Quality of life of older people in Karachi, Pakistan

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Abstract

Introduction:
There are several conceptualizations regarding the quality of life and what it means for individuals. This thesis takes a specific approach to examine the quality of life by examining the work of Maslow (1961), and Doyal, and Gough (1991), basic human needs. Doyal's and Gough's (1991) work operationalized through CASP-19 (Control, Autonomy, Self-realization, and Pleasure), a well-established and theoretically derived instrument to assess the quality of life in older adults in Karachi, Pakistan.

Method:
The cross-cultural survey was conducted to assess the quality of life of 50+ older adults in Karachi, Pakistan. Nearly 100 participants from each low, middle, and high-income areas were selected using cluster sampling. The rigorous method was used for cross-cultural adaptation of CASP 19 in Pakistani population, which included (translated from English to Urdu, back translation, pre-test the Urdu version).

Results:
The pilot-testing explored the language, cultural and conceptual similarities of the tool to the original version. Both focus groups confirmed that CASP-19 has conceptual relevance to Pakistani culture. However confirmatory analysis results show that CASP13 had a good model fit to use in Karachi, Pakistan. The regression analysis was used to model the association between the various predictors of quality of life, for example, the socio-demographic variables show that age does not show any effect on the quality of life, whereas gender inequality decreases the quality of life. While financial constraints in later life decrease the quality of life in Karachi, Pakistan.

Conclusion:
This thesis indicates that after appropriate analysis, CASP13 is a valid and reliable tool to assess the quality of life of 50+ older adults in Karachi. Moreover, study's finding recommended the importance of developing policies at the state level within the government.

Declaration

I, Laila Surani Khalfan, declare that the work in the thesis is my own. Furthermore, the work has not been submitted for any other professional qualification. The work that is submitted is my own, except the work which had been used as a reference from other sources. Therefore, it had been acknowledged while referencing correctly.

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QoL	Quality of life
CASP	Control, Autonomy, Self-realization Pleasure
WHO	World health organization
GDP	Gross domestic product
GNP	Gross national product
CA	Capability Approach
ELSA	English longitudinal study of Ageing
BHPS	British Household panel survey
TLI	Tucker Lewis index
CFI	Comparative fit index
RMSEA	Root mean square index of approximation
TILDA	The Irish longitudinal study of Ageing
VCARE	Vcare welfare society for healthy and active ageing
KMO	Kaiser-Meyer-Olkin
GDS	Geriatric depression scale
SITE	Sindh Industrial Trading Estate
EFA	Expletory factor analysis
CFA	Confirmatory factor analysis
SPSS	Statistical analysis software
AMOS	Statistic software

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Chapter 1: Introduction

This chapter will share the motivation behind conducting this study while focusing on assessing the quality of life (QoL) of the ageing population in Karachi, Pakistan. The chapter will also highlight the main aim of the research and outline of the overall structure of the thesis.

1.1Quality of life, and wellbeing

The meaning of life is difficult to understand. Most of the times, life takes a roller-coaster ride, and sometimes it seems to be one disordered river in which a person is caught. Sometimes it is about grasping every opportunity of life. At times, it is about achieving the purpose of life (Ventegodt, Andersen and Merrick. 2003). However, many psychologists have approached it from different perspectives: Antonovsky (1993) called it “coherence”. Maslow (1963) described it as “transcendence”, and Frankl (1992) called it “meaning of life”. As humans, we call it simply “being” (Ventegodt, Andersen and Merrick 2003). Therefore, with such a complex meaning of life, what does the quality of life mean? It is not easy to understand.

There is no single definition of quality of life, as researchers from different fields from philosophical, sociological, medical, and psychological sciences have different definitions. According to World Health Organization (WHO 1997, pg 1), quality of life is defined as “the perception of a person’s life in the context of culture and value system in his/her life.” Moreover, Bells (2005) defined the quality of life as one’s life circumstances and satisfaction with it.

However, in some literature quality of life has also been used as a synonym of life satisfaction though the meaning of Life satisfaction is a little different and challenging to define as sometimes it had been "used interchangeably with happiness, however they are indeed two separate concepts. Life satisfaction is the evaluation of one’s life, not simply one’s current level of happiness" (Park, and Peterson, 2010, p12). The researcher Ed Diener’s has explained life satisfaction as “An overall assessment of feelings and attitudes about one’s life at a particular point in time ranging from negative to positive” (Buetell, 2006). He also elaborated two-term (Life satisfaction and quality of life) as “Life satisfaction is the degree to which a person

positively evaluates the overall quality of his/her life as-a-whole" (Diener, suh, lucas, & Smith 1999). The notion clearly shows that life satisfaction cannot be used alternatively with the term quality of life.

Moreover, in earlier literature, quality of life has also used interchangeably with subjective well-being (Dodge et., al 2012). "Subjective well-being (SWB) is the personal perception and experience of positive and negative emotional responses and specific cognitive evaluations of satisfaction with life" (Diener, Lucas, & Oishi, 2002, p. l63). So, in simple words, SWB is the individual evaluation of the quality of life (QoL) and therefore unites with the definition of QoL (Diener, Lucas, & Oishi, S. 2002).

However, in past, the well-being and quality of life both were used with the distinct differences. If we look back almost 46 years, the study of Smith (1973) proposed that well-being is different from the quality of life. Well-being referred to "evaluating the objective life conditions of the population in general, whereas the quality of life was used to assess an individual's subjective assessments of their lives" (Carnwath 2015). However, due to the modern researches, differences between the two-term had been lost. (De Leo et al., 1998).

Hence multiple concepts of quality of life have grown over the years (Beesley & Russwurm, 1989), such as economic approaches being popular in the late 1960s and 1970s when the quality of life/well-being was assessed by quantitative measures and unemployment rates (Liu, 1976). In response to this quantitative approach to the subject, researchers began inquiring into individuals' subjective experiences of their lives in the belief that objective measures alone were incomplete measures of 'quality of life' (Andrews & Withey, 1976; Campbell, Converse, & Rogers, 1976).

Another reason for the loss of distinction between the terms is the acknowledgement that quality of life/well-being has both "objective components – i.e., components external to an individual and measurable by 'others' – and subjective components – i.e., personal assessments of one's own life or particular aspects of life using measures of satisfaction, happiness, or other self-assessment scales (Campbell et al., 1976).

Moreover, in recent years, researchers have mainly discussed the two main approaches to well-being: one hedonic, which means happiness, positive affect or less adverse effects and satisfaction with life. The second is eudaimonic, which suggests, an individual who can achieve the highest goal of life with positive functioning within their living environment (Dodge et., al 2012).

After reviewing some of the literature, it has been found that two-terms (Qol and Well-being) could not be used interchangeably. Therefore, quality of life can be interpreted by looking at one individual's different aspects of well-being that how satisfied and happy one is with dealing their everyday life circumstances (Mukherjee, 2003). According to Balan and Girija (2015), quality of life is a general feeling of happiness, which is not a temporary experience but a long-term sense of well-being.

The above discussion was on the perspective of western society how quality of life is perceived. However, the eastern society especially Muslim society like Pakistan has a little different perspective of the quality of life. Muslims have a significant impact of their religion (Islam) on their "lifestyle and ways of thinking" Al-Aidaros, and Shamsudin, 2013). Abu-Raiya and Pargament's (2011) in his literature had suggested that while assessing "Muslims' lives and well-being, there is a need to understand the Islamic religion when dealing with Muslim populations and not doing that could give an incomplete and one-sided picture of Muslim's understanding of quality of life'' (Al-Aidaros. and Shamsudin, 2013).

For Muslims, the good life or quality of life is when one follows the ethics of Islam (Rania 2006). Ogbonna and Ebimobowei (2011) stated "Ethics reflected in the principles that a person uses in governing his/her actions and the personal standard by which a person distinguishes the right from the wrong". Elegido (2000) described that ethics direct Muslims to have a good life and live well (Al-Aidaros and Shamsudin, 2013). Furthermore, in Islamic perspective "God is the only reality, and nothing else possesses authentic existence, 'the full realisation of this ultimate truth constitutes 'loss' of self in the One'' (Renard 2009, p. 33). Islamic thought directs to live a good life; one should have faith in Allah and practice of

principles of Islam as it covers all the aspects of life (spiritual, economic, social, political, and the fmily) (Hamdan 2007; Joshanloo 2013; Pridmore and Pasha 2004). It is believed that only having true faith in these beliefs and living a "life based on the ordinances of Islam in all aspects (Quran 10:63–64) can lead to the satisfaction of the individual's physical and spiritual needs, an actualisation on of their potential". Such a viewpoint could fit on the eudaimonistic view that emphasises actualising human potentials and the satisfaction of true human needs" (Joshanloo 2013).

Furthermore, some of the Islamic literautre also "holds that Muslims should not pursue hedonistic pleasures as the primary goal of their lives" (Joshanloo 2013). Although positive emotions and pleasure are essential to Islam, they are viewed as secondary and are placed after the eudaimonistic determined (Joshanloo 2013). Moreover, some of the Muslim writers generally agree with the Aristotelian notion that to obtain happiness, one needs to know all aspects of humankind, all its capacities and abilities, deficiencies, and needs (Husain 1998). Therefore, the Islamic viewpoint of quality of life is when people follow the ethic of their religion and trust God to achieve the best in life. However, a recent study in Karachi, Pakistan also suggests that the quality of life is when older adults have opportunities to work in the age of 60 so they could not be dependent on anyone and live their life joyously with pleasure (Cassum et al 2020).

After reviewing the quality of life and well-being, it is to conclude that there is a distinction between the definitions of all three concepts, life satisfaction, well-being, and quality of life. Life satisfaction is the individual's evaluation of one's life, while the quality of life refers to the level of general well-being. The concept of quality of life is broad and depends on how an individual's measure the 'goodness' of multiple aspects of their life. "These evaluations include one's emotional reactions to life occurrences, disposition, sense of life fulfilment and satisfaction, and satisfaction with work and personal relationships" (Diener, and Lucas, 2000). Therefore, three of these terms cannot be the same entity or cannot be used interchangeably.

However, quality of life can vary from one culture to another. Therefore, it may be misguided to generalise the definition of QoL cross-culturally (Bell 2005).

So far, the chapter has examined the brief concepts of quality of life and well-being generally. The following sections will investigate ageing globally and specifically in Pakistan.

1.2 Ageing globally

The population will continue to age rapidly over the next few decades (Lutz, Sanderson, and Scherbov, 2008) and there are severe economic and social implications of increasing longevity and rapidly ageing population (Bloom, Canning, Fink 2010). Increased longevity is noticeable in developed countries as compared to developing countries (Mathers et al. 2001). The increase in longevity is one of the greatest achievements. Nevertheless, population ageing is one of the most challenging demographic events in the 21st century and these challenges are not only faced at the individual, family or community level but global level as well (Christensen,et al 2009). Therefore, to examine the quality of life in older age, it is essential to look at the key factors that impact ageing well.

Due to socioeconomic and demographic factors, older adults are neglected in many ways (Pritzker et al.; 2015). Lack of social security system in developing countries for older adults; results in an increased cost of health, and social care expenses in later life (Christensen et al. 2009). However, the effect is different in developed countries. Developed countries have grown to take the initiative like proper pension system to take care of older generations to have a better life in their old age (Christensen, et al. 2009). It is also a blessing for the ageing population living in these countries where public transport, social policies, shifting gender roles, and improved living standards have been placed. As a result, people manage their daily activities without depending on anyone (Christensen, et al. 2009). However, many of the developing countries lack a publicly funded security system; this means that it is more challenging for older adults to take care of themselves.

Furthermore, in many developing countries, many people work in informal settings or in rural areas that offer very few or no benefits or worker protection of any kind; employees in

small companies with ten or fewer employees are often excluded from participation in social security pension schemes" (Gillion. et al.; 2000). If we look around some of the developing world regions, the pension system is fragile and poorly managed in Africa. Whereas pension system in Asia has been weakened by the continent's weakened financial economy in the late 1990s (Gillion et al. 2000). Therefore, older adults will need financial support in these regions (Sierra et al. 2009).

The second important factor that has an impact on ageing well is the country's cultural environment. For example, in many eastern cultures, older adults also consider as a source of wisdom and transformation of culture and traditions. The concept of wisdom has its roots in religion and philosophy (Baltes, and Smith 1990). Vaillant (2002) considers "wisdom to be an integral part of successful ageing", he also believed that one does not need to be old to acquire wisdom. Blazer (2006) had proposed that promotion of wisdom should be an essential part of facilitating successful ageing, although evidence-based techniques or tools to affect wisdom are not available at this time (Blazer 2006).

According to Erick Erikson's (1964) "Psycho-social developmental stages, the last stage of life called generativity and wisdom together are intertwined". Further research also confirmed that wisdom is positively associated with life satisfaction (Ardelt, 2000; Baltes, Staudinger, Maercker, & Smith, 1995). Other research also suggested that "Wisdom is more persistent among the financially and interpersonally deprived respondents and individuals with low perceived social support such as minorities, older adults, women, and individuals with illiterate background" (Brugman, 2000). However, under the effect of globalisation, children are more often living separately from their parents; they aspire to pursue a higher level of education abroad or migration to pursue better opportunities for income, which affects the quality of life of the older adults in developing countries. This changing family living pattern had resulted in social isolation and loneliness and lack of sharing wisdom and tradition (Lowsky et al. 2014).

Thus, social isolation had unfavourable effects on health (Landeiro et al., 2017). Cacioppo and Cacioppo (2014) had also identified that social isolation and loneliness affects the

physical and mental conditions that may result in having illnesses like, high blood pressure, heart disease, obesity, anxiety, depression, cognitive decline, and Alzheimer's disease (Cacioppo and Cacioppo 2014). And that could decrease the quality of life in older adults (Landeiro et al. 2017).

1.3 Ageing in Pakistan

The total population of Pakistan was estimated 193,203,000 (WHO 2016). During the last half-century, public health and social conditions have contributed to a significant increase in the country's average lifespan (WHO 2016).

World Bank report had published the average life expectancy at birth in Pakistan from 2007 to 2017. In 2007 life expectancy was 63.55 for male and 65.37 for females. Which increased in 2017, life expectancy at birth for women in Pakistan was 67.93 years, while men were about 66.04 years. On an average, survival has improved across the lifespan, including in the later ages; this means that more people in Pakistan survive to old age than ever before. According to the United Nations (2013), 11.6 million over 60 years older adults live in Pakistan, and it is predicted to reach 43 million by 2050 (United nation, 2013). Moreover, according to Global Age Watch Index (2014), three countries had been marked as the worst countries to grow old, and Pakistan is among these countries where 6.5 percent of the population is over 60-years of age (Global Age Watch Index 2014). It is deplorable; with this growing ageing population, Pakistan does not have welfare policies for its ageing population.

Furthermore, quality of life in the older adults depends on a range of factors, including ageism, so in this section, the thesis will examine ageism. Ageist attitudes and stereotypes are common in the family, community, workplace, and society. Moreover, this stereotype notion could be seen differently in different cultures, social and economic contexts, but it is common and often remains unknown and accepted. (Islam, 2014).

Moreover, stereotypes and discrimination against people based on a single attribute (their older age) are referred to as ageism (Thornton, 2002). Ageism and discrimination in old age are not just present in today's society, but they are rooted in pre-industrial societies. (i.e., they have been around for a long time). However, it is a mixed picture that depends on the specific society

one lives in, their specific traditions, values, and culture. In the traditional culture of France, they never respected their older adults; they saw old age as horror and annoyance (Stearns 1976 and Ward 1984). The Fulani Society of Africa saw older adults as socially dead. (Leslie 1982 and Schaefer 1983). Likewise, the society of Uganda wishes for the death of their older adults, as older adults were unproductive to them. On the other hand, some pre-industrial societies like ancient Israel, Rome, China, and the Inca society of Peru had great respect and honour for their older adults.

In the post-industrial period, many societies presented mixed feelings about old age. On the one hand, older people were given respect and love; on the other hand, older adults were neglected from some societies after the retirement age, as it caused severe financial, social, and psychological issues (Harris 1990). However, older adults can also be seen positively as the source of wisdom, which has already been discussed earlier in this chapter.

A study conducted in Bangladesh suggested that ageism results from low economic conditions, poverty, loss of work and authority, changes in social norms and values, and the joint family system (where the family includes two or more generations) breaking up (Islam, 2014). Most of the studies in this area focus on the negative aspects of ageism. It further revealed that older adults have become more isolated from their family and close relatives. They lose their freedom and cannot express their choices in any matter, not even their choice of dress or food. After retiring, they are more financially dependent on their family. Today's young generations are not interested in spending time with the older adults in their families. Therefore, most older people feel lonely and isolated due to age discrimination (Islam, 2014).

Another study was conducted in Britain 'to examine ethnic differences in the key influences on quality of life for older people in the context of the increasing health and wealth of British older people generally and the aging of the post-1945 migrants' (Bajekal, et al. 2004). It is argued that after the second world war, the ethnic minority immigrants moving into retirement may have faced hazards or threats. The finding showed that the quality of life of older people varies significantly according to ethnicity. Indicators such as 'material circumstances,' 'health,'

'civic engagement through membership of community networks,' and 'physical environment quality' showed that the Pakistani had the lowest rank in the quality of life; in contrast, the white group had the highest rank, and the Indians and Caribbean groups ranked second and third. (Bajekal, et al. 2004). This study took place in Britain, so it may not apply to Pakistan. However, it is interesting to note that quality of life varies according to ethnicity. That may have implications for the different groups of Pakistani living in Karachi and, therefore, will be investigated in the thesis'.

Another study found out that people who migrated to the UK found stereotypes of extended family in the ethnic minority. If older adults lived with 'their son or daughter (and sometimes their son or daughter's children as well),' they repeatedly take on a 'parenting role that mirrored the one that they had played when their children were younger, such as the mother cooking and cleaning and the father chauffeuring.' Various reasons were identified for the older adults to do so; living alone was not affordable for them, or they did not want to live alone due to bad health. Moreover, the role that the family play as a parent or grandparent also depended on gender. This meant that people living in multigenerational households' men tend to make decisions on behalf of the family. One of the Pakistani Punjabi men described himself as the '*decision-maker* and another who has '*control of all the household'* (Grewal et al. 2004). although these studies refer to Pakistani in the UK rather than Pakistani living in Karachi, they are exciting and will be further investigated in the thesis to assess whether they apply to Pakistan or not.

Another study conducted in Pakistan by Ahmed and Chaudhry (2015) had also explored the perception of older adults about old age, and the study had identified that old age was perceived as illness, disease, depression, stress, social isolation, ignorance, increased dependency, socialization, having pleasure, freedom, and lack of social participation (Ahmed and Chaudhry 2015). Similar findings have been identified in contemporary culture, particularly North America, primarily negative stereotypes, 'depicting later life as a time of ill health, loneliness, dependency, and poor physical and mental functioning' (Ory, et al., 2003).

Furthermore, another study was conducted through focus groups in 4 countries (Serbia, Pakistan, Costa Rica, Gambia); to provide a platform to older adults to understand how aging and ageism are experienced in their living contexts. The participants from Serbia reported that they perceived a lack of respect from the society in which they lived, and they take old age as a deficit and loss from the society. The participants highlighted that they were not respected, and the family had expectations for unlimited support and care that included financial contribution. Moreover, sometimes these expectations led to financial abuse and physical abuse too. Similar findings were identified in the Gambia, where people reported that many participants experience a lack of respect from the society in which they lived. Likewise, Serbia and Gambia participants in Costa Rica shared their view about ageism, and they stated that ageism occurred 'within a range of settings, including the family, health care, education, the workplace, and public transport' it was identified by the older people that family expected grandparents to provide unpaid care work. However, in Pakistani focus groups, male participants stated that respecting older adults is a part of the culture; the participants also highlighted that changing traditions, consequences of limited resources, and the feeling of vulnerability in older age resulted from dependency less respect from the society. The women participants also shared feelings of being ignored in society and disrespected in the family (Phoenix, 2020). This could also show that the stereotype is also gendered based in Pakistan. Hence, views of old age and the perceptions of older adults hold of themselves are 'complex, multidimensional, and dynamic' (Kornad, and Rothermund, 2011).

Therefore, it concludes that ageism varies across different cultures, so older adults in one culture may experience discrimination while others may be respected. However, there appears to be a general trend of change from pre-industrial societies to modern societies. As explained above, older adults face more discrimination in modern societies than previously, so their quality of life is more likely to deteriorate. Pakistani societies are also affected by these cultural changes, albeit at a slower pace. Older men still maintain authority over the extended family, and older women still contribute disproportionately more to family life.

Furthermore, another big challenge for Pakistan is its weak pension system. The retirement age in Pakistan is 60 and only people working for the government receive a pension, which is only 2.3% of people aged 60 and over. Therefore, most old-age people rely on their future generations to provide them with financial support in their retiring years (Sabzwari and Azhar, 2010). According to Global age index (2014), 56% of people, aged 50+ were in employment, and 60% were financially dependent on their family (Global Age Watch Index, 2014).

Moreover, older adults' family structures and living arrangements have changed significantly in developing countries in the past few decades. (Zeng, 2006). Various studies have documented the challenge of changing family household structures in Pakistan. Many of the older adults are not supported by their families to meet their basic needs and facing hardships in terms of no care, isolation, poor health, physical abuse (Afzal, 1999; Clark et al., 2002). Even older adults do not get proper attention in a joint family due to large family size (Ali and Kiani, 2003). It implies that despite the availability of networks, particularly family members, many older adults do not receive support from their families. Such a situation shows that an older adult's quality of life in Pakistan is likely to deteriorate and raise the demand for social protection for older adults in the coming years.

Afzal (1999) found that although many older adults lived with their children, many of them were dependent on themselves to meet their basic needs; especially those who did not had any savings or pensions for their old age (Jalal, and Younis, 2014). Thus, family dependency is linked to income, with higher income families having the opportunity to pay for a carer for older adults.

Therefore, the rising trends of poverty in Pakistan (Ali and Kiani, 2003) and “declining share of the economically active population (Nasir, 2003) will not only affect the quality of life of older people but also underscore the need for adequate provision of safety nets for older people" (Ahmad, 2011).

The changing situation holds many challenges for older adults in many developing countries, including Pakistan. Especially for those old age people who want to work after retirement due to an inadequate pension or old-age benefits to improve their living standards. However, one of the studies suggested that older adults could not find jobs due to their inadequate education. Therefore, it is essential today for the population in their age 20s and 30s to educate themselves, so they do not suffer from the same challenges in their old age. These kinds of challenges would affect an individual's quality of life and society. (Cassum et al. 2020)

1.4 Novelty of the study

The aims and objectives of this Ph.D. thesis have been described in Chapter 3. However, in general, this research has assessed the quality of life in older adults in Karachi, Pakistan. There are a couple of studies had been conducted in Pakistan, examined subjective and objective indicators. The objective indicators included: education, gender, health, and living condition, whereas the subjective indicators were collected, taking a perception of the population on education, and public health safety (Haq 2009).

Moreover, some measures are used to assess the quality of life but mainly are health-related; for example, a WHO scale was used to assess the health-related quality of life (HRQoL) of people with hypertension (Saleem et al. 2014).

However, the novelty of this study is that the quality of life in older adults has been assessed with a theoretical driven scale CASP-19. This scale includes both the eudemonic and hedonic well-being characteristics (Control, Autonomy, Self-realisation, Pleasure) (Gale,2014). This research has provided a better understanding of how well a CASP instrument had worked in an entirely different cultural setting. Furthermore, the thesis also assesses other predictors that may affect the quality of life in old age such as, sociodemographic variables, socioeconomic variables, psychosocial and life-course variables.

In General, the thesis will answer the question, what is the quality of life of older adult in Karachi, Pakistan?

1.5. Structure of the thesis chapters:

Chapter 2

Literature review- This chapter presents the review of the literature on the research area that is quality of life and well-being of 50 +older population. It has provided a description, summary, and critical evaluation. It has also included the historical background of well-being and its theoretical analysis. This chapter also includes the literature on the scales to assess the quality of life and other factors that influence the quality of life.

Chapter 3

Conceptual framework and research aim and objectives- This chapter will give an insight into the conceptual framework of well-being and quality of life in old age. The conceptual framework has been based on the theoretical analysis of the subject. This chapter also includes aims, objectives and research questions.

Chapter 4

Research Methodology- This chapter explores the method and its justification for the methodology. It also presents a research process that includes fieldwork and sample response and ethical consideration. The statistical methods used to analyse the data are also described in this chapter.

Chapter 5

First aspect of the study: Cross-cultural adaptation of CASP 19- This chapter discusses the process of cross-cultural adaptation of CASP 19 a measure of the quality of life in 50+ population. This will further share the qualitative and quantitative finding of the CASP 19. It will also discuss the findings, of cross culture adaptation of the CASP.

Chapter 6

Second aspect of the study: Predictors of quality of life – This chapter will have findings from the research, including; sociodemographic, everyday life, capability, mental health, sense

of coherence, and life course. The chapter will discuss the findings of the predictors of quality of life.

Chapter 7

Gender and quality of life: This chapter will have findings from the research, including; sociodemographic, everyday life, capability, mental health, sense of coherence, and life course. The chapter will discuss the findings of the predictors of quality of life.

Chapter 8.

General discussion, conclusion, and implication of the study: This chapter will include a general discussion on both the aspects of the study that is a cross-cultural adaptation of the CASP and predictors of quality of life. It will also share the emerging framework on the quality of life of older adults in Karachi, Pakistan. Moreover, this chapter will also share the contribution of this study to existing research and recommendation for future research. This chapter will also share the strength and limitations of the study. Finally, the thesis will provide the emerging conceptual framework on quality of life in old age for Pakistan. This chapter will also have final recommendations on the findings.

1.6. Conclusion:

As the world population is ageing, many of the world's developing countries face challenges to address the issues of the ageing population in the entire sector of lives, which had been discussed earlier. Moreover, these challenges will affect older adults' well-being and quality of life, especially those living in developing countries such as Pakistan.

The thesis will now turn to chapter two, which examines the literature on quality of life, well-being, CASP19 (measure to assess the quality of life of 50+ population), and the predictors of quality of life.

Chapter 2: Literature review

2.1 Introduction

Ageing has become a global issue and will have a massive impact on all aspects of life (Arokiasamy, et al 2015). World health organization (WHO) has also shown concern regarding the health and well-being of millions of ageing community around the world (Shetty 2012). Also, it has emphasized to improve the QoL of older adults, especially in low-income countries. The WHO has also encouraged all the countries to work towards active and healthy ageing to support older adults to live a dignified life (Shetty 2012).

This chapter examines the previous research and theoretical perspectives on quality of life and well-being in the field of social sciences; it will also consider the measures developed to assess QoL, with particular attention to CASP 19, a tool developed specifically to assess the quality of life of people aged 50 and over. Lastly, the chapter will discuss QoL's predictors, which may affect the quality of life in later ages.

2.2 What are 'quality of life' and 'well-being'?

In the previous chapter, it was already discussed that Quality of life and Subjective well-being are not interchangeable terms as they have different concepts and theoretical backgrounds (Brown., S 2015). This will be discussed in detail later part of this chapter. However, I will further discuss the term happiness and its relation to well-being and quality of life in the literature.

In general, the QoL term represents "either how well human needs are met or the extent to which individuals or groups perceive satisfaction or dissatisfaction in various life domains" (Costanza, et al. 2007). World Health Organization (WHO) defines quality of life as "An individual's perception of their position in life, in the context of the culture and value systems in which they live, and about their goals, expectations, standards, and concerns. It is a broad-ranging concept, affected in a complex way by the person's physical health, psychological state,

level of independence, social relationships, and their relationship to salient features of their environment" (WHOQOL Group, 1995: 1404).

The above description shows that the term quality of life is characteristically vague. It can refer both to the experience an individual has of his/her own life; and the living conditions in which individuals find themselves. Hence, the quality of life is highly subjective; where one person may define the quality of life according to wealth or satisfaction with life, another person may define having the ability to live a good life in terms of emotional, physical, material, psychological, social, and subjective well-being (SWB) (Kinson, C 2020).

Whereas over the period, SWB had been used as "an umbrella term for different valuations that people made regarding their lives, the events were happening to them, their bodies and minds, and the circumstances in which they live" (Diener, 2006). Moreover, the concept of subjective well-being falls as a person has a high level of satisfaction with their life and who experiences a more significant positive effect, with little or less negative affect, and that makes them happy (Diener, 2006).

However, the literature had also discussed that subjective well-being falls within the 'hedonic' perspective that defines subjective well-being maximizing pleasure and avoiding or minimizing pain. Diener (2016) suggested that subjective well-wellbeing "is the scientific term for happiness and life satisfaction" (Diener, 2016). In other words, happiness is the degree to which a person evaluates the overall quality of his/her present life-as-a-whole positively (Compton, and Hoffman 2019).

However, looking at the literature on happiness, it had referred to as "subjective well-being (Hills, Argyle 2002), emotional well-being affect, and quality of life" (Ratzlaff et al. 2000); which suggested that the meaning of happiness may depend on the context and culture person live in (Carlquist et al. 2016). That indicated the close relationship between the constructs of happiness, subjective well-being, quality of life, and life satisfaction (Medvedev, and Landhuis, 2018).

However, interpretation of well-being and quality of life is a little different in the eastern culture. The meaning of good life or quality of life in eastern philosophy has little different features. In eastern culture, the concept of good life depends mostly on the religious definition and 'culture and value system' prominence more on tolerance. That I had discussed in chapter 1 (Inglehart and Klingemann, 2000).

The eastern society mostly follows Confucianism, and it believes that a happy life is not differentiated from a good or quality life (Zhang and Veenhoven 2008). The question of a good life is usually understood in terms of what it means to be human (i.e., to be virtuous) (Sundararajan 2005). In Confucianism, a high value is given to social relationships, particularly family relationships. The harmony is a fundamental goal of personal and social life (Joshanloo, 2014). Hence, Confucianism emphasises the importance of balancing inner and outer selves (Ching, 2003). "Unike the values of the western enlightenment, Confucian in Asian culture values emphasise family and community over the individual, discipline and hierarchy over freedom and equality, and consensus and harmony over diversity and conflict" (Tu 1999).

Public opinion surveys were conducted in Asia that confirmed that most people remain attached to the Confucian "social values of collectivism and hierarchism" (Chu et al. 2008; Shin 2008). However, to date, no region-wide research effort had been made to assess the quality of life that East Asians experience in their private and public lives (Shin 2008).

Furthermore, Confucianism insists that harmonious interpersonal relationship equals well-being; it believes that well-being is spiritual comfort, joy, inner peace and harmony. It also unanimously proposes to pursue well-being controlling and suppressing one's material desires. Besides that, Confucianism separates "happiness into two levels: one level where happiness is derived from the satisfaction of basic needs in real life, and the other where rational happiness comes from being kind to others and contributing to society at large" (Li, 2011).

Moreover, another main religion followed in Eastern society is Islam. According to Islam, worshipping and serving Allah is humanity's ultimate function, the fulfilment of which establishes well-being and a good life. This view requires absolute submission to the 'will' of

Allah in every aspect of life, no matter how small. Moreover, Islam also represents diverse schools of thought and sects. However, despite this diversity, agreement on fundamental beliefs is relatively apparent in the Islamic world. The Quran is the holy book for Muslims and is the authoritative text that contains all the central teachings about human life, good life and happiness. Therefore, the core aspects of Islamic thought and guidance for well-being and quality of life found in the Quran (Barakat 1993).

Furthermore, it would be right to say that subjective well-being and quality of life are appraisals that people make about their lives in their own living culture (Diener, 2006; Diener, Oishi and Lucas, 2003). Therefore, without knowing subjective well-being, one cannot evaluate their quality of life. However, there have been studies examining subjective well-being and quality of life independently (Diener,2006), yet few researches are focused on the connection between these two domains (Camfield and Skevington, 2008). Furthermore, the subjective nature of quality of life signifies that it can be conceptualised differently by different groups of people, age, gender, health status, and cultural factors (Nilsson, Rana and Kabir 2006).

To conclude, the quality of life and subjective well-being, both interconnected but cannot be used interchangeably. Culture plays a vital role in the conceptualisation and experience of the quality of life (Shek, Chan, & Lee 2005). In western culture, communication and emotional expressiveness are strongly emphasised; whereas, “roles, duties, and self-suppression (particularly among the junior members in the family), and interpersonal harmony are virtues upheld in eastern society”. Therefore, it is essential to conduct QoL studies in a culture like Pakistan to understand the quality of life and its “manifestation in a cross-cultural context” (Shek, 2010).

2.3 Theoretical concept of Quality of life and Well-being

In chapter one and earlier in this chapter, it had been discussed how the quality of life and well-being are interrelated. It had also been described that many researchers had seen the quality of life (QoL) and well-being differently. According to the different fields of interest, such as sociology, psychology, social sciences, or philosophy had defined QoL differently.

Quality of life is also defined as how well a person had lived her/his life that included the general well-being of people that included happiness, life satisfaction, fulfillment, comfort, emotions, health that a person had experienced throughout the life (Carr, Gibson and Robinson 2001). Therefore, when one is assessing a person's quality of life, it is essential to assess a person's general well-being to get the overall aspect of a person's quality of life.

However, it is vital to understand both concepts of quality of life and well-being in explaining older adults' lives. Therefore, it is important to discuss both terms conceptually and to understand their relationship. Now we will move on to the concepts of both well-being and quality of life.

The earlier perspective of quality of life and well-being is back in 300 AC, when philosopher Aristotle used the word good life, instead of well-being or quality of life. Aristotle considered virtues as those qualities that enabled an individual to achieve the happiness that led to a good life. However, he also believed that all human beings have some purpose in life, and they required some actions to achieve that purpose. By not doing so, life was thought to have no meaning, and one cannot have a good life (Haslip 2003). However, Nussbaum's (1993) critiqued on Aristotle's point of an ethical approach based on virtues. According to her, the Aristotelian virtue-based way lends support to relativism. She argued if the position of women is established by local tradition in many parts of the world, it was to be improved, or if there was a racial inequality, religious intolerance was to be criticised in the name of practical reason; then this should be criticised from the utilitarian point of view, rather than Aristotelian approach (Nassubum and Sen 1993). Also, utilitarian philosophers in the 17th and 18th century Jeremy Bentham and John Stuart Mill, opposed the good life's Aristotelian viewpoint. They believed that the purpose of ethics "is to make life better by increasing the number of good things (such as pleasure and happiness) and decreasing the amount of bad number (such as pain and unhappiness)", also flourishing purposeful life 'eudaimonia'. After utilitarian philosophers, many philosophers argued that people get a happy have good life when they have enough food and money to live their lives (Ryan & Deci 2001). Over some time, the theory of utilitarianism

was changed where the classical utilitarian took happiness as a pleasure (absence of pain), and modern utilitarian had changed the terminology using term welfare, and well-being which meant "whatever makes life worth living" (Mulgan 2014).

Furthermore, well-being conceptions revolve around two different but related philosophies: (1) hedonic and (2) eudaimonic. The hedonic approach defines well-being as having more pleasure and no pain, and it also focuses more on human happiness and pleasure. The hedonic approach has already seen in both Aristotle and Benthem's philosophy of the good life. Whereas the eudaimonic approach defines well-being as a person should fulfill their ultimate goals with his/her capabilities (Richard and Edward 2001).

However, over the past quarter-century, psychologists have vigorously studied well-being, especially Diener (1984), who focused on subjective well-being (SWB). From his perspective, well-being is considered subjective because the idea is for people "to evaluate for themselves, in a general way, the degree to which they experience a sense of wellness". As an operational definition, "SWB is most often interpreted to mean experiencing a high level of positive affect, a low level of negative affect, and a high degree of satisfaction with' one's life".

The concept of SWB also had frequently been used interchangeably with "happiness." Thus, maximising one's well-being had been viewed as maximising one's feelings of happiness. Therefore SWB has been associated with the hedonistic approach to well-being (Ryff and Singer 2008) that focuses on factors that lead to SWB, including personal factors, social-environmental factors, and cultural factors (Pinquart and Sörensen 2000).

However, SWB is not the only way to think about the general well-being of a person. A second view is of Ryffs (1989) model and measure of psychological well-being, which fell within the eudaimonic "tradition and was originally formulated to challenge the prevailing hedonistic view of well-being within psychology". In the current paper, Ryff and Singer reviewed the work of theorists dating back to Aristotle. Aristotle's view of the highest human good involving virtue and the realisation of one's potential had been presented by various psychologists such as Maslow (1968), Allport (1961), and Rogers (1962). However, Ryffs

approach named six characteristics of psychological well-being: self-acceptance, personal growth, relatedness, autonomy, relationships, environmental mastery, and purpose in life (Deci, and Ryan 2008).

The psychological well-being perspective (PWB) focuses on eudaimonic well-being, fulfilling human potential and meaningful life. At the same time, subjective well-being focuses on the hedonic aspect of well-being, which is the pursuit of happiness and pleasant life. Nevertheless, subjective well-being cannot capture all of the positive functioning; therefore, it is being argued that subjective well-being is necessary but not sufficient to evaluate a good life. Hence, both psychological and subjective well-being should be considered to know one's quality of life (Deci, & Ryan 2006). Hence, in recent years, both psychological and subjective well-being involves evaluating the population's quality of life (Ryff & Singer 2008).

Furthermore, it is also vital to understand the historical conception of quality of life. Maslow in 1954 had given a different dimension of the quality of life as he examined human needs in the form of "Hierarchy of Needs" which included five levels of "human maintenance and existence" (Maslow 1968). He stated that people needed air, water, food, shelter, and safety at the most basic level. Once people had achieved these, they needed to be loved, belong, have personal self-respect, and ultimately achieve self-actualisation. However, according to Maslow, not many people reach the highest level of need, that is, self-actualisation, because most fail to have previous needs fulfilled. In later years, Maslow's thought process did not account for the idea that a person who had reached a need and goes on to the next may find it necessary to relapse back to that need (Kenrick et al., 2010). Many psychologists had criticised Maslow's approach to the hierarchy of Basic needs. Bridwell (1976) reviewed Maslow's theory of need in detail; and recognised, human beings have many needs to get fulfilled, but the survival of a rigid order of needs for every individual is different (Hofstede 1984). Built upon this evidence, stating that the hierarchy developed on western ideology, human needs are individualists and differ from the cultural needs of societies and individuals' unique social and intellectual needs. Hofstede (1984) further argued that individualistic societies reflect the needs of self-actualisation

and self-fulfillment, whereas a collectivist society is focused on community acceptance and belonging to this structure (Hofstede 1984). Cianci (2003) had also criticised the Maslow's theory, as this could not be considered at a time, such as recession and war. Also, Tay and Diener (2011) have established that the position of needs differs with age and does not appear to be the same across all age groups. Alderfer (1969) further worked on the theory of need and proposed the universality of needs. He simplified Maslow's five Hierarchies of needs into three: a) Physiological and safety needs, b) the need for relatedness, which includes love and esteem, and c) the need for growth, which refers to self-actualisation. He had seen his three groups had a continuity, rather than hierarchical construction. Therefore, anyone can experience some stages at the same time, without forming changes in the hierarchy.

Max neef (1991) also critiqued Maslow's hierarchy and suggested that human need is interconnected and interrelated and had no hierarchies while describing human needs. According to his theory, human needs must be fulfilled, but that could be satisfied by the people (Neef 1991). He further showed his concern for the people living in poor societies; people do not have enough income, food, shelter, a better health care system, poor quality of education, environment, and active participation in society (Max-Neef, 1991). Therefore, people living in a poor society could more focus on fulfilling their basic needs and satisfying themselves, rather than achieving the goals of their lives; described in Maslow's work.

Moreover, theorists Doyal and Gough (1991) had argued that human beings have universal and objective needs for health and autonomy and have an absolute right to fulfill those needs and achieve their best satisfaction. In their theory Doyal and Gough (1991), highlighted the relativist belief on the subjectivity of human needs. According to their theory, people know about their feeling about what they need, but these needs are different in cultures over time. They argued that assessing needs is based on what the person's needs are and how capable it is to achieve those needs. This is true that all human beings have different goals specific to their culture, and to achieve those goals, people must act. However, there are specific requirements for such action to be taken; that is, people must have the mental ability to choose and have

physical strength to follow their decisions (Doyal and Gough, 1991). Therefore, Doyal and Gough concluded that survival and autonomy are basic human needs. And therefore, to achieve the basic needs, it is also essential that people should have physical and mental freedom. Doyal and Gough (1991) further discussed that the absence of autonomy brings adversities in society, meaning that all individual learning may be stopped (Doyal and Gough 1991). Doyal and Gough had also emphasised, that if one wants to satisfy their basic needs, cultural involvement would be critical. Therefore, to use such a theory in eastern societies where autonomy is not seen much would be interesting.

While Doyal and Gough (1991) presented a theory of need, at the same time, the capability approach (CA) was proposed by Amartya Kumar Sen to state levels of well-being and quality of life. Sen (1991) had highlighted many aspects of human needs in his Capability approach, which Doyal and Gough (1991) had presented in their theory of need. Capability's concept was driven by the human development report presented in the united nation in 1991 by a Pakistani economist Muhibul Haq (1991). According to him, the cause of human neglect is a lack of financial resources and political commitment. Therefore, he presented a report on financing human development. The report suggested that human development's primary objective is to expand the range of people's choices and make development more participatory and democratic.

Moreover, these choices should include access to income and employment opportunities, education, health, and a clean physical environment. He also suggested that each soul have an opportunity to participate in community decision and enjoy their surroundings and political freedom (Mahbub ul Haq 1996). Haq (1991) had also talked about equality, that men, women, and children should be given attention to development. The development must be participatory, so all people should be allowed to invest in developing their capabilities in their health, education, and training.

With the Human development report, Sen (1991) introduced the capability approach, a framework to evaluate the individual well-being and social arrangements, to design policies and

proposals about social change in society. This approach's main characteristic is its focus on what people can do and to be within their capabilities to improve their quality of life (Mahbub ul Haq 1996). The capability approach is different from the other philosophical approaches; more concentration is on "what people are effectively able to do and to be; that is, on their capabilities" (Robeyns, 2005).

However, the glimpse of the capability approach could be seen in Aristotle, Adam Smith, John Stuart Mill, and Karl Marx. In his theory, Sen (1991) argued that in social evaluations and policy design, the focus should be on what people can do to improve their quality of life. He suggested that it is essential for a human being to fight back with the challenges of life to live their life as per their wish (Sen 1993). According to the capability approach, well-being should be discussed in terms of people's abilities to work or function, providing opportunities to perform the activities they want to do and get satisfied (Robeyns, I., 2005).

So, that means that people have complete freedom to live their lives according to their wish and can do what they can do and want to do to live a satisfied and happy life. Moreover, Sen also suggested that well-being should be seen in a comprehensive and integrated manner, like evaluating all aspects of well-being such as; material, mental, spiritual, social, economic, political, and cultural dimensions of life (Robeyns 2005). Therefore, the capability approach had also been used to assess the quality of life (Alkire 2008).

The capability approach argued that the quality of life should be considered and measured directly in terms of 'functioning and capabilities instead of resources or utility' (Alkire 2008). Sen had "articulated the features, scope, advantages, and considerations of the capability approach to measures quality life and living standard" (Alkire 2008). Sen also described the essential feature of well-being that includes the ability to achieve valuable functioning. He also argued that the need for identification and evaluation "of the vital functioning could not be avoided by looking at something else, such as happiness, desire fulfilment, wealth, having primary goods" (Alkire 2008).

As I am examining the quality of life conceptually, I will be examined to compare the characteristic of both the basic needs approach and the capability approach.

The basic needs approach had a relatively long history, and it became widely discussed and practised in the late 1970s. The philosophy behind the basic needs approach is that everyone should be able to pursue well-being. The central notion of the basic needs approach is fundamentally materialistic. It works by identifying a bundle of essential consumption and assessing whether the population has adequate access. It has been generally accepted that the package should cover supplies that are universally needed, such as shelter, sanitation, clean water, and food. The strength of the basic needs approach is that it is easy to operationalise. At the same time, Sen has stressed that the capability approach can be used for a wide range of purposes (Sen 1993). The literature also had described that capability approach mainly focus on getting the information that we need to know individual well-being, and social policies. However, the central claim of the capability approach is that assessments of the person's well-being and quality of life all depend on the sufficient opportunities that people have to lead the lives they have reason to value (Davies 2014).

As the passing time, quality of life theory had also included social cohesion due to various aspects of economic and social change, which are currently considered to threaten the social cohesion of societies, such as rising income inequality, poverty, unemployment, and crime. A detailed review of the literature revealed (Schmitt and Regina 2000), the concept of social cohesion incorporates mainly two dimensions of societal development. "The first-dimension concerns are reducing disparities, inequalities, fragmentations, and cleavages, which have also been denoted as 'fault lines' of societies. The second dimension embraces the forces strengthening social relations, ties, and commitments to and within a community" (Schmitt and Regina 2000). Although both dimensions emphasised within the social cohesion discourse are supposed to represent significant components of individual and societal well-being, these aspects are mainly neglected within the quality of life research.

Moreover, the literature on happiness, good life, well-being, and quality of life is more focused on western culture and less focus on other cultures like (e.g., African and Middle Eastern) given on rational psychology (Said 1979). Therefore, a good understanding of life, happiness, and well-being in non-western culture need historical and current perspectives on ethics, self, and how people define themselves and a quality of life (Abu-Raiya and Pargament, 2011).

The findings from western culture cannot be generalised to other cultures that need empirical investigation. When the quality of life is assessed in a different culture, it is essential to determine the meaning of quality of life in the cultural context. As discussed earlier, Pakistan is an Islamic county and situated in south-east Asia. Therefore, it is essential to find out more about the region's literature on how that specific region sees the meaning of good life or quality of life. In chapter one, I had already discussed some aspects of eastern society meant the quality of life; I will further elaborate in this part of the chapter.

Islam and Confucianism believe to be two of the five greatest religions of the world which have been practised in south-east Asia, and both religions have ethical characteristics. However, Islam, "explicitly representing monotheistic characteristics, asks followers to commit and virtuous to do the right things in life that are determined and governed by the ultimate power, (Allah)". Instead, Confucianism "basically does not talk about God as a concept, but rather about Heaven, which is not a personal power; its followers must be righteous and persistent in their life" (Cetinkaya and Imán 2011).

Moreover, both Confucius and Islam emphasise the importance of "virtues, ties, and order in the family system", as the male person is the head of the family and responsible for the family's existence and security. The male person also deserves more respect, and a younger member of the family must respect and obey the older adults and vice versa. Both Confucianism and Islam have great teaching that presents deep insights, virtues, rights, and family members duties" (Abdullah 2011). Furthermore, literature on both religions also suggested that happiness

and a good life were socially constructed from culture and life experiences over a lifetime (Seligman, 2011).

On contrary, Confucianism discourages the egocentric chase of individual happiness and success because such a search could interrupt social structure and harmony. “Since the world is uncontrollable and unpredictable from the individual’s perspective, belief in fatalism seems inevitable” (Wong 2013). Fatalism identifies “limits of personal autonomy and self-determination”. However, fatalism often also believes that humans can always have a better life if they have good virtues, belief on God and freedom of choice, can spend a quality of life in the future. Moreover, believing in fatalism makes people more patient to bear adversities of life. It also allows to take control over one’s life and make the decision for oneself (Wong 2013).

When assessing the quality of life in Pakistani culture, which has religious influences, there is a need to understand how people live in Muslim society believes good life and well-being. Islam signifies different school of thought, all the primary teaching about human life, well-being, good life, and happiness has been taught through it (Delle Fave et al., 2011). The literature mentioned some differences in the “behavioural expression of happiness” in Islam. In Islamic views, happiness and good life have their roots in the Quran, and the Prophet’s life and all Muslims spent their lives within the perceived and correct interpretation of the Quran (Joshanloo, 2013).

However, the modern Muslim scholars argued that Muslim understanding of life, humankind, and happiness are strong influences by Islam (Husain, 1998). Muslim writers further investigated that modern science and secular philosophies had failed to bring “happiness and good life to humanity, due to a lack of a complete understanding of humankind and its spiritual needs” (Musawi Lari 1997).

In Muslim ideology, God is the one who shows the way to happiness and a good life as he had created the human being. However, the Muslim scholars believed that Aristotle list is incomplete without adding religious faith, purification of the heart, worship, absolute submission to God (Guessoum 2010).

The Islamic writers also assert that fulfillment of the wishes and dreams cannot only be associated with happiness (hedonic), but they also need to supplicate themselves to God. Therefore, it is believed that without strong and religious faith, a human being could not live a healthy and quality life or contribute to society (1992). The Islamic writer is also steady with Aristotle's focus on eudaimonia's social aspects that says, "we should devote ourselves to the collective happiness of humanity to make our life better" (Joshanloo 2013).

For many years great thinkers across the culture had questioned about essential qualities of a good society or good life. For example, "in Aristotle's concept of eudaimonia, individuals were called on to realise their full potentialities to achieve a "good life." (Bynum, T.W., 2006). However, according to the eastern philosophers, they stressed the virtue of limiting individual desires and agreed on an ideology that encouraged an individual to achieve a good society and good life by acting on their religion's ethical values.

To conclude, quality of life is understood as a subjective understanding of well-being while assessing an individual's needs and understanding of a good life. In other words, quality of life can be defined "as the satisfaction of a person with the current life situation. Also, quality of life depends on the person's value system and the cultural environment to which he/she belongs to" (Susniene and Jurkauskas 2009). Therefore, one can say that quality of life comprises core domains (emotional, personal, social, physical, and material psychology) that create personal well-being (Schalock et al., 2016). Therefore, evaluating the quality of life, all the aspects of well-being should be considered.

Moreover, the quality of life in Islamic culture reflects both hedonic and eudemonic wellbeing in the Islamic context. However, none of the research had been conducted to evaluate such complex phenomena in the fatalistic culture like Pakistan; therefore, this research will fill the important gap in this research.

2.4 Measures of Quality of life and well-being in old age

In 1948, when Word Health organization defined health as "not only the absence of infirmity and disease but also a state of complete physical, mental, and social well-being," the physician thought that the patient's health is more than its physical health and it can be affected by the social and environmental factors. However, the medical researcher was encouraged, but; it changed the perception of the government strategies. A National Health Survey, created in 1957 in the USA, “to measure the quality of health of the American people, not just longevity, and to determine the positive elements of good health rather than merely the absence of disease and infirmity” the survey catered social aspects of health and personal impact of illness” (Linder FE. 1966).

In (1963-1969), public agencies were advised and supported to develop more quantifiable new measurements to evaluate national social programs to change society (Sheldon and Parke 1975). This was the time when the social Indicators movement, led by psychologists and sociologists, “began to advocate monitoring change in such areas of public life as education, health, employment, crime victimization, political participation, and population growth and measurement" (Vanhoutte, 2012).

Social indicators mainly have become more important since the population ageing drastically around the world; therefore, it could be said that measuring the quality of life has become more critical to assess and enhance a better life in the later years.

People are living longer and are spending a significant part of their later life in good health. People do have many employment and childcare; they have a chance to possibly “fulfil personal life goals and dreams, given good health and relative wealth” (Vanhoutte, 2012). Therefore, any state or non-government organisations need to measure the population's quality of life living in their third age. And, to assist them to fulfill their unmet goals or dreams.
Now I will be sharing some of the measures used to globally assess the quality of life, particularly in Pakistan.

2.4.1 Measures of quality of life used globally

During the post-war years of rapid economic growth and social change, the more focus was to measure the quality of life; for social research in both America and Europe (Abrams, 1973). So, the objective indicators were used to assess the quality of life of people. Objective indicators were those measurable social statistics such as divorce or crime rates, or ownership of purchased goods, the number of households with telephones, or several cars. In other words, measures could be taken to show changes in the societal quality of life. Problems with these measures lead to the birth of the subjective social indicator's movement. It was argued that, because people's subjective responses are real, and people act based on them (Rapley 2003), one should take account of these subjective responses when assessing the quality of life.

However, in the medical creation, quality of life was and still has been used to measure disease type and treatment outcome (Farquhar, 1995). Many scales had been developed to measure the quality of life. These differ extensively in concept, construction, and content. Therefore, they could not always be compared directly with each other. There are hundreds of measures that had been developed to assess the quality of life, and the majorities are health-related (Burckhardt, and Anderson 2003). Now I will share some literature on the measures developed to assess the quality of life worldwide.

A measure was developed to assess young people's quality of life after one year of having a Haemorrhagic stroke. This instrument had 65 items and considered general health, relationship, emotional well-being. Moreover, the instrument was developed specifically for young adults who had a risk of hemorrhagic stroke between 18 to 49 years hospitalised for a primary, nontraumatic intracranial hemorrhage. Case subjects were excluded if they could not communicate within 30 days of their stroke or had a history of prior stroke or other brain lesion predisposing to hemorrhage. Though the instrument had construct validity, it did not evaluate the subjective well-being of a person with the disease-related questions because the scale disease-related could not evaluate the general well-being of the population (Hamedani et al., 2001).

Moreover, the Utian Quality of Life Scale (QoL) was developed to evaluate the women's QoL in Chinese women living in Hongkong within menopause. The study had an age group between 40 to 52. The scale consisted of 4 domains (occupational, health, emotional, and sexual). The scale-covered the domains which could affect woman peri or after menopause. The telephonic interview was conducted; the article does not share whether the instrument was translated into the Chinese language or was used in the English language. The scale was much related to menopausal health and its effects on emotional well-being. Therefore, it cannot be used to assess the general quality of life of the population or other aspects of well-being that could include social and psychological aspects of well-being (Li and Sham., 2016).

Furthermore, an instrument was developed specifically to assess older adult's quality of life, named the Older People's Quality of Life questionnaire (OPQOL-brief). The questionnaire had 35 items with eight domains: life overall, health, social relationships and participation, independence, control over life and freedom, home and neighbourhood, psychological and emotional well-being, financial circumstances, culture, and religion. The tool was used in Iran and was translated from English to Persian. The instrument had shown to use in healthy people but can be used in "old patients with mild or moderate dementia". This tool had been used in various countries and had shown good psycho matric properties (Nikkhah et al. 2018). This tool was also used on Italian outpatients to assess their quality of life and had shown 0.78 internal consistency coefficients (Bilotta et al. 2011). Furthermore, Bowling et al (2011) found 0.9 Cronbach's alpha coefficients in their research. The instrument had also been used to evaluate the relationship between caregiver psychosocial factors and the quality of life of older adults at home in Ghana, and the scale had 0.81 internal consistency (Bazaadut. 2014). Furthermore, the same instrument in china had shown good internal consistency between 0.7–0.97 (Chen, Hicks , and While 2014). Though the instrument seemed to be reliable and good internal consistency in a different part of the world, but cannot generalise the quality of life of healthy older adults as this tool has the tendency to evaluate the quality of life of people who have dementia. Moreover,

the tool was not based on the theoretical ground, which represents the characteristic of the third age population.

Another scale was developed named Quality of life scale (QOLS) with 15 items and had five domains of QoL: “material and physical well-being, relationships with other people, social, community and civic activities, personal development and fulfillment, and recreation” the questioner was used to inquired person’s quality of life with chronic illness, later ‘the instrument was expanded to include one more item: “Independence, the ability to do for yourself”. This instrument was used for ages 30, 50, and 70. As this instrument was developed generally for all the age groups, therefore, could not specifically share the quality of life of older adults. The QOLS has also been used in studies of healthy adults and patients with “rheumatic diseases, fibromyalgia, chronic obstructive pulmonary disease, gastrointestinal disorders, cardiac disease, spinal cord injury, psoriasis, urinary stress incontinence, posttraumatic stress disorder, and diabetes”. Therefore, this tool cannot be generalised to assess the quality of life of healthy older people. The same QOLS tool was initially developed in the English language later it was translated into various languages such as Arabic, Danish, Farsi, French, German, Greek, Hebrew, Icelandic, Italian, Mandarin Chinese, Norwegian, Portuguese (Portugal and Brazil), Spanish (Spain and Mexico), Swedish, Thai and Turkish. Though this scale was reliable and validated to use to assess the quality of life, but it could have bias findings as people with chronic illness might have different quality of life priorities or concerns (Burckhardt, and Anderson, 2003).

Most scales on quality of life had been developed by professionals and are based on their definitions and standards (Farquhar 1995). However, one of over 80 quality of life scales was identified to evaluate people’s day-to-day lives, such as those with mental illness, chronic psychiatric morbidity, physical disabilities, or infirmity due to old age (Cummins et al., 1994). Also, Population-specific Quality of life instruments has been developed, such as evaluating an adolescent’s quality of life with psychiatric issues (Ravens-Sieberer et al. 2014). Significantly few old age-related measures have been developed, such as geriatric depression scale used to

assess depression in old age. Thus, the focus of much of the previous research into QoL in early old age has been the extent of ill health among the population (Hyde et al., 2003).

2.4.2 Measures used in Pakistan to assess the quality of life

Earlier literature suggested that from the 1960s till 1980s, the following indicators were used to assess the quality of life of the Pakistani population; "life expectancy at birth; health facilities and level of nutrition; labour force participation; education facilities; and consumption of durable goods and energy" (Jamal, and Malik, 1987). Since the 1990s, the Human Development Index (HDI) was used to assess the country's overall quality of life, which measured the country's economic and social dimensions (Sagar and Najam 1998). HDI was used to assess the country's level of quality of life. However, other instruments were used to measure the quality of life of the population, which will be discussed now.

One study was conducted to assess the quality of life among the Pakistani population by using the WHO generic quality of life scale, which was cross-culturally acceptable; it had both validity and reliability to assess in Pakistani individuals. The scale was used in 18 + population; the shorter version having 26 items were used compared to 100 items. The items were divided into four domains: Physical (7 questions), Psychological (6 questions), Social relationship (3 questions), and Environmental health domain (8 questions). The WHOQOL-BREF questionnaire was first translated into the Urdu language. The instrument was used in one of the region of Pakistan named 'Khyber Pakhtoon Khawa'; most people in this region speak the regional language that is 'Pashtu', but the study did not mention whether the instrument was translated in the regional language or the national language 'Urdu'. The instrument had four dimensions (Physical, Psychological, Environmental, and Relationship) that met the minimum reliability standards of Cronbach's alpha: 0.78, 0.71, 0.73, and 0.56. However, findings could not be generalised for older adults as it was not age-specific, as the mean age of the study was 37 years and was assessed in only one province of Pakistan (Lodhi et al. 2019).

Another study was conducted on 120 older adults; out of 60 older people were from nursing homes, and 60 older people were from family set-up were selected through purposive

sampling. The study's purpose was "to explore differences in depression, anxiety, coping and quality of life between elderly residing in old age homes and within' the family set-up. WHO Quality of Life Questionnaire (WHO QOL-BREF) with 26 items was used to assess the quality of life of 60 to 79 years of older adults. "The questionnaire showed discriminant validity, content validity and test-retest reliability". Participants with chronic illnesses such as; heart problems, cancer and severe visual and hearing disability were not included in the study. WHO QOL BREF was used to assess older adult's quality of life with mental illness, which cannot generalise the quality of life of Pakistan's healthy older adults. Also, the number of participants was minimal, where half of the participants were from the nursing home, where the living standard and social conditions are different from the people living at home in the community settings. Therefore, it could not generalize the findings of the older adult's quality of life in general (Parshad and Tufail 2014).

Another study was shown to examine women's quality of life using microfinance in urban Lahore in Pakistan. Quota sampling was used to interview 149 women users of microfinance site office age between 20 to 59. The quality of life questionnaire was developed to measure quality of life in four categories: economic, family, health, and decision-making ability. Random samples were used to select five microfinance providers from the twenty-one providers for this study. Face to face interviews was conducted in the Urdu language. The study did not share the process of translation. However, the researcher shared that the study's limitation did not have a standardised tool to measure microfinance women's quality of life (Jafree and Ahmed 2013).

The, study was also conducted to assess the predictive relationship of biopsychosocial factors (health and lifestyle, self-esteem, self-efficacy, and social support) and quality of life among older adults in Pakistan. The sample size for the study included 557 participants of age 60 years and above and was selected by using convenient sampling. Data were collected through the WHOQOL-Brief questionnaire. Participants were recruited from cities and suburbs of all provinces of Pakistan. The measure is standardised in Urdu (Lodhi et al., 2017). The study

reported acceptable psychometric properties, i.e., $\alpha = 0.88$ to assess the QoL. Thus, measuring QoL on these measures is comprehensive but exhaustive and covers a complete picture of wellbeing in older people. However, the instrument was not specifically developed to assess older adult's quality of life; as WHOQOL has also been used in other age groups. Moreover, the sample was not thorough in its extent and could not be generalised to many other older adults in Pakistan (Tanveer and Batool 2019).

Another study was conducted to assess the quality of life of 60 plus population in Pakistan. The participants were only males due to several constraints such as gender segregation, socioeconomic disparities, and difficulties in retaining and recruiting older women in Pakhtun society. The questionnaire was "consisted of two standardised inventories (Satisfaction with Life Scale) constituted by Diener in 1985 (Diener et al. 1985) and Rosenberg Self-Esteem scale, designed by Rosenberg in 1965 (Rosenberg 1965)". To make sure the reliability of the instruments, the pre-test of the questionnaire was performed. The content validity was ensured by the consistency of the responses in pre-testing. The survey instruments were constructed in both Urdu and English languages to make them more comprehensible to the older adults. The internal consistency of the tool was 0.7 to 0.9. In the context of limitation, the study results were not generalisable altogether since all the respondents were selected from only one metropolitan city, i.e., Peshawar, and were gender biased. This made the result less generalisable to all the older people who belong to the country's other cities (Shah, 2019).

Moreover, a study was conducted to evaluate HRQOL in patients with Cirocis Liver Disease in Pakistan. Two hundred seventy-three participants were part of the study, and the mean age was 49 years. HRQOL is a subjective multidimensional concept that includes functional status, emotional and social wellbeing, and general health. Because growing awareness and understanding of health-related intervention on patients' routine life. There is rapid development in the concept of HRQOL. Therefore, HRQOL is vital in terms of physical and psychosocial wellbeing for patients, suffering from chronic, devastating illnesses. The

measure could not generalise as it was particularly disease-related and was not age-related (Parkash 2012).

To conclude, mainly in Pakistan, the quality of life had been assessed through a WHOQOL developed scale mainly used to assess the quality of life in a variety of situations and population groups. There are very few generic QoL scales used in an older population; most of the researchers had used the Short-Form-36' health status questionnaire as a proxy for QoL.

However, earlier research had suggested that older age groups had' a higher rate of item nonresponse than younger age groups with this instrument because they found several items were not applicable to them. However, there are very few QoL measures that are truly multidimensional (Bowling 2009). And one of them is CASP-19 (Control, Autonomy Self-realization, and pleasure). The CASP-19 was based on needs satisfaction and self-actualisation and aimed to measure Control, Autonomy, Self-realisation, and Pleasure and was developed for the third age (Bowling, A., 2009). The next part of the chapter will focus on the CASP 19 measure of the quality of life.

2.5 CASP 19 the measure of the quality of life in old age

Quality of life has become an interest of many researchers and which has been discussed earlier. Moreover, various scales developed to assess the quality of life in old age have been discussed. The Quality of life measure for older adults was developed based on the 'need satisfaction' theory of Maslow, which has been discussed earlier (Maslow, 1968) and Doyal and Gough (1991), as previously discussed.

The theory argued that human beings need to have the liberty to be autonomous, practice religion, and have political freedom (Higgs et al., 2003). In 'A fresh map of life,' Laslett (1996) argued that older age should not be a remaining category of the life-course, whose populations are more stressing about ill health and death. Instead, he argued that people live longer, healthier lives with more non-refundable income in their retirement. Therefore, older age should be a 'crown of life,' where people are free to develop themselves and their interests (Hyde et al.,

2003). CASP is a measure that was theoretically driven and had four domains, namely; Control, Autonomy, Pleasure, and Self-realisation, and it had 19 items.

The development of CASP is a useful scale for measuring the quality of life in old age (Hyde et al., 2003). Control is "understood as the ability to intervene in one's environment actively. Autonomy is defined as the right of an individual to be free from the unwanted interference of others" (Hyde 2003). Laslett (1996) presented the theory of the Third age and defined that the "older adults should be the 'crown of life' in which people are free to develop themselves and their interests" (Laslett, 1996). Moreover, the increasing participation of older adults in leisure activities and foreign trips showed that the older adults are keen to develop new interests, and based on that, the other two domains, ' pleasure' and 'self-realisation,' were developed. By including the other two domains, it showed that to have a good quality of life is not adequate to be "free from undue interference nor simply to have the potential to be able to intervene in one's environment," but that older adult should engage themselves "through those activities that make them happy" (Hyde 2003).

Moreover, CASP had proved to be a "quick, effective, multidimensional instrument with good psychometric properties" (Wiggins et al. 2008). Furthermore, CASP had also been administered to see the relationship between the different predictors of quality of life. Table 2.1 describes the studies that performed the psychometric evaluation of CASP 19, which will be discussed below in the chapter.

Now the chapter will discuss CASP studies with their characteristics. CASP-19 had been extensively used in various studies with the large and small sample size to date such as; it had been administered in large population-based samples English Longitudinal Study of Ageing (ELSA) waves 1 to 5 (Marmot et al., 2003), the 2004 US Health and Retirement Study (Clarke, 2007); and the British Household Panel Study (BHPS) (Taylor, Brice, Buck, & Prentice-Lane, 2001). The psychometric properties of CASP 19 had been performed in a couple of studies; specifically, in West European countries, primarily in the United Kingdom (Sim et al., 2011; Wiggins et al., 2008) and Ireland (Sexton et al., 2013), but also in Taiwan (Wu et al., 2013) and

Brazil (Lima, F. M., et al. 2014). Initially, the CASP was developed with its 19 items. However, later because of its psychometric properties, it had evolved with the CASP-12 questionnaire (Siegrist, & Wahrendorf 2009). Hence, the scale developers recommended CASP-12 v.1, but they also mentioned that CASP 12 V.1 has a ceiling effect, which was less of a problem with CASP 19 (Howel 2012). The CASP-19 had shown a good to the BHPS and ELSA samples' data, using the confirmatory factor analysis (CFA) approach. Also, the shortened three-factor CASP-12v.2 proved slightly superior to the original 19-item scale. These findings had been confirmed by Sim et al (2011); the authors assessed the psychometric properties of CASP-19 and CASP-12v.2 on a sample of 120 British adults living in the retirement community. There was little distinction between CASP 12 v 1. and v2. CASP. Both CASP 12 v1 and v2 has 12 items and had a three-factor structure where items of control and autonomy domains were merged to form single components while items related to pleasure and self-realisation represented different dimensions.

CASP-12v.1 consisted of 12 items: C1, C2, C4, A5, A6, A9, P10, P11, P14, S15, S18, and S19.CASP-12v.2 (Wiggins et al., 2008) was composed of C1, C2, C4, A5, A7, A9, P10, P11, P12, S15, S18, and S19. Both CASPv1 and CASP v2 did not include C3, A8, P12, P13, S16, and S17. The CASP 12 version 1 autonomy domain showed very low internal consistency. Moreover, two of its indicators, items 6 ("family responsibilities") and 9 ("shortage of money"), seemed to be bad indicators of the SHARE version of the CASP-12. On the other hand, CASP 12 v 2 Cronbach Alpha coefficient for the autonomy scale remained stubbornly low at around 0.45.

Sexton et al (2013) had also undertaken a detailed psychometric assessment of CASP-19 using the Irish Longitudinal Study of Ageing (TILDA) (Kim et al., 2015). Their findings did not support the validity of the established measurement models. The control and autonomy, self-realisation, and pleasure factors were not sufficiently distinctive either empirically or conceptually. Instead, they recommended using a revised 12-item scale with either a single-factor or two-factor model (CASP-12v.3) when assessing overall QoL (Sexton et al., 2013). To

date, the psychometric properties of the proposed single- or two-factor CASP-12v.3 had not yet been further investigated in other studies (Kim et al., 2015).

Moreover, the shorter three versions of the CASP 19, CASP (12 v1.2.3) and CASP 19 were also used in older adults from the HAPIEE (Health, Alcohol, and Psychosocial factors In Eastern Europe) study. The same study found out that CASP-12v.3 is a reliable tool for assessing QoL among adults aged 50 years or older in this population. This version of CASP is recommended for future studies investigating QoL in the CEE (Countries in Eastern Europe) populations (Kim et al. 2015). This was the first study that explored the psychometric properties and validated a well-fitting three-factor structure proposed by Wiggins and colleagues (2008) for the CASP-12 V.1 in a large population sample of older people from Spain. The study further recommended that CASP12 V.1 could be used to assess the quality of life in the older population (Pérez-Rojo 2018).

Several studies had tried to define the factor study CASP12 items through exploratory and confirmatory methods (Kim et al., 2015; Sexton, King-Kallimanis, Conroy, & Hickey, 2013; Pérez-Rojo, Martín, Noriega, & López, 2017; Towers, Yeung, Stevenson, Stephens, & Alpass, 2015), and it showed that 3 factors model of CASP is consistent in many studies. As the 2012 wave of the New Zealand Health, Work and Retirement Study, Towers et al (2015) determined an 11-item, 3-factor solution which fit the data. Later the measure was called the NZCASP-11(Allen., J 2018).

Moreover, a cross-sectional study was conducted on men and women aged 60 and older living in Lithuania. The sample size was 132 out of 28 were male participants, and 103 were women. The Lithuanian version of CASP-19 showed high internal consistency (Cronbach's alpha 0.85); the psychometric properties had shown that the Lithuanian version of CASP-19 was reliable and valid. Moreover, the inter-item correlations ranged from 0.65 to 0.56. However, the weakest item was A6, "Family responsibilities prevent me from doing what I want to do." The study aimed to provide a Lithuanian version of the questionnaire and test its psychometric

properties. The results of the Lithuanian version of the CASP-19 questionnaire were similar to those found in other studies (Černovas et al., 2018).

Furthermore, one of the studies aimed to assess the psychometric properties of the Persian version of quality of life (CASP- 19) in older people. The study included 200 participants. It was the first time when CASP was used in a middle eastern country to evaluate the QoL. The reliability for CASP-19 was 0.97. The Farsi version of the CASP-19 for the Iranian population found a reliable and valid tool to assess the Iranian population's quality of life (Heravi-Karimooi et al., 2018).

