CHAPTER II

ESSAY

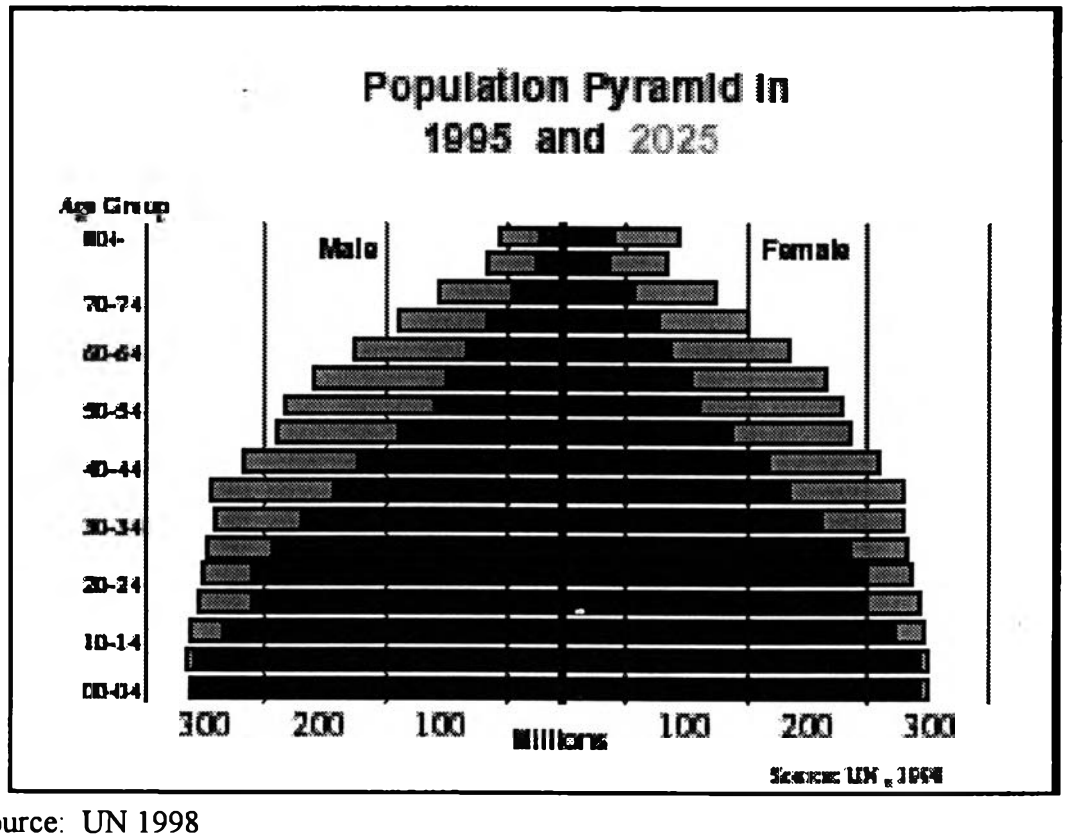
What is Quality of Life in Elderly people and How could it be measured?

2.1 Introduction

"The gray population", is the majority population in the world. Because, world wide the proportion of people aged 60 and over is growing faster than any other age group. Between 1970 and 2025, a growth in older population of some 870 million or 380% is expected. In 2025, there will be a total of about 1.2 billion people over the age of 60 (WHO, 2001). The shift of age distribution is most often associated with more developed regions of the world, but many elderly people live in developing countries. The number will continue to rise at afar more rapid rate than in developed countries. It is estimated that by 2025, some 850 million people over the age of 60 will live in developing countries. This will represent 70 percent of all older people worldwide (WHO, 2001).

In addition, to such improved socio-economic situation successful of the improvements in health conditions and together with lower birthrate and lower infant mortality result in a greater average life expectancy. The "Baby Boom" cohort, born in the period 1946 to 1964 contributes to a rapid population increase in most of the more developed countries and will fuel the huge growth of older population. Thus the proportion of children and young people declines and the proportion of people age 60 and over increases, the triangular population pyramid of 1995 will be replaced with a more cylinder like structure in 2025 (Figure 2.1)

Figure 2.1: Population Pyramid in 1995 and 2025



Source: UN 1998

2.2 The Meaning of Older Age

Aging can be defined as the process of progressive change in the biological, psychological and social structure of an individual. However aging is a life long process, which begins before we are born and continuous throughout life (Claudia, 1999).

