000	14.77611	210
Std. Predicted Value	-1.315	2.336	.000	1.000	210
Std. Residual	-1.386	4.891	.000	.998	210

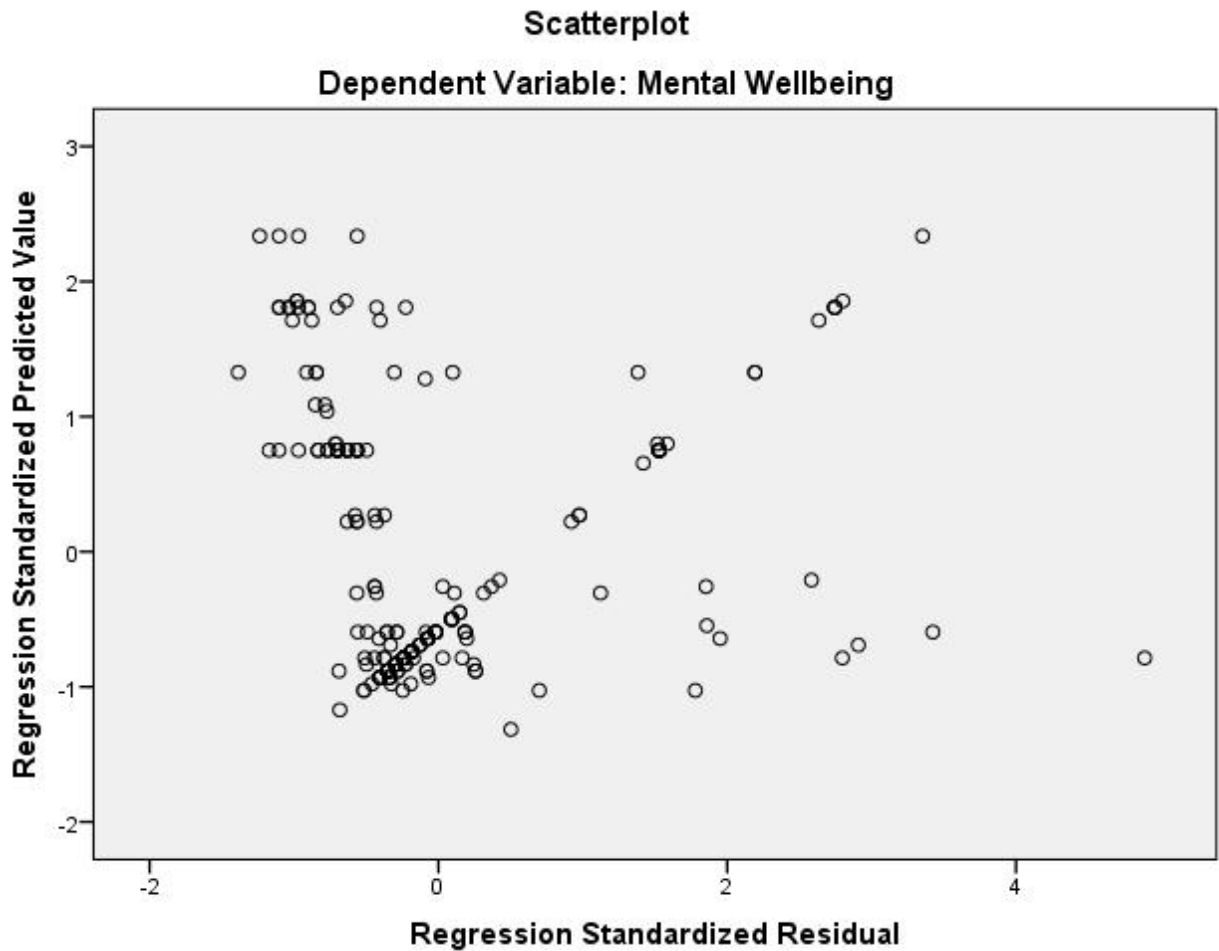
a. Dependent Variable: Mental Wellbeing

## Charts



Normal P-P Plot of Regression Standardized Residual  
Dependent Variable: Mental Wellbeing





```

REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS CI(95) BCOV R ANOVA COLLIN TOL CHANGE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Wellbeing
  /METHOD=ENTER Attitudes Support
  /PARTIALPLOT ALL
  /SCATTERPLOT=(*ZPRED ,*ZRESID)
  /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)
  /CASEWISE PLOT(ZRESID) OUTLIERS(3) .

```

## Regression

[DataSet1] C:\Users\User\Desktop\New folder\document\TOMEN DATA.sav

### Descriptive Statistics

	Mean	Std. Deviation	N
Mental Wellbeing	29.5238	15.24981	210
Healthcare Personnel attitude	38.8143	20.72141	210
Psychological Support	39.3762	20.81213	210

### Correlations

		Mental Wellbeing	Healthcare Personnel attitude	Psychological Support
Pearson Correlation	Mental Wellbeing	1.000	.437	.247
	Healthcare Personnel attitude	.437	1.000	.579
	Psychological Support	.247	.579	1.000
Sig. (1-tailed)	Mental Wellbeing	.	.000	.000
	Healthcare Personnel attitude	.000	.	.000
	Psychological Support	.000	.000	.
N	Mental Wellbeing	210	210	210
	Healthcare Personnel attitude	210	210	210
	Psychological Support	210	210	210

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Psychological Support, Healthcare Personnel attitude <sup>b</sup>	.	Enter

a. Dependent Variable: Mental Wellbeing

b. All requested variables entered.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.437 <sup>a</sup>	.191	.183	13.78008	.191	24.480	2	207	.000

a. Predictors: (Constant), Psychological Support, Healthcare Personnel attitude

b. Dependent Variable: Mental Wellbeing

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9297.009	2	4648.504	24.480	.000 <sup>b</sup>
	Residual	39307.372	207	189.891		
	Total	48604.381	209			

a. Dependent Variable: Mental Wellbeing

b. Predictors: (Constant), Psychological Support, Healthcare Personnel attitude

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	17.143	2.232		7.680	.000	12.742	21.543		
	Healthcare Personnel attitude	.326	.056	.442	5.771	.000	.214	.437	.665	1.505
	Psychological Support	-.007	.056	-.009	-.117	.907	-.117	.104	.665	1.505

a. Dependent Variable: Mental Wellbeing

**Coefficient Correlations<sup>a</sup>**

Model		Psychological Support	Healthcare Personnel attitude
1	Correlations	Psychological Support	1.000
		Healthcare Personnel attitude	-.579
	Covariances	Psychological Support	.003
		Healthcare Personnel attitude	-.002

a. Dependent Variable: Mental Wellbeing

**Collinearity Diagnostics<sup>a</sup>**

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Healthcare Personnel attitude	Psychological Support
1	1	2.783	1.000	.02	.02	.02
	2	.124	4.729	.98	.22	.17
	3	.092	5.493	.00	.76	.81

a. Dependent Variable: Mental Wellbeing

**Casewise Diagnostics<sup>a</sup>**

Case Number	Std. Residual	Mental Wellbeing	Predicted Value	Residual
95	3.104	88.00	45.2217	42.77827
114	5.408	99.00	24.4815	74.51855

a. Dependent Variable: Mental Wellbeing

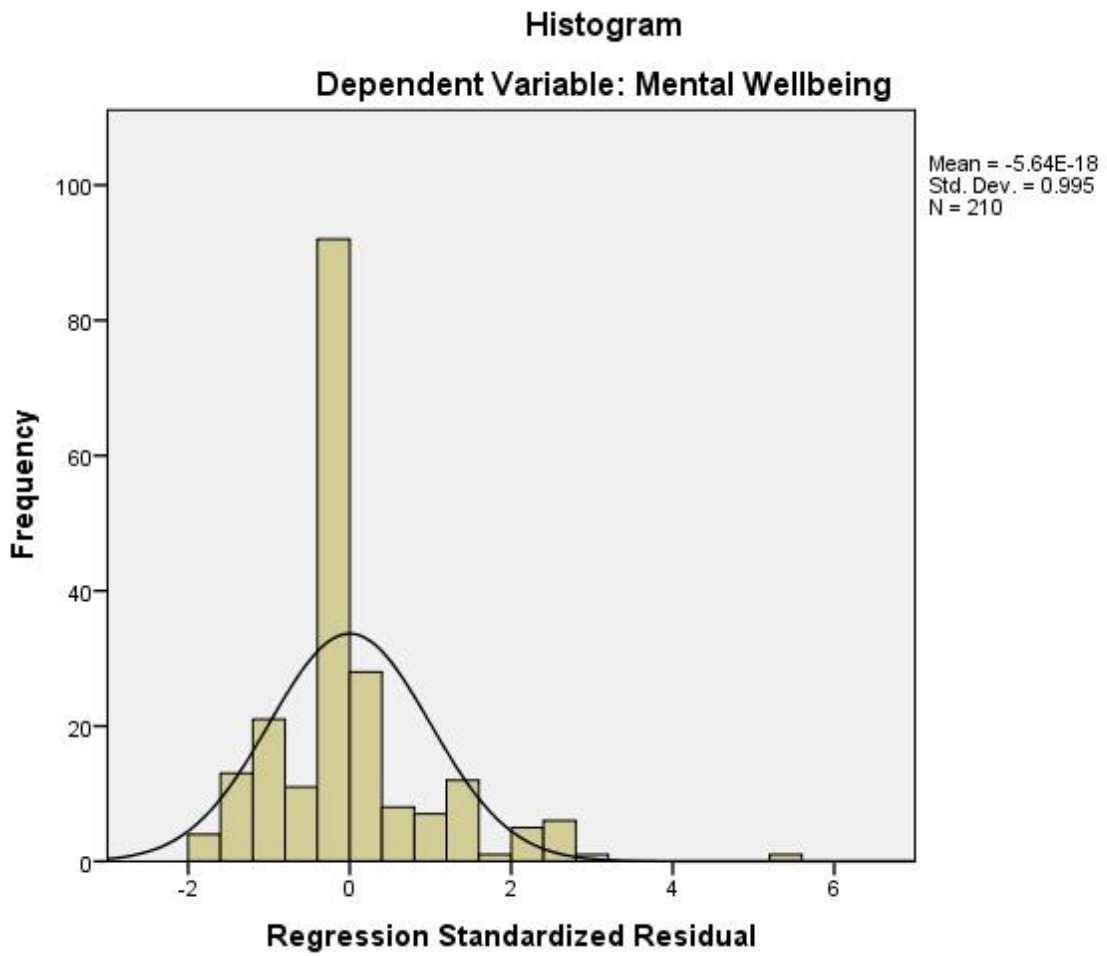
**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	21.9288	45.6545	29.5238	6.66958	210
Residual	-26.62172	74.51855	.00000	13.71399	210
Std. Predicted Value	-1.139	2.419	.000	1.000	210
Std. Residual	-1.932	5.408	.000	.995	210

