SENSE OF COHERENCE AND QUALITY OF LIFE AMONG ADULT IMMIGRANT POPULATION IN HEDMARK AND OPPLAND COUNTIES IN NORWAY – A QUANTITATIVE CROSS-SECTIONAL STUDY

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February/01/2012

Forward

A substantial research has been conducted in Norway; unfortunately few topics within the immigrants' health and particularly mental health are extensively addressed. Much less has been done to explain the health impact of employment, income, occupations, family structures, or living circumstances of immigrant populations such as refugees, low-income families and those from diverse regions or countries of origin, who are currently settled in Hedmark and Oppland counties in Norway.

Mental health, cultural identity, integration, conflicting cultural values and the effects of the immigration and refugee experiences need to be studied. Gender differences are also a budding concern to establish the effect that gender, in combination with other determinants, has on mental health of immigrant population in the two counties. A significant body of knowledge should be formed so that cultural differences in living conditions, level of education, beliefs, level of discrimination, values and behaviours, and overall needs of cultural minorities are addressed.

Scores of studies exposed a high burden of major public health problems within the immigrant populations and their descendants than the Norwegian general population. However, most of the studies on immigrants were based in Oslo region of Norway. Given these facts, there is an urgent need for extensive research to describe demographic trends and socioeconomic outcomes for immigrants within the two adjacent counties in Norway. Addressing a range of determinants and their effects on immigrants' general health, and in particular mental health, would be a significant addition to the knowledge platform for policy improvement related both to services for immigrants and to the general population health reflective of the needs of immigrant population.

The present quantitative cross-sectional study investigated the correlations between SOC and perceived QoL and its distributions in adult immigrant population in Norway. Furthermore, the study also explored average Means (SD) sum scores SOC and perceived QoL and its distribution alongside the demographics.

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Norsk sammendrag

Bakgrunn: Opplevelse av sammenheng (OAS) og livskvalitet betraktes som viktige mål med hensyn til psykisk helse. Ifølge Antonovsky antas en sterk OAS å være en stor mestringsressurs for å opprettholde god helse, og dermed kan OAS betraktes som en avgjørende faktor for psykisk helse. Livskvalitet er et uttrykk som er forbundet med mange betydninger og det skaper positive assosiasjoner for folk flest, og flere studier har vist at måling av livskvalitet er et viktig bidrag i å vurdere helse og psykisk helse.

Formål: Studien undersøker fire overordnet hypoteser: (i) OAS har positiv korrelasjon med livskvalitet, jo sterkere gjennomsnittsskår på OAS, desto bedre er gjennomsnittskår på livskvalitet generelt. (ii) Gjennomsnittsskår på OAS og livskvalitet har tendens til å øke med alder over levetid. Jo eldre er utvalget, desto høyere gjennomsnittsskår på OAS og livskvalitet. (iii) Men har betydelig høyere gjennomsnittsskår på OAS og livskvalitet enn kvinner. (iv) Sammenliknet med vestlige innvandrere, har ikke-vestlige innvandrere lavere gjennomsnittsskår på OAS og livskvalitet.

Metode og materialer: Dette er et hypotesegenerende tverrsnittsstudie med et utvalg bestående av mennesker med minoritetsbakgrunn fra Hedmark og Oppland fylker i Norge. Utvalget består av N=92, aldersgrupper 20-69. Inklusjonskriterium: Voksne personer med innvandrerbakgrunn, minste oppholdslenge i Norge er 5 år. SOC-29 og WHOQOL-Bref skalaer ble brukt til måling av OAS og livskvaliete. To kvalitative spørsmål ble opprettet, ett hvert spørsmål på OAS og livskvalitet, dette med et ønske om å få fram andre synsvinkler om hva utvalget selv mener om disse fenomenene.

Resultat: Funn fra studien bekrefter korrelasjonen mellom OAS og livskvalitet. Videre var det ingen statistisk signifikant forskjell mellom innvandrere gruppene, samt kjønn og aldersgrupper.

Konklusjon: I lys av formålet med studien, var det ingen statistisk signifikant forskjell mellom vestlige innvandrere sammenliknet med ikke-vestlige innvandrere. Dette er en indikasjon på at ikke-vestlige innvandrere også kan være en ressurssterk gruppe i likhet med vestlige innvandrere.

Nøkkelord: Tverrsnittsstudie, Minoritetsgrupper, Innvandrere, Innvandring, Migrasjon, Opplevelse av sammenheng (OAS), livskvalitet, WHOQOL-Bref, Salutogenese, Psykiatrisk sykepleie, Psykisk helse, Psykisk helsearbeid.

English abstract

Background: Sense of Coherence (SOC) and Quality of Life (QoL) measures are important aspects with regard to mental health. According to Antonovsky, a strong SOC is believed to be a major coping resource for maintaining good health, thus, SOC may as well be regarded as a major determinant of mental health. QoL is an expression which is related with many meanings and creates positive associations for most people. Previous studies suggests that QoL measures, is an important aspect in the assessment of health and mental health.

Aims: The study explored four major hypotheses: (i) SOC have positive correlations with QoL, the stronger the average Mean (SD) score SOC; the better the average means score QoL generally. (ii) SOC and QoL tend to increase with age over the lifespan. The older the population sample, the higher the average Mean (SD) score SOC and perceived QoL. (iii) Men have significantly higher average Mean (SD) score SOC and perceived QoL compared to women. (iv) Non-Western immigrants have lower average Mean (SD) score SOC and QoL than their counterpart the Western immigrants.

Methods and materials: This is a hypothesis-generating cross-sectional study with a sample consisting of individuals with minority backgrounds from Hedmark and Oppland counties in Norway. The sample consists of N=92, aged 20 years and over was obtained. Inclusion criterion: Adult immigrants with at least a minimum of 5 years length of stay in Norway. SOC-29 items and WHOQOL-Bref 26 items scales were used for the measurements of SOC and perceived QoL. Two qualitative questions were proposed one for each of the scales, this to allow respondents to express what they considered most vital when assessing these phenomena.

Main results: Findings from the study confirms the correlation between SOC and perceived QoL. Furthermore, there were no statistically significant differences within the immigrants groups as well as gender and age groups.

Conclusion: In the light of the aims of the study, there were no statistically significant differences between Western immigrants versus non-Western immigrants, thus, this is an indication that non-Western immigrants may as well be a resourceful group similar to their counterpart the Western immigrants.

Key Words: Cross-sectional, Minority groups, Immigrants, Immigration, Migration, Sense of Coherence, Quality of Life, WHOQOL-Bref, Salutogenesis, Psychiatric nursing, Mental health, Mental health care.

Acknowledgements

There are a number of people who deserve appreciations for their direct and indirect contributions to this master's dissertation. Most immediately and profoundly, I would like to thank all the participants in the present study. Without their help in providing the data materials, this work would not have been possible. In particular, I want to acknowledge my debt to my supervisor, associate professor Kari Kvaal for her inspirational, constructive and incredible support throughout the entire working process in this master's dissertation. Through her professional support as well as personal efforts; she inspired me, touched my life as a student, and I truly benefited from her wisdom. I am honoured and privileged for having this opportunity for successfully fulfilling all the tasks undertaken in the research work leading to this master's dissertation. Moreover, I am very grateful to the numerous colleagues of mine who offered me useful feedbacks and constructive advice during workshops. Your constructive input kept this research project moving in an orderly manner.

Thank to associate professor Erik Mønness for his superior knowledge on computer applications. He has been instrumental and supportive during the entire process of designing the electronic questionnaires in QuestBack survey application tool. I would also like to thank associate professor Ingeborg Hartz for her valuable input in introducing to me and my colleagues the statistical analysis program IBM SPSS Statistics 19.0 for windows. It's also essential to acknowledge and appreciate the help offered by professor Mary H. Kalfoss of Diakonova University College, for her role in providing me with the formal Norwegian Edition of WHOQOL-BREF 26-items generic questionnaire. Moreover, I am grateful to Per Ståle Ekrol of YouGov Norway; for proofreading the statistical analyses. Thank to Benedict Memba Misoga for the time spent proofreading this master's dissertation.

And finally, I want to express my deepest gratitude to my family. They have supported me and sustained me in countless ways with their love and care. I received their support in many ways: for instance, a Skype call from my siblings in Brisbane, Australia –often wondering as to how I am "coping" with the multitasking business: working, studying as well as managing family life concurrently. Sometimes I receive phone calls from my uncles and aunts in The Republic of South Sudan -wondering as "how it's going". My kids were very supportive as they always keep close to me and sometimes entertaining me with fun and more. They never

felt upset whenever I was away managing the books at the library. My wife Everlyne Kanaga, unselfish willingness to take the burden of so many of the family tasks while I embarked on books upstairs or at the college library working on this paper. Her extraordinary wisdom, unwavering support, helped me keep my work in perspective and my life in good spirit. She directed me what it means to be patient, wise, compassionate and strong. Thank you so much for the help you availed to me during the two years fulltime period of the master's degree course.

List of abbreviations

BDI	Beck Depression Inventory
cf.	Cited in or from, confer or consult, “see” in.
IDS	Inventory of Depression Scale
GRRs	Generalized Resource Resistances
HSCL-25	The Hopkins Symptom Checklist with 25 items
HUMBRO	Oslo Health Study
MADRS	Montgomery-Åsberg Depression Rating Scale
MOS SF-36	Short form of Health Survey Questionnaire with 36 items
NAMKI	Norwegian Centre for Minority Health Research
NIPH	Norwegian Institute of Public Health
NSD	Norwegian Social Science Data Services Ltd.
OECD	Organization for Economic Co-operation and Development
OLQ	Orientation to Life Questionnaire
PSTD	Post-Traumatic Stress Disorder
QoL	Quality of Life
SOC	Sense of Coherence
SSB	Statistics Norway
SCL-90	Symptom checklist
UN	United Nation
UNHCR	United Nation High Commissioner for Refugees
WHO	World Health Organization
WHOQOL-Bref	Short version of World Health Organization Quality of Life Measurement Scale which consists of 26 items
WHOQOL	World Health Organization Quality of Life Group
WRHA	Winnipeg Regional Health Authority

Definitions

A refugee –is defined under the UN Convention Relating to the Status of Refugees of 1951, as a person who:

> Owing to a well-founded fear of being persecuted for reasons of race, religion, nationally, membership of a particular social group, or opinion, is outside the country of his nationality, and is unable to or, owing to such fear, is unwilling to avail himself of the protection of that country (UNHCR, 1999)

According to the Norwegian Directorate of Immigration (UDI), refugees are defined as persons who have refugee status and have been granted a residence permit in Norway.

An asylum seeker –according to UDI an asylum seeker is a person who comes to Norway on his/her own and requests protection, however, if the asylum application is granted, the applicant will be granted refugee status (asylum) and protection in Norway.

Resettlement refugees –resettlement refugees, also called "Quota Refugees and UN Refugees" are person who have fled their home country and are resettled in a third country (http://www.udi.no/Norwegian-Directorate-of-Immigration/)

Immigrants –according to SSB, immigrants are persons born abroad by two foreign-born parents and they immigrated to Norway at some point.

Norwegian-born to immigrant parents –are persons born in Norway with two parents that are immigrants (ibid)

According to SSB, the following expressions are used for categorization of persons by immigration background in Norway: immigrants, Norwegian-born to immigrant parents, foreign-born with one Norwegian-born parent, Norwegian-born with one foreign-born parent, and foreign-born to Norwegian-born parents (includes adopted)

Chapter overview

This publication consists of five chapters. Chapter one consists of the introductory part and numerous subsections. It explores a brief outlook of the global immigration trends, demographic trends in Norway and some of the fundamental factors related to international migration. Topics scrutinized in this chapter also include; the four Worldviews, definitions of health and disease, mental health care, mental health and psychiatric nursing. Issues regarding determinants of health that influence immigrants and refugees health status, mental health issues of immigrants, health status of immigrants in Norway and mental health of Adolescent immigrants in Norway, are also extensively explored.