The way to classify age stages is by chronological age. In the United States, age sixty-five defines the beginning of old age because this is the age of full retirement benefits from social security. Researchers often use age sixty-five as a cutoff point to define old age, many business use this age to define "senior citizen discounts" and even elders themselves look at this age as the beginning of their later years (Ferrini and Ferrini, 2000).

Some gerontologists make distinctions between the young old as age 65-74 and the old-old as age 75 and above, because there are significant differences between these groups (Ferrini and Ferrini, 2000). Generally, the young old are more active, have higher incomes, are more likely to be married, and have fewer health problems than the old-old, but even these divisions are not absolute.

However, there are limitations of the chronological criteria; first, it is apparent that no quick change occurs on the eve of one's sixty fifth birthday that automatically transform a person from middle aged to the elderly. Second, there are profound differences between individuals of the same age that make generalizations problematic.

Some elders are in extremely good health well into old age, while some individuals in mid-life exhibit many disabilities and illness.

No matter what, the definition of elder used in this study is the chronological of sixty and over, which are men or women and equivalent to older people or aging. These may seem "young" in developed countries where most people over 60 enjoy a positive standard of living and good health. Age 60, however, is likely to be a realistic expression of older age in developing countries among people who have not had the advantage in earlier life that leads to a healthy old age (WHO, 2000).

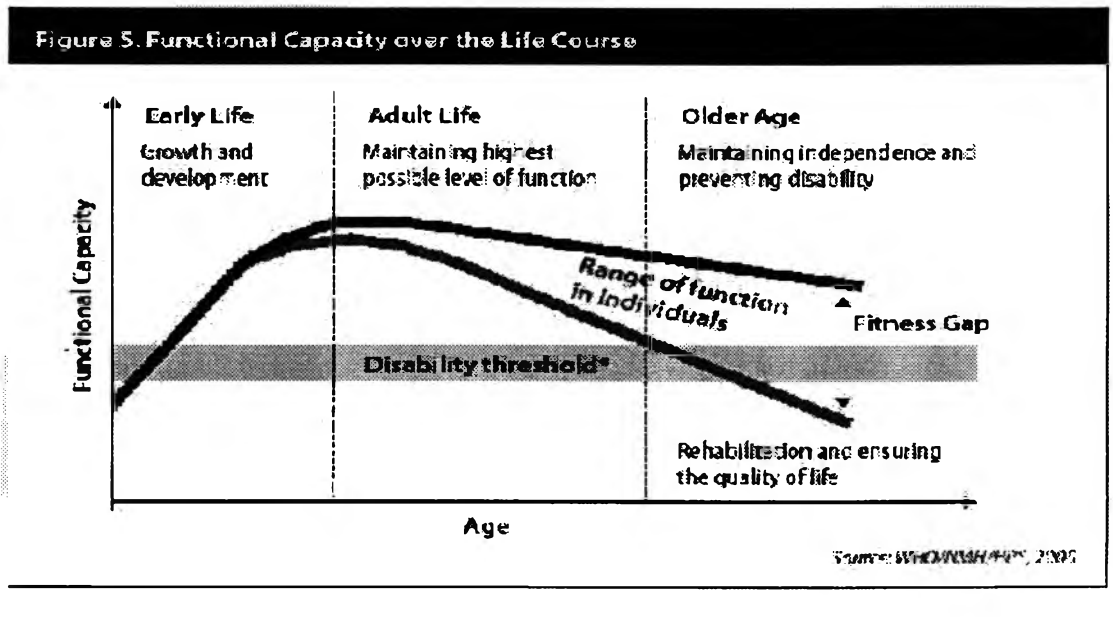
2.3 The Life Course Perspective of Aging

As mentioned above, aging is a life-long process. The functional capacity of our biology system (i.e. muscular strength, cardiovascular performance, respiratory capacity etc.) increases during the first years of life, reaches its peak in early adulthood and naturally declines there after. This is captured in Figure 2, which has been developed as a conceptual framework of the WHO Program on Aging and Health (WHO, 2001). The slope of decline however is largely determined by external factors throughout the life course. The natural decline in cardiac or respiratory function, for example, can be accelerated by smoking, leaving the individual with lower functional capacity than would normally be expected for his/her age. Similarly, poor nutrition in childhood may predispose through weaker bone structure to the development of osteoporosis in adulthood, increasing slope of decline. The difference in decline in

function capacity between two individuals is often only evident later in life when a sharper descent may result in disability. Thus, health and activity in older age are summary of the living circumstances and actions of an individual during the whole life span.