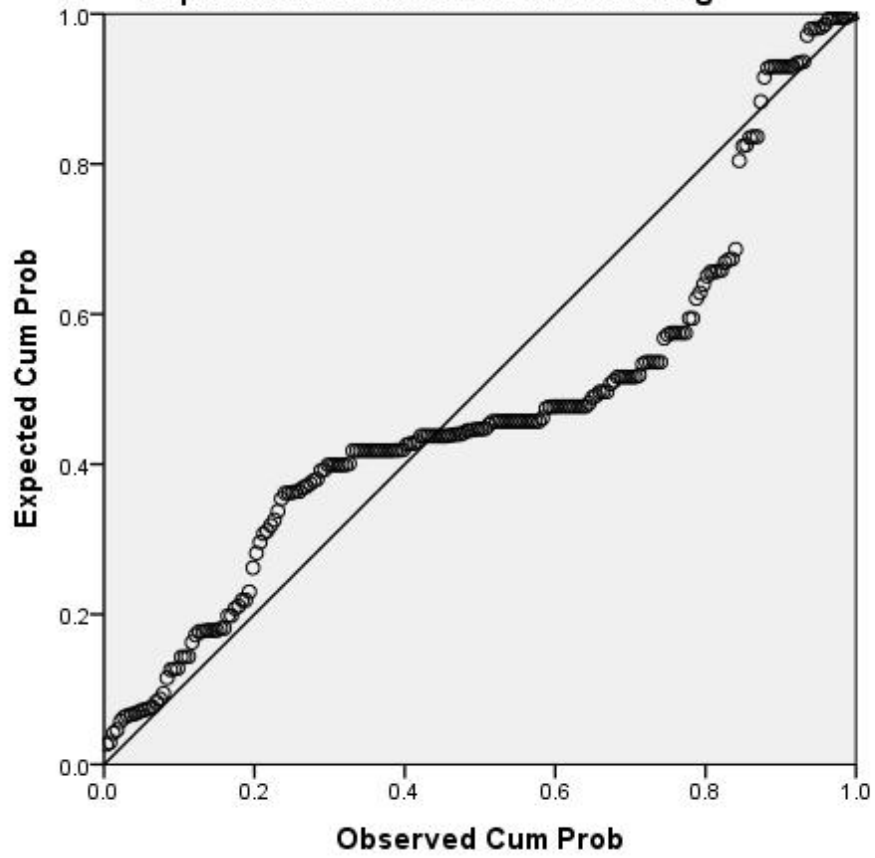
a. Dependent Variable: Mental Wellbeing



## Charts

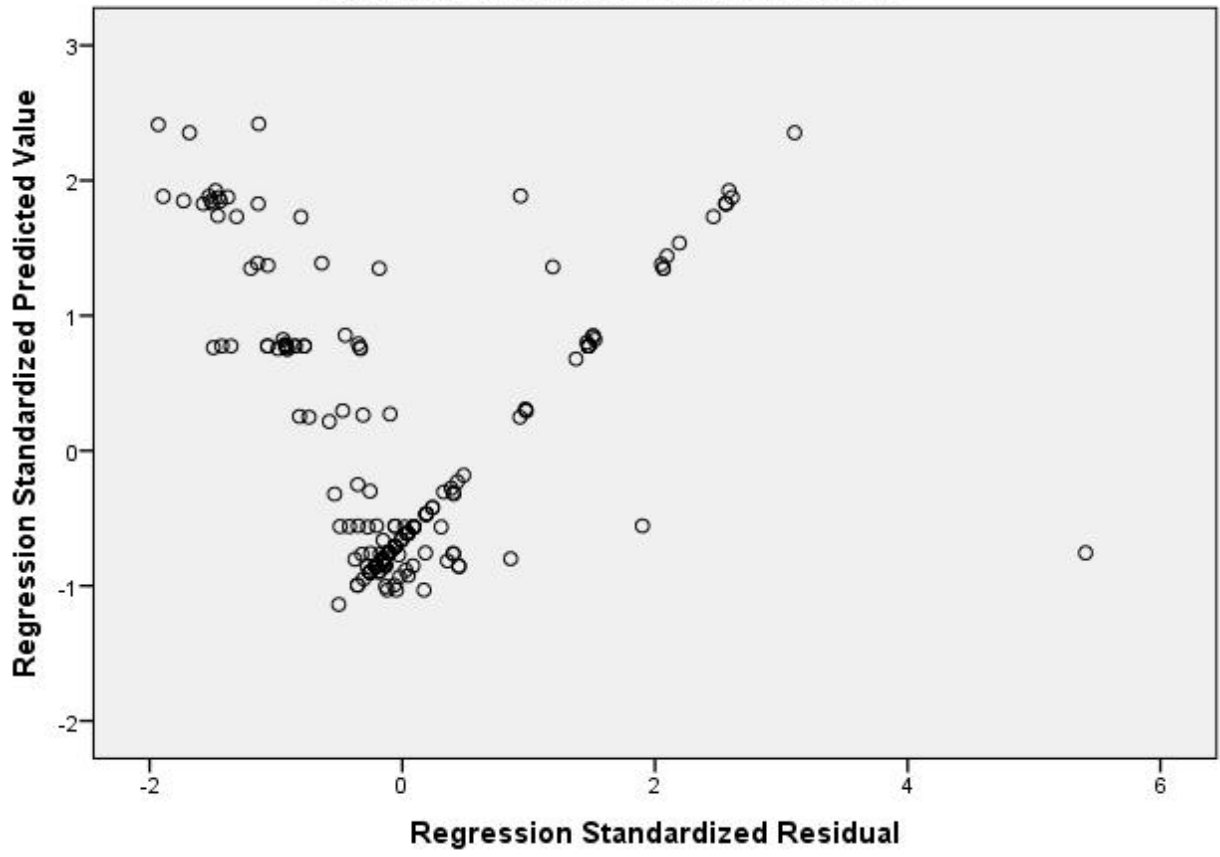


Normal P-P Plot of Regression Standardized Residual  
Dependent Variable: Mental Wellbeing