Chapter two presents the Mystery of health and the SOC, origin of the salutogenesis paradigm, complementary relationship i.e. pathogenesis versus salutogenesis and salutogenic model as a theoretical guide for health promotion. Additionally, this chapter also explores the three interrelated constituents of the SOC, empirical verification of the SOC as a health model, SOC as a determinant of health related behaviours, practical application of the SOC, and the development of SOC and its correlations with age and gender differences.

Section three examines an overview and models of QoL such as objective, subjective and social indicators. Besides, perceptual needs satisfaction and conceptualization background of WHOQOL as well as the QoL domain definitions and response scales, are also widely explored in this section.

In the fourth chapter, research design and methodology, data compilation technique along with measurements of the SOC and perceived QoL were presented. Moreover, issues related to scales validations procedure, research questions and hypotheses, as well as ethical consideration are also thoroughly scrutinized in this chapter.

Finally, statistical analyses, presentation of main results, discussion and limitations, implications on mental health care along with the conclusion are explicitly explored in the last section.

CHAPTER ONE

1.0 Introduction

In recent years, public health stirred up the attention related to quality of life (QoL) as a significant health outcome congruent to other measures, for instance, somatic measures such as morbidity as well as mortality. QoL as a multidimensional assessment can be explained as an individual's contentment or else happiness in an array of life domains that affect or are affected by health.

Sense of Coherence (SOC) describes as a health-protective orientation to life with its triplex interconnected subscales: comprehensibility –the feeling that the world makes senses, that information about the environment is consistent, orderly and explicable; manageability –the feeling that adequate resources are accessible for meeting internal and external stimuli and demands; and meaningfulness –the feeling that the demands are challenges worthy of involvement and investment. The construct of SOC is the underpinning aspect in Antonovsky's concept of the salutogenesis, which refers to the origins of health and focuses on resources for sustaining good health and processes of health promotion. The scale developed to measure the SOC construct exists in two editions: the original longer version with 29-items and the short version which characteristically consist of 3-13 of the 29 original items. Both versions have been tested, retested and revealed to be reliable; however, evidence on construct validity remained disputable. The longer version of SOC questionnaire and the Norwegian formal edition of the WHOQOL-Bref scale have been adopted in this present quantitative cross-sectional study.

The assessment of SOC and perceived QoL in immigrant's subpopulations in Norway has for a long time not been extensively evaluated in comparison to the general population. Relevant data from population studies suggests gender disparities in individual's perceived QoL and subjective health in children, adolescence and adulthood. Several studies shows that the SOC and perceived QoL tend to increase with age over the whole life span. The older the age of the population sample, the higher the average mean scores SOC and QoL. Previous studies

also revealed that demographic differences were significant. Men had significantly higher score SOC than women.

Besides, scores of studies suggests that non-Western immigrant's reports high incidence of mental health problems and to some degree somatic health problems compared to Western immigrants. It is relevant, however, to measure how immigrants perceive their own life situations in order to obtain plausible knowledge relating to impairments of well-being and optimal functioning.

In this paper, a subjective approach has been adopted to investigate average Means (SD) sum scores SOC and perceived QoL amongst adult immigrants in Norway. A cross-sectional investigation has been carried out within a short period of time on a selective sample group of individuals. Response and exposure variables were measured concurrently. Cross-sectional studies therefore have no time dimensions and no follow-up (Laake, 2007)

1.1 Origin of immigrants

Over the last 60 years, international immigration has emerged as a major force throughout the world. Virtually all countries in Western Europe began to attract considerable numbers of foreign workers, right after the end of the 2nd World War. Nowadays most of the world's developed countries have been transformed to diverse, multi-ethnic societies, and those that have not attained this stage are moving decisively in that direction (Massey, 1993)

By the end of 2010, the United Nation High Commissioner for Refugees (UNHCR) Global Trends (2010) revealed that there were 43.7 million forcibly displaced people worldwide, the highest number in 15 years. Out of these, 15.4 million were refugees, meaning they meet UNHCR definition of a refugee. These are individuals who are unable to return to their country of origin because of a well-grounded fear of persecution.

According to the Organisation for Economic Co-operation and Development (OECD), just under 3% of the world's population, or an estimation of 190 million people live outside their country of birth, and almost three million long-term migrants enter OECD countries legally every year, and the numbers are projected to rise as host countries grapple with falling birth rates and aging populations (OECD, 2006). In OECD area, they make up more than 23% of

the population in both Australia and Switzerland, but only around 3% in Finland and Hungary. In modern times, several factors have led to the increase in international migration. Increased trade between countries (including the impact of trade resulting from globalization), improvement in transportation infrastructure, and advances in communications technologies, political instability, poverty, and high rates of unemployment in economically disadvantaged countries are some of the important factors that contributed to international migration (Massey, 1993)

According to Syed, migration is a process of social change whereby an individual moves from one cultural setting to another for the purpose of settling down in the new environment either permanently or for a prolonged period of time (Syed, 2003). As indicated above, there are several theoretical bases for understanding the phenomenon of international migration, and some of the reasons, for example are: economical, political or educational betterment. (Syed, 2003) holds that the history of civilization is a history of mobility and migration, thus, in some sense we all are descendents of migrants.

Globally, many countries are facing a continuous influx of immigrants, and Norway is not an exception. Human migration has existed throughout human history. People have always sought new and better places to live, and will continue to do so in future. Furthermore, many countries had to attract immigrants in coming years as they are faced with aging population and trying to fill the gaps in their workforce (OECD, 2009). Regrettably, immigrants are more exposed to long-term unemployment and social exclusion, as well as poorer working conditions and temporary employment. Countries with existing large immigrant communities must also work hard to improve the immigrant's performance in education, health and employment (OECD, 2006)

The issue of migration to Norway from neighbouring Scandinavian countries and to a lesser extent Western Europe is not a new phenomenon. Nonetheless, during the past four decades, Norway's fairly homogenous population has become increasingly multi-ethnic society with increase from 1.5 % of the immigrant's population in 1970 to 12.2 % in 2011 (Statistics Norway, 2011). Norway's immigrant population consists of people from over 200 countries and independent regions (ibid). The immigrants have come as refugees, as labour migrants, to study, or else family reunion with close relatives living in Norway. Immigrants and those born in Norway to immigrant parents constitute a population of 600900 persons or 12.2 % of the

Norway's population. Broken down by region, 287 000 persons have a European background, 210 000 are of Asian origin, 74 000 from Africa, 19 000 from Latin-America and 11 000 from North America and Oceania (ibid)

The immigrant population includes 1st and 2nd generation immigrants. The 1st. generation immigrants are defined as persons born abroad of two non-Norwegian parents who have immigrated to Norway and 2nd generation immigrants are persons born in Norway with two foreign-born parents (ibid). Further, Statistics Norway subdivides immigrants into two categories: (i) Western immigrants and (ii) non-Western immigrants. Western immigrants include persons from the Nordic countries, Western Europe, North America and Oceania. The non-Western immigrants include persons from Eastern Europe, Africa, Asia, and South or Latin America (ibid)

1.2 Demographic trends in Norway

Figures from Statistics Norway (2011), confirm that the number of immigrants and Norwegian-born to immigrant parents grew by 48 600 to 600900 persons in 2010. These two groups accounted for 12.2 per cent of the total population in Norway as per January 1st 2011. During the year 2010, the population growth among immigrants was very high, with 41 200 persons. Only in the year 2008 has the growth of immigrants been higher, with 41 900 persons. As in the last few years, the number of polish immigrants grew most in 2010 alone by 7 600. There has been a noticeable increase in the number of Lithuanians and Swedish immigrants in 2010, by 5 700 and 2 800 respectively. The increase in the number of immigrants during 2010 is mostly a result of immigration from Europe. The population growth among immigrants from European countries consisted of 27 400 out of a total population growth among immigrants of 41 200 persons. The polish immigrants' tops the statistics with a total population of 57 000 persons and makes up the largest group of immigrants in Norway. The other large groups of immigrants are Swedes 33 000 and Germans 23 000, Danish 18000, Lithuanians 16000. Among non-Western immigrants are: Pakistani 17400, Iraqis 21 000, Somalis 19000 and Vietnamese 13000. Thirty five-percent of the immigrants have obtained Norwegian citizenship (ibid)

There were approximately 25768 persons (Table 1 below) with immigrant background who were registered residents of Hedmark and Oppland counties during the time of the present study.

	Hedmark	**County**	**Oppland**	**County**	
Age Groups/Gender	Men	Women	Men	Women	Total
0 - ≤	97	88	86	101	372
1-5	443	389	430	468	1730
6-12	539	514	560	526	2139
13-15	246	259	251	220	976
16-19	400	337	395	310	1442
20-44	2842	2970	3033	3062	11907
45-66	1561	1593	1434	1290	5878
67-79	227	306	181	277	991
80- ≤	62	101	73	97	333
Total	6417	6557	6443	6351	25768

Table 1.0 General characteristic of the immigrant population sorted by gender and age groups in Hedmark and Oppland Counties (Statistics Norway, 2011)

1.3 Worldviews, definitions of health and disease

According to Carter and colleagues, health professionals (e.g.; nurses and physicians) and patients' actions and beliefs are generally formulated by three factors: (i) their definition of health; (ii) their perception of the way in which illness occurs; and (iii) their cultural worldviews (Carter (1995); Chong (2002); Diala & colleagues (2001); Herrera & colleagues (1999); cited in Norman L. Keltner, 2007). Patients' health care beliefs and actions are related not only to the way in which health, illness, and the cause of illness are defined but also to individual worldviews. The authors outlined four primary worldviews:

- (i) An analytic worldview: a person who expresses the analytic worldview values detail to time, individuality, and possessions. A person with this view also prefers to learn through written, hands-on, and visual resources(Keltner, 2011)

- (ii) A relational worldview: is grounded in a belief in spirituality and the significance of relationships and interactions between and among individuals. The preferred learning method is through verbal communication. Proponents of this view values the development and interactions and relationship, usually prefers learning through verbal communication, and views spirituality as important context for living life.

- (iii) A community worldview: an individual who expresses the community worldview believes that community needs and concerns are more important than the individual ones. Quiet, respectful communication, as well as meditation and reading, are valued as a learning style.

- (iv) An ecologic worldview: is based upon a belief that a form of interconnectedness exists between human beings and the earth, and that individuals have a responsibility to take care of the earth. Learning is accomplished through quiet observation and contemplation, and verbal communication is minimized (Norman L. Keltner, 2007)

The authors eloquently articulated that worldviews form the fundamental basis for the expression of culturally-bound mental health and wellness issues. Cultural competence is an important part of effective psychiatric care. Important aspects for the development of culturally competent psychiatric care include the nurse's understanding of the concepts of a worldview, cultural-bound syndromes, ethno-pharmacology, and the nurse's role in assessing patients for cultural variables that might affect patients psychiatric care (Keltner, 2011)

Disease, illness and sickness are viewed as different aspects of health in human beings across cultures. In a broader context, disease refers to the objective part of health from a professional point of view, classifying disease partly on the basis of how they are caused (Westman, 2006). While illness (sometimes referred to as ill-health or else ailment) refers to the subjective feeling of being unhealthy. On the other hand, it has been argued that the presence of illness is not necessarily a function of the existence of a disease, and vice versa. Sickness is defined as the social dimension or as the social consequence of ill-health (Westman, 2006). Disorder is a term that describes a condition in which there is a disturbance of normal function. The psychiatrist and anthropologist (Arthur Kleinman (1991); cf. Westman, 2006) observed that illness refers to the patient's perception, experience, expression and coping with the symptoms, whereas disease refers to the way health

practitioners convert illness in terms of their theoretical models of pathology, thus, psychiatric diagnoses are an interpretation of a person's experience (Kleinman, 1991; cf. Westman, 2006)

1.4 Mental health, mental health care (MHC) and psychiatric nursing

A large number of people across cultures and throughout the world are affected by mental health problems and disorders. For some time now, the World Health Organization (WHO) have been warning that mental disorders is fast becoming one of, if not the, most serious health problems globally. A brief look at the relevant statistic highlights this as a major area of health concern. For instance, hundreds of millions of people worldwide are affected by mental, neurological or behavioural problems at any point in time. Each year almost 900 000 people die by suicide (Barker, 2009). Approximately one in four patients seeking a health service centre has at least one mental, neurological or behavioural disorder, but in the majority of cases these are neither detected nor treated (Barker, 2009)