In other words, a life course perspective supports activities in early life that are designed to enhance growth and development, prevent disease and ensure the highest capacity possible. In adult life, interventions need to support optimal function and to prevent, reserve or slow down the onset of disease. In later life, activities need to focus on maintaining independence, preventing and delay disease and improving the quality of life for elderly people who live with some degree of illness or disability.

Figure 2.2: A life Course Perspective for Maintenance of the Highest Possible Level of Functional Capacity.



2.4 Quality of Life (QOL)

Quality of life is a difficult complex concept that is difficult to operationalize and that is dependent on the context or circumstances in which people live.

Janseen Quality of life studies (Jansen, 2001) indicated the meaning of QOL as subjective well being. Recognizing the subjectivity of QOL is a key to understanding the construct. QOL reflects the difference, the gap, between the hopes and expectations of a person and their present experience. Human adaptation is such that life expectations are usually adjusted so as to lie within the realm of what the individual perceives to be possible. This enables people who have difficult life circumstances to maintain a reasonable QOL.

Frankl *(1963)* described that QOL is tied to perception of "meaning". The quest for meaning is central to the human condition, and we are brought in touch with a sense of meaning when we reflect on that, which we have created, loved, believed in or left as a legacy.

Quality of life Research Unit, University of Toronto (University of Toronto, 2001) defined QOL as the degree to which a person enjoys the important possibilities of his/her life. Possibilities result from the opportunities and limitations each person has in his/her life and reflect the interaction of personal and environmental factors. Enjoyment has two components; the experience of satisfaction and the possession or achievement of some characteristics, as illustrated by the expression; " She enjoys good

health." Three major life domains are identified: being, belonging, and becoming. The conceptualization of being, belonging, and becoming as the domains of quality of life were developed from the insights of various writers.

The being domain includes the basic aspects of "who one is" and has three sub domain.

1. Physical being includes aspects of physical health, personal hygiene, nutrition, exercise, grooming, clothing and physical appearance.
2. Psychological being include the person's psychological health and adjustment, cognition, feelings and evaluations concerning the self, and self-control.
3. Spiritual being reflect personal values, personal standards of conduct and spiritual beliefs, which may, or may not be associated with religions.

The belonging domain includes the person's fit with his/her environments and also has three sub-domains.

1. Physical belonging is defined as the connections the person has with his/her physical environments such as home, workplace, neighborhood, school, and community.
2. Social belonging includes links with social environments and includes the sense of acceptance by intimate others, family, friends, co-workers and neighborhood and community.

3. Community belonging represents access to resources normally available to community members, such as adequate income, health and social services, employment, educational and recreational programs, and community activities.

The becoming domain refers to the purposeful activities carried out to achieve personal goals, hopes, and wishes.

There are 3 sub domains as follows;

1. Practical becoming describes day to day action such as domestic activities, paid work, school or volunteer activities and seeing to health or social needs.
2. Leisure becoming include activities that promote relaxation and stress reduction. These include card games, neighborhood walks, and family visits or longer duration activities such as vacations or holidays.
3. Growth becoming activities promote the improvement of maintenance of knowledge and skills.

Quality of life Research Center, Denmark (Quality of life Research Center, 2001) Indicated that in QOL research one often distinguishes between the subjective and objective QOL. Subjective QOL is about feeling good and being satisfied with things in general. Objective QOL is about fulfilling the social and cultural demands for material wealth, social status and physical well being.