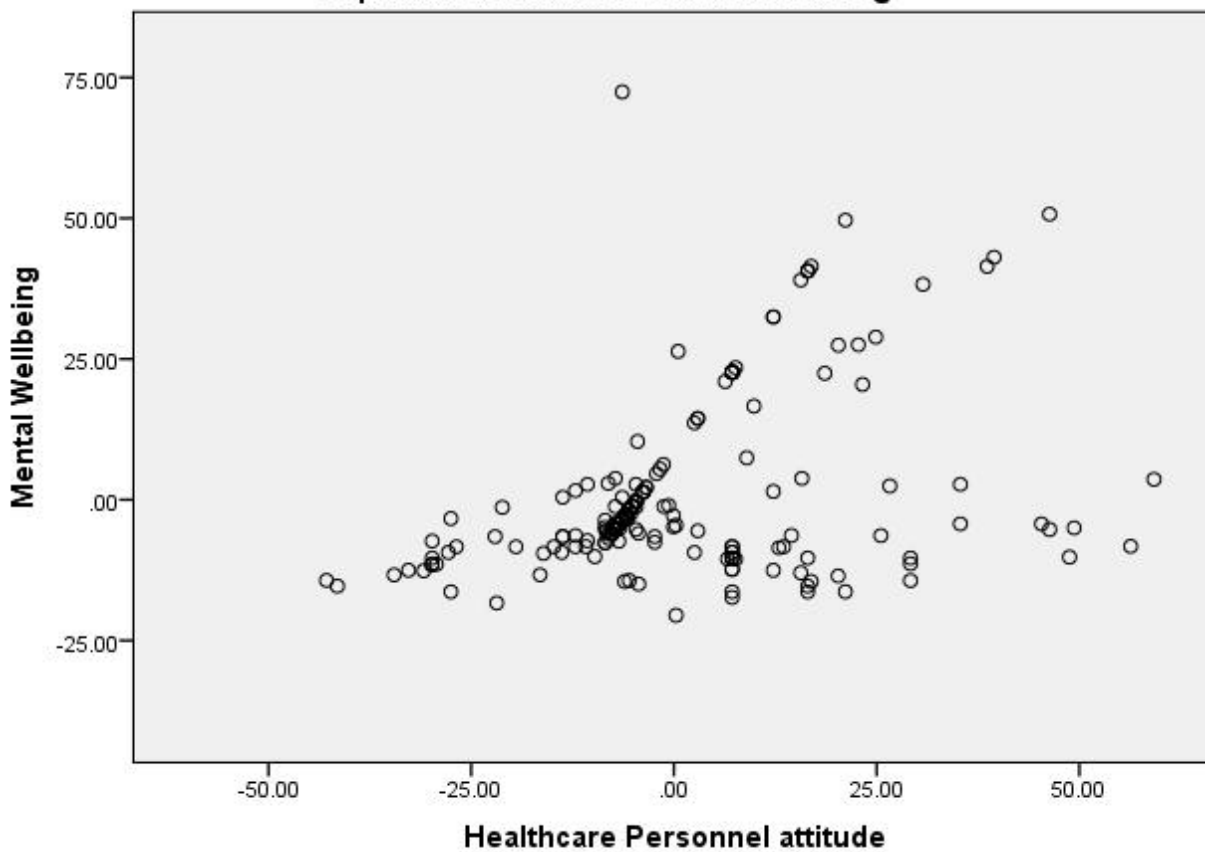


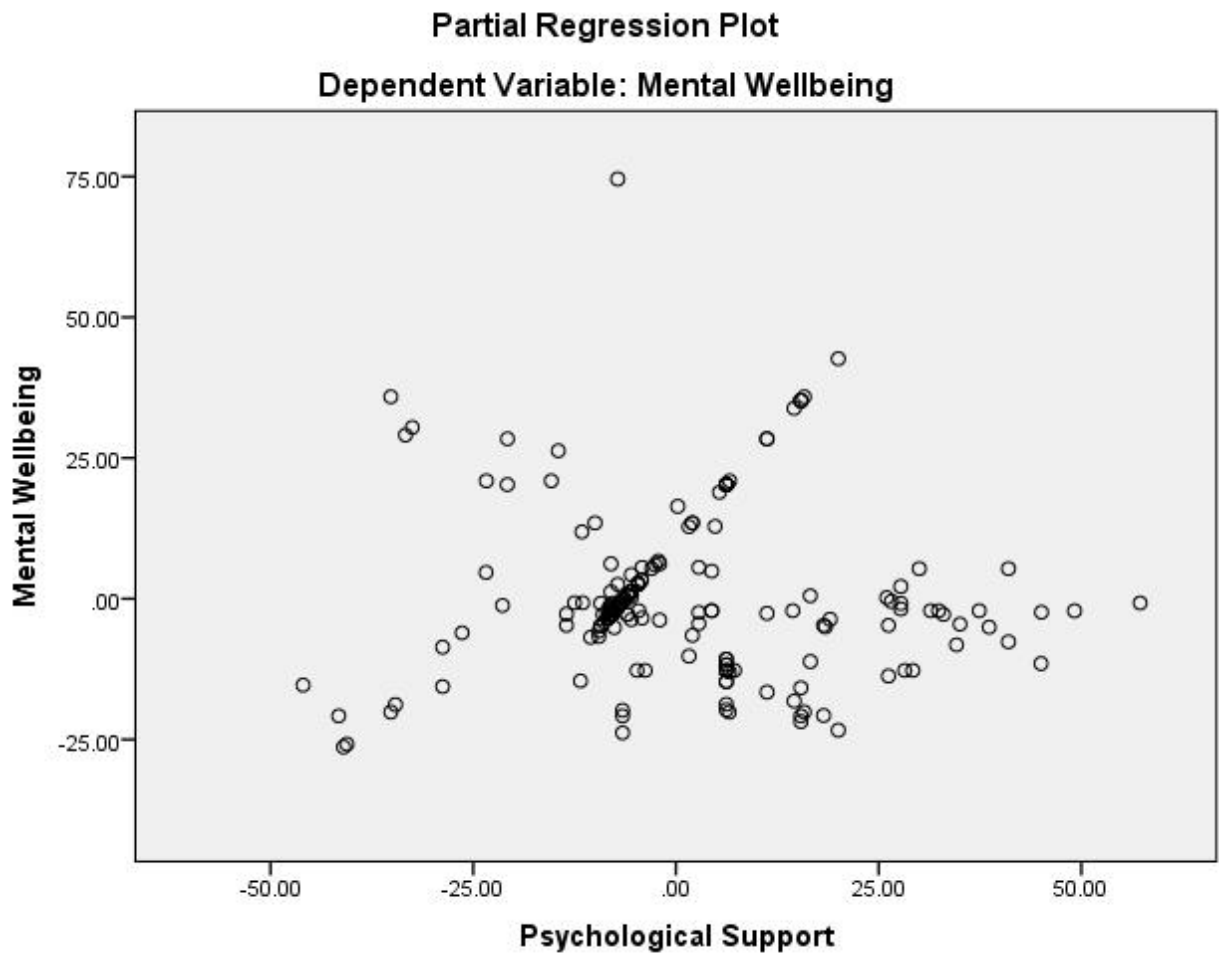
### Scatterplot

Dependent Variable: Mental Wellbeing



Partial Regression Plot  
Dependent Variable: Mental Wellbeing





```

UNIANOVA Wellbeing BY Religion age2 Sex Marital
/METHOD=SSTYPE(3)
/INTERCEPT=INCLUDE
/POSTHOC=Religion age2 Marital(LSD)
/PLOT=PROFILE(Religion*age2*Sex Marital)
/EMMEANS=TABLES(OVERALL)
/EMMEANS=TABLES(Religion)
/EMMEANS=TABLES(age2)
/EMMEANS=TABLES(Sex)
/EMMEANS=TABLES(Marital)
/EMMEANS=TABLES(Religion*age2)
/EMMEANS=TABLES(Religion*Sex)
/EMMEANS=TABLES(Religion*Marital)
/EMMEANS=TABLES(age2*Sex)
/EMMEANS=TABLES(age2*Marital)
/EMMEANS=TABLES(Sex*Marital)
/EMMEANS=TABLES(Religion*age2*Sex)
/EMMEANS=TABLES(Religion*age2*Marital)
/EMMEANS=TABLES(Religion*Sex*Marital)
/EMMEANS=TABLES(age2*Sex*Marital)

```

```

/EMMEANS=TABLES (Religion*age2*Sex*Marital)
/PRINT=ETASQ HOMOGENEITY DESCRIPTIVE
/CRITERIA=ALPHA(.05)
/DESIGN=Religion age2 Sex Marital Religion*age2 Religion*Sex
Religion*Marital age2*Sex age2*Marital Sex*Marital Religion*age2*Sex
Religion*age2*Marital Religion*Sex*Marital age2*Sex*Marital
Religion*age2*Sex*Marital.

```

## Univariate Analysis of Variance

Notes		
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	Definition of Missing	User-defined missing values are treated as missing.
Missing Value Handling	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Syntax

```
UNIANOVA Wellbeing BY Religion age2
Sex Marital
/METHOD=SSTYPE(3)
/INTERCEPT=INCLUDE
/POSTHOC=Religion age2 Marital(LSD)
/PLOT=PROFILE(Religion*age2*Sex
Marital)
/EMMEANS=TABLES(OVERALL)
/EMMEANS=TABLES(Religion)
/EMMEANS=TABLES(age2)
/EMMEANS=TABLES(Sex)
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/EMMEANS=TABLES(Religion*age2*Sex)

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/EMMEANS=TABLES(Religion*Sex*Marital)
/EMMEANS=TABLES(age2*Sex*Marital)

/EMMEANS=TABLES(Religion*age2*Sex*M
arital)
/PRINT=ETASQ HOMOGENEITY
DESCRIPTIVE
/CRITERIA=ALPHA(.05)
/DESIGN=Religion age2 Sex Marital
Religion*age2 Religion*Sex Religion*Marital
age2*Sex age2*Marital Sex*Marital
Religion*age2*Sex Religion*age2*Marital
Religion*Sex*Marital age2*Sex*Marital
Religion*age2*Sex*Marital.
```

Resources

Processor Time

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Elapsed Time

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**Between-Subjects Factors**

		Value Label	N
Religion	1.00	Islam	66
	2.00	Christianity	70
	3.00	Others	74
age2	1.00	16-25	33
	2.00	26-35	64
	3.00	36-45	75
	4.00	46 & above	38
Sex	1.00	Male	115
	2.00	Female	95
Marital	1.00	Single	73
	2.00	Married	82
	3.00	Divorced	37
	4.00	Widowed	11
	5.00	Seperated	7

**Descriptive Statistics**

Dependent Variable: Mental Wellbeing

Religion	age2	Sex	Marital	Mean	Std. Deviation	N	
Islam	16-25	Male	Single	31.8000	21.39392	5	
			Married	40.6667	32.33162	3	
			Divorced	21.6667	8.02081	3	
			Total	31.4545	21.43065	11	
	Total	Total	Female	Single	32.0000	.	1
				Married	27.0000	8.48528	2
				Divorced	21.0000	.	1
				Total	26.7500	6.65207	4
				Single	31.8333	19.13548	6
				Married	35.2000	24.42744	5
				Divorced	21.5000	6.55744	4