The CASP19 English was translated into Bahasa Malaysia or the traditional Chinese language. A total of 466 participants with a mean age of 73.1 years were included in the study. The CASP-19 showed good test-retest reliability; the inter items had a good correlation with each other. However, low inter-item correlations of below 0.2 were observed for A9, which corresponded to the questions ‘shortage of money stops me from doing the things I want to do’. Moreover, the best psychometric properties were observed when tested with the Taiwanese five domain model. Overall Malaysian older adults appear to had better QoL. However, the significant difference in the scoring based on ethnicity where the Malay population scored highest, followed by Chinese, Indian, and others. However, the ethnic Malays who were Muslims believe in fate; they believed that “any occurrence in life is to accept with grace as it is a blessing of God. This naturally results in an accepting nature towards any circumstances within the older Malays in Malaysia”. These fatalist views could be seen in a Muslim society (Nalathamby et al., 2017).

Moreover, CASP 15 was also suggested by Vanhoutte (2012), where the four items were removed because of having low factor loadings to the domain (i.e., shortage of money and family responsibility, ‘my age prevents me from doing things, and my health stops me from doing things’. The subsequent 15-item CASP scale reflects a three-factor solution where the control and autonomy domains form one factor, and each domain includes five items (Jivraj et al. 2014). There had been only limited use of the scale amongst non-European populations. The

CASP was used to assess the quality of life among the Israel immigrants, and the scale was translated into Arabic and Hebrew languages. Moreover, the same study found out that CASP is an excellent instrument to assess the quality of life in non-European populations (Lima et al., 2014).

Moreover, the scale had also been adapted cross-culturally in a few countries. It was used in Africa to study QoL amongst retired Nigerian, and results showed that the CASP-19 scale performed relatively well (Ejechi, 2012). On the other hand, the scale was dropped from the first wave of the Japanese Study of Ageing and Retirement (JSTAR) because; it was felt that some items from the control and autonomy domains were too western that could not be appropriate to assess the Qol in the Japanese culture (Ichimura, Hashimoto and Shimizutani 2009).

Besides, CASP-19 was also used in the Brazilian older population, which was used after cross-culture adaptation. The CASP-16 Brazil demonstrated good psychometric properties and internal consistency. Furthermore, the older respondents quickly understood the CASP-16 Brazil questions. Overall, it was suggested that as it was developed within different cultural contexts, the measure can use in a different culture and globalised society in a culturally appropriate manner (Lima et al. 2014).

Another cross-cultural study on CASP 19 was conducted in Taiwan and used in a Mandarin science community to assess quality of life. After the process of translation and back translation, it was agreed by a research team that the final CASP 19 Chinese Taiwan versions were conceptually and linguistically equivalent. The results showed that the tool had reliability and good internal consistency. Older adults in Taiwan appeared to had lower CASP-19 scores than Western society because of their cultural differences (Wu et al., 2013). Hence, the reliability and quality of CASP 19 had allowed many researchers to assess the relationship between CASP and various factors that affect quality of life (Blane, Netuveli, & Bartley 2007).

The growing ageing population is a concern for many; therefore, many previous studies had also conducted using CASP 19 to see the relationship between the quality of life and socio-economic position. The study revealed that social position did make a difference in an

individual's quality of life. Notably, an individual had a higher social position than the one who had a lower position (Blane, Netuveli, & Bartley 2007). The CASP 19 had also used in a specific population, such as assessing a people's quality of life with frailty. The study suggested that the relationship between frailty and subjective well-being in the older population is about financial resources. Therefore, people with adequate financial resources had better well-being and quality of life in old age (Hubbard et al. 2014).

The CASP was also used to assess the quality of life of a retiring group of people in a community; that showed good psychometric properties. When used in a defined population, a concern with the instrument, such as (retirement), may show ceiling effects. Therefore, the study identified that this group of people living in different environments had a different meaning of autonomy (Sim et al., 2011).

CASP 19 had also been used to assess the effects of life course perspective in old age. The study suggested that past life impacts the current situation and affects QoL (Wiggins et al. 2004). The further life-course study using CASP 19 was also used in a cohort study of middle age in a retirement French men and women. Also, the data was collected from the National gas and Electricity Company. The study suggested that the higher the occupational grades better the quality of life is in the later years. However, it also depends on the person's new circumstances, physical health, wealth, and other determinants; that affect the quality of life (Platts 2015).

Moreover, the CASP 19 analysis also revealed that the scale "can be used to investigate differences in eudaimonic and hedonic subjective well-being across Europe" (Vanhoutte 2012). Besides that, the study conducted using CASP in the British household suggested that better QoL reduced death probability (Netuveli et al., 2012). Another study was conducted using CASP to assess the association between the fertility histories of older British women and men and their quality of life. The results suggested that participants who entered early parenthood had a more mediocre quality of life. Moreover, other factors were associated with this: socio-economic, social support, and health factors. Also, there is an association between fertility history and quality of life (Read & Grundy 2011).

Moreover, CASP was based on the third age theory; it was also used in the study to describe the quality of life of 80 years and older adults who lived independently in the community. That revealed that the population scored well on the CASP scale and showed that people had a better quality of life while living independently (Godwin et al., 2015). The study was also conducted using CASP 19 in a different demographic and residential status besides the original population where CASP was used. The study suggested that CASP 19 showed a good psychometric property and internal consistency. However, the control and autonomy domains were suspected and recommended that more modification of the scale be done while evaluating the psychometric properties (Sim, 2011).

Furthermore, the study was conducted using the CASP 12 measure to investigate the degree of socio-economic inequality, the quality of life of Europeans in early old age, and the influence of the welfare regime type on these relationships. The result showed that individuals in more generous welfare regimes experienced a higher quality of life and narrower socio-economic inequalities in quality of life (Niedzwiedz, 2014).

The study was also conducted to compare different life domains' role in defining the quality of life (QoL) in Ireland. The study illustrated that there was not one predictor that explains the quality of life. However, mental health was only the domain that independently examines the high proportion of variance in CASP 19 (Layte, 2013). Besides that, the CASP was also used to assess the quality of life with occupation position, which results in people with high management posts having the highest score on the quality of life (Netuveli et al. 2006).

Mainly the studies using CASP 19 to date have been used to investigate whether Age and gender, longstanding illnesses, social context, and socio-economic circumstances predict the quality of life or assess its psychometric properties in different cultures. Now the chapter will look into the psychometric evaluation of the CASP 19.

Domains	**CASP 19 Items**	**Original UK**	**Various Eastern Europe and UK**			**Brazil**	**New Zealand**	**Addis Ababa Ethiopia**
		CASP19	CASP12v.1	CASP12v.2	CASP12v.3	CASP16	CASP 11	CASP11
Control	C1 My age prevents me from doing the things I would like to do	X	X	X	X	X	X	X
	C2 I feel that what happens to me is out of my control	X	X	X	X	X	X	X
	C3 I feel free to plan for the future.	X	-	-	X	X	-	X
	C4 I feel left out of things	X	X	X	X	X	X	-
Autonomy	A5 I can do the things that I want to do.	X	X	X		X	X	X
	A6 Family responsibilities	X	X	-	-	-	-	-

	prevent from doing what I want to do.							
	A7 I feel that I can please myself what I can do.	X	-	X	X	X	X	X
	A8 My health stops me from doing the things I want to do.	X	-	-	X	X	-	-
	A9 Shortage of money stops me from doing the things I want to do.	X	X	X	X	X	-	-
Pleasure	P10 I look forward to each day	X	X	X	X	X	X	X
	P11 I feel that my life has meaning	X	X	X	X	X	X	X
	P12 I enjoy the things that I do	X	-	X	-	X	X	X
	P13 I enjoy being in the company of others	X	-	-	X	-	-	-
	P14 On balance I look back on my life with a sense of happiness	X	-	-	-	X	-	-

Self-realisation	S15 I feel full of energy these days	X	X	X	-	X	X	X
	S16 I choose to do things I have never done before	X	X	-	X	X	-	-
	S17 I feel satisfied with the way my life has turned out	X	-	X	-	-	-	X
	S18 I feel that life is full of opportunities	X	X	X	X	X	X	X
	S19 I feel that the future looks	X	X	-	-	X	X	-

Table 2.1: CASP summary used in different countries

2.5.1 Comparing Confirmatory factor analysis of CASP19 from other studies

This part of the chapter will discuss the comparison of the confirmatory factor analysis of CASP 19, used in different cultures. Though there are not many countries where the psychometric properties of CASP 19 had been evaluated. However, the confirmatory factor analysis comparison will allow evaluating the different model fits in different countries. Table 2.2 shows the CFA in the ELSA study, where original CASP-19 was used. ELSA wave 1 had a total sample of 11,234; however, only 9300 data was considered for analysis. The main reason for non-response was a refusal. The first-order model of the study showed a better model fit in the observed data. Both the 'single-factor model' and the 'second-order model' did not fit the data well (table).

Moreover, British Household Panel Survey (BHPS) study the sample was 7480 but 6471 cases were used for analysis due to missing data in the CASP model; only TLI indices recommended that there was little to choose between the first and second-order models; as CFI in both models were on the lower side. However, the RMSEA coefficient has better in BHPS compared to the ELSA.

Another study conducted in the UK, in 120 residents of the retirement community, using the CASP 19 was also evaluated to assess the best model fit. The study displayed that the first-order factor fit better than the single and second-order factor; as the CFI and TLI both were in the first order; the model was more significant than >0.90. The RMSEA score was higher than its limit but better than the single and second model factor.

Also, psychometric analysis of CASP 19 was conducted in Ireland where 8,175, 50+ older adults participated in the study. However, the analysis was performed on 6,823 due to incomplete forms; the finding of CFA indicated a flawed model fit to data. Therefore, CASP-12 V.2 was considered to use for the population. Moreover, the confirmatory factor analysis showed that the 'second-order factors' displayed a better fit to the data.

The CASP 12 (v2) was also administered to 214 people aged 55 in African populations living in Addis Ababa, Ethiopia. The confirmatory factor analysis suggested the best fit with 11

items, the four factors model (CFI, 0.954; RMSEA 0.075) (Hamren, Chungkham, & Hyde. 2015). The psychometric properties of the CASP 19 were also performed in the three countries Czech Republic, Russia, and Poland in the Health, Alcohol, and Psychosocial factors In Eastern Europe (HAPEE) study. The sample age was between 45 -70 years. The total sample recruited was 28,945, and the response rate was 59%. The analytical sample consisted of 13,210 individuals (Czech Republic: N 3782; Russia: N 3802; Poland: N 5626). The confirmatory factor analysis for CASP 19 demonstrated a poor model fit by the goodness of fit indices. Where RMSEA was above 0.10, CFI and TLI were lower than 0.90. Therefore, the CASP 12 v3 was used to assess the quality of life of the population. In all three countries, the 'second-order model' of CASP 12 best fits the data. Though compared to both Russia and Poland, the Czech Republic had the best second-order model fit indices where TLI was 0.97, CFI was 0.98, and RMESA 0.05. The study suggested that it was difficult to compare results to other CEE countries because of similar local studies. However, CFA's result was in agreement with the evidence from UK studies where 'CASP-12v.2, goodness-of-fit indices of the latter two models were of a similar magnitude as that found by Wiggins et al (2008). The study concluded that the Russian data was less well-fit than the Czech and Polish data due to the cultural relevance of certain CASP items (Gyu Ri Kim et al. 2015).

Hence, after looking at the studies conducted using on CFA, the reasons for the difference in the CFA indices could be the sample size of the study, as the researcher had found out that the RMSEA can elevate with small sample sizes ($N \leq 100$). "As the model degrees of freedom decreased, model rejection rates increased for the RMSEA, even with sample sizes as large as 1000. The RMSEA decreased if there were more degrees of freedom and/or larger sample size, keeping everything else constant" (Kline 2015). Hence, there was an "impact of sample size on the fit indexes performance with models with small degrees of freedom", Several studies have shown the importance of sample size on the performance of fit indexes such as the RMSEA (Chen et al. 2008).

Table 2.2 Psychometric evaluation of CASP in different countries

		Tucker Lewis index (TLI)	Comparative fit index (CFI)	Root mean square index of approximation (RMSEA)
CASP 19 (ELSA)	Single factor First order model for CASP Second order model for CASP	0.90 0.92 0.91	0.74 0.80 0.76	0.14 0.12 0.13
CASP 19 (BHPS)	Single factor First order model for CASP Second order model for CASP	0.89 0.92 0.91	0.73 0.79 0.76	0.10 0.09 0.09
CASP 19 (UK retirement community)	Single factor First order model for CASP Second order model for CASP	0.89 0.93 0.90	0.85 0.90 0.86	0.13 0.11 0.12
CASP 12 TILDA (Irish longitudinal)	Single factor First order model for CASP Second order model for CASP	- - 0.83	- - 0.85	- - 0.10
CASP 12 v.3 Czech	Single factor First order model for CASP	- -	- -	- -

Republic	Second order model for CASP	0.97	0.98	0.05
CASP 12 v.3	Single factor	-	-	-
Russia	First order model for CASP	-	-	-
	Second order model for CASP	0.90	0.93	0.07
CASP 12 v.3	Single factor	-	-	
Poland	First order model for CASP	-	-	
	Second order model for CASP	0.94	0.96	

2.6 Predictors of quality of life

Netuveli and Blane (2008), in one of their studies, did a narrative review of selected literature to know older adults' perceptions regarding the quality of life. Most of the participants shared some negative and positive views about the quality of life. Moreover, some of the factors which participants had identified included social contacts with family and friends, dependency, functional limitation, ill-health.

Furthermore, the national survey was conducted in England and Scotland with 999 individuals: by Bowling and colleagues on aged 65 +. The study found out that factors that influenced on quality of life include social roles, health, psychological, home and neighbourhood, financial circumstances, relationships with neighbours, accessible transport facilities; psychological factors such as optimism and positive attitude, contentment, looking forward to things, acceptance and other coping strategies. Their study identified that quality of

life goes beyond health, and therefore in my study, most of these factors had been used as a predictor, including (Age and Gender), to assess the quality of life in older adults.

2.6.1 Age, gender, and quality of life

The well-being and quality of life, specifically in old age, can be affected by many factors, such as relationships with children, relatives, communities, race, ethnicity, socioeconomic status, physical and mental disabilities (Janardhan 2009). Also, cultural barriers and gender inequality can impact older adult's well-being in society, especially in low-income countries, as gender inequality does not allow them to live life fully (Janardhan 2009).

Gender inequality in low-income societies has been stressful, and a burden for women expected to play an obedient wife or daughter in the family (Janardhan 2009). Women are expected to take care of older adults, often at the expense of their physical, emotional, and psychological well-being. This practice is also widespread in most developing countries, including Pakistan, where family norms put more burden on women, decreasing women's quality of life (Janardhan 2009).

Wiggins et al (2004) conducted a study to know whether a person's age and gender impacted their quality of life. The CASP 19 was used to assess the quality of life in 284 sample of the study. In the study, women's number of participants was slightly higher than the male participants, and they were older as 61% of the women were age 70 or more years. Whereas 51% men were over 70 or more years. However, the participants were a 'nationally representative sample of non-institutionalised adults living in England.' (Wiggins et al. 2004). Overall, there was no statistical association between age and gender. one of the reasons for the result could be the limitation of the study where the questionnaire was sent by post; therefore, the response rate was 92%. Unlike an interview, if the respondent doesn't understand the question or what needs to be answered, they could not discuss with the researcher and complete it the way they have perceived. This may harm the validity of the answers as they may not understand the question without prompts (Wiggins et al 2004).

However, the same study found out that there was a strong effect of age on CASP- 19, which suggests that quality of life deteriorates with age (Wiggins et al. 2004).

Moreover, Blane et al. (2004) in one of their study shared a curvilinear relationship between age and quality of life that showed 'older participants tend to experience greater rates of decline in quality of life. (Blane et al. 2004). Though 'quality of life varies with age,' it does not mean that older adults permanently have impaired quality of life. Individual life's circumstances such as living standards, good psychosocial condition, socio-economic conditions, and good health are evidence of having a better quality of life in 50 + older adults. (Bowling, 2009).

Moreover, Netuveli (2006) study using CASP in 50 + population from the first wave of the ELSA. ELSA sample was ‘from three years (1998, 1999, and 2001) of health survey for England (HSE). The issued sample for ELSA wave 1 was 18 813 and the achieved sample was 12 100. The main reason for non-response was refusal’ The study revealed that as age increases, the quality of life decreases. The study also found out that men had a better quality of life than women. Women's QoL was reduced 'being a carer, being not in employment because of looking after home and family and having increased contact with children and family. For men, all these factors were not significant. However, women who lived alone had a better quality of life. However, as the method was a self-completion of the questionnaire by the participants, there was a large proportion of the missing data (Netuveli et al 2006).

Moreover, a study in Brazil using CASP in a sample of (n = 87), (52.9%) community-dwelling older people in Recife, Brazil, reported that women had higher average QoL scores than men though the difference was not statistically significant. However, the study doesn't share the findings of the age effects, because of its small sample size (Lima et al. 2014). As the purpose of the study was to translate CASP 19 into the Brazilian language and validate it, the result could not be viewed as representative of the general Brazilian population. And the study may not generalized because of its convenience sampling as there could be a chance of under-or over-representation of the population (Lima et al. 2014).

Furthermore, CASP was also used to describe the quality of life of the 'population of cognitively functioning seniors aged 80 years and older living independently in the community' (Godwin et al., 2015). In Canada. The sample of the study was 236. The study suggested mean scores for men were (44.4) and women (44.9), which did not show any statistically significant difference, in both the gender. (Godwin et al., 2015). However, the study cannot generalize its findings as the CASP was used on the 80 + population, though the CASP was initially developed to assess the quality of life of the third age. Furthermore, it was only used one city of Canada' which has culturally and genetically homogeneous population' (Godwin et al., 2015). Also, the sample was randomly selected from the community, by the general physicians. Therefore, it would be likely a selection bias as the 80+ population could not give age effects in the study findings.

Moreover, the study was conducted in a large population sample of older adults from the HAPIEE (Health, Alcohol, and Psychosocial factors In Eastern Europe). 'The aim was to assess the reliability and validity of the quality of life (QoL) instrument CASP-19, and three shorter versions of CASP-12 study'. The study found out that in the population samples of men and women aged 45 and 70 years in Russia, Poland, and seven Czech towns, men scored significantly higher on the CASP-19 than women in all countries. Polish men and women reported the highest CASP-19 scores, whereas Russian men reported the lowest CASP-19 scores. The study findings showed the cultural influences on the results of CASP in all the countries (Gyu Ri Kima et al. 2014). However, the findings could not be generalized because of their methodological issues. It was a self-completed questionnaire; it may not allow participants to respond accurately or honestly and had recall bias. Also 'respondents included in the study may not represent the whole population.

Also, looking at the age effect on quality of life (Netuveli 2006) study was identified in 'secondary analysis of wave 1 of the English longitudinal study of aging ' that the quality of life increases from 50 years (CASP-19 score 44.4) to peak at 68 years (CASP-19 score 47.7). It

gradually started to decline, reaching the same level as that of 50 years by 86 years. And by 100 years, the CASP-19 score had declined to 37.3 (Netuveli, 2006).

Similarly, the study uses data from the first wave of the Irish Longitudinal Study of Ageing (TILDA) was conducted, 'comprising a random sample of community-dwelling individuals aged 50 and over in the Republic of Ireland'. The 640 sampling geographical clusters stratified by socio-economic group, followed by 40 households within each cluster. 'A total of 8,175 home interviews were conducted between 2009 and 2011. Of these, 6,912 returned a self-completion questionnaire including the CASP-19 scale'(Sexton et al. 2013). The study suggested that the Mean CASP-19 score increased from age 50, reaching until 67, the quality of life started decreasing until the age of 95 in the Irish population (Sexton et al. 2013).

Moreover, People in different cultures may hold different personal values that affect their preferred course of action. Therefore, assessing the quality of life with the measure, CASP could have a different impact on the predictors of the quality of life. For example, different cultures perceive gender empowerment differently. Such as when CASP used in Canada, there were no significant effects of quality of life in both the gender whereas when it was used in Brazil women had a better quality of life than the man, it was not statistically significant.

2.6.2 -Socio-economic factors and quality of life

Well-being in later life is associated with higher socioeconomic status, financial security, and better education (Pinquart and Sorensen 2000). Thus, both positive and negative association between the quality of life and financial circumstances had been reported in various studies. In terms of the perceived financial situation had a negative association (Blane et al., 2012; Netuveli et al., 2006; Webb et al., 2011), the housing tenures had positive (Ross et al., 2008, p. 47), inadequate pension arrangements of the country had negative (Wiggins et al., 2004), income had positive (Netuveli et al., 2006; von dem Knesebeck et al., 2007), and wealth had a positive (Zaninotto et al., 2009) impact on the quality of life..

Moreover ‘data from the English Longitudinal Study of Ageing for those completing CASP-19 in both Wave 1 and Wave 2 (n = 6,482) to investigate how to interpret changes on the CASP-19 quality of life scale for older people’. The Study collected data on many characteristics such as socio-economic, health-related, and social circumstances from a nationally representative sample of adults aged 50 years and over in England. The participants were asked if they have a ‘limiting chronic illness, suffers from depression (CES-D 8 score>3, is often troubled by pain, has difficulty walking ¼ mile, lives alone, is in employment and has access to a car. A self-assessed socio-economic variable was also included, their ‘self-perceived social status on a ladder’ (0–100 scale, 100) being highest status)’ 'Cross-sectional comparison of CASP-19 scores found small differences in those who differed in indicators of socio-economic position and larger differences in those with different health states' (Howel 2012).

Another study conducted using ELSA sample. In this study 9,300 people completed CASP in Wave 1 and 6,820 in Wave 2. However the analyses was performed on 6,182 participants who completed CASP on both occasions. This allowed a clear comparison between the cross-sectional and longitudinal differences. The 'Cross-sectional comparison of CASP-19 scores found small differences in those who differed in indicators of socioeconomic position and larger differences in those with different health states' It was also identified that quality of life was 22% higher in the population who were wealthier than the most impoverished population. as the socioeconomic status could depend on the financial circumstances of an individual (Howel 2012). The difference between the two waves was not too long, and therefore, the socioeconomic conditions in 2 years were not changed significantly than the health.

Baseline data from the 'Survey of Health, Ageing, and Retirement in Europe' (SHARE) were obtained in 14 European countries to understand differences in quality of life in early old age, 'associations between socioeconomic status, socially productive activities and well-being.' The sample size was (n=8,896). The mean age of the population was between 64 and 75. The data was taken from the first and second wave, and more than half of the population were male participants. The finding displayed that almost half of the sample considered leaving their jobs

as early as possible, with a higher prevalence among participants who belonged to a lower socioeconomic status and those with reduced quality of life. It was found out that low socioeconomic status and reduced quality of life were strongly related to low quality of work. There were two indicators of socioeconomic position were asked to the participants that were 'education and income' (Siegrist et al., 2007). The income information was based ‘on the total annual household income composed by the sum of different income components which were assessed in the questionnaire and Education was measured according to the International Standard Classification of Educational Degrees(ISCED-97), categorized into ‘low education’ (pre-primary, primary or lower secondary education), ‘medium education’ (secondary or post-secondary education), and ‘high education’ (first and second stage of tertiary education)’(Siegrist et al., 2007). The study suggested that both the indicators could not be appropriate for the people who were already retired and had no source of income.

Furthermore, the fourth and seventh waves of the English Longitudinal Study of Ageing (ELSA) were conducted to know 'what extent, working beyond State pension age affects the quality of life (QoL).' The sample population for men was aged (65-74) and for women aged (60-69), the total sample size was (n=2502). To achieve the aim of the study The respondents were asked ‘whether respondents were in paid work beyond SPA for financial reasons (i.e. because they ‘could not afford to retire earlier’ or wanted to ‘improve their pension/financial position’) or voluntarily (i.e. because they ‘enjoy working’ or to ‘keep active and fit’). And Retirees were categorised into three main groups: ‘normal’ retirement (‘they reached SPA’); ‘involuntary’ retirement (due to their own or someone else’s ill health, or redundancy); and ‘voluntary’ retirement (including to ‘spend more time with family’ and because they ‘could afford to retire’)’ (Di Gessa et al. 2018). The Study identified that 1 in 5 participants was in paid work beyond their age .and it was found out that people who worked beyond their state pension age had a lower quality of life than those who worked until the state pension age (Di Gessa et al. 2018). However, the Study fails to apprehend other vital factors related to work participants were doing such as (e.g., working hours, physical demands of the job, whether respondents were

self-employed, or measures of occupational strain). The study also didn't show whether the participants re-joined work after exiting the work after retirement and what circumstances made them work after state pension (Di Gessa et al. 2018). And therefore, it cannot conclude that financial constraints forces to work after retirement as it decreases the quality of life. Moreover, the study cannot be generalized around the world as each country has their own retirement age. Also, some countries do not have any pension system for the citizens after retirement (Ruth E. Hubbard et al. 2014).

2.6.3 Physical health and quality of life

Health is the most crucial predictor of subjective wellbeing and quality of life in later life (George, 2010). Physical health, functioning, and mental health have a significant influence on the quality of life. A longstanding illness could reduce the quality of life (Netuveli 2006).

A study was conducted from a general Irish community-dwelling population aged 50+ years with a sample of ample (n = 4961). The sample was taken from the Irish Longitudinal Study of Ageing (TILDA). The research aimed to see how chronic diseases affect QoL using CASP 19. The 'Chronic conditions were measured by number of self-reported doctor-diagnosed physical chronic conditions' (Sexton, 2014). Self-reported diagnosis may have information bias as participant may misunderstood or does not have much knowledge about their illness. Moreover, participants were asked the physical mobility questions using IADL and ADL questionnaire. The study found out that there was a strong effect of the physical impairment on the two domains of CASP (control/Autonomy) due to life circumstances, whereas (self-realization/ Pleasure) had a lesser effect as it might be more influenced by psychological factors such as mood. (Sexton, 2015) However, it is debatable as it could not be the same in other cultures due to other predictors of life such as socioeconomic factors, as it is evident that past socioeconomic circumstances are a primary determinant of current physical and mental health (Sexton, 2014).

Similarly, a population-based study assessed the impact of a different chronic condition on the quality of life using CASP 19, aged 50 years and older, ‘taking part in wave 1 of the English Longitudinal Study of Ageing’. the chronic illnesses included (stroke, cancer and diabetes, chronic lung illness, and server osteoporosis). ‘Presence of chronic illness was assessed during the home interview, and participants responded to the following question, ‘Has a doctor ever told you that you have (or have had) diabetes, chronic lung disease, asthma, cancer (or history of cancer after age 40), osteoarthritis, rheumatoid arthritis, CHD, or stroke?’. The finding showed that chronic illness is associated with the QOL.

However, ‘study was cross-sectional, so causal inferences cannot be drawn. Also, identifying chronic medical conditions was based on self-report of having been told of the illness by a doctor, which may not be as accurate as physician diagnoses. Also, the onset of illness and time of collecting data may impact the quality of life. (Wi kman, Wardle, & Steptoe, 2011).

Moreover, a cross-sectional study in Taipei City, Taiwan, was conducted in 2010. The sample was selected from the hospital that came for their free health examination. The participants were asked about chronic disease and it was self-reported by the participants This had been evident in Taiwan using CASP measure that chronic diseases were associated with lower scale scores (Tai-Yin Wu et al. 2013).

Another study was conducted to investigate people with higher well-being have a lower risk of developing arthritis. ‘participants were asked whether a doctor had ever told them that they had ‘arthritis including osteoarthritis, or rheumatism’ (Okely et al., 2016). The finding showed that People with higher CASP-12 scores had a significantly lower risk of incident arthritis. However, the risk was higher in the younger age group. also, other factors were associated with health, such as Socio-Economic condition, education, depressive symptoms, and health behaviours (Okely et al., 2016).

2.6.4 Psycho-social factors and quality of life

The term 'psychosocial' has been extensively used in the literature of public health and beyond. One of the most used definitions by the World Health Organization (WHO 2018) is "a state of complete physical, mental, and social well-being and not merely the absence of disease and infirmity." Also, psychosocial well-being depends on health, education, housing, neighbourhoods, and the environment in which people live (Cohen, Doyle, and Baum 2006). It was evident that social relationships, social coherence, and community support influenced the health and quality of life (Berkman, 2000).

Furthermore, a study was conducted on people living in a household setting in Britain aged 65 or more years. The study collected both quantitative and qualitative data. The 999 samples were collected answering semi-structured survey instruments. The 80 participants from the study were followed up in greater depth one and two years after the baseline interview, And the finding of the research shows that having good social relationships, help, and support; living in a home and neighbourhood that is perceived to give pleasure, involving in the social activities have a strong association with the quality of life. However, the follow-up of the participants was less than a half population which was initially interviewed could not justify the results that after a year or two, all 999 participants of the study would have the same thoughts about the social connectivity (Bowling et al., 2002).

On the contrary, a study was conducted on 286 British people aged 65–75 years who were members of the sample for the 1930s Boyd-Orr study of health and diet. The study aimed to identify the life course and relative factors that influence the quality of life in early old age using CASP 19. A postal questionnaire was sent to the participants. The variables in the research included (social support and participation, the quality and quantity of social contact, feelings of trust and reciprocity about the local neighbourhood, health, and financial security). The social support and participation were measured both quality and quantity of social contacts, ‘for this purpose questions were adapted from the local area study carried out by the National Centre for Social Research (Veenstra 2000)’.

And the finding suggested that “frequency of contacts with friends and family was negatively associated with the perceived quality and density or closeness of these interactions. Being in contact with friends and family does not guarantee an enhanced quality of life, and some social contacts may be burdensome”. The study suggested that, ‘being in contact with friends and family does not guarantee an enhanced quality of life' and contact socially with people may be troublesome. Also, living in a deprived area, the quality of a person’s social network may affect the quality of life (Wiggin 2004). ‘Veenstra’s (2000) finding of the negative association between the frequency of social contacts with friends and family and health was replicated, which leads to conclude that social contact per se should not always be beneficial. Indeed, it may even be a source of conflict and stress for some people’ (Veenstra’s 2000). However, this finding could not generalize around the world as in some culture and ethnicity people live in close boundaries and loves to interact with family and friends.

Moreover, wave 1 of the English longitudinal study of aging was conducted to investigate whether longstanding illnesses, social context, and current socioeconomic circumstances predict the quality of life. The representative sample size was collected from England (n = 11 234) using the CASP 19 scale. The questions on social network were asked knowing the ‘quality (whether participants felt their relationships with children, family, and friends were based on understanding, confidence, and support), frequency (how often a participant met or contacted by phone or email children, family and friends), and the existence of close or confiding relationships (a count of the number of children, family, and friends with whom the participant had close relationships’. The findings had showed that the quality of life decreases in people with depression, but the quality of life was improved by trusting relationships with family and friends, frequent contacts with friends living in good neighbourhood (Netuveli 2006).

A study was conducted in Taiwan, 699 older people using CASP 19 to understand the relationship between psychological well-being and cognitive function. The result showed ‘In a community-dwelling sample from Taiwan, participants living alone had a lower average quality of life scores than other participants. And this could be because of the cultural difference in Eastern and Western culture. As in Asian societies, more stress is given to living with the families. and ‘Families are the principal social support network in old age in the Chinese tradition.’ (Ng, Phillips, & Lee, 2002). The study had a limitation of its Selection bias as the response rate of the face-to-face interview was about 70%. And the selection bias may affect the internal validity of an analysis by leading to inaccurate estimation of relationships between variables (Wu et al., 2013).

Another study was conducted in Ireland, where 8504 individuals from the household participated in the study. The aim of the study was ‘to compare the role of different life domains in determining the quality of life (QoL) in Ireland with international results. As it was a self-completion questionnaire, the response rate was 62%. The following variables were used to assess the quality of life with the CASP 19; (physical and mental health, social participation, economic resources, and sociodemographic status). The social participation assessed asking the frequency of ‘social contact {daily, weekly, monthly, less than monthly), active and social leisure {dichotomised as < or > 1 per month), and formal organizational involvement outside work (measured according to engagement in volunteer work > 1 per month)'. However, the health variables such as having any illness or physical limitation were asked using single yes/no answers. The study finding showed there is no single factor responsible for increasing and decreasing quality of life as it suggests that ‘ Increasing longevity can be associated with increasing QoL as long as it is accompanied by reasonable levels of mental and physical health, high-quality relationships, and social participation. Even people with poor physical health have a better quality of life if they have a means of enjoyment in another dimension of life (Layte et al., 2013).

Another study was conducted to explore age-trajectories of quality of life (QoL) among older adults living in England. The data was collected from the three waves of the English Longitudinal Study of Ageing, aged 50 and over. ADL and IDAL questionnaire were used to answer daily activities. to assess depression 8-item shortened version of the Centre for Epidemiologic Study Depression Scale (CES-D) was used. 'Social support and social network were collected using a self-completion questionnaire. Respondents were asked about the presence of positive support from their spouse, children, other relatives and friends (how much they understand the way the respondent feels about things, how much they can be relied on if the respondent has a serious problem and how much the respondent can open up to them to talk about worries). Respondents were also asked to indicate the number of family members and friends with whom they had a close relationship. From this question, a continuous variable was derived that indicates the number of close friends/family in the respondent's social network' (Zaninotto et al., 2009). The finding had showed that the quality of life was bad in older adults than the younger adults. The quality of life also declined for people having depression, decreased the number of friends and low social support (Zaninotto et al., 2009). Moreover, study was conducted to know whether a change in social, socio-economic and health circumstances predict change in the quality of life. The sample was taken from waves 1 and 3 of the English Longitudinal Study of Ageing. The social contacts and relationship questions were asked knowing the frequency of the meeting with friends and family, number of people participants think they had a trusting relationship. These questions were asked on ordinal scale. The responses ordinal scale is often so narrow in relation to the question that might have response bias. The findings of the study showed that quality of life decreased over the four years because of depression, physical health, stable family relationships, and neighbourhood (Webb et al., 2011). Similar findings in ELSA Netuveli (2003) also suggested that people with social detachment having less emotional support and little contact with their friends and family had a lower quality of life score measures on the CASP scale (Tomaszewski and Barnes, 2008).

Moreover, having more relationships with friends and family results in improved CASP 19 quality of life scores (Webb et al., 2011).

2.6.5 Life course and quality of life

Life-course refers to "a sequence of socially defined events and roles that the individual enacts over time" (Giele and Elder 1998, p. 22). The life course perspective has been used to understand the behavioural and social indicators separately in aging (Elder 1994). In 1983, Fethterman well defined that aging is a process that starts at conception till death. A human must face physical, psychological, and social changes and are influenced by how people live their lives (Elder 1994). Therefore, various researchers and disciplines had investigated the life course perspective differently. Mainly, the life-course researchers studied to understand the social process and involvement in society.

Furthermore, the study was conducted in Britain on a 300-sample size to collect health and life course information in the older adults age 50 + through the postal survey. The participants of this study were unique. Which was taken from the Boyd Orr study, and the sample was representative of the British population. Retrospective information about the participant's lives since the '1937–1939 survey was collected by life grid (Berney & Blane, 1997), including the occupational, residential, and household histories from which lifetime hazard exposures were calculated' (Holland et al.,2000). The study found that good quality of life was related to material wealth, housing ownership, unemployment, or chronic disability during the life course. However, the quality of life was mainly affected by the current contextual factors such as 'material circumstances and severe health problem's (Berney & Blane, 1997).

Moreover, studies using a life course perspective suggested that childhood circumstances influenced older adults' Quality of life (Holland et al., 2000). Blane et al. 2012, suggested a positive association between life course circumstances and Quality of life (Blane et al., 2012). GAZEL study was conducted to investigate that life-course events and present social, psychological circumstances impact the Quality of life. The data was collected from the administrative report and through a self-administered questionnaire. Mental health was assessed

using Short-Form 36 Health, physical functioning was assessed using French version of the SF-36. Neighbourhood characteristics were asked using two questions ‘satisfaction with access to (1) local shops and services and (2) leisure activities. Dissatisfaction with access to either set of amenities was coded as 0, otherwise 1’. The social support was measures asking subjective question whether participants had a close, confiding relationship. ‘Is there somebody with whom you can discuss personal things or who can help you take an important decision?’ Negative responses were coded as 0, affirmative responses were coded as 1.’ Answer like yes/no could restricts participants to share their experiences. The findings suggested that the past event had both; negative and positive influences on the Quality of life that included owner-occupiers, living in areas, social contacts, occupational exposures, and physical working conditions (Wiggins et al. 2004). Another study had found out that physical working conditions have a long-term impact on health and Quality of life in older ages. Improvements in physical working conditions may improve one's Quality of life. (Platts et al., 2015).

The CASP 19 was also used to assess relationships between quality of life and various lifetime social position measures. However, the study did not find any "associations between manual or non-manual social class based on the last period of employment and CASP-19 quality of life" (Blane et al., 2004). Nevertheless, some factors such as family, financial condition, and place throughout the life course affect one's well-being and Quality of life (Blane, D et al. 2004). Moreover, the British Boyd-Orr cohort study also suggested that father's social class, received a meal at the age of 11 in school; experiencing financial difficulties and environmental hazards (air pollution, residential damp, and inadequate nutrition) were all associated with lower Quality of life scores (Blane et al., 2004).

The literature review on predictors of Quality of life had identified that CASP had been used to recognize its predictors in old age. It has been found that variables like socioeconomic status, social connections, physical health, mental health, and life course events are essential for maintaining a sense of well-being in older ages. Moreover, People in different cultures may hold different personal values that affect their preferred course of action. Therefore, assessing the

Quality of life with the measure, CASP could have a different impact on the predictors of the Quality of life.

Nevertheless, there are minimal studies that have been conducted in the developing country to see the effects of the different predictors on Quality of life, using CASP measures in a different cultural context like Pakistan. As discussed earlier, the social realities about the emerging older adults' issues are changing due to urbanization, modernization, the nuclearization of the family system, especially in urban cities of Pakistan. Therefore, it might give a different picture of predictors of Quality of life in Pakistan.

2.7 Conclusion

The literature review does not show any agreement on the definition of quality of life and well-being. However, based on various definitions coined by professionals of different fields, various measures had been developed to assess the quality of life in the general population and old age. CASP is one of the few theoretically informed tools to assess 50+ older adult's quality of life. CASP 19 has proved to be a useful tool to measure the quality of life of 50+ older adults. As described in the literature review, CASP had been used to identify the various predictors of the quality of life, including social aspects, psychological aspects, physical and mental health, essential for positive well-being in later life. The studies in the literature also described that quality of life decreases with age. Besides, the studies that had performed psychometric properties of CASP were mainly from Europe and the United Kingdom, where CASP was initially developed. Very few studies using CASP were conducted in other parts of the world, specifically in less advanced economies such as Pakistan, where the culture is different from the western world. This research will add to the previous literature; the quality of life scores of 50+ Pakistani older adults living in Karachi Pakistan's urban city, and residing in fatalist society how the older adults interpret the domains of CASP.

Some less advanced economies had used CASP 19 and found that it was reliable to use in their specific population, following appropriate cultural adaptation. This study will be built on this growing body of knowledge by adding the perspective from Karachi, Pakistan. In particular,

this research will be validating the psychometric properties of CASP 19 for use amongst older adults living in Karachi and assess the predictors of the quality of life in old age.

However, before that, the study will describe the conceptual framework and the methodological approach used to conduct this study.

Chapter 3: Conceptual framework, Research questions Aims and Objectives

3.1 Introduction

This chapter introduces the conceptual framework of the study. This will further describe the overall aim of the thesis. It will also outline the questions and objectives of the thesis based on the conceptual framework.

3.2 Conceptual framework

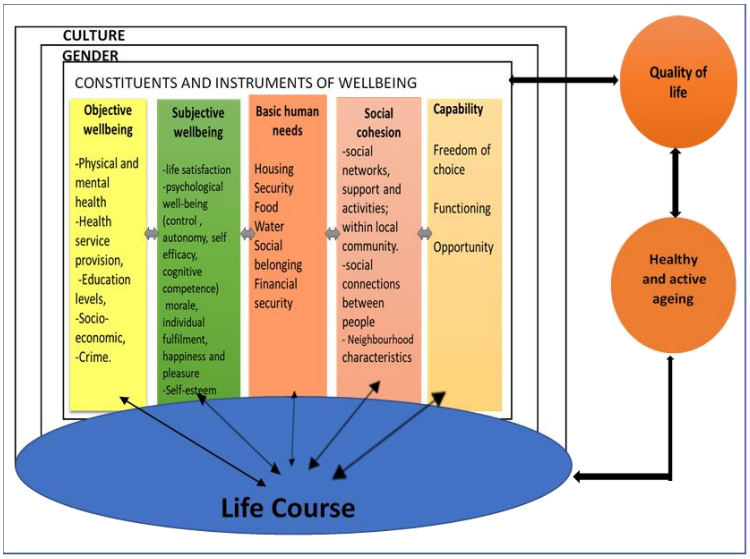

Diagram 3.1: a conceptual framework

This study's conceptual framework assumed that the quality of life in old age predicts well-being. Well-being is an amorphous term depending on who has used it and in what context. For this research, the study has identified five factors that may define well-being (a constituent) and create well-being (instrumental). This duality is well-known in the well-being literature, which has already been discussed. I also assume that a sense of well-being can be gendered and be under the influence of culture.

The conceptual framework highlights that life-course events affect the quality of life and can positively and negatively affect the ageing process. Therefore, events that occur throughout

the life course influences the well-being and quality of life (Kuh et al., 2014). Hence, the culmination of a positive life course trajectory is active and healthy ageing.

Thus, this study adopted a conceptual model, which defined quality of life as "Perception of individuals to maintain the position in life, especially in the context of their own culture and value system where an individual has their own goals, expectations, standards, and concerns. It is a broad-ranging concept, incorporating the person's physical health, psychological state, and level of independence, social relationships, personal beliefs, and relationship to salient features in the environment" (Whoqol Group, 1998). So, people should attempt to achieve all the five defined attributes (presented in diagram 3.1) of well-being in their entire life to get a better quality of life.

The diagram shows there is no hierarchy to achieve a good life all well-being boxes have two-sided arrows that shows interconnection. The life course box also shows two-sided arrows which link to the boxes of wellbeing that indicates that the needs of an individual change throughout the life course

The conceptual framework has been used to develop the research questions and objectives of the study, presented below.

3.3. Aim

3.3.1 General aim of the research

This PhD's thesis aims to assess the quality of life and well-being of the 50+ older adult population living in Karachi (Pakistan) using CASP 19. Moreover, this study has aimed to make a more conceptual contribution by exploring possible predictors to pertained quality of life in a less advanced economy. In particular, the study will examine an association between sociodemographic, psychosocial, socioeconomic, life-course variables, and quality of life in 50 + older adults age, assessed by the validated CASP scale in Karachi, Pakistan. Moreover, to achieve the above mentioned broad aims, the following research questions and objectives will be addressed in the thesis:

Research question 1:

1. What is the level of quality of life for older people in Karachi, Pakistan?

Objectives

1.1 To adapt CASP-19, a validated measure of the quality of life, in Urdu in a culturally competent manner.

1.2 To survey a sample of older adults in Karachi from three strata of low, middle, and high income.

Specific objectives for question 1

1.1.1 To translate and back translate CASP 19 into the Urdu language.

1.1.2. To pre-test the Urdu version of CASP 19 with the elderly in London.

1.1.3 To finalize CASP in the Urdu language for survey in Pakistan.

1.2.1 To survey three strata, 100 in each low, middle, and high - income areas of Karachi, Pakistan.

Research question 2:

2 What are the determinants which provide a better quality of life for older adults in Karachi?

Objectives

2.1 To measure and associate the material, the psychological and the social factors with the quality of life of older adults in Karachi.

2.2 To measure and associate the life course determinants of older adults' quality of life in Karachi.

Specific objectives for question 2

2.1.1 To develop a questionnaire with social, psychological, and life course factors influencing the quality of life.

2.2.2. To adapt Boyd's Orr life course questionnaire.

2.2.2. To translate the completed questionnaire into the Urdu language.

3.4 Conclusion

This chapter has described the conceptual framework of this research. Moreover, with that understanding, the questions and objectives of the research were developed. The thesis will then move onto the methodology chapter that will describe in debt methodology used to answer the above research questions.

Chapter 4: Methodology

4.1. Introduction

As given the conceptual framework, aims and research questions have been discussed above in chapter 3; this chapter will discuss the methodology used to answer these research questions. It also described the method used for the cross-cultural survey. The chapter will discuss the research design, sampling, data collection, and data analysis. Moreover, it will discuss ethical consideration. The chapter will end with the conclusion of the methodology.

4.2 Research Methodology

The methodology which had mainly used in this research is quantitative. However, the qualitative method (focus group) was also used in the cross-cultural study when the CASP 19 tool was adapted into the Urdu language to assess the quality of life where two focus groups were conducted (one for males and one for females) to check the cultural, conceptual, and content equivalence of the CASP 19. The responses of methodology had based upon the research approach and the contextual lens through which analytical consideration occurred. However, methodology underlined "general research strategy that outlined the way through which models of research have taken into account." Several methods had been performed, which had been discussed in the relative chapter 5.

4.2.1 Quantitative method

The research method acts as a tool that can be used for the basis of the quantitative data collection method that demonstrated to provide accuracy in techniques. However, the quantitative research method is conducted when the research has aimed to test theories and hypothesis to study the relationship between variables that are measure and collected, numerically and analysed statistically (John et al., 2011). Quantitative data provided measurable evidence that helped to show (possible) cause and effects. Further, quantitative research is included in various methodologies, including surveys, observational studies, case-control studies, and randomised controlled trials. This research's nature was quantitative, as a various method of scale was quantitative such as CASP 19, geriatric depression scale, social coherence

scale, and optimism scale. And other quantitative indicators to assess the well-being and quality of life.

4.3 Research design

This research aimed to assess the quality of life of 50+ older adults living in Karachi, Pakistan. Therefore, the cross-sectional design was used to acquire information from three strata at a single point in time. The survey is a standard research method in quantitative research. It is "quick and an inexpensive method that allowed the collection of a significant amount of data from a sizeable population" (Grey, 2009). A cross-sectional study is used when the researcher wants to achieve detailed knowledge of the subject, and it is often done in the form of a survey. Additionally, it does not have any hypothesis, but it described the outcome and risk factors of the targeted population (Levin, 2006). Therefore, a structured survey interview was conducted for effective results. It was also essential that the sample represents an entire population so that the represented results can act as generalised (Lachlan. 2013). The most common way to sample population includes random, stratified, purposive, convenience, cluster, and snowball.

Initially, a stratified random sampling method was identified for this study. In the stratified random method, subjects would be recruited randomly for each stratum (low middle and high income); the plan was to insert all the street names from the three strata in an excel sheet and then select random street names for data collection. Later, all the households would be approached for the targeted population. However, it was not possible in practice as low-income target areas (Pahar Ganj), and middle-income targeted areas (Khudadad colony and Al-Noor society) did not have any street names for random selection.

Besides, random sampling was not a realistic approach in this research for security and political reasons, as many areas were not safe for visiting purpose. This issue was discussed with the mentor based in Pakistan, Dr. Rozina Mistry, and the supervisor Professor Netuveli. Then the cluster sampling was chosen for the study where all the households would be approached from the targeted population. Clusters were selected from the areas where the VCARE welfare

society for active and healthy ageing (supported for research in Karachi) had provided their services.

The cluster sampling was done in two stages;

Stage one: Is the identification of the population in each stratum (cluster)

Stage two: Identifying the sub-population in each stratum that happened to be purposive (rather than random as initially planned).

The cluster sampling method is extremely cost-effective. It requires minimum efforts in sample creation, fieldwork simplicity, and convenience of execution, especially in the area where security is an issue. However, it also has its limitation and is prone to biases. “If the clusters that represent the entire population were formed under a biased opinion, the inferences about the entire population would be biased as well”. The other bias that could be crucial in choosing cluster sampling is selection bias. The study participants were selected from specific areas, and other areas were not represented in the sample. Moreover, the study participants were recruited from a particular group; therefore, the sample could not represent the study's entire population (Alatawi 2017).

Thus, there might have been limitations for generalisability of the findings across other regions in Pakistan where social phenomena might differ due to many cultural groups across geographic regions. Yet, a sample size calculation was used to improve the internal validity for the sample population. To overcome cluster sampling challenges and improve the internal validity, a randomised selection process was applied. For this, a list of the lanes of each area were created; for example, in the low-income area, every 2nd lanes were selected. Data were collected of all, To overcome cluster sampling challenges and improve the internal validity, a randomised selection process was applied. For this, a list of the lanes of each area were created; for example, in the low-income area, every 2nd lanes were selected. Data were collected of all the households. “Although this method provides the benefits of randomness and unbiased sampling by ensuring all clusters in the target population have an equal probability of being selected” (Bluman, 2007). The possible implication of cluster sampling on the result could

estimates “standard errors that could be high as compared to other sampling designs with the same sample size” (Ahmed, S., 2009). Even though the extent of the sampling error could not be estimated, but bias might be present. Moreover, some measures were taken to ensure reliability and validity, which are discussed in the latter part of the chapter (Polit et al. 2001).

In a cluster, purposive sampling was used. It is a non-probability sampling, which can be very useful when reaching a targeted sample easily and quickly. It has both advantages and disadvantages. The advantages of purposive sampling are that it is more convenient and economical than other sampling methods (Brink, 1996:135). The researcher can choose knowledgeable subjects about the research subject because of their own experience (Brink, 1996 pg 141). However, the disadvantage is that it limits the generalization of the findings. There is also the possibility of sampling bias. However, to minimise sampling bias, the researcher carefully followed the inclusion criteria (4.8.6) (Brink, 1996).

4.4 Research support in Pakistan

The NGO named VCARE social welfare Society for Active and Healthy Ageing provided research support in Pakistan. The association with VCARE is not new; it had lasted for about the last seven years from now onwards in volunteer consultant Public health and NGO President. This organisation was founded by one of my family members. VCARE aimed to work for the active and healthy ageing of the population in Karachi, Pakistan. The role of VCARE in my research was to offer logistic support and supplying data collectors. However, it was my responsibility to train and supervise all the data collectors.

Two-days training program for the data collectors were conducted. On the first day of training, participants had briefed the purpose of the research, the role and responsibility of the data collectors, and the research methodology. The research process was also shared with participants, which included how the participants would approach to take part in the research.

Moreover, the questionnaire, consent form and information sheets were shared with the participants. Participants were asked to go through all three forms and ask if they had any questions. Later, the participants were given time to practice improving their interview skills,

including greeting the participant, introducing them, taking written consent, and going through with the questionnaire. Data collectors were also provided feedback on their practice. The data collector was also asked to notify timings of the interview. The day process allowed data collectors to develop confidence in collecting data. On the second day of the training 50+ older adults were invited, and each data collector administered a survey questionnaire on them. These ten participants were not a part of the actual study. This allowed the participant to inquire about their queries related to the questionnaire or any other general queries. The timings for the training were from 10:00 am to 5:00 pm.

Moreover, the role and responsibility of the data collectors were also shared in the training, which is as follow;

- To collect data through the research questionnaire daily.
- To keep a record of information or observations obtained during the research.
- To take written consent from the participants.
- To discuss any issues that arose during the data collection with the principal investigator.
- Contacting participants to discuss the survey, giving them an information sheet, and taking consent
- To respond to the questions the participant may have about the survey.
- To schedule timing with participants to complete the survey questionnaire.
- To ensure that all data captured is always kept physically secure.
- To keep a logbook for everyday research. Keeping the logbook was to record observations and subjective data shared by the participants during data collection and record the household participating in the research.

Furthermore, no money was paid to the data collector. However, the university's participation certificate was given to all the data collectors, recognising taking part in the research. Also, there were no ethical issues raised regarding data collectors.

Moreover, both the organisation and researcher had a clear understanding which highlighted research role. Therefore, there was no conflict of interest between organisations.

Additionally, to supervise, aspects within the fieldwork framework Dr Rozina Mistry, a senior consultant of public health in Karachi, Pakistan, had accepted to assist me in my fieldwork.

4.5 Research sites

To select research sites for data collection; the researcher and the CEO of the VCARE had visited various areas, where VCARE had served its targeted population to provide adequate services. So, in a low-income area, data was collected from Pahar Ganj, in a middle-income area, the data was collected from Karimabad, Al Noor, and Khudadad colony. Finally, in a high-income area, the data was collected from North Nazimabad Block C, H, and Block L. The areas' description is mentioned below;

Low-income area Pahar ganj

Pahar Ganj is based in the Karachi central; district of Karachi, Pakistan. Pahar means (mountains) are small hills of that form. There are several ethnic groups in Pahar Ganj, including Sindhi, Kashmiris, Pakhtuns, Balochis, Muhajirs, and Punjabi Christians.
People living in this area do not spend much on education. Neighbourhoods pool their resources to lay sewage lines to the nearest disposal points, often natural storm drainage channels. Katchiabadi residents establish piped water distribution networks tapping the municipal mains, and where this is not possible, they construct community tanks and purchase water through tankers (City population 2018).

Middle income Khudadad Colony, Al Noor colony, Karim Abad Colony

Three areas were targeted in middle-income areas, and the brief descriptions of the areas are as follow;

Karimabad is a neighbourhood in the Central district of Karachi, Pakistan.
The population of this neighbourhood is predominantly Ismailis. People living here belong mostly to the middle class. The area's pivotal place is Ismaili Jama'at Khana, which is one of the largest in Pakistan. There are two colonies, commonly known as New Karimabad and Old Karimabad. However, the data was collected from the new Karimabad (City population 2018).

Khudadad colony

It is situated in the east of Karachi and the people living here are mostly from the middle class. Major ethnic groups in these areas are muhajir, memons, and marwaries (City population 2018).

Alnoor colony

Alnoor colony is in a neighbourhood in the north of North Nazimabad, in Karachi, Pakistan. It is administered as a part of the Karachi Central district. There are several ethnic groups: 96% Muhajirs, Sindhis, Kashmiris, Saraikis, Pakhtuns, Balochis, Memons, Bohras, and Ismailis. Over 99% of the population is Muslim (City population 2018). Most of the middle-class residents own some property, a motorcycle, or a car. Most of the children in middle-class society go to private schools. They have telephones and cable network and avail private health care and many consumer durables (City population 2018).

High Income North Nazimabad Block C, H and L

North Nazimabad Town lies in the northern part of the city named after the suburb of North Nazimabad. The majority of the population is from the high-income group. And the ethnic group includes Ismaili, boharas, muhajir, and pakhtoon (City population 2018). This area is developing sports facilities, shopping centres, entertainment activities, libraries, and educational institutions in its vicinity. Their residents now do not have to go out of their areas except to work. Also, most houses have armed guards, and many are looked after by security companies with computerised security arrangements

4.6 Sample

Three hundred participants aged 50 or over were selected by purposive sampling, 100 each from low, middle, and high-income areas of Karachi, Pakistan. The sample was designed to replicate in the original study where QoL was measured using CASP 19 (Hyde et al. 2003). To identify a 3-unit's difference in CASP-19 with a sample size of 75 people needed in each group

(calculated with STATA command samples). In the case of any drop-outs from the sample, the sample size was inflated by 33%, so that there will be 100 people per strata.

4.7 Research Variables and scales

To see the variables and scales, the survey questionnaire both in English and Urdu is provided in (Annexure 4 and 5).

4.7.1 Dependent variable CASP 19

The CASP-19 scale was used to assess the 50+ population in Karachi, Pakistan. It consisted of 19 Likert scale items. It has four domains of quality of life (QoL), including Control, Autonomy, Self-realisation, and Pleasure. CASP has items with both positive and negative statements. The positive items were reverse coded so that higher scores equate with higher QoL. Each item scores from 0 to 3, with the summed scale ranging from 0 to 57. The 0 number showed the lower score of the quality of life, and 57 had shown the higher side of quality of life. The scale is rated from often to never. The participants were read out each item and given an option from the Likert scale of the questionnaire. As the questionnaire was administered in the Urdu language, which starts from the right-hand side, the Likert scale 'often' was given number 1, and 'never' was given 4. Therefore, before analysis, all the items were recorded 0 to 3, and reverse coding applied to all the positive items. The validity and reliability test of CASP 19 was performed. Further details about the process of CASP adaptation are available in the next chapter 5.

4.7.2 Socio-Demographic and socioeconomic variables

Although 'age' was administered as a continuous variable, all the other demographic and profile variables (gender, Socioeconomic groups, place of birth, languages spoken, educational status, marital status, family type, religion, housing tenure, sanitation, and water) were collected on an ordinal scale (1 and above). Finally, other socio-demographic variables such as 'having an own car,' and 'work to earn money' were collected on a nominal scale (i.e., Yes and No).

The dummy variables were created for the nominal variables to perform regression analysis. In terms of socioeconomic variables, retirement and pension were administered on a nominal scale (yes and no), and 'financial security for the future' was asked on an ordinal scale (1 = more than enough and four = do not know). Unfortunately, because of the law and order situation, none of the participants had shared their income. As the participants had informed about the kidnapping of the children in some of the areas of Karachi.

4.7.3 Health variables

Participants were asked how their health was and if they were physically active in general. They were also asked whether they had any Non-communicable disease (NCD) including hypertension, diabetes, cholesterol, cancer, arthritis, cataract, asthma, lung disease, glaucoma, and kidney diseases. The reason for selecting NCD question was the high prevalence and risk factors for hypertension, obesity, diabetes, coronary artery disease, hepatitis B and C infection in a multi-ethnic, middle to low and high-income population were higher in Karachi, Pakistan (Khan, F.S., 2013). Moreover, an increase in population, rural to urban migration, changing dietary patterns, and reduction in physical activity leads to an increase in modifiable risk factors of NCDs in the Pakistani population. Also, Pakistan is experiencing a double burden of disease due to the increase in NCDs. The same is evident from data regarding the global burden of disease that 62% of the crude deaths and 77% of the age-standardized deaths in Pakistan occur due to NCDs and injuries. The proportion of NCD-prone population, i.e., 65 years or older, is also projected to increase from 3.9% in 2000 to 5.4% in 2025, leading to rising NCDs in parallel to the ageing population of Pakistan. Therefore, priority in the research was given to NCD (Roshan, R., Hamid, S. and Mashhadi, S.F., 2018). The NCD data was collected while asking questions to the participants. However, the disease was diagnosed by the doctors. The low-income area data was collected at the Pahar Ganj area of Karachi, Pakistan, where there were two doctor's clinics. However, some of the participants also informed that they had gone to the government hospital to get treatment, as it was free of cost.

Also, a range of questions assessed limitations in individual activities such as bathing, shower, dressing, eating, going to the toilet, using the phone, doing household chores, and shopping. All questions in this section were asked on a nominal scale (Yes and No). The ADL, IDAL scale was adapted from one of the studies conducted in Pakistan, in the Urdu language, which was translated and back-translated in the English language (Bhamani, Karim and Moosa 2013). Therefore, it was not validated in my study.

4.7.4 Psychosocial variables

The psychosocial variables were assessed using various scales and subject to reliability tests; the detailed information is provided below.

4.7.4.1 Scales reliability test

All the scales which were used in the research were tested for their reliability. Reliability 'refers to the degree to which the results obtained by measurement and procedure can be replicated' (Rothman, Greenland, and Lash, 2008). For some of the Scales, such as (social support, social networking, and social coherence) factor analysis was also performed. The factor analysis commonly "reduces many variables into a smaller set of variables (also referred to as factors). Secondly, it establishes underlying dimensions between measured variables and latent constructs, thereby allowing the formation and refinement of theory. Thirdly, it provides validity evidence of self-reporting scales" (Williams 2012, pg. 2).

The reliability test and factor analysis were performed on all scales, except the neighbourhood scale. All the details regarding the scales have been described below.

4.7.4.1.1 Social support scale

The social support scale was adapted from the English Longitudinal Study of Ageing (ELSA) and is made up of four items arranged on a Likert scale ranging from 1 (not true) to 3 (always true), which were coded from 0 to 2 for statistical analysis.

One of the purposes of this research was to translate and validate measures into Urdu, to gain an understanding of the QoL of the sample population. The scales were validated and tested for reliability within an urban sample population. However, it is important to note that, the

validation and reliability testing needs to be tested in each of the different cultural groups within Pakistan. It was earlier mentioned in the literature that in recent times, the family system is changing due to several factors influencing the way the structure and function of families are evolving. Especially, in urban cities of Pakistan such as Karachi. More people live in a nuclear system; therefore, the social support scale used in the ELSA study could be used in Karachi (Itrat, A et al. 2008). However, in the rural areas of Pakistan where more people are living in the extended family these scales would require further adaption and revalidation.

Moreover, the Construct and content validity of the complete Urdu questionnaire was conducted in Pakistan by pre-testing the research questionnaire. Moreover, the content validity showed that the questions were straightforward and easy to understand as well as covered all the areas related to the quality of life (Tsang, Royse, and Terkawi 2017).

Before full analysis, a reliability test using Cronbach's alpha was performed on the Urdu version of the questionnaire. This showed that the scale had acceptable reliability and good internal consistency, $\alpha = 0.82$. Moreover, all the items were correlated to themselves. All four items correlate well together with (> 0.40). The factor analysis showed that Kaiser-Meyer-Olkin measure of sampling adequacy was 0.77, above the commonly recommended value of 0.6, and Bartlett's test of sphericity was significant ($\chi 2$: 446, df: 6, P-value .000). The result showed that the factor had 1 Eigenvalue. The Eigenvalues measured the amount of variation in the total sample accounted for each factor. Moreover, all four items of the scale were loaded on one factor. Also, all the factors loaded were >0.30, which was a good result.

4.7.4.1.2 Neighbourhood scale

The neighbourhood scale was adapted from the study of ELSA and comprised of 13 items. The questionnaire was validated in Pakistan by pre-testing ten people aged 50 +. The questionnaire included the scale of the neighbourhood. Moreover, the items included in the neighbourhood scale were; (It is a safe place to live, There is much graffiti, I want to leave this area, This is an affluent area, I have a lot of friendly neighbours, There is no sense of

community, Good community spirit, there is much crime in the area; there is a good mix of people, It is not a safe place to live, This is a deprived area, People look out for each other, I enjoy living here, People are unfriendly).

On the tool's validation, all the items in the neighbourhood scale were relevant and meaningful to the research areas. Although the low-income areas where it was open sewage, many people were less concerned about graffiti, with more pressing issues. However, the research also took place in middle and high-income areas where people did not like graffiti. However, new anti-graffiti law was introduced in the southern province of Sindh and covered the whole province (of which Karachi is a part). “Scribblers caught defying the law by the cops, or "nabbed," as they say here, could find themselves staring at a prison wall for six months and paying 8000 rupees fine” (NPR newsletter, 2014). This legislation demonstrates that graffiti is relevant in this population and geographic area.

Moreover, the participants were asked to say yes/or no about each item inquired which was related to their neighbourhood. Moreover, the data collector ticked all boxes in front of items. The data was then analysed categorically on the dichotomous scale where all the tick marked considered 1, which meant (yes) and crossed marked considered 2, which meant (No). Before conducting the analysis, variables were recorded from 0 and 1. Moreover; all the negative items were reversed coded before performing the analysis. No reliability test was performed on this scale because the reliability test cannot be performed dichotomous scale (Louangrath, and Sutanapong 2018). The scale was translated from English to the Urdu language from the original version.

4.7.4.1.3 Sense of coherence

The sense of coherence scale was adapted from the well London research questionnaire. The scale is made up of three items with a Likert scale ranging from 1 to 3. Before conducting the analysis, the variables were coded from 0 to 2 for statistical analysis. The negatively worded item was reversed coded. A reliability test using Cronbach alpha was performed on the Urdu version of the questionnaire before full analysis. This showed that the scale did not have a good

internal consistency α 0.68. Furthermore, all the items were correlated to itself. However, all three items correlate together with (> 0.37). The factor analysis showed that Kaiser-Meyer-Olkin measure of sampling adequacy was 0.63, above the commonly recommended value of 0.6, and Bartlett's test of sphericity was significant (χ2 164, df: 3, P-value .000). The commonalities were all above 0.3. The result showed that the factor had 1 Eigenvalue. All the three items of the scale were loaded on one factor. All the factors loaded were >0.30. The Construct and content validity of the complete Urdu questionnaire was conducted in Pakistan by pre-testing the research questionnaire. Moreover, the content validity showed that the questions were straightforward and easy to understand as well as covered all the areas related to the quality of life (Tsang, Royse, and Terkawi 2017).

4.7.4.1.4 Capability scale

Sen (1991), introduced the human development index to measure the quality of life and evaluate human wellbeing. Netuveli, Blane & Bartley (2007), operationalised capability as activities (achieve Functioning), opportunity (set of all alternative Functioning) and satisfaction (an evaluation of the individual life) (Netuveli, Blane, and Bartley 2007). The scale was also used by Netuveli in Kerala's studies (Netuveli, G., Blane, Bartley, 2007). The capability scale is made up of three items arranged on a Likert scale from 1 to 7, which are as follows, Functioning, where '1' indicated lower side of the scale, which means a participant (can do a few things) and 7 indicates the higher side of the scale which meant that the participant (can do everything as they used to do 30 years back). Opportunities, (1 indicates there are few opportunities, and seven indicates the opportunities are the same as 30 years back). Satisfaction, (1 indicates there is a lack of satisfaction, and 7 indicate the same satisfaction as it used to be 30 years back). Before full analysis, a reliability test using Cronbach's alpha was performed on the Urdu version of the questionnaire. This showed that the scale had good internal consistency, α = 0.82. Moreover, all the items were correlated to themselves. Furthermore, all three items correlate well together with (> 0.57). The factor analysis showed that Kaiser-Meyer-Olkin measure of sampling adequacy was 0.76, above the commonly recommended value of 0.6, and Bartlett's test of sphericity was

significant (χ2 317, df: 3, P-value .000). The result showed that the factor had 1 Eigenvalue. All three items of the scale were loaded on one factor. Moreover, all the factors loaded were > 0.30.

The Construct and content validity of the complete Urdu questionnaire was conducted in Pakistan by pre-testing the research questionnaire. Moreover, the content validity showed that the questions were straightforward and easy to understand as well as covered all the areas related to the quality of life (Tsang, Royse,and Terkawi, 2017).

4.7.4.1.5 Social networking

The social networking scale was adapted from the study of ELSA. Moreover, the scale had three items that included meeting family, speaking to family on phone, and meeting friends. The scale had (1 to 5) Number 1 = once a week and Number 5= never.

The items were recorded from (0 to 4), where 0 indicated never, and four indicated once a week. Moreover, later it was computed to one variable. The reliability test using Cronbach alpha was performed on the Urdu version of the questionnaire. The scale was pretested in the ten subjects before using it in the field. The scale had a weak internal consistency with α 0.54. The factor analysis showed that all three items were loaded on one factor; all the factors loaded were >0.30. Moreover, all the items were correlated to themselves. However, all three items correlate poorly altogether with (> 0.29). The Construct and content validity of the complete Urdu questionnaire was conducted in Pakistan by pre-testing the research questionnaire. Moreover, the content validity showed that the questions were straightforward and easy to understand as well as covered all the areas related to the quality of life (Tsang, Royse, and Terkawi, 2017).

4.7.4.1.6 Optimism scale

The optimism scale was adapted from the study conducted in Pakistan in the Urdu language, which was validated through a rigorous translation and back translation process and finalised by an expert panel (Malik, 2010). Because the scale was validated in the Pakistani population in the previous study; therefore, it was not validated in my study. The validated Urdu version of the scale was used in my study. The scale had ten items in it—the Likert scale ranging from 1 (wholly agreed) to 5 (not agreed). Before conducting analysis, the variables were

recorded from 1 to 5, to 0 to 4 were 0 (not agreed) and 4 (Completely agreed). There were three items that were negatively asked in the questionnaire; therefore, it was reversed corded. The optimism scale was not tested for its reliability because it was directly adapted in the Urdu language and was validated by other researchers (Malik, 2010).

4.7.4.1.7 Depression scale

The Geriatric depression scale was adapted from one of Pakistan's studies (Bhamani, Karim and Moosa, 2013). The Geriatric depression scale was translated and validated in the previous study by Mubeen, Henry, and Qureshi (2012), who had identified the prevalence of depression and associated risk factors among community-dwelling older adults in Karachi, Pakistan (Bhamani, Karim and Moosa, 2013). Therefore, the scale was not validated, and reliability test was not performed in my study. Moreover, the scale was translated in Urdu, back-translated into English, and checked for consistency with the help of subject experts in the original study. Also, it was pretested. Older adults, scoring 5 and above on GDS were considered to have depression; the cut-off was reported to have high sensitivity and specificity in previous studies. Therefore, in my study, the cut-off point was the same as in the original study, which was 5 and above (Bhamani, Karim, and Moosa, 2013).

4.7.5 Life course variables

The life course variables were adapted from the ELSA 3 wave study (Ward et al. 2009) that included parent’s education, first five occupations of the life, occupational status (manual or non-manual work), and occupational post (managerial and non-managerial), Physical, occupational hazards (fume, dust, sand), practical problems (lifting, sweating, back injury). All the above variables were measured on an ordinal scale (1 to 4). Moreover, the life course variables also included the housing variables such as housing moved in the life, water and sanitation, housing type, and housing tenure on the ordinal scale. The Construct and content validity of the complete Urdu questionnaire was conducted in Pakistan by pre-testing the research questionnaire. Moreover, the content validity showed that the questions were straightforward and easy to understand as well as covered all the areas related to the quality of

life (Tsang, Royse, and Terkawi 2017).Moreover, the life course data were collected retrospectively by asking the participants questions on an ordinal scale that I had already mentioned earlier. No scale was used to assess the life course events therefore no reliability test was performed. However, the life grid method was not used due to time restriction.

4.8 Research process

4.8.1 Recruitment of data collectors

VCARE assisted in recruiting data collectors. Most of the data collectors were individuals who had worked in a voluntary capacity in many events at VCARE. However, few data collectors were the employees of VCARE, who wanted to grow their skills in research. The recruitment had taken place at the VCARE by the researchers. During the selection process, the data collectors were also briefed about the research purpose, procedure and time commitment. After interviewing ten candidates, three men and three women were recruited for the data collection.