WHO defined for QOL as individuals' perception on their position in life in the context of the culture and value systems in which the live and in relation to their goals, expectation, standard and concerns. It is a broad ranging concept affected with a complex way by the persons' physical health, psychological state, level of independence, social relationships, personal beliefs and relationship to salient features of the environment (WHO, 1996). The WHOQOL Group (1993) defined the dimension of QOL into 6 domains containing 28 facets of the QOL, the detail are prescripted in table 2.1

Table 2.1: Dimension of QOL 6 Domains and 28 Facets

Domain	Facet
1.Physical health	General health Pain and discomfort Energy and fatigue Sexual activity Sleep and rest
2.Psychological health	Positive affect Sensory functions Thinking, learning, memory and concentration Self esteem Body image and appearance Negative affect
3.Level of independence	Mobility Activities of Daily living Dependence on substances :Medical substance, Non medical substance Communication capacity Work capacity
4.Social relationships	Intimacy/loving relationships Practical social support Activities as provider/supporter
5.Environment	Physical safety and security Home environment Work satisfaction Financial resources Health and social care: accessibility and quality Opportunities for acquiring new information and skills Participation in and opportunities for recreation/leisure activities Transport
6.Spiritual	Spiritual/religion/personal beliefs

Therefore, QOL has a relative recent origin as a term to describe the circumstances of older people. Quality of life is used to describe responses to the "intrinsic" characteristics of an individual and the "extrinsic" social, economic, and environment factors that affect well being. It is a product of individual experience, which means that what is perceived as "good" quality by one person may not satisfy someone else (Bond, 1999).

QOL for an individual thus may not be subjective and objective referring to the degree to which life's possibilities are realized. The subjective dimension has been scientifically studied by directly asking elderly individuals questions about how they evaluate their life in terms of satisfaction with their social life, state of their health, adequacy of their housing, sense of mastery or control over their environment, and satisfaction with their financial situation. Objective evaluations include environmental conditions or circumstances, such as level of air pollution, level of income, characteristic of housing, or degrees of health services availability. Quality of life measures can be used to take into account the effect of specific diseases such as Alzheimer's or the consequences of medical intervention (Lawton. P., et al, 1999).

2.5 Contributing Factors to QOL

The degree of quality in later life is thus defined as an outcome of both personal perceptions and the measured conditions associated with aging.

The major factors contributing to QOL are shown in Table 2.2

Individual, family and neighborhood factors are most immediate and direct in their influence, whereas the macro or community and social factors may be less directly influential but are of primary importance in the overall potential for high QOL (William, 2001).

Table 2.2: Summary of Contributing Factors to Quality of Life

Factors
Individual, family and Neighborhood
Biological/genetic inheritance
Health status
Personality
Social class experience
Personal lifestyle
Community and Society
Social support systems
Health care system
Housing and community physical environment
Financial security
Lifestyle opportunities

Source: William (2001)

If any of attributes are negative or unrealized, quality is less than optimum. Some of the key relationships are summarized as following paragraphs. In following paragraph, I will explore the key relationships.

Individual, Family and Neighborhood (William, 2001).

1. ***Biological/genetic*** structure at birth establishes physical characteristics, basic intelligence, and skill potential, intelligence, and skills mean that QOL is likely to be higher.
2. ***Sociolizaion experiences*** in the family, the neighborhood, and later in the community and larger society, have a profound effect on the sense of belonging, feeling loved, self-esteem, self-respect and overall preparation for life. Continuing rich family and neighborhood experience is likely to enhance later life.
3. ***Personal Characteristics*** developed through initial social experience will structure personal adjustment and sense of autonomy. A unique and stable personality with a positive self-concept, attitudes, values, and beliefs will serve most people well throughout life.
4. ***Race and ethnicity*** affect quality of aging because of the historical and current tendencies for social and economic discrimination. For example in the United State of America, This issue leads to fewer opportunity, greater poverty, shorter life, and lower expectations in the later life. Fortunately, family bonds tend to be strong among African Americans, Hispanics, and other minorities in the United States and others countries helping to moderate the effects of discrimination.
5. ***Socioeconomic status*** - education, income, occupation- is an indicator of the manner in which others evaluate personal standing in the community. Ordinarily, individuals with higher socioeconomic status have greater resources and more opportunities for choice in later life. However,

satisfaction and happiness in older age is not entirely depending on status-if family and community bonds are strong and resources are sufficient for basic needs.

6. ***lifestyle*** are the product of work, retirement, leisure and other individual experiences and behaviors in the family, neighborhood, community and society. Lifestyle opportunities such as travel, art, and music bring pleasure to the senses, and provide the aesthetic experiences that can greatly enhance satisfaction and enjoyment. Since each individual is unique, each lifestyle is a result of cumulative personal opportunities and preferences. There is thus enormous variety. A personally satisfying lifestyle in the later years is the ultimate good outcome, regardless of its characteristics.