		Total	30.2000	18.49788	15
		Single	23.0000	1.41421	2
	Male	Married	31.5000	18.15213	6
		Divorced	25.0000	7.07107	2
26-35	Female	Total	28.5000	14.29258	10
		Single	59.3333	6.65833	3
		Married	29.2500	11.35415	4
		Divorced	32.7500	13.59841	4
	Total	Total	38.7273	16.75166	11
		Single	44.8000	20.46216	5
36-45	Male	Married	30.6000	15.07905	10
		Divorced	30.1667	11.70328	6
		Total	33.8571	16.11299	21
	Female	Single	99.0000	.	1
		Married	33.6667	18.47521	3
		Divorced	28.8000	5.06952	5
46 & above	Total	Total	38.2222	24.96386	9
		Married	21.6667	3.78594	3
		Divorced	40.0000	21.21320	2
	Male	Widowed	20.0000	.	1
		Seperated	22.7500	2.21736	4
		Total	25.6000	10.63746	10
46 & above	Female	Single	99.0000	.	1
		Married	27.6667	13.61861	6
		Divorced	32.0000	11.04536	7
	Total	Widowed	20.0000	.	1
		Seperated	22.7500	2.21736	4
		Total	31.5789	19.37729	19
46 & above	Male	Single	44.0000	.	1
		Married	19.6667	4.04145	3
		Widowed	23.7500	4.34933	4
	Female	Total	24.7500	8.79529	8
		Single	77.0000	.	1
		Married	48.0000	38.18377	2
	Total	57.6667	31.77001	3	

Christianity	Total	Single	60.5000	23.33452	2	
		Married	31.0000	24.76893	5	
		Widowed	23.7500	4.34933	4	
		Total	33.7273	22.19050	11	
		Male	Single	38.6667	27.90161	9
			Married	31.4000	19.16023	15
			Divorced	25.9000	6.48845	10
			Widowed	23.7500	4.34933	4
			Total	30.8684	18.60278	38
		Female	Single	57.4000	16.80179	5
			Married	30.1818	16.79773	11
	Divorced		33.1429	14.41560	7	
	Widowed		20.0000	.	1	
	Seperated		22.7500	2.21736	4	
	Total	Total	34.3571	18.06821	28	
		Single	45.3571	25.54817	14	
		Married	30.8846	17.85570	26	
		Divorced	28.8824	10.72895	17	
		Widowed	23.0000	4.12311	5	
		Seperated	22.7500	2.21736	4	
		Total	32.3485	18.31980	66	
	16-25	Male	Single	21.5000	.70711	2
			Married	38.5000	24.74874	2
			Divorced	23.0000	1.41421	2
		Total	27.6667	13.92360	6	
		Female	Single	22.0000	1.00000	3
	Married		26.0000	.	1	
	26-35	Total	Divorced	24.0000	.	1
Total			23.2000	1.92354	5	
Male		Single	21.8000	.83666	5	
		Married	34.3333	18.92969	3	
		Divorced	23.3333	1.15470	3	
Female	Total	25.6364	10.19091	11		
	Single	27.3333	7.90569	9		
26-35	Male	Married	24.4000	1.81659	5	
		Total	26.2857	6.45015	14	
26-35	Female	Single	24.8750	4.29077	8	

			Married	23.0000	3.55903	7
			Total	24.0000	3.94606	15
			Single	26.1765	6.39566	17
		Total	Married	23.5833	2.93748	12
			Total	25.1034	5.33415	29
			Single	28.0000	7.07107	2
		Male	Married	27.3333	10.95445	9
			Divorced	23.0000	.	1
			Total	27.0833	9.67150	12
			Single	27.7500	10.52548	8
	36-45	Female	Married	25.5000	4.20317	4
			Total	27.0000	8.74903	12
			Single	27.8000	9.57775	10
		Total	Married	26.7692	9.22997	13
			Divorced	23.0000	.	1
			Total	27.0417	9.01920	24
		Male	Married	21.5000	.70711	2
			Widowed	21.5000	.70711	2
			Total	21.5000	.57735	4
	46 & above	Female	Married	22.5000	.70711	2
			Total	22.5000	.70711	2
		Total	Married	22.0000	.81650	4
			Widowed	21.5000	.70711	2
			Total	21.8333	.75277	6
			Single	26.5385	7.13694	13
		Male	Married	27.1111	10.69848	18
			Divorced	23.0000	1.00000	3
			Widowed	21.5000	.70711	2
			Total	26.2500	8.70263	36
			Single	25.6316	7.40278	19
	Total	Female	Married	23.8571	3.43863	14
			Divorced	24.0000	.	1
			Total	24.8529	5.94486	34
			Single	26.0000	7.19319	32
		Total	Married	25.6875	8.39138	32
			Divorced	23.2500	.95743	4
			Widowed	21.5000	.70711	2
			Total	25.5714	7.47085	70
		Male	Single	18.0000	.	1
Others	16-25		Divorced	21.3333	4.72582	3

		Total	20.5000	4.20317	4
	Female	Divorced	21.3333	.57735	3
		Total	21.3333	.57735	3
		Single	18.0000	.	1
	Total	Divorced	21.3333	3.01109	6
		Total	20.8571	3.02372	7
		Single	23.2500	4.57347	4
	Male	Divorced	26.0000	5.65685	2
		Total	24.1667	4.57894	6
		Married	25.0000	5.65685	2
26-35	Female	Divorced	21.0000	3.36650	4
		Seperated	23.0000	1.41421	2
	Total	22.5000	3.58569	8	
		Single	23.2500	4.57347	4
		Married	25.0000	5.65685	2
	Total	Divorced	22.6667	4.45720	6
		Seperated	23.0000	1.41421	2
		Total	23.2143	3.96482	14
	Single	28.3636	16.77065	11	
	Married	28.2000	15.48225	5	
36-45	Male	Divorced	25.3333	5.68624	3
		Widowed	22.0000	.	1
	Total	27.5500	14.31038	20	
		Single	43.6667	19.62991	3
		Married	39.7143	22.40323	7
	Female	Divorced	55.0000	.	1
		Seperated	25.0000	.	1
	Total	Total	40.7500	19.69368	12
	Single	31.6429	17.83517	14	
	Married	34.9167	19.90184	12	
Total	Divorced	32.7500	15.54295	4	
	Widowed	22.0000	.	1	
	Seperated	25.0000	.	1	
	Total	32.5000	17.47256	32	
	Single	24.0000	4.24264	2	
46 & above	Male	Married	36.5000	25.61835	6
		Widowed	24.0000	5.29150	3
	Total	30.8182	19.44643	11	
	Female	Single	32.8333	19.49786	6
Married		57.0000	21.92411	4	

		Total	42.5000	22.96011	10	
		Single	30.6250	17.05401	8	
	Total	Married	44.7000	25.23688	10	
		Widowed	24.0000	5.29150	3	
		Total	36.3810	21.49529	21	
		Single	26.1667	13.40873	18	
		Married	32.7273	21.04325	11	
	Male	Divorced	24.0000	5.01427	8	
		Widowed	23.5000	4.43471	4	
		Total	27.2439	14.32791	41	
		Single	36.4444	19.05985	9	
		Married	42.7692	22.34634	13	
	Total	Female	Divorced	25.3750	12.17653	8
		Seperated	23.6667	1.52753	3	
		Total	35.0909	19.26033	33	
		Single	29.5926	15.92835	27	
		Married	38.1667	21.89037	24	
	Total	Divorced	24.6875	9.02381	16	
		Widowed	23.5000	4.43471	4	
		Seperated	23.6667	1.52753	3	
		Total	30.7432	17.04471	74	
		Single	27.5000	17.26268	8	
		Married	39.8000	26.02307	5	
	Male	Divorced	21.8750	5.05505	8	
		Total	28.2857	17.27757	21	
		Single	24.5000	5.06623	4	
	16-25	Female	Married	26.6667	6.02771	3
		Divorced	21.8000	1.30384	5	
		Total	23.9167	4.29499	12	
	Total	Single	26.5000	14.10029	12	
		Married	34.8750	21.06071	8	
	Total	Divorced	21.8462	3.93375	13	
		Total	26.6970	14.05232	33	
		Single	25.6667	6.69399	15	
	26-35	Male	Married	28.2727	13.40963	11
		Divorced	25.5000	5.25991	4	
		Total	26.6000	9.39038	30	

		Single	34.2727	16.75763	11
		Married	25.2308	7.03745	13
	Female	Divorced	26.8750	11.11547	8
		Seperated	23.0000	1.41421	2
		Total	28.4118	12.13090	34
		Single	29.3077	12.49886	26
		Married	26.6250	10.31593	24
	Total	Divorced	26.4167	9.30746	12
		Seperated	23.0000	1.41421	2
		Total	27.5625	10.88595	64
		Single	33.3571	24.02437	14
		Married	28.7059	12.97481	17
	Male	Divorced	27.0000	5.09902	9
		Widowed	22.0000	.	1
		Total	29.7561	16.38106	41
		Single	32.0909	14.48761	11
		Married	31.7857	17.53756	14
	Female	Divorced	45.0000	17.32051	3
		Widowed	20.0000	.	1
		Seperated	23.2000	2.16795	5
		Total	31.4412	15.31921	34
		Single	32.8000	20.01250	25
		Married	30.0968	15.01634	31
	Total	Divorced	31.5000	11.82063	12
		Widowed	21.0000	1.41421	2
		Seperated	23.2000	2.16795	5
		Total	30.5200	15.82451	75
		Single	30.6667	11.93035	3
		Married	29.1818	20.06399	11
	Male	Widowed	23.3333	3.90512	9
		Total	27.0870	14.53182	23
		Single	39.1429	24.40238	7
	Female	Married	46.1250	25.34582	8
		Total	42.8667	24.27776	15
	Total	Single	36.6000	21.10398	10