4.8.2 Translation of the questionnaire in the Urdu language

The translation of the research questionnaire from English to the Urdu language was performed by one of the professional translators based in Karachi, Pakistan. Karachi is a very multi-ethnic city therefore, many other languages are also spoken but because of financial and time constraints I potentially had to recruit trained data collectors who could speak other languages as the questionnaire was only translated into Urdu language (Annexure 5)

4.8.3 Pre-testing of the survey questionnaire

Pre-testing is one of the crucial aspects of the research as it addresses questionnaire issues. For example, do the sections of the questionnaire, and the questions within sections have a logical flow? Do the skip patterns make sense and are they correct? (Hilton, 2015).

Pre-testing is a method to check all questions work as planned and are understood by the individuals who are likely to respond to them. Also, unexpected problems could be detected earlier than later. Therefore, before conducting the training programme for the data collectors, the survey questionnaire was pre-tested on (ten) participants. These participants were the regular

client of the VCARE, who were availing adult day-care services. Moreover, they had all the characteristics required for inclusion in the sample. It was made sure that these participants did not take part in the major research project. During the pre-testing of the research instrument, few typing errors were identified and corrected later. Another issue, which was identified during the pre-testing of the survey questionnaire, was the resilient scale. The resilient scale had 25 items and participants felt that it was a repetitive question, asked during the depression and optimism scale. Besides, each item of the resilience scale needed many clarifications. This issue was discussed with the supervisor Professor Gopal Netuveli, and it was suggested to remove the resilient scale from the questionnaire.

Moreover, items from the life course questionnaire included the nutritional status of the participants; were also removed to reduce the time of administrating the questioner. Removing these two parts from the questionnaire would not affect the measures, which were needed to be considered within the respective in this study module. Moreover, during the pre-testing of the research instrument, participants had also complained regarding the length of time had spent on one person. As one participant was taking around 1 hour 50 minutes. However, after removing two scales from the questionnaire, the final version of the questionnaire took around 40 to 50 minutes to answer all the questions.

4.8.4 Two days training programme

Training for the data collectors was conducted at the VCARE by the researcher. The purpose of the training was, to familiarise and understand the research tools and procedure of the data collection. It was also essential to give hands-on training to the data collectors to reduce the chance of any error during the data collection. Another vital purpose of conducting training was to have an accuracy of the tool, and to manage the time. Therefore, each data collector was allowed practising the survey questionnaire. For that, six 50+ older adults were invited on the second day of the training, and each data collector administered a survey questionnaire on them. The timings for the training were from 10:00 am to 5:00 pm.

Moreover, the training was an incentive for all the volunteers. At the end of the training, the participants were also given a certificate of participation. Besides that, they were not given any other incentive in terms of money.

4.8.5 Development of data collection guide

The researcher needs to develop a brief data collection guide before collecting the data in the field. Therefore, a brief data collection guide was developed and had given to all the data collectors. The data collection guide explained general principles to be applied in dealing with unforeseen problems. It also explains the general principles of data collection (Annexure 1).

4.8.6 Inclusion and exclusion criteria

Inclusion Criteria

Individuals who are 50+ speak and understand the Urdu language. Urdu is a national language of Pakistan and mainly spoken and understood in all the cities of Pakistan (All other data collectors are spoken, write and read the Urdu language). Therefore, only those people were a part of the study who could speak and understand the Urdu language. Individuals who can sign or thumb stamp on the consent form.

Exclusion Criteria

Individuals who are less than 50+ years old are vulnerable (having physical or mental illness) and are not able to consent (By chance none of the participants had any mental illness, however, one of the participants was paralysed and was not able to give consent. Therefore, the participant was excluded from the study and the next participant was selected).

4.8.7. Data collection process

Overall, 317 people participated in the study out of them 18 discontinued in the middle of their interview because of not having time.

The data collectors had started collecting data from the low-income area. On day one, two data collectors, along with the researcher, had visited the research site, with one of the members of VCARE, who had an idea about the place and the population. On the first day, we identified ten houses where 50+ men or women were available.

Earlier it was shared the cluster quota sampling was used. There could be the implication of quota sampling such as; in quota sampling, it is not possible to calculate the sampling error. Also, the projection of the research findings to the total population could not be generalisable. Selection bias could also have a problem. For example, it might avoid choosing people who live further away or people in rough neighbourhoods. This may make the result unrepresentative of the population (Saunders, Lewis, & Thornhill. 2012).

The formal process of the research was the data collector and researcher knocked on the door and introduced ourselves to the person who opens the door. After the customary salutations (Assalam-u-Aliqum), we informed them about the reason for our visit and asked the person if he/she could answer for the household. If they could, there would be called the household reference person. During the interaction, the researcher assessed, if this person was the right household reference person. The criteria would be (above 18 years of age and able to make decisions on behalf of the members of the household). If this person was not suitable, then the researcher asked them to call someone who could speak for the household. At that time, the researcher informed the main household person about the inclusion criteria, which was discussed earlier. If the main household person had confirmed that they had someone living in the household who fitted on that criteria, then asked permission to meet that individual. After meeting with the target individual, the information sheet was shared regarding research purpose and had taken the verbal consent. The information sheet (both in Urdu and English annexure 2 and 6) was given to the participants to keep; however, the written consent (both English and Urdu annexure 3 and 7) was taken on the date of data collection. Moreover, if the targeted subject was not available, researcher, along with data collector, moved on to the next door and knocked on that door. On the next day, all six data collectors, including researcher, approached

the participants, who gave the verbal consent. The male data collectors interviewed the male, and the female data collectors interviewed female. However, in some household's people would not mind interviewing either of the genders. The data collectors had administered a survey questionnaire. An interview was administered in a provided room by the participant. The mean time for data collection was 40 to 45 minutes. In very few houses, the wife/husband or daughter/daughter in law accompanied the interviewees. Previous study suggested that the presence of another person from home may bias the answers. Also, third parties were a common enough, occurrence to potentially have a serious impact on responses if respondents provide different answers when others are present during an interview. However past research on the problems and biases created by third parties during an interview is somewhat limited (Smith, T.W., 1997). Overall, in this research, the presence of the third persons on survey responses was 5 houses in the low-income area and 3 houses in the middle income areas. However, there could be possible impact such as it might increase measurement error by reducing privacy. These limitations were unavoidable in the study design and may have limited honest and full responses. Yet, recruiting through locations where older adults gather, might improve this.

Before started interviewing, data collectors had informed all the participants about their rights and maintaining their confidentiality. Once they were satisfied, their written consent was then obtained. After an interview, the data collectors asked participants about whether they had any questions regarding the research. Some of the people from low and middle income, asked if we could help them in having electricity and water? Without making any false promises, we restated the purpose of our research, and they got satisfied. However, few people from all the three strata urged, if the issues like; electricity, water, transportation, unemployment, freedom and security, would be shared with the government. Moreover, the data collectors had informed those participants that the research findings would be disseminated through publications and seminars. Lastly, data collectors thanked for their participation.

The research questionnaire was assessed every day by the researcher to check if any items were left out from the questioner. If so, then the data collector, along with me went back to fill the missing part of it. Sometimes, some household members were not comfortable in

answering the question such as about their income. Alternatively, in the life course section, many of the participants did not remember their parent's date of birth or their early profession. In that case, it was written in the form that the participant was not willing to answer or did not remember. Furthermore, at the end of each day, the data collectors and researcher took ten more verbal consents for the next day to collect the data. The same process was taken place in all the strata.

4.9 Subjective data collection

Subjective data is generally based on observations or emerged from the discussion between the interviewer and the interviewee (Dilsizian, V. and Narula, J., 2009).
During the data collection, the subjective data were spontaneously shared by the study participants in response to questions that were asked from the questionnaire. The subjective data were not analysed. However, the subjective data was used with the research's relevant findings identified after quantitative data analysis. The subjective data is mainly shared in the chapters 5 and 6.

4.10. Data management Plan

It is essential to have proper data management for research, as the sound data management helps to avoid data loss, and a researcher can reuse the data in future as well.

In the ethics form, it was mentioned that survey interviews would be entered, and would be saved on UEL drive and a password-protected laptop. The printed questionnaires would be locked away in a cabinet at the organisation supporting me in Karachi, Pakistan.
However, due to the law and order situation, the data collection took much time; therefore, it was not possible to enter data in Pakistan. Consequently, all forms were brought to the UK and have kept in the Principal investigator's locked room at UEL. The name from all the forms was erased to anonymise the identity of the participants. 120 written consent forms were brought back from Pakistan to the university in England. The remainder could not be brought to the UK due to luggage restrictions. After discussion with the ethics committee, the

remainder were kept in a secure locked cupboard in the main study organisation in Karachi. And this all information was informed to the ethics committee.

All the above-provided information was communicated to the University Research Ethics Committee via Ms Catherine Fieulleteau, who is Research Integrity and Ethics Manager, at UEL. An amended form was sent to an ethics committee. The regular back-ups of the data were taken to protect in case of any accidental data loss such as; computer breakdown, hardware failure, virus infection, power failure or human errors. The survey forms were also kept in a locked room in order to save the intellectual property and to keep the sensitive pieces of information safe. All the entered data were saved in a locked computer system with a password. Data were anonymised by removing direct identifiers, e.g. name or address of the participants.

4.11 Data entry and data Analysis

The SPSS and AMOS software for data entry and its analysis was used for this research. More than five hundred variables had been created. The nominal and categorical data was examined by running frequency tables. Whereas, the descriptive analysis for the continuous data was examined by mean ± standard division. To identify the association between the quality of life and other demographic variables, cross-tabulation and chi-square test were performed for all the categorical variables. ANOVA test was performed to see if the age distribution is different in three socio-economic areas. Also, significant tests of gender and socio-economic groups had been performed. Moreover, to look at different factors associated with the quality of life, variable and multiple regressions analysis were performed. Moreover, different psychosocial scales such as (neighbourhood scale, capability scale, sense of coherence scale, social support and social networking scale) were tested for its reliability. Bi-variable and multiple regression were also performed to assess the relationship between the variables. Amos was used to fitting structural equation models (SEM). The confirmatory factor analysis was performed using AMOS.

4.11.1 Descriptive analysis

Descriptive statistics summarise the data from the research and create a useful finding that helps to understand the data more appropriately (Shahravan. Ghassemi and Baneshi. 2012). A descriptive analysis of the mean, standard deviation, frequency and the percentages of all the variables for socio-demographic, psychosocial and life-course variables was performed.

4.11.2 Regression Analysis

Regression analysis is an essential statistical method which allows the identification and description of relationships between two variables or among multiple variables. Regression analysis also helps to "predict future outcomes based on the predictor variables" (Schneider, et al. 2010). In my data, I performed a simple linear regression to examine the relationship between the quality of life and other independent variables. Then, I also performed a multiple regressions analysis to observe the best model to predict the quality of life.

4.11.3 Chi-square Analysis

A chi-square test tells us if the two variables are related. In a more general sense, "it tests to see whether the distributions of categorical variables differ from each other" (Diener-West, 2008). A minimal chi-square test reveals that the observed data fit the expected data exceptionally well, and there is a relationship between the two variables. A large chi-square test statistic tells that the data does not fit very well, and there is no relationship between the variables. Therefore, the chi-square test was performed for all the categorical nominal variables to see the relationship between the two variables.

4.11.4 Psychometric evaluation of CASP

The psychometric analysis of the CASP was performed using exploratory factor analysis and confirmatory factor analysis. The internal consistency reliability and the factor analysis was conducted while performing exploratory factor analysis. However, the confirmatory factor analysis was performed competing for three models such as;

1) Single-factor model

2) First-order model

3) Second-order model. A single factor model where all the 17 and 13 items were loaded onto one unobserved variable called QoL was tested. Then the first-order model was tested where all the four domains of CASP were included. Finally, in the second-order model, the CASP domains can be dependent upon a single underlying factor, QoL.

4.11.5 Assessing the degree of model fit

Three goodness-of-fit indices were calculated to assess the overall fit of the data. These indices include: Comparative fit index (CFI) (Bentler, 1990); Tucker Lewis index (TLI) (Tucker and Lewis, 1973); and Root mean square error of approximation (RMSEA) (Steiger, 1989). According to Hu and Bentler (1999), a CFI value of greater than 0.90 is an expected value for a psychometrically fit to the data. RMSEA is another quantitative index which describes how well the model fits the observed data. "As a rule of thumb, the value of RMSEA less than 0.05 indicates good fit, values between 0.05 to 0.08 suggest acceptable model fit, and values greater than 0.10 suggest poor model fit." For the CFI and TLI, values above 0.90 can be expected for a reasonably good fitting model.

4.12. Quality assurance of the data

Quality control of data is an integral part of all research, and it took place at various stages, during data collection, data entry, and data checking process.

During data collection, quality control measures were to follow the guidelines of the data collection, capturing observations and recording forms with clear instructions. Furthermore, the quality of data entry included; using data entry screens and code list. Moreover, data checking included when data was edited, cleaned, verified, cross-checked and validated. Therefore, to minimise the chances of errors; after entering 40 forms, 20 forms were

rented. This process checked if there are any discrepancies in two datasets. After completing data entry, 30% of the random forms were rechecked; with a colleague's (Michaela) help, to see if any of the entry had been done incorrectly. Moreover, it was identified that there were 0% input error.

4.13. Ethical approval and Ethical consideration

4.13.1 Ethics committee approval

The two ethics approval for both studies in London and Pakistan was approved by the University Research Ethics Committee at the University of East London (Annexure 14 and 15).

4.13.2 Ethical consideration

The participants were informed that participation in the proposed study was voluntary. Moreover, participants were free to end their participation in the study at any time without penalty. Furthermore, the participants were also informed that they would not have any harm if they would leave the study. 'Based on the right to privacy, the respondent had the right to anonymity and the right to assume that the data collected would be kept confidential' (Burns & Grove 1993:343). Therefore, all the research participants were informed that their identity would be kept anonymous and that the information collected would be kept confidential. A major ethical issue in most researchers is the invasion of privacy. The interviews were conducted in the provided room by the participants, where they were comfortable and was easy to maintain privacy and confidentiality.

4.14 Potential risks

Earlier it was mentioned that the proposed study involves one to one interview and focus groups discussion on the quality of life. Moreover, the participants were asked close-ended and an open-ended question about the everyday living; which would not cause any emotional disturbance, distress and/or potential hazards. However, as the starting of the interview

participants were also informed, that during the interview if participants faced any emotional distress and they wanted to leave the discussion or interview, they would be allowed to leave. However, none of the situations came across throughout the survey and focus group discussions.

Now the thesis will move on to chapter 5, to share the finding and discuss the cross-cultural adaptation of CASP measure to assess the quality of life in Karachi Pakistan

Chapter 5: First aspect of the Study; Cross cultural adaptation of CASP 19 measure of quality of life in 50+ older people in Karachi Pakistan

This chapter describes the process, presents the findings, and discusses the cross-cultural adaptation of CASP 19, a tool measuring the quality of life of 50+ older adults in Karachi, Pakistan. In particular, the chapter discusses the translation process of the CASP 19 and its psychometric properties and share the findings of the psychometric evaluation of the CASP. It also discusses CASP in Pakistani context. Lastly, it presents a cross-cultural model derived from the findings of the cross-cultural adaptation of CASP 19.

5.1 Define Culture

There are many definitions of culture, as scholars from different conceptual traditions anthropologists and sociologist have studied the term for a long time (Spencer-Oatey 2012). One of the most common definitions is as follows: "knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society" (Spencer-Oatey, & Franklin, 2012). Culture is further defined as, "the derivatives of experience, organised, learned or created by the individuals of a population, including those images and their interpretations (meanings) transmitted from past generations, from contemporaries, or formed by one individual themselves" (Spencer-Oatey, & Franklin, 2012). So, it is right to say, that culture is about all the prevailing attitudes, values, beliefs, and behaviours shared by a group of people, and are passed on, from one generation to another. Moreover, no human can live and grow in a specific group with specific ideas, values, norms, beliefs, and ways of thinking. As a result, people living in culture will behave and react differently than people living in another culture. Therefore, culture influences people's way of thinking, way of acting and way of living. This may or may not affect their quality of life (Spencer-Oatey & Franklin, 2012). Another component of culture is “mutually negotiated by people in their relationships with others" (Wines, & Napier, 1992) and internalise their culture so strongly that it would be difficult to separate their behaviours related to their culture.

Therefore, it is essential to know the cultural difference between the two countries where the research tool was developed and implemented. Culture matters to all the individual people living in different societies as they have different experiences and perspectives that give new insight into psychological processes (Oyserman and Lee 2008).

However, due to historical relationship between the United Kingdom and Pakistan, the influence of British culture could be seen in Pakistan in particular areas such as “language, public administration, education, architecture, communication, the political system, thinking, and culture of the lands that Pakistan inherited” (Islam 2004).

However, Pakistani culture is very diverse; its historical, geographical, and ethnic diversity is influenced by Indian, Persian, Afghan, Central Asian, South Asian, and Western Asian cultures. Because of this diversity, their way of conceiving life is different, and so their response to the quality of life questions would also be different. This diversity does not include westernised notions of culture.

Besides that, “the religious influence of Islam has also strongly shaped Pakistani culture. Due to Islamic and tribal influences, non-urban regions of Pakistan have varying levels of gender isolation” where women are not allowed to participate in decision-making (Kalra et al., 2009). Whereas since 1950's Britain has experienced a period of accelerating social and cultural change mainly the change was of the entry of women into the labour market and their increasing independence has brought about fundamental changes to their position in society and their relationship with their men (Bentley and O'Brien 2017).

Moreover, Pakistani society is not led by individualism but rather by interdependent self-construal, where family and other relationships stand firm (Kalra et al., 2009). At the same time, British culture is an individualist. Individualism is rooted in Adam Smith and Jeremy Bentham utilitarianism, claiming that a free expression of individual will, and interests would provide national harmony and maximal efficacy (Kagitcibasi 1997).

Therefore, with the difference in the culture where the tool is developed and adapted, it is vital that scales are validated. As it had been developed keeping in mind Western populations of

who could score on levels individualism, whereas Eastern populations who score on collectivism levels (Hofstede, 1980; Markus & Kitayama, 1991). Therefore, it is essential to evaluate the conceptual and item equivalence in a different culture. As one statement could be interpreted differently in a different culture for example, ‘family responsibility stops me doing things which I want to do' was one of the items of CASP' this feeling might be intensely relevant to the respondent of collectivist countries where people might think that it is a part of their life. In contrast, in individualist countries, people might think that it is an extra responsibility on them. Therefore, the interpretations of the items are highly influenced by cultural background, which influences how one could think, perceive and react to situations. Therefore, while acknowledging cultural influences on participants’ responses, a culturally fit instrument and an understanding of cultural demands could help interpret results correctly (Halder et al. 2016).

Therefore, a measure like CASP 19, which had been developed in the United Kingdom, needed in-depth adaptation process to assess the quality of life in an older adult in an entirely different culture like Pakistan.

5.2. Introduction to cross cultural adaptation of the tool

The adaptation of the research instruments is complex and therefore, it is essential to use accurate methodology. Most of the research questionnaires initially have been developed in English and then have been adapted in many other languages, as it is more effective to adapt an existing questionnaire than developing a new one. It is important to use validated and similar research instruments which enabled comparison of results in different studies, whether done nationally or internationally (Gjersing, et al. 2010). However, it is not compulsory that the research questionnaires had always translated with a process the way it had been translated earlier. However, before using in a different culture or linguistic settings, the instrument necessarily needs to be validated in different culture, or context (Herdman, et al. 1998).

There is no universal agreement on how to adapt an instrument for use in another cultural setting. However, there is an agreement that it is appropriate to translate and use a questionnaire in another linguistic' and cultural context (Reichenheim and Moraes 2007).

Moreover, the instrument should be acceptable and practically perform in the same way—the focus on cross-cultural and conceptual equivalence. Therefore, a well-established method to achieve this goal should be used that is forward-translations and back-translations. This method has been defined during several WHO studies (WHO, 2020). It is also essential to know for the researchers that adapting any questionnaire cross-culturally, the focus should be on the concepts, rather than on linguistic/literal equivalence of the questionnaire (WHO 2016).

On the contrary, if the questionnaire is well translated and has gone through with all the phases of adaptation in the past, it still does not confirm the construct validity and reliability of the tool with the present time. For example, a questionnaire that has asked about drinking tap water, where people are drinking river water; this is not relevant in the setting. Therefore, it is not always crucial that the instrument which had validated in the past would be valid to use today. Thus, it is vital that an instrument should be culturally conceptually, linguistically, and technically appropriate, to use in the target population.

Moreover, the questionnaire for most of the researches used in Pakistan was in the English language, though it had developed in the West. Such as 'Self-Reporting Questionnaire (SRQ)', a screening questionnaire for mental health developed by the World Health Organisation (Rahman, 2003). Therefore, such measure needs to check for its validity and reliability to be used in an entirely different culture. Therefore, the translation process should be rigorous. Likewise, the CASP 19 a measure; to assess the quality of life of 50+ older adult was also developed in a completely different culture. Therefore, to make CASP 19 culturally appropriate the same process of WHO had used in this study.

The CASP 19 is a measure to assess the quality of life of 50+ years of the population. It has four domains, namely; Control, Autonomy, Self-realization, and Pleasure. The CASP 19 had been used in over 20 countries and had shown, having a good psychometric property (Lima et al, 2014). It had also used cross-culturally; with the appropriate process of translating from the English language to the local language of the countries. To make culturally appropriate the

CASP 19 had translated into the Urdu language. The process of translating CASP 19 had defined below.

5.3 Process of Cross-cultural adaptation of the tool from English to the Urdu language

To adapt CASP 19 measure, World Health Organization (WHO) recommended methodology was used that included translation, forward/backward translation, selection of best translation and pre-testing of the translation.

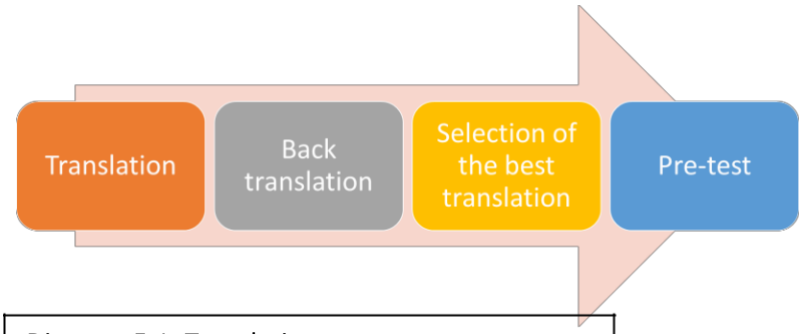

Diagram 5.1: Translation process

5.3.1 Translation

The CASP 19 tool was given to four people; who had a good command of English and Urdu language, to translate the CASP 19 instrument. The translators had familiarity with the target population as well. Four out of two translators were professionals pursuing their PhD from different universities of the UK who came from Pakistan 3 or 4 years back, and two of them were teachers in the school. Before starting the translation, the translators were briefed on the objectives of the study.

5.3.2 Back-translation

Back-translation is very helpful; to know or understand the tool has been translated in a culturally appropriate manner. The back translation would ensure the accuracy of the translated version of the original tool (Beaton et al. 2000). Therefore, the four Urdu translated versions of CASP 19 were given to another four people, to back-translate. Four out of two were professionals pursuing their PhD from different universities of the UK who came from Pakistan 3 or 4 years back, and two back translators were housewives who moved from Pakistan to the

UK after getting married to British Pakistani nationals. Besides, that back translators never had access to the original English language CASP 19. All these four translators also had good command in both Urdu and English language.

5.3.3 Selection of the best translation

All the four back-translated versions were shared with the two natives separately. The natives were the professionals who worked in the IHHD department and were born and bought up in England.

The purpose of this exercise was to find out the best back-translated version, which was close to the original CASP 19, for the adaptation. After the intense meeting with both people, the 2nd back-translated version was selected to pre-test for the adaptation.

5.3.4 Compilation of all 4-translated versions

All the four translated versions were compiled in the form of a tree (Annexure 12). The tree showed how differently four different people had done all four translations. The best selected back-translated version was the Urdu version two. That was later used in the Pakistani population living in London, United Kingdom to pre-test the CASP19.

5.3.5 Pre-test CASP 19 in the Urdu Language

Most studies have been conducted to pre-test the instrument to use cross-culturally. Pre-testing helps identify culture-specific concepts and unclear items, preventing errors (Fitzgerald et al., 2011). Therefore, the translated version was pre-tested in the Pakistani community-based in London; to understand the tool's language, cultural, and conceptual similarities.

Due to financial and time constraints, pre-testing of the measure was performed on the Pakistani population based in London. Pakistani British Muslims had been massively influenced by cultures and customs coming “from the subcontinent, which will continue to happen for another generation or two” (Wang and Li 2019) Pakistani first-generation moved 40 years back to Britain. And while living in England they still practised the same culture as of Pakistan. They speak Urdu language, going to mosque listen and speak Urdu language, eating Pakistani food

and wearing Pakistani clothes, and follow Pakistani customs at weddings and other 'religious ceremonies (Jacobson 1997.)

The first-generation migrant in Britain from Pakistan practices the same local culture and religious norms. That also prohibit and discouraged them from performing certain health behaviours. Due to cultural norms, the first-generation migrant is not an independent but a family person who also can control the second generation (Wang and Li 2019). Even though most Pakistani people hold British citizens “also navigate between their family's original culture and that of British mainstream society” (Brown, Zagefka and Tip 2016).

Moreover, Britain culture emphasizes individualism, self-expression, and self-actualization, whereas, first-generation British-Pakistani born and bought up in Pakistan, where they socialized and lived their lives in the Islamic culture and value systems. Many British first-generation immigrants, especially Pakistanis and Bangladeshis, live in urban ethnic enclaves. They share the common values systems and cultural beliefs that prevent them from adopting different and unhealthy lifestyles from the host society. Therefore, it was applicable to do a pre-testing of the instrument in London with the first generation of British Pakistanis who were still practising the same culture and norms line their home country (Wang and Li 2019).

Furthermore, the participants were asked to reflect on their culture rather than exercise their culture. Even if their cultural views and behaviour may have changed by living in the UK, their knowledge of cultural practices from their own country is likely to persist.

Moreover, the focus group discussion was selected to pre-test the measure. Though, both cognitive interviews and focus groups are used to reveal issues and improve survey questions; however, each method has strengths and limitations. Focus groups are a better method for revealing how a group thinks about concepts collectively, with the opinions and ideas of one respondent building on those of another to form a larger picture. Moreover, the focus group is quicker, most cost-effective, and building consensus on the topic. However, less information is gathered at the individual level.

Whereas, cognitive interviews are used to understand an individual's response to a survey question. It is more time-consuming and costly but provides more information from the person, who could uncover the problems with survey questions and topics (Meyers 2017).

I choose a focus group to pre-test the CASP questionnaire due to financial and time constraint. It is evident that the focus group is the best method for determining: the respondents' level of understanding of key terms and concepts. One other advantage of the focus group is that participants may use other people's ideas and opinions to form their ideas. Moreover, a large quantity of information can be collected from a 90-minute focus group. One of the drawbacks of this method is that if one participant is more vocal, this did not allow other participants to share their views (Babonea and Voicu 2011).

The two focus groups, one each for the male and female, were conducted; in support of Pakistan Culture Society in Walthamstow, London. Each group had five to six participants. Initially, the focus group participants signed the consent form. All the participants of the focus group were between 55 to 68 years of age.

The participants were given 15 minutes to complete the questionnaire. All participants were probed for their understanding and acceptability, to identify confusions among any item. The discussion lasted for about 2 hours.

The recorded versions of the focus groups were transcribed immediately after the focus groups and did the thematic analysis of the data.

5.4 Thematic analysis of the data

One of the research questions was 'What is the level of quality of life for older adult in Karachi, Pakistan? And the objective for this question was; to adapt CASP-19, a validated measure of the quality of life, to Urdu in a culturally competent manner. To achieve one of the objectives of this question, the focus group was conducted. And to analyse Braun and Clarke's thematic approach was followed. The reason I chose this method was that "rigorous thematic approach could produce an insightful analysis that answers particular research questions" (Braun and Clarke, 2006).

Braun and Clarke (2006) identified the six-step approach to doing thematic analysis. The steps are not linearly as the 'researcher may need to move back and forth between the stages' (Braun and Clarke 2006).

The steps I used in the thematic analysis are as follows:

Diagram 5.2: Process of thematic analysis

First step: Braun and Clarke (2006) "recommended that researchers read through the entire data set at least once before beginning coding, as ideas and identification of possible patterns may be shaped as researchers become familiar with all aspects of their data". Therefore, I familiarised myself with the data by repeatedly reading the data and gaining a sense of familiarity with the semantic meanings.

Second step: This phase involved the initial creation of codes from the data, "Qualitative coding is a process of reflection and a way of interacting with and thinking about data. Coding allows to simplify and focus on specific characteristics of the data" (Braun and Clarke 2006). Therefore, I developed the codes to capture key analytic ideas within the data which may relate to the research question. Transcripts were read line by line and extracts of meaningful text were highlighted, and emerging codes were noted (Braun & Clarke, 2006). Some initial codes were merged at this stage due to overlap with others. The developed codes (table 5.1) were then compared against the research questions to confirm that only the codes meaningfully contributed to the research. The emergent codes are as follow;

Table .5.1 Emergent codes

Emergent Codes	
Shortage of money,	Living with a family
Lack of resources	interacting with friends
Material needs	Women responsibly to look after family
Different words in Urdu	Men bread earner
Clarity of words	Men Fulfil the needs of the family

Different meaning of words in Urdu language	Basic needs
Standard of living	

Third step: In this step data have been initially coded and gathered. I generated themes by grouping codes that relate to a concept. The themes identified patterns of meaning across the data. The themes were arranged according to the semantic content of the codes.

Braun and Clarke advise that "Data within themes should cohere together meaningfully, while there should be clear and identifiable distinctions between themes." (2006, p.91). Therefore, coded extracts were then re-read in the context of the theme to consider whether a pattern formed between the extracts. The themes were then defined and named. The following themes emerged; "Financial needs, Social support, Cultural influence, Linguistic equivalence of CASP 19".

Fourth step: During this phase, I reviewed the coded data extracts for each theme "to consider whether they appear to form a coherent pattern". The themes were reviewed concerning the coded data and the data as a whole (Braun and Clarke 2006).

Fifth step: During this phase, I wrote analysis for each theme to understand how each "theme fit into the overall story about the entire data; in relation to the research questions". (Braun & Clarke, 2006). Later the themes were defined and named.

Sixth step: The analysis is written up within a thesis.

5.5 Finding during the process of translation and back translation of the CASP

"English language is a fixed word order language and follows the SVO (Subject-Verb-Object) structure; Urdu language is a free word-order language and allows many possible word orderings but the most common sentence structure used by the native speakers is SOV" (Subject, Object, Verb). Also, instead of English prepositions, Urdu nouns and verbs are followed by postpositions (Jawaid, B. and Zeman, D., 2011). Urdu is not like English at all. English is written in separate letters by putting them together from left to right. Urdu is written from right

to left, and in most cases, all letters of a word are joined, the middle letters in a word are written partially. Vowels are a part of the alphabet in English, in Urdu, they are only diacritical marks and most of the time they are not even written.

The only thing common between Urdu and English is that both languages have higher level roots in the ancient Proto-Indo-European tongue. Many words in both languages are therefore derived from the same old root. Nevertheless, that root is so far up in the family tree that an ordinary speaker of either languages will find it challenging to identify.

Urdu is an Indo-Aryanean language of the Indo-Aryan family," which is spoken in South Asia. It is a national language of Pakistan. In terms of vocabulary, it has a strong influence of Arabic and Persian and some words from Turkish and English (Virk, S.M., Humayoun, M. and Ranta, A., 2010, August).

Moreover, one English word gives several different translations in the Urdu language; for example, “My age prevents me from doing the things I would like to do.”

The word “thing” has been translated as" Kaam" (work) in Urdu by 3 of the translators, and one of the translators translated correctly things as “cheezain” in Urdu. So the back translation from 2 of the back translator translated like, “My age stops me from doing the work I am interested in” and “My age restricts me to do such tasks that I want to do” so here the word “thing” in the original CASP changed as “work” and “task.” Therefore, when all the back-translated versions were taken to the native professionals, they gave mutual consent for the back-translated version's closest meaning to use in Pakistan.

Moreover, as it has already been described in the discussion that one word of English while translating in Urdu 2 to 3 words can be used, for example, the word “Health” has been translated as “tabiyat” or “Sehat” both in back translating is the same meaning that is “health.” Below is the list of words with two or more meanings to one English word while back translating remains the same meaning and did not change the meaning of the original statement of CASP 19.

Moreover, this happened in a couple of the CASP 19 sentence which are shown in table 5.2.

Table 5.2 Change of words in translation and back translation

CASP statements	Words used in CASP	Words translated in Urdu	Back translated in English
Shortage of money stops me from doing things I want to do	Money	Paisa, Rupeeya	Money
I feel that what happens to me is out of my control	control	Kaboo , ikhtiyar	Control
I look forward to each day	Look forward	Agay dekhna, muntazir, intazar	Waiting, looking forward
I feel that my life has meaning	meaning	Maqsad, maany	Purpose, Meaning
I enjoy the things that I do	Enjoy	Khushi, maza, dilchaspi	Joy, happiness, delight interest
I enjoy being in the company of others	company	sohabt mehfil	company
I feel full of energy these days	energy	tar-o-taza tawanai tawanai	Energetic, refreshed, energy
I feel satisfied with the way my life has turned out	Turned out	Badal gayee	Turned out, changed

Moreover, the translation of statement 4 was entirely different in all four versions. The original statement 4 in CASP was 'I feel left out of things' when it was back-translated from Urdu to the English language it changed the meaning of the original and all four back-translated meant differently such as 'I feel lonely' 'I feel that things have slipped from my hands,' 'I feel I have no control over my desire,' 'I find myself left out on different things.' When this was discussed with the native professionals, one of the natives considered statement 'I find myself living out in different things' which was nearer to the original statement in CASP. However, the other native disagreed with it. Therefore, it was finally discussed with the supervisors' team, and eventually, it was decided to remove this item from the CASP as it does not have a mutual consensus.

Furthermore, statement 14 of the CASP 19 'On balance, I look back on my life with a sense of happiness' the word 'on balance' was not at all translated in Urdu. As it did not change

the meaning of the statement which was mutually agreed by the native. Rest of the statements of CASP 19 were agreed by both the natives. Therefore, after the rigorous process, CASP 17 was used to assess the quality of life in Karachi, Pakistan.

5.6 Focus groups Findings

The following finding was identified after the thematic analysis of the two focus groups conducted to adapt the CASP 19 measure to assess the quality of life.

5.6.1 Linguistical equivalence of CASP 19

It is essential to assess the linguistic or semantic equivalence of the tool. This aimed to retain a similar meaning of a measure in the original and the translated version. The translated meaning should remain as close as possible to the original meaning. One word in the English language has two words in the Urdu language. For example, the word 'meaning' has two words in Urdu like 'maanay' and 'Baa maany', so instead of using word 'Maanay' used 'Baa maanay' would give more sense to the sentence. For example, one of the participants said;

> *"Statement number 11 'I feel that my life has a meaning' 'meri zindagi kay maenay hay' is a bit confusing it should be It should be 'ba maenay' which can give sense to the sentence."*

Other participants also share his view regarding the word used in the translation he said.

> *"In statement 17 the word 'mutmain' is not appropriate it should be 'itminaan' (satisfied). So, it should be 'main itminaan mehsoos karta hon jis tarha meri zindagi badal rahi hay".*

Such changes had been made in the instrument. It was identified that both male and female participants to the focus group did not understand item number 4, 'I feel left out of things', this item did not have content equivalence, and was poorly translated in the Urdu language, therefore it was removed from the CASP 19.

5.6.2 Financial needs

During the focus group discussion regarding CASP 19 items, Participants in both the groups had identified that money had an essential factor in living better and quality life. Though they had highlighted the other factors which influenced the quality of life such as health, the fulfilment of basic needs. According to them, for the fulfilment of the basic needs, money is vital. In their

viewpoints, without money, no one can live a quality life. As one of the participants from the focus group said;

> "*I had seven sisters and four brothers all died and now I am left alone, I am living alone at home and all the time I receive letters from the government, to pay money for different utilities, how can I pay? This is not a good quality of life."*

5.6.3 Social support

Another main finding that was identified during the focus group was about social support. For some participants, the family was an essential aspect of life which provides support. It was also identified that because of family support, a person can live a happy life. According to participants, quality of life is, when people live with the family and have social support in their old age. Participants also enforced the advantage of having social support and mentioned that social support enhanced the quality of life whether it gets in terms of family, neighbours or friends; it always helps in times of adversities. Moreover, it was also highlighted that sometimes in financial crises, there are friends who assist them to improve their wellbeing. One of the participants said.

> *"For me to live a happy life with the family is a good life. Money and health both are important but to live a life with the family and friends are also important."*

One of the participants from the male group said,

> *"All people present here have some social support. I always come to this centre (community centre for Pakistanis) to socialise and make myself happy. Many people I come across with in this centre say, that they are very happy with their lives and they say that we are still young".*

5.6.4 Cultural influence

Cross-cultural adaptation of any instruments needs to be culturally acceptable. Two items of CASP 19, were identified by the male participants, which they found culturally inappropriate those were; 'Family responsibilities stop me doing things that I want to do.' According to the male participants, the family is a priority in Pakistani culture. Moreover, to fulfil family responsibility is a part of religion as well. As one of the men participants said

"Taking care of the family is the primary responsibility of the male person that never stops them from doing the things they want to do."

On the contrary, female participants were quite happy with the same item, according to the female participants, the family responsibility stops them from doing what they want to do. One of the female participants said;

"In Pakistani culture females have been given all the responsibilities to carry out, and the male person of the house earns money and female has to work as a captain of the ship, if the captain is not there then, the ship will sink. It was just like, if a woman is not at home, how the home would be managed. The responsibilities start with all the home chores to taking care of kids and family. So, with so many responsibilities, women always leave their desires and wishes from getting fulfilled because those responsibilities never allow them to do the things they want to do."

Moreover, item 19 from CASP was also identified as culturally inappropriate by both the male and female participants. The CASP 19 item was, "I feel that the future looks good for me," according to the participants 'I feel that the future looks good for me,' is inappropriate religiously because one cannot talk about the future. It is a culturally and religiously susceptible item. The participants suggested, if the above mentioned CASP 19 items would add 'agar Allah nay chaha to main karon ga' means 'If Allah/God permits I will do this.' Then it might not look religiously sensitive.

To conclude the discussion of the focus group findings, it had been identified that CASP 19 had a conceptually accepted tool for the Pakistani population, except item 19. Moreover, linguistically item 4, which was badly translated into Urdu language and was not understood by any of the participants of the focus group. Therefore, this was later removed from the CASP and after removing two items from the CASP 19 that is item 4 and 19; the CASP 17 was used to assess the quality of life in Karachi, Pakistan.

5.7. Discussion

This part of the chapter will discuss the findings of, the process of cross-cultural adaptation of the tool of CASP 17.

5.7.1 Discussion of the translation process

One of the aims of this study was to adapt the CASP 19 measure of the quality of life, cross-culturally, from the English language and its associated cultural context to the Urdu language in the Pakistani cultural context. The systematic approach followed to adapt the tool cross-culturally allowed to check the content, conceptual, cultural, and language equivalencies of the tool.

Many linguists have explored a relationship between language and culture. It has been said that "Language and culture are two symbolic systems. Every language form we use has meanings, carries meanings that are not in the same sense. Because it is associated with culture and culture is more extensive than language" (Jiang, 2000, pg 3632). For some cultures, lunch may mean having pizzas and fries, but for some culture, it must be curry and rice. Therefore, it makes it more important when we use an instrument that has been developed in a country, which has an entirely different culture and in different languages like Pakistan. When it comes to adapt the tool in an 'Urdu' language which originally is being a mixture of many languages; like 'Sanskrit, Prakrit, Persian, and Arabic'. Therefore, we need to follow a rigorous process of translation as some words may be translated or understood differently by different people.

Therefore, all the translated four versions from English to the Urdu language have a difference in their translation. For example, the first statement of the CASP 19 is, 'My age prevents me from doing the things I would like to do'; the word 'things' has been translated as 'cheezain' and 'Kaam' in Urdu. Moreover, when back-translated into the English language 'cheezain' translated as 'things' and 'Kaam' translated as 'work'. Both words' cheezain' and 'kaam' use differently in the Urdu language. The word 'kaam' in English is not only used for 'work' but also for an 'employment.' Whereas, the word 'cheezain' translates 'things' in the Urdu language, which means any 'stuff'. So, the meaning of the CASP item "My age prevents me from doing the things I would like to do" does not change its meaning in the Urdu language.

Moreover, the translated words could change the meaning of the sentence; therefore, the closest to the back-translation items were taken in the final version of CASP 17. On the other

hand, the item number 1 of CASP, 'My age prevents me from doing the things which I want to do'; when translated in Urdu, the two translators added two Urdu words; that is 'khuwaish' (will or desire.) and 'pasandida' (favourite). That could change the meaning of the sentence in a way, that 'my age prevents me doing, my favourite things which I want to do' and 'my age prevents me from doing things, which I have a will to do'. Therefore, the correct translation was selected for the pre-testing.

Furthermore, item 4 'I feel left out of things' was translated very differently by all the 4 translators; that had changed the meaning of the original item. As it was translated as follows; 'I feel lonely', 'I feel that things have slipped from my hands', 'I feel I have no control over my desire', 'I find myself left out in different things'.

Likewise, in many items, translators had used different words in Urdu. The example of that is item 2 'I feel that what happens to me is out of my control'. Though the back translation of both the words is the same 'control.' However, word control has been translated differently by two translators; 'kaboo' (control) and 'Ikhtiyar' (control). The semantic difference between the two words is; ikhtiyar is a more polite way to say in the Urdu language; whereas kaboo is little harsh way to use in the Urdu language (Urdu dictionary, 2020). Interestingly, in item 14 'On balance, I look back on my life with a sense of happiness' the word 'on balance' was not translated at all by four translators. However, not using the word 'on balance' did not change the meaning of the sentence.

With all the above findings adapting a new instrument needs a rigorous process to avoid any biases. As one word in English may have a different meaning in the other languages (Wild, et al 2005). So, according to Guillemin (1993), the best way is back translations of the translated version; when another bilingual translator independently translates the translation back into the English (Guillemin, et al 1993). Also, then the back-translations are 'compared to the original version for semantic and conceptual equivalence' (Brislin, 1970).

According to Van Winderfelt and colleagues (2005), a back translator should be the one who knows the subject (Windenfelt,2005). However, Guillemin (1995) argues that back-translations should be performed by the one who does not have any knowledge about the subject. Therefore, this study had followed the method of back translation as Guillemin has described. Because this study was to assess the quality of life of ordinary people, so it was essential to get a back translation from the familiar people of the same culture; who speak and share the same culture and values.

Likewise, in the different previous adaptation of CASP 19 in various countries like Brazil, Taiwan, Israel, Nigeria, and Japan have followed the same process as Guillemin has described in his literature. In Brazil, two Brazilian bilingual translators who had never seen the CASP19 original version; they did the translation, and then another two persons did the back translation of the tool, from Portuguese to English (Lima, et al 2014). However, the little different process was carried out in Taiwan, the literate community- senior Taiwanese residents were interviewed to check the language of the questionnaire. The corrections were made, and later it was given to two bilingual medical doctors to back-translate the Chinese version (Wu, et al 2013).

However, this study was a bit rigorous as described earlier; the study had used four translators and four back translators, to get more tangible results. Overall, eight people took part in the translation and back-translation process which had already been discussed earlier in this chapter. Eight out of four people translated from English to the Urdu language. Then translated versions were given to another four people to back translate into English.

Furthermore, some back translated items conceptually changed the meaning of the original item such as; item number 3 'I feel free to plan for my future' was back-translated by one of the translators was; 'I am free to think about my future.' This changes the meaning of the sentence 'to plan' and 'to think' are different meanings in English. Moreover, the same item was translated by another translator 'I can plan for the future without hesitation'; no word such as

hesitation was presented in the original item. However, item 4 'I feel left out of things', was translated differently by all the translators, which did not have any conceptual equivalence and linguistic equivalence.

In the third step, all the back-translated versions were taken to the two natives to select the best version out of four, which could be the closest to the original one. Meetings with two natives on individual bases were arranged, and each CASP back-translated versions were discussed in detailed. According to both the natives, version II, of the back translation was very closest to the original one. However, one of the natives did not agree with the back translation of item number 4 'I feel left out of things.' According to him none of the back-translated version was nearest to the original one. However, another native showed her agreement on version IV, which was back-translated 'I find (feel is missing) myself left out in different things.' Finally, both agreed to use translated version II to pre-test in Pakistani population living in London.

Pre-testing of the tool is an integral part of the adaptation as cultural knowledge and differences have represented a significant focus of translation. The translation should not be only related to language, but beyond that, it should have a cultural equivalent (Brislin,1970). The concept which is meaningful in one culture not compulsorily be the same in another. Different cultures may enforce different norms for responding to situations (e.g. the death of a spouse or Grief and distress). In some cultures, people may feel free or even encouraged to display their pain or distress openly, while in others, they might consider it a weakness of the person (Durdureanu, 2011). The main finding of the focus group was on gender inequality which I will discuss in chapter (7).

Another item which was not understood during the pre-testing was item 4. That had already been highlighted earlier; which was translated differently by all the four translators. Then, back-translated differently by all the back translators. However, item 4, which was the closest one to the meaning of the original one used purposely, in the pre-testing of the tool; to know the viewpoint of the participants. However, a similar problem was identified during the focus groups. Both the groups did not understand the meaning of the item 'I feel left out of

things' as it did not make any sense to the participants. Also, because both the groups did not understand this item, therefore, it was later removed from the CASP 19.

Another item highlighted by the male group was number 17, 'I feel satisfied with the way my life has turned out.' In Urdu, there are two words for satisfaction one is 'mutmain' and the other one is 'Itminan.' The word 'itminan' in the Urdu language is used humbly and politely which meant an act of getting satusfaction, or the state of being satisfied, whereas, the word 'mutmain' is used free from emotional anxiety or nervous tension. However, it is also used for Self-Satisfaction (Urdu point dictionary, 2020). Therefore, the group was concerned with the word and grammar of the sentence. Therefore, instead of using the word 'mutmain,' it was suggested that the use of 'Itminan' would be more appropriate for the final version to use in Karachi, Pakistan.

There was another item 19 'I feel that the future looks good for me' which became very argumentative. According to the participants, this item was not culturally appropriate. However, it could raise the question then why participants did not raise a question for item three, which is 'I feel free to plan for future'. Item three was translated as 'I feel free to plan for my future' and item 19 was translated as 'I feel that for my future looks good' so 'future looks good' was taken to predict the future. As in a cultural context, a person can plan, but they cannot predict the future. The translation of item 19, in Urdu, shows a prediction of the future. The participants of the focus group disagreed and were unhappy with the statement. The teaching of Islam does not allow anyone to predict about the future and it falls in kufr (disbelief) as prophet Mohamad had said: "Whoever approaches an oracle or fortune-teller and believes in what he says, has disbelieved in what was revealed to Muhammad." Both fortune-teller and the astrologists, who claim to have knowledge of the future is haram in Islam and opposed to Tawheed (Islamic Monotheism). Moreover, people who believe in prediction are called mushirk in Islam, because Allah has clearly stated: "And with Him [i.e., Allah] are the keys of the unseen; none knows them except Him." [Quran 6:59] As well as (what means): "Say (O Muhammad): “None in the heavens and earth knows the unseen except Allah” [Quran: 27:65] (Pinault, D., 2008). The

group emphasized it to remove this item from the questionnaire; because of its sensitivity, otherwise, this can create a conflict in the larger group. One of the Muslim scholars Khalid Zaheer has also described these issues in one of his essays available at ('Khalid Zahir website) that only God is the one who knows everything. Nobody must claim that he/she knows about the future and if someone who says that he/she knows about the future, then it must be, A Demon (شیطان).

After the pre-testing of the instrument, removing items 4 and 19 were removed from the CASP 19, which made a tool CASP 17 a measure of the quality of life, to use in Karachi, Pakistan.

5.8. Psychometric evaluation of CASP 17

Psychometric properties of the instrument check the efficacy of the instrument (Hunsley and Mash, 2008). Therefore, Psychometric testing was used to test the measurement equivalence across cultural groups. To measure the psychometric properties of the instruments, reliability and validity tests were conducted.

Reliability has defined as the “degree to which test scores are free from errors of measurement” (American Psychological Association, 1985, p.19). It is essential that the measurement has internal reliability and should be consistent over time. It estimates Cronbach’s, to measure the internal consistency of the instrument. “Cronbach’s alpha is based on the number of items in the scale and the similarity of the items.” If the Cronbach alpha is 0.00, that signifies the absence of reliability and a value of 1.00 shows perfect reliability. If there is low reliability that means the measure is not consistent. According to Hunsley and Mash (2008), a measure is considered to have excellent reliability; when Cronbach alphas are more than 0.89 and the reliability of the measure is adequate; when it ranges from 0.70 to 0.79. However, a measure has good reliability if it is between 0.80 and 0.89. However, the reliability of the measure also depends on the sample where the measure has been used (Hunsley & Mash

2008). Therefore, a measure could be reliable in some places and unreliable at other places (Hunsley & Mash, 2008).

Moreover, to check the content and construct validity of the instrument, factor analysis was conducted. The factor analysis examines the construct validity of the scales (Reise, Waller and Comrey, 2000). Construct validity answers the questions like, “Does the measure behave like the theory says a measure of that construct should behave?” Moreover, to analyse the importance of the items and the internal structure of the constructs that the instrument measures; an exploratory factor analysis (EFA) was first conducted. EFA is a statistical method that “increases the reliability of the scale by identifying inappropriate items that can then be removed”. The EFA also analysis the relations between items and the factors (Slavec and Drnovšek, 2012).

Moreover, the Confirmatory factor analysis was also performed to identify the “number of factors required in the data and which measured variable is related to which latent variable” (Statistics Solutions 2013). The quantitative data were entered in the SPSS to check the psychometric properties of the measure CASP 17. Also, AMOS was used to perform the confirmatory factor analysis. CASP 17 has a Likert scale item, numerically coded. 3 was coded to the most positive answer, and 0 was coded most negative answer. The CASP 17 score was ranging from 0 to 47. Higher the score better the quality of life; lower the score poor the quality of life (Netuveli et al 2006).

5.9.1 Findings from the psychometric analysis of CASP-17

5.9.1.1 Exploratory factor analysis

Exploratory Factor Analysis (EFA) had applied in the first phase; to explore the factors loading on quality of life scale. In the later phase, the Confirmatory Factor Analysis (CFA) was performed to test the fitness of the model identified by EFA.

Before starting the factor analysis, a reliability test was performed. The reliability tests revealed that the scale has good internal consistency with Cronbach's alpha 0.82. There were both high and low correlations between the CASP 17 items.

Moreover, the factor structure was tested using exploratory factor analysis. Hence, to check the construct validity, and to confirm that the data collected for an exploratory factor analysis were appropriate; the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy test and Bartlett's Test of Sphericity were made. A Kaiser-Meyer-Olkin (KMO) test is used to "determine the sampling adequacy of data that are to be used for Factor Analysis". Moreover, KMO test is vital to conduct as it allows us to confirm that the data is suitable to run a Factor Analysis. Furthermore, it is used to determine whether we have set out what we planned to measure. Whereas, Bartlett's test is necessary to "check if there is a redundancy between variables that can be summarized with some factors" (Williams, B., Onsman, A. and Brown, T., 2010). The KMO values between 0.8 and 1 indicate that the sampling is adequate. Besides, the KMO in this analysis was 0.83. Furthermore, table 5.3 shows the value of Cronbach's alpha for each item and if the item was deleted from the scale.

Only item 16 shows the low Cronbach alpha, but the removal of that item would not show an improvement in the Cronbach alpha. Therefore, none of the items were removed from the scale.

CASP 17 items	Cronbach alpha
My age restricts me to do such tasks that I want to do	0.81
I feel that whatever is happening with me I cannot control it	0.81
I feel that I am free to plan for my future	0.81
I can do thing that I want to do	0.80
Family responsibilities stops me to do things that I want to do	0.81
I feel that whatever work I do I can make myself happy from it	0.80
My health stop me to do things, that I want to do	0.81
Lack of money stops me from doing things I want to do	0.80
I wait for all coming days	0.81
I feel that my life has meaning	0.81

Whatever work I do, I enjoy it	0.80
I enjoy other's company	0.81
I look at my past happily	0.82
I feel energetic all the time	0.80
I select things that I have never done before	0.81
I feel satisfied with the way my life is changing	0.79
I feel that life is full of opportunities	0.80

Table 5.3: CASP 17 Cronbach alpha for each item

Furthermore, the Eigenvalue measures evaluate how much of the variance of the observed variables a factor can explain. Any factor with an Eigenvalue ≥1 explains more variance than a single observed variable. The four factors analysed by this study presented an Eigenvalues just over 1 as the screen plot in (Diagram 5.3) clearly illustrates.

The factor loading expresses the relationship of each variable to the underlying factor. All the CASP 17 items were loaded on four factors (table 5.3). However, variables had been loaded differently; as it was loaded in the original CASP 19 table: 5.3. Usually, a factor loading >0.30 is recommended (Martinez-Vizcaino et al., 2010; Pillon, Laranjeira, & Dunn, 1998). Moreover, in this research findings, all the factors loaded were >0.30.

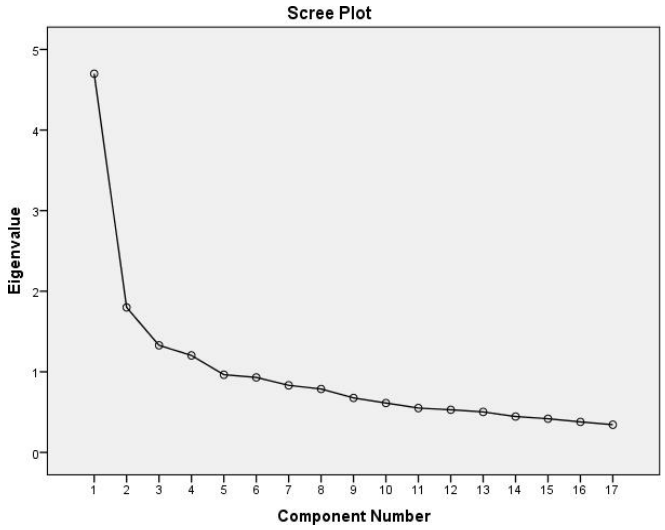

Diagram 5.3: Eigen value plot

The analysis of CASP 17 shows that the quality of life in Karachi ranges from 3 to 47, with an associated mean of 29.12 (that shows the average score of QOL) and Std. Deviation of 8.58. The standard deviations are not "good" or "bad." They are just indicators of how two spread the data is. Table 5.5 shows the EFA results that have revealed the way factors have been loaded differently than in the original CASP 19 (Table 5.4).

Original CASP 19	
Domains	**Items**
Control	C1 May age prevent me from doing the things in would like to do C2 I feel that what happens to me is out of my control C3 I feel free to plan for the future C4 I feel left out of things
Autonomy	A5 I can do the things that I want to do A6 Family responsibilities prevent from doing what I want to do A7 I feel that I can please myself what I can do A8 My health stops me from doing the things I want to do A9 Shortage of money stops me from doing the things I want to do
Pleasure	P10 I look forward to each day P11 I feel that my life has meaning P12 I enjoy the things that I do P13 I enjoy being in the company of others P14 on balance I look back on my life with a sense of happiness
Self-realization	S15 feel full of energy these days S16 choose to do things that I have never done before S17 feel satisfied with the way my life has turned out S18 feel that life is full of opportunities S19 feel that the future looks good for me

Table 5.4: original CASP 19

Below (table 5.6) shows the Domains and items loaded after the exploratory factor analysis. And the names were given according to its loading.

Table 5.5: Exploratory factor analysis: factors loading

Old CASP 19 subdomains items	**New CASP 17 subdomains items**	**CASP 17 items**	**1**	**2**	**3**	**4**
C1	C1	My age prevents from doing the things I would like to do so		.761		
C2	C2	I feel that what happens to me is out of my control		.655		

C3	SR 1	I feel free to plan for the future	.543			
A1	SR 2	I can do the things that I want to do	.604			
A2	A1	Family responsibilities prevent me from doing the things I want to do				.589
A3	SR 3	I feel that I can please myself what I do	.712			
A4	C3	My health stops me from doing the things, I want to do		.751		
A5	A2	shortage of money stops me from doing things I want to do				.592
P1	P1	I look forward to each day			.358	
P2	P2	I feel that my life has meaning			.745	
P3	P3	I enjoy the things that I do			.444	
P4	P4	I enjoy being in the company of others			.710	
P5	A3	on balance I look back on my life with a sense of happiness				.739
SR1	SR 4	I feel full of energy these days	.485			
SR2	SR 5	I choose to do things that I have never done before	.500			
SR3	SR 6	I feel satisfied with the way my life has turned out	.688			
SR4	SR 7	I feel that life is full of opportunities	.723			

Table 5.6: factors loading CASP 17

CASP 17 version factors loaded	
Self realization	I feel free to plan for the future I can do the things that I want to do I feel that I can please myself what i do I feel full of energy these days I choose to do things that I have never done before I feel satisfied with the way my life has turned out I feel that life is full of opportunities
Control	My age prevents from doing the things I would like to do so I feel that what happens to me is out of my control My health stops me from doing the things, I want to do
Pleasure	I look forward to each day I feel that my life has meaning I enjoy the things that i do I enjoy being in the company of others
Agency/Autonomy	Family responsibilities prevent me from doing the things I want to do shortage of money stops me from doing things I want to do on balance i look back on my life with a sense of happiness

Before commencing the CFA, the internal consistencies of the factors were checked. The reliability scores for individual CASP components were moderate to high. For control and self-realization (0.66 , 0.78) and the pleasure and agency/autonomy were moderate (0.60 ,0.50). The moderate-scoring scales might have been lower due to the distribution of scores within these

scales being wider between sub population groups within the sample. However, the overall CASP reliability was high.

The item correlations did not propose any perfection in removing the items from the factors which have mentioned above. Therefore, it was decided to hold on to all the 17 items for the structural equation model.

Domain CASP 17	Cronbach's Alpha
Self realization	0.78
Control	0.66
pleasure	0.60
Agency/Autonomy	0.50

Table 5.7 Crohn back alpha for CASP 17 individual domain

5.9.1.2 Psychometric findings of Confirmatory factor analysis

Confirmatory factor analysis (CFA) is used to validate the factor construction of a set of observed variables. CFA also allows the researcher to test that a "relationship between observed variables and their underlying latent constructs exists" (Suhr, 1999 pg 1). "CFA was conducted to test the fitness of the obtained model. It examines the measurement model that supposes each item is only loaded on its expected latent variable" (Thompson 2004). Three fit indices were calculated to assess the measurement model validity; Comparative Fit Index (CFI), Tucker Lewis index (TLI) and Root Mean square Error of Approximation (RMSEA).

In this study, the single factor model, the first order model and second order model were assessed. In the single factor model, all 17 items are loaded onto one unobserved variable known as QoL (figure 5.4). Moreover, the first order model in which all four factors of CASP 17, with its items that are; Autonomy, Control, Self-realization and Agency/Autonomy were added (figure 5.5). Also, the second order measurement model,

where all the CASP domains with 17 items were loaded on the single underlying factor, QoL (figure 5.6).

As discussed earlier, to assess the model fit, three goodness of fit indices were calculated. These include; CFI, TLI, and RMSEA. “The value of RMSEA <0.05 indicates good fit, values between 0.05 and 0.08 suggest acceptable model fit, and values >0.10 suggest poor model fit. For the CFI and TLI, values above 0.90 show a reasonably good fitting model” (David A. Kenny 2015).

(Figure 5.4) demonstrates a measurement model for CASP-17; where all the 17 items have been loaded on a single factor that is QoL. The single factor model of CASP 17 displays a poor model fit as the results of the goodness of fit indices describes that TLI 0.674, CFI 0.714 which is relatively lower than the normal range and RMSEA 0.098, which is higher than its required range. Because the single model seems the worst model fit for CASP 17 therefore, the first order model was performed where the inter-relationship of all the four domains (Autonomy/Agency, Control, Self-realization and Pleasure) was performed. The results of the first-order model of CASP 17 with all four domains does not display a perfect model fit, as TLI 0.827, CFI 0.856 and RMSEA 0.071. As both the single model and the first model did not show a better model fit, a third step was introduced involving the analysis of a second order model for CASP 17. That included all the 17 items with its’ domains on one-factor latent variable ‘QoL’. The results of the second order model analysis for CASP 17 showed that the values of TLI 0.674 and CFI 0.714 are very low (recommended value >0.90). Moreover, the value of 0.098 for RMSEA was higher than its required range (recommended value <0.05). Thus, the second order factor also does not demonstrate a good model fit between the model and the observed data for CASP 17.

Moreover, the modification indices (MI) of covariance were observed. The MI indicated a pair of correlated errors which reflect that the unnecessary items exist in the model. The MI exhibited a high error measurement correlation between (e1, and e2,) that is: ‘I feel free to plan

for the future', and 'I can do the things that I want to do'. The MI value between the two items (e1 and e2) was 20.99, which is considered high since it is greater than 15.0 and between (e12 and e9) that is; 'I feel that what happens to me is out of my control' and 'I feel that my life has meaning' MI value 16.67 which was higher than 15 (Table 5.8). In order to achieve the best model fit, which showed higher values on e1, e2, e12, e9 all four items were removed from the analysis. Therefore, then the alternative 13-item four-factor model was tested for the population of Karachi Pakistan.

Residuals	Factors	Items
E1	Self realization	I feel free to plan for the future
E2	Self realization	I can do the things that I want to do
E9	Control	I feel that what happens to me is out of my control
E12	Pleasure	I feel that my life has meaning

Table 5.8: error Items

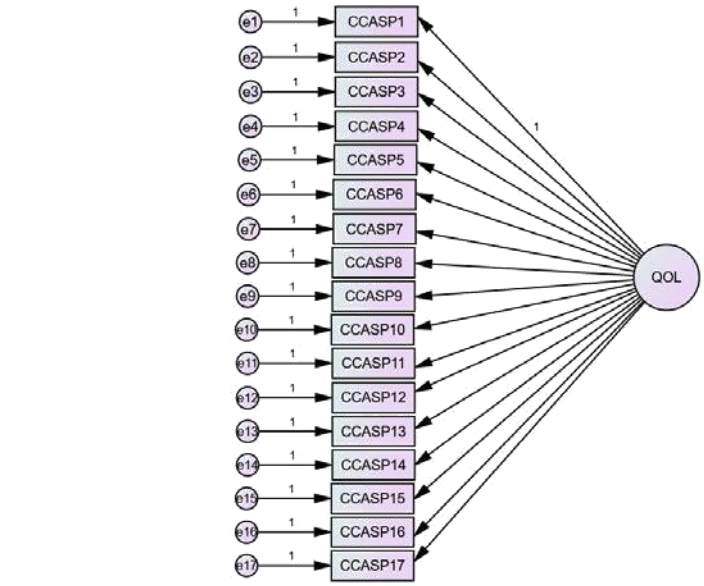

Figure 5.4: Single factor model CASP 17

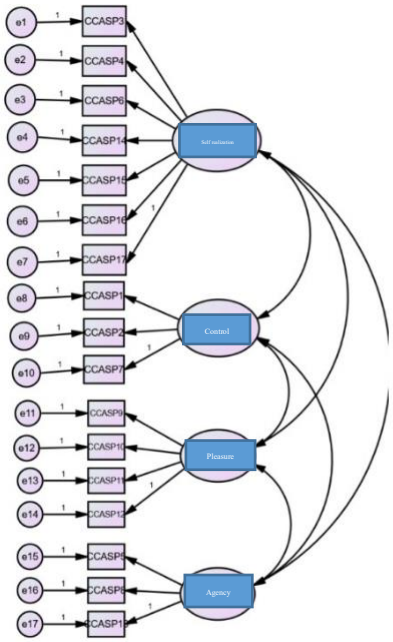

Figure 5.5: A first order model I for CASP-17

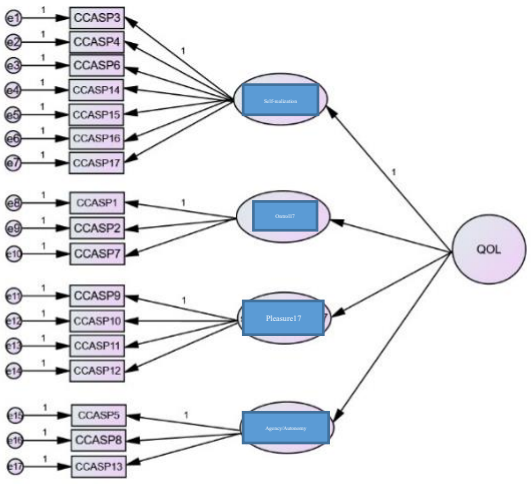

Figure 5.6: Second factor model CASP 17

The CASP 13 was also evaluated for model fit through CFA. The single factor model of CASP 13 showed the following values: TLI 0.709, CFI 0.757 and RMSEA 0.101 (Figure 5.7) although these did not demonstrate perfect findings, they provided better model fit than CASP17. The analysis for the first model fit showed the best model fit, with TLI 0.903, CFI 0.927 and RMSEA 0.058 (Figure 5.). The second model factor analysis for CASP 13 did not exhibit a very good model fit (TLI 0.709, CFI 0.757 and RMSEA 0.101) (figure 5.9)

Finally, as for CASP 13, items redundancy was examined through inspecting the Modification Indexes (MI). The correlated measurement error was between the item e6 and e7: ‘my age prevents me doing the things which I want to do’ and ‘my health stops me doing things which I want to do’. The MI value between the two items was 64.463, which is considered high since it is greater than 15.0. It was assumed, that the redundancies between the two items caused the measurement model to record a poor fit. Therefore, these two correlated measurement errors of redundant items were analysed as a “free parameter” and run the new measurement model II for the second-factor model.

The CASP 13-second model fit (II) after unnecessary the two items, illustrated the findings TLI 0.809, CFI 0.843 and RMSEA 0.082 (figure 5.10). The finding demonstrated that fitness indexes have improved after the two redundant items which were constrained in the model. The constrained was done while keeping the pair of the redundant item as 'free parameter estimate'. A free parameter is not pre-defined by the model; this can be chosen or estimated based on theoretical ideas or experimental data. Moreover, "Free parameter is a value estimated from data, usually in a modelling procedure such as structural equation modelling. A free parameter differences with a fixed parameter, which is kept at a known, specific value; For example, in confirmatory factor analysis, one-factor loading for each latent variable is usually a fixed parameter of 1.0, and the other loadings are free parameters that are estimated" (Hoyle, R.H. ed., 2012).

The overall CFA results propose that the 'single-factor model' and the 'second factor model' for CASP 13 also does not provide an appropriate fit. However, the domain model, which is the first factor model of CASP 13, is recommended as the best model fit to use in a population of Karachi. Therefore, the shorter version of CASP13 was used to assess the quality of life in Karachi, Pakistan.

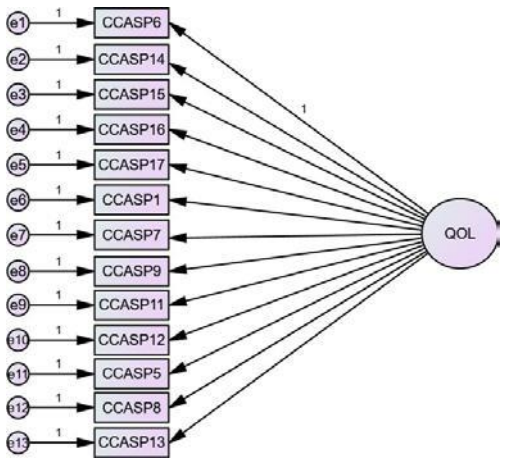

Figure 5.7: single order model CASP 13

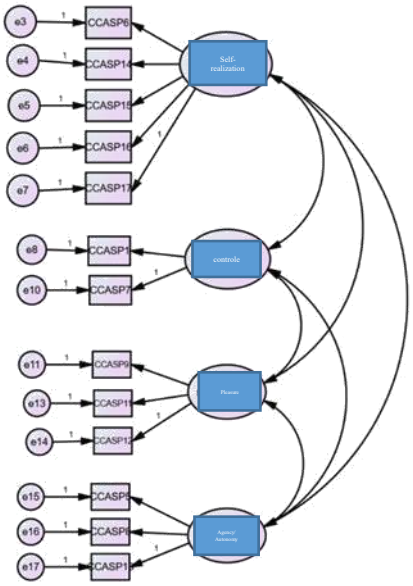

Figure 5.8 :first order model for CASP13

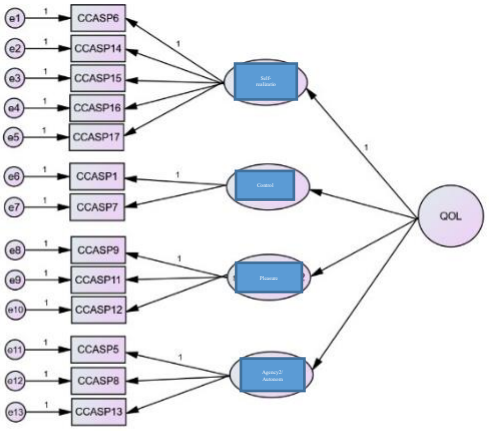

Figure 5.9: Second model factor CASP13

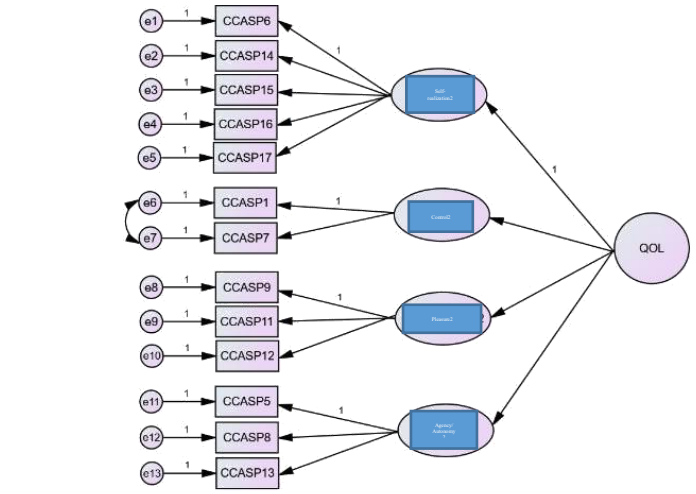

Figure 5.10: Second model factor CASP 13 (Constrained e6 and e7)

Moreover, CASP 13 internal consistencies of the factors were also checked (Table 5.9). Cronbach's alpha values were 0.71 for self-realization, 0.68 for Control, and 0.58 for Pleasure and 0.50 for Agency. The control domain showed an improvement in the CASP 13 than CASP 17 the rest of the domain has a very little but better difference in it.