Community and Social Influences (William, 2001).

1. ***Norms, rules and laws*** are informally created in families, neighborhoods, communities, states, and in the larger society to help regulate social relationships and structure individual expectations. If these regulations are just and enforced, older individuals know what to expect. When the rules are unjust or inadequate, QOL can be diminished.
2. ***Public Policies*** define and guide public social activity and services such as qualification for social security, pension payments, and access to health insurance. Understanding, conforming with, and feeling that policies are adequate and fair lowers stress and contributes to the sense of satisfaction in later life.

3. ***Education*** contribute to the development of knowledge, skills and competencies that can enhance optimal aging. Gaining and sustaining intellectual stimulation needed personal skills, and functional values are among the most important in contributing to optimal aging.
4. ***Social support systems*** in the community and larger society add important dimension to family and neighborhood support. These include both informal social group and formal government agencies. Organized activities such as church, civic club, and a vast array of other possibilities provide opportunity for social interaction, stimulation, spiritual experience, and relationships that are crucial to a sense of belonging and well being.
5. ***A Health care system*** that functions effectively, is accessible, and responds to specific physical, mental, and chronic health needs is crucial to the well being of older individuals. Inadequate or limited access to preventive or curative health care is among the most distressing circumstances faced by those with health problems. Thus, attention to improvement of health care provisions is clearly among the most significant public policy and personal issues affecting quality in later life.
6. ***Satisfying housing, home, and community environment*** are fundamental to comfort, security, healthy living conditions and access to beauty inside and outside in the yard and neighborhood. Older individuals or couples with sufficient resources can design and create the home they prefer in a satisfying setting. However, adequate housing and pleasing home environment are very often problematic for those with disabilities and lower incomes.

7. ***Financial security*** is fundamental to well being and sense of control. Without adequate basic resources, all other QOL options are difficult. Social security and work-related pension provide the needed income for a high proportion of the older population, but many depend on state and local welfare and for basic survival.

The QOL for any elders is impacted somewhat differently by these factors since each has varying experience, values, and expectations. No common package of outcome will fit everyone.

2.6 Assessing the Quality of Life

Writers since Plato have speculated on the "good life" and how public policy can help to nurture it. The last 30 years have seen an attempt to measure QOL in many parts of the world (Ferriss, 2000). Various indexes of QOL have been proposed by public policy institutes, government agencies, and news media, for instance, CDC's Health Related Quality of life, WHOQOL, Consumer Confidence Index (CCI) and so on. Michael,et al (2001) reviewed 22 of the most-used QOL indexes from around the world and concluded that many of the indexes are successful in that they are reliable, have established time series measures and can be disaggregated to study sub-population.

Because of disease measurement alone is insufficient to describe the burden of illness; QOL factors such as pain depressed mood and functional impairment must also be considered. Two operational definitions of QOL are the objective function and the subjective wellbeing that convey different information, they also present different problems in relation to validation.

WHO has therefore developed two instruments for measuring the QOL that can be used in a variety of settings while allowing the results from different populations and countries to be compared. In addition, WHO instruments were developed simultaneously in 15 field centers around the world. It has been rigorously tested to assess its validity and reliability in each of the field centers, and is now being tested to assess responsiveness to change. This is why the WHO instrument has been accepted worldwide.

2.7 WHOQOL

During the period 1991-1992, a series of meetings in Geneva set the operational parameters for the development of a new QOL instrument under the auspices of WHO (Michael, 2001).

The WHOQOL-100 development process consisted of several stages. In the first stage, concept clarification involved establishing an agreed upon definition of QOL and an approach to international QOL assessment. The definition (as mentioned earlier)

reflects the views that QOL refers to a subjective evaluation, which is set in a cultural, social and environmental context. Because this definition of QOL focuses upon respondents' perceived QOL, it is not expected to provide a means of measuring in any detail fashion of symptoms, diseases or conditions, but rather the effects of diseases and health interventions on QOL. As such, QOL cannot be equated simply with the term "health status", "life style", "life satisfaction", "mental state" or "well being". The recognition of the multi-dimensional nature of QOL is reflected in the WHOQOL-100 structure.