		Married	36.3158	23.39528	19
		Widowed	23.3333	3.90512	9
		Total	33.3158	20.24059	38
		Single	29.1000	16.76351	40
	Male	Married	29.9773	16.54801	44
		Divorced	24.7619	5.40282	21
		Widowed	23.2000	3.70585	10
		Total	28.1304	14.54305	115
	Female	Single	33.3939	16.89293	33
		Married	32.1579	17.58305	38
		Divorced	28.6875	12.99599	16
Total		Widowed	20.0000	.	1
		Seperated	23.1429	1.86445	7
		Total	31.2105	15.97864	95
	Total	Single	31.0411	16.84277	73
		Married	30.9878	16.96437	82
		Divorced	26.4595	9.51196	37
		Widowed	22.9091	3.64567	11
		Seperated	23.1429	1.86445	7
		Total	29.5238	15.24981	210

**Levene's Test of Equality of Error Variances<sup>a</sup>**

Dependent Variable: Mental Wellbeing

F	df1	df2	Sig.
2.310	62	147	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Religion + age2 + Sex + Marital + Religion \* age2 + Religion \* Sex + Religion \* Marital + age2 \* Sex + age2 \* Marital + Sex \* Marital + Religion \* age2 \* Sex + Religion \* age2 \* Marital + Religion \* Sex \* Marital + age2 \* Sex \* Marital + Religion \* age2 \* Sex \* Marital

**Tests of Between-Subjects Effects**

Dependent Variable: Mental Wellbeing

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	21226.682 <sup>a</sup>	62	342.366	1.838	.002	.437
Intercept	64442.621	1	64442.621	346.014	.000	.702
Religion	2164.857	2	1082.429	5.812	.004	.073
age2	1676.123	3	558.708	3.000	.033	.058
Sex	1036.169	1	1036.169	5.564	.020	.036
Marital	1349.525	4	337.381	1.812	.130	.047
Religion * age2	1394.397	6	232.399	1.248	.285	.048
Religion * Sex	468.218	2	234.109	1.257	.288	.017
Religion * Marital	4445.011	7	635.002	3.410	.002	.140
age2 * Sex	879.681	3	293.227	1.574	.198	.031
age2 * Marital	3755.226	7	536.461	2.880	.008	.121
Sex * Marital	440.369	2	220.184	1.182	.309	.016
Religion * age2 * Sex	1177.222	6	196.204	1.053	.393	.041
Religion * age2 * Marital	2614.821	7	373.546	2.006	.058	.087
Religion * Sex * Marital	345.250	4	86.312	.463	.762	.012
age2 * Sex * Marital	440.436	5	88.087	.473	.796	.016
Religion * age2 * Sex * Marital	256.071	2	128.035	.687	.504	.009
Error	27377.699	147	186.243			
Total	231652.000	210				
Corrected Total	48604.381	209				

a. R Squared = .437 (Adjusted R Squared = .199)

**Estimated Marginal Means**

**1. Grand Mean**

Dependent Variable: Mental Wellbeing

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
30.563 <sup>a</sup>	1.170	28.252	32.875



a. Based on modified population marginal mean.

### 2. Religion

Dependent Variable: Mental Wellbeing

Religion	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Islam	35.553 <sup>a</sup>	1.975	31.649	39.456
Christianity	25.094 <sup>a</sup>	2.131	20.883	29.305
Others	29.549 <sup>a</sup>	1.969	25.657	33.441

a. Based on modified population marginal mean.

### 3. age2

Dependent Variable: Mental Wellbeing

age2	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
16-25	25.987 <sup>a</sup>	2.709	20.633	31.341
26-35	27.913 <sup>a</sup>	1.947	24.065	31.760
36-45	33.237 <sup>a</sup>	2.126	29.037	37.438
46 & above	34.788 <sup>a</sup>	2.571	29.707	39.870

a. Based on modified population marginal mean.

### 4. Sex

Dependent Variable: Mental Wellbeing

Sex	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Male	28.956 <sup>a</sup>	1.563	25.868	32.045
Female	32.331 <sup>a</sup>	1.754	28.864	35.797

a. Based on modified population marginal mean.

### 5. Marital

Dependent Variable: Mental Wellbeing

Marital	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Single	36.195 <sup>a</sup>	2.163	31.920	40.470
Married	30.789 <sup>a</sup>	1.745	27.339	34.238
Divorced	27.281 <sup>a</sup>	2.579	22.185	32.377
Widowed	22.250 <sup>a</sup>	4.793	12.779	31.721
Seperated	23.583 <sup>a</sup>	6.018	11.691	35.476

a. Based on modified population marginal mean.

### 6. Religion \* age2

Dependent Variable: Mental Wellbeing

Religion	age2	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Islam	16-25	29.022 <sup>a</sup>	4.173	20.775	37.270
	26-35	33.472 <sup>a</sup>	3.217	27.115	39.829
	36-45	37.983 <sup>a</sup>	3.708	30.656	45.310
	46 & above	42.483 <sup>a</sup>	4.793	33.012	51.955
Christianity	16-25	25.833 <sup>a</sup>	4.453	17.033	34.634
	26-35	24.902 <sup>a</sup>	2.596	19.772	30.032
	36-45	26.317 <sup>a</sup>	3.847	18.715	33.918
	46 & above	21.833 <sup>a</sup>	5.571	10.823	32.844
Others	16-25	20.222 <sup>a</sup>	5.873	8.616	31.828
	26-35	23.650 <sup>a</sup>	3.860	16.022	31.278
	36-45	33.410 <sup>a</sup>	3.454	26.583	40.236
	46 & above	34.867 <sup>a</sup>	3.249	28.447	41.287

a. Based on modified population marginal mean.

### 7. Religion \* Sex

Dependent Variable: Mental Wellbeing

Religion	Sex	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Islam	Male	35.210 <sup>a</sup>	2.581	30.109	40.310
	Female	35.896 <sup>a</sup>	2.991	29.985	41.807
Christianity	Male	25.607 <sup>a</sup>	2.870	19.935	31.278
	Female	24.453 <sup>a</sup>	3.181	18.168	30.739
Others	Male	25.180 <sup>a</sup>	2.692	19.860	30.500
	Female	34.355 <sup>a</sup>	2.887	28.649	40.061

a. Based on modified population marginal mean.

### 8. Religion \* Marital

Dependent Variable: Mental Wellbeing

Religion	Marital	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Islam	Single	52.305 <sup>a</sup>	4.374	43.661	60.949
	Married	31.427	2.829	25.837	37.018
	Divorced	28.203 <sup>a</sup>	3.795	20.704	35.702
	Widowed	21.875 <sup>a</sup>	7.629	6.798	36.952
	Seperated	22.750 <sup>a</sup>	6.824	9.265	36.235
Christianity	Single	25.243 <sup>a</sup>	2.961	19.392	31.094
	Married	26.092	3.053	20.057	32.126
	Divorced	23.333 <sup>a</sup>	7.193	9.119	37.548
	Widowed	21.500 <sup>a</sup>	9.650	2.429	40.571
	Seperated	.	.	.	.
Others	Single	28.352 <sup>a</sup>	3.480	21.475	35.230
	Married	37.283 <sup>a</sup>	3.063	31.229	43.336
	Divorced	28.333 <sup>a</sup>	3.772	20.879	35.787
	Widowed	23.000 <sup>a</sup>	7.879	7.429	38.571
	Seperated	24.000 <sup>a</sup>	8.357	7.484	40.516

a. Based on modified population marginal mean.

b. This level combination of factors is not observed, thus the corresponding population marginal mean is not estimable.

**9. age2 \* Sex**

Dependent Variable: Mental Wellbeing

age2	Sex	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
16-25	Male	27.058 <sup>a</sup>	3.281	20.574	33.543
	Female	24.762 <sup>a</sup>	4.431	16.004	33.520
26-35	Male	25.783 <sup>a</sup>	2.910	20.033	31.534
	Female	29.776 <sup>a</sup>	2.616	24.607	34.945
36-45	Male	34.370 <sup>a</sup>	2.980	28.480	40.259
	Female	32.105 <sup>a</sup>	3.032	26.114	38.096
46 & above	Male	26.865 <sup>a</sup>	3.229	20.483	33.246
	Female	47.467 <sup>a</sup>	4.243	39.081	55.852

a. Based on modified population marginal mean.

**10. age2 \* Marital**

Dependent Variable: Mental Wellbeing

age2	Marital	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
16-25	Single	25.060 <sup>a</sup>	4.754	15.666	34.454
	Married	33.042 <sup>a</sup>	5.212	22.742	43.341
	Divorced	22.056	4.255	13.646	30.465
	Widowed	. <sup>b</sup>	.	.	.
	Seperated	. <sup>b</sup>	.	.	.
26-35	Single	31.558 <sup>a</sup>	3.135	25.362	37.754
	Married	26.630 <sup>a</sup>	3.063	20.576	32.684
	Divorced	26.188 <sup>a</sup>	4.179	17.930	34.445
	Widowed	. <sup>b</sup>	.	.	.
	Seperated	23.000 <sup>a</sup>	9.650	3.929	42.071
36-45	Single	45.356 <sup>a</sup>	3.907	37.635	53.078
	Married	29.347	2.663	24.084	34.609
	Divorced	34.427 <sup>a</sup>	4.754	25.032	43.821
	Widowed	21.000 <sup>a</sup>	9.650	1.929	40.071
	Seperated	23.875 <sup>a</sup>	7.629	8.798	38.952
46 & above	Single	44.458 <sup>a</sup>	5.571	33.448	55.469

Married	34.194	3.412	27.452	40.937
Divorced	. <sup>b</sup>	.	.	.