Domain CASP 13	Cronbach's Alpha
Self realization	0.71
Control	0.68
Pleasure	0.58
Agency/Autonomy	0.50

Table 5.9: Cronbach alpha for all domains CASP 13

	Tucker Lewis index (TLI)	Comparative fit index (CFI)	Root mean square index of approximation (RMSEA)
CASP 17			
Single factor	0.674	0.714	0.098
First order model for CASP 17	0.827	0.856	0.071
Second order model for CASP17	0.674	0.714	0.098
CASP 13			
Single factor	0.709	0.757	0.101
First order model for CASP13	0.903	0.927	0.058
Second order model 1 for CASP 13	0.709	0.757	0.101
Second order model 2 for CASP13 Constrained e6 and e7	0.809	0.843	0.082

Table 5.10 Confirmatory factor analysis

5.9.1.3Quality of life CASP 13 scores

Each item in CASP 13 had scored on a four-point scale ('Often', 'Sometimes', 'Not often' and 'Never'), that could give a possible range of scores of 0–39, higher the score represents a better quality of life (Sim., Bartlam, and Bernard 2011). The mean CASP 13 score for the whole sample was 22.39 $\pm$ 6.68 (table 5.11). the CASP 13 shows the lowest mean score among the countries, where the CASP was used.

Moreover, the impact of financial resources on well-being had been observed in earlier studies on CASP, where a higher socioeconomic status has common positive effects on the quality of life (Hubbard, et al. 2014). Likewise, findings from this study also identified differences in the score of quality of life in all three groups. Low Income Group (LIG) mean CASP score was 17.4 $\pm$ 6.6, middle income group (MIA) 22.8 $\pm$ 4.9, and high-income group

(HIA) 26.8 ± 4.5 (Table 5.12). Moreover, the data in (diagram 5.11) shows that the sample values it's normally distributed, with a slight negative skew. However, there is a good alignment with the bell curve, so can be deemed normally distributed.

Casp13score	N	Mean	Std. Deviation	95% Confidence interval for mean	
				lower bond	upper bond
	299	22.39	6.68	21.63	23.13

Table 5.11. CASP 13 mean score

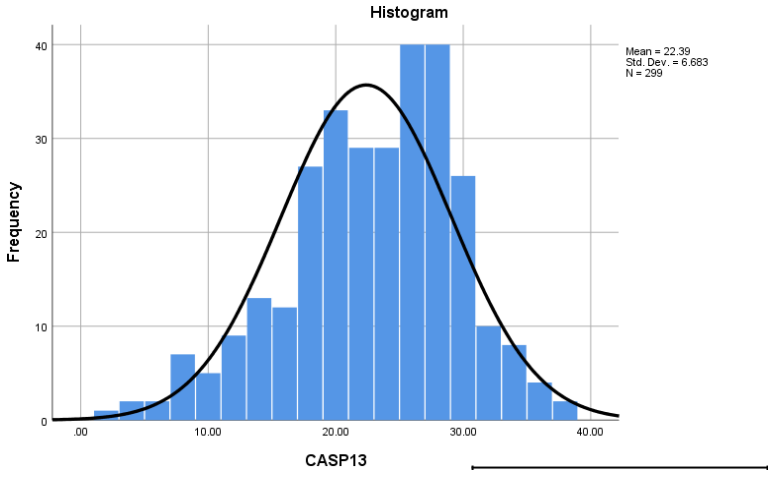

Diagram 5.11 CASP 13 distribution

Casp13 score	N	Mean	Std. Deviation	Low bond	95% CI for mean Upper bond
Low income	100	17.43	6.69	16.10	18.75
Middle income	99	22.87	4.90	21.89	23.85
high income	100	26.87	4.52	25.97	27.76

Table 5.12: CASP score in strata

Now, the chapter will turn to discuss the findings of psychometric testing; considering the existing literature on the subject.

5.10. Discussion on psychometric properties of CASP 17

This part of the chapter will be discussing the psychometric properties of CASP17. CASP 19 has been used in many studies including an assessment of the quality of life in a retirement community in the UK, (Sim, Bartlam, and Bernard, 2011), the life course influences upon the quality of life in French men and women (Loretta et al. 2015). It was also used to examine the correlation of religiosity and wellbeing in Jewish Israelis aged 50 (Litwin, Schwartz, Avital, 2017). The CASP was also used to assess adverse effects of obesity on psychological well-being (Jackson, Beechen, and Wardle, 2015). However, very few of these studies had conducted the psychometric testing of the CASP.

However, this study had performed the psychometric properties of the CASP 17 in Karachi and it was found to be an appropriate tool to assess the quality of life. Moreover, it was found easily understood by the targeted population. The CASP 17 showed good psychometric properties and good internal consistency in the Pakistani population. It was also able to find out common characteristic of growing older, which was mentioned in Hyde and colleges study demonstrated the tool that would be used in the different culture, may able to find the most common universal characteristics of growing older (Hyde et al, 2003). Besides the CASP 17 had

a good psychometric property; but, the modification indices (MI) of covariance were observed when performed CFA. The MI indicated a pair of correlated errors which reflected that the unnecessary items exist in the model. The MI exhibited a high error measurement correlation between (e1 and e2): 'I feel free to plan for the future' and 'I can do what I want to do'. The MI value between the two items (e1 and e2) was 20.99, which is considered high since it is greater than 15.0 and between (e12 and e9) that is; 'I feel that what happens to me is out of my control' and 'I feel that my life has the meaning' MI value 16.67 which was higher than 15 (Table 5.6). To achieve the best model fit the four items which had showed higher values e1, e2, e12, e9, were removed from the analysis.

Hence different countries have different psychometric properties of the CASP. When it was used in the countries of Britain and Eastern Europe, both exploratory and confirmatory analysis showed three factors with 12 items that best fit to the data (Kima et al, 2014). Moreover, the CASP domains like Control and Autonomy seemed alike and therefore was labelled as one domain 'control and Autonomy'.

Moreover, the psychometric analysis of CASP 19 was also conducted in the Irish population aged 50 years and above. In that study, the data did not support the four factors with 19 items, though; it was best fitted on two models with 12 items (Sexton, Kallimanis and, Ronan 2013). Similarly, when the validation study was conducted in Taiwan, the data revealed five factors that are Control, Autonomy, self-realization, pleasure, and participation. Though the items were reduced from the domain; Autonomy and Control, and the new factor 'participation' was added which had the mixture of both the items; from the autonomy and control of the domains (Wu, et al, 2013). The Psychometric analyses in Brazil had also revealed that the removal of two items improved the internal consistency of the Autonomy and Pleasure domains. Confirmatory factor analysis suggested that a 16 item, four-factor, model best fits the data for Brazilians (Lima et al, 2014).

In line with other psychometric studies of CASP (Lima., et al 2014, Sim , et al 2004, Gyu Ri Kim et al 2015 , Tai-Yin Wua et al 2013, Wiggins et al 2007) this study in Karachi had

also shown different results in both exploratory and confirmatory factor analysis. As, the population of Karachi Pakistan; was different from the one which the scale was originally developed. The exploratory factor analysis had extracted four factors; and, the loading of most of the items in factor analysis were the same as other countries where CASP 19 had been used. Also, according to its loading, it was named same as it was in the original study (Control, Self-realization, Pleasure and Agency/Autonomy) these all domains will be discussed later in this chapter. While confirmatory factor analysis results show that four items had high values on residuals covariance in confirmatory factor analysis; and the model was not fitted well. Therefore, these four items (table 5.11) were removed from the model, which has already been discussed earlier in this chapter. And because all the factors are same as the original CASP therefore it can be loaded on one latent variable that is QOL. This was used an overall QoL measure in the analysis, to explore the role of QoL in older adults. The individual domains were not analysed separately.

Residuals	Factors	Items
E1	Self-realization	I feel free to plan for the future
E2	Self-realization	I can do the things that I want to do
E9	Control	I feel that what happens to me is out of my control
E12	Pleasure	I feel that my life has meaning

Table 5.13: four items deleted

It is essential to discuss the reasons for the high values in co-variances. First, the way participants have perceived the items during data collection. When the interview items e1 (I feel free to plan for the future) and e2 (I can do the things that I want to do) were asked to the participants, some of the people appeared confused as one of their replies was 'if I am free to

plan for my future, then I can do what I want to do'. This shows that the two items were similar to each other.

Second, when asked e9 and e12 statements which say, "I feel that what happens to me is out of my control', and 'I feel that my life has meaning". For these two statements, most of the participants referred to God and said, 'if God has given us life, then there must be some meaning to life'. Another participant added: "sometimes I get confused about life and do not understand why it is happening to me, and those things are out of my control. So, I feel that it is God's will". So, both the statements seem relatively the same and referred to God's will. Therefore, participants may have perceived these items as similar.

Third, the CASP measure was developed on the theoretical model of Doyal, Gough, Maslow and Lastlet. All the domains (control, autonomy, self-realization, and pleasure) were introduced with the following description: 'Control was known as an ability to actively intervene in one's environment' (Hyde, M et al., 2003). 'Autonomy is defined as the right of an individual to be free from the unwanted interference of others' (Hyde, M et al., 2003). 'Self-realization and pleasure capture the active and reflexive processes of being human' (Hyde, M et al., 2003). Besides, according to the Lastlett, old age should not be frailty and thinking or waiting for death. Lastlett argued that people should live a longer, healthier and joyful life. Moreover, later years of life should be a crown of life, where they can develop themselves and their interest (Lestlet, 1996). So, this dimension of lestlet leads to the further development of CASP domains that is 'pleasure', and 'self-realization'. These domains reflect the “process of self-realization through those activities that make them happy”. However, when it comes to using such a measure in a different culture, the meanings and perceptions of these domains may change because of their cultural values and beliefs. This is what happened with these domains of CASP 17 when used in Karachi. For example, the item asked from the self-realization domain ‘I feel satisfied with the way my life has turned out’ and some of the participants referred to Allah as one of the participants said, ‘It is Allah’s will nothing is in our

hand’. But few of the participants also said “one wrong decision in life can change the life and one is responsible for their own decisions so we cannot blame to anyone or Allah” so there were distinct viewpoints of the participants.

Another example which showed how people had interpreted items according to their cultural values, when asked an item from the pleasure domain ‘I feel that my life has meaning’ many people referred back to Allah and responded if Allah has sent to us in this world there should be some meaning.

The next part of the chapter will discuss each domain of the CASP to show how people have perceived domains in an entirely different culture. Moreover, it will also discuss the meaning of each domain in the Urdu language and then the back-translated those words from Urdu words into the English language. This will also discuss some of the subjective data shared by the participants during the interview. The subjective data will enhance our understanding, how different cultures comprehend, the CASP 13 domains. The subjective data will also allow, to share the participant's perspective on domain in Pakistani culture.

5.10.1 Self realization

The first factor of CASP 13 had five items; 'I feel that I can please myself what I do', 'I enjoy things that I do', 'I choose to do things that I have never done before', I feel satisfied with the way my life has turned out and 'I feel that life is full of opportunities'. With items mentioned above the first factor was named as self-realization. All the items were the same as they were in the original measure of CASP 19

The dictionary meaning of self-realization is 'fulfilment of one's potential'. However, the Urdu meaning of self-realization is 'takmil-e-zaat' and maarfatay zaat' when translated these words again into the English language 'takmil-e-zaat' mean 'completion' and 'fulfilment of the capacities'. Moreover, 'maarfatay zaat' means 'khud shanasi' means 'self-awareness'. Self-realization is defined as the full development of self.

Initially, the Maslow's interpretation of self-realization was, whatever people know, and the things make them happy they should perform to their ability in their life (Maslow, 1943). He viewed life as an ongoing process of choices and described self-actualization as making the "growth choice instead of the fear choice". Moreover, with this concept of Maslow, the self-realization became the part of CASP 19.

Moreover, in Eastern religions, self-realization signifies a state in which an individual knows who they indeed are, what lasts they must achieve and way to fulfil it. Therefore, to some culture, self-realization could be apparent itself and understand that "they are at one with the omnipresence of God, or that the Divine is within them". And for others, it is a "fulfilment of all the possibilities of an individual's personality and character". Consequently, the accomplishment of self-realization may be a scientific and/or spiritual process (Fitzgerald, T., 2003). Though spirituality has been seen differently by different scholars and people, for some, spirituality is to feel confident that life is meaningful and spiritual person believes that life has a "meaning and one's existence has a purpose" (Frank, 1984).

In a culture like Pakistan, some people understood, self-realization having a restful life after struggling throughout the life course and to get pleasure in life and some perceived as a spiritual accomplishment. Spiritual accomplishment in the Sufi thought has also "introduced spiritual analysis as a science of self-realization" (Boni, 2005). Sufis are the one who has a spiritual Islamic belief and practice in which Muslims' seek to find the truth of divine love of God' (Baldick 2012). They are the one who achieves spiritual enlightenment through meditation, prayers and by quitting worldly desires. Sufi can be both Sunni and Shia. However, Sunnis focus on the teachings and Sunah of the holy Prophet, whereas Sufi follows basic and spiritual practices. Moreover, Sunni and Sufi both follow Islam and have the same beliefs, but a Sunni is more involved with worldly matters, whereas Sufi is more concerned with the world hereafter. Sunni follows the code of life sent by God in the form of Sunah and Quran. Sunni Muslims follow these codes and spend their lives accordingly to get to heaven as a reward for their worldly noble deeds (Ahmed 2008).

When asked following items to the participants;' I feel satisfied with the way my life has turned out' and 'I feel that life is full of opportunities'. Many participants from the study replied, 'jo Allah Karta hay wo acha kay liyee hi Karta hay'. Means' whatever Allah does for us it is good for us. Moreover, some of the participants replied differently to the statement asked about the 'life is full or of opportunities' as it was said by one of the middle-income group “I retired in the age of 60 from Muslim Commercial Bank' Now I am 62, and I want to work, but I am not getting any. The government should increase the retirement age”. Moreover one of the participants from Low-income replied to the statement when asked “I feel satisfied with the way my life has turned out” and she replied that “I am happy the way we are now this is the time to remember Allah as I have raised my kids they all are married and happy in their life”. The subjective finding suggested that some people perceived self-realization differently.

Hence some of the subjective data also showed optimism and hope and these both factors were an essential factor that accounts the religion involvement in some culture; as religion plays a vital role in coping by inducing optimism and a sense of hope in adversity (Daniel, Enrique, and Neblett, 2015). The positive psychology in Islamic spirituality is mostly based on; the positive view of the human, believing in Divine kindness, gratitude, and universal man. In the Islamic ideology, positive thinking is a crucial determinant for an individual; to think about past events, interpretations of present events and future expectations (Mohammad Khodayarifard et al. 2015). As in Quran Allah says, 'Oh Sons, go and inquire about Joseph and his brother, and never give up hope in Allah's mercy, truly none despairs of Allah's spirit except those who have no faith." Quran 12:87' this verse summarises the importance of optimism in Islam (Shedou, 2011).

Likewise, the Christian participants of the study also answered the items of self-realization in a religious context as one of the participants from the low-income group said, “It is a God's wish, whomever he wants to give, he will give we are no one to cry over. We can only pray and stay hopeful”. So mainly it's about cultural and religious beliefs, that people living in the same society have a robust religious belief system and social orientation, so these cultural

values produce spiritually based coping, and a more optimistic view of one's life (Shawn O. Utsey et al. 2008).

Islam is indeed a fatalist religion that teaches that everything is determined in advance and that man cannot do anything about it (Pipes 2015) Nevertheless, Islam also teaches hope, positive thinking, optimism and living life fullest and these elements are most important as they relate to the prayers, supplications, and acts of worship, and this gives hope to a person in life that whatever they want to achieve they can do it and have a happy life (Pipes 2015).

5.10.2. Control

The dictionary meaning of control in the Urdu is kaboo and when back-translated it remained same as 'control.' There were three items loaded on the second factor of CASP 17, these were as follow; 'My age prevents from doing the things I would like to do so', 'I feel that what happens to me is out of my control' and 'My health stops me from doing the things, I want to do'. Moreover, these items were given the name of 'Control'.

However, when performing the CFA item, "I feel that what happens to me is out of my control" had a high redundancy in modification indices; therefore, this item was deleted in model fit. Besides that, each factor preferably should have at least three items (Hair et al, 2010). However, high redundancy left the control domain remained with two items. Moreover, the reason could be the statement be unclear to the participants, or a double meaning statement. Also, it is evident, when this statement was asked to one of the participants she said, "What do you mean by this, nothing is in my hand. God has control over our lives". The similar finding was identified in a study among older Ethiopians population while assessing predictors of QoL. The participants of the study felt the same for the item; “I feel that what happens to me is out of my control". "Because the majority of Ethiopians are strong believers that whatever happens in their life is God's will, and it is possible that they would answer the question that they do not have control, which might be misleading" (Hamren, Chungkham, & Hyde, 2015).

Moreover, it is interesting to know that few participants took the meaning of two items the same that is “My age prevents from doing the things I would like to do” and “My health

stops me from doing the things I want to do". When asked to one participant about the "My health stops me from doing the things, I want to do" and then "my health stops me from doing the things I want to do", he said: "you have already asked me this question. Why are you asking me again? I already have told you, that my age does not allow me to do things. Because with the growing age I got diabetes, blood pressure. Moreover, these diseases never allow me to do what I want to do". That shows the perception of the person, who thinks that with age health deteriorates, and therefore, the two items are the same.

5.10.3 Autonomy/Agency

The original CASP 19 had a domain named autonomy. The meaning of autonomy in Urdu is 'Azadi ', and 'khud mukhtiyari' which translated in English again and the meaning is 'independence 'free from external control and constraint' and 'freedom'. The three items loaded in the third factor in CASP 17 were 'Family responsibilities prevent me from doing the things I want to do', 'shortage of money stops me from doing things I want to do' and 'on balance I look back on my life with a sense of happiness'. Moreover, these all three items were the part of autonomy domain in the original version of CASP 19; therefore, it was given the same name as autonomy.

Autonomy has been discussed for last thirty years by the researchers, but in the recent year, some cross-cultural theorists have suggested that autonomy is only a 'western cultural ideal, and not a universal need' (Markus & Kitayama, 2003; Oishi, 2000; Oishi & Diener, 2001). So, therefore, people who give more preferences to family, values, traditions, and norms can never develop autonomy and seem to be more satisfied when living their will to their group's will. However, autonomy is relevant to 'wellbeing (WB) in cultures that emphasize individualism and independence, but less relevant to WB in cultures that emphasize collectivism or interdependence' (Rudy et al., 2007). Therefore, it is right to say that people's well-being in different cultures depends on the understanding and perception of autonomy.

South Asian region is known for the "inequalities in the autonomy and power of men and women". Furthermore, the researchers have proven that increased gender inequalities and

women's autonomy are strongly associated with social behaviour in South Asia (Sathar, and Kazi, 2000). However, compared to the “Indian states of Kerala and Tamil Nadu and countries like Sri Lanka with higher levels of women's autonomy” have demonstrated the better quality of life than in the rest of South Asian regions (Sathar, and Kazi,2000). However, in Pakistani society, autonomy has seen differently to different people; this will be discussed in the latter part of this chapter. However, Women's autonomy has also been studied in Pakistan; where mothers of adolescents were asked the meaning of "autonomy". The study identified that “mothers did not spontaneously mention autonomy as a basic human need'. Hence some of the females of that study described 'there is a restriction on women's autonomy”; in raising daughters, mothers discouraged autonomy, emphasizing the central importance of marriage and the attendant requirement of adjustment to in-laws (Stewart. Zaman. And Dar, 2006). However, in my study, some subjective data were collected during the survey; showed that both man and woman had the autonomy to live their life as they want. As one of the high-income group participants said 'family responsibility never stops me from doing what I want to do because all individual in our family has right to do what they want to do so all are responsible for their own life'. On contrary a woman from low income said ‘I cannot take decision as a woman my responsibility is to look after children and take care of home and my husband is the one who takes all decision on behalf of our family’. The subjective findings also show that the perception of autonomy is different in different socio-economic group.

Hence it is right to say that people in a different culture like Pakistan apply their autonomy in structural contexts, which include (religion, culture, values, and beliefs) that may promote or restrict autonomous action. Autonomy will further be discussed in the later part of this chapter. Also, gender-related autonomy will be discussed in the chapter (7).

5.10.4 Pleasure

Three items were loaded on the fourth domain these are 'I look forward to each day', I enjoy the things that I do' and 'I enjoy being in the company of others' all items were loaded as it was loaded in the original CASP 19. Therefore, the same name was given to it that is 'Pleasure'.

When translated 'Pleasure' into Urdu, it meant 'Khushi'. When back-translated word 'Khushi in English it meant 'Happiness'.

Pakistan is a developing country and has economic and social problems. Besides that, the latest World Happiness Report ranking, Pakistan placed at “81st among 158 world countries with a happiness score of 5.2 on a scale from 0 to 10. This score is above the average score of all 158 countries, and higher than the score of neighbouring countries of Pakistan, i.e. China, Bangladesh and India” (Jabeen and Khan 2016) the reason could be the perception and understanding of happiness in the population.

From Islamic perspective, “the happiness is not merely a temporary state of joy and delight; rather it's is a lifelong process aiming primarily at bringing eternal happiness, peace of mind, the tranquillity of heart, contentment in this world” (Yazdi 2005). Islam is concerned above all with the accomplishment of continuing happiness rather than with the more brief forms of happiness (Nasr 2014).

However, when interviewing items from a pleasure domain like 'I feel that my life has the meaning' most of the people commented that 'if Allah has sent us in this world so; there must be some meaning and a reason and so far we do not have any regrets'. When asked another item; 'I look forward to each day; some of the participants said, 'inshallah yes' means 'if God's will, yes' and some said 'na umeedi gunha hay is liyee anay walay din ka intazar kartay hay kay Allah acha karay ga'. 'hopelessness is a sin. Therefore, we wait for the next day that Allah will do well and we are happy whatever we have in our life'.

So, in whatever circumstance people had given the interview, they were aware and had faith that things will change. As one of the participants said, 'hopelessness is not acceptable in our religion, so we pray that the next day brings some change in our life'. While asked item from pleasure domain, 'I enjoy the things that I do', most of the participants said they enjoy whatever they do in their lives, whether it is looking after the family or doing household chores and we are satisfied in our lives.

Thus, satisfaction is a part of happiness because satisfaction involves the fulfilment of material and moral and spiritual needs. The concept of happiness in Islam is known as falah. falah is pleasure and peace that can be enjoyed by any individuals in life and afterlife. Therefore, most of the people responding to all the items of pleasure replied with full of satisfaction (Amalia, Riani and Julia 2016).

5.11 General discussion on CASP

Pakistan is a fatalist country where people follow Islam as a religion. Fatalism can more generally be defined as individuals or groups “tendency to believe that 'their 'destinies are ruled by an unseen power or are played out inevitably rather than by their will”. The concept of fatalism has been closely intertwined to the development of religious and philosophical thought. Thus, it is not surprising that the precise meaning of the term fatalism changes across cultures' over the period (Solomon 2003). However, the meaning of fatalism has changed by the scholar of orientalism, where the Eastern world was defined by the western world, evaluating its social and moral values and prospects. By the mid-19th century, the scholars represented East as strange, exotic, dark, mysterious, and dangerous, society and has helped the West define itself through this contrasting image. The stereotype notion of orientalism harms the psychological and cultural part of the Eastern civilisation and dehumanises the people of the Eastern world (Abu-Lughod 2001).

Assessing the quality of life using CASP measure in fatalist culture is appropriate. Fatalism may be consistent with the belief that events are caused by a determining principle or force in the universe, such as God. However, researchers have also found out that fatalistic Individuals can still believe that some of their actions may change certain events (Belluomini, 2020). The domains like autonomy and control in CASP is also present in fatalist culture, which is evident in my study. The participants of the study do believe that health and illness are from God and they believe that they do not have control over it, but they also acknowledged that some illnesses are due to one's behaviours and lifestyle choices as one of the participants of the study

said 'I had a major heart attack last year because I was a chain smoker. So, one needs to take care of their health' one of the other participants also said that 'health is a blessing from God. We are responsible for taking care of it'. Few of the participants of the study also highlighted that whether the illness is physical or psychological, it is an affliction from GOD, but the illness can come from culture as well such as eating food habit and behaviours plays a vital role in health and illness'. Therefore, it is evident from their responses while they believed in fate; they also believed in their ability to choose. One of the Quranic principles says to humanity that "you are free to choose, and your decisions are based on your choices" (Kassem 2009). Participants of the study also expressed their views about their life choices that have left them far behind. As one of the participants said 'I was wealthy while living in a small town, I came to Karachi to earn more money, and I spend all my money in investing business. Today I am not left with any money. I do not blame Allah for it. This is because of my wrong decision that today I am living in this small rented house'. Some of the participants realised the concept of free will, individual choice and responsibility (Krause et al. 2016). This shows that autonomy and control exist in the fatalistic culture. Also, the participants believe that everything is in God's hand, but people are responsible for their behaviour and actions. God never give people what they cannot handle. Thus, religious fatalism can provide individuals with "comprehensibility, manageability and meaningfulness" (Hag and Daniel 2019).

Moreover, Pakistan's urban cities like Karachi make people more autonomous and have control over their lives (Verkaaik 2009). A study conducted in Karachi Pakistan asking middle-class women a perception of autonomy identified that older women are given more autonomy in their lives, but autonomy is more common in men even if they are in their young age (Stewart, Zaman and Dar 2006).

Furthermore, the study was conducted in Jamshoro urban city of Pakistan where the interview was conducted to understand the concept of autonomy in women; the study identified that women have autonomy even in fatalist culture, but it is categorised as "bounded autonomy or limited autonomy" where women make independent decisions but thinking more about their

family than herself (Khatwani 2017). Moreover, one of the studies conducted in Karachi Pakistan suggested that autonomy and independence are socially constructed, and the meaning attached to them are deeply rooted in cultural specificity (Mumtaz and Salway 2009).

Furthermore, Karachi Pakistan's family system has made older adults empowered, self-dependent, and autonomous while providing an opportunity to work (Cassum, et al. 2020).

Moreover, the literature also suggests that the socio-economic groups are also one of the indicators that have impacts on autonomy and control. The people living in the low-income group do not have much freedom to look after their health, have healthy food, and take treatment. In my research, the subjective data shows that they were not able to go to the doctor because of financial constraints. Moreover, getting sick was their choice; not God will. Furthermore, even for that rather than accusing God, they accused Pakistan's policies as in retirement, people who were working in private agencies do not have any pension system.

The t-test was also performed in my study to see the relationship between autonomy and control with the socio economic group, and the results show that there is a significant ($p < 0.01$) correlation between autonomy and socio-economic group the same test was also performed to assess the correlation between control and socio-economic group and finding shows significant results ($p<0.01$).

Consequently, agency/ autonomy is also present in the fatalist culture; however, this has been seen differently because of various factors (Khatwani 2017). Therefore, the underpinning theory of developing of CASP domains relates to fatalist culture like Pakistan; as Islam allows people to take control of their lives and have a freedom of choice. However, the interpretation of people about religion and cultural norms restricts them to live an autonomous life.

Moreover, the CASP also aimed to show that in old age, people are engaged in a reflexive process of self-realisation through those activities that make them happy (Hyde et al. 2003). However, in Pakistan, millions of older adults “live in poverty. Most Pakistanis rely on agriculture and informal work throughout their lives. This leaves very few with pensions or a

reliable income when they reach older age, leaving them dependent on their families who often struggle to provide for them" (Help age Pakistan). With this scenario, most older adults cannot fulfill their wish or interest in the old age, but they stay happy and satisfied with what they have in life.

On other hand people from high-income group shared 'My husband had worked very hard throughout his life and we have enough money; therefore, every year we go abroad for vacation'. Therefore, the participants interpreted self-realisation and pleasure in the context of their cultural norm, current circumstances, and religious practices.

Furthermore, if we look into the quality of life in the Islamic perspective, then Islam considers the highest importance for human being's quality of life. According to Islam, the health and quality of human development environment should be a priority to human life; where one can live their life fullest (Nezhadmohamad Nameghi, 2019). Esposito (1997) had reported that poor understanding of Islamic theology and its principle beliefs, interpreting the Quran's thoughts of fate, or qismat, as a matter of ongoing and continuous interaction between human will and God's will. Acevedo (2008) argued that some interpretations of Islamic teachings might not be adequately addressing the issue of personal responsibility in any given situation. The wrong connection of life events with religion has also created uncertainty in people's perceptions (Hamdy 2009). However, the Quran verdicts that every individual is free to choose his life in social, economic and political spheres.

Further, the Quran stops its followers from challenging another person's freedom of choice. Every individual is responsible for their own choices of their life. The Quran is most definite about each person's freedom to choose their life course (Aslam, 2016). And, this choice has been described as God's will. The following verse shows clearly how God's will acts. 'It acts through human action and the choices human persons make. According to the Quran, it is God's will for humans to hold divergent views' (2:253) (Aslam, 2016).

Quality of life is very individualistic, Netuveli (2008) had mentioned in his study that 'majority of the older adults evaluate their quality of life positively based on social contacts, dependency, health, material, circumstances and social comparisons' (Netuveli, 2008). Similar findings were identified in this research where most participants answered based on their current life circumstances, positivity while considering their religious values and teaching.

Therefore, the concepts of autonomy, equality, independence and individuality (specifically women's) must be considered within the context of collectivism, rather than individualism. As the study conducted in Pakistan suggested that the notion of autonomy "understood differently in Pakistan, as in other South Asian societies because an individual is neither an independent, nor a self-contained agent, but he or she establishes his or her uniqueness in the context of a group (family and caste)".(Khatwani 2017).

Moreover, this is also evident in the previous study conducted among 65+ older adults where participants evaluated their quality of life positively based on their, social contacts, especially with family and children, health, material circumstances and activities (Netuveli 2008). Therefore, it is not wrong to say that QoL is a vague concept that included many factors such as; social, psychological, economic influences, and individuals' experiences, circumstances, health, social well-being, values, and perceptions (Bowling, et al., 2003). Nevertheless, this could be interpreted differently in a different culture based on their socio economic-status, culture and religious ideology.

Furthermore, Gabriel and Bowling tried to develop a conceptual framework about the quality of life using older people's views (Gabriel and Bowling 2004). They mentioned that the factors that enhance the quality of life are; "having good social relationships with children, family, friends and neighbours; having friendly and enjoyable neighbourhood, comfortable houses and good public transport facilities, psychological factors such as; optimism and positive attitude, contentment, looking forward to things, acceptance and other coping strategies; being actively engaged in social activities such as attending educational classes and volunteering; good

health; financial security which brought enjoyment as well as empowerment and has not depended on others" (Netuveli and Blane 2008).

Therefore, Quality of life is not consistent it could range from a need-based model of Maslow's (1954; 1968) hierarchy of human needs (deficiency needs: hunger, thirst, loneliness, security; and growth needs: learning, mastery and self-actualisation to, life satisfaction happiness, social interactions or the perception of life (Netuveli 2008). Consequently, there is no consensus on what quality of life means to an older person in a different part of the world.

However, this study was conducted in Karachi city therefore the findings could not be generalized for whole Pakistan, therefore using CASP in rural areas of Pakistan could give different scenario of the fatalist culture of Pakistan, where autonomy and control could be seen differently.

5.12 Other cross-cultural factors

Two main cross-cultural factors have been identified in the study that effects the quality of life one is gender and second is religion. I will discuss gender in a chapter (7) whereas the religion will be discussed now;

5.12.1 Religion

Religion is an integral part of the culture. Pakistan is a multicultural society, where different faith has been practised. Though the main religion is Islam, people belong to a different sect of Islam such as; (Sunni, Shia, Aga Khani, Jamat-e-Islami, isnaashri). The main participants of the studies were Sunni Muslims and Ismaili Muslims (table:5.14). Therefore, I will give little description on these both sect of Islam.

The Sunni and Shi'a Muslims believes on the basic principles of Islam that are believing in one God, teaching of the prophets and the holy book of the Qur'an. The reason for their split into different branches is differences in their belief about; who would be the successor of the Prophet Muhammad as leader of the Muslim community after his death.

The Sunni Muslims believed that Abu-Bakr, the Prophet's closest companion would be the first Caliph (deputy to God's Prophet'). However, Shia believed that Ali, the Prophet's son-in-law, should lead the community as a Imam. Therefore, the main difference between Sunni and Shi'a beliefs is Imamah (Kister 1994). The Shia sect also further divides into the two main branches that are Ithna Ashari and Ismaili. Ismaili Shias accept the line of Imam they affirm the Shahada, that there is only one God and that the Prophet Muhammad is His Messenger. Like other Shia Muslims, the Ismailis hold that Ali, his cousin and son-in-law became the first Imam (spiritual leader) of the Muslim community upon the Prophet's death. 'The Ismailis are the only Shia Muslims to have a living, hereditary Imam' (Aga Khan) (Kadiwal, 2015).; it is the present living Imam that makes the community different. The aga khan's role as an Ismaili imam is to provide spiritual guidance and ensure the security and quality of life of Ismaili Muslim communities.

Moreover, Shia Ismaili lives in the well-defined institutional framework through which they have, under the leadership and guidance of the Imam, established schools, hospitals, health centres, housing societies and a variety of social and economic development institutions for the common good of all citizens regardless of their race or religion (Kadiwal, 2015).

All sect has different way of practising their faith. The females from the Sunni sect are not allowed to go to the mosque for prayers. However, Aga Khani males and females both practice their faith while attending jamatkhana (place of prayer) every day.

The participants were asked questions; do they participate in religious services? It was identified that mostly 85.7% of males participated in religious services than the female 50.3%. It was also identified that 39% of male participants perform their religious practices every day than the female participants that are 34%.

ANOVA test was performed in this study to see the association among different faith groups and quality of life. And the finding shows significant differences between group means as determined by one-way ANOVA ($df\ 1, 297 = 15.61$, $P < 0.001$) (Table 5.15).

A similar study was conducted in Ireland, which has found out that people who participated in religious activity had a better quality of life in old age (Barrett et al, 2011). The previous literature has also identified that People who attend religious services have a better quality of life than the people who do not (Schneiders, 2003). Though, my study shows a negative relationship between the religion and quality of life, but, whenever participants of the study were asked the question from the CASP or the Optimism scale; they had always referred back to God. For example; when participants were asked a question from CASP ‘my life has a meaning’ a participant from the low income said, ‘if Allah has given life, then there should be some meaning’.

Another male participant from low income said ‘Allah has not given us the luxurious life, sometimes we are so frustrated that are basic needs are not fulfilled, but if he has sent in this world there must be some reason and we thank him’. These subjective data showed that people though tend to go for their religious practice but are still spiritual. As one of the men from the high-income groups said ‘ I do not go to Jamat Khana every day, because I feel I am more connected to my God while staying at home and remembering whenever I get time’. The previous study on religion has also identified that people have justified their religious practices as ‘I am a spiritual person, but I am not religious’ (Schneiders, 2003). That finding shows that there is a difference in the concept of being religious and spiritual. Religion is more about the practice of a faith person belongs to, such as; meditation or fasting, personal and communal rituals (Schneiders, 2003). whereas, Spirituality has been variously defined by theorists as "the human response to God's gracious call to a relationship with himself" (Kadar et al, 2015). Furthermore, the terms spirituality and religiousness have been used interchangeably. To some, religiousness meant going to church or mosque regular attendance, for some acts of humanity, and for some, it might be performing religious rituals. As during the interview, one of the women from the low-income group said ‘I pray five times, but still Allah does not listen to me. In a very young age, my husband passed away and left behind, five little children. I bought up them working day and night, and today they have left me alone’. Another woman from the low-income group said ‘my husband is paralyzed for the last 2 years my younger son, who was only

17 died in an accident last year. I have 2 unmarried daughters and one married son. He supports us financially, but still, there are lots of expenses, but its Allah's will. I thank him whatever he has given us. As nothing is in our hands'. These above subjective data show how people have different views about their faith.

All religions highlight that spiritualism is a part of faith; one can be 'spiritual' without being religious or a member of an organised religion' (Emmons, and Paloutzian 2003). Hence, religion is a personal set or institutionalised system of religious attitudes, beliefs, and practices, God's service and worship. At the same time, spirituality supports more toward self-referral or the internalisation of one's awareness of the soul. 'Spirituality is an inward journey that involves a shift in awareness rather than some form of external activity' (Granqvist,and Kirkpatrick 2013). In this research it was identified that people who had attended and practised their faith regularly were seemed dissatisfied with their life; One of the participants said 'I pray regularly I give zakat and I do all good deeds, but Allah never listens to me and has made our life miserable'. On the other hand, some participants confronted that they were not a regularly practising their faith but are spiritually contacted with the God who made them satisfied in their life as one of the participants had also said that 'I am going through a lot of financial crises I do not have work, but I am hoping that sometime good days will come so I am relaxed'. Hence, the above information shows that some people are religious and some are spiritual, but still, they are not satisfied the way life is turning out.

It is an evident that relationship between religiosity and spirituality and QoL is poorly understood. However, recent literature has shown evidence of positive links between spirituality/religiosity and QoL (Abdala et al. 2016). QoL considers an "individual's level of function and value system, which may impact how an individual reacts to a loss of function" (McDowell, 2006). A good QoL exists when the hopes of a person are fulfilled and achieved through experience (Calman, 1984). Religiosity can be an essential component that influences QoL and subjective wellbeing (Abdel-Khalek, 2010). According to a study of Muslim college students, there is a strong positive correlation between religiosity and happiness when examining

life satisfaction (Abdel-Khalek 2010). A large European study also revealed a positive relationship between life satisfaction and an individual's commitment to frequent church attendance (Greene and Yoon 2004).

Moreover, past research had also found a robust subjective relationship between religiosity and wellbeing. Findings from 1400 survey responses revealed statistical associations between religious individuals and levels of happiness. Religious individuals are generally "happier and more satisfied than non-believers and atheists" (Vinson & Ericson, 2012, p. 7). "Other studies had shown that individuals with a more elaborate and encompassing religious orientation are likely to experience health benefits" (Hill & Pargament, 2003). Literature also supports the existence of a positive relationship between spirituality and quality-of-life (Panzini, 2017). Another literature had found that spirituality was a positive factor for' coping with illness, preventing illness and aiding treatment'. Moreover, spiritual integrity, had a strong significant relationship with overall QoL (Molzahn 2007). On other hand, it is also evident that living a religious or spiritual lifestyle does not guarantee a smooth, struggle-free lifestyle and better life. Even some of the world's greatest religions like Buddha, Moses, Mohammed, and Jesus Christ faced difficulty. Religious and spiritual struggles and trials are pivotal times because they can lead the "individual on or off the path toward spiritual growth" (Kreitlow, 2015).

Participate in religious service	**Male**	**female**
Yes	85.7%	59.3%
No	13.3%	40.0%
Missing	1%	0%

Table 5.14: percentage of the participants attended religious services

How often participate in the relious practice	Male	female
everyday	39%	34%
Weekly	34.3%	20.1%
Monthly	15.2%	6.7%
Yearly	11.4%	4.1%
Never	0%	35.1%

Table 5.15: percentage of the participants attended religious services

5.12.1.1 Description of different Muslim sects

Sunni is one of the branches of Islam. The Sunnis have four Sunni schools of religious law**;** Ḥanafī, Ḥanbalī, Mālikī, and Shāfiʿī. However, all four laws believe on one principle of Islam: Allah is only one, prophet Mohamad is the last prophet of Allah, and the Quran is the holy book. The Islamic law which Pakistan follow is Hanafi (Katz 2007). The Hanafi school of law considered the most flexible and liberal in Islamic law. that works in the "areas of criminal law, treatment of non-Muslims, individual freedoms, marriage and guardianship, and ownership and use of the property" (Warren 2017).

Moreover, there are different Sunni castes, such as Sunni memon and Sunni lives in Pakistan. The caste system is a social and religious hierarchy, created a few thousand years ago. Marwari both castes follow Islamic legal system. Sunni Marwari ensures to work for their community and maintain the harmony and help settle the disputes of their community. The community do not allow girls and boys to get married outside the community, girls are not allowed to study more than boys, and if boys pass their ten standards considered to be a significant achievement (Timberg 2014). However, the Memons and Sunni Muslims live within their community; they have welfare organization that supports their community members to overcome their life problems and challenges. Memons are a highly endogenous community, where marriages are arranged within their ethnic group (Saldanha-Shet, 2015). Therefore, it is

essential to assess the quality of life with different cultural norms and values (Skevington, Lotft, and O'Connell 2004).

Faith participants belong to	Male	female
Christian	4.8%	6.7%
Ismaili (follower of Aga Khan	43.8%	49.5%
Jamat-e-islami	1.0%	0%
Shia	1.0%	0.5%
Sunni	42.9%	34.5%
Sunni Marwari	1.9%	4.1%
Sunni Memon	1.0%	0.5%
Sunni Muhajir	0%	1.0%
Not applicable	3.8%	3.1%

Table 5.16: Percentage of the participants belong to the Faith

ANOVA for religious belong				
	df	Mean square	F	Sig
Between groups	1	664.753	15.614	.000
Within groups	297	42.574		

Table 5.17 Association among different faith groups

5.13 Conceptual Model of Cross-cultural adaptation of CASP in Pakistan

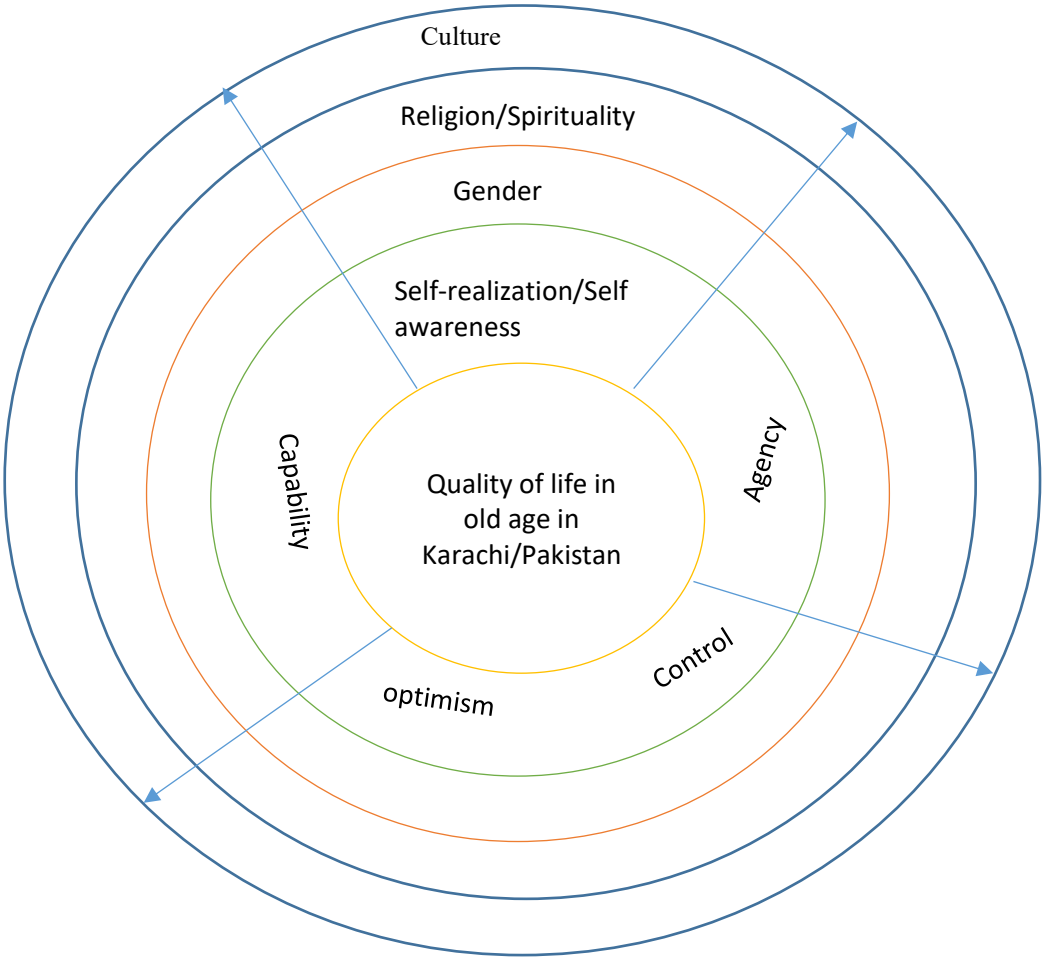

Diagram 5.12: conceptual model of cross cultural adaptation

The above (Diagram 5.12) conceptual model is based on the cross-cultural adaptation of the CASP 17 in Karachi Pakistan. Moreover, this model can be applied to other parts of Pakistan or any other developing countries with similar cultural values in the future while assessing the quality of life. This conceptual model also concludes the chapter cross-cultural adaptation of CASP 17 in Karachi Pakistan.

The first outer three layers denote culture, religion and gender. Although culture, religion, and gender are foundational social constructs, and it cannot be placed separately and equally at the same level (Raday 2003).

Culture, along with the religion, are the sources of the gender construct. The diagram shows that religion is derived from culture, and gender is, in turn, derived from both culture and religion. Therefore, religion is an integral part of the culture. Moreover, gender is the social construct that has been treated as part of cultural and religious identity. Alternatively, it is more right to say that norms of behaviour are imposed on men and women by culture and religion. As in Islamic culture, women are more excluded from public power and are more controlled by men within the family (Jejeebhoy and Sathar 2001).

The fourth layer presents; control, agency, self-realization, optimism and capability, which are the impacts of the culture, religion and gender that makes people live their lives within it.

This study has revealed that religious customs and faith cultivates more optimistic and resilient towards life situations. Also, belief and trust in God lead individuals to be more satisfied and feel that life has a meaning and cherishes it. Furthermore, the CASP was developed with the domain of Self-realization from Maslow's theory, which described self-realization as the fulfilment of potential and meaning in life (Maslow 1962). However, because of the cultural norms and beliefs, some participants considered self-realization differently.

The culture worldwide shows that religion “shares values, influences individual behaviour, and helps sustain cultural identity” (Smithers, & Khorsandi, 2009). Looking at the findings of this research, it has also confirmed that women are treated differently from the men population; they lack control and agency. The previous study also revealed that women report more negative emotions than men. The other study had also identified that women subjective health in terms of life satisfaction is lower than the male (Tesch-Römer et al. 2008). Hence, this study had also identified that most of the females had less freedom because of gender inequality and were not allowed to do the things they want to do and had less control over their lives.

However, because of their faith in God, they become more optimistic in their lives. Moreover, that optimistic approach helped them to stay calm in the time of adversities.

The overall model suggests that quality of life in old age in the urban Pakistani context is revolved around culture, religion, gender, self-awareness, agency, capability, control and optimistic approach towards life.

5.1 Conclusion

Cultural norms, values, and beliefs shape one's life. And the cultural norms and values pass from individuals and groups of people from generation to generation. And therefore, cross-cultural studies have helped to find out differences among various cultural groups who have more than the standard features among them.

In order to adapt any measure cross-culturally, it is essential to recognize its acceptance as being a culture and its religion. As many respondents of this study had pointed to the importance of their religion, and this considerably influenced the concepts underpinning CASP.

Moreover, the participants of this study had also indicated that the critical part or component from the CASP 17 was missing from the tool, and that is religion. As it was identified in Pakistani culture, that people were more positive; and their answers most of the time was reflecting their faith on Allah or their religion. However, this would not be the same for other cultures. Nevertheless, it is interesting to assess upon the quality of life in other countries with a similar culture like Pakistan to get better understanding of CASP19 domains.

Furthermore, the assessment of the psychometric properties of the instrument is also vital to confirm that the instrument is reliable and validated to use in the culture. Hence, the confirmatory factor analysis revealed that the first and second-order four-factor model of the CASP-17 does not provide a good fit to the data. However, the CASP-13 first order model in Urdu proved to be an appropriate instrument to measure the quality of life in older people in Karachi, Pakistan. Therefore, further research is needed to translate the instrument for use in other cultures and languages to use in other parts of Pakistan. The next chapters will investigate predictors of quality of life using CASP 13 in the population of Karachi, Pakistan.

Chapter 6: Second aspect of the study: Findings and Discussion on the predictors of quality of life

6.1 Introduction

This chapter discusses the findings related to the research questions that directed the study – part two. The results include the description of socio-demographic, psychosocial characteristics and the life course variables of the sample. The data analysis explores the relationship between quality of life, socio-demographic, psychosocial and the life course determinants. The chapter then presents multiple regression analysis models of the main socio-demographic factors, psychosocial factors and life-course events that influence the quality of life of respondents in Karachi, Pakistan. The chapter will conclude by discussing the findings of the predictors of quality of life.

6.2. Descriptive Findings

The mean age for the surveyed population was 60.2 ±7.5 years. However, there were differences in age among the three strata: LIA 58.8 ± 6.9, MIA 60.13 $\pm$ 7.7, and HIA 61.81 $\pm$ 7.5. The differences between the three strata were statistically significant (F: 4.20, DF: 2, P-value: 0.016).

The study demonstrated that overall, 32.1% of the participants in the study were employed. 45% percent of the population were from low income group, 29.3% were from the middle-income group and 22 % were from the high-income group. Graph 6.5 illustrates that 55.2 % of male participants and 19.6% of female participants were in paid work. There was a non-significant relationship between employment and quality of life (χ2 7.79, DF 6, p-value 0.25).

Moreover, in this study, 83.3% of participants from the overall sample were married, and 16.7% of the participants lived a single life. The analysis also shows there is a significant association between marital status and quality of life (χ2: 23.21, DF: 9, P-value 0.006).

The study found that 51% of participants lived in an extended family compared to 47% in a nuclear family, and only 8% study population lived alone. Mainly 66% of families in the low-income group lived in an extended family (i.e., people living with two generations included with parents, sisters, brothers, wife and children), then the middle-income group at 42.4% and high-income group at 43%. There was a significant association between people living in an extended or nuclear family system and quality of life ($\chi 2$: 19.24 DF: 3, P< 0.001). Moreover, there is a significant interaction effect (p=0.002) between the family system and three strata (low, middle and high). (Diagram 6.1).

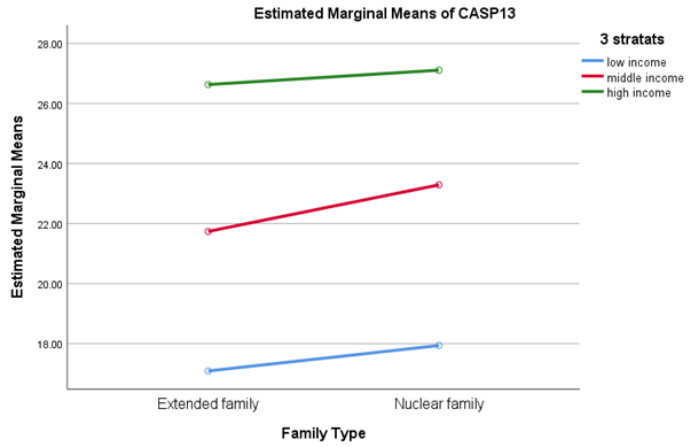

Diagram 6.1 : interaction effect between strata and family type

The study also revealed that 82% of the overall sample was living in their residence rather than in a rented property. Diagram 6.2 shows that 99% high-income group lived in their own home compared to middle-income group 88%, and Low-income group 59%. Also, there was a significant association between tenancy and quality of life ($\chi 2$: 19.24, DF: 3, P< 0.001).

However, there was a non-significant p<0.10 relationship between the housing tenancy and strata that can be seen in diagram 6.3. Besides that, the living condition, source of water and sanitation varied from place to place in Karachi. Some areas had a better sanitation system than other areas, some households had adequate water, and some did not. The study demonstrated a significant association between the source of water and quality of life ($\chi 2$:87.78,

Df: 18, p< 0.001) and also between the source of sanitation and quality of life (χ2: 73.97, df: 9, p-value< 0.001). Moreover, the participants were also asked, how safe they feel walking alone in the area near their home. The result illustrated that there is a non-significant relationship between quality of life and walking alone in the area near their home (χ2:3.31, DF: 9, p-value= 0.95).

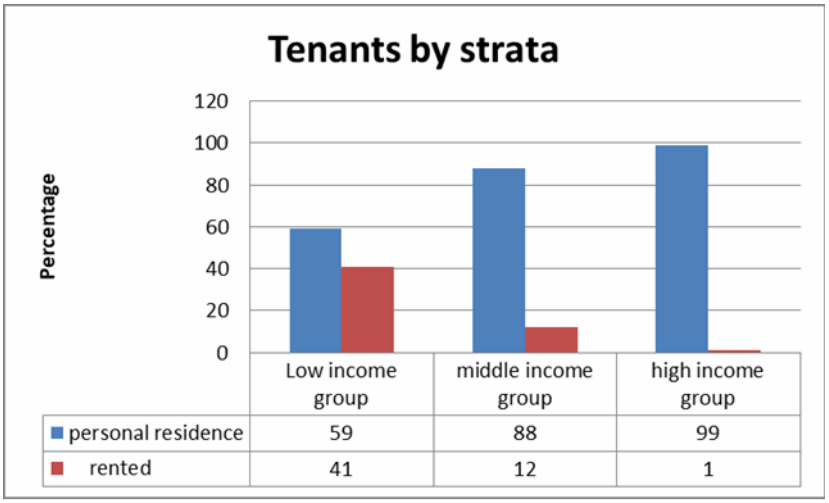

Diagram 6.2: tenants by strata

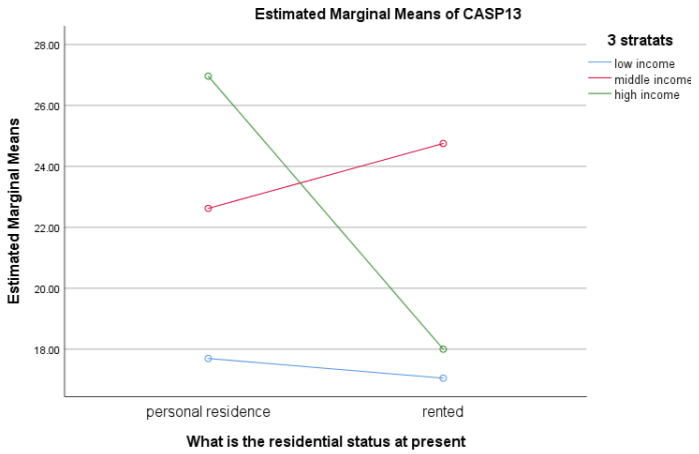

Diagram 6.3: Interaction effect between the strata and housing tenants

Furthermore, 64% of the sample in the study owned their own transportation, and 37% did not (see Table 6.3). Also, there was a significant correlation between people having their own transportation and quality of life ($\chi 2$: 40.55, DF: 3, P-value: <0.001). Diagram 6.4 displays that only 33% in the low-income participants had their own transportation, then the middle-income group had 57%, and 100% of the high-income group. Moreover, there was a significant interaction effect between the income group and having their own transportation P <0.05.(diagram 6.5)

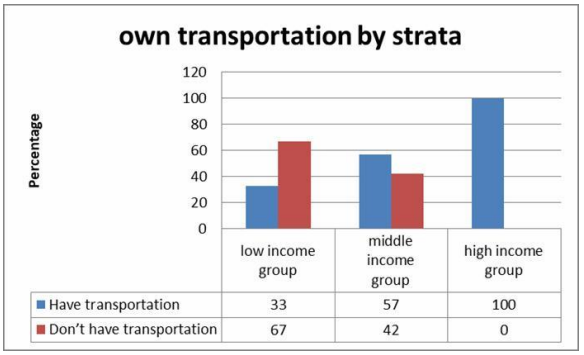

Diagram 6.4 transportation by strata

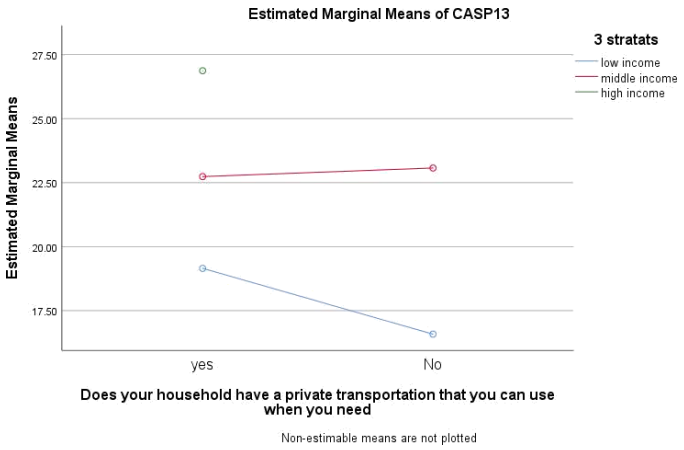

Diagram 6.5: Interaction effect between transportation and strata

An overall 94% of the population in this study were Muslim, and 6% were Christian. This 6% minority group belonged to the low-income group. Moreover, 69% of the population attended religious practice and 31.1% did not attend any religious practice. There was a significant association between attending religious practice and quality of life ($\chi 2$: 40.82, DF: 6 P<: 0.001).

Table 6.1: Socio-demographic (Descriptive analysis)

Variables	**All**	**Lower income areas**	**Medium income areas**	**High income areas**	**Test value and significance**
Age (mean, SD)	60.24 (7.48)	58.78 (6.93)	60.13 (7.77)	61.81 (7.47)	F: 4.20 (df: 2) P =0. 016
Gender: (N, %) Male Female	 105 (35.0) 194 (65.0)	 42 (42.0) 58 (58.0)	 27 (27.3) 72 (72.7)	 36 (36.0) 64 (64.0)	X^2: 11.68 df :3 P= 0.009
Educational status: (N, %) Illiterate Up to 10 years 10 years + Missing	 106(36.0) 116(39.0) 73 (24.4) 4(1.3)	 74 (74.0) 21(21.0) 2(2.0) 3(3.0)	 24(24.4) 54(55.0) 20 (20.0) 1(1.0)	 8 (8.0) 41(41.0) 51(51.0) -	 X^2: 79.61 df :9 P< 0.001

Working to earn: (N, %)					X^2: 7.79
Yes	96 (32.1)	5 (45.0)	29 (29.3)	22 (22.0)	df :6
No	202 (68.0)	54 (54.0)	70 (70.7)	78 (78.0)	P< 0.25
missing	-	-	-	-	
Marital status (N, %)					X^2: 23.21 df :9
married	249 (83.3)	81 (81.0)	76 (76.8)	92 (92.0)	P= 0.006
Single	50 (16.7)	19 (19.0)	23(23.2)	8 (8.0)	
Family type (N, %)					X^2: 11.72
Extended	151(51.0)	66 (66.0)	42 (42.4)	43 (43.0)	df :6
Nuclear	140 (47.0)	32(32.0)	52 (53.0)	56 (56.0)	P= 0.068
Alone	8 (3.0)	2 (2.0)	5 (5.1)	1 (1.0)	
Tenants (N, %)					X^2: 19.24
Personal residence	245 (82.0)	59 (59.0)	87 (88.0)	99 (99.0)	df :3
Rented	54 (18.1)	41 (41.0)	12 (12.0)	1 (1.0)	P< 0.001

current accommodation adequate for current needs (N, %)					X2: 49.17 Df: 3
Yes	205 (68.6)	40 (40)	70 (70.7)	95 (95.0)	P<0.001
No	94 (31.4)	60 (60)	29 (29.3)	5 (5.0)	
The current source of drinking water					
piped water	212 (70.9)	47 (47.0)	74 (74.7)	91 (91.0)	X2:87.78
hand pump	3 (1)	3 (3.0)	-	-	Df: 18
water motor	35 (11.7)	2 (2.0)	24 (24.2)	9 (9.0)	P<0.001
covered well	30 (10)	30 (30.0)	-	-	
open well	17 (5.7)	17 (17.0)	-	-	
other	1 (.3)	1 (1.0)	-	-	
missing	1 (.3)	-	1 (1.0)	-	
Current sanitation system					X2:73.97 Df:9 P<0.001
Underground drains	121(40.5)	9 (9.0)	48 (48.5)	64 (64.0)	

covered drains open drains no system	115 (38.5) 16 (5.4) 47 (15.7)	32 (32.0) 14 (14.0) 45 (45.0)	48 (48.5) 1 (1.0) 2 (2.0)	35 (35.0) 1 (1.0) -	
how safe you feel walking alone in the area near your home					
Very safe fairly safe fairly unsafe very unsafe	120 (40.1) 115 (38.5) 49 (16.4) 15 (5.0)	43 (43) 37 (37) 12 (12) 8 (8.0)	52 (52.5) 39 (39.4) 7 (7.1) 1 (1.0)	25 (25.0) 39 (39.0) 30 (30.0) 6 (6.0)	X2: 3.31 DF:9 P=0.95
Religious practice (N, %)					
Muslim	281 (94.0)	82 (82.0)	99 (100)	100 (100)	-
Christians	18 (18.0)	18 (18.0)	0 (0)	0 (100)	
Attending religious practice (N, %)					X2: 40.82 Df: 6 P< 0.001

Attending Not attending missing	205 (69.0) 93 (31.1) 1 (3.0)	48(48.0) 51 (51.0) 1 (1.0)	64 (64.4) 35 (35.4) -	93 (93.0) 7 (7.0) -	
Transportation to commute: (N, %)					
Have transportation	190 (64.0)	33 (33.0)	57 (57.0)	100 (100)	X^2: 40.55 df : 3 P< 0.001
Don't have transportation	109 (37.0)	67 (67.0)	42 (42.0)	0 (0)	

6.2.3 Descriptive analysis of disease

The most common physical health disease in the sample was high blood pressure 54.2%, followed by cholesterol 21.7%, diabetes 27.1%, arthritis 26.1%, heart attack 11.4% and cataract 16.4% (Table 6.2). There were 0.7% who reported having cancer. The analysis suggested that women had higher morbidity from non-communicable diseases than men (Table 6.3).

Disease	N (%)	
	Yes	No
High blood pressure	162 (54.2)	137 (45.8)
Cholesterol	65 (21.7)	234 (78.3)
Diabetes	81 (27.1)	218 (72.9)
Cancer	2 (.7)	297 (99.3)
Stomach disease	17 (5.7)	282 (94.3)
Arthritis	78 (26.1)	221 (73.9)
Asthma	11 (3.7)	288 (96.3)
Liver disease	10 (3.3)	289 (96.7)
Heart attach	34 (11.4)	265 (88.6)
Cataract	49 (16.4)	250 (83.0)
glaucoma	2 (.7)	297 (99.3)
Kidney disease	10 (3.3)	289 (96.7)

Table 6.2: Descriptive analysis of the disease

Table 6.3: Disease frequency by gender

Disease	n (%)			
	Male		female	
	Yes	No	Yes	No
High blood pressure	51(48.6)	54(51.4)	111(57.2)	83(42.8)
Cholesterol	19 (18.1)	86 (81.9)	46(23.7)	148(76.3)
Diabetes	23 (21.9)	82 (78.1)	58 (29.9)	136(70.1)
cancer	-	-	2(1.0)	192 (99.0)
Stomach disease	2(1.9)	103(98.1)	15(7.7)	179 (92.3)
Arthritis	11(10.5)	94(89.5)	67(34.5)	127(65.5)
Asthma	8(7.6)	97(92.4)	3(1.5)	191(98.5)
Liver disease	1(1.0)	104(99.0)	9(4.6)	185(95.4)
Heart attach	12(11.4)	93(88.6)	22(11.3)	172(88.7)
Cataract	12(11.4)	93(88.6)	37 (19.1)	157(80.9)
glaucoma	-	-	2(1.0)	192(99.0)
Kidney disease	2 (1.9)	103(98.1)	8(4.1)	186(95.9)

6.3 Association between Socio-demographic variables and CASP13 (Bivariable Findings)

Linear regression was used to analyse the data. The regression assessed the relationship between one dependent variable and one or more independent variables. The bivariable regression analysis helps to study the relationship between a pair of variables (Campbell and Campbell, 2008). Moreover, dichotomous and ordinal variables can be used in regression

analyses, but for the nominal variables, dummy variables were created. Each dummy variable was compared with the reference group as 'all other responses'.

The analysis showed that age had a non-significant negative association with quality of life, as shown in (diagram 6.14), such that quality of life decreased when age increased (-0.056 95% CI -0.158, 0.046 P, 0.279).There was a significant relationship between quality of life and gender (-1.848 95% CI-3.430, -0.266, P 0.022).

Furthermore, the positive significant association was found among the socioeconomic groups and quality of life (4.720 95% CI 3.960, 5.480, P <0.001), people living in high income areas had a better quality of life than the people living in low-income areas. There was a significant positive association between educational status and quality of life (4.234, 95%CI 3.418, and 5.050, P=<0.001). There was a non-significant relationship between employment and the quality of life (-0.001 95% CI -0.134, 0.136, P 0.991).

Using dummy variables to single out specific characteristics suggested that married people had a significant positive relationship with the quality of life than the reference group (4.673 95% CI 2.702, 6.643, P, <0.001). However, being widowed had a significant negative relationship with quality of life (-5.379 95%CI: -7.419, -3.338, P <0.001) compared to the reference group. Furthermore, people who lived separately in their later life had significantly higher quality of life. Interestingly, there was a significant negative association with the quality of life and living with the extended family (-2.610, CI 95% -4.105, -1.116, P <0.001). On the other hand, people living in a nuclear family had a significantly higher quality of life (2.260, CI 95%: 0.755, 3.764, P <0.001).

Also, a dummy variable was created for the nominal variable 'housing tenure'. People living in any other residence was kept in the reference category. There was a significant positive relationship between living in one's own home and quality of life (4.410 95%CI 2.495, 6.325, P <0.001). Moreover, people who lived in a rented home had significantly lower quality of life (-4.410, 95%CI: -6.325, -2.495, P <0.001).

Moreover, there was a significant negative association with quality of life when accommodation was reported as adequate for currents needs (-1.280 CI 95% -1.815, 0.744, P <0.001). There was a significant negative association between the people having their own transportation and the quality of life (-5.207 CI 95% -6.674, -3.740, P <0.001).

In Pakistan, water and sanitation is a challenge as most households do not have access to the adequate water supply. Likewise, many households also faced problems due to the unavailability of the sanitation facilities. “Sanitation is one of the necessities, which contributes to human dignity and quality of life” (Government of Pakistan, 2019).

To test this hypothesis of an association between sanitation and quality of life, the water variable was used as a dummy variable. The finding shows that people using piped water had a significant positive relationship with the quality of life than the reference category (4.718, CI 95% 3.130, 6.307, P <0.001). Whereas people using a hand pump to use water had a significant negative relationship with the quality of life (-7.803, CI 95%: -15.395, -0.211, P 0.044). Moreover, there was non-significant relationship between using water from water motor and quality of life (0.689, CI 95% -1.679, 3.058, P 0.567). However, people using water from a covering well had significantly lower quality of life than the reference category (-5.289, CI 95% -7.751, -2.826 P, <0.001). This indicates overall a significant association between water source and quality of life in Karachi, Pakistan.

The sanitation system variable was also used as a dummy variable. Those with an underground drain system had a significantly higher quality of life than others (4.202, CI 95% 2.725, 5.678, P<0.001) than the reference category. Whereas people using a covered draining system did not have a significant association with the quality of life than others (0.692, CI 95%-0.872, 2,256, P 0.384). Moreover, people who had an open drain had a lower quality of life compared to the reference category (-1.536 CI 95% -4.917, 1.845, P 0.372).

Moreover, participants were also asked how safe they feel while walking alone in the area near their home. There was a non-significant relationship between feelings of safety walking alone near home and quality of life (0.063 CI 95% -0.819, 0.944, P 0.888).

However, when asked this question, some of the subjective data was recorded. As one of the women from the low-income group reported, “We do not go out after 6:00 pm as it is not safe to go outside alone in the dark. Moreover, we also do not allow our children to go out. If they go and do not come after 7:00 pm, then we start calling them, and until they reach home safely, I get anxious”. Other women from the middle-income area said, “We can go out to next door alone but cannot go alone when it is dark, even near to the shop to buy milk it is not safe”.

Table 6.4: Bivariable regression analyses with sociodemographic variables with quality of life

Variables	Test Values and significance		
	B	**CI(95%) LCL – HCL**	**P-value**
Age	-0.056	(-0.158, 0.046)	0.279
Gender	**-1.848**	**(-3.430, -0.266)**	**0.022**
Socio economic groups	**4.720**	**(3.960, 5.480)**	**<0.001**
Education	**4.234**	**(3.418, 5.050)**	**<0.001**
Employment (Do you work to earn yes and no	0.001	(-0.134, 0.136)	0.991
Marital status			
Married	**4.673**	**(2.702, 6.643)**	**<0.001**
Widow	**-5.379**	**(-7.419, -3.338)**	**<0.001**
Separation	3.404	(-3.216, 10.024)	0.312
Unmarried (reference category)			
Family Type			
Extended	**-2.610**	**(-4.105, -1.116)**	**<0.001**
Nuclear	**2.260**	**(0.755, 3.764)**	**0.003**
Alone (reference category)			
Housing tenures			
Personal residence	**4.410**	**(2.495, 6.325)**	**<0.001**
Rented	**-4.410**	**(-6.325, -2.495)**	**<0.001**
Any other residence (reference category)			
Accommodation adequate for current needs (yes, no)	**-1.280**	**(-1.815, -0.744)**	**<0.001**
Current source of Drinking water			
Piped water	**4.718**	**(3.130, 6.307)**	**<0.001**
Hand pump	**-7.803**	**(-15.395, -0.211)**	**0.044**
Water moter	0.689	(-1.679, 3.058)	0.567
Covered well	-5.289	(-7.751, -2.826)	**<0.001**
Open well (reference category)			
Current sanitation system			
underground drains	**4.202**	**(2.725, 5.678)**	**<0.001**
covered drains	0.692	(-0.872, 2,256)	0.384
open drains	-1.536	(-4.917, 1.845)	0.372
no system (reference category)			
Own a car (yes and No	**-5.207**	**(-6.674, -3.740)**	**<0.001**
How safe you feel walking alone in the area near the home	0.063	(-0.819, 0.944)	0.888

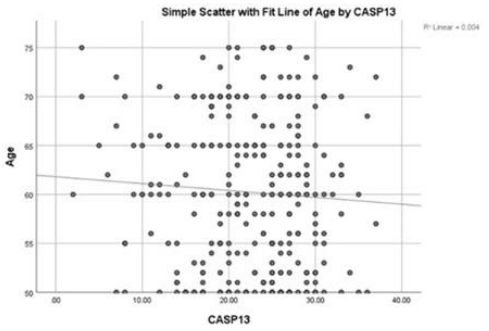

Diagram 6.6: No relationship between age and quality of life

6.4 Findings from Sociodemographic Multiple regression analysis

Multiple linear regression models are used to study the linear relationship between a dependent variable and several independent variables by fitting a linear equation to observe data samples (Eregno, 2013). Multiple regression analyses were conducted to examine the relationship between quality of life and various potential sociodemographic predictors. The first regression model included age, age squared and Gender (Table 6.5). The findings from the first models indicated that there was a non-significant association between age and quality of life. The R2 in the first model that explains that there is a 0.014 or 1.4% of the variation in quality of life with age differences.