The WHO declares that there is no health without mental health. Since its inception, the WHO has included mental well-being in the definition of health. WHO famously defines health as "a state of complete physical, mental and social well-being and not only the absence of disease or infirmity (WHO, 2005)"

Accordingly, mental health is clearly an integral part of this definition. The goals as well as traditions of public health and health promotion can be applied just as useful in the field of mental health as they have been applied in the heart health, infectious diseases and tobacco control. Mental health is more than absence of mental illness. WHO (2005) splendidly defines mental health as: "A state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make contribution to his or her community" (WHO, 2005)

In this positive sense of knowledge, mental health is viewed as foundation for well-being and effective functioning for an individual and for a community. This core concept of mental health is consistent with its wide and varied interpretations across different cultures in the world. Following the above definition of mental health, three ideas central to the improvement of health arises:

- (i) Mental health is an integral part of health
- (ii) Mental health is more than the absence of mental illness, and
- (iii) Mental health is intimately connected with physical health and behaviour (WHO, 2005)

In Morrison-Valfre's viewpoint, mental or else emotional health is intertwined with physical health (Morrison-Valfre, 2009). Behaviour relating to health exists over a broad spectrum, often referred to as Health-illness Continuum. The author further articulates that people who are superbly healthy are placed at the high-level wellness end of the continuum, whereas, ill individuals fall at the continuum's opposite end. Most of us, however, function somewhere between these two extremes (health and illness-poles). As we encounter with the stresses of life, our capability to cope is repeatedly challenged and we struggle to adjust in effective ways (Morrison-Valfre, 2009). In this viewpoint, mental health is therefore defined as the capacity to "cope with as well as adjust to the recurrent stresses and wards of illness" according to Anderson and others (2002), cf. Morrison-Valfre (2005). Morrison-Valfre (2005) further put emphasis on that mental health is influenced by three vital factors: Inherited characteristics, childhood nurturing, and life circumstances. However, due to the word limitation in this dissertation, I would choose not to write explicitly about these three factors.

1.5 Definition of psychiatric nursing

Psychiatric nursing has its roots anchored in the philosophy of general nursing, which in their concept about working with a patient has had the trend of personal information. In this view, the patient or individual suffering from illness is considered from a holistic context in which, the psychiatric nurse sees each human being as a complex integrated whole with physical, emotional or mental, social, cultural and spiritual dimensions (Hummelvoll, 2004 p.46, my translation). According to professor Hummelvoll and colleagues, psychiatric nursing is fabulously defined as:

> A planned, care-giving and psycho-therapeutic intervention. It aims to enhance patient's self-care and thereby solve or reduce his/her mental health problems. Through a collaborative and committed community, the psychiatric nurse tries to help the patient to gain self respect and control and to find their own life values durability. When the patient is not able to express

> his/her own needs and desires, the psychiatric nurse assumes the role as care-giver and patient's spokesman. Beyond the individual level, the psychiatric nurse has a responsibility to help the patient to gain control in difficult life situations in a satisfying social community context. At the societal level, the psychiatric nurse has an obligation to point out and affect conditions that may create health problems (Hummelvoll, 2004 p.46, my translation)

Based on this definition (Hummelvoll, 2004), humanistic ideals is clearly expressed, namely, that good psychiatric health care must be solely based on respect for human values and integrity, freedom of choice and self-determination, as well as human development and cognitive potentials. This definition can further be subdivided into four components:

- (i) Psychiatric nurse is a planned, care-giving and psycho-therapeutic intervention. It aims to enhance patient's self-care and thereby solve or reduce his/her mental health problems.
- (ii) Through a collaborative and committed community, the psychiatric nurse tries to help the patient to gain self respect and control and to find their own life values durability.
- (iii) The psychiatric nurse assumes the role as care-giver and patient's spokesman whenever the patient is not able to express his/her own need and desires.
- (iv) Beyond the individual level, the psychiatric nurse has a responsibility to help the person or patient to gain control in difficult life situations in a satisfying social community context. At the societal level, the psychiatric nurse has an obligation to point out and affect conditions that may create health problems (Hummelvoll, 2004 p.46, my translation)

1.6 Definition of mental health care

Mental health care encompasses more than the professional interventions in the field. A determination to promote mental health is primarily a responsibility of the individual in his own life, it's a task for most people in their numerous societal contexts and it's a task for all public health services. The focal point of collaboration between users and clinical professionals to promote mental health, courage and alleviate mental health problems by supporting individuals seeking help to break nasty loops is a vital task. It's essential that

services offering mental health care are designed in collaboration with users, their family and their interest groups. Subsequently, patients/users' views sought and taken into consideration in all planning of health and other social services, are key aspects. This assumes that there will be a user perspective on the underlying principle for and development of services. The user perspective means that the users' experience, knowledge dynamically sought and included in the basis for decisions on actions and that user participation is the cornerstone of mental health care.

In synopsis, mental health care may possibly be described as a relationship-building interventions aimed at promoting health and reducing the consequences of mental illness, disease and suffering among the population. It’s an interdisciplinary work that takes place both at the individual, group and community level. The knowledge base is interdisciplinary, focusing on factors and processes which correspondingly encourage and inhibit the human experience of health and social affiliation of individuals and groups, the measures to relieve suffering and prevent disabilities - and the services that match the needs of those who seek / need help. The work requires multidisciplinary along with cross-sector cooperation, collaboration across service levels - and, above all cooperation with users and their social networks.

According Almvik and colleague (Almvik & Borge, 2006), mental health care (MHC) is superbly defined as about:

> Working to improve mental health, both at the individual, group, community, and service levels. The work is fundamentally aimed at prevention, rehabilitation and treatment. Mental health care is based on three assumptions: (i) research-based theoretical knowledge, (ii) practical knowledge developed by the various professions, and (iii) evidence-based knowledge and experiences from users. The knowledge base is interdisciplinary, and is especially based on humanities and social pillars (Almvik *et. al.,* 2006 p.8, my translation)

In this definition (Almvik, 2006), the relational basis is viewed as an essential constituent. The therapist attitude and ways of interaction with the client is essential in the face of those who need help and their next of kin. Further, their professional knowledge is formed through the inclusion of theory, experimental learning and underlying humanity. This is the fundamental basis of all helping relationships and influence for whether the individual who is a patient/user is viewed, valued and affirmed. This approach creates an atmosphere that is possible for one

to be motivated and enter a binding agreement, take responsibility and make changes in their lives.

1.7 Determinants of health that influence immigrants and refugees health status.

Basically health status is an indicator of a person, group or general population's health. There are different ways of evaluating and measuring health status, including analysis of indicators of health status, such as conventional measures of mortality and morbidity, for instance, chronic diseases, and subjective measurements of people's own health status, for example, self-reported health. However, few indicators of immigrant's health status and ethnicity can be tracked within the Statistics Norway, Norwegian Centre for Minority Health Research (NAKMI), the Norwegian Institute of Public Health (NIPH) or other research institutions.

It has been argued that immigrants as well as refugees, on arrival, move from one set of health risks, behaviours and constraints, to an environment that potentially includes a very unique mix of risk factors with probable adverse impacts upon health. According to an article published by Winnipeg Regional Health Authority (WRHA, 2010) "Understanding the Health and Health Issues of immigrants and Refugee populations" (Winnipeg, Manitoba and Canada, 2010), the major determinants of health that influence immigrants and refugees health status after arrival in the host country includes:

1.7.1 Immigration experience

In his research work Stewart found that the consequence of the immigration experience to health is so significant that it has been proposed that the immigration experience itself should be considered as a determinant of health for all immigrants (Stewart, 2008). A number of factors affecting immigrant's health status prior to, during, and post migration interact with other determinants of health in complex and divers ways (WRHA, 2010)

(a) Pre-migration experiences

Research data from (WRHA, 2010) revealed that individual immigrants, even those from the same country of origin, come with different educational levels, employment history, early

childhood experience, levels of social support, and experience with the health care system. These factors may significantly impact their health and well-being both upon arrival and in the long term. For example, socio-economic status (SES) in the country of origin may affect nutritional status, access to and quality of medical and dental care, or risk of exposure to infectious diseases (e.g., HIV/AIDS, tuberculosis (TB) and parasitic infections). These individual level factors may vary significantly among those arriving from the same country of origin (WRHA, 2010)

(b) Per-migration experiences

It has been argued that the circumstances surrounding departure from country and culture of origin can deeply impact health status (Kinnon, 1999). There are often great differences in experiences of migration between immigrants and refugees, and between groups of immigrants, depending on migration class, country of origin, and period of migration. Refugees, who are forced to leave their country, may have been directly exposed to war, human atrocities, and violence that consequently may lead to other forms of trauma e.g., Post Traumatic Stress Disorder (PSTD). In some instances, both immigrants and refugees, migrate because of instability or economic insecurity in their country of origin as outlined above. These factors often create both immediate and longer lasting health problems (S Bowen, 2001). There is also considerable individual variation in the length of time and conditions of migration. While most immigrants and some refugees come directly from country of origin to a receiving country, others do not. Some are forced to spend months or even years in flight and migration, living in refugee camps or in intermediary countries; also, pose risks of been exposed to both physiological and psychological risks such as infectious diseases, sexual violence, ongoing inter-ethnic violence (Adams, 2004)

(c) Post-migration experiences

Post immigration experiences, predominantly the response from the receiving community or country (e.g., social support and settlement services) also have significant implications for the health and well-being of the immigrants. Post migration experiences will vary depending on the country of origin, year of arrival, and geographical location of host country (WRHA, 2010). The process of adaptation and acculturation, that is, the length of period of time required to become proactive as well as confident participant in the host society and

institutions varies among both individuals and newcomer groups. Factors affecting this adaptation include age on arrival (and aging process), level of education, official language proficiency, gender, employment status and opportunity, access to language training, trauma experienced, reception by receiving community, and individual coping abilities. While all immigrants go through phases of adjustment, “the permanent, forced nature of the refugee migration experiences often makes integration into the new society more difficult” (Gagnon, 2002)

1.7.2 Income and social status

It’s acknowledged that the right to a paid job is a fundamental premise that people have a human right to work, or engage in productive employment, and should not be barred from doing so. The right to work is enthroned in the Universal Declaration of Human Rights as well as recognized in International Human Rights Law through its enclosure in the International Convention of Economic, Social and Cultural Rights, through which the right to work accentuates economic, social and cultural development. Contrasting to these principles, job insecurity, illegal status and legal instability, access difficulties to housing, social isolation and ethnic prejudice experiences are just some of the many problems encountered by immigrants when they arrive in host country (Hermandez, 2004). The migration experience includes major changes in the person’s environment, with the incorporation of a new physical context, institutional and socio-cultural (climatic and geographical changes), to adjust to the new social position with a major transformation of its network of social relationships (Miguel, 2011). All these circumstances may pose a risk for health, physical and psychological and make the process of adaptation and integration in the new society complex (Phinney, 2001)

On arrival to the host nation, many new immigrants experience a decline in status, occupational level and income, leading to a situation termed as “status incongruity” (WRHA, 2010). Status incongruity is a conceptual term from anthropology describing the impact of culture change on individuals’ well-being (WRHA, 2010). Explicitly, status incongruity portrays the quantitative relations involving exposure to non-traditional values, for instance, Western values and ways of living –through migration or local change –and self-reported symptoms of physical, social and mental/emotional distress or physiological measures of stress (Graves, 1985)

In the case of Canada; which may be directly comparable to Norway and other Western countries, it has been observed that, most recently arrived immigrants were disproportionately poorer than the general Canadian population (Galarneau, 2004). Usually, the Canadian born on average earned more than the new immigrants, but of late, the immigrants earnings steadily rose up and levelled with, and in some cases surpassed earnings of the Canadian born (Frenette, 2003). Nevertheless, in the last two and half decades there has been a steady decline in the economic outcomes of new arrivals in Canada. The earning gaps between immigrants and the Canadian born continues to increase, in spite of rising educational achievement of immigrants (Picot, 2007). Several potential explanations exist for this trend:

(a) Deterioration of conditions for labour market entrants as whole

Regardless of an impressive increase in educational achievements of newly arrived immigrants and the increased proportion of skilled economic class immigrants, poor economic conditions in immigrants subpopulations has been observed in Canada, this trend could well apply in Norway and other Western countries WRHA (2010). It's estimated that about 65% of the immigrants entering Canada have low income status at some time during the first ten years in Canada and, of these; two thirds are at this status during the first years after arrival.