### 12. Religion \* age2 \* Sex

Dependent Variable: Mental Wellbeing

Religion	age2	Sex	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
	Widowed		23.083 <sup>a</sup>	4.735	13.726	32.440
	Seperated		. <sup>b</sup>	.	.	.

a. Based on modified population marginal mean.

b. This level combination of factors is not observed, thus the corresponding population marginal mean is not estimable.

### 11. Sex \* Marital

Dependent Variable: Mental Wellbeing

Sex	Marital	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Male	Single	33.477 <sup>a</sup>	2.950	27.648	39.306
	Married	30.193 <sup>a</sup>	2.302	25.645	34.742
	Divorced	24.267 <sup>a</sup>	3.281	17.782	30.751
	Widowed	22.813 <sup>a</sup>	4.924	13.081	32.544
	Seperated	. <sup>b</sup>	.	.	.
Female	Single	39.932 <sup>a</sup>	3.153	33.701	46.164
	Married	31.330 <sup>a</sup>	2.593	26.205	36.455
	Divorced	30.726 <sup>a</sup>	4.058	22.706	38.746
	Widowed	20.000 <sup>a</sup>	13.647	-6.970	46.970
	Seperated	23.583 <sup>a</sup>	6.018	11.691	35.476

a. Based on modified population marginal mean.

b. This level combination of factors is not observed, thus the corresponding population marginal mean is not estimable.

Islam	16-25	Male	31.378 <sup>a</sup>	4.235	23.009	39.747
		Female	26.667 <sup>a</sup>	7.193	12.452	40.881
	26-35	Male	26.500 <sup>a</sup>	4.914	16.790	36.210
		Female	40.444 <sup>a</sup>	4.153	32.238	48.651
	36-45	Male	53.822 <sup>a</sup>	5.633	42.690	64.954
		Female	26.104 <sup>a</sup>	4.924	16.372	35.836
	46 & above	Male	29.139 <sup>a</sup>	5.724	17.827	40.451
		Female	62.500 <sup>a</sup>	8.357	45.984	79.016
Christianity	16-25	Male	27.667 <sup>a</sup>	5.571	16.656	38.677
		Female	24.000 <sup>a</sup>	6.949	10.268	37.732
	26-35	Male	25.867 <sup>a</sup>	3.806	18.345	33.388
		Female	23.938 <sup>a</sup>	3.532	16.958	30.917
	36-45	Male	26.111 <sup>a</sup>	5.774	14.700	37.522
		Female	26.625 <sup>a</sup>	4.179	18.367	34.883
	46 & above	Male	21.500 <sup>a</sup>	6.824	8.015	34.985
		Female	22.500 <sup>a</sup>	9.650	3.429	41.571
Others	16-25	Male	19.667 <sup>a</sup>	7.879	4.096	35.238
		Female	21.333 <sup>a</sup>	7.879	5.762	36.904
	26-35	Male	24.625 <sup>a</sup>	5.909	12.947	36.303
		Female	23.000 <sup>a</sup>	5.086	12.949	33.051
	36-45	Male	25.974 <sup>a</sup>	4.348	17.381	34.567
		Female	40.845 <sup>a</sup>	5.369	30.235	51.455
	46 & above	Male	28.167 <sup>a</sup>	4.549	19.177	37.157
		Female	44.917 <sup>a</sup>	4.405	36.212	53.621

a. Based on modified population marginal mean.

### 13. Religion \* age2 \* Marital

Dependent Variable: Mental Wellbeing

Religion	age2	Marital	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Islam	16-25	Single	31.900	7.475	17.128	46.672
		Married	33.833	6.229	21.523	46.143
		Divorced	21.333	7.879	5.762	36.904
		Widowed	. <sup>a</sup>	.	.	.

		Seperated	. <sup>a</sup>	.	.	.
		Single	41.167	6.229	28.857	53.477
		Married	30.375	4.405	21.671	39.079
	26-35	Divorced	28.875	5.909	17.197	40.553
		Widowed	. <sup>a</sup>	.	.	.
		Seperated	. <sup>a</sup>	.	.	.
		Single	99.000 <sup>b</sup>	13.647	72.030	125.970
		Married	27.667	5.571	16.656	38.677
	36-45	Divorced	34.400	5.709	23.118	45.682
		Widowed	20.000 <sup>b</sup>	13.647	-6.970	46.970
		Seperated	22.750 <sup>b</sup>	6.824	9.265	36.235
		Single	60.500	9.650	41.429	79.571
		Married	33.833	6.229	21.523	46.143
	46 & above	Divorced	. <sup>a</sup>	.	.	.
		Widowed	23.750 <sup>b</sup>	6.824	10.265	37.235
		Seperated	. <sup>a</sup>	.	.	.
		Single	21.750	6.229	9.440	34.060
		Married	32.250	8.357	15.734	48.766
	16-25	Divorced	23.500	8.357	6.984	40.016
		Widowed	. <sup>a</sup>	.	.	.
		Seperated	. <sup>a</sup>	.	.	.
		Single	26.104	3.316	19.552	32.657
		Married	23.700	3.995	15.804	31.596
	26-35	Divorced	. <sup>a</sup>	.	.	.
		Widowed	. <sup>a</sup>	.	.	.
		Seperated	. <sup>a</sup>	.	.	.
		Single	27.875	5.394	17.214	38.536
		Married	26.417	4.100	18.313	34.520
	36-45	Divorced	23.000 <sup>b</sup>	13.647	-3.970	49.970
		Widowed	. <sup>a</sup>	.	.	.
		Seperated	. <sup>a</sup>	.	.	.
		Single	. <sup>a</sup>	.	.	.
		Married	22.000	6.824	8.515	35.485
	46 & above	Divorced	. <sup>a</sup>	.	.	.
		Widowed	21.500 <sup>b</sup>	9.650	2.429	40.571
		Seperated	. <sup>a</sup>	.	.	.
Others	16-25	Single	18.000 <sup>b</sup>	13.647	-8.970	44.970

	Married	. <sup>a</sup>	.	.	.
	Divorced	21.333	5.571	10.323	32.344
	Widowed	. <sup>a</sup>	.	.	.
	Seperated	. <sup>a</sup>	.	.	.
	Single	23.250 <sup>b</sup>	6.824	9.765	36.735
26-35	Married	25.000 <sup>b</sup>	9.650	5.929	44.071
	Divorced	23.500	5.909	11.822	35.178
	Widowed	. <sup>a</sup>	.	.	.
	Seperated	23.000 <sup>b</sup>	9.650	3.929	42.071
	Single	36.015	4.444	27.232	44.798
36-45	Married	33.957	3.995	26.061	41.853
	Divorced	40.167	7.879	24.596	55.738
	Widowed	22.000 <sup>b</sup>	13.647	-4.970	48.970
	Seperated	25.000 <sup>b</sup>	13.647	-1.970	51.970
	Single	28.417	5.571	17.406	39.427
46 & above	Married	46.750	4.405	38.046	55.454
	Divorced	. <sup>a</sup>	.	.	.
	Widowed	24.000 <sup>b</sup>	7.879	8.429	39.571
	Seperated	. <sup>a</sup>	.	.	.

a. This level combination of factors is not observed, thus the corresponding population marginal mean is not estimable.

b. Based on modified population marginal mean.

#### 14. Religion \* Sex \* Marital

Dependent Variable: Mental Wellbeing

Religion	Sex	Marital	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Islam	Male	Single	49.450	5.606	38.371	60.529
		Married	31.375	3.685	24.092	38.658
		Divorced	25.156 <sup>a</sup>	4.624	16.017	34.294
		Widowed	23.750 <sup>a</sup>	6.824	10.265	37.235



Christianity	Female	Seperated	. <sup>b</sup>	.	.	.
		Single	56.111 <sup>a</sup>	6.949	42.379	69.843
		Married	31.479	4.293	22.995	39.963
		Divorced	31.250 <sup>a</sup>	6.018	19.357	43.143
		Widowed	20.000 <sup>a</sup>	13.647	-6.970	46.970
		Seperated	22.750 <sup>a</sup>	6.824	9.265	36.235
		Single	25.611 <sup>a</sup>	4.795	16.135	35.087
	Male	Married	27.933	3.907	20.213	35.654
		Divorced	23.000 <sup>a</sup>	8.357	6.484	39.516
		Widowed	21.500 <sup>a</sup>	9.650	2.429	40.571
		Seperated	. <sup>b</sup>	.	.	.
		Single	24.875 <sup>a</sup>	3.474	18.009	31.741
		Married	24.250	4.694	14.974	33.526
		Divorced	24.000 <sup>a</sup>	13.647	-2.970	50.970
Others	Female	Widowed	. <sup>b</sup>	.	.	.
		Seperated	. <sup>b</sup>	.	.	.
		Single	23.403	4.629	14.255	32.552
		Married	32.350 <sup>a</sup>	4.132	24.184	40.516
		Divorced	24.222 <sup>a</sup>	4.914	14.512	33.932
		Widowed	23.000 <sup>a</sup>	7.879	7.429	38.571
		Seperated	. <sup>b</sup>	.	.	.
Male	Single	38.250 <sup>a</sup>	4.825	28.715	47.785	
	Married	40.571 <sup>a</sup>	4.298	32.077	49.066	
	Divorced	32.444 <sup>a</sup>	5.724	21.132	43.757	
	Widowed	. <sup>b</sup>	.	.	.	
	Seperated	24.000 <sup>a</sup>	8.357	7.484	40.516	

a. Based on modified population marginal mean.

b. This level combination of factors is not observed, thus the corresponding population marginal mean is not estimable.