However, when in model 2, the socioeconomic variables included social groups, education, employment, housing tenure, car ownership, retirement, pension and financial security for future. The R2 increased to 0.432 or 43.2% variation in quality of life. Also, the social-economic variables including social groups (β: 3.646, 95%CI: 2.283, 5.009), and education (β: 1.776, 95%CI: 0.097, 0.116) had a significant positive relationship with the quality of life.

The third model included the first and second models alongside living status, marital status, living arrangements, accommodation adequacy, and source of water, sanitation and security. This explored how much quality of life changed with additional factors. In this model,

there was a positive effect of age and a negative effect of age squared, suggesting that as people aged, the effect of age was reduced; this will be discussed further later in this chapter (6). The age effect graph is shown in (diagram 6.7).

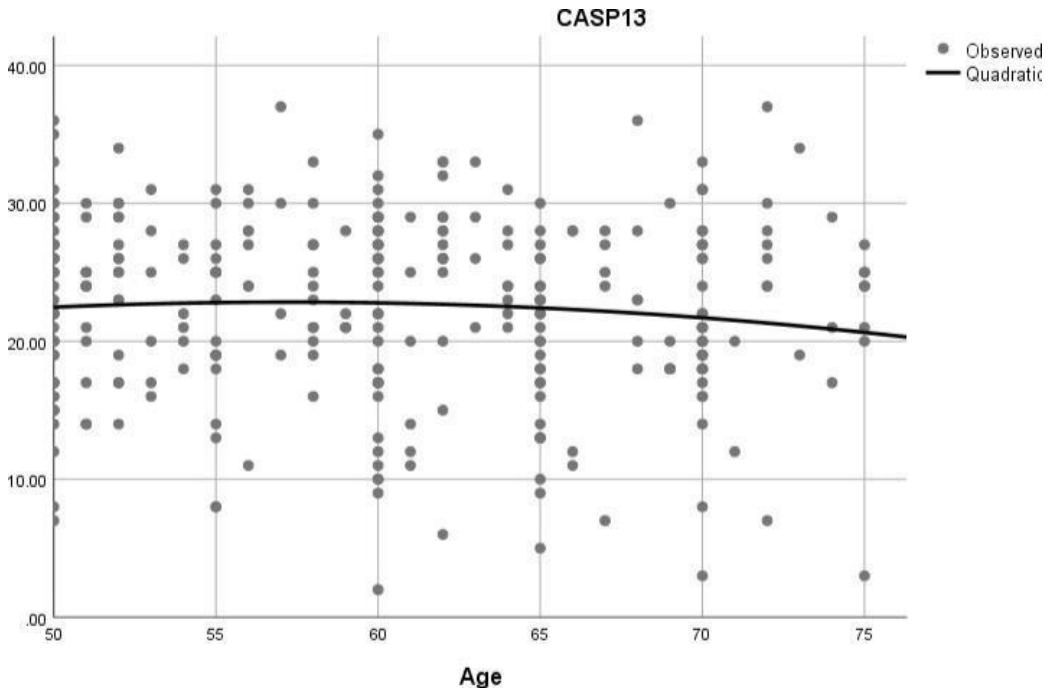

Diagram 6.7: age effect on quality of life

The marital status in model III displayed a significant relationship with quality of life. However, the model also indicated that the inadequacy of housing requirement significantly decreased quality of life. Furthermore, the source of water indicated a nonsignificant relationship with quality of life. More so, it was a weak sanitation system that was significantly associated with a decrease in quality of life. Feeling safe walking alone near the home had a non-significant relationship with the quality of life. Moreover, the R2 in the third model explained 0.452 or 45.2% of the variation in quality of life.

	Model I	Model 2	Model 3	
Variables	**Coefficient (95% CI)**	**Coefficient (95% CI)**	**Coefficient (95%CI)**	**Standardized Beta**
Age	-0.047 (-1.835, 1.742)	-0.116 (-1.488,1.256)	0.042 (-1.323, 1.407)	0.047
Age squared	0.000 (-0.015,0.014)	0.000 (-0.012, 0.011)	-0.002 (-0.013, 0.010)	-0.207
Gender	**-2.020 (-3.619,-0.420)*** **	**-2.269 (-3.521,-1.017)*** **	**-1.600 (-2.921,-0.279)**	**0.114*** **
(Socio Economic Variables				
Social groups		**3.646 (2.283, 5.009)*** **	**2.461 (0.941, 3.981)**	**0.301*** **
education		1.776 (-0.097,0.116)	**1.628 (0.732, 2.524)**	**0.196*** **
employment,		0.010 (-0.097,0.116)	0.006 (-0.100, 0.112)	0.005
housing tenure		-0.650 (-2.399,1.098)	-0.796 (-2.545,.953)	-0.046
car ownership		**-1.280 (-2.786,0.225)*** **	**-1.279 (-2.784,.225)**	**-0.092*** **
Retirement		0.213 (-1.894, 2.319)	0.136 (-1.944, 2.217)	0.007
Pension		**-2.934 (-5.868,-0.001)*** **	**-2.813 (-5.718,0.091)**	**-0.098*** **
Financial security for future		0.043 (-0.754, 0.839)	-0.067 (-0.885,0.751)	-0.011

(**Socio-demographic variables)**			
Living status			
Marital status			**-1.195 (-2.520, 0.131)** **-0.084*** **
Living arrangements			0.802 (-0.360, 1.964) 0.066
accommodation			-1.244 (-2.726 ,0.238) -0.087
adequate for current needs			
The current source of drinking water			0.118 (-0.159, 0.395) 0.040
Current sanitation system			**-0.903 (-1.671, -0.136)** **-0.141*** **
How safe you feel walking alone in the area near the home			-0.517 (-1.239, 0.206) -0.066

Constant	29.384	31.742	32.423
R2	0.014	0.432	0.452

Table 6.5: Sociodemographic Multiple regression analysis

Model 1(Age, Age squared and Gender), Model 2 (Model 1+Socio economic variables), Model 3 (Model 1 +Model 2 +living status)

P values = * $p < 0.05$. , ** $p < 0.01$., *** $p < 0.001$

6.5 Psychosocial descriptive findings

As described in the methodology chapter, this research study used many psychosocial variables to assess the association with the quality of life. For descriptive analysis, the mean and the standard deviation of the scales are presented in this section of the chapter.

The descriptive analysis (Table 6.7) for social support scale score ranges from 0 to 8, (0 is poor and 8 is the best) and the mean score for all samples was $\bar{x}$ 4.62 $\pm$ 2.11. Moreover, the low-income group (LIG) mean score was 4.45 $\pm$ 2.37, middle-income group (MIG) 4.72 $\pm$ 2.10 and high-income Group (HIG) 4.69 $\pm$ 1.84. Moreover, there was a non-significant difference in the social support scores in all three strata (F: 0.50, DF: 2, P-value: 0.60). Besides that, the neighbourhood scale score ranges from 0 to 13, (0 is bad and 13 is best) and the overall mean score for the sample was 8.87$\pm$2.05. Also, the mean score from LIG was 7.01 $\pm$1.73, MIG mean score was 9.41 $\pm$1.49 and HIG mean score was 10.22$\pm$1.36. Moreover, there was a significant difference in the neighbourhood scores in all three strata (F: 117.17 DF: 2, P<: 0.001). Moreover, 72% of the population identified as having good general health. The general health in the LIG was the lowest at 53%, compared to the MIG at 76%, and the HIG at 86%. However, when asked how physically active the participants were, analysis indicated that 74% of the overall sample was physically active. However, differences can be seen in three strata; where 50% LIG participants reported that they were not physically active, compared to 79% of participants from MIG who reported that they were physically active, and 93% of the HIG participants were physically active. The mean score of depression was 7.58 $\pm$ 2.04. The finding was that people living in LIG had a higher depression mean score 8.90$\pm$1.84 than the other socioeconomic groups, where the MIG mean score was 7.7 $\pm$1.85, and HIG mean score was 6.2 $\pm$ 1.44.

Additionally, the sense of coherence (SOC) “reflects a coping capacity of people to deal with everyday life stressors and consists of three elements: comprehensibility, manageability and meaningfulness” (Super et al. 2016). In this study, the three items were used to assess the sense of coherence, which covers all three elements discussed earlier. The sense of coherence scale score

ranges from 0 to 6 (0 is bad and 6 is a good sense of coherence). The mean score for the overall sample was 3.14 ±1.69. However, the LIG mean score was 2.21± 1.62 lower than the middle-income group 3.57± 1.51. However, in HIG, there was a slight difference in the mean score from the MIG 3.66± 1.55. Moreover, there was significant difference in the sense of coherence scores in all three strata (F: 26.92, DF: 2, P< 0.001).

In addition, the sense of coherence was perceived differently depending on the person's environment and culture in how a person interpreted life in its three constructs: comprehensibility, manageability, and meaning (Mittelmark & Bauer, 2017). In a culture like Pakistan, faith and religion appeared to be central to how participants managed their lives and how they interpreted circumstances in their lives. When the question from the sense of coherence asked the participants; "Do you see a solution to problems and difficulties that other people find hopeless"?
Most of the participants responded, saying 'Inshallah' meaning 'Allah's will'. One participant of the study who was facing hardships was optimistic that prayers and Allah's blessings would help them, to face the challenges in their life. One of the participants also shared that, 'my prayers guide me to find a solution for challenging circumstances'. However, some of the participants agreed that some of the problems are because of taking wrong decisions and they were responsible for it. That shows that some people believe that they have control over their own life whereas some people believes that Allah control their lives. Another question asked 'does participant feel that their daily life is a source of personal satisfaction? Most of them again were refereeing that Allah has given this life to us, so we are satisfied. If some of them were not satisfied, they do not blame on God they blame on themselves while taking wrong decisions. One of the questions in the SOC scale was 'do you feel that the things that happen to you in your daily life are hard to understand'? On that, most of the participants mentioned that Allah had created them, and he would take care of them, and he is in control over their life.

In general, the sense of coherence scale showed that religious practices were significant contributors and key constructs in how they handled life's stressors and remained satisfied. So, the participants had a common belief that Allah is the controller of life. Therefore, one cannot predict about life; but religion appeared to be a significant contributor in helping the participants to manage

daily life situations. Moreover, the items of SOC were connected to the CASP items when most of the participants answered questions optimistically.

Moreover, the Capability scale ranges from 1 to 21 (1 meaning less and 21 meaning higher). The mean score for capability was 9.05 ±5.86. Because the capability approach is consisting of three individual variables: functioning (such as work and what we are capable to do), opportunity, and satisfaction - that had been discussed earlier in (chapter 4). The descriptive analysis was conducted separately for each three of the variables. The score ranged from 1 to 7 for each. The mean score for the overall sample who thought that they could work the same today the way they used to work 30 years back was 3.14 ±2.35. Surprisingly the LIG participants had a better mean score of working the same way they used to do 30 years ago was 3.88±2.52 than the MIG mean score 2.99±2.24 and HIG mean score 2.56±2.10. Furthermore, the mean score for the opportunities people get the same they used to get 30 years back; the mean score for the overall sample was 3.19±2.31. Once again, the LIG mean score 3.81±2.50 suggested that this groups perceived themselves as having the same opportunities as they had 30 years back. On the contrary, MIG mean score 2.93±2.05 and HIG mean score 2.82±2.24 suggested that they found fewer opportunities for work than they had 30 years ago. Moreover, the mean score for satisfaction level in capability in the overall sample was 2.71±2.16. Furthermore, people in LIG had a higher satisfaction level indicated by the mean score of 3.08±2.23, compared to the MIG mean score of 2.87 ±2.18 and HIG 2.18±1.96.

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[2] Capability

The footnote shows how the three items of the capability scale is marked.
Work (1 means cannot work the way used to work before and 7 means can do all work which used to do before)
Opportunities (1 means have less opportunities and 7 means have a same opportunities)
Satisfaction (1 means less satisfaction and 7 means have same satisfaction

Table 6.10 presents the bivariable analysis of all the three components of capability (activity, opportunity and satisfaction). Overall, the activities, opportunities and satisfaction.

	Beta Co-efficient (P-value)
Capabilities	**Whole sample**
Activities	0.394 (0.062)
Opportunities	0.520 (0.015)
Satisfaction	0.462 (0.045)

Table 6.6: capability Coefficient

The participants were assessed for optimism towards their life in old age — the optimistic scale which scores range from 0 to 40 (0 meaning less optimistic and 40 meaning more optimistic). The mean score of the overall sample was 23.76±4.62. There was a significant difference in optimism scores in all three strata (F: 3.46, df: 2, P-value: 0.032); the LIG mean score was 22.99±4.22, the MIG mean score was 24.68±4.55, and HIG means the score was 23.62±4.96.

In the overall sample, only 12% of people had retired at the time of the research. Out of LIG 9%, MIG 3% and HIG 23% had retired. From the participants who were retired, only 6% were getting their pension from the overall sample. In which 8% of participants from LIG, 2% of participants from MIG and 7% of participants from HIG received a pension. When participants were asked if they had enough financial security for their future, only 29.1% of participants said that they had more than enough money to meet their needs. However, 11.4% of participants said that they had just about enough money to fulfil their needs. Moreover, 39.1% said that they had less than enough money to meet their needs in the future. The

percentage was higher in LIG at 64% who felt that they do not have enough money for the future to fulfil their needs than the MIG 52% and HIG 2%.

The participants were asked 'if they had enough financial security for their future' based on their current situation. People from the LIG most people said 'we are earning money which is hand to mouth, so we do not have any savings for the future' and some high-income participants said ' we have saved enough money for our family for the future'. Thus, people are not predicting their future, but they had answered these questions based on their current circumstances. Moreover, Islam also provides us with an ethics code like all other religions; to lead a life that is in line with Islam. And there is a great deal of evidence in the Qur'aan and Sunnah to save money for children to give them better life (Khan, M.M., et al 2008).

Table 6.7: Descriptive statistics of psychosocial variables

Variables	**All**	**Lower income areas**	**Medium income areas**	**High income areas**
Social support (Mean, SD)	4.62(2.11)	4.45 (2.37)	4.72 (2.10)	4.69 (1.84)
Neighbourhood (Mean, SD)	8.87(2.05)	7.01 (1.73)	9.41 (1.49)	10.22(1.36)
General health (N, %) Good Not good	 214 (72) 85 (28.4)	 53 (53) 47 (47)	 75(76) 24 (24.2)	 86(86) 14(14)
Physical active (N, %) Active Not active	 221(74) 78(26.1)	 50(50) 50(50)	 78(79) 21(21.2)	 93(93) 7(7)

Depression (Mean. SD)	7.58 (2.04)	8.90 (1.84)	7.7 (1.85)	6.2 (1.44)
Sense of coherence (Mean, SD)	3.14 (1.69)	2.21(1.62)	3.57 (1.51)	3.66(1.55)
Capability (Mean, SD)				
Working	3.14(2.35)	3.88(2.52)	2.99(2.24)	2.56(2.10)
Opportunities	3.19(2.31)	3.81(2.50)	2.93(2.05)	2.82(2.24)
Satisfaction	2.71(2.16)	3.08(2.23)	2.87 (2.18)	2.18(1.96)
Capability in Total	9.05 (5.86)	10.77 (6.24)	8.82(5.69)	7.56(5.20)
Optimism (Mean, SD)	23.76(4.62)	22.99(4.22)	24.68(4.55)	23.62(4.96)
Retirement (N, %)				
Retired	35(12.0)	9(9.0)	3 (3.0)	23 (23.0)
Not retired	264 (88.3)	91(91.0)	96 (96.0)	77(77.0)
Pension (N, %)				
Gets pension	17(6.0)	8(8.0)	2(2.0)	7(7.0)
Don't get pensions	282(94.3.0)	92(92.0)	97(98.0)	93(93.0)
Financial security (N, %)				
More than enough to meet my needs.	87(29.1)	2 (2.0)	2(2.0)	83 (83.0)
Just about enough to meet my needs.	34(11.4)	1(1.0)	23(23.0)	10(10.0)
less than enough to	117(39.1)	64(64.0)	51(52.0)	2(2.0)

meet my needs				
Don’t know	59(20.0)	33(33.0)	22(22.2)	4(4.0)
Missing	2(0.7)	-	1(1.0)	1(1.0)

6.6 Association between Psychosocial variables with CASP 13 (Bi-Variable Findings)

A simple linear regression was carried out to identify the relationship between the two continuous variables. There was a significant positive relationship between quality of life and social support (0.846 95%CI: 0.498, 1.193, P <0.01) (Table 6.8). A positive neighbourhood environment was associated with higher quality of life, (1.691 95%CI:1.375, 2.008, P<0.01).

Moreover, social participation had a negative relationship, such that those with lesser social participation had significantly lower quality of life (-0. 906, 95%CI: -1.375, -0.748, P <0.01). Also, social networking had a significant positive relationship with quality of life (1.157, 95%CI: 0.935, 1.379, P< 0.01). Those with higher general health at (6.546 CI 5.032, 8.061 P<0.01) and more physical activities at (6.704 CI,5.147, 8.261, P<0.001) had significantly higher quality of life. Individuals having good health pertained to be physically active and have a better quality of life. Furthermore, depression was significantly associated with lower quality of life (-3.641, 95%CI: -4.863, -2.418 P <0.001). Moreover, sense of coherence had a significant positive relationship with the quality of life (2.099, 95%CI 1.718, 2.479, P <0.001). The capability measured as CASP-19 also had a significant positive relationship with quality of life of (0.159 CI 0.030, 0.288 P <0.001). Optimism had a significant positive relationship with quality of life at (0.363 CI 0.204, 0.523 P<0.001).

Variable	Test values and significance		
	B	**CI (95%) LCL -HCL**	**P-value**
Social support	**0.846**	**(0.498, 1.193)**	**<0.001**
Neighbourhood	**1.691**	**(1.375, 2.008)**	**<0.001**
Social participation	**-0.906**	**(-1.064, 0.748)**	**<0.001**
Social networking	**1.157**	**(0.935, 1.379)**	**<0.001**
General health	**6.546**	**(5.032, 8.061)**	**<0.001**
Physically Active activities of daily living (ADL/IDAL)	**6.704**	**(5.147, 8.261)**	**<0.001**
Depression	**-3.641**	**(-4.863, 2.418)**	**<0.001**
Sense of Coherence	**2.099**	**(1.718, 2.479)**	**<0.001**
Capability	**0.159**	**(0.030, 0.288)**	**<0.001**
Optimism	**0.363**	**(0.204, 0.523)**	**<0.001**

Table 6.8: Psychosocial bivariable analysis

6.7. Psychosocial multiple regression analysis

A multiple linear regression analysis was carried out to examine the relationship between psychosocial variables and quality of life. The first regression model included all the social variables and socio-economic status (i.e., social support, neighbourhood and social participation). The findings illustrated that socio-economic status, social support, neighbourhood and social networking had a significant positive relationship with quality of life. However, the lack of social participation may significantly decrease the quality of life in old age. The model shown in (table 6.9) displays that social variables were related to a better quality of life. However, the socio-economic status had significant relationships with quality of life. The R2 in the first model explained 0.492, or 49.2% of the variation in the quality of life.

The second model consisted the first model with the addition of the health variables (i.e., general health, physically active and activities of daily living). Higher general health and being physically active had a significant positive relationship with quality of life. The variable activities of daily life had a non-significant positive relationship with quality of life. When the health variables were added in the second model, R2 increased to 0.526, or 52.6% of the variation in quality of life. In the final model with the addition of psychological variables, depression had a non-significant relationship with quality of life. However, the sense of coherence and capability had a significantly positive relationship with quality of life. Also, optimism had a nonsignificant positive relationship with the quality of life. In the final model, the variance reached 0.589, or 58.9%. However, lower lack of social participation and depression was associated with lower quality of life. Higher socio-economic status, having people around, social support, social networking, sense of coherence, capability (having more work, opportunities and satisfaction) and good health were all associated with higher quality of life in later life. This model supported that ‘social networks and social support have an impact on a person’s physical and mental health (Bosworth et al., 2000 and Hinkikka et al., 2000).

	Model I	Model 2	Model 3
Variables	**Coefficient (95% CI)**	**Coefficient (95% CI)**	**Coefficient (95% CI) B Standardized beta**
Social Variables			
Socio economic status	**1.788 (0.772, 2.803)****	**1.640 (0.643, 2.638)****	**1.794 (0,753, 2.835) 0.220*****
Social support	**0.582 (0.311, 0.852)*****	**0.563 (0.301, 0.825)*****	**0.266 (-0.004, 0.536) 0.084***
Neighbourhood	**0.499 (0.144, 0.853)****	**0.469 (0.125, 0.814)****	**0.346 (0.015, 0.678) 0.107***
Social participation	**-0.432 (-0.609, -0.255)*****	**-0.349 (-0.524, -0.173)*****	**-0.322 (-0.489, -0.155) -0.194*****
Social networking	**0.450 (0.232, 0.668)*****	**0.341 (0.124, 0.558)****	**0.221 (0.016, 0.427) 0.098****
Health variables			
General health		**2.429 (1.017, 3.841)*****	**1.474 (0.109, 2.838) 0.100****
Physically Active		**1.334 (-0.202, 2.871)***	1.183 (-0.284, 2.650) 0,078
Activities of daily living (ADL/IDAL)		-0.361 (-1.241, 0.520)	-0.427 (-1.259, 0.405) -0.040

Psychological Variables			
Depression			-0.122 (-0.416, 0.171) -0.037
Sense of coherence			**0.884 (0.532, 1.237) 0.225*** **
Capability			**0.174 (0.075, 0.273) 0.153*** **
Optimism			0.091 (-0.026, 0.207) 0.063
Constant	20.155	19.450	17.507
R2	0.492	0.526	0.589

Model 1: (social variables), Model 2: (Model 1 + health variables), Model 3: (model 1+ model 2 +psychological variables)

P values = * $p < 0.05$., ** $p < 0.01$., *** $p < 0.001$.

Table 6.9: Multiple regression psychosocial factors

6.8 Life course determinants of quality of life: descriptive findings

Descriptive analysis of the overall sample, 99.3% of the participants reported that both of their parents were illiterate. However, in the low-income group, 100% participants reported that both the parents were illiterate. In the middle-income group, 99%, and in the high-income group, 98% of the participants reported that both parents were illiterate (Table 6.10).

The participants were asked about their first life occupation status until the fifth occupation status, which included whether they worked manually with their hands or non-manual work. It was identified that 52.8 % of the participants worked manually and 8% did a non-manual work in their first life occupation and 62.1% were missing responses. However, reaching towards the fifth occupation throughout the life course only 0.7% of participants informed that they worked manually and 0% non-manually, out of which 99.3% data was missing.

Moreover, the occupational status in three different strata, it had been identified that 68% of the people worked manually than 44.4% in the middle-income group and 46% in a high-income group. Some participants shared their views during the interview when asked the question regarding manual and non-manual work. One of the participants from the low-income area said that; 'hamaray zamany main koi machine nahin thin na computer that hum ko har cheez haath se Karni parti this building banana kay liyee mati sar par utha kar le jatay they Aaj tho machin agayee hay khud saman upar charha jaati hay' meaning; 'We used to work with there was no machine, so we had to carry sand on our head to make a building'(male resident from LIG). Today we have machines which do all the work'.

The participants were also asked if they had difficulty working at their worksite or had an accident. It was identified during their first job overall, 8.4% of the participants had to lift heavy things, 36.1% had sweat while working, and 0.7% of the participants complained that they had a back injury caused by work. Most participants were from a low-income group who had to carry heavy things during their first job, that is 15% than any other strata. However, in all three strata

participants complained of sweat at work: in low-income areas at 56%, middle income at 28.3% and high income at 24%. However, 1% of the participants from middle income and high income complained of a back injury. The descriptive data shows that meanwhile, the participants reach their fifth occupation in all samples; only 0.3% of the participant had complained of sweating at work. Besides that, all the data was missing. The participant from the low-income group said 'ab mazdori kartay hain tho pasina tho aye ga' mean' working as labour obviously will sweat'. In descriptive analysis, participants in their life switched their jobs at a maximum of three times in their life as one of the participants from the low-income area said during the interview' main jab 16 saal ka tha tab se jamadar hon raasta saaf karta hon. Abhi 55 saal ka hon yehi kaam kar Raha ho' means 'when I was 16 years I started sweeping streets, and till today I am doing the same thing'. One of the participants from the middle income said 'hum Marwar se aye hay Pakistan. Wahn hum karigari ka kaam kartay they bhari Samman utatay that ab bhi Yahi Kam kartay hay ab ye kaam kartay howay 40 saal hogayee hamary bachay bhi yehi kartay hain' mean 'we have come from Marwar India there we used to work as a worker/labour carried heavy things and the same things my children are doing '.

Participants were asked what control they had over their jobs. It was identified that overall, in their first job, 49.8% of the participants said that they managed their work, with 57% of the participant from low income expressed that they had control over their job. As one of the participants said 'hum rikhsaw chaltay hain tho hum par hay kay Kabhi bhi jayee our kaam khatam Karya 'means 'I drive auto, so it is up to me when I start my work and ends'. Comparatively, 35.4% of the participant from the middle-income group said that they had control over their work. Though, 57% of the participant said that they had control over their work from the high-income group.

Moreover, 38.5% of the data was missing when asked about their occupational post. Moreover, in the overall sample, 1% of the participants were in the position of the manager, 30.8% of the participants were an employee, and 29.8 % of the participants were self-employed. Considering the data of all three strata, none of the participants was on the post of manager in

their first occupation, whereas 37% of the participants were an employee and 36% of the participants were the self-employee. On the other hand, in middle-income group 1 % of the participants were in the manager post, 24.2% of the participants were an employee and 25.3% of the participants were a self-employee. While in the high-income group 2% of the participants were on manager post, 31% were an employee, and 28% were a self-employee.

Participants were also asked about if their working areas had a piece of protective equipment and the place was ventilated, where they could have worked efficiently. The overall 40.5% of the participants said that they had protective equipment and were working in ventilate environment; whereas 20.7% replied that they did not have a protective environment to work and did not have ventilation. Though the participants from the low income 38% said yes that their first job was a ventilated. In middle income, 28.3% of the participants replied in yes, and in the high income 55% of the participants said that their work environment was ventilated.

When asked question regarding housing tenants, it was identified that from the overall sample, 67.2% of participants had their own home, and only 32.8% were living in the rented homes. Out of this group, 71% of the low-income group were living in their own homes.

During the interview, participants stated when they had migrated from other parts of Pakistan and out of Pakistan like India and Bangladesh, they had settled in a piece of land where they established their own houses and still living in the same house. One of the participants shared that, 'main apni family kay Saath 40 saal pehelay Punjab se kaam ki talash main Aaya that ye ilaka Pahari the paisa nahin that tho hum nay mati ka Ghar is Pahari par banaya phir aahisa aahisa Aaj Dekho cement ka Ghar bana Liya hay' that means; 'I came with my family 40 years back to eardid noty at that time didn't have money, so we settled on this mountain made the house of sand and now see we have cemented house'. In the middle-income group, 73.7 % of the people lived in their own house than 26.3% were living in a rented house. One of the participants from this group shared ‘hum yahan kaafi khandan Marwar India se Pakistan aayee thay 1966 main Abhi jo AAP Ghar dekh reahay hay wo Ek khula maidan the hum yahan tent main rehtay that Phir jab Kamana shoro Kia tho khud kay Ghar banatay chalay gayee tab use hunm yahan

reh rahay hain'. Meaning '; many of the family migrated from Marwar India came to Pakistan and settled here at that time, this was an empty plot we lived in tents, and when we had money, we started building our own homes, and since then we are living here'. Surprisingly from both the low and middle-income strata, the high-income starta had the lesser percentage of owned homes than the other two strata. 57% lived in their own homes, and 43% lived in the rented home.

In the overall sample, the transition from one house tenure to another is significant as in second housing tenure 49.8% of the participants lived in their own homes than 35.5% of the participant lived in the rented home. The first housing type 24.1% of the participants lived in the katcha house. Most participants lived in the flat 49.2%, and 26.8% of the participants lived in the bungalow.

Mostly, participants had a source of drinking water from the pipe that was 49.5%., hand pump 31.8%, covered well 5.7%, open well 3.3% and from river 7.4%. However, later in life, thorough out the housing transition, 58.5 % of the overall sample population were getting water from the pipe.

In terms of housing sanitation in the overall sample, 35.5% of houses had an underground drain, 15.4% covered drain, 17.1% open drain. However, 32.1% of the participants informed that there was no sanitation system. Nevertheless, moving to another housing 35.8% participants said they had an underground drainage system, 9.7% had a covered drain, 15.1% had an open drain, and 24.7% said they had no system. Mainly 66% of the participants from the low-income group informed that they did not have any sanitation system while they were living in their first housing. At the same time, 21.2% from middle income and 9% from the high income informs that they did not have any sanitation system in their first house.

Variables	All	Lower income areas	Medium income areas	High income areas
Father's education (N and %)	297 (99.3)	100 (100)	99 (99)	98 (98)
Illiterate	0	0	0	0
Up to 10 years	0	0	0	0
10 years and above	2 (.7)	0	0	2 (2)
missing				
Mother Education (N and%)				
Illiterate	297 (99.3)	100 (100)	99 (99)	98 (98)
Up to 10 years	0	0	0	0
10 years and above	0	0	0	0
missing	2 (.7)	0	0	2 (2)
First Occupation (N and %)				
Manual	158 (52.8)	68 (68.0)	44 (44.4)	46 (46.0)
Non-manual	24 (8.0)	5 (5.0)	6 (6.1)	13 (13.0)
Missing	186 (62.1)	27 (27.0)	49 (49.5)	41 (63.0)
Second Occupation (N and %)				
Manual	60 (20.1)	24 (24.0)	19 (19.2)	17 (17.0)
Nonmanual	16 (5.4)	1 (1.0)	5 (5.1)	10 (10.0)
Missing	223 (74.6)	75 (75.0)	75 (75.8)	73 (73.0)
Third Occupation (N and %)				
Manual	18 (6.0)	5 (5.0)	7 (7.1)	6 (6.0)
Non-Manual	5 (1.7)	1 (1.0)	1 (1.0)	3 (3.0)
Missing	276 (92.3)	94 (94.0)	91 (91.9)	91 (91.0)
Fourth Occupation (N and %)				
Manual	8 (2.7)	2 (2.0)	4 (4.0)	2 (2.0)
Non-manual	0 (0)	0 (0)	0 (0)	0 (0)
Missing	291 (97.3)	98 (98)	99 (100)	98 (98.0)
	2 (.7)	1 (1.0)	0 (0)	1 (1.0)
Fifth Occupation (N and %)				
Manual	0 (0)	0 (0)	0 (0)	0 (0)
Non-manual	297 (99.3)	(99) (99.0)	99 (100)	99 (99.0)
Missing				
First job Occupational Hazards				
Fume	28 (9.4)	14 (14.0)	9 (9.1)	5 (5.0)
sand	42 (14.0)	29 (29.0)	6 (6.1)	7 (7.0)
Dust	23 (7.7)	15 (15.0)	4 (4.0)	4 (4.0)
Missing	206 (68.8)	42 (42.0)	80 (80.8)	85 (84.0)
second job Occupational Hazards				
Fume	10 (3.3)	4 (4.0)	2 (2.0)	4 (4.0)
Sand	16 (5.4)	8 (8.0)	7 (7.1)	1 (1.0)
Dust	13 (4.3)	8 (8.0)	3 (3.0)	2 (2.0)
Missing	260 (87.0)	80 (80.0)	87 (87.9)	93 (93.0)
		2 (2.0)	0 (0)	2 (2.0)
Third job Occupational Hazards	4 (1.3)	2 (2.0)	2	0 (2.0)
Fume	4 (1.3)	1 (1.0)	(2.0)	0 (2.0)
	1 (.3)	95 (95.0)	0 (0)	98 (98.0)

Sand	290 (97.0)		97	
Dust			(98.0)	
Missing		1 (1.0)		0 (0)
	3 (1.0)	1 (1.0)		0 (0)
Fourth job Occupational	1 (.3)	0 (0)	2	0 (0)
Hazards	1 (.3)	98 (98.0)	(2.0)	100 100
Fume	294		1	
Sand	(98.3)		(1.0)	
Dust		1 (1)	0 (0)	0 (0)
Missing		0 (0)	96	0 (0)
	1 (.3)	0 (0)	(97.0)	0 (0)
Fifth job Occupational	0 (0)	99 (99.0)		100 (100)
Hazards	0 (0)			
Fume	298 (99.0)		0 (0)	
Sand			0 (0)	
Dust			0 (0)	
Missing			99 (99)	
Physically difficult work & accidents				
First job				
Lifting heavy things	25 (8.4)	14 (15.0)	4 (4.0)	7 (7.0)
Sweating	108 (36.1)	56 (56.0)	28 (28.3)	24 (24.0)
Back injuries	2 (.7)	0 (0)	1 (1.0)	1 (1.0)
Missing	164 (54.9)	30 (30.0)	66 (66.7)	68 (68.0)
Second job				
Lifting heavy things	8 (2.7)	5 (5.0)	0 (0)	3 (3.0)
Sweating	39 (13.0)	19 (19.0)	13 (13.1)	7 (7.0)
Back injuries	1 (.3)	0 (0)	1 (1.0)	0 (0)
Missing	251 (84)	76 (76.0)	85 (85.9)	90 (90.0)
Third job				
Lifting heavy things	1 (.3)	1 (1.0)	0 (0)	-
Sweating	10 (3.3)	5 (5.0)	2 (2.0)	3(3.0)
Back injuries	1 (.3)	0 (0)	1 (1.0)	-
Missing	279 (96.0)	94 (94.0)	96 (97.0)	97 (97.0)
Fourth job				
Lifting heavy things	1 (.3)	1 (1.0)	-	-
Sweating	4 (1.3)	1 (1.0)	3 (3.0)	-
Back injuries	-	0 (0)	-	-
Missing	294(98.3)	98 (98.0)	96 (96.0)	-
Fifth job				
Lifting heavy things	-	-	-	-
Sweating	1 (.3)	1 (1.0)	-	-
Back injuries	-	-	-	-
Missing	298 (99.7)	99 (99.0)	99 (99.0)	-
Work control				
First job manages and foresee	149 (49.8)	57 (57.0)	35 (35.4)	57 (57.0)
Yes	32 (10.7)	14 (14.0)	14 (14.1)	4 (4.0)
No	118 (39.5)	29 (29.0)	50 (50.5)	39 (39.0)
Missing				
Second job manage and foresee	65 (21.7)	20 (20.0)	20 (20.2)	25 (25.0)
Yes	11 (3.7)	5 (5.0)	4 (4.0)	2 (2.0)
No	223 (74.6)	75 (75.0)	75 (75.8)	73 (73.0)

Missing	22 (7.4)	5 (5.0)	8 (8.1)	9 (9.0)
Thirds job manage and	1(.3)	1 (1.0)	-	-
foresee	276 (92.3)	94 (94.0)	91 (91.9)	91 (91.0)
Yes				
No	7 (2.3)	2 (2.0)	3 (3.0)	2 (2.0)
Missing	1 (.3)	-	1 (1.0)	-
Fourth job manage and	291 (97.3)	98 (98.0)	95 (96.0)	98 (98.0)
foresee				
Yes				
No	2 (.7)	1 (1)	-	2 (2)
Missing	-	-	-	-
	297 (99.3)	99 (99)	99 (100)	98 (98)
Fifth job manage and foresee				
Yes				
no				
missing	3 (1.0)	-	1 (1.0)	2 (2.0)
	92 (30.8)	37 (37.0)	24 (24.2)	31 (31.0)
occupation post	89 (29.8)	36 (36.0)	25 (25.3)	28 (28.0)
first post	115 (38.5)	27 (27.0)	49 (49.5)	39 (39.0)
manager				
employee	1 (.3)	-	-	1 (1.0)
self-employee	35 (11.7)	14 (14.0)	11 (11.1)	10 (10.0)
missing	39 (13.0)	11 (11.0)	11 (12.1)	16 (16.0)
second post	224(74.8)	75 (75.0)	76 (76.8)	73 (73.0)
manager				
employee	-	-	-	-
self-employee	12(4)	5(5.0)	3(3.0)	4 (4.0)
missing	11(3.7)	1(1.0)	5 (5.1)	5 (5.0)
third post	276(92.3)	94 (94.0)	91(91.9)	91 (91.0)
manager				
employee				
self-employee	-	-	-	-
missing	2(.7)	-	1 (1.0)	1 (1.0)
	6 (2.0)	2 (2.0)	3 (3.0)	1 (1.0)
fourth post	291(97.3)	98 (98.0)	95(96.0)	98 (98.0)
manager				
employee	-	-	-	-
self-employee	-	-	-	-
missing	2 (.7)	1(1.0)	-	1 (1.0)
fifth post	297 (99.3)	99(99.0)	99(99.0)	99 (99.0)
manager				
employee				
self-employee				
missing	121 (40.5)	38 (38.0)	28 (28.3)	55 (55.0)
	62 (20.7)	35 (35.0)	21 (21.2)	6 (6.0)
protective -equipment and ventilation	116 (38.6)	73 (73.0)	50 (50.5)	39 (39.0)
first job	58 (19.4)	15 (15.0)	16 (16.2)	27 (27.0)
yes	18 (6.0)	10 (10.0)	8 (8.1)	0 (0)
no	223 (74.6)	75 (75.0)	75 (75.8)	73 (73)
missing				
second job	17 (5.7)	3(3.0)	6 (6.1)	8 (8.0)
yes	6 (2.0)	3(3.0)	2 (2.0)	1(1.0)
no	276 (92.3)	94 (94.0)	91 (91.9)	91 (91.0)
missing				
third job	5 (1.7)	-	3 (3.0)	2(2.0)
yes	3(1.0)	2 (2.0)	1 (1.0)	-
no	291 (97.3)	98 (98.0)	96 (96.0)	98(98)
missing				

fourth job	1(.3)		-		-		1 (1.0)
yes	1(.3)		1 (1.0)		-		-
no	297(99.3)		99 (99.0)		99(99.0)		99(99.0)
missing							
fifth job							
yes							
no							
missing							
Housing							
First housing tenure							
Owned	201	(67.2)	71	(71.0)	73	(73.7)	57 (57.0)
Rented	98	(32.8)	29	(29.0)	26	(26.3)	43 (43.0)
missing	0	(0)	0	(0)	0	(0)	0 (0)
Second housing tenure							
Owned	149	(49.8)	40	(40.0)	44	(44.4)	65 (65.0)
Rented	106	(35.5)	44	(44.0)	34	(34.3)	28 (28.0)
Missing	44	(14.7)	16	(16.0)	21	(21.2)	7 (7.0)
Third housing tenure							
Owned			15	(15.0)	23	(23.2)	24 (24.0)
Rented	95	(31.8)	11	(11.0)	15	(15.2)	2 (2.0)
missing	35	(11.7)	74	(74.0)	61	(61.6)	74 (74.0)
Fourth Housing tenure	169						
Owned	(56.5)		7	(7.0)	12	(12.1)	5 (5.0)
Rented			3	(3.0)	1	(1.0)	0 (0)
missing	43	(14.4)	90	(90.0)	86	(86.9)	95 (95.0)
Fifth housing tenure	6	(2.0)					
Owned	250		7	(1.0)	4	(4.0)	0 (0)
Rented	(83.6)		0	(0)	1	(1.0)	0 (0)
missing			99	(99.0)	94	(94.9)	0 (0)
	10	(3.3)					
	1	(.3)					
	288	(96.3)					
Housing type							
First home							
Katcha house	72 (24.1)		67 (67.0)		5(5.1)		-
Flat	147 (49.2)		4 (4.0)		62 (62.6)		81 (81.0)
Bungloo	80 (26.8)		29 (29.0)		32 (32.3)		19 (19.0)
missing	-		-				
second housing							
Katcha house	51 (17.1)		50 (50.0)		1 (1.0)		-
Flat	123 (41.1)		6 (6.0)		54 (54.5)		63 (63.0)
Bungloo	81 (27.1)		28 (28.0)		23 (23.2)		30 (30.0)
missing	44 (14.7)		16 (16.0)		21 (21.2)		7 (7.0)
third housing							
Katcha house	20 (6.7)		20 (20.0)		-		-
Flat	60 (20.1)		4 (4.0)		30 (30.3)		26 (26.0)
Bungloo	50 (16.7)		2 (2.0)		8 (8.1)		40 (40.0)
missing	169 (56.5)		74 (74.0)		61 (61.6)		34 (34.0)
fourth housing							
Katcha house	7 (2.3)		7 (7.0)		-		-
Flat	21 (7.0)		2 (2.0)		13 (13.1)		6 (6.0)
Bungloo	21 (7.0)		1 (1.0)		-		20 (20.0)
missing	250 (83.6)		90 (90.0)		86 (86.9)		74 (74.0)
fifth housing							

Katcha house	1 (.3)	1 (1.0)	-	-
Flat	5 (1.7)	-	5 (5.0)	-
Bungloo	5 (1.7)	-	-	5 (5.0)
missing	288 (96.3)	99 (99.0)	94 (94.9)	95 (95.0)
Source of drinking water				
First home				
Pipe water	148 (49.5)	29(29.0)	55(55.6)	64 (64.0)
Hand pump	95 (31.8)	33(33.0)	30 (30.3)	32 (32.0)
Water motor	7 (2.3)	1(1.0)	6 (6.1)	-
Covered well	17 (5.7)	8 (8.0)	5 (5.1)	4 (4.0)
Open well	10 (3.3)	7 (7.0)	3 (3.0)	-
River	22 (7.4)	22(22.0)	0	-
missing	-	-		
second home				
Pipe water	175 (58.5)	33 (33.0)	55 (55.6)	87 (87.0)
Hand pump	24 (8.0)	10 (10.0)	9 (9.1)	5 (5.0)
Water motor	5 (1.7)	21 (21.0)	5 (5.1)	-
Covered well	29 (9.7)	18 (18.0)	7 (7.1)	1 (1.0)
Open well	19 (6.4)	2 (2.0)	1 (1.0)	-
River	3 (1.0)	16 (16.0)	1 (1.0)	-
Missing	44 (14.7)	-	21 (21.2)	7 (7.0)
Third home				
Pipe water	109(36.5)	10 (10.0)	36 (36.4)	63 (63.0)
Hand pump	7 (2.3)	3 (3.0)	1 (1.0)	3 (3.0)
Water motor	1 (.3)	-	1 (1.0)	-
Covered well	11(3.7)	11(11.0)	-	-
Open well	2 (.7)	2 (2.0)	-	-
River	-	-	-	-
Missing	169 (56.5)	74 (74.0)	61 (61.6)	34 (34.0)
Fourth home				
Pipe water	42 (14.0)	5 (5.0)	12 (12.1)	25 (25.0)
Hand pump	1 (.3)	-	1 (1)	-
Water motor	-	-	-	-
Covered well	3 (1.0)	3 (3.0)	-	-
Open well	2 (.3)	2 (2.0)	-	-
River	-	-	-	-
Missing	251 (83.9)	90 (90.0)	86 (86.9)	74 (74)
Fifth home				
Pipe water	11 (3.7)	1 (1.0)	5 (5.0)	5 (5.0)
Hand pump	-	-	-	-
Water motor	-	-	-	-
Covered well	-	-	-	-
Open well	-	-	-	-
River	-	-	-	-
Missing	288 (96.3)	99 (99.0)	(94) (94.9)	95 (95.95)
Housing sanitation				
First home				
Underground drains	106 (35.5)	2 (2.0)	46 (46.5)	58 (58.0)
Covered drain	46 (15.4)	25 (25.0)	15 (15.2)	6 (6.0)
Open drain	51 17.1)	7 (7.0)	17 (17.2)	27 (27.0)
No system	96 (32.1)	66(66.0)	21 (21.2)	9 (9.0)
missing	-	-		

Second home				
Underground drains	107(35.8)	2 (2.0)	39 (39.4)	66 (66.0)
Covered drain	29 (9.7)	16 (16.0)	8 (8.1)	5 (5.0)
Open drain	45 (15.1)	11 (11.05 (55.0)	14 (14.1)	20 (20.0)
No system	74 (24.7)	16 (16.0)	17 (17.2)	2 (2.0)
missing	44 (14.7)		21 (21.2)	7 (7.0)
Third home		2 (2.0)		
Underground drains	74 (24.7)	5 (5.0)	19 (19.2)	53 (53.0)
Covered drain	14 (4.7)	3 (3.0)	6 (6.1)	3 (3.0)
Open drain	21 (7.0)	16 (16.0)	8 (8.1)	10 (10.0)
No system	21 (7.0)	74 (74.0)	5 (5.1)	-
Missing	169 (56.5)		61 (61.6)	34 (34.0)
Fourth home				
Underground drains	31 (10.4)	2 (2.0)	7 (7.1)	22 (22.0)
Covered drain	4 (1.3)	2 (2.0)	2 (2.0)	-
Open drain	8 (2.7)	-	4 (4.0)	4 (4.0)
No system	6 (2.0)	6(6.0)	-	-
missing	250 (83.6)	90 (90.0)	86 (86.9)	74 (74.0)
Fifth home				
Underground drains	8 (2.7)	-	3 (3.0)	5 (5.0)
Covered drain	1 (.3)	-	1 (1.0)	-
Open drain	1 (.3)	-	1 (1.0)	-
No system	1 (.3)	1 (1.0)	-	-
missing	288 (96.3)	99 (99.0)	94 (94.9)	95 (95.0)

Table 6.10 Life course descriptive analyses

6.9 Bivariable Findings of life course variable

Bivariate associations are presented in (Table 6.11) that explore associations between quality of life and the life course variables. There was a significant positive relationship between both parent's education and quality of life; father's education (1.855 CI 0.603, 3.106, P 0.004) and mother's education (1.406 CI -0.090, 2.901 P value 0.065).

Moreover, there was a non-significant relationship between the social class during the life course (manual/non-manual) and quality of life (-6.571 CI -25.607, 12.464, P 0.431). Furthermore, having control in the occupation during the life course also did not have any significant effects on quality of life (1.211, CI -4.779, 7.201, P 0.639). Additionally, people designated on different work positions (i.e, manager, employee and self-employed) had a non-significant positive relationship with quality of life (0.484, CI -0.396, 1.364, P 0.227). Furthermore, occupational hazards such as fume, sand, or dust had a non-significant result on the

quality of life in the later years (0.465, CI -1.647, 2.576, P 0.610). In terms of physical difficulties and work-related accidents, there was a non-significant effect on the quality of life (0.254, CI -1.985, 2.493, P, 0.791). This study indicated that protective equipment and ventilation at work had a non-significant relationship with quality of life (-2.111, CI -6.018, 1.795 P 0.234).

This study also shows that the housing tenure had a negative non-significant relationship with the quality of life in the later years (0.650, CI -2.394, 1.095, P 0.458). Besides, that, people living in housing types such as katcha house build of mud and sand, flat and bungalow had a significant positive relationship with the quality of life (1.929, CI 1.041, 2.816, P <0.001). Additionally, the source of drinking water throughout life had a significant negative correlation with the quality of life (1.254, CI -1.717, -0.790, P <0.001). Likewise, housing sanitation has a significant negative correlation with the quality of life (0.870, CI -1.277, -0.464, P <0.001)

Variables	**Test values and significance**		
	B	CI (95%) LCL - HCL	P-value
Father's education	**1.855**	**(0.603, 3.106)**	**0.004**
Mother's education	**1.406**	**(-0.090, 2.901)**	**0.065**
Accumulated social class	-6.571	(-25.607, 12.464)	0.431
Accumulated work control	1.211	(-4.779, 7.201)	0.639
Accumulated work designation	0.484	(-0.396, 1.364)	0.227
Accumulated occupational hazards	0.465	(-1.647, 2.576)	0.610
Accumulated physical difficulties at workplace	0.254	(-1.985, 2.493)	0.791
Accumulated protective equipment and ventilation	-2.111	(-6.018, 1.795)	0.234

Accumulated housing tenure	-0.650	(-2.394, 1.095)	0.458
Accumulated Housing type	**1.929**	**(1.041, 2.816)**	**<0.001**
Accumulated source of drinking water	**-1.254**	**(-1.717, -0.790)**	**<0.001**
Accumulated sanitation system	**-0.870**	**(-1.277,-0.464)**	**<0.001**

Table 6.11: Bi-variable analysis of life course factors

6.10 Multiple regression on life course and current life situation

Table 6.12 displays multiple regression models. There was a large proportion of missing data in the housing variables. Thus, it was not included in the multiple regression analysis. The linear regression only looks at linear relationships between dependent and independent variables, so the housing data was deemed inappropriate.

The first regression model included number of years in the manual job and the proportion of life spent in a manual job throughout life. The first regression model indicated that there was a positive non-significant association between the year's people had done the manual job in their life 0.035 CI (0.033, 0.103). However, the proportion of being in a manual job throughout life had a significant negative relationship with quality of life at -6.661 CI (-9.710, -3.611). The R2 interprets the amount of variance in the CASP 13 score, and the first model explained 0.112 or 11.2% of the variation in the quality of life.

The second model included the first model variables and the education of both the parents. There was a non-significant positive relationship between father's 1.008(-1.049, 3.065) and mother's education 0.398(-1.898, 2.684) education with the quality of life. The R2 interprets the amount of variance in CASP 13 score, and the second model had 0.115 or 11.5% of the variation in quality of life.

A third model included the first and second model plus age, age squared, gender, current sociological factors (i.e., social support, neighbourhood, social participation, social networking), current health factors (i.e., general health, physically active, and activities of daily living) and economic factors (i.e., employment, housing tenure, car ownership, retirement, pension and financial security for future). There was no significant relationship of life-course events, age, age squared and gender on the quality of life in the later years of life. However, there was a non-significant positive effect of age 0.142 CI (-1.484, 1.768) and non-significant negative effect of age squared -0.002 CI (-0.016, 0.011) and that the older a person was, the effect of age on quality of life decreases. When including sociological factors with the life course factors, the finding was that social support, neighbourhood and social participation had a significant effect on the quality of life in older age. Moreover, higher general health and being physically active in old age had a significant positive relationship with quality of life. Moreover, for the current economic factors, not owning a personal vehicle had a significant negative relationship with the quality of life at -1.670 CI (-3.375, 0.035).

Furthermore, financial security for the future had a significant negative relationship with quality of life in the older age at 1.670 CI (-3.375, .035). The final model explained variance of 0.517 or 51.7% in the quality of life.

`	Model I	Model 2	Model 3
Variables	Coefficient (95% CI)	Coefficient (95%	Coefficient (95% CI) Standardized beta
Occupation class			
years in manual job	0.035 (0.033, 0.103)	0.048 (-0.022, 0.118)	0.016 (-0.51, 0.083) 0.044
proportion in manual job	**-6.661 (-9.710, -3.611)**	**-6.866 (-9.936, -3.796**)	-1.602 (-4.380, 1.176) -0.098
Early life			
Father's education		1.008(-1.049, 3.065)	-0.089 (-1.673, 1.494) -0.008
Mother's education		0.398(-1.898, 2.684)	1.040 (-0.736, 2.815) 0.083
Age			0.142 (-1.484, 1.768)0.162
Age Squared			-0.002 (-0.016, 0.011) -0.341
Gender			-0.668 (-2.383, 1.047) -0.051
Current sociological factor			
Social support			**0.500 (0 .144, 0 .855) 0.157**
Neighbourhood			**0.690 (0.251, 1.128) 0.217**
Social participation			**-0.315 (-0.566. -0.065)-0.190**
Social networking			0.238 (-0.047, 0.523) 0.106

Current health			
General health			**1.890 (-0.107,3.887) 0.124**
Physically Active			**1.789 (-0.179,3.756) 0**.119
Activities of daily living (ADL/IDAL)			0.003(-0.011, 0.018)0.025
Current Economic variables			
employment			0.002(-0.096, 0.101) 0.003
housing tenure			0.108 (-1.835, 2.052)0.007
car ownership			**-1.670 (-3.375,0.035)-0.125**
Retirement			-0.699 (-2.826,1.428)-0.042
Pension			-1.820(-4.670, 1.030)-0.079
Financial security for future			**-0.719 (-1.572,0.133)-0.121**
Constant	26.891	25.031	28.009
R2	0.112	0.115	0.517

Table 6.12 Life course Multiple regression analysis

Model 1: (years in manual job + proportion in manual job), Model 2: (Model 1 + Early life), Model 3: (model 1+ model 2 +Age +Age squared+ Gender +current sociological factors +Current health +current economic variables)

P values = * $p < 0.05$. , ** $p < 0.01$., *** $p < 0.001$.

4.14 Observational findings during data collection

4.14.1 Observations

This PhD research had given me an opportunity, to learn more about different cultural beliefs in a different religion, different Muslim sect and living in different socio-economic classes of Karachi, Pakistan. Here i will share observational findings in all three strata (low, middle and high income). Before sharing an observation, I also want to highlight the issues faced while conducting this study. The issues are as follow; The main concern of conducting the research was its method, as earlier, it was decided that the stratified random sampling would be used, however, due to socio-political concerns; we had to change the research methodology and use purposive sampling, which may reduce the generalizability of the data to non-participating areas. Due to security issues, some participants refused to permit us to note down their contact details in such cases, we respected their wishes, and it was noted on the form. Some households did not want us to approach them. In one of the Pathan cast communities, strangers were not welcomed. Additionally, some men were abusive, and the research team were asked to finish work as soon as possible and leave.

Low-income areas (Pahar Ganj)

These developed on either convenience plots or the Hills' sharp vacant slopes, partly to satisfy the demands for worker housing during the 1960s as the city was going through an industrial boom. Labour colonies were first built as formal development for the nearby Sindh Industrial Trading Estate (SITE), but later informal housing moved onto the hill known as Pahar Ganj. The rural migrants who settled during that period later facilitated their fellow villagers/tribesmen to settle in the city in this area (Ud Din Ahmed, 2016).

Pahar Ganj is one of the low socio-economic areas of Karachi (Ud Din, Ahmed, 2016). Pahar Ganj is a muddy hill; the highest point of these hills in Karachi is about 528m in the extreme north. People who had migrated made their own houses (Ud Din Ahmed, 2016). Pahar Ganj was one of the study areas of my research. It was easy to enter that area because one of the

VCARE representatives assisted us in asking participants to participate in the research. Initially, people were reluctant but when explained all the purpose of the research and their confidentiality, they agreed to take part in this cause. After three days of the data collection in this area, one of the community members, who was the teacher in a school and was on holidays, came forward and offered his help. I welcomed him. The teacher worked as a gatekeeper and was a well-trusted person. That person had assisted VCARE welfare society for active and healthy ageing to organize their community events. When that person got to know that we were with VCARE, he approached us to offer any assistance required in approaching people. The person has been living in that area for 20 years and knew the best about the community; therefore, he assisted us and guided us not to go in the section where drug mafia lived. As the research plan, we had to take the participants' addresses, but because of the security reasons, participants refused to write their addresses.

Therefore, no addresses were taken. Moreover, we had found three central communities that had settled down at Pahar Ganj, namely, Pathan, Saraiki, and Christians. Pathan community is extensive and has many castes. Members of one of the castes do not allow their women to talk to anyone. They have a big purdah outside their homes, and this community warned us not to enter in their boundaries. However, another caste of Pathan allows outsiders to speak with them, but women can only speak to women and men would only speak to a man. Therefore, the male data collector was collecting data from the male participants.

Moreover, if any women were present at home; then, the data collector was asked by the participants, to collect the data outside the home. In such a situation, we respected their wish and data was collected outside the home. However, for female participants, the data was collected inside the home in a separate room. On the other hand, the Sariki community was welcoming and allowed the researcher to collect the data but requested if a male data collector can only take males' interviews, but a female data collector can interview both the gender. Most of the Saraiki community women worked as maids in nearby houses, so they also requested if the researcher could come for an interview after 3:00 pm. In that area, the third community was the Christian

community, who had their house boundaries between the Pathan communities. According to the Christian community, Pathans are their enemies. They always wanted to keep a distance from the Pathan community. However, the Christian community was very welcoming and agreed either of the genders could collect the data. In terms of other observations, the community had made a request, to not come on Wednesday, as they all were busy buying water for their home. Moreover, the temperature in June and July was between 39c to 47c, scorching weather. Moreover, in this hot weather, the electricity load shedding was 8 to 12 hours a day. Therefore, few of the households refused to give an interview.

Most low-income community participants asked data collectors if we could tell the government to give them water and electricity. In this situation, the data collectors restated the data collection's purpose and did not make any false promises. One or two households in the same area asked our data collectors if we would be paying them for their time. However, the data collectors had informed the participants that their participation in the research is voluntary and not forced to participate. However, later, the same participants took part in the data collection.

Middle income

In the middle socio-economic group, most of the data were collected from the Khudadad colony. However, after a week of collecting data, the community showed their lack of interest to allow the data collectors to conduct an interview, due to high alert security reasons. Therefore, the remaining data were collected from Al-Noor colony and Karim Abad colony. In Khudadad colony, most of the people were Muslim Marwari. They had migrated from the Marwar (India) and believed that they are from the Rajput family of India. The Marwari's parents moved from India to Pakistan between 1949 and 1950. The other community was the Muhajir community who also migrated from India after the partition of India. Another community was Memon community whose originate is from Pakistan.

Women from both Muhajir and Marwari communities do not work outside their home. However, some Memon community women seem to allow working outside their home. As most

of the men had worked in the day, most of the participants from these communities were women. However, some male participants were interested in taking part in the research, but they wanted us to come at night-time, and that was not an appropriate and safe time for the data collectors. So, I had to tell respectfully decline their wishes. All three communities that lived in Khudadad colony were very positive and welcoming. They did not mind if male data collectors were interviewing the female participants. According to the participants, all data collectors were like their children. In this area, one of the women aged 60 offered her service as the volunteer to introduce to the community.

Another targeted area in the middle socio-economic was Al Noor and Karim Abad colony. Moreover, most of the people from this area belong to an Ismaili Aga khan Muslim community. The community from where I belong to. However, these were the remote areas where I live, so the residents did not know me. However, the VCARE representative knew about the community structure, so she helped us enter the data collection colony.

High-income area

Initially, planning has made for the collection of data from Bahadurabad and Clifton areas of Karachi. However, due to the law and order situation, we needed to change our area to North Nazimabad. Here we also selected the areas, where Ismaili Muslim community resided. It was the area where people live in big houses and have more than one car. Most of the houses had guards outside of their home for the resident's security. In this area, some households refused to interview those data collectors who do not belong to the Ismaili community. Because there were some questions about the monthly salary and source of income, the information they did not feel comfortable in providing us, since they could not trust our intentions, so they refused to participate in the study. Moreover, in this area, we found both husband and wife as our target population; therefore, we interviewed both the husband and wife separately.

4.14.2 Questionnaire observations

The research questionnaire had some sensitive questions which could have caused any emotional disturbance, distress or potential hazards for the participants. Therefore, it was made

sure if such an incident happens during the interview the data collectors, and I would immediately stop taking the interview or focus group discussion. Also, I would help the participant talk freely about any subject they might find helping and relaxing. Alternatively, if the participant wanted to leave the discussion or interview, they would be allowed to leave. If any participant express intention to harm themselves or others, then we would in the first instance, recommend them to seek help from their doctor. However, if we thought that this was insufficient, we would seek consent from the participant to contact their doctor on their behalf. If this was declined and we felt that the situation was difficult enough, the interviewer would consult with the Principal Investigator where possible. Only in extreme circumstances, we could have broken the confidentiality and contact the personal doctor. Alternatively, and only if proper, the participant would be taken to A&E.

Though, very few participants themselves shared their story; when the question was asked about the number of children; some participants informed that they had five children and now have four children. Then the participants shared the reason of the death of their child. The data collectors heard their stories sympathetically. However, none of the emotional distress incidents took place during the data collection.

Overall, three hundred and seventeen people participated in the study, out of eighteen participants discontinued in the middle of their interview because of not having time.
In that situation, we valued the participants' time and asked if they wanted to drop the interview. In that case, few participants discontinued, so the data collector cancelled the form and selected another participant.

The questioner also had a question about the monthly income of the household. For security reasons, some participants did not tell us their monthly income, so we respected that and left that space with the comment on the questionnaire.

6.11 Discussion on the findings of predictors of quality of life:

As discussed in the literature review on the quality of life of older adults (Chapter 2) the quality of life is a construct of well-being, including self-esteem and life satisfaction (Pinquart

& Sörensen, 2000). Other research has identified that life satisfaction is strongly related to socio-demographic, socio-economic and psychosocial variables (Fernández-Ballesteros, Zamarrón, & Ruiz, 2001). This research identified similar findings of a strong association between the socio-demographic, socio-economic and psychosocial factors. This part of the chapter will discuss the main findings of the determinants of quality of life, including socio-demographic, socio economic, psyches social and life course and will compare these with the existing literature. During the survey, participants had shared their views, and opinions about their life events. These subjective data were recorded with the participants' consent and are discussed in this section.

6. 11.1. Age

One of the crucial predictors of quality of life is age. The English longitudinal study of Ageing (ELSA) (Netuveli 2006) identified that quality of life declines from age 68 years and then gradually drops until 100 years. However, this study indicated that age does not impose a significant effect on the quality of life. This might be due to the minimum age of the participants in this study, which was 50 years, and the maximum age of the participants which was around 75 years. Therefore, quality of life might decline after the age of 75, as reported in a previous study that suggested the quality of life declines after the age of 75 and over (Brett, et al. 2019).

6.11 2. Socio-economic impact on the quality of life

The study indicated that there was a significant relationship between the socio-economic factors and quality of life. However, some socio-economic variables had a significant positive relationship, and some had a negative relationship, as discussed below.

6.11.2.1 Education

Education enhances people's understanding of their surrounding world. Also, it plays a vital role in the personal and social development. Pakistan is a Muslim country and follows Islam as a religion. Islam follows the guidance of God given in the holy book of Quran; where the importance of education is repeatedly emphasised like "God will exalt those of you who believe and those who have the knowledge to high degrees" (58:11), "O my Lord! Increase me

in knowledge" (20:114), and "As God has taught him, so let him write" (2:282). The above verses enforce the Muslim community to educate themselves (Javed, Javed, and Khan, 2016). Though, this research has identified that 36% samples of this study were illiterate. Plus, there were higher rates of illiteracy in the low-income areas at 74%, compared to the middle income (24%) and high-income (8%) groups. There are likely to be various factors responsible for the differences in educational levels within all the three strata of the study. For instance, poverty, lack of resources and gender inequality as this study report that women pertained as more illiterate compared to men. In all three strata, male participants had a better education than the female participants.

The status of women in Pakistani society is very different from western societies. Women are often considered weaker and vulnerable in terms of education, health, employment and opportunities. The gender development index reports that Pakistan is the poorest South Asian country (Chaudhry, 2007). Earlier studies have suggested that education influences the quality of life in terms of access to paid work and employability. It also improves well-being that leads to stable social relationships and increases social support (Ross, & Van Willigen, 1997). Moreover, this study reports a significant positive association between education and quality of life. This finding is corroborated by other studies, including an earlier study using CASP (Netuveli, et al. 2006) where people with no educational qualifications had a significantly lower quality of life than those with some qualification. Moreover, another study using CASP found that low education in older adult decreases their quality of life (Wahrendorf and Siegrist, 2010). Finally, Brazilian study using CASP 16 also discovered that people with a higher level of education have a better quality of life in the old age (Lima, et al. 2014).

During data collection, some female participants shared reasons for their lack of education. One of the women from a low-income area said "We were 12 brothers and sisters and my father was the only bread earner we used to live in the village where there were no schools. When I was 14, we came to Karachi and settled here, and when I was 16, I got married, so I was

not able to get an education". Other women from the middle income group shared 'I am from a Memon community, where women must get married at an early age. In the past, even girls were not allowed to take education. Our brothers were encouraged to go to school but not us. Today, we allow our girls to take education, but as soon as they are 18, we try to make them settled while getting married (as a priority)'. These subjective accounts indicate a difference of views about education in different ethnic groups of the Pakistani culture. Moreover, it was identified during the interview when one of the low-income men said 'I started earning from a very young age. I think I was 13 years. I have not been allowed to get an education because of our financial conditions'. The study has also identified that there is a difference in the education of both gender; females are more illiterate than the male participants.

A woman from the low-income group said, 'I was only 12 years old when I got married, I was not allowed to see the world or understand because my parents were poor, and we were seven sisters and one brother, so my parents were worried, we used to live in a small village where girls have not been given respect or opportunities'. Previous research also identified that women in Muslim countries have a low level of education and a broader gap in gender education (Mcclendon et al, 2018). The research identified that people who left school during earlier life have a risk of social exclusion and poverty, with fewer chances to take part in social activities. Moreover, this could affect the future quality of life (Javed and Khan 2016). There is evidence that education has a significant association with self-rated life satisfaction (Javed, and Khan, 2016). The same study identified that education improves well-being because it increases the opportunities for paid work and the sense of control over life.

Another study predicted that education is an essential factor of good 'physical and cognitive functioning' that affects the quality of life (María, Herrera, and Carmen, 2011). Education influences life habits and income opportunities. The studies have reported that education assists in dealing with everyday life situations. It identified that the higher education of the elderly offers more emotional and financial support to the younger generation (María, Herrera, and Carmen, 2011). In Eastern European and Mediterranean countries, a study

identified that higher education was associated with higher quality of life (Conde-Sala, et al. 2017). People with a higher level of education had a better quality of life (Fa, 2014).

6.11.2.2 Socio-economic groups

Poverty and low economic are worrying for those in older age as they have very 'low possibilities to recover from dropped income' (Ali and Kiani, 2003). Research conducted in Pakistan reveals that 33% of the Pakistani population is living below the poverty line, and this affects the lives of the older population.

A similar finding was reported in this research that people living in low-income areas had a lower quality of life than the people living in the middle and high socio-economic areas. As the mean score of CASP in low income was 17.43, whereas middle income means the score was 22.87 and the high-income area mean score was 26.87. Also, there was a significant difference in the score of quality of life among the three groups. Moreover, the finding indicated that there were significantly positive association between of people living in different socio-economic areas and quality of life. Also, the previous study has revealed that there was a positive and significant relationship between QoL and Social, economic status variables (Keyvanara, et al. 2015). Similarly, another study conducted in Pakistan indicated that socio-economic status impacted many aspects of people's lives, including health and social activity (Ahmad, & Hafeez, 2011).

The regression analysis using socio-economic variables indicated a significant positive relationship between the socio-economic groups and quality of life. Earlier in this chapter as this was informed that the subjective data were noted during the interview of the participants. On the basis of those data there was a difference of opinion about the quality of life in all three strata, as most of the people in low-income areas were concerned and worried about their day to day, the fulfilment of their essential needs; such as unavailability of water, food, sanitation, income. On the other hand, people in middle-income areas were more concerned about security and income. Finally, most people living in high-income areas were more worried about living alone and their health issues. One of the women from the high-income area said 'My husband

died five years ago I have two sons who live in a different house, and my daughter is married but she comes to meet me once in 15 days, and I am left alone in this big house, so I feel bored. I spend my whole time with my servants'. The socio-economic finding also displays that quality of life depends on the social situation of the person. Moreover, the quality of life is also a need-based, and it varies from one stratum to another.

6.11.2.3 Financial status

A previous study suggested that poor financial stability harms the quality of life (Netuveli et al, 2006). This thesis also identified a that lack of employment in later life can decrease the quality of life. The other study has also acknowledged the similar findings that employment is a crucial factor of QoL in old age (Walker, 2005). It further identified the importance of work identity; employment, and a pension to increase the quality of life in old age. This study reveals the similar findings that people who were not retired at the time of the study had a better quality of life. It has also identified that lack of pension in old age has a significant adverse effect on the quality of life in the old age. Another study had a similar finding that pension inadequacy had a persistent effect on a person's quality of life (Wiggins et al. 2004). The pension system designed to provide support to the older adult after their retirement or to the individuals who lost earning capacity during old age, the death of wage earner in the family and any incident of disability. It is unfortunate that like other developed countries where senior citizens are provided financial support in their old age, in Pakistan, only government employee receive a pension or people who are working in a private organised working sector (Sabzwari and Azhar, 2010). Also, this has been identified during the data collection when one of the men from the middle-income group said, 'I had worked in a factory for 35 years. When I retired the company did not give me any money it was just my last salary in my hand. Also, today, we are dependent on my son'. Arif and Ahmed have identified this that in many industries in Pakistan, 'older adult is working on a contract basis, and they are not entitled to pension' (Arif and Ahmed, 2010). With all the above financial challenges, participants in this study were concerned about their future financial security. As this study identifies financial

security for future decreases, the quality of life as the older adults are more dependent on their carer or their children.