As it's with health status, a crucial distinction do exist in the income of immigrant subpopulations –for example; country/world area of origin, immigration category. Refugees are more likely to experience chronic low income (defined as being in a low income strata at four of the first five years in Canada) compared to other classes (Picot, 2007). For example, in cohort of immigrants arriving in 2000, after controlling for demographic differences, the chronic low income rate was 27% for refugees, compared to 13% in the family class, and 16% in the skilled economic class. Elderly immigrants and single parents were more prone to low income strata, as per the expectations (Picot, 2007)

Likewise, chronic low income varies by world area of origin. After controlling for other demographic differences among sources of immigration regions, a low prevalence of low income is found among immigrants from North America and Europe (approximately 8% in 2000, whereas, immigrants from non-Western countries, e.g., Africa, Latin America, East and Asia had the highest rates of chronic low income between 19% to 24% (Picot, 2007)

A survey carried out among non-Western immigrant's living conditions in Norway revealed that immigrants from low and middle income countries with their lower income, employment, educational levels and housing standards occupy the lowest strata of Norwegian society (Bernadette, 2008)

Another study found that immigrant men enter the labour market much faster than their female counterpart. Non-Western female immigrants require the longest time to get acquainted on the labour market, when compared with non-Western male immigrants they were found to have a lag of three years. Once residing in Norway for seven years they attain the level reached by men just within four years. Whereas Western female immigrants and men settle on a stable and high level of employment within three years of stay in the country (Statistics-Norway, 2002)

The region of settlement is a very importance factor on the immigrants' or refugees income status. For example, immigrants and refugees settling in rural or small towns portray better economic standards compared to those settling in larger urban centres. Refugees in very large urban areas earn on average 43% less compared to the Canadian-born (WRHA, 2010). Refugees generally earn lower incomes in large and midsized urban areas compared to their counterparts living in smaller urban areas where the gap is considerably not as wide (Beshiri, 2004). These findings signals and elaborates an important message that poverty is a likely confounder of any correlation between immigration and health status, and may possibly contribute to the deterioration in immigrant health status after arrival in a receiving society/country.

(b) Declining economic returns from previous work experience

It has been argued that even immigrants who are well educated may end up being underemployed and fall into a low income category. It's noted that most entering immigrants realize virtually no economic benefits from previous work experience (WRHA, 2010)

(c) Changes in world regions where from which majority of immigrants are arriving

The current immigrants arriving in Norway mainly comprised of immigrants from Western countries predominantly Europe. Nonetheless, in the case of Canada, majority of immigrants are now arriving from non-Western countries. As a consequence, there are often greater

challenges; achieving language proficiency, schooling in-equivalency and greater potential of discrimination has direct impact on immigrant health status (WRHA, 2010)

1.7.3 Social support networks

Resettlement as a durable solution in a second or third country implies that immigrants and refugees are cut off from their well established social support networks such as family members, friends, community and workmates. A major task of “settlement” in a new country is to establish new networks of social support. As for other social determinants of health, the challenges and time required accomplishing vary, reflecting both individual and community factors (WRHA, 2010)

Individual factors include factors related to migration experience, presence of family or friends, official language capability and personal coping skills. In addition, community level factors take account of the reception by the receiving community, the size of the established immigrants or refugee populations, and the health of this community. Ethnocultural societies affected by war, for example, are frequently not experienced as safe and supportive by newly arrived immigrants as well as refugees, as all the rival sides of a conflict may be resettled in the same location (S. Bowen, 1999)

In a critical review on gender differences in depression (Piccinelli, 2000), findings revealed that genetic, biological factors and poor social support networks had very little effect than adverse experiences, roles and psychological characteristics on the difference between women and men (Hollander, 2011). Studies from the Netherlands (Laban, 2004), found that the asylum process plays a significant role as a factor for mental ill health among immigrants particularly in women (Gerritsen, 2006). In the review on immigrants’ health status in Norway, findings exposed that prevalence rates of mental health disorders have been constantly higher among adult immigrants, distinctively among women and those from low and middle income countries compared to Norwegian general population. Well-known risk factors consist of poor social support networks, underprivileged socioeconomic circumstances, various negative life events, experiences of discrimination and traumatic pre-migration experiences (Abebe, 2010)

1.7.4 Education and literacy

Data from the immigrant health report (WRHA, 2010) exposes that, the average educational level of immigrants is higher compared to that of the Canadian born, but this educational attainments does not automatically offer the protective effect it would have in the immigrant's native country (WRHA, 2010). Educational achievements and credentials are regularly not recognized in Canada, and this phenomenon is predominantly in most Western countries including Norway, and subsequently resulting both to lower income, and to stress effects (Dean, 2009). Scores of the newly arrived immigrants or refugees are not conversant and eloquent with the official languages, this causes communication barriers and leads not only to unemployment and adaptation, but also challenges to particular health literacy (Baker, 1999)

1.7.5 Employment and working conditions

The Canadian Task Force on Mental Health Issues Affecting Immigrants and Refugees (1988) concluded that migration in itself does not increase the incidence of mental health problems. However, when immigration is accompanied by one of the following seven conditions, it becomes a risk factor for mental or psychiatric illness. These seven conditions include:

(i) a decline in socioeconomic status following migration process

(ii) lack of ability to speak fluent the language of the host country

(iii) separation from family

(iv) lack of friendly reception by the host population

(v) lack of ethnocultural community to provide support

(vi) a traumatic experience prior to migration; and family

(vii) migrating during adolescence or after the age of 65 (Canadian Task Force on Mental Health Issues Affecting Immigrants and Refugees, 1988)

Highly educated immigrants may as well have greater technical hitches in adapting to life in Canada. Additionally, well educated immigrants may also experience difficulties in securing

jobs in which they are trained and qualified for, ensuing to lower income, higher levels of stresses of life and unhappiness (Wilson, 1998., 2009). Language barriers place many new arrivals at particular risk of work injury (Premji & colleagues (2008); Smith & Mustard, (2009); cf. WRHA, 2010). This is exacerbated by the fact that many new arrivals are employed in sectors that are “dirty and dangerous”, and are habitually provided with little workforce orientation.

Provisional foreign workers face additional challenges and are at risk of abuse within the place of work (Alberta Ferderation of Labour (2007); Elgersma (2007); cf. WRHA, 2010). For example, non-Western immigrants have an overwhelming representation in the so called “labour-intensive industries” in Norway. Data reveals that female immigrants or refugees with background from non-Western nations work to a larger extend than other women in “labour-intensive branches” like hotels and restaurants, and industrial cleaning; where among others, the percentage of female immigrants with Asian background is four times as high as for women in the general population as a whole. For example, in the industrial cleaning, female immigrant employees with background from African is 10 % as high, whereas, the corresponding proportion in the general Norwegian population is 1,1 % (Statistics-Norway, 2002)

1.7.6 Social and physical environment

Data from the Winnipeg Regional Health Authority WRHA (2010) report exposes that some immigrants, most refugees and foreign workers often find themselves living in substandard housing and unsafe neighbourhoods. This extensive research work has documented the degree of these living conditions and highlighted the challenges of these factors to successful adaptation (Crockett, 2005). It was revealed by one study that, in the first year, a quarter of the refugees households did not feel safe in their neighbourhood; the same proportion feared for the security of their housing (Crockett, 2005). This study also found that refugee families were highly volatile and mobile, further challenging successful integration. In the first year after arrival in Canada, 93% of families had lived in more than one place; 25% had lived in more than three places. Slightly more than one-half wanted relocation(60%) and the average length of tenure in the new location was just twelve weeks (Crockett, 2005). In some cases, newcomer families are large, leading to additional housing challenges and increasing health

risks due to congestion. Overcrowding and badly maintained housing increases general health risks, for instance, risk of injury and transmission of infectious diseases. Crowded living conditions combined with stress may also contribute to reactivation of tuberculosis TB (Reitmanova, 2008)

1.7.7 Health services and health system organizations

Health system itself doesn't matter as a determinant of health status of immigrants and refugees; on the contrary the provision of health services to the subpopulations has the potential to affect future health of immigrants, refugees and of the general population, specifically at times of individual vulnerability. Health system services that fall short in the provision of equitable health care have the potential to make worse social disparities and contribute to lower health status (S Bowen, 2001). All immigrants and refugees should be eligible for Health coverage in the host nation immediately on arrival. In Norway and most Western countries, illegal immigrants (the so called stateless immigrants) are often not covered under the general health services, thus, this could pose a great health threats to the groups.

(a) Quality of communication

Communication barriers, for instance, lack of health literacy, present some of the greatest risks to immigrants and refugees health (WRHA, 2010). The risks of using family, friends or other untrained helpers or translators are often as great as the risks of no interpreter at all because it could possibly lead to the violation of the right to privacy (Bowen (2004); Office of Minority Health (1999); cf. WRHA, 2010)

(b) Access to health promotion and prevention information

According to WRHA (2010), the greatest negative impact results from barriers to health promotion, prevention and primary health care information and services. Cultural sensitivity remains a significant issue for immigrants. Cultural practice that for example prohibits females from being attended by a male physician or health professional further limits the access of newcomers to health promotion, prevention and primary health care services. Latif (2009); Lofters & colleagues (2007); cf. WRHA, 2010) found that immigrants women are highly unlikely to participate in, for example, cervical cancer screening programs. Barriers to health

promotion and prevention and primary health care services may have colossal impacts on long-term health of immigrants and refugees.

(c) Lack of cultural proficiency within health care providers

Stereotyping or categorizing certain group of people and discrimination within the health care services may possibly affect the health and well-being of immigrants and refugees in numerous ways, either through the actions of individual health practitioners or through institutional practices that have the effect of preventing barriers to services or discriminatory care (S. Bowen, 2008). Azad & colleagues (2002); Flores & colleagues (2000); cf. WRHA, 2010), holds that health providers are not well prepared to meet the needs of a culturally diverse populations. Health providers may lack expertise with diseases, conditions and experiences of their newcomer patients affecting both quality and appropriateness of care (WRHA, 2010)

(d) Availability of specialized services

According to (WRHA, 2010), a small proportion of immigrants and refugees require specialized services rarely needed by those in the host country and for which professional expertise may not be readily available. These specialized services include expertise in tropical disease diagnosis and treatment and specialized mental health services for survivors of torture and other human atrocities.

1.7.8 Other health determinants

(a) Healthy Child Development

Official data from (WRHA, 2010) relates that the major risk for children of immigrants is the risk of living in poverty. Regardless of the challenges of adaptation, there is some strong indication that, in general, immigrants' children do better psychologically, and may possibly be less liable to adopt insanitary ways of life habits than the Canadian born (WRHA, 2010). Based upon data from the National Longitudinal Survey of Children and Youth, one study found that even though immigrants' children were twice as liable to live in poverty, they had lower levels of emotional and behavioural problems (Beiser, 2002). However, there is great distinction amongst the immigrant population and therefore the child population and its needs.

Further, unaccompanied minors and refugee children who have experienced trauma and torture bring extra needs (Crockett, 2005). Financially, the economic disadvantages such as lower income experienced by immigrants does not, in general, hinder their children; in other words, children born to Canadian immigrant parents are most likely to stay in school and achieve higher levels of education.