#### 15. age2 \* Sex \* Marital

Dependent Variable: Mental Wellbeing

age2	Sex	Marital	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
16-25	Male	Single	23.767	5.931	12.045	35.488
		Married	39.583 <sup>a</sup>	6.229	27.273	51.893

26-35	Female	Divorced	22.000	4.914	12.290	31.710
		Widowed	. <sup>b</sup>	.	.	.
		Seperated	. <sup>b</sup>	.	.	.
		Single	27.000 <sup>a</sup>	7.879	11.429	42.571
		Married	26.500 <sup>a</sup>	8.357	9.984	43.016
		Divorced	22.111	6.949	8.379	35.843
	Male	Widowed	. <sup>b</sup>	.	.	.
		Seperated	. <sup>b</sup>	.	.	.
		Single	24.528	4.221	16.185	32.870
		Married	27.950 <sup>a</sup>	4.132	19.784	36.116
		Divorced	25.500 <sup>a</sup>	6.824	12.015	38.985
		Widowed	. <sup>b</sup>	.	.	.
36-45	Female	Seperated	. <sup>b</sup>	.	.	.
		Single	42.104 <sup>a</sup>	4.620	32.975	51.233
		Married	25.750	4.298	17.255	34.245
		Divorced	26.875 <sup>a</sup>	4.825	17.340	36.410
		Widowed	. <sup>b</sup>	.	.	.
		Seperated	23.000 <sup>a</sup>	9.650	3.929	42.071
	Male	Single	51.788	5.738	40.449	63.127
		Married	29.733	3.652	22.516	36.950
		Divorced	25.711	5.633	14.579	36.843
		Widowed	22.000 <sup>a</sup>	13.647	-4.970	48.970
		Seperated	. <sup>b</sup>	.	.	.
		Single	35.708 <sup>a</sup>	4.620	26.579	44.838
46 & above	Female	Married	28.960	3.877	21.299	36.621
		Divorced	47.500 <sup>a</sup>	8.357	30.984	64.016
		Widowed	20.000 <sup>a</sup>	13.647	-6.970	46.970
		Seperated	23.875 <sup>a</sup>	7.629	8.798	38.952
		Single	34.000 <sup>a</sup>	8.357	17.484	50.516
		Married	25.889	4.549	16.899	34.879
	Male	Divorced	. <sup>b</sup>	.	.	.
		Widowed	23.083	4.735	13.726	32.440
		Seperated	. <sup>b</sup>	.	.	.
		Single	54.917 <sup>a</sup>	7.370	40.351	69.482
		Married	42.500	5.086	32.449	52.551
		Divorced	. <sup>b</sup>	.	.	.
		Widowed	. <sup>b</sup>	.	.	.

Seperated	.b	.	.	.
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a. Based on modified population marginal mean.

b. This level combination of factors is not observed, thus the corresponding population marginal mean is not estimable.

**16. Religion \* age2 \* Sex \* Marital**

Dependent Variable: Mental Wellbeing

Religion	age2	Sex	Marital	Mean	Std. Error	95% Confidence Interval		
						Lower Bound	Upper Bound	
Islam	16-25	Male	Single	31.800	6.103	19.739	43.861	
			Married	40.667	7.879	25.096	56.238	
			Divorced	21.667	7.879	6.096	37.238	
			Widowed	.a	.	.	.	
			Seperated	.a	.	.	.	
			Single	32.000	13.647	5.030	58.970	
		Female	Married	27.000	9.650	7.929	46.071	
			Divorced	21.000	13.647	-5.970	47.970	
			Widowed	.a	.	.	.	
			Seperated	.a	.	.	.	
			Single	23.000	9.650	3.929	42.071	
			Married	31.500	5.571	20.490	42.510	
	26-35	Male	Divorced	25.000	9.650	5.929	44.071	
			Widowed	.a	.	.	.	
			Seperated	.a	.	.	.	
			Single	59.333	7.879	43.762	74.904	
			Married	29.250	6.824	15.765	42.735	
			Female	Divorced	32.750	6.824	19.265	46.235
		Widowed		.a	.	.	.	
		Seperated		.a	.	.	.	
		Single		99.000	13.647	72.030	125.970	
		Married		33.667	7.879	18.096	49.238	
		36-45		Male	Divorced	28.800	6.103	16.739
			Widowed		.a	.	.	.
Seperated	.a		.		.	.		

			Single	. <sup>a</sup>	.	.	.
			Married	21.667	7.879	6.096	37.238
		Female	Divorced	40.000	9.650	20.929	59.071
			Widowed	20.000	13.647	-6.970	46.970
			Seperated	22.750	6.824	9.265	36.235
			Single	44.000	13.647	17.030	70.970
			Married	19.667	7.879	4.096	35.238
		Male	Divorced	. <sup>a</sup>	.	.	.
			Widowed	23.750	6.824	10.265	37.235
			Seperated	. <sup>a</sup>	.	.	.
	46 & above		Single	77.000	13.647	50.030	103.970
			Married	48.000	9.650	28.929	67.071
		Female	Divorced	. <sup>a</sup>	.	.	.
			Widowed	. <sup>a</sup>	.	.	.
			Seperated	. <sup>a</sup>	.	.	.
			Single	21.500	9.650	2.429	40.571
			Married	38.500	9.650	19.429	57.571
		Male	Divorced	23.000	9.650	3.929	42.071
			Widowed	. <sup>a</sup>	.	.	.
			Seperated	. <sup>a</sup>	.	.	.
	16-25		Single	22.000	7.879	6.429	37.571
			Married	26.000	13.647	-.970	52.970
		Female	Divorced	24.000	13.647	-2.970	50.970
			Widowed	. <sup>a</sup>	.	.	.
			Seperated	. <sup>a</sup>	.	.	.
			Single	27.333	4.549	18.343	36.323
			Married	24.400	6.103	12.339	36.461
		Male	Divorced	. <sup>a</sup>	.	.	.
			Widowed	. <sup>a</sup>	.	.	.
			Seperated	. <sup>a</sup>	.	.	.
	26-35		Single	24.875	4.825	15.340	34.410
			Married	23.000	5.158	12.806	33.194
		Female	Divorced	. <sup>a</sup>	.	.	.
			Widowed	. <sup>a</sup>	.	.	.
			Seperated	. <sup>a</sup>	.	.	.
			Single	28.000	9.650	8.929	47.071
	36-45	Male	Married	27.333	4.549	18.343	36.323
			Divorced	23.000	13.647	-3.970	49.970

			Widowed	.a	.	.	.
			Seperated	.a	.	.	.
			Single	27.750	4.825	18.215	37.285
			Married	25.500	6.824	12.015	38.985
		Female	Divorced	.a	.	.	.
			Widowed	.a	.	.	.
			Seperated	.a	.	.	.
			Single	.a	.	.	.
			Married	21.500	9.650	2.429	40.571
		Male	Divorced	.a	.	.	.
			Widowed	21.500	9.650	2.429	40.571
			Seperated	.a	.	.	.
			Single	.a	.	.	.
			Married	22.500	9.650	3.429	41.571
		Female	Divorced	.a	.	.	.
			Widowed	.a	.	.	.
			Seperated	.a	.	.	.
			Single	18.000	13.647	-8.970	44.970
			Married	.a	.	.	.
		Male	Divorced	21.333	7.879	5.762	36.904
			Widowed	.a	.	.	.
			Seperated	.a	.	.	.
			Single	.a	.	.	.
			Married	.a	.	.	.
		Female	Divorced	21.333	7.879	5.762	36.904
			Widowed	.a	.	.	.
			Seperated	.a	.	.	.
			Single	23.250	6.824	9.765	36.735
			Married	.a	.	.	.
		Male	Divorced	26.000	9.650	6.929	45.071
			Widowed	.a	.	.	.
			Seperated	.a	.	.	.
			Single	.a	.	.	.
			Married	25.000	9.650	5.929	44.071
		Female	Divorced	21.000	6.824	7.515	34.485
			Widowed	.a	.	.	.
			Seperated	23.000	9.650	3.929	42.071

36-45	Male	Single	28.364	4.115	20.232	36.495
		Married	28.200	6.103	16.139	40.261
		Divorced	25.333	7.879	9.762	40.904
		Widowed	22.000	13.647	-4.970	48.970
		Seperated	. <sup>a</sup>	.	.	.
	Female	Single	43.667	7.879	28.096	59.238
		Married	39.714	5.158	29.521	49.908
		Divorced	55.000	13.647	28.030	81.970
		Widowed	. <sup>a</sup>	.	.	.
		Seperated	25.000	13.647	-1.970	51.970
46 & above	Male	Single	24.000	9.650	4.929	43.071
		Married	36.500	5.571	25.490	47.510
		Divorced	. <sup>a</sup>	.	.	.
		Widowed	24.000	7.879	8.429	39.571
		Seperated	. <sup>a</sup>	.	.	.
	Female	Single	32.833	5.571	21.823	43.844
		Married	57.000	6.824	43.515	70.485
		Divorced	. <sup>a</sup>	.	.	.
		Widowed	. <sup>a</sup>	.	.	.
		Seperated	. <sup>a</sup>	.	.	.

a. This level combination of factors is not observed, thus the corresponding population marginal mean is not estimable.

## Post Hoc Tests

### Religion

#### Multiple Comparisons

Dependent Variable: Mental Wellbeing  
LSD

(I) Religion	(J) Religion	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Islam	Christianity	6.7771*	2.34147	.004	2.1498	11.4043
	Others	1.6052	2.31055	.488	-2.9610	6.1714
Christianity	Islam	-6.7771*	2.34147	.004	-11.4043	-2.1498
	Others	-5.1718*	2.27539	.024	-9.6685	-.6751
Others	Islam	-1.6052	2.31055	.488	-6.1714	2.9610
	Christianity	5.1718*	2.27539	.024	.6751	9.6685

Based on observed means.