One of the leading socio-economic indicators is the housing tenure in old age and its relationship with the quality of life. Housing tenure is essential because of its links to housing equity, and security (Gjonça, et al 2010). Earlier research has identified that owner-occupier has a higher quality of life (Alan Walker, 2005). Also, this study revealed that housing tenure has a significant negative association with the quality of life. However, people living in their own houses have a better quality of life than the people who are living in rented houses. This study also shared that people in low-income areas do not have their own houses than the people living in middle income and high-income areas.

Besides, one of the problems faced by seniors of Pakistani citizens is transportation, either people have no transportation facility, or they are too poor to pay. The public transport is available, but it is expensive for them to pay for. Moreover, because of the unavailability of transport facility, they are unable to get the medical facilities in time in case of emergency (Salahuddin & Jalbani, 2006). Though in some cities of Pakistan, the local governments have notified half fair for the older adults. However, the same could not be implemented yet (Alam, Ibrar, and Khan, 2016).

As earlier studies have indicated, car ownership had linked to the quality of life (Gilhooly, et al. 2002). Use of public transport is potentially vital in facilitating independence to move around and go to the shops, leisure activities, health and other services and visiting family or friends. It may be especially crucial for those who do not own a car or cannot drive, for example, because of visual disability (Gjonça et al, 2010). A similar finding identified in this study that people having personal transportation had a better quality of life. During the interview, participants from low and middle income shared their experiences on transportation. One of the women from low income said, “Transportation is costly, if I want to go to meet someone or want to go to the hospital it costs me 10 rupees only one way, and I cannot think of

rickshaw it takes 100 rupees, so it is too much, and then we think rather than spending money stay at home".

Another woman from middle income said 'The government has started chinkchi (vehicle) in which 6 to 7 people can sit, but all males and females have to sit together and due to the greediness of earning more money the driver allows 7 to 8 people to sit. Which is miserable for a woman who does 'pardha' (explain what this means/gender …) like me'. These findings show that facilities provided to the public in terms of transportation are also not culturally appropriate.

6.11.3 Socio-demographic impact on the quality of life

6.11.3.1 Living arrangements

Living arrangements have linked to legal marital status. "Family ties, relationship and support are thought to influence health and mortality, especially at older ages" (Grundy, Bowling and Farquhar, 1993). Earlier research has found out that there is a positive effect of family on the well-being of older adults. The living arrangement in this study included people living in the nuclear or extended families and whether they were married, unmarried or single. This study has identified that in the total sample, 51% of people lived in the extended family. Moreover, overall, 83.3% of the participants were married. It was further identified that most of people from the low-income group (66%) were living in an extended family than in the middle and high-income group. As during the interview, one of the men from low income said "We are 15 members in a family living together. I have four boys and four girls, one girl is married, and two boys are married and have their children. So, we are happy that our grandchildren surround us as sometimes my daughters-in-law get a fight with my wife and they cook their food. However, at the end of the day, everyone at night time comes to me and say Allah Hafiz (goodnight)". Though that statement shows that people living in an extended family sometimes do not get financial support from the family, but in the end, it provides a sense of belonging in the old age." The multiple regression analysis indicated that family type and marital status had a significant positive relationship with quality of life.

Another study conducted in Pakistan reported that the level of satisfaction is higher in the people living in the extended family; and the reason was physical, financial and social support (Itrat, et al. 2007). The same study identified that weakened family ties decrease the quality of care for the elderly. However, this observed that the traditional extended family system is declining because of the nuclear family system living a small number of people together. Moreover, this trend has become more common in the South Asian population. Besides, the study has also identified that people who were married and living with the partner they have a better quality of life. Also, the similar findings were identified in another study that, the living arrangement was a determinant of QoL among older people and the respondents who lived alone experienced poor QoL than those who lived with spouse/children/others (Hellstrom et al., 2004). Living alone is also associated with loneliness, poor psychological well-being and depression (Fukunaga et al., 2012). A similar finding was identified using CASP 16 in Brazil, that identified that socio-demographic characteristics influenced overall QoL (Fa' bia Lima et al. 2014). The study also suggested that older adults who are unmarried and those who live alone are more likely to report higher levels of QoL (Fa' bia Lima et al. 2014). In most developed countries, the proportion of older adults living alone has increased in recent years. Therefore, studies have suggested that 'living alone becomes more 'normal'; its negative influence on health and well-being may become less powerful' (Banks, 2006).

6.11.3.2 Water and Sanitation

Availability of safe drinking water and basic sanitation relate to personal hygiene and known as essential components for promoting healthy living. In Pakistan, sanitation facilities are available to only about 42% of the population and improper sanitation cause to diseases (Husnain Haider and Waris, 2009). This study reveals that the sanitation system has a negative association with the quality of life. One of the participants of the study said, "Because of an improper system of sanitation we usually get sick". The inadequate water supply and poor sanitation services lead to contamination of their water supply. It also leads to the input of sewage water into the groundwater. The problem is severely acute in Karachi, the largest city in

Pakistan with a population of over 12 million and growing at 6 per cent (Rahman, 1997). 'The existing evidence also suggests that the low socio-economic groups would more prone to the risks such as health behaviour hazards such as smoking, drinking, and eating habits (House, et al. 1990).

Moreover, the study identified that the primary source of water in an urban city like Karachi was that 70% of the participants from the sample gets water from the pipe. However, in the low-income areas, 47% of the participants obtained water supply from the pipe and 30% from the covered well. However, mostly in middle and high-income areas, people obtained water from the pipe or the water motor. The study found a positive association between the source of water and the quality of life. During the interviews, it was identified that the participants in low-income area reported that they do not have water most of the time, as one of the residents said, 'we do not get water for a month we have to buy for 100 rupees and if my husband is earning per day 50 rupees or sometimes 100 rupees, how can we survive'. The unavailability of the water was not the issue of only low-income areas, but the same challenge had identified in the middle-income area. As one of the participants said, 'Sometimes we get water twice a week five days a week and sometimes once in a week. If the basic need has not fulfilled, then how one can survive'.

6.11.4 Social impact on the quality of life

6.11.4.1 Social support, social networking and social participation

Social support, whether from a family or neighbours, always have an influence in people's life. This study found that social support and better neighbourhood environment was related to higher quality of life of older adults. A similar study was conducted using CASP 19, which concluded that older people should 'increase their network of friends and engage with the wider community' (Tampubolon, 2015). Another study also suggested that not getting positive support from a family and friends can decrease the quality of life (Zaninotto, Falaschetti, & Sacker, 2009). A similar finding by Webb E et al (2011) reported that the quality of relationships

with family and friends, the number of close relationships and the frequency of contact with friends have a positive impact on the quality of life.

Another study reported that social life had a positive influence on the quality of life (Zaninotto, Falaschetti, & Sacker, 2009). Studies using the CASP 19 to assess the quality of life such as (TILDA) study, and Survey of Health, Ageing and Retirement in Europe (SHARE), have also reported a significant association between social engagement and quality of life (Timonen, Kamiya, & Maty, 2011). It has also identified that quality of life increases with greater social integration (Sim, Bartlam, & Bernard, 2011).

However, in Pakistani society family structures and living arrangements of older adults have changed over the past few decades (Zeng, 2006). Many of the older adults are not supported by their families to meet their basic needs and facing hardships in terms of no respect, no care, isolation, poor health, physical abuse (Afzal, 1999; Clark et al., 2002). A woman in this study had also shared her views on social isolation from the high-income area; she mentioned, 'This is my second marriage, and my husband passed away ten years back. Then I had to live with my stepson and daughter in law as soon as my husband passed away. My stepson started mentally torturing me. He gave me time for cooking and eating; after that, I am not allowed to go into a kitchen. I am staying alone for the whole day. There is no one to talk. So, in 15 days, I go to my brother's house to spend 2 or 3 days. I am on antidepressant drugs as well'. However, this was not only the case with the elderly living in a nuclear family, but another study identified elderly living in a joint family set up also not been given proper family care (Ali and Kiani, 2003). Despite the availability of social networks, such as having family members, in Pakistan, many older adults do not get support from their families and close ones. So that indicated the quality of life of older people in Pakistan is possibly worse than previous years and increases the 'demand for social protection networks for the older people in the coming years.

Moreover, this study found that a lack of social participation was related to lower quality of life. Hence social networking is likely to increase quality of life. Women in the low-income area of Karachi and from Pathan ethnic group also reported that "I have got married for the last

30 years and I have not been anywhere. Even I do not go to the doctor if I am sick, I use home remedies. Because in our culture, women are not allowed to go out, and if we go out, then we must cover ourselves completely, so I hardly go anywhere".

Muhammad et al (2009) had conducted the study in Pakistan, also reported that people in old age who still have a power and participate in the decision making have a better life. However, people in old age who experience social isolation have adverse effects on their quality of life, and this could be referred to the disengagement theory; (Muhammad, et al. 2009) which highlights that older adults get disengaged from their social life in their later lives (Cumming, & Henry, 1961).

Furthermore, previous studies have confirmed that there is a positive association between social relationships and improved health conditions. It has also identified that the countries who have a better social network have a lower mortality rate. Social network reduces stress, and the availability of social support has an impact on well-being (Ponce. Lezaeta, & Lorca, 2011). The study has also revealed that lack of social participation due to any of the reasons such as retirement, reduce income, loss of the spouse, physical disability, and results in chronic illness. However, the social participation of older adults in their life results in good health and improves the quality of life. Various studies have also identified that social participation is an essential element to address socio-economic and public health conditions of the ageing population (Ahmad, & Hafeez, 2011).

On the contrary, the previous study has also identified that participation in social activities decreases with age. A study was conducted in Lahore Pakistan, which identified that older adults had a lack of social participation in their later years of life (Ahmad, K., & Hafeez, M. 2011). The previous study also suggests that the quality of life and well-being in old age depends on older individuals' participation in social life (Ahmad, & Hafeez, 2011).

Moreover, a study using CASP 12 has also identified that both social networking and social participation are strongly associated with 'better cognitive abilities, higher subjective well-being and less depression' (Börsch-Supan, & Schuth, 2013).

6.11.5 General health and quality of life

This study identified that better general health and being physically active increase the quality of life. Most of the people during the interview complained about their health issues. One of the ladies who was 65 years of age from the low-income group said, 'I have not gone to a doctor in my. A month back I got sick, and my son took me to the doctor. He was very costly, I took the medication, but I had promised myself that I would not go to the doctor again'. Most of the people from low and middle income had an issue with the health facilities. According to them, the government, hospitals are free, but the treatment is not proper, and the private clinics are so expensive that people cannot afford, and they die'.

This study also identified that the lack of daily living activity reduces the quality of life. However, it also revealed that mainly older people suffered from high blood pressure, cholesterol, diabetes, and arthritis. The similar finding as identified in another indicates study that the average old-age chronic condition is cardiovascular disease, diabetes and joint disorders. Moreover, these conditions also impact the daily living of older adult (Walker, 2005). The previous study has also identified that the limitation in physical activities and a longstanding illness have a negative influence on the quality of life (Netuveli et al. 2006). However, this study has identified that physically active and daily living activities have a positive association with the quality of life. The earlier research has revealed that moderate physical activities can increase the quality of life (Hubbard, R 2014). Another study also suggests that poor health is an association with a lower quality of life (McGee, H.et al, 2011). In general, health influences the quality of life in older adulst (Blane, Netuveli, & Montgomery, 2008).

6.11.6 Psychological impact on the quality of life

6.11.6.1 Depression

Depression is "associated with poor levels of cognitive function and increased levels of age-related cognitive decline" (Llewellyn, et al. 2008). Depression has become a significant public health issue, especially in the elderly. "Pakistan has 22.9% of the elderly population facing depression" (Cassum, 2014). According to the World Health Organization (WHO), in

2020, depression will remain a significant cause of disability. The extent of depression among the elderly in Pakistan is too much higher than what has been reported (Cassum, 2014).

A previous study using CASP 19 identified that depression has a negative association with quality of life (Netuveli et al, 2006). Further, in another study, it has been identified that a depressed person has a poor quality of life than a person who does not have depression (Sivertsen, et al 2015). A similar finding identified in this thesis was that depression decreases the quality of life of the older adult. Hence the cut-off point for the depression scale in this study was score 5 or> 5. It was identified that all three strata included scores more than five. Also, people living in low socio-economic areas had the highest mean score of depression than the middle and high-income areas. This study was a cross-sectional study and the data was collected at one point in time. Therefore, most of the time, the participants had replied based on the current situation. Therefore, responding to any scale like depression could be affected by the present situation. As one of the women from a low-income area of Karachi Pakistan mentioned during the data collection; when asked "Do you feel satisfied with your life?' and the lady bluntly said, 'without electricity, water, food and money can you have a happy life. So how can I be satisfied"? Also, these situations had described in another study which revealed that poverty and financial constraints lead to psychological issues like depression (Alam, Ibrar, and Khan, 2016). These are long-term circumstances and are likely to be static disturbances to mood.

Moreover, another study conducted in Pakistan reported that mental health problem such as depression and anxiety impact the quality of life in the elderly and because of social problems (Sabzwari, Saniya and Azhar Gohar 2010). A study conducted using CASP also indicated that depression has a negative association with the quality of life (Netuveli and Bartley, 2012).

6.11.6.2 Sense of coherence

Antonovsky (1997) illustrated that 'sense of coherence refers to an individual's ability to effectively cope with life stressors and the capability to raise the level of well-being' (Nosheen, Riaz, & Batool, 2014). The sense of coherence reduces the impact of stress and places a remarkable mediation impact on well-being (Antonovsky, 1987), sense of coherence is a theoretical construct that is used to explain why some individuals fall ill after the occurrence of stressful situations, and some do not. Thus, Antonovsky (1987) gave his 1987 book the subtitle "How people manage stress and stay well". He felt dissatisfied with stress research, which concentrates only on the potential harmful conditions of life (Antonovsky, 1974, 1979, 1987). The same components of the sense of coherence were asked in the form of three questions to the participants of this study, and it was identified that the sense of coherence had a positive effect on the quality of life. The previous study assumed that SOC is an attitude of people who are well educated, are in rather privileged societal positions, and with opportunities for decision-making (Pallant, & Lae, 2002). And my study revealed that the sense of coherence was lower in the low middle-income group than the middle and high-income group. Moreover, this can be assumed that the low literacy level could be one of the reasons for the low score in the low-income group. However, this study found that SOC had a positive association with the quality of life as it has acknowledged as a way of viewing the world and one's life.

Another study has also identified that the higher the SOC, the better was the health of the respondents (Eriksson, Lindström, & Lilja, 2007). Moreover, another study finding shows that the sense of coherence was higher in older adult than the younger people (Alex, Jonson, Gustafson, 2005).

When the participant in this study was asked, 'Do you feel that the things that happen to you in your daily life are hard to understand?' and while answering (yes), (no) or (sometimes) most of the participants gave the subjective data which was noted during the interview. As one of the participants said, 'whatever happens with us is Allah's will, so I do not think much about it and leave everything on him'.

When participants from this study were asked if they feel that daily life is a source of personal satisfaction, some of the participants from low income and middle income groups answered, 'With lack of resources how could one be satisfied with life'. On the other hand, it was also observed that people living in the same circumstances were resilient to the situation and rather than complaining, they were thanking God. As one of the women said, 'God has given life, and he has the right to run our lives according to his will, so we are no one to do anything'. Baltes, Kuehl and Sowarka (1992) identified in their study that people continue to grow mature in old age, both intellectually and with their skills. The previous study had suggested that the sense of coherence develops from experiences during life (Antonowsky, 1987). Thus, it is likely that a belief in God's 'will' can further strengthen a sense of coherence with having an additional explanation for life's occurrences. Furthermore, it had also been identified that more positive evaluation of one's life history among older adults; have a stronger sense of coherence (Alex, Jonsén, Gustafson, 2005).

To conclude SOC and God's 'will' share one important aspect which is 'predictability'. By having faith in God's will, people feel that life is predictable and that increases their SOC. However, predictability does not suggest control.

6.11.6.3 Capability

Before presenting the capability approach by Sen (1991), a Pakistani economist presents the capability in the form of human development report to the United Nations in 1990. That describes a multifaceted concept of development, which focused on human well-being, and "aimed at ensuring and enlarging human choices; which lead to equality of opportunities for all people in society and empowerment of people so, that they participate in – and benefit from – the development process" (Patrick, Edewor, 2014).

Sen's (1991)' capability approach is a moral framework'. This framework provides ways to evaluate the 'well-being and social arrangements' and how to bring social change in society. It also evaluates the freedom of people going to work (Alkire, Sabina, 2005).

Moreover, the capability approach describes three aspects in its theory that is, functioning, opportunity and capability (Robeyns, 2006). This study has identified that human capability has a positive association with the quality of life and having more opportunities and functioning can increase the quality of life in old age. Surprisingly, this study had found out that the participants from the LIG were more satisfied, had more opportunities to work than the MIG and HIG. The previous study had found out that people living in the lower class are happier and more satisfied and the reason could be more positive attitude towards life and having good family relationship (Aburto, Rioseco,and Moyano-Díaz 2017). And one of the reasons for having a high capability score of low-income group would be that mostly people in low-income group lived in an extended family than the middle- and high-income group.

Furthermore, the findings also showed that the male participants had a negative non-significant effect on the quality of life, whilst female human capability had significant positive effects on the quality of life. Though there is only one study that has been conducted using CASP with the three items questionnaire to evaluate the capability in Kerala, and the same study found out that the women perceived more opportunities and men had a significant satisfaction level (Netuveli, Blane & Bartley, 2007).

Hence, during the data collection when asked the question; can you do the things you used to do 30 years back or you can do fewer things. So, one of the middle-income participants said ‘I was working in a government firm, and I was given retirement at the age of 60 through the retirement age is 65 they told me to take golden handshake, or we will terminate you. So, I did not have the option I took the money and got retired. I would have loved working; I think I can work until I die. Now sitting at home and doing nothing has made me sicker’.

Furthermore, when participants were asked if they have the same opportunities which they had 30 years back, many of the participants said that after 60, no work has been given to them. As one of the men from middle income said ‘I have worked in a bank as a cashier until I was 59 years old survived an accident and was not able to work for a year then I was given a retirement. Since then, I tried many places to get work, but every time I have been told that you

are too old to work. In my opinion, until we have life, we should be allowed to work because that makes a person healthier than staying back home.'

6.11.6.4 Optimism

Optimism has been defined as the stable tendency to "believe that good rather than bad things will happen" (Scheier, and Carver, 1985). It has been identified that optimism is shown to contribute to an extended life (Netuveli, et al. 2012). This study has found out the optimism has a positive association on the quality of life. Also, optimism can increase quality of life. As it was also revealed during the interview that most of the time, people were hopef and positive while expressing it by saying 'inshallah' which means God's will. It seems that having whatever circumstances or life event most of the people were optimistic, and this could be possible because people have been more resilient to the life circumstance. As one of the studies have identified that because of resilience, people were still happened to be positive (Netuveli, and Blane, 2008). Though this study had identified, that religion variables had shown a negative association with the quality of life, but when asked questions on optimism scale; most of the people replied that "if Allah's command says yes over some things then automatically things turns out to get better". Alternatively, "I am positive that Allah is always with me". It also shows a difference of opinion in one setting and could highlight the concept of religiosity and spirituality, which has already been discussed in the cross-cultural study.

6.11.7 Life-course impact on the quality of life

Blane (2004) revealed that the life course events have an influence on later health and wellbeing, especially if people have a low job profile or are associated with the low-grade occupation along with the occupational hazards. Moreover, the same study identified that the occupational hazards with household status can influence the quality of life in early old age (Blane, et al. 2004). A further study suggests that previous life history may affect the quality of life along with the individuals' current situations, particularly 'health, social support and -socio-economic position' (Blane et al., 2004).

However, bivariable analysis in this study do not show any significant association between occupational hazards and work control. In one research, occupational social status in mid-life made a direct positive contribution to the quality of life (Wildman, and Moffatt, 2018). However, in this study, the occupational social class does not show any significant effect on the quality of life. Moreover, both parents' education shows a significant association with the quality of life. Furthermore, the findings show a significant positive association with the housing type. Moreover, during the life course, both the source of drinking water and sanitation shows a significant negative association with life quality. The earlier study conducted in Pakistan suggested that because of poor sanitation and improper water source deteriorates the health of people, and that affects their quality of life (Daud et al. 2017). Though, multiple regression analysis found that the proportion of the manual work from the overall working years of life had a significant negative relationship with the quality of life.

This study also found that the life course events with the current sociological factors, current health and economic conditions have an impact on the quality of life. When adding all these variables in the life course factors in the multiple regression analysis, the amount of variance in CASP 13 increased from 11.5% to 51.7%. That indicated that the social factors, health and economic factors in later life with all the life course events are likely to improve the quality of life in the later years. A previous study has also identified that current socio-economic circumstances influence the quality of life in early old age; by current health problems (Blane, 2004).

6.12 Conclusion

To conclude this chapter, there are not only one or two factors that influence the quality of life in the old age. It also depends on one's life circumstances. Some financial constraints could be the reason for reduced quality of life; for some, it could be gender inequality. However, study findings had identified some of the factors that decrease quality of life such as; gender inequality and social participation. On the other hand, social support and social networking could change the effects of ageing and improve the quality of life. Although the literature shows

that age is a predictor of QoL, this study did not find the same, most likely because of the limited upper age limit i.e. 75 years old. Moreover, life course perspective suggests that individuals experiences at one point in time can influence their lives at a much later point in time' Population ageing is a global challenge that affects individuals, families, socio-economic situation, care provisions and pension schemes. The finding shows that there are effects of life course event in the later years. Including present financial status and social factors greatly influence the quality of life in the later years. Finally, the factors described earlier in the thesis's conceptual framework found out to have both positive and negative impact on the quality of life. Moreover, the findings have several policy implications at both government and non-government level, which will be discussed in chapter 8; where both cross-cultural and predictors of life aspects of the studies have been concluded are provided as recommendations. The thesis will then move on to chapter 7; where findings and discussions on gender and quality of life will be presented.

Chapter 7: Gender and Quality of life

7.1 Introduction

Gender equality is a fundamental element for the development of any country. “Yet Pakistan currently ranks the second lowest country in the world for gender equality, according to the Global Gender Gap Index” (Leopold, T.A., Ratcheva, V. and Zahidi, S., 2016). Therefore, in the cross-cultural adaption of any measurement instrument there is a need to consider gender issues in the research.

This chapter aims to share the key findings of gender and quality of life from both the quantitative and qualitative data of this research. The chapter is organized as follows; the first part of the chapter will share findings from the qualitative data of the focus group and the second part of the chapter will include quantitative findings of the research. Later the chapter will discuss the key findings from both quantitative and qualitative data. The chapter will end with its conclusion.

7.2 Findings from both qualitative and quantitative data

7.2.1 Gender-based Qualitative findings from a focus group

The qualitative findings were collected while conducting the focus group of cross-cultural adaption of the CASP measuring control, autonomy/agency, self-realization and pleasure. The findings of the focus group highlighted gender inequality in Pakistani culture. In the Pakistani, culture discrimination starts when a child is born. In most families, a boy is given priority over the girls. Where girls have been restricted to live their lives with the choices, they mostly do not have the freedom to make decisions in their own lives (World economic forum 2017). Gender inequality was evident in this research; when item 3 from the CASP-19 was

posed to the participants; 'I feel free to plan for my future' and discussed in both the male and female groups. Men were confident that they could plan their future as their wish, but women were more dependent on their husbands or the head of the family to plan for their future. It was observed that in a Pakistani cultural context, gender plays an important role, where males are dominant over women.

Moreover, item 6 of CASP 19: 'family responsibilities prevent me from doing what I want to do' was susceptible to gender differences. Responses from women were different from responses from men. The male group disagreed that family responsibility stops them from doing anything they want to do. However, most of the participants from the women group very much agreed, because of family responsibilities throughout their life, they never do what they want to do. Ali et al (2011) identified a tradition that a 'good woman' in Pakistani culture is expected to do all the household work, take care of children, husband, and the family.

Furthermore, good women compromise all life situations and sacrifice their dreams (Ali et al. 2011). Item 6 was not excluded from the CASP. As based on four women's point of view, it would be judgemental to remove the item. Therefore, this item was retained in the CASP, to give a better understanding of the cultural influence on gender differences on the quality of life in later years.

Moreover, a previous study identified that the South Asian region is known for 'inequalities in men and women's autonomy and power' (Sathar, and Kazi, 2000). Moreover, this was evident in this research, as it shows that for men, family responsibilities are their duties and they never stop them from doing what they want to do. However, it is not the same for women. As one of the women from the middle-income group said: "I am very good in stitching clothes and always wanted to have a boutique to design clothes, but because of so much of family responsibilities; I ended up taking care of my kids, my mother in law, father in law and my husband. Now I am 57 and feel too old to do anything. As now I am a grandparent and have to

look after my grandchildren as well." This provides evidence that culture influences on women's choices.

7.2.2 Quantitative findings on gender differences in CASP

The quantitative findings were taken from the survey conducted in Karachi, Pakistan. Findings include the mean scores in all the subdomains of CASP 13 in gender segregation. Furthermore, the findings included interaction effects of the independent variable with gender.

Table 7.1 displays the differences in responses of both genders for each CASP 13 domain. As it shows that males had a higher mean score in each domain; control, autonomy/agency, pleasure, and self-realization, compared to women.

Domains		**Males**		**females**
	Mean	Std. Deviation	Mean	Std. Deviation
Self- realization	9.38	2.78	8.07	3.62
Control	1.77	1.62	1.62	1.67
Pleasure	6.56	1.61	6.31	2.07
Autonomy/Agency	6.05	2.24	5.46	2.46

Table 7.1 differences in responses of both gender

Moreover, the interaction effect of gender and socio-economic groups was highly significantly related (<0.001) (table7.1). The main effect of gender was socio-economic groups. Women in low socio-economic groups had a lower quality of life than women in a high socio-

economic group. Whereas, male participants had a better quality of life than the women living in a low socio-economic group.

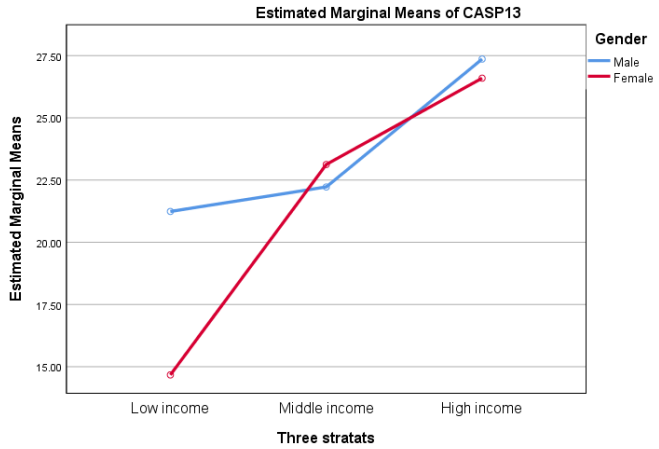


Diagram 7.1 Interaction effect of gender and socio-economic groups

Similarly, there was a significant association between gender and quality of life ($\chi 2$: 11.68, df: 3 P-value 0.009). Education is a pillar for the development of any nation. Unfortunately, the literacy rate in Pakistan is much lower than in other countries.

This study showed that the majority of participants from the low-income area were illiterate (74%), followed by middle income (24%) and high income (only 8%). Diagram 7.2 shows that female participants were more illiterate (38.7%) than male participants (29.5%). Female participants with more than ten years of qualifications (25.3%) higher than the male participants (22.9%). The chi-square test found a significant relationship between educational status and quality of life ($\chi 2$: 79.61, DF: 9, P-value <0.001).

A two-way ANOVA was performed to check the interaction effect of the two independent variables of 'variable one education' and variable two genders'. As the relationship was significant (P=0.012), finding shows the effect of gender on quality of life was influenced by educational level. And therefore, it concluded that gender inequality in education decreases the quality of life

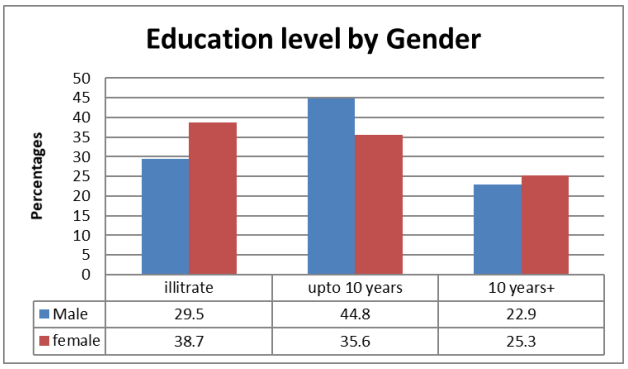


Diagram 7.2 Education and Gender

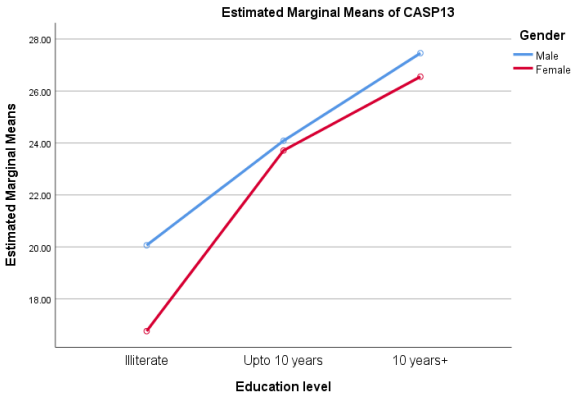


Diagram 7.3 Interaction effect of Gender and Education

For the interaction effects between the variables, people working to earn money and gender were also performed. The main effect of gender was significant on employment (P=0.004). Thus, the effect of gender on quality of life was influenced by employment (Diagram 7.4).

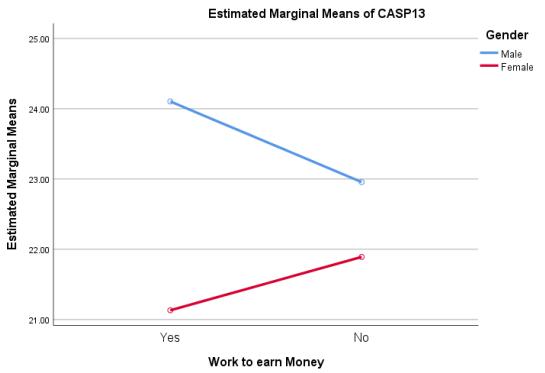
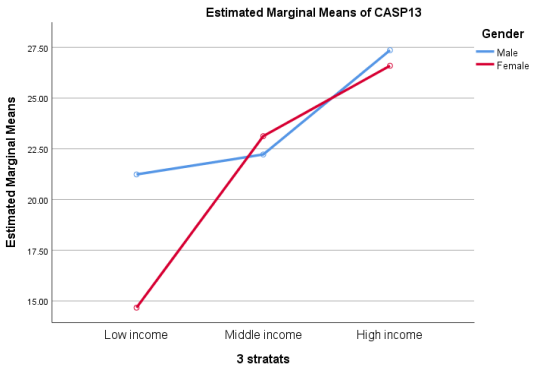


Diagram 7.4 Interaction effect between Gender and employment

Furthermore, interaction effects between the variables, socio economic group and gender were also performed. The main effect for gender was significant on socio economic group (P=<0.001). Thus, the effect of gender on quality of life was influenced by socio economic groups (diagram 7.5)



Graph 7.5 interaction effect between socio-economic groups and Gender

Furthermore, the descriptive analysis of gender regarding the general population health indicated that the male participants' general health was better than the women. However, the relationship between gender and general health of the population was nonsignificant (P=0.137). Thus, the effect of gender on quality of life was not significantly influenced by general health (Diagram 7.6). The graph also shows that both males and females had a low quality of life without good general health.

General Health	Male(%)	Female (%)
Good	21.9	13.4
Fairly good	61	52.1
Not good	17.1	34.5

Table 7.2 Gender and Health

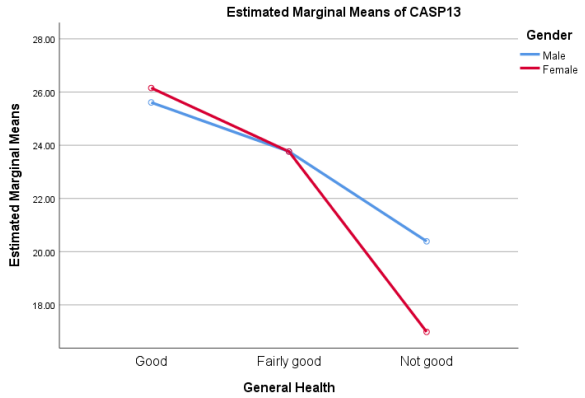


Diagram 7.6 interaction effects between: Gender and general health

Furthermore, the relationship between gender (male/female) and quality of life was influenced by the social support system (P=0.004). The (Figure 7.7) displays that quality of life increased when people had a good social support system. Furthermore, gender had a significant relationship with having a good neighbourhood (P=0.055) (Figure 7.8).

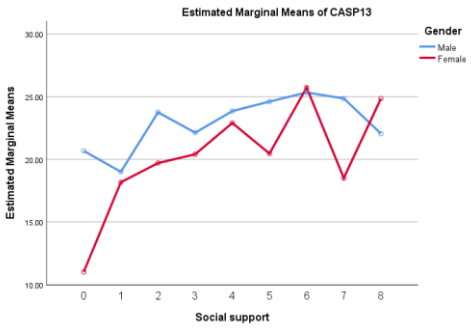


Diagram 7.7 Interaction effect between Gender and social support

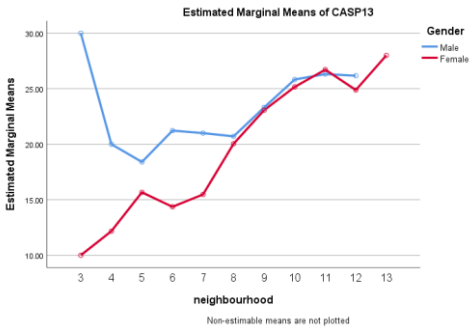


Diagram 7.8 Interaction effect between Gender and neighbourhood

Furthermore, gender had a non-significant relationship with social participation in the society (P=0.342). It could be said that the effect of gender (male/female) on quality of life is not influenced by social participation (figure 7.9). Also, the effect of gender was non-significant with social networking in society (P=0.780) (figure 7.10).

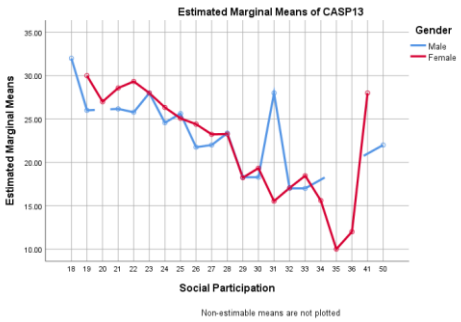


Diagram 7.9 Interaction effect between Gender and social participation

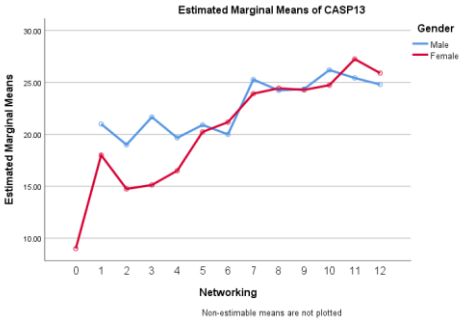


Diagram 7.10 Interaction effect between Gender and social networking

Moreover, gender was not significantly related to depression (P=0.762) (diagrem 7.11). Also, gender had a non-significant relationship with a sense of coherence (P=0.716); hence, a better sense of coherence has a better quality of life (Diagram 7.12).

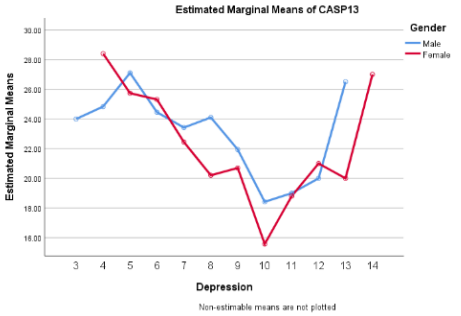


Diagram 7.11 Interaction effect between Gender and Depression

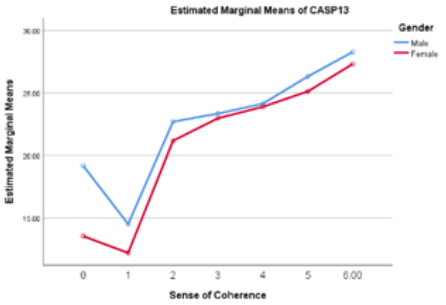


Diagram 7.12 Interaction effect between Gender and Sense of Coherence

The participants were asked questions on the optimism scale, and the findings were that gender had a non-significant relationship with the optimism (P=0.110) (Figure 7.13).

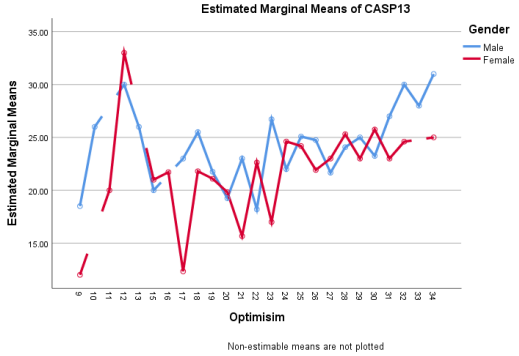


Diagram 7.13 Interaction effect between Gender and Optimism

Moreover, the table 7.2 displays the bivariable analysis for all three components of the capability scale separately (activity, opportunity and satisfaction), comparing male and female scores with the overall scores. Women had significantly higher scores in all three components of capability and quality of life than males.

	Beta Co-efficient (P-values)	
Capabilities	**Males**	**Female**
Activities	-0.332 (0.248)	0.670 (0.019)
Opportunities	-0.216 (0.467)	0.755 (0.010)
Satisfaction	-0.074 (0.813)	0.647 (0.037)

Table 7.3 : Gender wise capability scores

Now the chapter will move on the discussion of the key findings.

7.3 Discussion

Gender differences are influenced by culture. Women are notably marginalized from cultural life in Pakistan. They are prevented from contributing and participating equally in the society. Gender inequality in many cultures can create a problem in many aspects of life (Kinias and Kim, 2012). Gender inequality in Pakistan can be observed in several sectors, including employment through segregation in labour markets, division of labour between paid and unpaid work, distribution of resources within households, access to public services such as education and health, and also within the power structure of the country (including the representation of

women in policy-making).Women are the part of society that has contributed to life from reproduction to socialization and looking after household responsibilities. However, the role of women play is inferior to men (Sharma, 2017). This study has also identified that women were not a part of the planning or decision making because of the status of women in Pakistan, as the home is identified 'as a women legitimate ideological and physical space' where she has to perform her duties as a mother, daughter and wife. Simultaneously, a man dominates the world outside the home and performs his role as a breadwinner.

However, findings of this study show that there is an effect of gender on quality of life influenced by socio economic groups. And this is evident in another study conducted in Pakistan that women from urban cities and living in a high socio economic group are more autonomous in the planning or making decisions for their own life (Ali and ul Haq 2006).

Also, this study reported a significant main effect of gender on employment. Pakistani women have low labour force participation and low contribution to GDP. This is because a small percentage of women are employed, as most men do not like their women to work outside of their homes (Mehar 2020).

Pakistan also exhibits considerable gender inequality in education. This study found that male members of the family are given better education opportunities than women, and primary influence for gender was significantly related to educational level. It is right to say that there are substantial gender disparities in educational attainment (Chaudhry and Rahman 2009).

Women in Pakistan 'also face a disproportionate burden of disease, with a high maternal mortality rate' and the reason behind the high mortality is due to low social status and inequities in access to primary health care, nutrition, and education(Moin, A., Fatima, H. and Qadir, T.F., 2018). Though my research did not find any significant effect of gender on general health; however, the descriptive finding shows that males had better health than females.

Moreover, social support directly and indirectly affects well-being (Gençöz, Özlale, and Lennon, 2004). This study found that the effect of gender (male/female) on quality of life was significantly influenced by the social support system. On the other hand, the study identified that

a good neighbour also increases the quality of life; and Females were more likely to report having a good neighbour than males, suggesting that women seek positive relationships close to home, more than men. There is also a non-significant effect of gender on social participation. However, Pakistani women lack social participation due to their cultural and religious restrictions (Pal 2000).

It was identified that quality of life was lower in the male participants when they did not have work opportunities the same as they had 30 years previously. Therefore, they were less satisfied than 30 years previously. In contrast, the quality of life improved for female participants whose work opportunities had improved or had remained the same for 30 years previously. However, Amartya and Martha Sen have discussed that 'gender inequalities may be seen as multiple dis-functioning in a social space where men and women are differently disadvantaged in access to resources, education, health, and control over their bodies and lives and so on' (Addabbo, Lanzi and Picchio 2008).

Moreover, in this study, gender had a non-significant relationship with depression. However, a previous study reported that women in Pakistan are vulnerable to poor mental health due to 'marriage related issues, domestic violence, verbal or physical abuse by in-laws, stressful life and poor social conditions' (Zahidie, and Jamali 2013).

7.4 Conclusion

This study has demonstrated a glimpse of the societal status of women in Pakistan. Women in Pakistani society are mainly involved in their family life, taking care of the home and bringing up the children. Most of the time, they are not involved in decision making for their own lives. Gender disparity was significantly observed in education and employment in this study. Furthermore, gender discrimination may decrease the quality of life for women in later years. However, there are differences in the autonomy of women from low income and high-income groups.

The thesis will then move on to the last chapter, where the final discussion of the study will be shared. That will include what this study adds to previous research, future research direction, strength, and limitations of the study, implication and recommendations.

Chapter 8: General discussion on research, conclusion, and implications

8.1 Introduction

This chapter will discuss the key findings of the main primary two aspects of this study: a cross-cultural adaptation of the CASP tool and the predictors of quality of life. The chapter will also discuss the strength and limitation of the study, consider the future recommendation of the study, and finally the conclusion and recommendation of the study.

8.2 Summary of the Key Findings

A cross-cultural survey of quality of life using CASP in Pakistani culture has provided a picture of the multi-dimensional characteristics of quality of life and wellbeing in the Pakistani population. Using CASP in an entirely different cultural context, the measure highlighted some of the standard dimensions of being older across the culture in this globalised world. This study further identified that the data for CASP 17 does not fit well to any model these are; the single-factor model, first-factor model and second-factor model. However, the shortened 13 items version was used to analyse the data to assess the quality of life and the first-order model best fit to the data, which is recommended to use in a future study in Pakistan. However, CASP 13 is not an only shorter version used to assess the quality of life, but there are other shorter versions of CASP 12 v1, v2 and v3 that have also been used in other studies like Survey of Health, Ageing and Retirement in Europe (Gyu, et al, 2015). As other shorter CASP versions, CASP 13 proved to be a useful tool to assess the quality of life in the Pakistani population. The domains of CASP 13 had a same domain as it was in its original version CASP19 that shows that the domains like autonomy and control can also work in fatalist culture like Pakistan especially when CASP has been used to assess the quality of life of older adults in the urban city of Pakistan.

According to Hyde et al (2003), the measures developed earlier on quality of life were undertheorized and mainly based on the proxies such as health and some of the measure had taken a necessary subjective wellbeing data such as life satisfaction, happiness in their measure

to assess the overall quality of life. However, the CASP was developed in the UK, where the retirement arrangements had already been managed, and people were living a long life with good health (Gilleard & Higgs, 2002).

Therefore, it is interesting to compare the CASP domain considering the study findings. The theoretical background has already been discussed in chapter 2; here, the discussion will focus on the theoretical implications of the findings from this research. CASP is based on Maslow, Doyal and Gough (1991) theory who argued that fulfilment of once essential and higher human needs results in a better quality of life. The domains of CASP were based on those higher needs including Control, Autonomy, Self-realisation and Pleasure. Control is defined as the ability to shape 'one's own life situation and environment, while autonomy refers to an absence of unwanted interference from others. According to Doyal and Gough (1991), there are two basic human needs, autonomy and physical health. Based on this theory, one of the chosen domains for CASP was autonomy. However, autonomy/agency is culturally sensitive in Pakistani culture. Agency had been described by Sen (1999) ''that person is free to do and achieve in pursuit of whatever goals or values he or she regards as important." (Sen, 1999). The study finding also shows that autonomy was not considered as it meant, most of the participants of the study did not have freedom of choice, mostly women. Still, the study also found out that women living in a high-income group had an autonomy which has already been discussed in chapter 5. However, women are underprivileged to get an education than men. It has already been discussed in earlier chapter 5 that women wanted to get an education to make their life better. Still, they were not allowed to pursue education because of cultural constraints.

Moreover, the domain Control was also interpreted the same as it was presented in the original CASP. Where all three items loaded in the same factor. As three of the items; ''my age prevents from doing the things I would like to do so'', ''I feel that what happens to me is out of my control'' and ''my health stops me from doing the things, I want to do'' have perceived as it had been perceived by a different culture where CASP had been used.

Other domains of CASP were self-realisation and pleasure, which were interpreted the same as CASP 19 original version in Pakistani culture. Theoretically, both pleasure and self-realisation from the original CASP meant that people in their old age perform all the activities which makes them happy and achieve all goals in life which they intended to. Moreover, A fresh map of life by Lastlet (1991) argued that a person should live their retired life as a crown of life on which people are free to do whatever they want to do. Also, the theoretical ground of Maslow discussed that Self-realisation refers to the need for personal growth and development throughout 'one's life. It is the highest level of 'Maslow's hierarchy of needs, which shows that the person is self-actualised, and have fulfilled all their potential as an individual. The same concept was given by Lastlet (1991), in his third age theory, where he defined the third age should be the age where an individual can achieve their goals and live a happy life. However, this is only possible in a country where policies for the older adults have been in place and people do not have many financial constraints. It had been identified in the study that the only government employees had been given minimal amount as a pension to the retired employee in Pakistan. And because of lack of financial stability, the quality of life decreases significantly.

Moreover, the theory of third age is based on the British society and could be used in a country where the old age policies are in place, but this could not completely possible for the developing world where the government is still struggling with poverty alleviation and the creation of a strong welfare state. However, this study has found out that people living in high socio-economic group live their life fullest and fulfil the criteria of third age.

Moreover, many people in Pakistani culture answered the items of self-realization in religious context. where an individual had confidence that whatever God had given it to them is of good characteristics and they were motivated that they would achieve or get things in life what Allah sees a benefit to them. Moreover, keeping a strong belief in Allah, that He is solely the one who can help them and makes their life happy. However, some study participants were also convenience that they were free to fulfil their dreams and could had a happy life.

Furthermore, another essential aspect of culture which had an influence on the quality of life is gender. Gender has a significant relationship with quality of life. The study has also found out, that the religious values also influenced on quality of life, though there was no scale used to assess the religiosity besides that, in all aspects of questions asked during the interview, the ’participant’s answers more reflected its religious values. Moreover, their belief in Allah in all the life circumstances was positive that they could overcome with ’life’s challenges. However, when asked question like, whether people attend religious services? Also, it was identified that attending religious services shows a negative relationship with the quality of life. However, during the interview, most of the participants reflect on their faith in Allah. The earlier study had identified that ‘‘religiosity is associated with organised worship, whereas spirituality is defined as the internalisation of positive ’values’ religion is more about worshipping and practising faith in term of prayers and meditation. However, spirituality is a relationship and faith in God (Mattis, 2000). And the study finding suggested that the study sample were more spiritual than the religious. Besides, the cultural influences, older people also experience good or bad life in their old age because of other influential factors such as (demographic environment, social environment, physical and psychological health and life course events).

Moreover, the finding of the study suggested that quality of life varies from one individual to an individual; it also varies from people living in one socio-economic group to another socio-economic group. The study had found out that people living in the low socio-economic strata had a lower quality of life score than the people who lived in high socio-economic strata. People had autonomy in the high-income group than the low-income group.

Previous studies had also identified that the aforementioned conditions could affect the quality of life through ’one’s influence upon ’individuals’ current circumstances, particularly health, social support and socio-economic position (Blane et al., 2004; Read & Grundy, 2011).

One of the central issues of the older adult in Pakistan is poverty; as given the retirement age, they are unable to work and even if they do have an insufficient state pension that does not have enough to maintain human life. As the study has been identified that quality of life

decreases significantly because of a lack of country pension system. Economic insecurity is one of the significant challenges in old age.

The previous study had suggested that in Pakistan to meet the needs of older people, they are more dependent on individual social support system, that may include family, relatives, friends and neighbours, as it is a traditional society (Ashiq, & Asad, 2017). Moreover, the previous study also suggested that social position was associated with a better quality of life following labour market exit and that more recent circumstances would account for these differences, particularly health and financial characteristics. Furthermore, human wellbeing is an essential aspect of ageing, and that includes life satisfaction, and opportunities, to have a better life. The capability approach understands well-being in terms of functioning. These 'functioning's are the states of being and doing those things that older people want to achieve. If the older adult in Pakistan wants to achieve life in the third age or be self-actualised, then the vital element to achieve is human capability. As this study had identified that capability had a significant positive association with the quality of life. Also, there is a significant positive relationship in all three aspects of capabilities such as activities which an individual performs, opportunities and satisfaction. Many participants reported that they can do the same work they used to do 30 years back but because lack of opportunities they are unable to do what they wanted to do in their later life. Therefore, it is important for the state to increase the working opportunities while increasing the retirement age of the state.

Furthermore, the optimism scale was also used to assess the relationship between optimism and quality of life. It was identified that there is a significant positive association between the quality of life and optimism. The socio-demographic characteristics of this study were mostly the same as those studies where CASP-19 has been used, in Pakistan it is an evident that family system has a significant positive association with the quality of life. The study has found that overall (51%) of the population lived in an extended family, and more people (66%) in the low-income group lived in an extended family than the middle- and high-income groups. However, as discussed in the literature review, the family system changed in recent years due to

industrialisation and globalisation where more people live in a nuclear family than the extended family system. Therefore, older adult has left alone behind. Since Pakistan is an Islamic country, religion is firm where the family is responsible for looking after their older parents. It is a social duty of children to look after their parents appropriately. However, my study had identified that the quality of life decreases people living in an extended family system. On the contrary the previous study suggested that older adults living alone had lower psychological well-being (Lim, and Kua, 2011).

Moreover, the quality of life is a ‘‘multidimensional structure’’, which have constructed ‘‘both objective and subjective aspects of ’individual’ live’’ (Julius et al, 2011). This has also been evident in this study, where objective indicators like; education, pension, and employment have shown an impact on the quality of life. Whereas subjective indicators acted as; optimism, sense of coherence, capability and depression had an also impact on the quality of life in the older age. The study has also identified that education and socio-economic factors significantly affect the quality of life. However, because of the cultural influence, women were less opportunistic to have their education, whereas men are given a better education. Unfortunately, over a period, Pakistan has made insufficient progress in decreasing the gender gap in education to date.

Furthermore, there is no single key factor that affects the quality of life; the regression model of this study showed that some variables have a statistically significant positive and negative impact on the quality of life. The factors that positively impact are (socio-economic groups, education, social support neighbourhood, social networking, general health sense of coherence, capability, and ’father’s education). There are vital factors which have a statistically significant negative impact on the quality of life such as (Gender, own transportation, pension, marital status, social participation, and protective equipment and ventilation) beside that it has also been identified that quality of life can be affected by ’one’s state of health, social support or pension provision in later life (Blane, Netuveli, & Bartley, 2007). Moreover, the previous study suggested that ‘‘Factors like perceived poor financial situation, depression, functional limitation

attributable to longstanding illness, and limitations in everyday activities can affect the quality of life negatively'' (Netuveli, et al, 2006). My study has also identified that social context in old age has a significant relationship with the quality of life, including social support, neighbourhood, social participation and social networking. Social support has a significant positive association with the quality of life, and it has become the source of help in the old age. This study has also identified a lack of social participation in the old age decreases the quality of life. Similar findings have been identified in the earlier study, which shows that lack of social support decreases the 'life satisfaction and increases in depressive symptoms' (Newsom, and Schulz, 1996) in older adults.

My study had also found out that general health and physically active people had a significantly better quality of life. However, limited functional activities of daily living did not significantly impact the quality of life. Moreover, the typical illness in old age in the Pakistani population was high blood pressure, diabetes and cholesterol. However, statistical analysis found that depression was none significantly associated with quality of life, contrarily to other studies. The study conducted by Netuveli (2006) found out that the impact of the depression was the highest in reducing the quality of life (Netuveli, et al. 2006). Moreover, this study also had identified that employment does not have any effect on the quality of life in the Pakistani population; however, lack of pension and not having an owned car decreases the quality of life. The similar study had also identified that financial circumstances to be unfortunate had a very high effect on lowering the quality of life scores while owning cars and having good income improve quality of life.

My study had also assessed the Life-course factors that play an essential role in assessing the quality of life in the later years of life. Therefore, the study had evaluated life course factors along with the present social factors, current health and current economic impact. It was identified that there was no significant effect was identified in social class; however, source of water and sanitation affects the quality of life in the later years. However, social support and

social networking in later years with the life course indicators had shown a significant positive effect on the quality of life.

Therefore, improving social support, social networking and social participation during the life course improves the quality of life in the later years. Thus, the previous study had also suggested that facilitating older 'people's participation in society can improve the quality of life (Netuveli, et al. 2006).

8.3 Contribution of this study to existing research

It is well known that ageing decreases the quality of life (Netuveli and Blane, 2008) and there could be limiting factors that could be associated with it; like socio-economic background, or health. In Pakistan mainly, researches are focused on health-related quality of life on the ageing population or the challenges of the ageing population. Therefore, this research has added to that there is no single dominant which affects the quality of life in old age. But it is an evidence that financial situation, opportunities, work satisfaction, not working in old age, lack of social participation, social support, life-course events, health, depression, daily life activities, sense of coherence and optimism are the factors which are positively or negatively associated with quality of life in old age.

This research has added to the previous research that Autonomy and Control is present in fatalist culture like urban city of (Karachi) Pakistan. Therefore, CASP can be measured to assess quality of life in Pakistan.

The research also added that there is an inequality in different socio-economic groups in all aspects of life. People in low-income groups who were counted themselves as weak for long are still poor and living with low quality of life. It was evident during the interview, that participants had described, how their lives had affected because of unavailability of their essential needs such as; water, electricity and sanitation, which was described by the participants living in low and middle-income areas. Moreover, this could be one of the reasons where the quality of life scores was lower in the low socio-economic groups.

Moreover, the capability approach, which was a conceptual thought of the Pakistani economist Muhubul Haq; was used in Pakistan to evaluate the wellbeing. The three items of Capability were adapted from the study of Gopal Netuveli. Each item scored from 1 to 7, and the mean score in all three items (working, opportunities and satisfaction) were better in the low-income group than the middle income and high-income groups. The reason could be that people in low-income groups look for more work, and opportunities to fulfil their basic needs.

My study has also added that the crucial aspect which was missing in the CASP is religiosity and spirituality. It is fascinating to know that religiosity decreases the quality of life in this sample. However, when asked questions in any scales like CASP or Optimism scale, most of the participants answered in positivity and referred to Allah. For example, in CASP, when asked 'life has a meaning' and the response was yes if Allah has given life, then there will be a meaning of life'. This finding shows the difference in the perceptions of people and their thoughts in between religiosity and spirituality.

Furthermore, the study also adds that human needs are different for all the three strata. For the low income, they were worried about water, food sanitation and electricity. For middle income, it was more about security and money, and for some social isolation, moreover, for the high income living alone and health issues. Therefore, CASP can give a different meaning to an individual.

8.4 Strength and limitation of the study

One of the key strengths of the study is that it is directly comparable to the study conducted in the U.K. Quality of life at older ages: evidence from the English longitudinal study of ageing (wave 1). Further study strength and limitations are discussed now.

8.4.1 Study Design

To collect information at a single point of time is an excellent strategy to get a descriptive finding off from the participants and to develop a future hypothesis. However, the cross-sectional study makes it impossible to explore how people perceive their quality of life over some time. Therefore, the longitudinal study is recommended because that will enable an assess

changes in quality of life over a period of time. More over the specific political situation in Pakistan at the time of data collection (June 2016- August 2016) may represent a potential bias on some of the data collected as security threats may have made participants more sensitive about providing personal information to the data collectors. Moreover, the longitudinal study has not been conducted in Pakistan yet. Therefore, the longitudinal study would give a better picture of one's quality of life over some time.

Another limitation of the study was when asked questions related to the life course variables, there could be a possibility of having a recall bias, as the participants had to think retrospectively and answer the question. Another limitation of the study was its length of the questionnaire, by the time a participant had asked questions about life course events they could get tired or they did not want to think about past; therefore, some of the participants did not give answers, mainly in the life course questionnaire.

8.4.2 Sample and sampling strategy

The best way of collecting data is random sampling as it decreases the chanced of sampling error and is the best way to give every individual chance in a population to take part in the study. However, because of short time and resources, purposive sampling was selected to collect the data (Meadows, 2003).

Another limitation of the study was that participants included in the study might not be representative of the whole population, and the generalisation of our results may be limited. The CASP 13 results can not represent the general population of Pakistan this only had covered one of the cities of Pakistan. Different regions of Pakistan represented an entirely different culture and norms. And when using CASP in other regions or rural areas of Pakistan the finding of CASP might show different meaning to all the domains of CASP. Therefore, it is recommended to conduct similar research in all the four regions of Pakistan, including urban and rural communities.

8.4.3 Participants characteristic

All the participants of the study had similar characteristics which were set for the study designed the minimum age of the participants were 50, and the maximum age was 75. Many of the participants preferred to give an interview alone without the presence of anyone. Few participants were accompanied by their family member. However, answers were given by the participants. However, there could be a chance of response bias in the presence of another person. Therefore, response bias may impact the results of the survey leading to over satisfaction to all life circumstances in the participants' population overall (Mazor, et al. 2002).

Moreover, participants refused to answer the question, regarding the amount they earn, due to law and order situations of the country. Therefore, it was not possible to use the income variable in the analysis to show the impact of income on one's quality of life.

8.4.4 Time management for data collection

As earlier it was mentioned the data collection in the initial phase took a little longer time. Therefore, it is suggested to reduce the number of scales while researching older adult assessing their quality of life.

8.4.5 Strength and limitations of the scales

Few scales had administered in the study which had been discussed already in the methodology chapter. However, there were some scales which had strength and limitation to share.

8.4.5.1 CASP Scale

Besides, the validity and reliability of CASP, it had proved to be easy to understand and to evaluate the quality of life among the Pakistani population. The CASP was developed as a self-completion instrument to assess the quality of life; however, administrating face to face interviews did not result in any challenge as it makes a person understand each statement completely.

8.4.5.2 Activities of daily living and Instrumental Activities of Daily living

The usual version of Activities of daily living and Instrumental Activities of daily Living has 15 items to assess the Functional status (ability to perform activities of daily living) The ADL scale has ten questions related to non-instrumental and five questions related to instrumental activities of daily living (IADL). However, in this study, nine items were used to assess the ability of daily living four items for (ADL) and five items for (IADL) as this scale was adapted from one of the studies and borrowed the translated and validated version in Urdu used in Pakistan. Moreover, the translated version had nine questions. Therefore, the same version was used to assess daily living. That included all the everyday daily living activity such as (cooking, bathing, washing).

8.4.5.3 Life-course questionnaire

The limitation of the life course questionnaire was its length and its thoughtful answers. However, it took time for participants to think and answer, and they left many of the questions unanswered. Also, because this questionnaire was administered in the end, the participants were tired or wanted to finish it quickly, therefore, refuse to answer questions. Especially when they asked regarding all the jobs they had done throughout their life and houses moved throughout their life. Therefore, the missing data in this questionnaire had created a problem in regression analysis. As a life course is a vast concept, it is recommended to perform a life-course study separately in order to obtain complete information.

8.4.5.4 Age effect

Furthermore, the previous study had evident that age had perceived to decrease quality of life (Netuveli 2006). But the significant finding of the study had identified, that there were no age effects on quality of life. Moreover, it had shown a non-significant association between the age and quality of life. Moreover, the reason which can be assumed from the finding is that the minimum age of the participants of this study was 50 years, and the maximum age was 75, and the previous studies had suggested that age effect declines after the age of 68 years.

8.5 Research Implication

The main implication of this research is that government should work towards the Healthy and Active ageing of the population. Active and Healthy ageing agenda was started by the World Health Organization, the purpose was to empower people to live active and healthy lives.

Therefore, it is a state responsibility to take forward the agenda of active and healthy ageing to set a policy to promote the quality of life and wellbeing of individuals of all ages (Eurostat, 2011; UNECE, 2012). The government should promote healthy and active ageing while establishing age-friendly parks to allow older people to spend time in the fresh air and use the park for walking and exercise.

The government and non-government organisations in collaboration should start active ageing programs to promote a healthy lifestyle. Ageing is a process; therefore, the government should also make a policy for healthy eating from the early ages so people can live a quality and healthy life in their later life.

The government should also provide equal opportunities to both males and females to establish culturally appropriate gyms and libraries where older people can spend the quality of time in order to improve their social and physical health. The strategies should be developed in order to change the attitude and behaviours of older adults. Also, create a social and supportive environment to engage older adults to live an active and healthy life. Moreover, enable older adults to live an independent life without any dependency on family (WHO 2015; Zaidi et al. 2016). Active ageing strategies should also include employment opportunities for older people to get employment after their retirement life and give more opportunities to learn new skills in order to live their life fullest.

The finding of this research suggests that a lack of social participation decreases quality of life and better social networking and social support increase the quality of life in old age. Therefore, the prescribing social agenda and policy implication at the government level will improve the wellbeing in general but particularly psycho-social wellbeing and quality of life in the old age. The government need to collaborate with the voluntary and non-government

organisations to initiate various activities such as; volunteering, art activities, group learning, gardening, befriending, cookery, healthy eating advice and a range of sports. Earlier studies suggested that social prescribing improves people's health and wellbeing, especially for people who are socially isolated and experience mental or physical ill-health (Wildman, & Moffatt, 2019).

Moreover, older people should be provided with a safer place to live. And provide a platform to both men and women to interact and socialize on a daily basis. Strategies should be developed to promote social participation and social networking at the community level. The more community-level program could be organised at community levels by the non-government organization (NGO). As the family system is changing the older parents left alone when children migrate to another part of the world for better job opportunities, which left parents lonely and isolated. The policy should be developed for all the non-government organisations to take a responsibly to encourage older people to engage them in social and community activities.

It is also pivotal to empower older people to live a better life following retirement. Therefore, it is essential to learn new skills after retirement such as vocational skills. It had been identified in previous studies that approximately 80 per cent of older persons worldwide do not have pensions, and it is crucial for developing countries like Pakistan to live a better life after retirement, where only people working within government system gets pension (International Labour Organization, 2002).

As the population is ageing, investment in maintaining a good quality of life for old people is important so they make less use of health services. Preventative policies should be introduced so that over time the cost to treat a patient is lower. This is particularly important for that part of the Pakistani population that are poor and cannot afford private health. However, government also needs to provide necessary finances for health care in old age so they can get treated for the curable disease.

The government of Pakistan needs to have a policy for older persons to have a secure income in terms of pension so they can live the later life according to their wish. Pension policy

should have equity and equality for all the social class. In developed countries, individuals with higher socioeconomic status spend joyful and healthy life compared to the people having a lower level of education, income and social status (United Nations, 2008). The policies on transportation should be developed for older adults. There should be no fare on government transportation. So, they can travel freely.

Furthermore, the government should provide more funds for research and development to address the evidence-based challenges and problems of the older generation.

8.6 Recommendation for future research

The research is motivated by earlier findings of the quality of life of older people. However, a longitudinal study on quality of life would always be a promising area for future research. Because in cross-sectional studies, people answered with the situation, they are going through at the time of data collection. For example, if there was no electricity in a house for 2 hours having 43 temperature. So, answers regarding the quality of life could have a biased answered. Further, the study offers to see the relationship between resilience and quality of life. Furthermore, Pakistan is a much-diversified country in terms of regions, ethnic background, and demography. Therefore, it will be interesting to use CASP in different regions and in both urban and rural settings to get a better understanding of the quality of life. It will also be interesting to find out the association between Religiosity, spirituality and quality of life of older people; while using the validated religious scale. Furthermore, as the study finding shows that social support and neighbourhood increases the quality of life while a lack of social participation decreases the quality of life. Therefore, it will be interesting to conduct the Randomized Control Trial studies on social isolation in old age and its impact on the quality of life. Moreover, to add this, it will be exciting to add social prescribing (Social prescribing is about recognising people's health primarily by a range of social, economic and environmental factors. Social prescribing addresses people's needs holistically) and to assess how this improves the quality of life in the old age.

Moreover, the life course is an emerging agenda for most of the developing countries, and on another hand where the non-communicable disease is highly prevalent it will be

interesting to see the diet in the earlier age and its impact on today's health and quality of life; in all three strata. Also, it will assist public health professionals to develop their policies based on the findings.

As more people are living in a nuclear family than the extended family and people are so isolated with the social world, and people are more reluctant to come out of their shell. Therefore, the concept of active ageing comes in. Active ageing is a recent evolving agenda of WHO and after the summit in Madrid in 2014. Many of the countries are working towards the agenda. "Active ageing is to enable people to realise their potential for physical, social and mental wellbeing and to participate in social life also in the last stage of the life cycle" (Rossie G et al. 2014). So, using the intergenerational approach in the trial study to assess its impact on the quality of life of the older people will be exciting research.

8.7 Conclusion

The study is unique as it is the first study to investigate the subjective wellbeing and quality of life of 50 + older adults in Pakistan. The first research aim was to assess the quality of life of older adults in Karachi Pakistan using CASP. CASP has been chosen as the appropriate instrument. A process of translation and back translation was conducted to assess the reliability and validity of CASP in Pakistan. This PhD has also argued that there is a cultural influence on the quality of life as the results if cross culture adaptation tool confirmed the validity and reliability of CASP13 score as a good tool to assess the quality of life of 50+ older adult in Karachi Pakistan. Moreover, various variables had been used to assess the quality of life in Pakistan, such as (Age, Gender, and Education). And the key findings have shown the following;

- The study had confirmed that there is a gender influence in the quality of life in the Pakistani population. The study has further confirmed that CASP can be use in fatalist culture, however social position did make a difference in an individual's quality of life.

- Moreover, the study has also confirmed that age is only a number there is no age effect on the quality of life in the Pakistani population.
- Furthermore, there is a positive significant association between education and quality of life.

The second aim of the research was to explore the factors which influence quality of life in old age. The research found that there is several factors that have had an impact on the lower score of quality of life in the older adults lived in Karachi Pakistan. The study also revealed that the main factors that significantly decrease quality of life in Karachi include gender, inadequate pension in old age, lack of transportation facility, marital status, inadequate sanitation issues, and lack of social participation. However, other factors can improve the quality of life significantly in old age in Pakistani population, and that includes socioeconomic positions, education, social support, pleasant neighbourhood surrounding, general health, sense of coherence, and human capability. The study also added that life course events such as father's education, present social support, social networking, and owning a house during the life course significantly increase quality of life. On the other hand, the lack of a protective workplace environment in previous occupations, and lack of social participation in the later years significantly decreases quality of life.

In summary, this study confirms that CASP is a good instrument to assess the quality of life provided that the instrument is adjusted through a process that makes it sensitive to culture. Furthermore, the results of this PhD thesis would be recommended the importance of developing policies at the state level within government and non-governmental organisations.

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Annexure 1: Data collection Guide

Interviewing Tips and Techniques:

- Establish a rapport with the person you are interviewing.
- Be courteous. Give your name.
- Thank him/her for agreeing to spend time with you.
- Explain the purpose of the interview.
- Take the written consent
- Tell him/her how much time you expect to need to complete the interview (e.g., "This will be a 45 -minute conversation").
- Be patient.
- Listen to what the person says.
- Help him/her give you the correct answer, but do not make assumptions or answer for the person.
- Inform respondent when you move to another section (e.g., "We are now turning to the next section of the interview").
- Control the conversation. A little small talk is okay, but do not let it go on for very long or the interview will take too much time.
- Stick to the questions in the data instrument. Answer interviewee questions, but try to stick to the topic.

Recruitment of the participants:

- The participants will be given a verbal consent a day before the interview but on the day if they refuse to take part in a data collector will inform the researcher and with the help of the researcher will select another participant.
- Don't force participants to take part in the research.

Respond to the unusual situation in the field:

- Due to law and order situation these days in Karachi, any unusual event can happen such as firing, snatching etc. In that situation immediately inform the researcher and stop data collecting for that day.
- Incase in the field while you are introducing yourself and someone shuts the door on your face. Be polite don't say anything or knock the door again immediately inform the researcher.

- If any participant has been rude to you or responding aggressively in a very polite manner ask him or her if they still want to be a part of this research if they say yes

continue and if they are not happy just say thank you and leave and inform the researcher.

- If any of the participant is not happy to reply any of the question which is a part of a survey don't force them to reply just leave that part and write on the form whatever the participant has told you for example 'participant is not willing to reply question 3 in section B).
- Walking through the streets especially in the low and middle -income area if people from these areas hold your way or stops you and ask you regarding the research and what you are doing in their area just explain the purpose of the research and if they get into in any arguments please call the researcher or send them to the researcher who will be presenting all the time with the data collectors in the area.
- Please Do not involve yourself in any political or religious arguments, if participants talk about it just listen and polity bring them to the research question.
- Any point of time during data collection, if you feel stressed, upset or depressed please stop your data collection immediately and inform the researcher.

Annexure 2: information sheet for survey in English

INSTITUTE FOR HEALTH AND HUMAN DEVELOPMENT

Information sheet

To assess quality of life

Researcher	**Principal investigator**
Laila Surani (PhD Student)	Professor Gopal Netuveli
Address: Institute for Health and Human Development Suite UH250 University of East London	**Address:** Institute for Health and Human Development Suite UH250 University of East London
Tel: 02082233000	020 8223 3000

Introduction

Quality of life (QOL), and life satisfaction has become an important theme in modern academic research on older people and has become priority agenda of public policy. (ALLISON, S 2004). According to Global Age watch index (2014), the age of 60 is set to rise from some 809 million today to more than two billion by 2050. Therefore, it has become the concern of the world to address the issues of early old age. Hence this will be possible when we will understand the both objective and subjective wellbeing of older people. Therefore, this study will assess the quality of life of older people living in Karachi, Pakistan.