(b) Personal health practices and coping skills

Traditional health practices forms the core aspects for practices and skills –these have been given keen attention in the area of refugee health. Whilst it's imperative for health practitioners to be aware of the difference in health beliefs and practices across country of origin, it's as well imperative to be aware that beliefs and practices vary within countries of origin according to region, level of education, religion and other factors among subpopulations within the same country. A lot of traditional practices support both psychological and physiological health, and numerous immigrant populations have a lower rate of unhealthy behaviours such as smoking and alcohol or drug abuse (Edward Ng, 2005)

(c) Gender differences

Gender is a key factor that may possibly interrelate with immigrant/ refugee status and with other social determinants of health. During both pre-, per- and post-migration phases, male and female immigrants may differ in experiences in terms of poverty, housing, employment/unemployment, social networks and support, and discrimination; they may also differ in their health behaviours and use of services (Llacer & colleagues (2007); cf. WRHA, 2010). The correlations between self perceived health and language proficiency is significant for women in particularly (Canadian Task Force on Mental Health Issues Affecting Immigrants and Refugees, 1988). Shifting gender roles could give rise to both challenges and opportunities. However, these factors differ both amongst immigrant subpopulations, and among individuals within the same population (Morton, 2005). And even as the susceptibility of women during migration and resettlement has been emphasized in the literature, there is some attestation that women may have adaptation advantages, particularly in some communities (S. Bowen, 1999)

The obstacles encountered by women while seeking asylum in Sweden has been pointed out by The Swedish Red Cross (Hollander, 2011). A suggestion put forward emphasized that

stresses and strains in the asylum adversity together with the human right violations in the country of origin, contribute and to some extent explain the higher psychological ill health levels among refugee women (Hollander, 2011). There may as well be unlike patterns of family reunion for male and female immigrants or refugees making female immigrants or refugees more exposed than male in terms of social network (Hollander, 2011)

(d) Biology and genetics endowment

There is a growing, even though controversial trend within medicine to tailor assessment and treatment to the genetic or racial background of individual patients (Brook & King (2008); Lee (2009); cf. WRHA, 2010). Certain diseases and health conditions are prevalent in certain subpopulations; even if environmental differences have been singled out as the reason behind this phenomenon, risk/benefit often approaches that of the host population after immigration. According to various authors (Kurian (2010); Cardarelli (2007), Creatore (2010), Jarvis (2002); cf. WRHA, 2010), studies established that the prevalence of some conditions and response to some treatments, for example pharmaceuticals, differ in population groups. The common challenge for medicine is to provide personalized care whilst avoiding simplistic and often dangerous stereotyping (WRHA, 2010)

Other health determinants include; female genital mutilation (FGM), infectious diseases, HIV/AIDS, tuberculosis (TB), malaria cases, cardiovascular diseases (CVD), vitamin D deficiency, type 2 diabetes and obese, however, due to the word limitation in this paper, I choose not to write extensively about these topics.

1.7.9 Mental health issues of immigrants

For many decades, the association between international migration and mental health has been the subject of studies and is viewed as a public health challenge in several countries worldwide. There has been a difficulty and quite a lot of contradicting findings in the field of international migration and mental health research studies. All the three phases of international migration which consists of: pre-, per and post-migration has been sturdily related with higher risks for mental health problems in immigrant communities (Abebe, 2010). The three phases of international migration encompasses number of complex and interactive factors that can influence the mental health status of immigrants and vice versa (Abebe, 2010)

Psychological consequences may as well include anxiety, depression, survivor guilt, sleep disturbances and nightmares, impaired use or loss of memory, concentration difficulties, hyperarousal, hypersensitivity, suspiciousness, fear of authority and paranoia (Canadian Centre for Victims of Torture, 2004-2005) Refugee claimants, for example, asylum seekers may be particularly vulnerable to mental health problems. A study in Montreal reveals that almost 60% of refugee claimants receive psychiatric diagnosis, mainly depression and post-traumatic stress disorder PTSD (Ouimet, 2008). However, access to many health services is limited for refugee's claimants due to their uncertain status (Ouimet, 2008)

The mental health consequences of exposure to political violence are not limited to those with refugee status. With changes in source countries of migration, many immigrants are arriving from repressive or totalitarian regimes. For example, one Quebec study revealed that while refugees reported the highest percentage of personal and family exposure to political violence, 48% of economic class immigrants and 42% of family class immigrants also reported such exposure (Rousseau & Drapeau (2004); cf. WRHA, 2010)

Mental health problems directly related to international migration and adaptation are well documented. Even those who have not directly encountered trauma have often witnessed atrocities or lost family members. The act of being forced to leave their home country, families and friends, is itself a trauma experienced by all refugees. Many immigrants have left family members in their country of origin; this phenomenon may possibly lead to significant anxiety and can impact the physical, psychological and wellbeing of their families. Local evidence shows that prolonged separation from family can also cause depression and feeling of isolation (Arango & colleagues (2006); cf. WRHA, 2010)

The process of acculturation once in the host country is considered as a time when many immigrants and refugees undergo significant mental health challenges. The stress of adaptation to life in the host country is often exacerbated by lack of proficiency in an official language, and experiences of discrimination and racism from the host country, as well as loss of culture and family support, difficulties securing employment (Blum & Heinonen (2007); cf. WRHA, 2010), and safe affordable housing (Hakim & Angom (1999); Simbandumwe (2007); cf. WRHA, 2010). These experiences have been documented by organisations, researchers and communities for years, yet they continue to pose real challenges (Kinnon, 1999). Mental health is particularly sensitive to cultural and linguistic barriers, as assessment and treatment is

largely dependent on communication. That these barriers prevent access is demonstrated by the significant lower utilization of both specialty and the general medical services for emotional and mental distress.

1.8 Health status of immigrants in Norway

In one of his public health studies, Abebe conducted the first ever systematic research review of immigrants health studies in Norway "The Report Public Health Challenges of immigrants in Norway" (Abebe, 2010). This study reveals a high burden of important public health problems among the immigrant population and their descendants compared to the Norwegian general population (Abebe, 2010). The review was based upon the most important findings of a total of 224 immigrants' health studies focusing on five major health issues such as:

(i) lifestyles and diet-related-disorders

(ii) mental health problems

(iii) infectious diseases

(iv) access to and use of health services, and

(v) reproductive health and related problems, and other public health problems (Abebe, 2010)

The immigrant subpopulations were over presented with poor health conditions and several risks factors interrelated to pre-, during and post-immigration experiences, socio-economic conditions and individual's backgrounds, as outlined above in the case of the Canadian and Norwegian immigrants' populations, were the major findings in these studies. There is emerging substantiation that the burden of disease is not equally distributed and differs significantly across ethnic groups.

The Oslo Immigrants Health Profile report presents an overview of the health status of five largest immigrants groups in Norway in comparison to the ethnic Norwegian population (Bernadette, 2008). The sample groups included in the study were from Pakistan, Vietnam, Turkey, Iran and Sri Lanka. The study does not take account of all the potential and likely

health problems, but rather attempts to cover the most prominent issues that are germane to public health (Bernadette, 2008). In this study, compilation of data materials was based on two populations based cross-sectional studies carried out in Oslo, Norway. The first study "The Oslo Healthy Study (HUBRO)" was conducted during the period 2000-2001 by the National Health Screening Services (now the Norwegian Institute of Public Health, NIPH) in partnership with the University of Oslo and Oslo Municipality.

The second study, "The Oslo Immigrant Health Study (Innvandrer-HUBRO)", was conducted in 2002 by NIPH in partnership with the University of Oslo. The main results from this study showed that there were significant variations in health status between immigrant's groups, thus illustrating those immigrants not a homogenous group. Therefore it's not only the variations between immigrants and the host Norwegian population that is of interest to public health, but equally so the difference between these immigrant groups. Apart from the risk factors, morbidity patterns or disease prevalence, a general conclusion that could be drawn forward is that the health of immigrant groups differs considerably from that of ethnic Norwegians (Bernadette, 2008)

Findings from the Oslo Immigrant Health Profile (Bernadette, 2008), suggests that a great percentage of women reported mental distress (derived from the Hopkins Symptom Check List -10) compared to men in all ethnic groups, even though the disparity was insignificant in Sri Lankans (Bernadette, 2008). The greatest proportions with mental distress were noticeably amongst women from Turkey and Iran (≤ 40%).

Moreover, the men from Turkey and Iran also reported high scores; with 3 out of 10 reporting to be distressed (Bernadette, 2008). In the Norwegian general populations, both men and women registered the least score, especially in men whereby less than 1 in 10 reported to be distressed. Among the immigrant groups, the Sri Lankans had least proportion of mental distress, Sri Lankan women being in the same range as the Norwegian women (Bernadette, 2008)

1.9 Mental health of adolescent immigrants in Norway

A review in adolescent studies (Abebe, 2010), indicates no clear similarities and variations in health problems between adolescents immigrants versus Norwegian adolescent population,

however, results from most studies reveals higher levels of mental health conditions among immigrants, and particularly girls, compared to Norwegian adolescents. For instance, in a school-based nationwide study, findings revealed that adolescent immigrants, aged 13-15 years, with both high and low income countries of origin, reported significantly more depressive symptoms (mean score = 0.78) compared to the their Norwegian peers (mean score = 0.61)

In a longitudinal study conducted in Oslo, both boys and girls from ethnic minorities reported more mental distress/ emotional symptoms, behavioural problems and peer problems than their Norwegian counterparts, both at baseline and follow-up periods (1999-2000 and 2004). Additional factors related to increased levels of mental health conditions most notably include higher risks for acculturative stress, high levels or perceived discrimination and identity crisis, parental war experiences and the occurrence of several acute infections (Bernadette, 2008).

However, no significant discrepancies or even better mental health status among adolescent immigrants compared to the Norwegian population was found by some studies. A cross-sectional study in Oslo revealed that there were small variations in the level of internalized mental health problems between adolescent immigrants and Norwegian population, but not in case of externalized mental health problems (Bernadette, 2008)

CHAPTER TWO

2.0 The mystery of health and Sense of Coherence (SOC)

Why do some people stay well regardless of harsh adversity, while others do not? A strategy to cope with stresses of life is through Aaron Antonovsky's concept and theory of the salutogenesis. Born in the USA in 1923, Antonovsky graduated with a doctorate in sociology at Yale University after which he immigrated to Israel in 1960. He was a legendary medical sociologist in the late 1960s. As expected, the publication of an article "Social class, life expectancy and overall mortality" in 1967 exerted huge pressure and sparked attention and insight into how health varies between different social groups in a society. As a result, he contributed to the realisation that human health is not simple as about body and soul and the immediate living surroundings. However, both the structure of society of which we are part of and the degree to which we succeed in living our life in society have a fundamental role for the people's well-being and for the average rate of illness and mortality from a public health viewpoint.

Thousands of articles on the subject of salutogenesis paradigm and the SOC theory have been published since Antonovsky's 1st book was published in 1979. Both the concept and theory has been tested in fields such as social work, stress research work and dealing with change. Numerous researchers have also tested the concept and theory in working life and have proven its validity both as an approach as well as explanatory model for health promotion. The utmost interest is in both testing and making a vital examination of Antonovsky's theory's strength, when researchers want to depend on it as a guide in health promotion, it has been proven to be a really salutogenic theory of health (A. Antonovsky, 1990a)

Being a well known medical sociologist, Antonovsky's research work is part of modern thinking or movement in medicine towards studying human potentials for health, productivity and fulfilment. The term salutogenesis was coined through the movement in medicine as he called it which eventually led to the formation of a new paradigm. Antonovsky worked at the Ben-Gurion University of the Negev in Israel from 1972. He emphasised to physicians and students in the medical faculty the importance of looking at human beings in their particular

situation not forgetting that health consists of several dimensions. Parallel with his teaching, his ideas and research work was developed on the basis of the connection between stress and ill-health, also making use of the salutogenic model and the health continuum (A. Antonovsky, 1987, 1989)

2.1 Origin of the salutogenesis paradigm

Why do some people stay health despite the consequences of cruel hardships, while others do not? The 1971 study which focussed on 1150 Israeli women and dealt with their adjustment to menopause is what marked the evolution of the salutogenic concept in Antonovsky's research. He asked: "If they had been in concentration camps during the Second World War Holocaust, out of the 287 women of European origin, 77 replied "Yes" to the question". To his expectation with the research purpose, he discovered that fewer of the former concentration camp prisoners had adapted well. Having stated this, in spite of the self evident result concealed, it struck Antonovsky that, there were amazingly several of the former concentration camp inmates who had coped well. As a turning point in his research work, this outstanding result gave rise to the salutogenic question:

> How is it that certain people, despite terrible experiences such as an internment, war, torture, atrocities, flight to another country and other stress factors, nevertheless enjoyed pretty good health and a happy life? There was one question Antonovsky was keen to answer: What is the General Resistance Resources (GRRs) that allows people to manage this? (A. Antonovsky, 1987, 1989)

The exploration for an answer to the question became Antonovsky's pivotal task within his research work. Literally the concept of the salutogenesis means the origin of health and which Antonovsky promoted its approach –i.e. by studying what enables and promotes health as opposed to the pathogenic approach which focuses on what it's that makes people ill and how to treat or else cure illness. The publication of his 1st. book: "Health, Stress and Coping" in 1979, accelerated attention in his work. Among other things, Antonovsky was awarded an honorary doctorate by the Nordic School of Public Health in Gothenburg in 1993. Following his retirement in 1992, he went on with his research work and lecturing until his demise on the 7 July 1994.