The error term is Mean Square(Error) = 186.243.

\*. The mean difference is significant at the .05 level.

## Homogeneous Subsets

age2

### Multiple Comparisons

Dependent Variable: Mental Wellbeing

LSD

(I) age2	(J) age2	Mean Difference	Std. Error	Sig.	95% Confidence Interval
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		(I-J)			Lower Bound	Upper Bound
16-25	26-35	-.8655	2.92468	.768	-6.6454	4.9143
	36-45	-3.8230	2.85078	.182	-9.4568	1.8108
	46 & above	-6.6188*	3.24728	.043	-13.0362	-.2014
26-35	16-25	.8655	2.92468	.768	-4.9143	6.6454
	36-45	-2.9575	2.32234	.205	-7.5470	1.6320
	46 & above	-5.7533*	2.79485	.041	-11.2766	-.2300
36-45	16-25	3.8230	2.85078	.182	-1.8108	9.4568
	26-35	2.9575	2.32234	.205	-1.6320	7.5470
	46 & above	-2.7958	2.71742	.305	-8.1660	2.5745
46 & above	16-25	6.6188*	3.24728	.043	.2014	13.0362
	26-35	5.7533*	2.79485	.041	.2300	11.2766
	36-45	2.7958	2.71742	.305	-2.5745	8.1660

Based on observed means.

The error term is Mean Square(Error) = 186.243.

\*. The mean difference is significant at the .05 level.

## Homogeneous Subsets

### Marital

#### Multiple Comparisons

Dependent Variable: Mental Wellbeing



LSD

(I) Marital	(J) Marital	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Single	Married	.0533	2.19603	.981	-4.2866	4.3931
	Divorced	4.5816	2.75406	.098	-.8610	10.0243
	Widowed	8.1320	4.41389	.067	-.5909	16.8549
	Seperated	7.8982	5.39976	.146	-2.7729	18.5694
Married	Single	-.0533	2.19603	.981	-4.3931	4.2866
	Divorced	4.5283	2.70275	.096	-.8129	9.8696
	Widowed	8.0787	4.38206	.067	-.5813	16.7387
	Seperated	7.8449	5.37377	.146	-2.7749	18.4648
Divorced	Single	-4.5816	2.75406	.098	-10.0243	.8610
	Married	-4.5283	2.70275	.096	-9.8696	.8129
	Widowed	3.5504	4.68666	.450	-5.7116	12.8123
	Seperated	3.3166	5.62492	.556	-7.7995	14.4328
Widowed	Single	-8.1320	4.41389	.067	-16.8549	.5909
	Married	-8.0787	4.38206	.067	-16.7387	.5813
	Divorced	-3.5504	4.68666	.450	-12.8123	5.7116
	Seperated	-.2338	6.59828	.972	-13.2735	12.8060
Seperated	Single	-7.8982	5.39976	.146	-18.5694	2.7729
	Married	-7.8449	5.37377	.146	-18.4648	2.7749
	Divorced	-3.3166	5.62492	.556	-14.4328	7.7995
	Widowed	.2338	6.59828	.972	-12.8060	13.2735

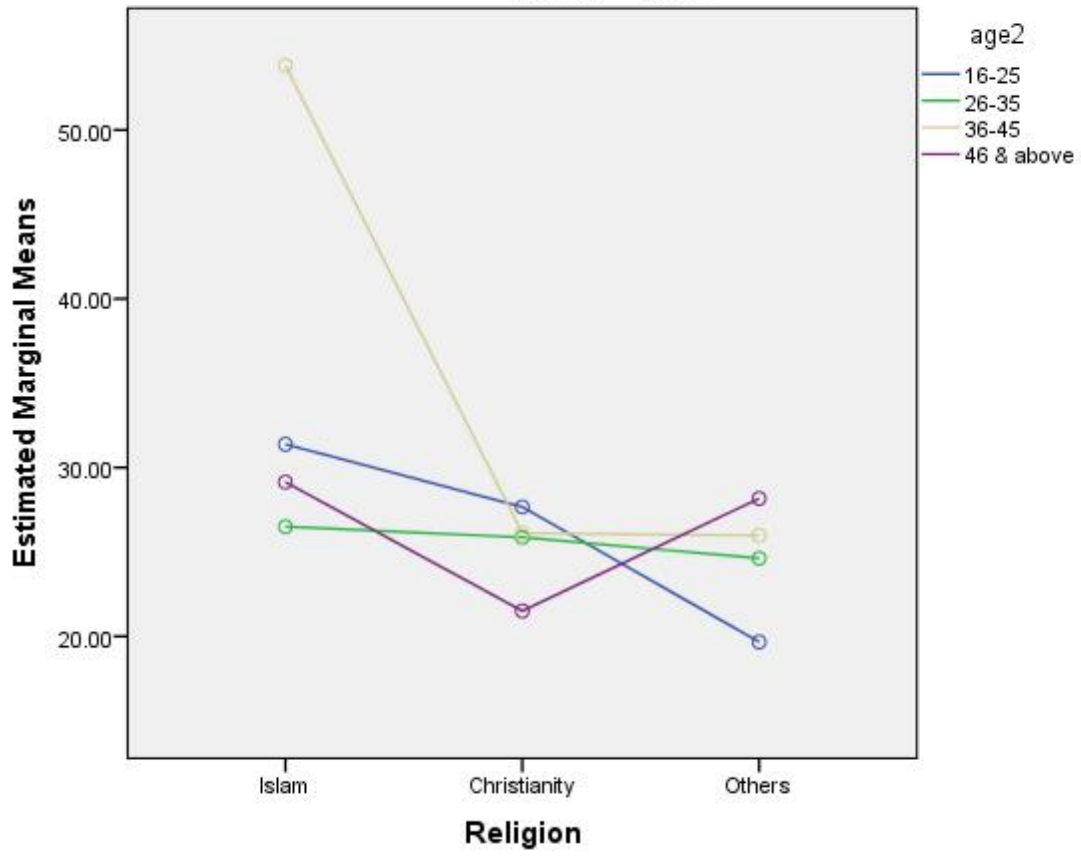
Based on observed means.

The error term is Mean Square(Error) = 186.243.

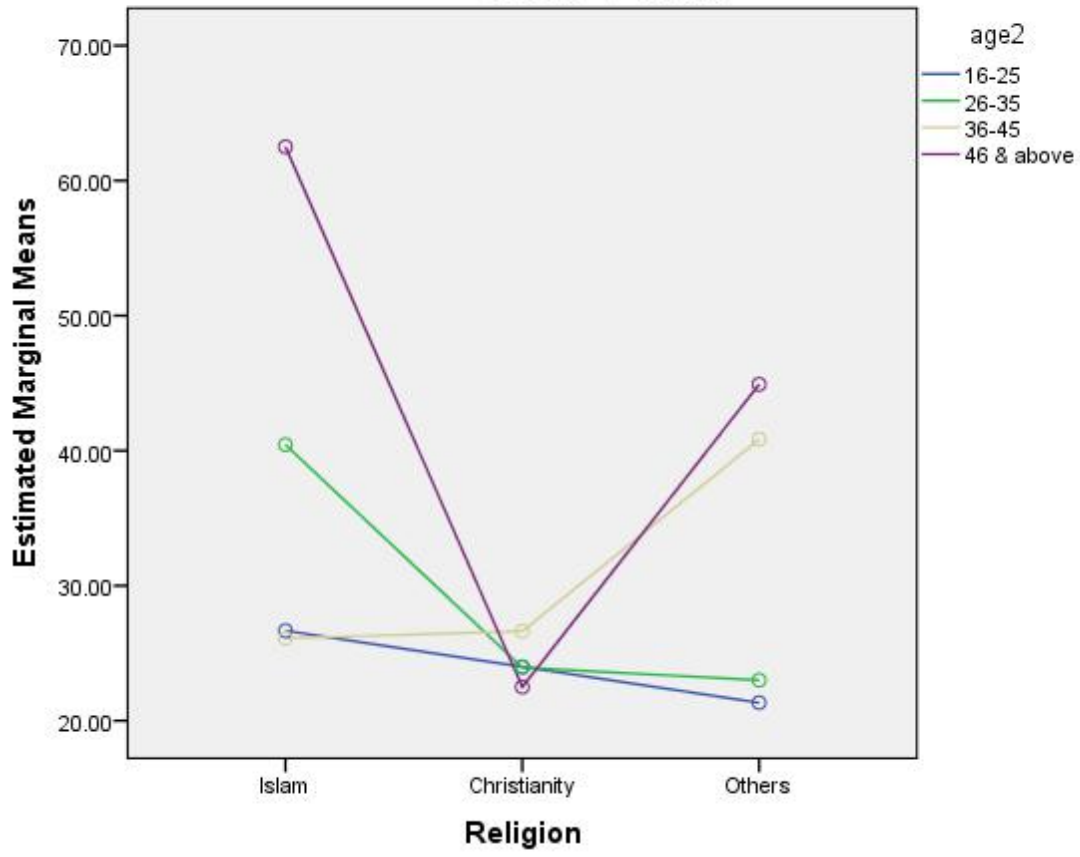
## Profile Plots

**Religion \* age2 \* Sex**

### Estimated Marginal Means of Mental Wellbeing at Sex = Male



### Estimated Marginal Means of Mental Wellbeing at Sex = Female



Estimated Marginal Means of Mental Wellbeing