Now we are interested in knowing your views on your daily living and how you feel about your life.

What will I have to do to take part?

- We are inviting participants aged 50 years or more from different areas of Karachi
- You will only need to be involved on one occasion.
- There will be a one to one interview conducted in Urdu language
- You will be asked several open ended and close ended questions regarding your daily living.
- All the open-ended answers will be written on the form.
- The whole process will take 45 minutes

- All information will be dealt with in strict confidence

Are there any risks to taking part?

We are not giving you any medication or physically examining you in any way, so there are no physical risks. However, we will take your height and weight to know the BMI.

All information you share with us is confidential and will not be disclosed to anyone other than those involved in the study. All data will be stored on a secure computer. Data will be anonymised.

Do I have to take part?

No. Taking part is voluntary. If you do not want to take part, you do not have to give a reason. you can also withdraw from the study at any point of time without giving a reason. Furthermore, withdrawing yourself from the study will not affect the services which you are getting from the any organization in your area.

What will happen once research is done?

After the compilation of data, we will share report with you.

Where does this study will take place?

There will be home visits therefore it will take place at your home only so you don't need to go anywhere.

Any concern about the conduct of investigator

if participants have any concerns about the conduct of the investigator, researcher(s) or any other aspect of this research project, they should contact

University Research Ethics Committee

If you have any queries regarding the conduct of the programme in which you are being

asked to participate, please contact:

Catherine Fieulleteau, Research Integrity and Ethics Manager, Graduate School,

EB.1.43

University of East London, Docklands Campus, London E16 2RD

(Telephone: 020 8223 6683, Email: researchethics@uel.ac.uk).

What do I do now?

If you are willing to take part in the study, kindly give verbal consent and on the day of interview if any questions you may have can be answered, and you will be provided with a consent form to sign.

Thank you very much for taking part in our study. Your help is greatly appreciated

Annexure 3 Survey consent form in English

Consent form

Quality of life of older people in Karachi, Pakistan

I have the read the information leaflet relating to the above programme of research in which I have been asked to participate and have been given a copy to keep. The nature and purposes of the research have been explained to me, and I have had the opportunity to discuss the details and ask questions about this information. I have understood the process of the process of the questionnaire.

I understand that my involvement in this study, and data from this research, will remain strictly confidential. Only the researchers involved in the study will have access to the data. It has been explained to me what will happen once the programme has been completed.

The study has been explained to me in full. I have read a copy of the information sheet and I have no further questions that I would like answered. Therefore, I hereby freely and fully consent to participate in the study.

Having given this consent, I understand that I have the right to withdraw from the study at any time without disadvantage to myself and without being obliged to give any reason.

Participant's Name (BLOCK CAPITALS)

…….

Participant's Signature

……..

Investigator's Name (BLOCK CAPITALS) ……..

Investigator's Signature ……

Date: …….

Annexure 4: Survey form English

Quality of life in early old age in Karachi, Pakistan

Questionnaire

June 2016- Sep 2016

ID NO:

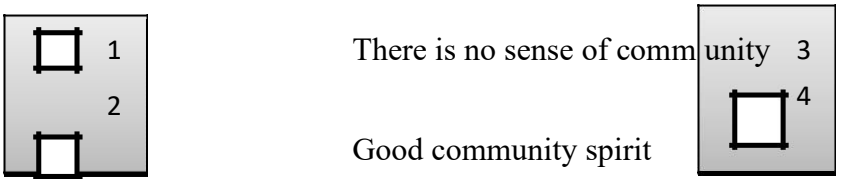
Thank you for agreeing to take part in our study. All the information that you give us in this questionnaire will remain confidential and, to all but us, anonymous. We expect the questionnaire to take you about 25 minutes to complete. Please take your time and read each question through carefully. Most of the questions can be answered by putting a tick in the box or boxes that describe your situation. Here are some examples.

Example:

Does your household have a private transportation that you can use when you need to? ☐

Yes 1 No 2

Here are some statements that people have made about their neighbourhood.



Sometimes, if you give us a particular answer, we would like to know more about it. Where you see an arrow next to the box that you have ticked please follow it to the other question and answer that as well.

Example:

Do you usually manage to cut your toenails yourself, or does someone else do it for you?	**By myself** **Someone else does it for me**	☐ 1 ☐ 2	If you manage to cut Your toenails by yourself, how easy or difficult do you find it?	**Very easy** **Fairly easy** **Fairly difficult** **Very difficult**	☐ **1** ☐ **2** ☐ **3** **4**
Tick one box only				**Tick one box only**	

That is the end of the example .Now please continue on to the questions

Section A: General Information

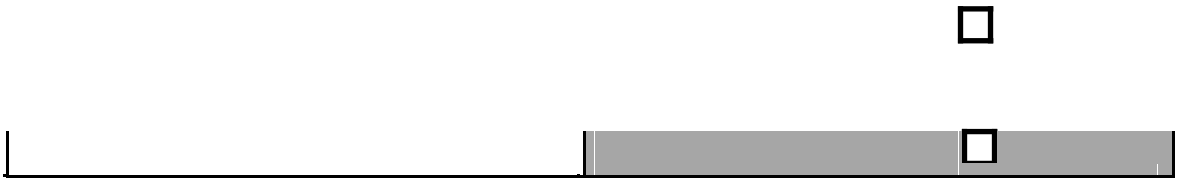
A1. What is your age in year? Your Name?	

A.2 What is your birth place?	Karachi	1
	Interior Sindh	2
	Punjab	3
	NWFP	4
	Baluchistan	5
	Kashmir	6
	Tribal areas	7
	Northern areas	8
	India	9
	Abroad (other than India)	10

A.3 Which language do you speak?	**Urdu**	

	Sindhi **Kachi** **Punjabi** **Pashto** Balochi gujrati **Any other**

A.4 What is your Education level?	Illiterate	1
	Literate (no formal schooling)	2
	Upto 5th	3
	Upto Matric	4
	11-14 class	5
	MA/MSc./MBBS/MBA or above	6



	don't know 7 no response 8 Others specify 9

A.5 At what age did you finish continuous full-time education at school or college?	14 or under 1 At 15 2 At 16 3 At 17 4 At 18 5 19 or over 6

A.6 How many live births you/ your wife got?	Number of live birth:

A.7 Reasons of your child death?	Shot dead/killed 1 Illness 2 Accident 3 Natural death 4

A.8 Do you think children are security for future	Yes 1 No 2 Don't know 3

A.9 Do you work to earn money?	Yes	1
	No	2
	No response	3

A.10 If working to earn, what is your total monthly income from all sources?	Rupees _____	1
	Don't know	2
	No response	3

A.11 If not working to earn, what is your total monthly income from all sources? (e.g.: pension, from children, home rentals, business income etc.)	Rupees _____	1
	Don't know	2
	No response	3

A.12 What is your current Marital Status?	Married	1
	Widowed	2
	Separated	3
	Divorced	4

A.13 What is your Religion?	Muslim	1
	Hindu	2
	Christian	3
	Parsi	4
	Other (specify)	5

14 Do you ever participate in religious services?	Yes No	

15 How often do you participate in religious services?	Daily weekly month annualy

A.16Where do you go to practice your religion	Mosque Church Mandir Jamatkhana other

A17. What is the type of family you have?	**Extended 1** ❑ **Nuclear 2** ❑ **Alone 3** ❑ **Others (specify) 4** ❑

A18 What is the residential status at present

Personal residence (Not Self Hired) ☐ 1 **Personal residence (Self Hired) 2** **On Rent 3**	☐ ☐ ☐

	On subsidized rent **4** ☐ **without rent** **5**

A.19 For which of the following reasons , if any , have not bought your home?

I can not afford to buy

I can not obtain a mortgage I think it is a bad time to buy

There is a lack of available houseing to buy

Some other reason

20 How suitable or unsuitable is your accommodation for your current needs

A.21 Please indicate how safe you feel walking alone in the area near your home

A.22 Please indicare how likely you belive it it be that you wull be assaulted in the futre

Very suitable fairly suitable fairly unsuitable very unsuitable

Very safe fairly safe farily unsafe very unsafe

Very likely likely ublikely very unlikely

A23 - Is your current accommodation adequate for your current needs **A-24How many bedrooms do you have in your house----------** **A.25 Which material is used for roof**	

Yes	No
☐ 1	☐ 2

RCC/RBC	☐	1
Wood/Bamboo	☐	2
Iron/Cement sheets	☐	3
Garder\T-Iron	☐	4
Other(please explain)	☐	5

A26.What is main source for drinking water? **A.27How many days you get water supply: ----------**	**Piped water** ☐ **1** **Hand pump** ☐ **2** **Water motor\Tube well** ☐ **3** **Covered well** ☐ **4** **Open well** ☐ **5** **River, stream, pond etc.** ☐ **6** **Tanker truck, water bearer** **7** **Mineral Water** ☐ **8** **Filtration plant** ☐ **9** **Other** ☐ **10**

A.28 What kind of toilet facility does your household use?	**Facility not available** ☐ **1** **Flush system (linked to sewerage)** ☐ **2** **Flush (linked to Septic tank)** ☐ **3** **Flush (connected to open drain)** ☐ **4** ☐

	Dry raised latrine **5** ☐ **Pit latrine** **6**

A.29 What type of sanitation system you have?	underground drains ☐ 1 covered drains ☐ 2 open drains ☐ 3 no system ☐ 4

A.30 What is the main fuel used for cooking	**Fire-wood** ☐ **1** **Gas** ☐ **2** **Kerosene oil** ☐ **3** **Dung cake** ☐ **4** **Electricity** ☐ **5** **Charcoal\Coal** ☐ **6**

A.31 What is main fuel used for lighting	**Electricity** ☐ **1** **Gas** ☐ **2**

A.32 How many days you don't have electricity per week? **A.33 How many hours there is no electricity in a day** **----------**	**Kerosene oil\Diesel\Petrol** ☐ **3** **Fire-wood** ☐ **4** **Candle** ☐ **5**

A.34 What is the temporary source of light in the absence of electricity in your house?	Generator ☐ 1 UPS ☐ 2 Emergency light ☐ 3 Gas light ☐ 4 Lantern ☐ 5 Candle ☐ 6 Nothing ☐ 7 Others specify ☐ 8

Section B: your everyday life

B1. Here are some comments that people have made about their family and friends. We would like you to say how far each statement is true for you.

Please answer ALL the questions, ticking the box which applies to you

	Always true	**partly true**	**Not true**
There are people who do things that make me happy	1	2	3
There are people who can be relied on no matter what happens	1	2	3
There are people who accept me just as I am	1	2	3
There are people who give me support and encouragement	1	2	3
There are people who make me feel loved	1	2	3
There are people who would see that I am taken care of if I needed to be	1	2	3
There are people who make me feel an important part of their lives	1	2	3

B2. Not counting those who live with you, when did you last do each of the following with members of your family or friends.

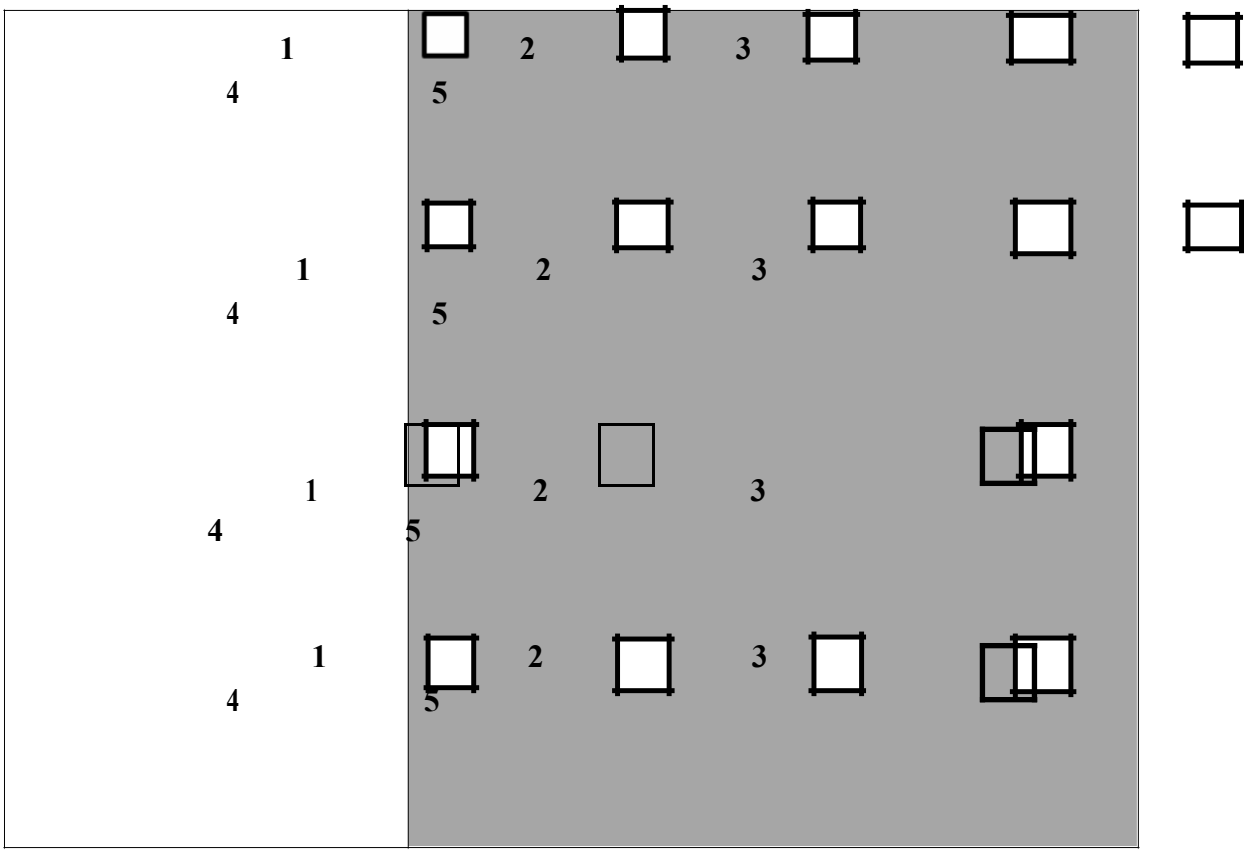
	In the past week	**in the past forthright**	**in the past month**	**longer ago**	**Never**

Met family members (include both arranged and chance meetings)

Spoke on the phone to family members

Met friends (include both arranged and chance meetings)

Spoke on the phone to friends



B3. Not counting the people that live with you, which of I have a close relationship the following statements best describes how many people you have a close relationship with

I have a close relationship with lots of people	1
I have a close relationship with some people	2
I have one or two close relationships	3
I don't have any close relationships	4

Tick one box only

B4. Some people need regular help with domestic tasks such as cleaning, doing the laundry, housework, shopping, etc. Tick all that apply to you.

I do not need regular help	1
I do not receive regular help even though I need it	2
I receive regular help from family, friends or neighbours	3
I receive regular help from someone I employ privately	4
Other (please say who):	

B5. Does your household have a private transportation that you can use when you need to?

Yes	No
1	2

B6. Which of the following transportation you have?

Car	**1**
Scooter	**2**
Bicycle	**3**
Horse cart	**4**
Any other	**5**

B7. Can you usually get a lift from someone when you want to go somewhere that is too far to walk?

Yes	1
No	2
Not applicable	3

B8 Here are some types of public transport. We would like to know if you use any of them and whether you think that they are affordable (even if you do not use them).

	Do you regularly use one of these?		Is this service affordable?	
	Yes	No	Yes	No
Bus	☐	☐	☐	☐
Taxi	☐	☐	☐	☐
Rickshaw	☐	☐	☐	☐
Mini bus	☐	☐	☐	☐
Chigchi	☐	☐	☐	☐
	1	2	1	2

B9. Here are some statements that people have made about their neighbourhood.

Tick all that apply to where you live.

It is a safe place to live.
There is a lot of graffiti.
I want to leave this area.
This is an affluent area
I have a lot of friendly neighbours

☐	1 There is no sense of community	☐	8
☐	2 Good community spirit	☐	9
☐	3 There is a lot of crime in the area	☐	10
☐	4 There is a good mix of people	☐	11
	5 It is not a safe place to live		

This is a deprived area	**6**	**I enjoy living here**	**12**
People look out for each other	**7**	**People are unfriendly**	**13** **14**

B10. Here is a list of places people may visit from time to time. In each row first tick a box to show whether you visit such a place and then tick to say if it is easy, a bit difficult or very difficult to visit (even if you do not visit one of these).

	Do you ever visit?		How easy or difficult is it to visit?		
	Yes	NO	Easy	A bit difficult	Very difficult
A bank or cash point	☐	☐	1	2	3
A Mosque	☐	☐	1	2	3
A cinema	☐	☐	1	2	3
A dentist	☐	☐	1	2	3
Your General Practitioner	☐	☐	1	2	3
A hairdresser	☐	☐	1	2	3
Your local corner shop	☐	☐	1	2	3
Nearest Government hospital	☐	☐	1	2	3
An optician	☐	☐	1	2	3
An shopping centre/mall	☐	☐	1	2	3
A post office	☐	☐	1	2	3
A public park	☐	☐	1	2	3

A restaurant A hotel

A social club

A swimming pool A supermarket A Rastion shop

	1	2	3
	1	2	3
	1	2	3
	1	2	3
	1	2	3
1 2			
	1	2	3
	1	2	3
	1	2	3

Have a personal computer in the household	
Have a microwave cooker in the household	
Have a refrigerator in the household	

1	**Voted in the last general election**	☐ **11**
2	**Have a pet (cat, birds, dog, etc,.)**	☐ **12**
3	**I generally read a daily national**	☐ **13**

	☐	newspaper'	
Have a washing machine in the household	4		
		Sometimes I treat myself to something I	**14**
	☐ 5		
Took a short break (one and three nights) holiday in paid		**do not need'**	
	☐		**15**
Took a holiday abroad last year	6	**Agree that I enjoy gardening**	
			16
Last main holiday was a package holiday	☐ 7	**Have a mobile telephone**	
	☐		**17**
Have interest-earning cheque or savings account	8	**Use the Internet or email**	**18**
	9	**Have ac /split at home**	
Have personal health insurance	☐		
	☐		**19**
		Existing kitchen refitted in the last five years (in present or previous	
Have a video cassette player	☐	**home)**	**20**
	10		
Have a compact disc player or tape recorder		**Have cable TV (Sky, etc.,)**	**21**
	11		
		Have iron	

B11 Please indicates how many of these statements apply to you. **Tick all that apply to you**

B12.. Do you regularly join in the activities of any of these types of organisation?

Tick all that apply to you

Political parties, trade unions, environmental groups	☐ **1**
	☐
Tenants groups, residents' groups, Neighbourhood Watch	**2**
	3
	☐
Mosque	
	☐ **4**

Charitable organisations	☐ 5
Social clubs	☐ 6
Sports clubs (e.g. tennis, golf , bowls) or exercise classes	☐ 7
Other Groups or organisations	

B13 Do you hold a position of responsibility (e.g. secretary, treasurer) in any of these types of organisation?	**Yes** ☐ **1**	**No** ☐ **2**

Section C. CASP (Quality of life)

S.No	CASP	Often 1	Sometimes 2	Not often 3	Never 4
1	My age restricts me to do such tasks that I want to do				
2	I feel that whatever is happening with me I cannot control it				
3	I feel that I am free to plan for my future				
4	I can do thing that I want to do				
5	Family responsibilities stops me to do things that I want to do				
6	I feel that whatever work I do I can make myself happy from it				
7	My health stop me to do things, that I want to do				
8	Lack of money stops me from doing things I want to do				
9	I wait for all coming days				
10	I feel that my life has meaning				
11	Whatever work I do , I enjoy in it				
12	I enjoy other's company				
13	I look at my past happily				
14	I feel energetic all the time				
15	I select things that I have never done before				
16	I feel satisfied with the way my life is changing				
17	I feel that life is full of opportunities				

Section D: Health

D1 Would you say your health is?	**Good**	**1**
	Fairly good	**2**
	Not good	**3**
D2 Are you physically ….	**very active**	**1**
	fairly active	**2**
	not very active	**3**
	not all active	**4**
D3. Do you have one of the following disabilities?	**Physical disabilities**	**1**
	Vision problem	**2**
	Hearing problem	**3**
D4 Do you use any of the instruments	**Hearing aids**	**1**
	Denture	**2**
	Specs	**3**
D5 Have you been diagnosed with [conditions listed below, read one by one] by a doctor	**Hypertension**	**1**
	Cholesterol	**2**
	Diabetes or high blood sugar	**3**
	Cancer or malignant tumor	**4**
	Chronic lung diseases	**5**
	Liver disease	**6**
	Heart attack, coronary heart disease, angina, congestive heart failure	**7** ☐
	Stroke	**8** ☐
	Kidney disease	**9** ☐
	Stomach disease	**10** ☐
	Arthritis	**11** ☐
	Asthma	**12** ☐
	Cataract	**13** ☐
	Glaucoma	**14** ☐
D 6 Do you have sleeping proble m	**Yes** **1**	**No** **2**

D7 What do you do to overcome this issues	**Relaxation Exercise** **Religious intervention** **Sleeping pills** **Other**	☐ **1** ☐ **2** ☐ **3** ☐ **4**

Health care

D 8 Where do you go to treat your illness?	**Hospital** **General physician** **Consultant** **Homeopathic** **Traditional healer** **Others**	☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5**
D 9 Reason for going to above places for the treatment?	**Quality care** **Affordable** **Easy Access** **Other reason----------**	☐ **1** ☐ **2** ☐ **3** **4**

☐

D 10 Depression scale

D10.1	Are you basically satisfied with your life?	**No =0** **Yes =1**
D10.2	Have you dropped many of your activities and interests?	**No =0** **Yes =1**
D10.3	Do you feel that your life is empty?	**No =0** **Yes =1**
D10.4	Do you often get bored?	**No =0** **Yes =1**
D10.5	Are you in good spirits most of the time?	**No =0** **Yes =1**
D10.6	Are you afraid that something bad is going to happen to you?	**No =0** **Yes =1**
D10.7	Do you feel happy most of the time	**No =0** **Yes =1**
D10.8	Do you often feel helpless?	**No =0** **Yes =1**
D10.9	Do you prefer to stay at home, rather than going out and doing new things?	**No =0** **Yes =1**
D10.10	Do you feel that you have more problems with memory than most?	**No =0** **Yes =1**
D10.11	Do you think it is wonderful to be alive now	**No =0** **Yes =1**
D10.12	Do you feel pretty worthless the way you are now?	**No =0** **Yes =1**
D10.13	Do you feel full of energy?	**No =0** **Yes =1**
D10.14	Do you feel that your situation is hopeless?	**No =0** **Yes =1**
D10.15	Do you think that most people are better off than you are?	**No =0** **Yes =1**

D11. ADL and IDAL

ADL Domain			Responses
D11.1	By yourself that is without help from others or special equipment do you have any difficulty in bathing or showering? If yes since how long? (mention in days, weeks, months)	Yes 1 No 2 Don't Know 3 No Response 4	
D11.2	By yourself that is without help from others or special equipment do you have any difficulty in dressing? If yes since how long? (mention in days, weeks, months)	Yes 1 No 2 Don't Know 3 No Response 4	
D11.3	By yourself that is without help from others or special equipment do you have any difficulty in eating, for example: holding folk or spoon, cutting your food or drinking from a glass? If yes since how long? (mention in days, weeks, months)	Yes 1 No 2 Don't Know 3 No Response 4	
D11.4	By yourself that is without help from others or special equipment do you have any difficulty using the toilet, including getting up from the toilet seat or commode? If yes since how long? (mention in days, weeks, months)	Yes 1 No 2 Don't Know 3 No Response 4	
IADL Domain			**Responses**
D11.5	Because of your health status do you have difficulty in using telephone? If yes since how long?	Yes 1 No 2 Don't Know 3 No Response 4	
D11.6	Because of your health status do you have difficulty doing light house work like washing dishes, light cleaning etc? If yes since how long?	Yes 1 No 2 Don't Know 3 No Response 4	

D11.7	Because of your health status do you have difficulty doing heavy household work like washing clothes or cleaning floor etc? If yes since how long?	Yes ☐ 1 No ☐ 2 Don't Know ☐ 3 No Response ☐ 4	
D11.8	Do you have difficulty preparing your own meal? If yes since how long?	Yes ☐ 1 No ☐ 2 Don't Know ☐ 3 No Response ☐ 4	
D11.9	Do you have difficulty if need to go for (going for) shopping for your personal items including vegetables or medicine etc? If yes since how long?	Yes ☐ 1 No ☐ 2 Don't Know ☐ 3	

D12. Thinking about the activities that problems with, does anyone ever help with above mentioned activities (including partner or other people in household)?	Yes ☐ 1 ☐ 2 No
D13 Who helps you to perform above mentioned activities?	Husband or wife ☐ 1 Son 2 Daughter ☐ 3 Daughter in Law ☐ 4 Sister in Law ☐ 5 Sister ☐ 6 Brother ☐ 7 Other relative ☐ 8 Privately paid help ☐ 9 Nurse ☐ 10 Friend or neighbor ☐ 11 Other person 12

Section E: Sense of coherence

	Yes, usually 1	Yes, sometimes 2	No
E.1 Do you see a solution to problems and difficulties that other people find hopeless?			
E.2 Do you feel that your daily life is a source of personal satisfaction?			
E.3 Do you feel that the things that happen to you in your daily life are hard to understand?			

Section F: Measure capability

mpared to when you were *in your thirties,* please tick the box that comes closest to describing you today:

	☐1	2	3	4	☐5	☐6	☐7	
I can do few of the things I used to								I can do everything I used to
I have fewer opportunities to do things								I have similar opportunities to do things
I have less satisfaction with what I do								I am as satisfied as I used to be

Section H: Optimisim

H1. In uncertain times, I usually expect the best. H2. Its easy for me to relax. H3. If something can go wrong for me, it will. H4. I am always optimistic about my future. H5. I enjoy my friends a lot. H6. Its important for me to keep busy H7. I hardly ever expect things to go my way. H8. I don‟t get upset too easily. H9. I rarely count on good things happening to me. H10. Over all, I expect more good things to happen to me than bad.	I agree a lot 1 I agree a little2 I neither agree nor disagree3 I disagree a little 4I disagree a lot5

Section I. Retirement and Pensions

I1. At what age did you retire I2	**I retired at the age of …….** **I am not yet retired** ☐ **1** **Other please say what?** **……**

I.3 . People retire for a variety of reasons and not everybody retires at the same time. Here are some reasons people give for retiring. **Tick all that apply to you.**

I retired at the state retirement age	**1**	**retired early to care for someone**	**6**
I retired early due to ill health	**2**		
I could not afford to retire at the state retirement age	☐ **3**	**I retired later than the state retirement age to improve my financial position**	**7**
I was offered a good package to retire early	**4**	**I liked my job so much that I opted to stay on**	**8**
I was persuaded by my employer to stay onafter the state retirement age	**5**	**for a while longer**	

I4.. Some people receive a pension from their employer when they retire as well as a state pension. Have you ever belonged to a pension scheme or superannuation scheme run by an employer (occupational pension scheme

I5. Looking to the future would you expect your income during retirement to be

more than enough to meet my needs	☐	**1**
just about enough to meet my needs	☐	**2**
less than enough to meet my needs	☐	**3**
Don't know	☐	**4**

Father Information

J1 Occupation - *Main*	
J2. Periods of unemployment? *(up to subject's 16th birthday)*	
J3 Date of birth:	
J4 Date of death:	

K Mother Mothers information

K1 Occupation – *Main* *'if housewife was there any paid work also*	
K2 Periods of unemployment? *(up to subject's 16th birthday)*	
K3 Date of birth:	
K4 Date of death:	

L1. What was your father's education	Illiterate	☐ 1
	Literate (no formal schooling)	☐ 2
	Upto 5th	☐ 3
	Upto Matric	☐ 4
	11-14 class	☐ 5
	MA/MSc./MBBS/MBA or above	☐ 6
	don't know	☐ 7
	no response	☐ 8
	Others specify	☐
L2 What was your mother's education	Illiterate	☐ 1
	Literate (no formal schooling)	☐ 2
	Upto 5th	☐ 3
	Upto Matric	☐ 4
	11-14 class	☐ 5
	MA/MSc./MBBS/MBA or above	☐ 6
	don't know	☐ 7
	no response	☐ 8
	Others specify	☐

L Father and mother's education

M. Siblings

No	1.Name	. Date of Birth	Date of death	Age left education	M5 Age left home	M6 Occupation before leaving home
	M1.frist sib					
	M2.sec sib					
	M3 third					
	M4 fourth					
	M5 fifth					
	M6 sixth					
	M7 seventh					

Are you married Date of marriage	Yes 1 No 2

N

1st spouse's occupation

At wedding		PT/FT
Main		PT/FT
At retirement		PT/FT
Year spouse retire : Age of spouse:		

2nd spouse's occupation

At wedding		PT/FT
Main		PT/FT
At retirement		PT/FT
Year spouse retire : Age of spouse:		

O .Children (including if step children)

NO	Name	Date of birth	Age left F/T education	Age left home	Do they still live with them
	Child 1				
	Child 2				
	Child 3				
	Child 4				
	Child 5				
	Child 6				

Section P : Residence

. 1st residence

Address	Period in year:
House type (if flat what floor)	Years of residence
Tenuure (rented, private)	
Number of rooms	
What is main source for drinking water	**Piped water** 1 ☐ **Hand pump** 2 ☐ **Water motor\Tube well** 3 ☐ **Covered well** 4 ☐ **Open well** 5 ☐ **River, stream, pond etc.** 6 ☐ **Tanker truck, water bearer** 7 ☐ **Mineral Water** 8 ☐ **Filtration plant** 9 ☐

	Other 10 ☐
What kind of toilet facility does your household use?	Facility not available 1 ☐ Flush system (linked to sewerage) 2 ☐ Flush (linked to Septic tank) 3 ☐ Flush (connected to open drain) 4 ☐ Dry raised latrine 5 ☐ Pit latrine 6 ☐
What type of sanitation system you have?	underground drains 1 ☐ covered drains 2 ☐ open drains 3 ☐ no system 4 ☐
Which material is used for roof	RCC/RBC ☐ 1 Wood/Bamboo ☐ 2 Iron/Cement sheets ☐ 3 Garder\T-Iron ☐ 4 Other(please explain) ☐ 5

2nd residence

Address	Period in year:
House type (if flat what floor)	Years of residence
Tenuure (rented, private)	
Number of rooms	
What is main source for drinking water	**Piped water 1** ☐ **Hand pump 2** ☐ **Water motor\Tube well 3** ☐ **Covered well 4** ☐ **Open well 5** ☐ **River, stream, pond etc. 6** ☐ **Tanker truck, water bearer 7** ☐ **Mineral Water 8** ☐ **Filtration plant 9** ☐ **Other 10** ☐
What kind of toilet facility does your household use?	**Facility not available 1** ☐ **Flush system (linked to sewerage) 2** ☐ **Flush (linked to Septic tank) 3** ☐ **Flush (connected to open drain) 4** ☐ **Dry raised latrine 5** ☐ **Pit latrine 6** ☐
What type of sanitation system you have?	**underground drains 1**

	covered drains 2 ☐ **open drains** 3 ☐ **no system** 4 ☐
Which material is used for roof	**RCC/RBC** ☐ 1 **Wood/Bamboo** ☐ 2 **Iron/Cement sheets** ☐ 3 **Garder\T-Iron** ☐ 4 **Other(please explain)** ☐ 5

3rd residence

Address	Period in year:
House type (if flat what floor)	Years of residence
Tenuure (rented, private)	
Number of rooms	
What is main source for drinking water	**Piped water** 1 ☐ **Hand pump** 2 ☐ **Water motor\Tube well** 3 ☐ **Covered well** 4 ☐ **Open well** 5 ☐ **River, stream, pond etc.** 6 ☐ **Tanker truck, water bearer** 7 ☐

	Mineral Water 8 ☐ Filtration plant 9 ☐ Other 10 ☐
What kind of toilet facility does your household use?	Facility not available 1 ☐ Flush system (linked to sewerage) 2 ☐ Flush (linked to Septic tank) 3 ☐ Flush (connected to open drain) 4 ☐ Dry raised latrine 5 ☐ Pit latrine 6 ☐
What type of sanitation system you have?	underground drains 1 ☐ covered drains 2 ☐ open drains 3 ☐ no system 4 ☐
Which material is used for roof	RCC/RBC ☐ 1 Wood/Bamboo ☐ 2 Iron/Cement sheets ☐ 3 Garder\T-Iron ☐ 4 Other(please explain) ☐ 5

4th residence

Address	Period in year:
House type (if flat what floor)	Years of residence
Tenuure (rented, private)	
Number of rooms	
What is main source for drinking water	**Piped water 1** ☐ **Hand pump 2** ☐ **Water motor\Tube well 3** ☐ **Covered well 4** ☐ **Open well 5** ☐ **River, stream, pond etc. 6** ☐ **Tanker truck, water bearer 7** ☐ **Mineral Water 8** ☐ **Filtration plant 9** ☐ **Other 10** ☐
What kind of toilet facility does your household use?	**Facility not available 1** ☐ **Flush system (linked to sewerage) 2** ☐ **Flush (linked to Septic tank) 3** ☐ **Flush (connected to open drain) 4** ☐

	Dry raised latrine	5
	Pit latrine	6 ☐
What type of sanitation system you have?	underground drains	1 ☐
	covered drains	2 ☐
	open drains	3 ☐
	no system	4 ☐
Which material is used for roof	RCC/RBC	☐ 1
	Wood/Bamboo	☐ 2
	Iron/Cement sheets	☐ 3
	Garder\T-Iron	☐ 4
	Other(please explain)	☐ 5

5th residence

Address	Period in year:
House type (if flat what floor)	Years of residence
Tenuure (rented, private)	
Number of rooms	
What is main source for drinking water	**Piped water 1** ☐ **Hand pump 2** ☐ **Water motor\Tube well 3** ☐ **Covered well 4** ☐ **Open well 5** ☐ **River, stream, pond etc. 6** ☐ **Tanker truck, water bearer 7** ☐ **Mineral Water 8** ☐ **Filtration plant 9** ☐ **Other 10** ☐
What kind of toilet facility does your household use?	**Facility not available 1** ☐ **Flush system (linked to sewerage) 2** ☐ **Flush (linked to Septic tank) 3** ☐ **Flush (connected to open drain) 4** ☐ **Dry raised latrine 5** ☐ **Pit latrine 6** ☐
What type of sanitation system you have?	**underground drains 1**

	covered drains 2 ☐ **open drains** 3 ☐ **no system** 4 ☐
Which material is used for roof	**RCC/RBC** ☐ 1 **Wood/Bamboo** ☐ 2 **Iron/Cement sheets** ☐ 3 **Garder\T-Iron** ☐ 4 **Other(please explain)** ☐ 5

Section Q: Occupation

1st occupation

Name of Employer	Period
Job Title:	PT/FT
Years employed	
Did the work entitle you working physically with your hand ? yes ☐ No ☐ If yes Did this work require skills and training ? yes ☐ No ☐	
What was your post? **Manager** **Employee** **Self employee** **Did you Manage /Forsee**	
Exposed to fumes/dust: (type/amount)	
Protective equipment/ventilation:	
Arduous (lifting/back injuries/sweating):	
Description of workplace: small confined / large open other processes in vicinity of worker	
Working conditions: 1. opportunities to make decisions: Y/N 2. Varied or repetitive: Y/N 3. take breaks when wanted: Y/N	

2nd occupation

Name of Employer	Period
Job Title:	PT/FT
Years employed	
Did the work entitle you working physically with your hand ? yes ☐ No ☐	

If yes Did this work require skills and training ?	yes ☐ No ☐
What was your post?	**Manager** **Employee** **Self employee**
Did you Manage /Forsee E x p o s e d t o f u m e s / d u s t : (t y p e / a m o u n t)	
Protective equipment/ventilation:	
Arduous (lifting/back injuries/sweating):	
~~Description of workplace: small confined / large~~ open other processes in vicinity of worker Working conditions: 1. opportunities to make decisions: Y/N 2. Varied or repetitive: Y/N 3. take breaks when wanted: Y/N	

3rd occupation

Name of Employer	Period
Job Title:	PT/FT
Years employed	
Did the work entitle you working physically with your hand ? If yes Did this work require skills and training ?	yes ☐ No ☐ yes ☐ No ☐
What was your post?	**Manager** **Employee** **Self employee**

Did you Manage /Forsee E x p o s e d t o f u m e s / d u s t : (t y p e / a m o u n t)
Protective equipment/ventilation:
Arduous (lifting/back injuries/sweating):
Description of workplace: small confined / large open other processes in vicinity of worker Working conditions: 1. opportunities to make decisions: Y/N 2. Varied or repetitive: Y/N 3. take breaks when wanted: Y/N

th occupation

Name of Employer	Period
Job Title:	PT/FT
Years employed	
Did the work entitle you working physically with your hand ? yes ☐ No ☐ If yes Did this work require skills and training ? yes ☐ No ☐	
What was your post? **Manager** **Employee** **Self employee** **Did you Manage /Forsee**	
E x p o s e d t o f u m e s / d u s t : (t y p e / a m o u n t)	
Protective equipment/ventilation:	
Arduous (lifting/back injuries/sweating):	
Description of workplace: small confined / large open other processes in vicinity of worker	

Working conditions: 1. opportunities to make decisions: Y/N 2. Varied or repetitive: Y/N 3. take breaks when wanted: Y/N

5th occupation

Name of Employer	Period
Job Title:	PT/FT
Years employed	
Did the work entitle you working physically with your hand ? yes ☐ No ☐ If yes Did this work require skills and training ? yes ☐ No ☐	
What was your post? **Manager** **Employee** **Self employee** **Did you Manage /Forsee**	
Exposedtofumes/dust:(type/amount)	
Protective equipment/ventilation:	
Arduous (lifting/back injuries/sweating):	
Description of workplace: small confined / large open other processes in vicinity of worker	
Working conditions: 1. opportunities to make decisions: Y/N 2. Varied or repetitive: Y/N 3. take breaks when wanted: Y/N	

Annexure 5 Questionnaire in Urdu Language

ای۔ڈی نمبر ☐☐☐☐☐☐ جینڈر: آدمی ☐

عورت ☐

معیارِ زندگی، ابتدائی بڑھاپے میں

ہم آپ کا شکریہ ادا کرنا چاہتے ہیں کہ آپ نے اس تحقیق میں شمولیت کے لیے ہامی بھری ہے۔ یہ تمام باتیں راز داری میں رکھی جائیں گی۔ اس سوالنامے کو پڑھنے کے لیے 30 سے 40 منٹ لگیں گے۔ ان میں سے بہت سے سوالات ایسے ہیں جن کے آپ کو ہاں یا نہ میں جواب دینا ہوں گے۔

مثال کے طور پر:

آپ کے گھر میں آپ کی گاڑی ہے جو آپ ضرورت کے وقت استعمال کر سکیں؟ ہاں ☐ نہیں ☐

یا

کچھ بیانات جو لوگوں نے اپنے پڑوسیوں کے بارے میں دیئے ہوں۔

یہ رہنے کے لیے محفوظ جگہ ہے۔ ☐

وہاں بہت سارے نقش و نگار موجود ہیں۔ ☐

کمیونٹی کا کوئی احساس نہیں۔ ☐

اچھی کمیونٹی کا جذبہ ہے۔ ☐

اگر آپ ایک مخصوص جواب دیتے ہیں تو بعض اوقات ہم اس کے بارے میں مزید جاننا چاہیں گے جہاں آپ کو ایک تیر (Arrow) بنا ہوا نظر آئے۔ برائے مہربانی دوسرے سوال کی پیروی کریں اور اس کا جواب دیں۔

مثال کے طور پر:

کیا آپ اپنے پیر کے ناخن خود کاٹتے ہیں یا کوئی اور کاٹتا ہے۔ میں خود ☐ کوئی اور کاٹتا ہے ☐

اگر آپ اپنے ناخن خود کاٹتے ہیں تو وہ کاٹنے میں آپ کو کتنا آسان یا مشکل لگتا ہے۔

بہت آسان ☐

کافی آسان ☐

کافی مشکل ☐

بہت مشکل ☐

1

سیکشن اے: عام معلومات

A1 آپ کی عمر کیا ہے؟ _____ سال

آپ کا نام کیا ہے؟ _____

A2 آپ کی جائے پیدائش کیا ہے؟

☐ 1 کراچی
☐ 2 انٹیریئر سندھ
☐ 3 پنجاب
☐ 4 سرحد
☐ 5 بلوچستان
☐ 6 کشمیر
☐ 7 شمالی علاقہ جات
☐ 8 قبائلی علاقے
کوئی اور جگہ _____

A3 آپ کون سی زبان بولتے ہیں؟

☐ 1 اُردو
☐ 2 سندھی
☐ 3 کچھی
☐ 4 پنجابی
☐ 5 پشتو
☐ 6 بلوچی
☐ 7 گجراتی
☐ 8 سرائیکی
کوئی اور _____

A4 آپ نے کہاں تک تعلیم حاصل کی ہے؟

- ☐ 1 ناخواندہ
- ☐ 2 پڑھے لکھے۔کوئی رسمی تعلیم نہیں
- ☐ 3 5 جماعت تک
- ☐ 4 مڈل پاس
- ☐ 5 10 جماعت تک
- ☐ 6 11 سے 14 جماعت تک
- ☐ 7 ماسٹرز
- ☐ 8 نہیں معلوم
- ☐ 9 کوئی جواب نہیں دیا
- کچھ اور _____

A5 کس عمر میں آپ کی اسکول یا کالج میں مسلسل تعلیم ختم ہوئی؟

- ☐ 1 14 سال یا اس سے کم عمر
- ☐ 2 15 سال
- ☐ 3 16 سال
- ☐ 4 17 سال
- ☐ 5 18 سال
- ☐ 6 19 سال یا اس سے زائد

A6 آپ کے کتنے بچے ہیں۔ ☐

کتنے بچے زندہ ہیں؟ ☐

اگر کوئی بچہ اِس دُنیا میں نہیں تو A7 سوال پوچھئے۔

A7 بچے کی موت کی وجہ؟

- ☐ 1 قتل
- ☐ 2 بیماری
- ☐ 3 ایکسیڈنٹ
- کچھ اور _____

A8 کیا آپ سمجھتے ہیں کہ اولاد آپ کے مستقبل کا سہارا ہے؟

☐ 1 جی ہاں

☐ 2 جی نہیں

☐ 3 معلوم نہیں

A9 کیا آپ ابھی پیسے کمانے کے لیے کام کرتے ہیں؟

☐ 1 جی ہاں

☐ 2 جی نہیں

☐ 3 کوئی جواب نہیں

A10 اگر آپ کماتے ہیں تو آپ کی کل آمدنی کیا ہے؟

_____ روپے

☐ 1 معلوم نہیں

☐ 2 کوئی جواب نہیں

A11 اگر آپ نہیں کما رہے ہیں تو مختلف ذرائع سے ملنے والی رقم۔ مثال کے طور پر (گھر کا کرایہ، پنشن وغیرہ) کتنی ہے؟

_____ روپے

☐ 1 معلوم نہیں

☐ 2 کوئی جواب نہیں

A12 آپ کی ازدواجی حیثیت کیا ہے؟

☐ 1 شادی شدہ

☐ 2 بیوہ/رنڈوا

☐ 3 الگ رہتے ہیں

☐ 4 طلاق

A13 آپ کا مذہب کیا ہے؟

☐ 1 مسلمان

☐ 2 ہندو

☐ 3 مسیحی

☐ 4 پارسی

کوئی اور _____

A14 آپ کبھی مذہبی خدمات میں شرکت کرتے ہیں؟

- ☐ 1 ہاں
- ☐ 2 جی نہیں

A15 آپ مذہبی خدمات میں کتنی بار شریک ہوتے ہیں؟

- ☐ 1 روزانہ
- ☐ 2 ہفتے میں کبھی
- ☐ 3 مہینے میں کبھی
- ☐ 4 سال میں کبھی

A16 آپ مذہبی رسومات کے لیے کہاں جاتے ہیں؟

- ☐ 1 مسجد
- ☐ 2 چرچ
- ☐ 3 مندر
- ☐ 4 جماعت خانہ
- کوئی اور جگہ _____

A17 آپ کیسے رہتے ہیں؟

- ☐ 1 توسیعی خاندان میں
- ☐ 2 جوہری خاندان میں
- ☐ 3 اکیلے
- ☐ 4 کسی اور کے ساتھ

A18 اس وقت آپ کی رہائشی حیثیت کیا ہے؟

- ☐ 1 اپنا گھر ہے
- ☐ 2 کرائے کا گھر ہے
- ☐ 3 تعمیر کرائے کا
- کوئی اور _____

A19 مندرجہ ذیل وجوہات میں سے کن وجوہات کی بناء پر آپ نے اب تک گھر نہیں خریدا؟

☐ 1 میں خریدنا برداشت نہیں کر سکتا

☐ 2 مجھے موگیج نہیں مل سکا

☐ 3 یہ میرے لیے صحیح وقت نہیں

☐ 4 خریدنے والے گھر بہت کم ہیں

کوئی اور وجہ _____

A20 آپ کی حالیہ ضروریات کو مدنظر رکھتے ہوئے کیا آپ کی رہائش مناسب ہے یا نامناسب؟

☐ 1 بہت مناسب

☐ 2 کچھ حد تک مناسب

☐ 3 کچھ حد تک نامناسب

☐ 4 بالکل نامناسب

A21 آپ اپنے آپ کو اپنے گھر کے نزدیک علاقے میں چلتے وقت کتنا محفوظ محسوس کرتے ہیں؟

☐ 1 بہت محفوظ

☐ 2 کچھ حد تک محفوظ

☐ 3 کچھ حد تک غیر محفوظ

☐ 4 بالکل بھی محفوظ نہیں

A22 کیا آپ کو ایسا لگتا ہے کہ آپ پر کبھی مستقبل میں حملہ ہو سکتا ہے؟

☐ 1 بہت زیادہ امکان

☐ 2 کچھ حد تک امکان

☐ 3 کچھ حد تک امکان نہیں

☐ 4 بالکل بھی امکان نہیں

A23 کیا آپ کی موجودہ رہائش آپ کی حالیہ ضروریات کے مطابق ہے؟

☐ 1 جی ہاں

☐ 2 جی نہیں

A24 آپ کے گھر میں کتنے کمرے ہیں؟ _____

A25 کون سا مواد آپ کے گھر کی چھت کے لیے استعمال کیا گیا ہے؟

☐ 1 آر سی سی

☐ 2 لکڑا

☐ 3 سیمنٹ

☐ 4 لوہا

کوئی اور _____

A26 آپ کے گھر میں پانی کا کیا ذریعہ ہے؟

☐ 1 پائپ کے ذریعے پانی

☐ 2 ہینڈ پمپ

☐ 3 پانی کی مشین

☐ 4 بند کنواں

☐ 5 کھلا کنواں

☐ 6 ندی

کوئی اور _____

A27 آپ کے گھر پانی کتنے دن آتا ہے؟ _____

A28 آپ کے گھر میں ٹوائلٹ کی کیا سہولت ہے؟

- ☐ 1 گھر میں ٹوائلٹ نہیں
- ☐ 2 فلش کا نظام
- ☐ 3 سیوریج لنک
- ☐ 4 فلش کا نظام کھلا سیوریج
- ☐ 5 خشک ٹوائلٹ
- ☐ 6 گڑھے بنا ہوا ٹوائلٹ
- کوئی اور _____

A29 آپ کے گھر میں حفظانِ صحت کا نظام کیسا ہے؟

- ☐ 1 زیرِ زمین ڈرین
- ☐ 2 بند ڈرین
- ☐ 3 کھلا ہوا ڈرین
- ☐ 4 کوئی انتظام نہیں

A30 آپ کون سا ایندھن کھانا پکانے کے لیے استعمال کرتے ہیں؟

- ☐ 1 لکڑے پر
- ☐ 2 گیس
- ☐ 3 کیروسین کا تیل
- ☐ 4 گوبر
- ☐ 5 بجلی
- ☐ 6 کوئلہ

A31 روشنی کے لیے کون سا ایندھن استعمال کیا جاتا ہے؟

- ☐ 1 بجلی
- ☐ 2 گیس
- ☐ 3 کیروسین
- ☐ 4 لکڑا
- ☐ 5 موم بتی

A32 آپ کے گھر میں ہفتے میں کتنی بار لائٹ نہیں ہوتی؟ _____

A33 کتنے گھنٹے کے لیے لائٹ نہیں ہوتی؟ _____

A34 جب گھر میں لائٹ نہیں ہوتی تو آپ کیا استعمال کرتے ہیں؟

- ☐ 1 جنریٹر
- ☐ 2 UPS
- ☐ 3 ایمرجنسی لائٹ
- ☐ 4 گیس لائٹ
- ☐ 5 لالٹین
- ☐ 6 موم بتی
- ☐ 7 کچھ نہیں
- کچھ اور _____

سیکشن B: روزمرہ زندگی کے بارے میں معلومات

B1 ہمیں چند لوگوں نے اپنے خاندان اور دوستوں کے بارے میں کچھ باتیں کہی ہیں۔ ہم جاننا چاہتے ہیں کہ یہ باتیں آپ کے لیے کتنی درست ہیں؟ برائے مہربانی تمام سوالوں کے جواب پر نشان لگایئے جو آپ پر لاگو ہوتے ہیں۔

	صحیح نہیں	تھوڑا صحیح ہے	ہمیشہ صحیح ہے
1	☐ 1	☐ 2	☐ 3
کچھ لوگ ایسے ہیں جو ایسی چیزیں کرتے ہیں جن سے مجھے خوشی ہوتی ہے۔			
2	☐ 1	☐ 2	☐ 3
کچھ لوگ ایسے ہیں جن پر انحصار کیا جاسکتا ہے چاہے کچھ بھی ہو جائے۔ کچھ لوگ ایسے ہیں جو مجھے ایسے ہی قبول کرتے ہیں جیسے میں ہوں۔			
3	☐ 1	☐ 2	☐ 3
کچھ لوگ ایسے ہیں جو میری حوصلہ افزائی اور تعاون کرتے ہیں۔ کچھ لوگ ایسے ہیں جو مجھے اپنا پیار محسوس کرواتے ہیں۔			
4	☐ 1	☐ 2	☐ 3
کچھ لوگ ایسے ہیں جو مجھے محسوس کرواتے ہیں کہ میں ان کی زندگی کا ضروری حصہ ہوں۔			

B2 ان لوگوں کو شامل مت کریں جو آپ کے ساتھ رہتے ہیں۔ آپ نے آخری بار مندرجہ ذیل چیزوں میں سے کون سی ایسی چیز ہے جو اپنے دوستوں یا خاندان کے ساتھ کی ہے۔

	پچھلے ایک ہفتے	پچھلے پندرہ دنوں میں	ایک مہینے	بہت عرصہ پہلے	کبھی نہیں
1 خاندان والوں سے ملا ہوں۔ (ترتیبی ملاقات یا موقع ملنے پر)	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
2 ٹیلی فون پر خاندان والوں سے بات چیت کی ہے۔	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
3 دوستوں سے ملا ہوں۔ ٹیلی فون پر دوستوں سے بات چیت کی ہے۔	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

B3 ان لوگوں کو گنے بغیر جو آپ کے ساتھ رہتے ہیں اور جن کے ساتھ آپ کا قریبی رشتہ ہے۔ آپ مندرجہ ذیل بیانات میں سے کون سا جملہ یہ بیان کرتا ہے کہ آپ کا کتنے لوگوں کے ساتھ قریبی رشتہ ہے (صرف ایک ڈبے میں نشان لگائیے)۔

میرا بہت سارے لوگوں کے ساتھ قریبی رشتہ ہے۔ ☐ 1

میرا کچھ لوگوں کے ساتھ قریبی رشتہ ہے۔ ☐ 2

میرا ایک یا دو لوگوں کے ساتھ قریبی رشتہ ہے۔ ☐ 3

میرا کسی کے ساتھ قریبی رشتہ نہیں ہے۔ ☐ 4

B4 کچھ لوگوں کو روزمرہ کے کام کاج جیسے صفائی، کپڑے دھونا، گھر کے کام کاج، شاپنگ وغیرہ میں مدد کی ضرورت ہوتی ہے (ان تمام پر نشان لگائیں جو آپ پر لاگو ہوتے ہیں)۔

☐1 مجھے روزانہ مدد کی ضرورت نہیں ہوتی۔

☐2 اگرچہ مجھے مدد کی باقاعدگی سے ضرورت ہو، تب بھی نہیں ملتی۔

☐3 مجھے باقاعدگی سے دوستوں، پڑوسیوں اور خاندان والوں سے مدد ملتی ہے۔

☐4 مجھے باقاعدگی سے ان سے مدد ملتی ہے جسے ہم نے ذاتی طور پر کام کرنے کے لیے رکھا ہے۔

اگر کوئی اور ہو تو بیان کریں: _____

B5 کیا آپ کے پاس اپنی گاڑی ہے جس کا استعمال آپ اپنی ضرورت کے وقت کر سکیں؟

☐1 ہاں ☐2 نہیں

B6 آپ کے پاس ان میں سے نقل و حمل کے کیا ذرائع ہیں؟

☐1 گاڑی

☐2 اسکوٹر

☐3 سائیکل

☐4 گدھا گاڑی

☐5 کوئی اور _____

B8 کچھ اس طرح کی پبلک ٹرانسپورٹ ہے۔ ہم جاننا چاہتے ہیں کہ اگر آپ ان میں سے کوئی استعمال کرتے ہیں اور کیا آپ یہ سوچتے ہیں کہ آپ کے لیے یہ سستی ہے؟ (چاہے آپ اسے استعمال نہ بھی کرتے ہوں)۔

	کیا آپ ان میں سے ایک روزمرہ استعمال کرتے ہیں؟		کیا یہ آپ کے لیے سستی ہے؟	
بس	☐ 1	☐ 2	☐ 1	☐ 2
ٹیکسی	☐ 1	☐ 2	☐ 1	☐ 2
رکشہ	☐ 1	☐ 2	☐ 1	☐ 2
منی بس	☐ 1	☐ 2	☐ 1	☐ 2
چنگ چی	☐ 1	☐ 2	☐ 1	☐ 2

B9 یہاں کچھ ایسے بیانات ہیں جو لوگوں نے اپنے پڑوسیوں کے بارے میں کہے ہیں۔ ان تمام پر نشان لگائیے جہاں آپ رہتے ہیں۔

یہ جگہ رہنے کے لیے محفوظ نہیں	☐ 1	لوگ ایک دوسرے کا خیال رکھتے ہیں	☐ 7
دیواروں پر بہت نقش ونگار ہیں۔	☐ 2	برادری کا کوئی احساس نہیں۔	☐ 8
میں یہ جگہ چھوڑنا چاہتا ہوں۔	☐ 3	اچھا کمیونٹی جذبہ ہے۔	☐ 9
یہ ایک امیر علاقہ ہے۔	☐ 4	اس علاقے میں بہت جرائم ہوتے ہیں۔	☐ 10
میرے بہت سارے دوستانہ پڑوسی ہیں۔	☐ 5	ملے جلے اچھے لوگ ہیں۔	☐ 11
یہ محروم علاقہ ہے۔	☐ 6	مجھے یہاں رہنے میں مزہ آتا ہے۔	☐ 12
		لوگ بالکل بھی دوستانہ نہیں ہیں۔	☐ 13

☐ 14 یہ جگہ رہنے کے لیے محفوظ نہیں

B10 اب ہم آپ کو وہ لسٹ بتائیں گے جن جگہوں پر لوگ وقتاً فوقتاً جاتے ہیں۔ پہلے آپ یہ بتایئے کہ آپ ان جگہوں پر جاتے ہیں؟ اور پھر یہ بتایئے کہ ان جگہوں پر جانا آپ کے لیے مشکل ہوتا ہے یا آسان؟

	کیا آپ کبھی گئے ہیں؟		آسان	تھوڑا مشکل	بہت مشکل
	ہاں	نہیں			
بینک یا ATM مشین	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
مسجد	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
سینما	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
دانتوں کے ڈاکٹر کے پاس	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
ڈاکٹر	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
حجام	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
مقامی کونے کی دُکان	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
قریبی گورنمنٹ ہسپتال	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
آنکھوں کا معائنہ کروانے	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
شاپنگ مال	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
پوسٹ آفس	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
باغ	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
ریسٹورنٹ	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
ہوٹل	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
سوشل کلب	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
سوئمنگ پول	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
سپر مارکیٹ	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3
راشن کی دُکان	☐ 1	☐ 2	☐ 1	☐ 2	☐ 3

B11 برائے مہربانی یہ بتایئے کہ مندرجہ ذیل بیانات آپ پر لاگو ہوتے ہیں؟ وہ تمام بتایئے جو آپ پر لاگو ہوتے ہیں؟

☐ 1 اپنا کمپیوٹر ہے۔

☐ 2 گھر پر فریج ہے۔

☐ 3 گھر پر کپڑے دھونے کی مشین ہے۔

☐ 4 دو سے تین دن کی کام سے چھٹی لی ہے (کام کے پیسے کٹے بغیر)

☐ 5 چھٹیاں منانے ملک سے باہر گئے۔

☐ 6 کوئی سیونگ اکاؤنٹ ہے۔

☐ 7 ذاتی بچت کی انشورنس ہے۔

☐ 8 ڈیوکیسٹ پلیئر ہے۔

☐ 9 ریڈیو/ڈسک پلیئر ہے۔

☐ 10 چولہا ہے۔

☐ 11 الیکشن میں ووٹ کیا ہے۔

☐ 12 گھر میں پالتو جانور ہے۔

☐ 13 عام طور پر اشتہار اخبار پڑھتے ہیں۔

☐ 14 کبھی کبھار اپنے آپ کو اچھا محسوس کروانے کے لیے کچھ ایسا کرتے ہوں جس کی کوئی ضرورت نہیں۔

☐ 15 مجھے باغبانی کرنے میں مزہ آتا ہے۔

☐ 16 موبائل فون ہے۔

☐ 17 گھر میں ٹیلی فون ہے۔

☐ 18 انٹرنیٹ ہے۔

☐ 19 گھر میں Split یا A/C ہے۔

☐ 20 کیبل ہے۔

☐ 21 TV ہے۔

☐ 22 استری ہے۔

☐ 23 گزشتہ پانچ سالوں میں موجودہ باورچی خانے کی مرمت کروائی ہے۔

B12 کیا آپ باقاعدگی سے مندرجہ ذیل تنظیموں کی سرگرمیوں کا حصہ بنے ہیں۔ان تمام کے لیے ہامی بھریئے جن کا آپ حصہ بنے ہیں۔

سیاسی جماعت/ٹریڈ یونین۔ ☐1

کرایہ داروں کے گروپ۔ ☐2

مسجد۔ ☐3

خیراتی تنظیم۔ ☐4

سوشل کلب۔ ☐5

کھیلوں کا ادارہ۔ ☐6

کوئی اور گروپ یا تنظیم۔ _____

B13 کیا آپ ان میں سے کسی بھی تنظیم میں کسی ذمہ دار عہدے پر فائز ہیں؟ ہاں ☐1 نہیں ☐2

B14 کیا آپ کا تعلق کسی مذہبی عقیدے سے ہے؟ ہاں ☐1 نہیں ☐2

اگر ہاں تو کس عقیدے سے ہے؟ _____

C1 کاسپ (معیارِ زندگی کا پیمانہ)

	کبھی نہیں	اکثر نہیں	کبھی کبھار	اکثر
1	میری عمر مجھے وہ کام کرنے سے روکتی ہے جو میں کرنا چاہتا ہوں۔	☐4	☐3	☐2	☐1
2	مجھے یہ محسوس ہوتا ہے کہ جو میرے ساتھ ہو رہا ہے وہ میرے اختیار میں نہیں ہے۔	☐4	☐3	☐2	☐1
3	مجھے محسوس ہوتا ہے کہ میں اپنے مستقبل کی منصوبہ بندی کرنے کے لیے آزاد ہوں۔	☐4	☐3	☐2	☐1
4	میں وہ کام کر سکتی ہوں جو میں کرنا چاہتی ہوں۔	☐4	☐3	☐2	☐1
5	خاندان کی ذمہ داریاں مجھے وہ کام کرنے سے روکتی ہیں جو میں کرنا چاہتی ہوں۔	☐4	☐3	☐2	☐1
6	مجھے محسوس ہوتا ہے کہ جو کام میں کرتی ہوں، اس سے اپنے آپ کو خوش کر سکتی ہوں۔	☐4	☐3	☐2	☐1
7	میری صحت مجھے وہ کام کرنے سے روکتی ہے جو میں کرنا چاہتی ہوں۔	☐4	☐3	☐2	☐1
8	روپے کی کمی مجھے وہ کام کرنے سے روکتی ہے جو میں کرنا چاہتی ہوں۔	☐4	☐3	☐2	☐1
9	میں آنے والے دن کی منتظر ہوں۔	☐4	☐3	☐2	☐1
10	مجھے ایسا محسوس ہوتا ہے کہ میری زندگی بامعنی ہے۔	☐4	☐3	☐2	☐1
11	جو کام میں کرتا ہوں اس میں مجھے مزہ آتا ہے۔	☐4	☐3	☐2	☐1
12	مجھے دوسروں کی محفل میں مزہ آتا ہے۔	☐4	☐3	☐2	☐1
13	میں اپنے ماضی کو خوشی سے دیکھتی ہوں۔	☐4	☐3	☐2	☐1
14	آج کل مجھے پوری طرح سے توانائی محسوس ہوتی ہے۔	☐4	☐3	☐2	☐1
15	میں ان چیزوں کا انتخاب کرتی ہوں جو آج سے پہلے نہیں کیں۔	☐4	☐3	☐2	☐1
16	میں مطمئن محسوس کرتی ہوں جس طرح میری زندگی بدل رہی ہے۔	☐4	☐3	☐2	☐1
17	مجھے محسوس ہوتا ہے کہ زندگی مواقع سے بھرپور ہے۔	☐4	☐3	☐2	☐1

سیکشن D: صحت اور ریٹائرمنٹ

D1 کیا آپ کہیں گے کہ آپ کی صحت:

- ☐ 1 اچھی ہے
- ☐ 2 ٹھیک ہے
- ☐ 3 اچھی نہیں ہے

D2 کیا آپ جسمانی طور پر۔

- ☐ 1 بہت چست ہیں
- ☐ 2 کچھ حد تک چست ہیں
- ☐ 3 کچھ حد تک چست نہیں
- ☐ 4 بالکل بھی چست نہیں

D3 کیا ان میں سے کوئی معذوری آپ کو ہے۔

- ☐ 1 جسمانی معذوری
- ☐ 2 آنکھوں/ بینائی کی معذوری
- ☐ 3 بہرہ پن/ ~~سماعت~~ سماعتی
- ~~☐ 4~~ کم دینا

D4 کیا آپ ان میں سے کسی آلے کا استعمال کرتے ہیں۔

- ☐ 1 سننے کا آلہ
- ☐ 2 نقلی دانت
- ☐ 3 چشمے/ عینک

D5 کیا آپ کو ان میں سے کوئی بیماری ہے؟

بلڈ پریشر ☐ 1 کولیسٹرول ☐ 2 ذیابیطس ☐ 3 کینسر ☐ 4

پیٹ کی بیماری ☐ 5 آرتھرائٹس ☐ 6 پھیپھڑوں کی بیماری ☐ 7

سانس کی بیماری ☐ 8 جگر کی بیماری ☐ 9 ہارٹ اٹیک ☐ 10 موتیا ☐ 11 فالج ☐ 12

کالا پانی ☐ 13 گردے کی بیماری ☐ 14 کوئی اور _____

D6 کیا آپ کو نیند میں پریشانی ہوتی ہے؟

ہاں ☐ 1 . نہیں ☐ 2

D7 آپ اس تکلیف سے نجات کے لیے کیا کرتے ہیں؟

☐ 1 جسمانی ورزش

☐ 2 مذہبی مداخلت

☐ 3 سونے کی گولیاں

4 کچھ اور _____

D8 آپ اپنی بیماری کے علاج کے لیے کہاں جاتے ہیں؟

☐ 1 ہسپتال

☐ 2 ڈاکٹر

☐ 3 ماہر ڈاکٹر

☐ 4 جڑی بوٹی کے ڈاکٹر

☐ 5 روایتی علاج

☐ 6 مذہبی علاج

7 کوئی اور _____

D9 یہاں علاج کروانے کی وجہ کیا ہے؟

☐ 1 دیکھ بھال کا معیار

☐ 2 سستا علاج ہے

☐ 3 آسان رسائی

4 کوئی اور _____

D10 ڈپریشن اسکیل

	ہاں	نہیں
1 عام طور پر کیا آپ اپنی زندگی سے مطمئن ہیں۔	☐۱	☐۰
2 کیا حال ہی میں آپ نے اپنی بیشتر سرگرمیاں اور شوق ترک کر دیئے ہیں۔	☐۱	☐۰
3 کیا آپ محسوس کرتے ہیں کہ آپ کی زندگی میں کچھ نہیں۔	☐۱	☐۰
4 کیا آپ اکثر بوریت محسوس کرتے ہیں۔	☐۱	☐۰
5 کیا آپ اکثر ہشاش بشاش رہتے ہیں۔	☐۱	☐۰
6 کیا آپ کو ڈر ہے کہ آپ کے ساتھ کچھ برا ہونے والا ہے۔	☐۱	☐۰
7 کیا آپ اکثر خوشی محسوس کرتے ہیں۔	☐۱	☐۰
8 کیا آپ اکثر بے چارگی محسوس کرتے ہیں۔	☐۱	☐۰
9 کیا آپ باہر جانے اور کچھ نیا کرنے سے گھر پر رہنے کو ترجیح دیتے ہیں۔	☐۱	☐۰
10 کیا آپ کو محسوس ہوتا ہے کہ آپ کو اکثر لوگوں کی نسبت یادداشت کا زیادہ مسئلہ ہے۔	☐۱	☐۰
11 آپ کے خیال میں کیا زندگی اب بھی پر لطف ہے۔	☐۱	☐۰
12 کیا آپ اب اپنے آپ کو بے قدر محسوس کرتے ہیں۔	☐۱	☐۰
13 کیا آپ اپنے آپ کو توانائی سے بھرپور محسوس کرتے ہیں؟	☐۱	☐۰
14 کیا آپ محسوس کرتے ہیں کہ آپ کے حالات مایوس کن ہیں؟	☐۱	☐۰
15 کیا آپ کے خیال سے بہت سے لوگ آپ سے بہتر ہیں؟	☐۱	☐۰

	ہاں	نہیں	پتہ نہیں	جواب نہیں دیا
1 آپ کو خود سے بغیر کسی شخص یا آلے کی مدد لیے نہانے میں تکلیف ہوتی ہے۔ اگر ہاں تو کتنے عرصے سے (دن، ہفتے اور مہینے) _____	☐ 1	☐ 2	☐ 3	☐ 4
2 آپ کو خود سے بغیر کسی کی مدد لیے ہوئے یا کسی آلے کی مدد کے بغیر تیار ہونے میں مشکل پیش آتی ہے۔ اگر ہاں تو کتنے عرصے سے۔ _____	☐ 1	☐ 2	☐ 3	☐ 4
3 خود سے بغیر کسی کی مدد لیے یا کسی آلے کے بغیر آپ کو کھانا کھانے میں مشکل پیش آرہی ہے۔ اگر ہاں تو کتنے عرصے سے۔ _____	☐ 1	☐ 2	☐ 3	☐ 4
4 خود سے بغیر کسی کی مدد لیے ہوئے یا کسی آلے کا استعمال کیے بغیر آپ کو ٹوائلٹ جانے یا اس ٹوائلٹ پر بیٹھنے میں تکلیف ہوتی ہے۔ اگر ہاں تو کتنے عرصے سے۔ _____	☐ 1	☐ 2	☐ 3	☐ 4
5 آپ کو صحت کی وجہ سے کیا فون کے استعمال میں تکلیف پیش آرہی ہے۔ اگر ہاں تو کتنے عرصے سے۔ دن، ہفتے یا مہینوں میں بتائیے۔ _____	☐ 1	☐ 2	☐ 3	☐ 4
6 آپ کی صحت کی وجہ سے کیا آپ کو ہلکے پھلکے گھر کے کام کاج، صفائی میں تکلیف پیش آرہی ہے۔ اگر ہاں تو کتنے عرصے سے۔ _____	☐ 1	☐ 2	☐ 3	☐ 4
7 صحت کی وجہ سے کیا آپ کو گھر کے بھاری کام کاج، جیسے کپڑے دھونا، پوچھا لگانے میں تکلیف ہو رہی ہے۔	☐ 1	☐ 2	☐ 3	☐ 4
8 کیا آپ کو کھانا پکانے میں تکلیف پیش آرہی ہے۔	☐ 1	☐ 2	☐ 3	☐ 4
9 کیا آپ کو اپنی خود کی شاپنگ یعنی سبزی لانا، دوائی لانے میں تکلیف پیش آرہی ہے۔	☐ 1	☐ 2	☐ 3	☐ 4

D12 اگر آپ کو کام کرنے میں تکلیف ہوتی ہے تو کوئی آپ کی مدد کرتا ہے۔ ہاں ☐ 1 نہیں ☐ 2

اگر ہاں تو کون۔

D15 آپ کی مدد کون کرتا ہے؟

- ☐ 1 شوہر یا بیوی
- ☐ 2 بیٹا
- ☐ 3 بیٹی
- ☐ 4 بہو
- ☐ 5 نند/سالی
- ☐ 6 بہن
- ☐ 7 بھائی
- ☐ 8 کوئی اور رشتہ دار
- ☐ 9 نوکرانی
- ☐ 10 نرس
- ☐ 11 دوست/پڑوسی

کوئی اور _____

سیکشن ای(E) ربط ہونے کا احساس

E1 کیا آپ مسائل اور مشکلات کا حل نکال سکتے ہیں جو دوسروں کے لیے مایوس کن ہو۔

☐ جی ہاں، اکثر 1 ☐ جی ہاں، کبھی کبھار 2 ☐ نہیں 3

E2 کیا آپ کو محسوس ہوتا ہے کہ آپ کی روزمرہ زندگی ذاتی اطمینان کا ذریعہ ہے۔

☐ جی ہاں، اکثر 1 ☐ جی ہاں، کبھی کبھار 2 ☐ نہیں 3

E3 کیا آپ کو محسوس ہوتا ہے کہ آپ کی روزمرہ کی زندگی میں جو کچھ ہوتا ہے، اس کو سمجھنا مشکل ہے۔