2.2 Salutogenic model as a theoretical guide to health promotion

This sections heading comes from Antonovsky's suggestion and inspiration. In the 1996 article (The salutogenic model as theory to guide Health Promotion. Health Promotion International, 11-18) which emerged posthumously, he depicted how advancement in health promotion ran the risk of stalling due to lack of a hypothetical guide (A. Antonovsky, 1996b). Antonovsky echoed that: "The concept of health promotion, revolutionary in the best sense when first introduced, is in danger of stagnation. This is the case because thinking and research has not been exploited to formulate a theory to guide the field" (Antonovsky, 1996 p.11)

Antonovsky observed that, the illness point of view and mentality in terms of risk factors were far too common. Even supporters of health promotion for that reason end up with the dichotomous – either/or –clustering people into two: (1) one consisting of people negatively affected by illness and the other (2) consisting of people who manage to cope. If instead we were to adopt a continuum model which is based on the idea that every human being at every moment in time finds himself or herself located at some point of the continuum between the two poles of health and ill-health. We would attain an approach to health which reflects realism in a much more convincing way. By asking the salutogenic question –how is it that people move towards the health pole of continuum we realise that everyone can be an object for health promotion activities.

No matter where we are placed on the continuum and of who we are, whether ill, physically challenged or healthy, there is a chance to meditate on how a movement towards the health pole can take place. In his article, Antonovsky states that, research on the basis of a salutogenic approach needed to be emphasised and its practical concept and application is required to direct it and in this regard, the theory of SOC was a framework which could be further developed.

Scores of excellent suggestions about positive health factors do exist and the number of researchers interested in identifying the determinants of health in different contexts has gone up. In early 21st. century, health promoting factors in working life has received more attention. However, the increasing listing of determining factors of health appears insufficient

to result in better health. Antonovsky's 1996 article observed that, there was a need for a theory to bring together all these excellent proposals, a meta-theory which can form a pattern and a guide, both for practitioners and researchers worldwide so to say.

The compilation of health factors which ignited Antonovsky's quest for a theory that could give details to the mobility towards the continuum poles was made up of what he called Generalized Resistance Resources (GRR). Antonovsky had discovered factors of importance to health in his research work into "Social class, poverty, and health". These factors collectively formed GRRs in people, as a consequence enabling them to bear with all the stress and dangerous pathogens which are plenty in life. Antonovsky described GRRs as:

> An individual's characteristics acquired by means of socialization and genetics, for example, favourable socioeconomic status, knowledge, intelligence, ego-strength, social support, preventive health orientation, stable cultural background, resistance towards environmental pollution (Antonovsky, 1987 p.19)

The consistency and experiences of these resources at one's disposal makes up stable and repeating experiences used to balance between over-load/under-load and to enforce one's participation in shaping one's own life story. This repeated and consistent life experiences forms up what Antonovsky described as "Sense of Coherence" SOC. In Antonovsky's own expression "I had defined the GRRs as phenomena that provides one with sets of life experiences characterized by repeated, participation in shaping the outcome, and in overload/under-load balance, such repeated life experiences makes up the SOC (Antonovsky, 1987 p.19)

Antonovsky was not comfortable with simply having a long list of GRR factors which are health favourable. His interest was to have a theory that would address the linkage of these factors. What unites them? How do they exert an effect and how do they co-operate and interrelate? They helped to give experiences of life which quite simply helped people make sense of their existence; this is what made them to be similar: In his own word, Antonovsky expressed that "What unites them, it seemed to me, was that they all fostered repeated life experiences which, to put it at its simplest, helped one to see the world as "making sense", cognitively, instrumentally and emotionally" (A. Antonovsky, 1979)

Antonovsky argued that, the gathering of GRRs along with positive life experiences and the successful management of stress essentially formed the ground to what he termed as SOC.

The depth of how the GRRs combine to create the SOC in individuals is discussed in his 1st book. The GRRs can also help bring about a movement crosswise the continuum towards the health pole.

So as to arrive at deeper insight into what symbolize SOC, (A. Antonovsky, 1987, 1989) carried out a study in which he interviewed 51 individuals who all had a similar experience, that is; they had experienced a stern trauma in their lives but were considered to have coped through it effectively. Whilst these people described their attitudes upon their lives, Antonovsky discovered three innermost premises which eventually laid the foundation of the theory. In his analysis of the interviews, Antonovsky discovered that people who had coped effectively with stresses as well as crises had an experience of the three elements of SOC, to be exact comprehensibility, manageability and meaningfulness**.**

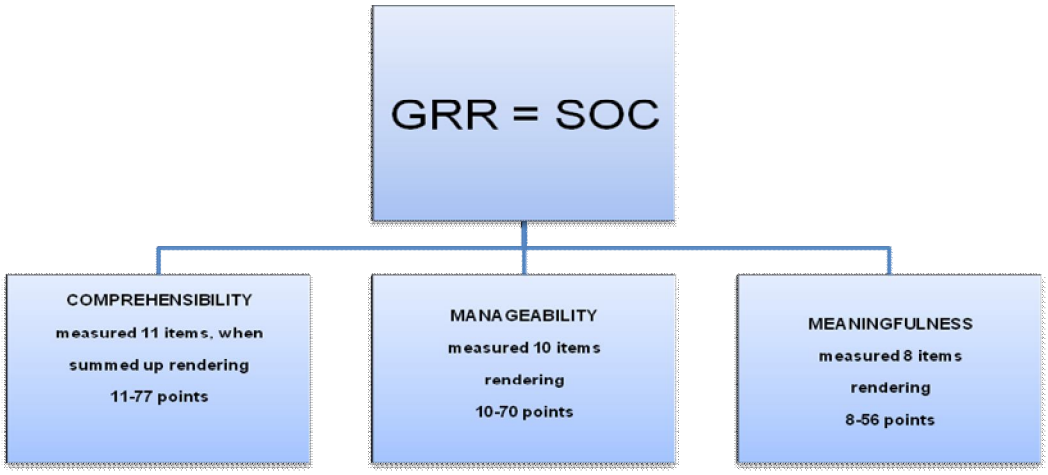


Figure 2.0 Generalized Resistance Resources (GRR) = Sense of Coherence (SOC)

This part of Antonovsky's work is reviewed in his book entitled "Unravelling the mystery of health" where after describing the GRRs; he goes ahead and develops the concept of salutogenesis and the continuum perspective as to invent a clear and easily understandable hypothesis about the preconditions which seem to be of essence for the development and safeguarding of health. The three elements of concepts of SOC, how they correlate to each other and their limitations are known and portrayed.

Maybe it's this immediately threesome, the "consecrated triplex" which has made SOC as holding attention and amiable as a modern postulation. It's easy to reckon and easy to interpret into operational terms in numerous day-by-day circumstances and expresses

concurrently a life astuteness which can help people to cope with challenging life circumstances. Antonovsky delineates SOC with his triadic supplementary concepts; comprehensibility, manageability and meaningfulness in the following expression:

> A global orientation that expresses the extent to which one have a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement (Antonovsky, 1987 p. 19)

The definition above clearly indicates that SOC has three essential interconnected components. The ability to grasp the whole of a stressful life state of affairs and the capacity to use the resources available was called SOC (A. Antonovsky, 1987, 1989). SOC reverberates a person's view of life and capacity to respond to stressful life situations (overload/ under-load). It's a global orientation to spot the life as structured, manageable and meaningful or coherent. It's a personal way of thinking, being, and acting with an inner trust, which leads people to distinguish, upbeat, use, and re-use the resources at their disposal.

The author articulates that, a strong SOC is proportionally associated with high level of all the threefold components of SOC. His research on salutogenesis and the concept of the SOC targets those who are committed to understanding and enhancing the adaptive capabilities of human beings, Antonovsky further stated. The GRR serves an important part in the experience of these three constituents of SOC through sets of consistent, balanced, and participated life experiences. An individual's SOC strength is controlled by their level of GRRs (A. Antonovsky, 1987, 1989)

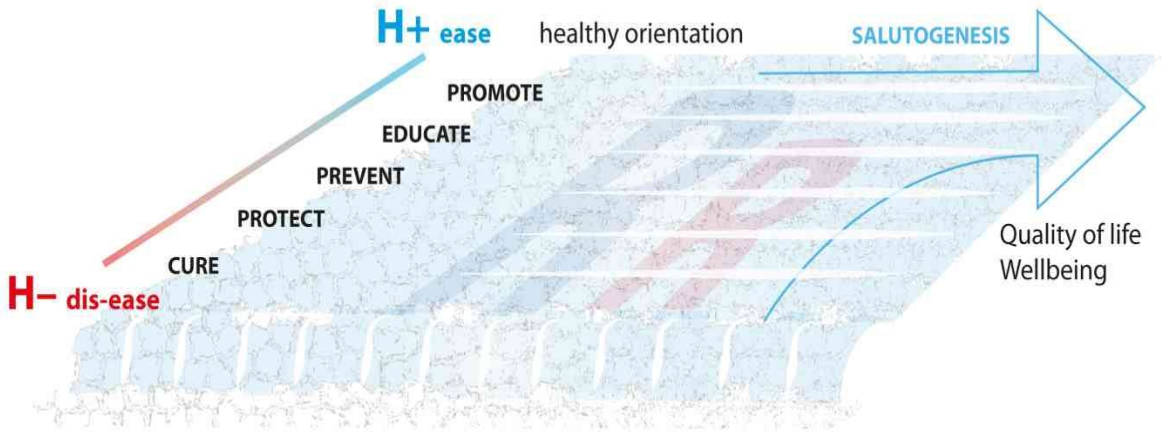


Figure 2.1 Salutogenic health orientations –the continuum poles

According to Antonovsky, the salutogenic health orientation (the origin of health) is a stress resource oriented theory, which focuses on resources that maintains and improves the movement towards health on the continuum poles. Lindström and colleagues **(http://www.salutogenesis.fi/)** illustrated the following aspects (health promotion, health education, health protection, preventive interventions as well as curative medicine, as shown in the figure 2.1 above) as vital for maintaining and improving the movement towards the health pole and thereby improving Quality of life and Wellbeing.