During the second stage, exploration of the quality of life construct within 15 culturally diverse field centers was carried out to establish a list of areas/facets that participating centers considered relevant to the assessment of QOL. This involved a series of meetings with focus groups that included health professional, patients, and well subjects. The conclusion's were useful for the third stage in which 100 items were selected for inclusion in the WHOQOL-100 Field Trial Version. The instrument was organized into six broad domains of QOL. These are (1) physical, (2) psychological, (3) level of dependence, (4) social relationship, (5) environment, and (6) spiritual.

The WHOQOL-100 allows detailed assessment of each individual facet relating QOL. In certain instances however, the WHOQOL-100 may be too lengthy for practical use. The WHOQOL-BREF Field Trial Version has therefore been developed to provide a short form of QOL assessment that looks at domain level profiles, using data from a pilot WHOQOL assessment and all variable data from the Field Trial Version of the WHOQOL-100. Twenty field centers situated within eighteen countries

have included data for these purposes. The WHOQOL-BREF contains a total of 26 questions (as shown in table 2.3). To provide a broad and comprehensives assessment, one item from each of the 24 facets contained in the WHOQOL-100 has been included. In addition, two items from the overall QOL and general health facets have been included.

Table 2.3: WHOQOL-BREF domains

Domain	**Facets incorporated within domains**
1.Physical health	Activities of daily living Dependence on medical substances and medical aids Energy and fatigue Mobility Pain and discomfort Sleep and rest Work capacity
2.Psychological	Bodily image and appearance Negative feelings Positive feelings Self-esteem Spiritual/Religion/Personal beliefs Thinking, learning, memory and concentration
3.Social relationship	Personal relationships Social support Sexual activity
4.Environment	Financial resources Freedom, physical safety and security Health and social care: accessibility and quality Home environment Opportunities for acquiring new information and skills Participation in and opportunities for recreation/ leisure activities Physical environment (pollution/noise/traffic/climate) Transport

2.8 Administration of the WHOQOL-BREF

The WHOQOL-BREF should be self-administered if respondents have sufficient ability, interviewer-assisted or interview administered forms should be used, if self administered questionnaires are problematic.

A time frame of two weeks is indicated in the assessment. It is recognized that different time frames may be necessary for particular uses of the instrument in subsequent stages of week. For example, the assessment of QOL in chronic conditions, such as arthritis, a longer time frame such as four weeks may be preferable.

2.9 QOL of the Elderly People Research

QOL assessment was almost unknown 15 years ago, it has rapidly become an integral variable of outcome in clinical research; over 1000 new articles each year are indexed under "Quality of Life" (Mathew,. et al, 1998). Caroline, et al (1998) indicated that during 80-97 reporting on QOL increased from 0.63% to 4.2% for trials from all disciplines, from 1.5% to 8.2% for cancer trials, and from 0.34% to 3.6 for cardiovascular trial. Of 367 abstracts, 65% reported on drug interventions. Of a sample of 67 full reports, authors of 48 (72%) used 62 established quality of life instruments. In 15 reports (22%) authors developed their own measures, and in 2 (3%) methods were unclear.

In QOL of elderly people, for example, Farguhar's study (1995) on elderly people's definitions of QOL, found that there is more to QOL than health, indeed, social contacts appear to be valued components of good QOL as health status. Asakawa, et al (2000) study on effects of functional decline on QOL among the Japanese elderly, shows that 692 Japanese elderly had a high function capacity baseline. During a 2-year period of follow up, 12.3 percent of the subjects experienced function decline. Analysis of covariance with statistical tests for simple main effects revealed the changes in criterion variables significantly differed along with changes in functional status when effects to age, gender, and socioeconomic status were controlled. The subjects who experienced functional decline showed a large decrease in the number of relatives, friends, and neighbors having frequent contacts, a larger decline in life satisfaction, and a larger increase in depression than those without function decline. The results seem to confirm further the importance of functional health status as a prerequisite for higher QOL.

In Thailand, for instance, Sudsawat (1998) study on QOL of the elderly in Nakhon Si Thammarat province, indicated that personal ailments, economically active working, household economic status, level of education, membership of any community group/club and hobby also have the similar statistically significant effects on QOL of the elderly. Sudsawat concluded that groups of elderly who have never been suffering from any personal ailments and who are economically stable are generally considered to have high level of QOL than others.