☐ جی ہاں، اکثر 1 ☐ جی ہاں، کبھی کبھار 2 ☐ نہیں 3

سیکشن F: Measure Capability

ان سوالات کے جوابات دینے کے لیے آپ یہ سوچئے کہ آپ اپنے 30's میں ہیں۔ اس پر نشان لگوائیں جو آج آپ کو بیان کرتے ہیں۔

F1 میں کچھ ہی چیزیں کر سکتا/سکتی ہوں جو میں پہلے کر سکتا تھا۔ میں وہ سب کر سکتا/سکتی ہوں جو میں پہلے کر سکتی تھی۔

☐ ☐ ☐ ☐ ☐ ☐ ☐
7 6 5 4 3 2 1

F2 میرے پاس کام کے لیے کم مواقع ہیں۔ میرے پاس اسی طرح کے مواقع ہیں۔

☐ ☐ ☐ ☐ ☐ ☐ ☐
7 6 5 4 3 2 1

F3 میں جو کرتی/کرتا ہوں، مجھے کم اطمینان ملتا ہے۔ میں اسی طرح مطمئن ہوں جس طرح میں پہلے تھا۔

☐ ☐ ☐ ☐ ☐ ☐ ☐
7 6 5 4 3 2 1

سیکشنG: Resilience

	مکمل غیر متفق						مکمل متفق
1 جب میں منصوبے بناؤں تو ان کو پورا کرتی ہوں۔	☐1	☐2	☐3	☐4	☐5	☐6	☐7
2 میں عموماً کوئی نہ کوئی راستہ نکال لیتا/لیتی ہوں۔	☐1	☐2	☐3	☐4	☐5	☐6	☐7
3 میں کسی اور کی نسبت اپنے آپ پر بھروسہ کرتی / کرتا ہوں۔	☐1	☐2	☐3	☐4	☐5	☐6	☐7
4 معاملات میں دلچسپی قائم رکھنا میرے لیے زیادہ اہم ہے۔	☐1	☐2	☐3	☐4	☐5	☐6	☐7
5 اگر مجھے اپنے اوپر انحصار کرنا پڑے تو کرسکتی/سکتا ہوں۔	☐1	☐2	☐3	☐4	☐5	☐6	☐7
6 مجھے فخر ہے کہ میں نے زندگی میں چیزیں مکمل کی ہیں۔	☐1	☐2	☐3	☐4	☐5	☐6	☐7
7 میں معاملات کو حالات کے مطابق ڈھال لیتی/لیتا ہوں۔	☐1	☐2	☐3	☐4	☐5	☐6	☐7
8 میں اپنے آپ سے دوستی رکھتی/رکھتا ہوں۔	☐1	☐2	☐3	☐4	☐5	☐6	☐7
9 میرا خیال ہے کہ میں بیک وقت بہت سے معاملات نبھا سکتی/سکتا ہوں۔	☐1	☐2	☐3	☐4	☐5	☐6	☐7
10 میری قوتِ فیصلہ بہت مضبوط ہے۔	☐1	☐2	☐3	☐4	☐5	☐6	☐7
11 میں ایسا کم ہی محسوس کرتی/کرتا ہوں کہ اس سب کا کیا مقصد ہے۔	☐1	☐2	☐3	☐4	☐5	☐6	☐7

مکمل غیر متفق						مکمل متفق

12 میں زندگی کو اس دن کے مطابق گزارتی / گزارتا ہوں۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

13 میں مشکل حالات کا سامنا کرنے کی صلاحیت رکھتی/ رکھتا ہوں کیونکہ مجھے مشکلات سے گزرنے کا تجربہ ہے۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

14 میری ذات منظم ہے۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

15 میں چیزوں میں دلچسپی قائم رکھتی/ رکھتا ہوں۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

16 میں عام طور پر ہنسنے کے لیے کچھ نہ کچھ ڈھونڈ لیتی/ لیتا ہوں۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

17 میرا اپنی ذات پر یقین مجھے مشکل وقت سے نکال لیتا ہے۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

18 میں ان لوگوں میں سے ہوں جن پر لوگ ہنگامی حالت میں عام طور پر بھروسہ کر سکتے ہیں۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

19 میں کسی بھی صورتحال کا مختلف پہلوؤں سے جائزہ لے سکتی ہوں۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

20 بعض اوقات میں اپنے آپ سے وہ کام کرواتی / کرواتا ہوں چاہے میں چاہوں یا نہ چاہوں۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

21 میری زندگی کا ایک مقصد ہے۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

22 میں ان چیزوں کے نہیں سوچتی رہتی جن کا میں کچھ نہیں کر سکتی۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

23 مشکل صورتحال میں اکثر کوئی نہ کوئی راستہ نکال لیتی ہوں۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

مکمل غیر متفق						مکمل متفق

24 مجھے کچھ کرنا ہو تو اس کے لیے میں اپنے آپ میں مناسب ہمت پیدا کر لیتی ہوں۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

25 اگر کچھ لوگ ایسے ہیں جو مجھے پسند نہیں کرتے تو کوئی بات نہیں۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

26 مجھ میں حالات کا سامنا کرنے کی ہمت ہے۔ ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7

سیکشن H: خوش امیدی (Optimism)

	مکمل متفق				مکمل غیر متفق
1	غیر متوقع حالات میں ہمیشہ بہتری کی اُمید رکھتی ہوں۔	☐1	☐2	☐3	☐4	☐5
2	مجھے پرسکون رہنا آسان لگتا ہے۔	☐1	☐2	☐3	☐4	☐5
3	جو کچھ غلط ہونا ہے، وہ ہوگا۔	☐1	☐2	☐3	☐4	☐5
4	میں اپنے مستقبل کے بارے میں ہمیشہ پر اُمید رہتی ہوں۔	☐1	☐2	☐3	☐4	☐5
5	میں اپنے دوستوں کے ساتھ خوب مزہ کرتی ہوں۔	☐1	☐2	☐3	☐4	☐5
6	میرے لیے ضروری ہے کہ میں مصروف رہوں۔	☐1	☐2	☐3	☐4	☐5
7	مجھے کبھی یہ اُمید نہیں ہوتی کہ حالات میرے مطابق ہوں گے۔	☐1	☐2	☐3	☐4	☐5
8	میں بہت جلدی پریشان نہیں ہوتی۔	☐1	☐2	☐3	☐4	☐5
9	میرے ساتھ جو چیزیں اچھی ہو رہی ہیں اس کو مشکل سے ہی گنتی ہوں۔	☐1	☐2	☐3	☐4	☐5
10	مجموعی طور پر یہ توقع رکھتی ہوں کہ میرے حالات برے ہونے کی بجائے بہتر ہوں گے۔	☐1	☐2	☐3	☐4	☐5

سیکشن ا: ریٹائرمنٹ اور پنشن

1 ا آپ کس عمر میں ریٹائر ہوئے تھے۔

☐ 1 میں _____ سال کی عمر میں ریٹائر ہوا۔

☐ 2 میں اب تک ریٹائر نہیں ہوا تھا۔

3 کچھ اور _____

2 ا لوگ مختلف وجوہات کی بناء پر ریٹائر ہوتے ہیں اور ہر کوئی ایک ہی وقت پر ریٹائر نہیں ہوتا۔ کچھ لوگ ریٹائر ہونے کی یہ وجوہات بتاتے ہیں۔

☐ 1 میں ملک کی ریٹائر عمر میں ریٹائر ہوا۔

☐ 2 میں بیماری کی وجہ سے جلدی ریٹائر ہوا۔

☐ 3 میں ریاست کی تعین کردہ عمر میں ریٹائر ہونا برداشت نہیں کر سکتا۔

☐ 4 مجھے جلد ریٹائرمنٹ کے لیے اچھا پیکیج دیا جا رہا تھا۔

☐ 5 میں اپنے ایمبولسے کا قائل ہوں جنہوں نے ریاست کی نافذ کردہ ریٹائرمنٹ عمر کے بعد بھی کام پر رکھا۔

☐ 6 میں نے جلد ریٹائرمنٹ لے لی، کیونکہ مجھے کسی کا خیال رکھنا تھا۔

☐ 7 میں ریٹائرمنٹ کی عمر گزرنے کے بعد ریٹائر ہوا کیونکہ مجھے اپنے مالی حالات اچھے کرنے تھے۔

☐ 8 مجھے اپنی نوکری بہت پسند تھی، اس لیے میں نے تھوڑا زیادہ کام کیا۔

3 ا کچھ لوگوں کو پنشن اُن کے روزگار سے ملتی ہے جب وہ ریٹائر ہوتے ہیں یا ملک سے۔ کیا آپ کو بھی پنشن ملتی ہے۔

☐ 1 ہاں ☐ 2 نہیں ☐ 3 پتہ نہیں

13 اگر آپ مستقبل کو دیکھیں تو کیا آپ کو لگتا ہے کہ ریٹائرمنٹ کے دوران آپ کی آمدنی:

☐1 میری ضروریات کو پورا کرنے کے لیے کافی سے زیادہ ہوگی۔

☐2 صرف اپنی ضروریات کو پورا کرنے کے لیے کافی ہوگی۔

☐3 میری ضروریات کو پورا کرنے کے لیے کافی سے کم ہے۔

☐4 معلوم نہیں۔

انٹرویو آئی ڈی : _____

انٹرویو کی تاریخ اور وقت : _____

نام : _____

تاریخ پیدائش : _____

کوئی اور موجود تھا : _____

(کس حد تک ان کی شمولیت تھی)

آغازِ وقت : _____

اختتامِ وقت : _____

عمر : _____

جنس : _____

باپ کے بارے میں معلومات:

اصل پیشہ : _____

دورانیۂ بے روزگاری : _____

تاریخ پیدائش : _____

تاریخ وفات : _____

مزید معلومات : _____

ماں کے بارے میں معلومات:

اصل پیشہ : _____

دورانیۂ بے روزگاری : _____

تاریخ پیدائش : _____

تاریخ وفات : _____

مزید معلومات : _____

آپ کے والد کی تعلیم کیا تھی۔

- ☐ 1 اَن پڑھ
- ☐ 2 پڑھا لکھا مگر اسکول کی تعلیم نہیں
- ☐ 3 پانچویں جماعت تک
- ☐ 4 دسویں جماعت تک
- ☐ 5 11 سے 14 جماعت تک
- ☐ 6 16 جماعت یا اس سے زائد
- ☐ 7 معلوم نہیں
- ☐ 8 جواب نہیں دیا
- 9 کچھ اور _____

آپ کی والدہ کی تعلیم کیا تھی۔

- ☐ 1 اَن پڑھ
- ☐ 2 پڑھا لکھا مگر اسکول کی تعلیم نہیں
- ☐ 3 پانچویں جماعت تک
- ☐ 4 دسویں جماعت تک
- ☐ 5 11 سے 14 جماعت تک
- ☐ 6 16 جماعت یا اس سے زائد
- ☐ 7 معلوم نہیں
- ☐ 8 جواب نہیں دیا

کچھ اور _____

بہن بھائیوں کے بارے میں معلومات:

نمبر شمار	نام	تاریخ پیدائش	تاریخ وفات	تعلیم کس عمر میں ختم کی	گھر کس عمر میں چھوڑا	گھر چھوڑنے سے پہلے پیشہ کیا تھا
1						
2						
3						
4						
5						
6						
7						
8						

کیا آپ شادی شدہ ہیں۔ ہاں ☐ 1 نہیں ☐ 2

اگر ہاں تو شادی کی تاریخ کیا ہے: _____

آپ کی کتنی شادیاں ہوئیں: _____

پہلی بیوی/شوہر کا پیشہ:

شادی کے وقت پیشہ: _____ پورا دن ☐ 1 آدھا دن ☐ 2

ریٹائرمنٹ کے وقت پیشہ: _____ پورا دن ☐ 1 آدھا دن ☐ 2

کس سال ریٹائر ہوئے: _____

کتنی عمر میں ریٹائر ہوئے: _____

دوسرے میاں/ بیوی کا پیشہ:

شادی کے وقت پیشہ: _____ پورا دن ☐ 1 آدھا دن ☐ 2

ریٹائرمنٹ کے وقت پیشہ: _____ پورا دن ☐ 1 آدھا دن ☐ 2

کس سال ریٹائر ہوئے: _____

کتنی عمر میں ریٹائر ہوئے: _____

بچوں کے بارے میں معلومات (سوتیلے بھائی بہن کے بارے میں)

نمبر شمار	نام	تاریخ پیدائش	کس عمر میں تعلیم چھوڑی	کس عمر میں گھر چھوڑا	کیا وہ اب تک آپ کے ساتھ رہتے ہیں
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

پہلی رہائش:

پتہ: _____

کتنے سال اس پتے پر رہے: _____

کس طرح کے گھر میں رہے (فلیٹ/ بنگلہ) _____

خود کا گھر یا کرائے کا _____

کتنے کمرے تھے: _____

پانی کہاں سے آتا تھا۔ پائپ کا پانی ☐ 1 ہینڈ پمپ ☐ 2 پانی کی موٹر ☐ 3

ڈھکا ہوا کنواں ☐ 4 کھلا ہوا کنواں ☐ 5 ندی/ نالا ☐ 6 ٹینکر ☐ 7

منرل واٹر ☐ 8 فلٹر پانی ☐ 9 کچھ اور _____

آپ کے گھر میں بیت الخلاء کی کس طرح کی سہولت موجود تھی۔

ٹوائلٹ نہیں تھا۔ ☐ 1

فلش کا نظام تھا، نکاسی کے ساتھ ☐ 2 فلش کا نظام۔ کھلا گٹر ☐ 3

خشک بیت الخلاء ☐ 4 گڑھے والا ٹوائلٹ ☐ 5

آپ کے یہاں کیچڑ کی نکاسی کا کیا انتظام تھا۔

زمین کے اندر نظام ☐ 1 بند گٹر ☐ 9

کھلا گٹر ☐ 2 کوئی نظام نہیں ☐ 4

گھر کی چھت کیسی بنی ہوئی تھی۔

آر سی سی۔ ☐ 1

پکی چھت ☐ 2

لکڑے ☐ 3

لوہے یا سیمنٹ کی چھت ☐ 4

کچھ اور _____

دوسری رہائش:

پتہ: _____

کتنے سال اس پتے پر رہے: _____

کس طرح کے گھر میں رہے (فلیٹ/ بنگلہ) _____

خود کا گھر یا کرائے کا _____

کتنے کمرے تھے: _____

پانی کہاں سے آتا تھا۔ پائپ کا پانی ☐1 ہینڈ پمپ ☐2 پانی کی موٹر ☐3

ڈھکا ہوا کنواں ☐4 کھلا ہوا کنواں ☐5 ندی/ نالا ☐6 ٹینکر ☐7

منرل واٹر ☐8 فلٹر پانی ☐9 کچھ اور _____

آپ کے گھر میں بیت الخلاء کی کس طرح کی سہولت موجود تھی۔

ٹوائلٹ نہیں تھا۔ ☐1

فلش کا نظام تھا، نکاسی کے ساتھ ☐2 فلش کا نظام۔ کھلا گٹر ☐3

خشک بیت الخلاء ☐4 گڑھے والا ٹوائلٹ ☐5

آپ کے یہاں کیچڑ کی نکاسی کا کیا انتظام تھا۔

زمین کے اندر نظام ☐1 بند گٹر ☐3

کھلا گٹر ☐2 کوئی نظام نہیں ☐4

گھر کی چھت کیسی بنی ہوئی تھی۔

آر سی سی۔ ☐1

پکی چھت ☐2

لکڑے ☐3

لوہے یا سیمنٹ کی چھت ☐4

کچھ اور _____

تیسری رہائش:

پتہ: _____

کتنے سال اس پتے پر رہے: _____

کس طرح کے گھر میں رہے (فلیٹ/ بنگلہ) _____

خود کا گھر یا کرائے کا _____

کتنے کمرے تھے: _____

پانی کہاں سے آتا تھا۔ پائپ کا پانی ☐1 ہینڈ پمپ ☐2 پانی کی موٹر ☐3

ڈھکا ہوا کنواں ☐4 کھلا ہوا کنواں ☐5 ندی/ نالا ☐6 ٹینکر ☐7

منرل واٹر ☐8 فلٹر پانی ☐9 کچھ اور _____

آپ کے گھر میں بیت الخلاء کی کس طرح کی سہولت موجود تھی۔

ٹوائلٹ نہیں تھا۔ ☐1

فلش کا نظام تھا، نکاسی کے ساتھ ☐2 فلش کا نظام۔ کھلا گٹر ☐3

خشک بیت الخلاء ☐4 گڑھے والا ٹوائلٹ ☐5

آپ کے یہاں کیچڑ کی نکاسی کا کیا انتظام تھا۔

زمین کے اندر نظام ☐1 بند گٹر ☐3

کھلا گٹر ☐2 کوئی نظام نہیں ☐4

گھر کی چھت کیسی بنی ہوئی تھی۔

آر سی سی۔ ☐1

پکی چھت ☐2

لکڑے ☐3

لوہے یا سیمنٹ کی چھت ☐4

کچھ اور _____

40

چوتھی رہائش:

پتہ: _____

کتنے سال اس پتے پر رہے: _____

کس طرح کے گھر میں رہے (فلیٹ/ بنگلہ) _____

خود کا گھر یا کرائے کا _____

کتنے کمرے تھے: _____

پانی کہاں سے آتا تھا۔ پائپ کا پانی ☐1 ہینڈ پمپ ☐2 پانی کی موٹر ☐3

ڈھکا ہوا کنواں ☐4 کھلا ہوا کنواں ☐5 ندی/ نالا ☐6 ٹینکر ☐7

منرل واٹر ☐8 فلٹر پانی ☐9 کچھ اور _____

آپ کے گھر میں بیت الخلاء کی کس طرح کی سہولت موجود تھی۔

ٹوائلٹ نہیں تھا۔ ☐1

فلش کا نظام تھا، نکاسی کے ساتھ ☐2 فلش کا نظام۔ کھلا گٹر ☐3

خشک بیت الخلاء ☐4 گڑھے والا ٹوائلٹ ☐5

آپ کے یہاں کیچڑ کی نکاسی کا کیا انتظام تھا۔

زمین کے اندر نظام ☐1 بند گٹر ☐3

کھلا گٹر ☐2 کوئی نظام نہیں ☐4

گھر کی چھت کیسی بنی ہوئی تھی۔

آر سی سی۔ ☐1

پکی چھت ☐2

لکڑے ☐3

لوہے یا سیمنٹ کی چھت ☐4

کچھ اور _____

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پانچویں رہائش:

پتہ: _____

کتنے سال اس پتے پر رہے: _____

کس طرح کے گھر میں رہے (فلیٹ/ بنگلہ) _____

خود کا گھر یا کرائے کا _____

کتنے کمرے تھے: _____

پانی کہاں سے آتا تھا۔ پائپ کا پانی ☐1 ہینڈ پمپ ☐2 پانی کی موٹر ☐3

ڈھکا ہوا کنواں ☐4 کھلا ہوا کنواں ☐5 ندی/ نالا ☐6 ٹینکر ☐7

منرل واٹر ☐8 فلٹر پانی ☐9 کچھ اور _____

آپ کے گھر میں بیت الخلاء کی کس طرح کی سہولت موجود تھی۔

ٹوائلٹ نہیں تھا۔ ☐1

فلش کا نظام تھا، نکاسی کے ساتھ ☐2 فلش کا نظام۔ کھلا گٹر ☐3

خشک بیت الخلاء ☐4 گڑھے والا ٹوائلٹ ☐5

آپ کے یہاں کیچڑ کی نکاسی کا کیا انتظام تھا۔

زمین کے اندر نظام ☐1 بند گٹر ☐3

کھلا گٹر ☐2 کوئی نظام نہیں ☐4

گھر کی چھت کیسی بنی ہوئی تھی۔

آر سی سی۔ ☐1

پکی چھت ☐2

لکڑے ☐3

لوہے یا سیمنٹ کی چھت ☐4

کچھ اور _____

پہلا پیشہ:

کس کے پاس کام کرتے تھے : _____

کس سال سے کس سال تک : _____

جاب کا نام کیا تھا : _____

پورا دن یا آدھا دن : _____

کتنے سال کام کیا : _____

کیا آپ جسمانی طور پر اپنے ہاتھوں سے کام کرتے تھے۔ ہاں☐1 نہیں☐2

اگر ہاں، تو کیا یہ کام کرنے کے لیے کسی مہارت یا ٹریننگ کی ضرورت تھی۔ ہاں☐1 نہیں☐2

آپ کی پوسٹ کیا تھی۔ منیجر☐1 ایمپلوئی☐2 سیلف ایمپلوئی☐3

کیا آپ خود سنبھالتے تھے۔ ہاں☐1 نہیں☐2

کیا آپ کا کام مندرجہ ذیل چیزوں سے متعلق تھا۔ دھواں☐1 مٹی☐2 گندگی☐3

حفاظتی آلہ یا ویکسینیشن موجود تھی۔ ہاں☐1 نہیں☐2

مشکل پیش آتی تھی۔ بھاری سامان اُٹھانے میں☐1 پیٹ میں کوئی چوٹ☐2 پسینہ آتا تھا☐

آپ جہاں کام کرتے تھے، وہ جگہ کیسی تھی۔ چھوٹی جگہ☐1 بڑی جگہ☐2 کھلی جگہ☐3

کام کے حالات کیسے تھے۔ خود فیصلہ کرتے تھے۔ ہاں☐1 نہیں☐2

جب بریک لینا چاہتے، لے سکتے تھے۔ ہاں☐1 نہیں☐2

کیا آپ کو یا آپ کے شوہر کو پنشن ملتی ہے۔ ہاں☐1 نہیں☐2

پاکستان میں پنشن فنڈ۔ ☐1 اگر ہاں، تو کتنا: _____

نیشنل سیونگ پنشن امامت ☐2 ~~ہاں☐ نہیں☐~~ اگر ہاں، تو کتنی: _____

پنشن اور سیکورٹی اسکیم ☐3 _____

ایمپلوئی اولڈ ایج بینی فٹ ☐4 _____

کوئی اور _____

پنشن

آپ کو		ملک سے	کام/ پرائیویٹ کام	کوئی اور روزگار
آپ کے شوہر/ وائف کو				

دوسرا پیشہ:

کس کے پاس کام کرتے تھے : _____

کس سال سے کس سال تک : _____

جاب کا نام کیا تھا : _____

پورا دن یا آدھا دن : _____

کتنے سال کام کیا : _____

کیا آپ جسمانی طور پر اپنے ہاتھوں سے کام کرتے تھے۔ ہاں☐1 نہیں☐2

اگر ہاں، تو کیا یہ کام کرنے کے لیے کسی مہارت یا ٹریننگ کی ضرورت تھی۔ ہاں☐1 نہیں☐2

آپ کی پوسٹ کیا تھی۔ منیجر☐1 ایمپلوئی☐2 سیلف ایمپلوئی☐3

کیا آپ خود سنبھالتے تھے۔ ہاں☐1 نہیں☐2

کیا آپ کا کام مندرجہ ذیل چیزوں سے متعلق تھا۔ دھواں☐1 مٹی☐2 گندگی☐3

حفاظتی آلہ یا وینٹی لیشن موجود تھی۔ ہاں☐1 نہیں☐2

مشکل پیش آتی تھی۔ بھاری سامان اُٹھانے میں☐1 پیٹ میں کوئی زخم☐2 پسینہ آتا تھا☐3

آپ جہاں کام کرتے تھے، وہ جگہ کیسی تھی۔ چھوٹی جگہ☐1 بڑی جگہ☐2 کھلی جگہ☐3

کام کے حالات کیسے تھے۔ خود فیصلہ کرتے تھے۔ ہاں☐1 نہیں☐2

جب بریک لینا چاہتے، لے سکتے تھے۔ ہاں☐1 نہیں☐2

کیا آپ کو یا آپ کے شوہر کو پنشن ملتی ہے۔ ہاں☐1 نہیں☐2

پاکستان میں پنشن فنڈ۔ ☐1 ہاں☐ نہیں☐ اگر ہاں، تو کتنا: _____

نیشنل سیونگ پنشن امامت ☐2 ہاں☐ نہیں☐ اگر ہاں، تو کتنی: _____

پنشن اور سیکورٹی اسکیم ☐3 _____

ایمپلوئی اولڈ ایج بینی فٹ ☐4 _____

کوئی اور _____

پنشن

آپ کو		ملک سے	کام/ پرائیویٹ کام	کوئی اور روزگار
آپ کے شوہر/ وائف کو				

تیسرا پیشہ:

کس کے پاس کام کرتے تھے : _____

کس سال سے کس سال تک : _____

جاب کا نام کیا تھا : _____

پورا دن یا آدھا دن : _____

کتنے سال کام کیا : _____

کیا آپ جسمانی طور پر اپنے ہاتھوں سے کام کرتے تھے۔ ہاں☐1 نہیں☐2

اگر ہاں، تو کیا یہ کام کرنے کے لیے کسی مہارت یا ٹریننگ کی ضرورت تھی۔ ہاں☐1 نہیں☐2

آپ کی پوسٹ کیا تھی۔ منیجر☐1 ایمپلوئی☐2 سیلف ایمپلوئی☐3

کیا آپ خود سنبھالتے تھے۔ ہاں☐1 نہیں☐2

کیا آپ کا کام مندرجہ ذیل چیزوں سے متعلق تھا۔ دھواں☐1 مٹی☐2 گندگی☐3

حفاظتی آلہ یا وینٹی لیشن موجود تھی۔ ہاں☐1 نہیں☐2

مشکل پیش آتی تھی۔ بھاری سامان اُٹھانے میں☐1 پیٹ میں کوئی زخم☐2 پسینہ آتا تھا☐3

آپ جہاں کام کرتے تھے، وہ جگہ کیسی تھی۔ چھوٹی جگہ☐1 بڑی جگہ☐2 کھلی جگہ☐3

کام کے حالات کیسے تھے۔ خود فیصلہ کرتے تھے۔ ہاں☐1 نہیں☐2

جب بریک لینا چاہتے، لے سکتے تھے۔ ہاں☐1 نہیں☐2

کیا آپ کو یا آپ کے شوہر کو پنشن ملتی ہے۔ ہاں☐1 نہیں☐2

پاکستان میں پنشن فنڈ۔ ☐1 اگر ہاں، تو کتنا: _____

نیشنل سیونگ پنشن امامت ☐2 اگر ہاں، تو کتنی: _____

پنشن اور سیکورٹی اسکیم ☐3 _____

ایمپلوئی اولڈ ایج بینی فٹ ☐4 _____

کوئی اور _____

پنشن

آپ کو		ملک سے	کام/ پرائیویٹ کام	کوئی اور روزگار
آپ کے شوہر/ وائف کو				

چوتھا پیشہ:

کس کے پاس کام کرتے تھے : _____

کس سال سے کس سال تک : _____

جاب کا نام کیا تھا : _____

پورا دن یا آدھا دن : _____

کتنے سال کام کیا : _____

کیا آپ جسمانی طور پر اپنے ہاتھوں سے کام کرتے تھے۔ ہاں☐1 نہیں☐2

اگر ہاں، تو کیا یہ کام کرنے کے لیے کسی مہارت یا ٹریننگ کی ضرورت تھی۔ ہاں☐1 نہیں☐2

آپ کی پوسٹ کیا تھی۔ منیجر☐1 ایمپلوئی☐2 سیلف ایمپلوئی☐3

کیا آپ خود سنبھالتے تھے۔ ہاں☐1 نہیں☐2

کیا آپ کا کام مندرجہ ذیل چیزوں سے متعلق تھا۔ دھواں☐1 مٹی☐2 گندگی☐3

حفاظتی آلہ یا وینٹی لیشن موجود تھی۔ ہاں☐1 نہیں☐2

مشکل پیش آتی تھی۔ بھاری سامان اُٹھانے میں☐1 پیٹ میں کوئی زخم☐2 پسینہ آتا تھا☐3

آپ جہاں کام کرتے تھے، وہ جگہ کیسی تھی۔ چھوٹی جگہ☐1 بڑی جگہ☐2 کھلی جگہ☐3

کام کے حالات کیسے تھے۔ خود فیصلہ کرتے تھے۔ ہاں☐1 نہیں☐2

جب بریک لینا چاہتے، لے سکتے تھے۔ ہاں☐1 نہیں☐2

کیا آپ کو یا آپ کے شوہر کو پنشن ملتی ہے۔ ہاں☐1 نہیں☐2

پاکستان میں پنشن فنڈ۔ ☐1 ہاں☐ نہیں☐ اگر ہاں، تو کتنا: _____

نیشنل سیونگ پنشن امامت ☐2 ~~ہاں☐ نہیں☐ اگر ہاں، تو کتنی:~~ _____

پنشن اور سیکورٹی اسکیم ☐3 _____

ایمپلوئی اولڈ ایج بینی فٹ ☐4 _____

کوئی اور _____

پنشن

آپ کو		ملک سے	کام/ پرائیویٹ کام	کوئی اور روزگار
آپ کے شوہر/ وائف کو				

پانچواں پیشہ:

کس کے پاس کام کرتے تھے : _____

کس سال سے کس سال تک : _____

جاب کا نام کیا تھا : _____

پورا دن یا آدھا دن : _____

کتنے سال کام کیا : _____

کیا آپ جسمانی طور پر اپنے ہاتھوں سے کام کرتے تھے۔ ہاں☐1 نہیں☐2

اگر ہاں، تو کیا یہ کام کرنے کے لیے کسی مہارت یا ٹریننگ کی ضرورت تھی۔ ہاں☐1 نہیں☐2

آپ کی پوسٹ کیا تھی۔ منیجر☐1 ایمپلوئی☐2 سیلف ایمپلوئی☐3

کیا آپ خود سنبھالتے تھے۔ ہاں☐1 نہیں☐2

کیا آپ کا کام مندرجہ ذیل چیزوں سے متعلق تھا۔ دھواں☐1 مٹی☐2 گندگی☐3

حفاظتی آلہ یا وینٹی لیشن موجود تھی۔ ہاں☐1 نہیں☐2

مشکل پیش آتی تھی۔ بھاری سامان اُٹھانے میں☐1 پیٹ میں کوئی زخم☐2 پسینہ آتا تھا☐3

آپ جہاں کام کرتے تھے، وہ جگہ کیسی تھی۔ چھوٹی جگہ☐1 بڑی جگہ☐2 کھلی جگہ☐3

کام کے حالات کیسے تھے۔ خود فیصلہ کرتے تھے۔ ہاں☐1 نہیں☐2

جب بریک لینا چاہتے، لے سکتے تھے۔ ہاں☐1 نہیں☐2

کیا آپ کو یا آپ کے شوہر کو پنشن ملتی ہے۔ ہاں☐1 نہیں☐2

پاکستان میں پنشن فنڈ۔ ☐1 اگر ہاں، تو کتنا: _____

نیشنل سیونگ پنشن امامت ☐2 ~~ہاں☐ نہیں☐ اگر ہاں، تو کتنی:~~ _____

پنشن اور سیکورٹی اسکیم ☐3 _____

ایمپلوئی اولڈ ایج بینی فٹ ☐4 _____

کوئی اور _____

پنشن

آپ کو		ملک سے	کام/ پرائیویٹ کام	کوئی اور روزگار
آپ کے شوہر/ وائف کو				

Annexure 6: Information sheet in Urdu for survey

INSTITUTE FOR HEALTH AND HUMAN DEVELOPMENT

تحقیق کے بارے میں معلومات

تعارف

زندگی کے معیار،بڑھے لوگوں میں جدید عالمی تحقیق کا ایک موضوع بن گیا ہے۔اور سرکاری پالسی کے ایجینڈے میں ترجیح دی جا رھی ہے۔یہ دنیا کے لیے تشویش کا باعث بن گیا ہےکہ بزرگوں کی کسطرح دیکھ بھال کی جاۓ کیونکہ ماہرین کہ مطابق سال 2050 تک بزرگوں کی تعداد بڑھ کر 809

ملین بڑھ جاے گی۔اس لئے یہ ضروری ہو گیا ہے کہ ہم یہ جانیں کے بزرگوں کی معیار زندگی ہے۔ کیسی

معیار زندگی کو معلوم کرنے

کے لیے ہم نے سوال نامہ ترتیب دیا ہے جس کے ذریے ہم آپکي معیار زندگی کا پتہ لگاے گے۔

مجھے اس تحقیق میں حصہ لینے کے لیے کیا کرنا ہو گا

-ہم اس تحقیق میں 50 سال سے زاید عمر کے پاکستانی مرد اور خواتین کو شرکت کی دعوت دے رہے ہیں ۔

-آپ کو ایک بار ہی بلایا جاۓگا۔

آپ سے اردو زبان میں سوالات پوچھے جاے گے۔

کچھ کھولےاور بند سوالات کیے جایں گے

تمام بات چیت کا دورانیہ 45 منٹ کا ہوگا

-تمام با چیت کو اعتماد میں رکھا جاۓ گا۔

کیا اس تحقیق میں حصہ لینے کے کوی خطرات ہیں؟

ہم آپ کو کوی دوای نہیں دےرہے یا آپ کا جسمانی معاینہ نہیں کر رہے اس لیے آپ کو کوی بھی جسمانی خطرہ نہیں ہے۔

کیا اس تحقیق میں حصہ لینا ضروری ہے؟

نہیں اس تحقیق میں حصہ لینا آپ کی مرضی ہے۔ اگر آپ حصہ لینا چاہتے ہیں تو آپ کو وجہ بتانے کی ضرورت نہیں ہے اور آپ کسی بھی وقت اس تحقیق سے جا سکتے ہیں۔

جب تحقیق مکمل ہو جاۓ گی تب کیا ہوگا؟

تحقیق مکمل ہونے پر اس کی رپورٹ آپ سے شیر کی جاے گی۔

اگر آپ کو تحقیق کے بارے میں مزید معلومات درکار ہوتوآپ دیے گے پتے یا نمبر پر کال کر سکتے ہیں۔

لیلہ سورانی
وی کیر سوسایٹی فار اکٹیو اینڈ ہیلدی ایجیگ
سی 172 بلاک سی
نارتھ ناظیم آباد
کراچی
36632678

اب مجھے کیا کرنا ہوگا؟
اگر آپ حصہ لینے کو تیار ہیں تو برائے مہربانی تحقیق میں شرکت کرنے کے ذبانی حامی بھریے ۔ تحقیق والے دن اگر تحقیق کے مطعلق آپ کو کوی سوال ہو گے تو اس کے جواب دیے جاے گے۔ اور آپ کو رضانامے پر اپنے دستخط کرنے ہوں گے۔
اس تحقیق میں حصہ لینے کا بہت شکریہ آپ کی مدد کابل تعریف ہے

Annexure 7: Consent form in Urdu for survey

INSTITUTE FOR HEALTH AND HUMAN DEVELOPMENT

رضا نامہ

میں نے تحقیق کے بارے میں موجود معلومعاتی پرچہ جو دیا گیا تھا اسے اچھے سے پڑھا ہے۔ مجھے اس تحقیق کے مطعلق اور اس کی وجہ بتای گی ہے۔ مجھے اس تحقیق کے بارے میں معلومعات جاننے کا موقع دیا گیا ہے۔ میں جانتی/جانتا ہوں کہ تحقیق کا طریقہ کار کیا ہوگا مجھے اس کی وضاحت کی گئ ہے۔

میں سمجھتی/سمجھتا ہوں کہ اس تحقیق میں شمولیت اورحاصل ہونے والا ڈیٹہ رازداری میں رکھا جاے گا۔ یہ ڈیٹہ صرف وہ لوگ دیکھ پاے گےجو اس تحقیق میں شامل ہیں۔ مجھے یہ بھی بتایہ گیا ہے کہ اس تحقیق کے بعد کیا ہو گا۔

میں آذادانہ اور مکمل طور پر اس تحقیق میں شامل ہونے کے لیے حامی بڑھتی / بڑھتا ہوں، جس کی مجھے اچھے سے وضاحت کی گی ہے۔

میں سمجھ سکتی/سکتا ہوں کہ اس تحقیق میں شامل ہونے کے بعد کسی بھی وقت میں اسے چھوڑ کر جا سکتی/سکتا ہوں جس سے مجھے کوئ نقصان نہیں ہو گا اور کوی جوابداری نہیں دینی ہو گی۔

شرکاء کا نام _____

شرکاء کے دستخط _____

تحقیق کار کے نام _____

تحقیق کار کے دستخط _____

Annexure 8: Information sheet for focus groups in London

INSTITUTE FOR HEALTH AND HUMAN DEVELOPMENT

Study Information sheet

Cross cultural adaptation of CASP 19 in Urdu language

Researcher	**Principal investigator**
Laila Surani (PhD Student)	Dr Gopal Netuveli
Address: Institute for Health and Human Development Suite UH250 University of East London Stratford Campus Water Lane London E15 4LZ	**Address:** Institute for Health and Human Development Suite UH250 University of East London Stratford Campus Water Lane London E15 4LZ
Tel:	

Introduction

Quality of life (QOL), and life satisfaction has become an important theme in modern academic research on older people and has become priority agenda of public policy. (ALLISON, S 2004). It has become the concern of the world that how to take care of the senior citizens and give QOL to our elderly, as people over the age of 60 is set to ascend from some 809 million today to more than two billion by 2050. (Global age watch index, 2014). Hence to understand the subjective wellbeing of the elderly, it is important to measure the quality of life with the much culturally adapted and validated measure of QOL that is; CASP (control , Autonomy, Self-actualization Pleasure).

Therefore we have translated CASP 19 measure QOL from English to Urdu language for the cross cultural adaptation of the tool in Pakistani older population.

We are interested in knowing your views on the language, content, and culturally sensitivity of the statements provided in the CASP 19 measure. By understanding the way you view the CASP 19 measure, we hope to be able to construct appropriate cross cultural adaptation of CASP 19 measure in Pakistan.

What will I have to do to take part?

- We are inviting participants aged 50 years or more from Redbridge.
- You will only need to be involved on one occasion.
- There will be a focus group discussion conducting in Urdu language
- You will be asked several questions regarding the instrument.
- All the discussion will be recorded.
- The whole process will take 3 hours.
- All information will be dealt with in strict confidence

Are there any risks to taking part?

We are not giving you any medication or physically examining you in any way, so there are no physical risks.

All information you share with us is absolutely confidential and will not be disclosed to anyone other than those involved in the study. All the data and recorded cassettes will be stored in the locker.

Do I have to take part?

No. Taking part is voluntary. If you do not want to take part you do not have to give a reason. you can also withdraw from the study at any point of time.

What will happen once research is done?

After the compilation of data we will share report with you.

Where does this study will take place?

The study will take place in a room provided by Pakistan association in Redbridge.

Any concerned about the conduct of investigator

if participants have any concerns about the conduct of the investigator, researcher(s) or any other aspect of this research project, they should contact Ms Laila Surani telephone number

What do I do now?

If you are willing to take part in the study, kindly give verbal consent and on the day of focus group if any questions you may have can be answered, and you will be provided with a consent form to sign.

Refreshment

Light refreshment will be served on the day of research.

Thank you very much for taking part in our study. Your help is greatly appreciated

Annexure 9: Consent form for the focus groups

INSTITUTE FOR HEALTH AND HUMAN DEVELOPMENT

Cross cultural adaptation of CASP 19 in Urdu language

Consent Form

I have the read the information leaflet relating to the above programme of research in which I have been asked to participate and have been given a copy to keep. The nature and purposes of the research have been explained to me, and I have had the opportunity to discuss the details and ask questions about this information. I understand what it being proposed and the procedures in which I will be involved have been explained to me.

I understand that my involvement in this study, and particular data from this research, will remain strictly confidential. Only the researchers involved in the study will have access to the data. It has been explained to me what will happen once the programme has been completed.

I hereby freely and fully consent to participate in the study which has been fully explained to me and for the information obtained to be used in relevant research publications.

Having given this consent I understand that I have the right to withdraw from the study at any time without disadvantage to myself and without being obliged to give any reason.

Participant's Name (BLOCK CAPITALS) …….

Participant's Signature ……..

Investigator's Name (BLOCK CAPITALS) ……..

Investigator's Signature ……

Date: …….

Annexure 10: Thematic analysis of the focus group

To perform the analysis of the two focus groups thematic analysis presented by (Barun, V and Clarke, V 2006) was performed. The thematic analysis is particularly used for identifying, analysing, and reporting (themes) within data. It assists in organising and describing the data. However, ‘it also often goes further than this and interprets various aspects of the research topic’ (Boyatzis, 1998). The following steps were used to perform the thematic analysis.

Codes	-Shortage of money -Family responsibilities - Material needs	-Different words in Urdu -Clarity of words -Sentence structure	-Different meaning of opportunists in the context - Predicting about future	-Living with a family -Interacting and meeting with the friends .	-Women responsibly to look after family -Men bread earner -Fulfil the needs of the family -Not allowed education	-Qol is when basic needs are fulfilled, having Happiness -Opportunities to work -Have family - having good health
Themes	**Themes 1 Financial needs**	**Theme 2 :CASP Language**	**Theme 3:CASP Concept**	**Theme 4 :Social support**	**Theme 5 : Cultural influence**	**Theme 6: Quality of life Participant's perspective**
Gender wise Transcription **Males**	Shortage of money stops me from doing things I want to do'	Statement number 11 'I feel that my life has meaning'	In statement 18 when you say 'zindagi	quality of life is, when you are living nicely, your family	'I have concern with number 6 'khandaan ki zemadari mujhay wo	quality of life is, when you are living nicely, your family life is good, you

	this is my opinion, that I am happy whatever I have and I am living good life so this makes me think what answer should I mark.’ I think it is not culturally appropriate to say that the ‘family responsibilities stop us to do what the work which I want to do’. Because my father is	‘meri zindagi kay maenay hay’ is bit confusing it should be ‘meri zindagi bey maenay hay ‘means ‘I feel my life is meaningless’. Dr Shukat: ‘It should be ‘ba maenay’ which can give sense to the sentence.’	mawaqoo se bharpoor hay’ ‘I feel that life is full of opportunities’, in this age which opportunities you are talking about. What opportunities old man have in his 60s or 70s, are you talking about business	life is good, you have resources to live, and there be a support system and you are not stressed out	kaam karnay se rokti hay jomain karna chahta hon’,family responsibilities stop me doing things which I want to do’. I think this is not appropriate, we meet our family, we take care of our family and family responsibilities never stop us to do things which we want to do, until we are sick and can’t manage it.’	have resources to live, and there be a support system and you are not stressed out. Moreover, you are living in a safe environment and have opportunities to do activities what we want to do that is quality of life. Then you are physically fit and you do not have any stress this is quality of life. If I am happy besides having all the resources then, I will say I

	in his 80s and lives in Pakistan, but until today I have never	‘Statement number 4 ‘mujhay mehsoos hota hay	opportunity. Then in number 19 you say ‘mustaqbil			have good quality of life, if I am getting all the things which I need to live my life, then I will

	ever taken a decision without asking him. I am fulfilling all his needs and providing all resources, which he wants in his life. Therefore, in our culture this statement will not be appropriate. However, if you really want to add this statements then clear it that 'sometimes' 'baaz uwqat' it stops me doing whatever I want to do.'	cheezian choot rahi hay', 'I feel left out of things' this sentence does not have any clarity, what do you mean by that? The interpretation of this sentence is not appropriate. Do you want to say things are left out physically, mentally or what? So, this sentence does not make any sense.' 'I think there is a problem with the grammar rather than saying 'main aanay walay din	meray liyee acha hay' I feel that the future looks good for me' then in which context you are talking about.' Moderator: Do you mean that number 18 and 19 is in inappropriate? Mohammad aslam: 'No whatever you are asking in 18 and 19 is right but our concern is that this is irrelevant for			say I have good quality of life.' If person is happy, well I am not happy like people who have family support, they are happy, I don't have any support, I am living alone. I am not physically fit, see my hands are shacking and paining. I do not have any one to look after me. I do not have any peace of mind. I am living alone so you can think, what could be my quality of life. I had spent good life in the past and I do not regret. My past was good but, today I don't have good life and I have not left with anything to do in this

		ka muntazir hon' you should say 'main aanay walay din ka muntazir rehta hon' so as far as I am concern this needs bit clarity	our age group, in number 18 which opportunities you are talking about and in number 19, I cannot predict about my future			life, except to die'. As Dr shukat said many people are very happy if people are happy they have a good quality of life. They have all social support. I always come in this centre (community

		in grammar.' 'Even in statement 11, if we say 'zindagi be maenay hay', it will give you negative meaning. If you want to say in a positive way then you need to say 'app ki zindagi ka koi maqsad hay' 'my life has some goals'. Abdul Khaliq: 'This statement should be 'main aanay walay din ka achay kaam kay liyee muntazir hon' ,' I look forward to each day for good work'. In statement 17 the word 'mutmain' is not appropriate it	whether it's good of bad for me. So, for the old age these 2 statements are irrelevant.' Fazal karim: 'I am 75 now why should I look for an opportunity, now I can only do 'Allah, Allah'. In this age, we wait for our time to die'. If you can see number 19 'mere mustaqbil meray lyee acha hay' 'I feel that the future looks good for me'. I think it's not an appropriate religiously, because you cannot talk about future and you can find a group of people			centre for Pakistanis) to get socialize and make myself happy. Many people I come across in this centre they say, that they are very happy with their lives and they say we are still young'. Quality of life has 2 phases. One is when person has all the living resources to survive and second, in the country, where the person is living gets welfare. When they are in their retirement life, they are all getting benefits for their living. so that means do I have enough resource to survive in my 50s or 60s and when I am retired in the age of 50s or 60s, does state have policy for the people to provide them the resources and when all the needs are met, then we can have a quality of life. For me the basic need is that a person

		should be ‘itminaan’ (satisfied). So it should be ‘main itminaan mehsoos karta hon jis tarha meri zindagi badal rahi hay’. Dr rashid: ‘Or you can say ‘I am satisfied’ ‘main mutmain hon’ if you will say ‘I feel satisfied’ then you have to change the word ‘mutmain’ to ‘itminan’ then you can say ‘main itminan mehsoos karta hon’ ‘I feel satisfy’. Dr rashid: ‘I am also not very clear about the statement 15 ‘I feel full of energy these days’ this need clarity. What does it say, does it	11 will review on you or can shout at you, that how one can predict about future. In our religion, you cannot predict future. You need to think about this as for example you say ‘agar Allah nay chaha tho main karon ga’ ‘If Allah permits I will do this’. Dr Rashid: ‘People can feel anything but, when they will discuss they will say she has become mad, talking about future, and thinking that he/she is a GOD.’			has his own place to live or the state has given place. The other thing is that the person above 50 has given benefits for health care and has enough finance to live better and quality life. As today there is a financial crisis therefore its state’s responsibility to provide resources to 50 or 60 plus people.’ Mohammad aslam: ‘we cannot always get happiness even we have money or we are very rich, we cannot get happiness if we don’t have peace of mind. If the person is earning 200 or 300 pounds per week but still he is not happy, because his children and wife they are not supportive and don’t have good relationship with them. Then there is no use of having money in the pocket.’

		mean mental energy, physical energy.' Dr Shuakat : 'And the word 'tawanai' (energy) mostly is used in describing a form of electricity. The word energetic can be used which means 'josheela', 'hoslay se' 'himat se'. Moderator: Can you make it more clear, do you mean that the word ' tawanai' is not appropriate in statement 17 Dr rashid : 'What I have understood from number 17 is that 'main mehsoos karta hon kay mujh aaj kaam karnay ki				

Moderator: recapped all the points, which were shared by the participants on quality of life.

Dr Rashid: ‘Education is also important to have a good quality of life. to understand quality of life it is important to look back in the past and to know, does a person has been given an opportunity to get an education? Then did he has a good job opportunity after completing his education and then did person have enough to fulfil all his lives necessitates and this can define quality of life.’

Abdul Khaliq: ‘Standard of living and quality of life is a relative term. There are factors, which affects the quality of life. The quality of life is different in London from back home and you cannot compare the life from here to there.

		himat hay ‘‘I feel energetic these days’.so this needs some clarity both grammatically and conceptually.’				

Quality of life includes political factors and how economic factors are distributed.'

Observation (he started speaking in English).

Abdul Khaliq: 'Just clear one thing to me, do we need to give answers while keeping this in mind that we are still Pakistani or a British national as we are now living in this country for last 40 years however, we have still had same feelings for our country.'

Moderator: you say whatever you feel and think about the subject.

Abdul Khaliq: 'For example my wife is handicap and I have to do all her work so sometimes that situation didn't allow me to do things I really want to do

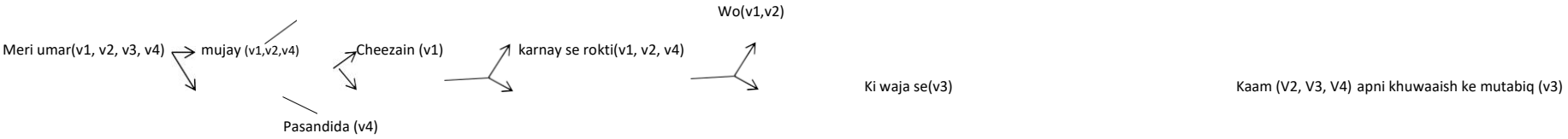
Females		I did not understand statement 4 ‘cheezain meray haatho se choot rahi hay’ what does that mean. B: Yes, this statement is not even clear to me this statement needs clarity	I think item number 6 in the questionnaire is very true statement, because in Pakistani culture mom or female has all family responsibilities. A woman is like a ship captain, if captain is not their then ship will sink. It has just like that if a woman is not at home, and then how home will be managed women has a main role in a family. So sometimes this really stops us, if we want to go			In my point of view quality is life is when people have good health, and then people should have money. A person’s financial situation should be very good so they can fulfil their basic needs’. : ‘besides that people should have respect in the society, then only they can have good life and person have life satisfaction’. B: ‘For me health is very important, financial situation should be good and people can avail services.’ For me quality of life is

			somewhere or want to have our own time, if I want to do some course I cannot do it. All the time woman must think what to cook, should pick daughter, then drop another daughter. So, all the time these responsibilities don't allow us to do things which we really want to do.' C: 'yes she is right women are the key to home, if someone died, then that is a woman responsibility to go for condolence, man will say we don't have time			when you have a good health. If person has good health, then he has everything. If person is healthy, he can earn money for his living and can meet every one. His behaviour will be good; he will not be irritated all the time. If person is unhealthy then he cannot do anything. For me health is everything. If person has lots of wealth but he is on bed then, what is the use of money? So therefore, health is wealth.' D: 'for me to live happy life with the family is good life. Money and health both are important to live a life, but health is much important than the money.' E: 'For me all is important in life, money, health and family if you have all these things in life then you have a good

			we are working so you go.’			quality of life. It is important that people should live with the family happily and for me happiness is important.; but in this age I am so scared and think a lot that, what will happen in future if I would be on bed then what will happen. When I see disable people I get anxiety that what will happen if I will be disable in the future.’ F: ‘if person doesn’t have respect, love and family then they don’t have a good life.’

Annexure 11 : Compilation of CASP in Tree form

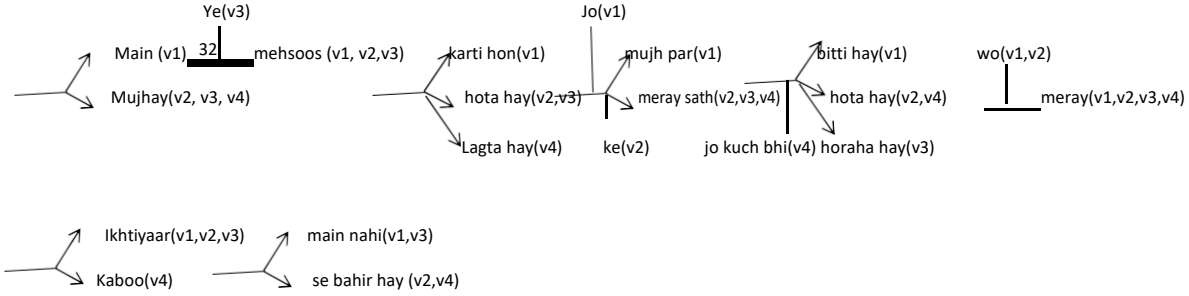
CASP 19 Stat 1



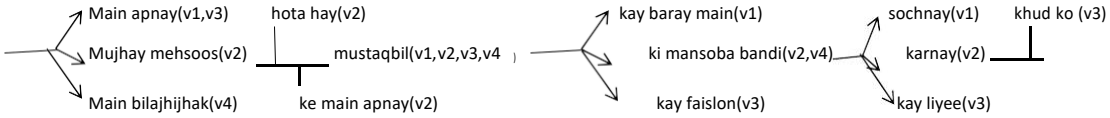
jo main karna chati hon (v1, v2)

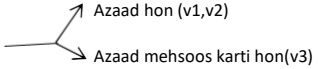
nahin kar sakti hon (v3)

CASP 19 Stat 2

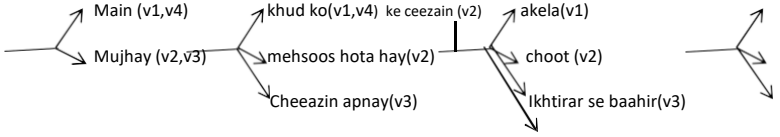


CASP 19 Stat 3





CASP 19 Stat 4

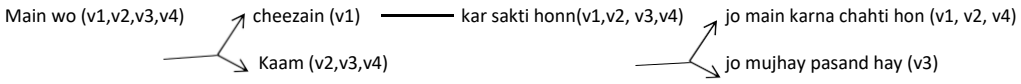


mehsoos karti hon (v1,v4)

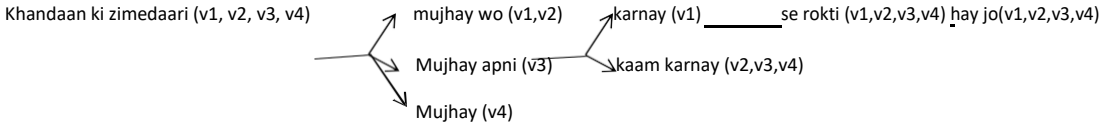
rahi hay (v2)

mehsoos hoti hay (v3)

CASP 19 Stat 5

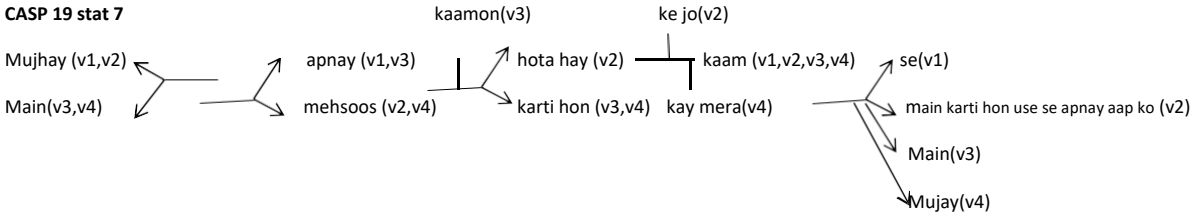


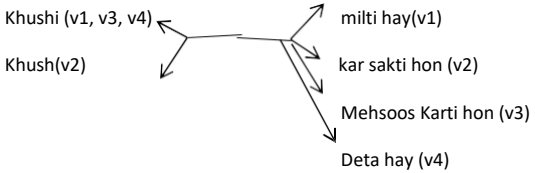
CASP 19 stat 6



_____main karna chahti hon (v1,v2,v4)

CASP 19 stat 7





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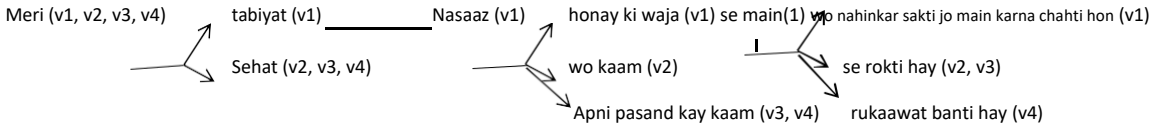
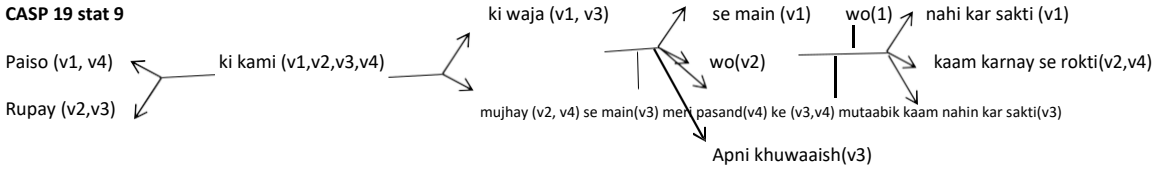
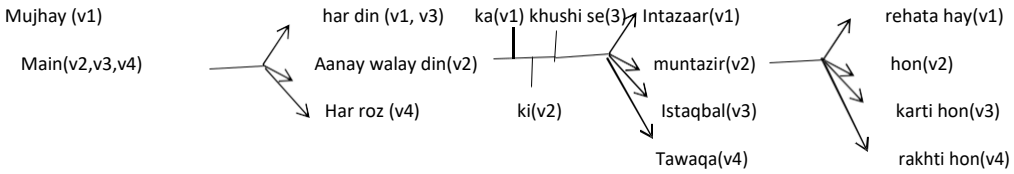


CASP 19 stat 9

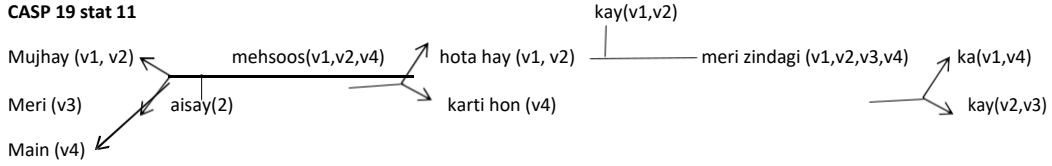


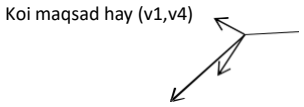
———Jo main karna chahti hon (v1,v2)

CASP 19 stat 10

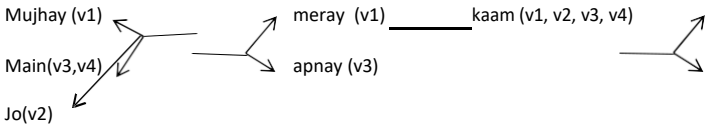


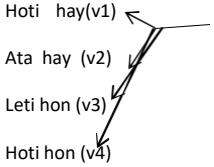
CASP 19 stat 11

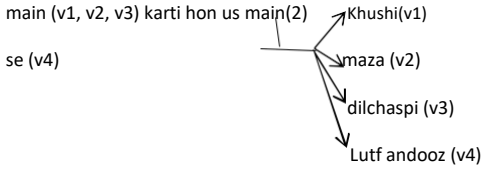




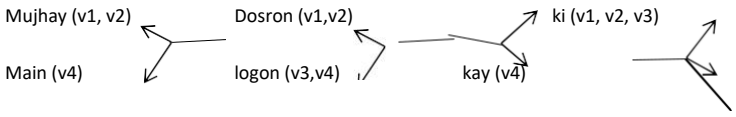
CASP 19 stat 12

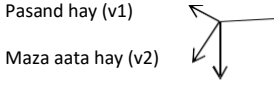




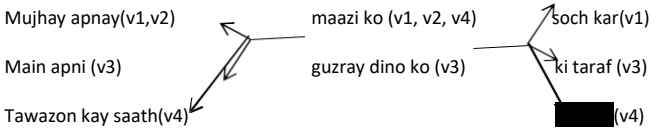

main (v1, v2, v3) karti hon us main(2)
se (v4)
Khushi(v1)
maza (v2)
dilchaspi (v3)
Lutf andooz (v4)

CASP 19 stat 13

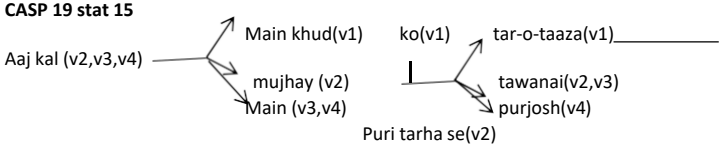




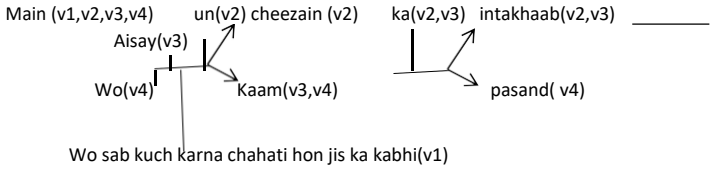
CASP 19 stat 14

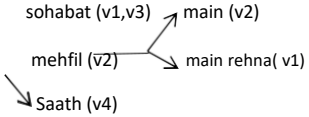


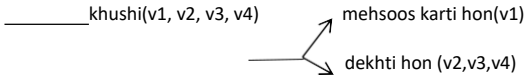
CASP 19 stat 15

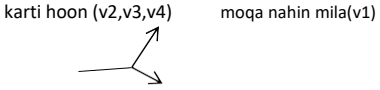


CASP 19 stat 16



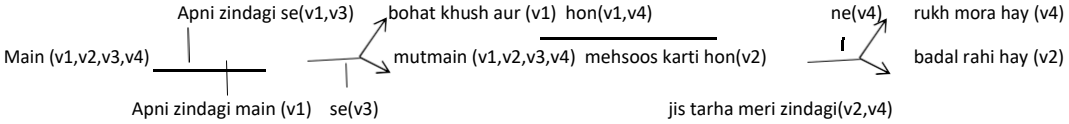




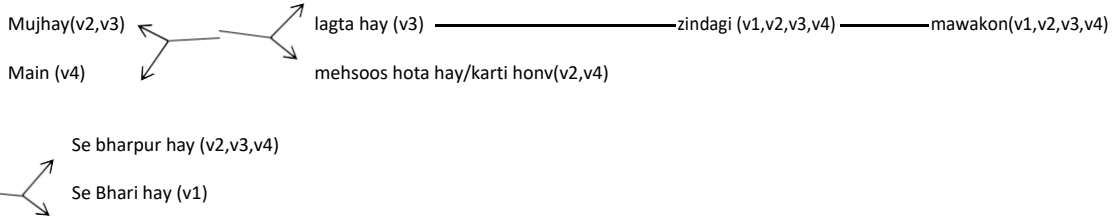


jo aaj se pehelay kabhi nahin kia(v2,v3,v4)

CASP 19 stat 17



CASP 19 stat 18



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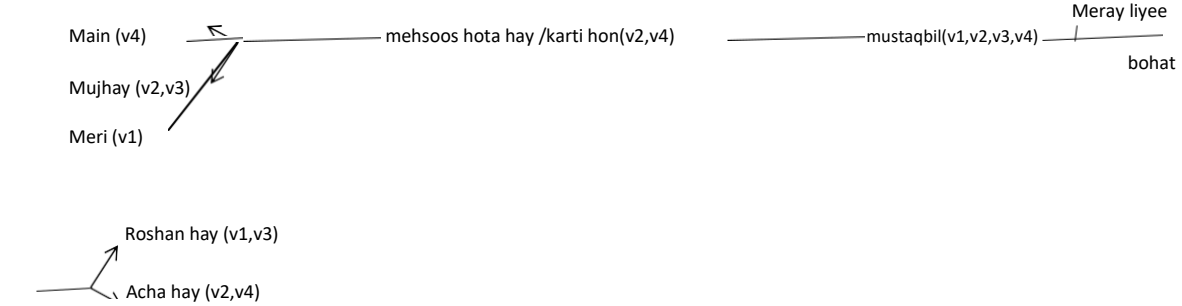
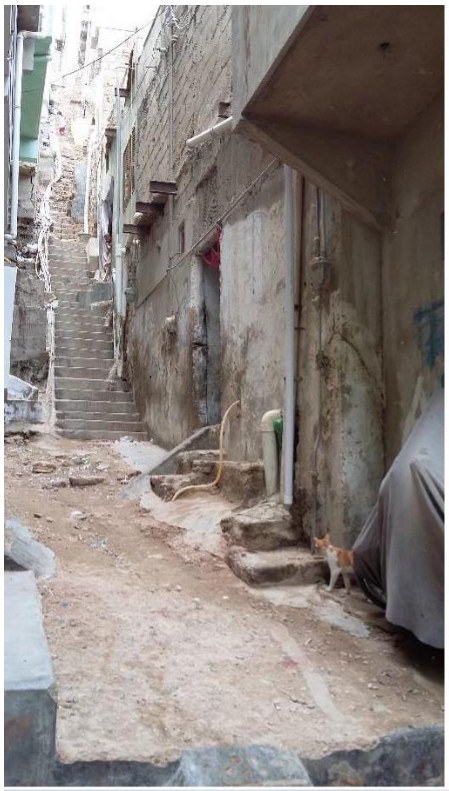


Annexure 12 pictures from Survey in Pakistan

Low income area



Middle income area

High income area

Annexure 13: Ethics approval form I

EXTERNAL AND STRATEGIC DEVELOPMENT SERVICES
uel.ac.uk/qa
Quality Assurance and Enhancement

UEL University of East London

12 May 2016

Dear Laila

Project Title:	**Quality of life of older people in Karachi, Pakistan**
Principal Investigator:	**Professor Gopalakrishnan Netuveli**
Researcher:	**Laila Surani**
Reference Number:	**UREC 1516 82**

I am writing to confirm the outcome of your application to the University Research Ethics Committee (UREC), which was considered by UREC **on Wednesday 16th March 2016.**

The decision made by members of the Committee is **Approved**. The Committee's response is based on the protocol described in the application form and supporting documentation. Your study has received ethical approval from the date of this letter.

Should you wish to make any changes in connection with your research project, this must be reported immediately to UREC. A Notification of Amendment form should be submitted for approval, accompanied by any additional or amended documents:
http://www.uel.ac.uk/wwwmedia/schools/graduate/documents/Notification-of-Amendment-to-Approved-Ethics-App-150115.doc

Any adverse events that occur in connection with this research project must be reported immediately to UREC.

Approved Research Site

I am pleased to confirm that the approval of the proposed research applies to the following research site.

Research Site	Principal Investigator / Local Collaborator
Karachi, Pakistan	Professor Gopalakrishnan Netuveli

Docklands Campus, University Way, London E16 2RD
Tel: +44 (0)20 8223 3322 Fax: +44 (0)20 8223 3394 MINICOM 020 8223 2853
Email: r.carter@uel.ac.uk

EXTERNAL AND STRATEGIC DEVELOPMENT SERVICES
uel.ac.uk/qa
Quality Assurance and Enhancement

Approved Documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
UREC application form	2.0	9 May 2016
Participant Information Sheet - interviews	1.0	9 May 2016
Participant Information Sheet – focus group	1.0	9 May 2016
Participant Information Sheet in Urdu for survey	1.0	9 May 2016
Participant Information Sheet in Urdu for focus group	1.0	9 May 2016
Consent Form – focus group	1.0	9 May 2016
Consent Form - interviews	1.0	9 May 2016
Consent form – survey	1.0	9 May 2016
Topic guide for focus group	1.0	9 May 2016
Survey form	1.0	9 May 2016
Consent form for survey and focus group in Urdu	1.0	9 May 2016

Approval is given on the understanding that the UEL Code of Practice in Research is adhered to.

The University will periodically audit a random sample of applications for ethical approval, to ensure that the research study is conducted in compliance with the consent given by the ethics Committee and to the highest standards of rigour and integrity.

Please note, it is your responsibility to retain this letter for your records.

With the Committee's best wishes for the success of this project.

Yours sincerely,

Catherine Fieulleteau
Research Integrity and Ethics Manager
University Research Ethics Committee (UREC)
Email: researchethics@uel.ac.uk

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Email: r.carter@uel.ac.uk

Annexure 14: Ethics Approval form 2

EXTERNAL AND STRATEGIC DEVELOPMENT SERVICES
uel.ac.uk/qa
Quality Assurance and Enhancement

22 December 2015

Dear Laila,

Project Title:	**Cross culture adaptation of CASP 19 measure of Quality of life**
Principal Investigator:	**Professor Gopal Netuveli**
Researcher:	**Laila Surani**
Reference Number:	**UREC 1516 24**

I am writing to confirm the outcome of your application to the University Research Ethics Committee (UREC), which was considered by UREC **on Wednesday 18th November 2015.**

The decision made by members of the Committee is **Approved**. The Committee's response is based on the protocol described in the application form and supporting documentation. Your study has received ethical approval from the date of this letter.

Should any significant adverse events or considerable changes occur in connection with this research project that may consequently alter relevant ethical considerations, this must be reported immediately to UREC. Subsequent to such changes an Ethical Amendment Form should be completed and submitted to UREC.

Approved Research Site

I am pleased to confirm that the approval of the proposed research applies to the following research site.

Research Site	Principal Investigator / Local Collaborator
Premises provided by Pak Cultural Society, Redbridge	Professor Gopal Netuveli

Approved Documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
UREC application form	2.0	15 December 2015

Docklands Campus, University Way, London E16 2RD
Tel: +44 (0)20 8223 3322 Fax: +44 (0)20 8223 3394 MINICOM 020 8223 2853
Email: r.carter@uel.ac.uk

Participant information sheet	2.0	15 December 2015
Consent form - English	1.0	02 November 2015
Consent form - Urdu	1.0	02 November 2015
Interview topic guide	2.0	15 December 2015
Gatekeeper permission letter from Pak Cultural Society	1.0	02 November 2015

Approval is given on the understanding that the UEL Code of Practice for Research is adhered to.

The University will periodically audit a random sample of applications for ethical approval, to ensure that the research study is conducted in compliance with the consent given by the ethics Committee and to the highest standards of rigour and integrity.

Please note, it is your responsibility to retain this letter for your records.

With the Committee's best wishes for the success of this project.

Yours sincerely,

Rosalind Eccles
University Research Ethics Committee (UREC)
UREC Servicing Officer
Email: researchethics@uel.ac.uk