2.3 Comprehensibility

As determined by Antonovsky (A. Antonovsky, 1979), comprehensibility is bound up with the extent to which one understands all the information and stimuli in one's existence as something graspable, structured and predictable. It entails that the individual has a sound mind to judge reality and understand why it is. This control aspect is a profound precondition for the next concept, namely, manageability. The author holds that, there is a need to know and understand how matters stand and how problems can be confronted so as to cope with overload/ under-load. Nonetheless, individuals who view the world as unordered or chaotic, almost certainly have difficulties in seeing how they can handle their life circumstances (A. Antonovsky, 1979)

2.4 Manageability

The notion that we have the feeling that, there are resources at our disposal and that it's possible for us to act on the basis of the demands that are bestowed on us forms the basis of manageability. It can be a question of our own resources which we individually own and manage or resources possessed by those who are next of our kin (A. Antonovsky, 1979)

A range of stress and coping theories have enthusiastically addressed the hypothesis of manageability or similar expression to portray human autonomy and the likelihood of steering our own lives. Demand-Control-Support (DCS) Karasek, 1990 model is essentially a measured theory for understanding how a working situation leads to tension, stress and

ultimately distress if the level of stress increases further than a person's aptitude to cope. Kobasa (1982) another stress researcher, echoed that some individuals are tougher and more dynamic in combating stressful life situations where among other things the level of control in the form of influence over one's circumstances, is a vital factor. This is partly due to the fact that some individuals have a number of personality traits that defend them from effects of stress, something psychologist termed as "stress-hardy personality"

Other traditional models of coping such as: a sense of permanence (Boyce), resilience (Werner & Smith), self-efficacy (Bandura), locus of control (Rotter) and domains of the social climate (Moos), differs with manageability in the SOC theory in the sense that Antonovsky's concept of manageability also cover human beings' tendency to be able and willing themselves to make use of their environment to help them. It's an asset to value resources in our fellow-humans and to be humble enough to ask for help and support whenever need arise (A. Antonovsky, 1979). A more limited definition of manageability or the ability to act may arise due to exclusive reliance on us. The conviction that we can cope with the demands or taxing situations which we stumble upon in life by relying on ourselves and on help from others includes the concept of manageability in SOC (A. Antonovsky, 1979). Excellent manageability means that instead of feeling ourselves as inactive victims of catastrophes, big/small, it's likely by taking a grasp of things to ride through life's storms (A. Antonovsky, 1987, 1989)

2.5 Meaningfulness

The why-question of life: Why should people do this? Why does this happen? What does this give me or others? What does this give other people in the world as a whole? The key answer to these questions is anchored by the motivational ingredient of SOC theory given by the concept of meaningfulness. When we are faced with a task, there are two ways to react: (i) either the task is considered as a heavy load or (ii) we look upon it as a fascinating challenge which is worth being involved in (A. Antonovsky, & Sagy, S., 1986)

Antonovsky was inspired by Vikto Frankl (1984) who provides many examples of what creates meaning and what the meaningfulness issue means for the lives and survival of the actions we take a goal to strive towards, aesthetic experience and so forth. Being a former

concentration camp Frankl assert afterwards that, those prisoners who could find meaning in what awaited them were best equipped to survive. Frankl borrows Nietzsche's words to describe this; "a person who has an answer to why live, can withstand almost every how". Frankl illustrated the significance of the subject of meaningfulness both in the day-to-day sense where the day's minor events, experiences and relations create meaning, and in the sense of having a more far-reaching and overreaching feeling of meaningfulness. His illustrations include spiritual conviction, a life task or longing after something which lies far away. Antonovsky holds that, meaningfulness appears to be the most powerful element among the three concepts which makes up SOC. Without meaningfulness, comprehensibility and manageability are likely to be of rather short duration. Moreover, it's likely that individuals with a strong feeling of meaningfulness and motivation will acquire both knowledge and resources to resolve their tasks (A. Antonovsky, 1979)

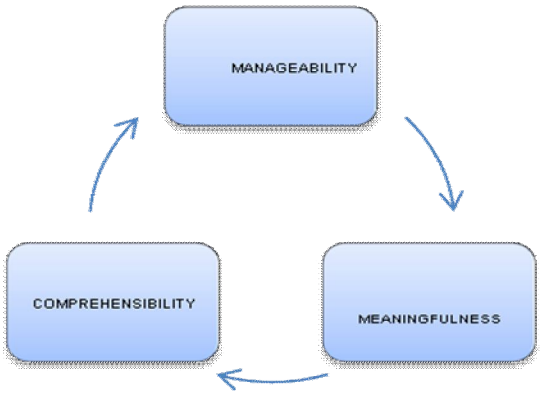


Figure 2.3 The three interconnected elements of Sense of Coherence (SOC)

2.6 The outlook of pathogenesis and salutogenesis

Philosophically, pathogesis makes less elementary different affirmation about the world than Salutogenesis model of health. The salutogenesis model of health directs us to study the mystery of health in the face of a microbiological and psychosocial entropic realism, a world in which risk factors, stressors, or else "bugs" are widespread and extremely sophisticated (A. Antonovsky, 1979). Antonovsky's theory of health model which in its entity finds scope for a thriving capability to deal with problems which arise in the human encounter with stresses and strains of life is made up by the SOCs three elements. The movement along the continuum towards the health pole is decided by strength of SOC (A. Antonovsky, 1984)

With regards to the health issues, this allows a further viewpoint since the factors of significance in promoting human beings' health are not to be found just within people themselves. The social state of affairs at different levels of the system, the surrounding environment and the sequential perspective, the past the present as well as the future, are all of fundamental nature for the SOC (A. Antonovsky, 1987, 1989)

SOC is portrayed as a global orientation and as a "dispositional orientation" (A. Antonovsky, 1992). By this the author means that SOC is an aptitude which the human being has in addition to individuality characteristics and coping strategies. He further lay emphasis on that, SOC should be viewed as somebody's deep-seated resource which is invariable from one setting to another. However, in his own words, Antonovsky also observed that:

> In fact it's precisely the person with a weak SOC –confused, unsure of resources, and wishing to run away –who is likely to allow personality traits and tendencies to determine behaviour, irrespective of the nature of the situation. Successful coping strategy is enhanced by a strong SOC, which in turn gives rise to an experience which further reinforces the individual's SOC (A. Antonovsky, 1984)

In this sense, the individual's SOC is the basis for the choice of coping strategy. An increased ability to select and function with suitable coping strategies in a flexible way is given by a strong SOC. The individual tends to let personality descriptions and momentary feelings steer the option of coping line of attack in the case of a weak SOC, irrespective of the demands which the situation makes (A. Antonovsky, 1987, 1989)

2.7 Empirical verification of the SOC

In scientific research, experimental observation is used to establish the adequacy of some hypothesis within a theory. When somebody asserts to have made a study as well as a breakthrough, it's logical to ask that person to validate his/her claim. Such validation must include reference to the theory, operational explanations and hypotheses in which the observation is entrenched. That is, the observation is framed in stipulations of the theory that also contain the hypothesis it's meant to verify or falsify, nevertheless, of course the observation should not be based on an assumption of the truth or falsity of the hypothesis being tested. This means that the observation cannot serve as an entirely neutral adjudicator

between rival hypotheses, but can only pass judgment between the hypotheses within the context of the fundamental theory.

Science depends on evidence to authenticate its models and theories. The calculations entailed by those models and theories should be in harmony with observation. Eventually, observations reduce to those made by unaided human senses such as touching, hearing, sight and so forth, to be acknowledged by most scientists, several unbiased, competent observers should agree on what is experimented. Thus far, observation ought to be repeatable, for instance, trials that breed pertinent observations can be and, if important, usually will be performed again. In addition, predictions should be accurate; one should be able to illustrate a possible observation that would falsify the model or a theory that involves the prediction.

Antonovsky's SOC theory is based on empirical verification derived from responses to interview questions. The theory's validity is principally determined by the degree to which it can consequently be translated and applied to empirical veracity. Antonovsky carried out deductive research in the sense that starting from a theory; he tested his theory on large groups by administering questionnaires. All these aspects of research work were involved in the SOC a as theory and model of health. Moreover, many researchers across the globe repeated the validity test of the theory after Antonovsky himself (A. Antonovsky, 1993). As expected, the results were nearly undisputed in conclusion that, SOC with its three supplementary elements is a valid model for health promotion. It's fit for use and trustworthy on guiding health practitioners as well as both governmental and non-governmental organization when looking for the determinants of health across populations.

Nevertheless, there is also a point of disapproval of Antonovsky's SOC theory of health as a global orientation. For example; Geyer (Geyer, 1997) consistently insisted that, nothing new is chip in by the SOC theory: that it measures similar occurrence as the questionnaire for depression and anxiety is measured with an opposite association. Besides, Tishelman (1996) is an additional known critic of the SOC theory. He regards Antonovsky's original questionnaire to be more of a psychological instrument than something which can portray a global orientation on the basis of social and cultural characteristics as Antonovsky upholds that SOC does. The critic further echoed that, this explains the wrong use of Antonovsky's questionnaire that is often used as a psychological tool, in spite of the fact that the theory is

sociological in nature with greater accent on structural factors and coping resources at a meta-level than on the psychological features of personality (Tishelman, 1996)

There is no ground for discarding the SOC theory as far as the salutogenesis concept is concerned as modern model of health promotion. It serves very well as a model in the hunt for health factors in a meticulous setting, e.g., promotion of mental health. Researchers and health practitioners across different cultures are encouraged to continue with the development and testing of this theory of SOC (A. Antonovsky, 1990a). The proposal is also referred to in the article, “the salutogenic model as a theory to guide health promotion” the use of his hypothesis as a way of putting in order the work of mental health promotion (A. Antonovsky, 1996a)

Antonovsky depicts SOC as a “global orientation”, asserting that, SOC is a universal human characteristic, an approach and a way of reaching to things which is mainly structured during our growth to maturity (A. Antonovsky, 1994b). It’s valuable at all phases of life and is the foundation for our capacity to ascertain suitable strategies in dealing with the problems we bump into. The individual’s level of SOC cannot be predisposed very much particularly in the case of individuals with high level of SOC after adulthood. The foundation put down during our growth from infant, childhood to adulthood remains with us. According to Antonovsky, we have no options later on other than being comfortable with what we have (A. Antonovsky, 1994a). He as well indicated out that individuals with a weaker SOC have greater potential of improving it. If individuals are part of contexts which generate a sense of meaningfulness, if they partake in experiences which their sense of comprehensibility is greater than before and if they make bold resolutions which strengthen their vision that hard circumstances are challenges which they can deal with, all of this be liable to boost their SOC (A. Antonovsky, 1985)

The SOC along with GRRs is a human quality which helps to safeguard health or even sees to it that it’s enhanced. The purpose of health promotion works and make use of SOC as a model have to create conditions which help to guarantee that human beings’ SOC is conserved and those with a weaker SOC strengthened (A. Antonovsky, 1987, 1989). The author emphasized that, the first stage in creating SOC as valuable life tool is to find out concepts which gives you an idea about what comprehensibility, manageability and meaningfulness consist of in day-by-day state of affairs (Hanson, 2007)

2.8 The Sense of Coherence (SOC) as a determinant of health-related behaviours

There are reasonably a lot of constructs that supports the salutogenic health perspective such as locus of control, self-efficacy and hardiness, however, Antonovsky courageously considered SOC as the midpoint construct of the salutogenic health model (A. Antonovsky, 1996b). Even though all these constructs have common components, SOC is a distinct synthesis of cognitive, behavioural and motivational components that makes it unique, Antonovsky articulated. He further squabbled that SOC is a culturally free construct purely because it depends on life experiences and does not impose the nature of the coping process (A. Antonovsky, 1996b)

Antonovsky derived the SOC conception as a universal factor to all GRRs. The GRRs facilitates resolution of tension that arises when we are bombarded with stressors, Antonovsky observed. A stressor is any kind of "stimulus" which poses a requirement to which one has no ready-made, immediately available and sufficient response (Antonovsky, 1990b, p.74). Ineffective resolution of tension increases the probability of a pathogenic outcome such as stress or illness. In this view, stress is consequently not viewed as a result of mere presence of stressors, but rather of insufficient resolution of tension (A. Antonovsky, 1990b). GRRs are therefore described as phenomena that increase our repertoire of resources that enables us to deal with life experiences.