2.10 The Advantage of the QOL Assessment

WHO, (1996) described the advantage of the QOL assessment as follows:

In medical practice, the outcome of assessing QOL giving valuable information that can indicate areas in which a person is most effected and help the practitioner in making the best choices in patients care. In addition, they may be used to measure change in quality of life over the course of treatment.

Improving the doctor-patient relationship, by increasing the physician's understanding of how disease affects a patient's QOL, the interaction between patient and doctor can change and improve. This gives more meaning and fulfillment to work of the doctor and leads to the patient being provided with more comprehensive health care. Because a more complete form of assessment covering different aspects of patients' functioning is being carried outs, patient themselves may find their health care more meaningful.

In assessing the effectiveness and relative merit of different treatment, that means assessing QOL is one part of evaluation of treatment. For instance, chemotherapy for cancer may prolong a person's life, but many only do so at considerable cost of their QOL. By assessing the QOL to look at changes in the person's well being over the course of treatment, a much fuller picture can be gained.

In health care services evaluation, the outcome of a QOL assessment provides an invaluable supplementary appraisal of health care services, by yielding a measure of the relationship between the health care service and patients' QOL and also by directly presenting a measure of patients or a high risk population's (such as elderly people) perception of the QOL and the availability of health care.

In research, assessing QOL provides new insights into the nature of diseases by assessing how disease impairs the subjective well being of a person across a whole range of areas.

In policy making, when health providers implement new politics it is important that the effect of policy change on the QOL of people in contact with the health services is evaluated. Assessing QOL outcomes allow monitoring of policy change.

2.11 Assessing QOL Limitations

Change over time

As mentioned earlier, the QOL is the individuals' perception of their position in life in the context of the culture and value systems in which the live and in relation to their goals. Therefore, how patients of high-risk people evaluate their QOL may also change over the time. Matthew, et at (1998) stated that, many cancer patients report benefits from their illness, ranging from an increased ability to appreciate each day to greater feelings of personal strength, self assurance, and compassion, such that they are

sometimes more satisfied with their global QOL than the healthy comparison group. At first, we might conclude cancer improves QOL. However, in fact, the situation shows psychological adaptation (a "response shift"). The internal standard by which patients appraise their current state shift and the same questionnaire items on well being can draw a fundamental different answer over time.

To extent the subjective well being reflects psychological adaptation, the connection between subjective QOL and diseases weakens. Therefore, reported changes in QOL over time need not necessarily infer from actual change in their health and symptoms.

QOL: In different conditions

QOL does not have the same meaning in every culture. In some countries financial security may be considered the most important factor; whereas in others it might be psychological well being, cognitive function, or perceived health status. The important factors may change with age. At the early ages between 65 and 75, financial security and social well being may predominate; at later ages, stability of health condition might be considered more important. Careful comparative studies of the various countries would be necessary to clarify the degree to which there is a common definition of contributing factors to quality of life. Furthermore, Fernandez-Ballesteros (1998) found that QOL of the elderly people ingredients are dependent on lifestyle (at home of institutions) and personal conditions (age and gender).

2.12 Conclusion

In sum, with QOL of the elderly people, we can describe the circumstances, responded to intrinsic characteristics of an individual and the extrinsic social, economic and environment factors that affect well being. There are 2 major factors that contribute to QOL of the elder, first is individual, family and neighborhood and second is community and social influences. If many of the attributes are negative or unrealized, quality of life is less than optimum.

To assess the QOL, there are various indexes of the QOL that have been proposed by public policy institutes, government, agencies and new media. The one of instrument that become worldwide accepted is WHOQOL-BREF which is can be used in a variety of settings while allowing the results from different populations and countries to be compared.

QOL is the individual's perception of their position in life. Therefore, in different situations, how elderly feel or perceive satisfaction may also change over time. In addition, QOL does not have the same meaning in every culture. Careful comparative studies in various countries would be necessary to examine the degree to which common definitions of contributing factors to QOL are cross applicable cultural.

However, assessing the QOL provides benefits for various conditions. For example, the outcome of assessing QOL can provide recommendation for medical practice, the doctor-patients relationship, evaluation of treatment, health care service evaluation, provide new inside into the nature of diseases and be useful for policy makers monitor and to improve the implementation of policy plan on the elderly people.

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