Antonovsky explained GRRs as: "Properties of a person, a collective or a situation which, as evidence or logic has indicated, facilitate successful coping mechanism with the inherent stressors of human existence" (Antonovsky, 1996, p.15). As time pass by, these properties manifest as the SOC, which eventually is considered as the most important determinant of a person's status on the health ease/dis-ease continuum (Antonovsky, 1996, p.15). GRRs consist of factors such as physical and biochemical conditions, commitment, economy and wealth, social support, socioeconomic status, cultural values and coherence and various individual characteristics such as knowledge and intelligence, ego identity, skills and coping strategies (A. Antonovsky, 1996b)

2.8.1 The development of the SOC and its correlation with age and gender differnces

The SOC develops in series of stages. As far as the theory of SOC is concerned, cultural dimensions and historical life circumstances, predominantly psychological and social aspects of life are liable to provide the development and strengthening experiences that forms a strong SOC. Antonovsky proclaimed that these state of affairs serve as source of GRRs. For instance, good quality parental morals and child nurturing models are viewed as a psychological foundation of the GRRs and the developmental process of the SOC is assumed to begin at the same time as the child starts to interact with his parents and the immediate surroundings.

Antonovsky holds that a child will experience a sense of security in environments symbolized by memorable as well as regular experiences, balanced and permanent close interpersonal relationships. Subsequently, the child will be capable to perceive stimuli derived from internal and external surroundings as habitually and recognizable and will start to react in a parallel way, as a consequence, the world begins to appear trustworthy and a deeper sense of comprehensibility grows (A. Antonovsky, 1987, 1989).

The author further emphasized that experiences of load balance develop a sense of the third component of SOC, namely, manageability. Individuals who go through either overload/under load in expressions of precision of the demands made on them and available resources at their disposal are referred to as experiences of load balance. Moreover, parents who are conversant with intricacy, options in addition to self-direction in the sense that troubles are attacked, controllable and resolvable, are prone to act in response to the child so as to evade overload /under load. The stronger the SOC of the parents, the more probable they are to be capable to offer their children life experiences resulting in the same track (A. Antonovsky, 1987, 1989)

Additionally, the response from immediate surroundings should also be pleasant in addition to being reliable. The child is a forward-looking human being, who explicitly looks forward for ways of influencing his/her environment and performance of others. If the upshot is consistent on the subject of the child's behaviour, it is the child's involvement in influencing result and culturally valued resolutions, case point, any hungry crying toddler will eventually influence his parents to react by cuddling and feeding it, which provides the foundation for and a sense of meaningfulness to develop (A. Antonovsky, 1987, 1989)

Antonovsky argued that the essential status of SOC develops at some stage in infancy and childhood, and that the next phase develops during adolescence. The fundamental rank of SOC may either be reinforced or pressurized frequently during troubled and stressful period of life experiences.

Since societal values counts, the fundamental level of SOC is paramount reinforced in a composite as well as democratic society that avails a broad range of acceptable and rational options. Antonovsky accentuates the fact that adolescence also opens up numerous diverse trails to the reinforcement of the fundamental rank of SOC. The author further emphasizes that the development of SOC is more complicated in societies marred with uncertainty, unpredictability and poverty (A. Antonovsky, 1987, 1989)

A provisional level of SOC develops during adolescence to threshold of adulthood. Antonovsky put emphasis on that during the last stage o f the developmental process, namely, at the age of 20-30, the rank of SOC outcome is very much predisposed by several aspects of life such as; level of education, employment experiences, social roles, stable relationships and above all the quality and degree of the GRRs which dictates the final level of SOC.

The more GRRs an individual has the better chances he/she has to develop as strong SOC. Antonovsky articulates that development of SOC starts in early childhood to approximately the age of 30, and thereafter it is thought to be stable throughout the whole life span, even though this postulation has been questioned. This was what Antonovsky had to say vis-à-vis the role of gender:

> As from early childhood, a woman has known that her destined role is that of a wife and a mother. Through attachment and identification, she has had the chance to acquire the great variety of skills needed to perform this role well. Moreover, she has learned early on that not only does her culture value this role highly, but it's regarded as cornerstone of the society (A. Antonovsky, 1987, 1989)

Regardless of the fact that Antonovsky replicates the truth of housewives in the milieu of America and Israel societies during the 1970s, and that now, in the 21st century the role of housewife's possibly will not essentially be deeply valued, it however pinpoints the importance of the socialisation course, societal values and gender roles, in addition to prospects attached to them on the subject of the level of SOC. In his theory of the SOC, Antonovsky never discuss exclusively the role of gender in a society. Antonovsky does claim,

however, that working class and disadvantaged/poor women in particular were in the verge of developing a weak SOC, and that gender differences are as significant as class differences (A. Antonovsky, 1987, 1989)

In his 15 years research work Antonovsky (A. Antonovsky, 1979) concludes that among adult, a strong SOC has been shown to be correlated with good health. An individual with a strong SOC can adapt to various environments and is capable to uphold a sense of well-being (A. Antonovsky, 1979). Those individuals with strong SOC are better capable to evade health threats and are more likely to engage in health promoting actions as well as evade health endangering life style. However, Antonovsky argued that individuals with lower degree of SOC have neither a motivational nor cognitive foundation for vigorous coping (A. Antonovsky, 1984)

A study conducted by Räty and colleagues (Räty L., 2005) found that poor level of SOC score appears to be an influential predictor of vulnerability, and of a broad range of psychiatric disorders, as a study by Ristkari and colleagues (Sourander, 2005) showed. In a 15 year follow-up study conducted by Honkinen and colleagues(Päivi-Leena Honkinen, 2009), findings revealed that if children have psychological problems in early childhood, they will almost certainly end up with poor level SOC in adolescence and adulthood. Additionally, Eriksson & Lindström documented in their systematic review of the literature that, among adults, a strong SOC was highly associated with good health, particularly mental health (Eriksson & Lindström, 2005), a poor SOC related positively with suicidality, and more strongly with suicidal behaviour than with suicidal ideations in young adults (Mehlum, 1998), a strong SOC acts as a buffer and decisive factor for mental health (Eriksson, 2007)

CHAPTER THREE

3.0 Overview and models of Quality of Life

Quality of Life (QoL) is a multi-dimensional phenomenon and an idealistic expression. The concept of QoL is delineated in different ways by different professionals, thus, it could frequently be a subject of intense discussion on what is really meant when talking about the expression QoL (Fayers, 2009)

Since the World Health Organization (WHO 1948) declaration of health as "a state of complete physical, mental and social well-being and not only the absence of disease", QoL issues have progressively become more vital in research as well as in health care practices globally. Many other definitions of both "health" and "quality of life" have been attempted often linking the two and, for QoL, regularly emphasising elements of happiness as well as contentment with life.

Due to the absence of a universally accepted definition, some investigators argued that, most people in the Western World at least are familiar with the expression "Quality of Life" and have an intuitive understanding of what it consists of. It's clear, however, that QoL means different things to different individuals, and takes on different meanings according to the area of application. For instance, it could stand for access to green space and other leisure facilities, for an urban planner. In the context of medical experiments, health practitioners are hardly ever interested in QoL in such a broader context; moreover, they are concerned only with evaluating those features that are distorted by illness or cure for illness. This may sometimes be extended to include indirect consequences of illness, such as joblessness or economical hitches (Fayers, 2009)

In order to remove vagueness and to differentiate between QoL in its more common logic in addition to the medical requirements and scientific trials, the expression health-related quality of life (HRQoL) is commonly used. Nonetheless, for the purpose of this paper, the expression QoL is used throughout in the text.

3.1 Conceptualization background of WHOQL

The WHOQOL-100 assessment scale was designed and developed by WHOQOL Group with 15 international pooling centres, concurrently, in an effort to develop a QOL measurement instrument that would be suitable cross-culturally. This scheme was implemented by WHOQOL Group due to the lack of a universally agreed upon definition of QoL. WHOs programme to develop a QoL measurement scale happened for a number of grounds: (i) in modern times, there has been an increase in focus in the assessment of health, further than habitual health indicators such as morbidity and mortality. To embrace assessments of the impact of disease as well as impairment on daily activities and behaviour, e.g., Sickness Impact Profile, theoretical health assessment is vital, e.g., Nottingham Health Profile, and disability/ functional status assessment, e.g., the MOS SF-36. These assessments, while beginning to present a measure of impact of disease, do not assess QoL per se, which has been fittingly portrayed as "the missing measurement in health". (ii) Second, general assessment of health status have been developed in North America and the UK, and the transformation of these measures for use in other settings is time consuming, and insufficient for a number of grounds. (ii) Thirdly, the growing mechanistic form of medicine, concerned only with the eradication of disease and symptoms, underpins the need for the beginning of a humanistic aspect in health care. By means of calling for QoL measurements in health care, attentiveness is focused on this aspect of health, and resulting interventions will pay better awareness to this aspect of patients' well-being.

WHOs programme to develop a QoL measurement scale arises from a need for an authentically global assessment of QoL along with a devotion to the continued encouragement of a holistic approach to health and health care. QoL is spectacularly delineated by WHO as:

> Individuals' perceptions of their position in the life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns". QoL is a broad ranging concept incorporating in a complex way the persons' physical health, psychological state, level of independence, social relationships, personal beliefs and their relationships to salient features of the environment (World Health Organization, 2004)

Accordingly, this description replicates the standpoint that, QoL refers to a subjective assessment which is entrenched in a cultural, social and environmental context. Thus, QoL

cannot be equated merely by means of the terms “health status”, “life style”, “life fulfilment”, “psychological status” or “well-being”. Since the WHOQOL focuses upon respondents “perceived” QoL, it’s not accepted to present a source of assessing in whichever detailed fashion symptoms, disease/conditions, nor disability as objectively judged but rather the perceived effects of disease and health interventions on the individual’s QoL. Thus, the WHOQOL is an assessment of a multi-dimensional concept including the individual’s perception of health status, psychosocial status in addition to other aspects of life (WHOQOL-BREF, 1998)

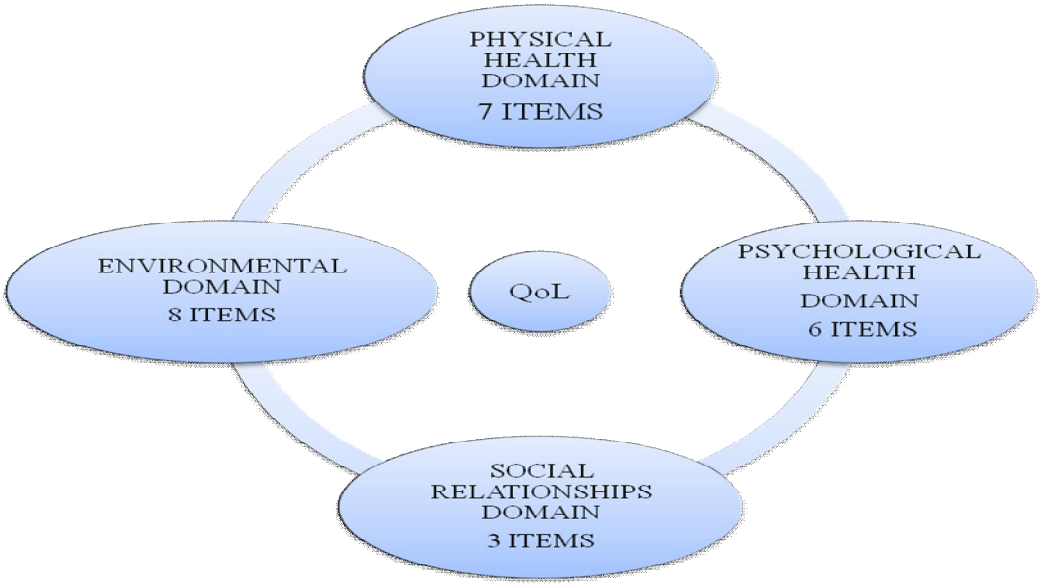


Figure 3.0 Quality of Life (QoL) four domain solution

3.2 Quality of Life (QoL) facet definitions and response scales

Every WHOQOL facet could possibly be explained as behavioral description, a state of affairs, an ability or potential, a subjective sensitivity or experience. For instance, ache is a subjective experience; exhaustion or fatigue may perhaps be described as a state; mobility could be defined either as a capability to move around or as a conduct such as actual report of walking. A classification was written for all of the facets of QoL covering the WHOQOL measurement (World Health Organization, 2004)

Overall QoL and health: The methods in which an individual measures his/her overall QoL, health in addition to well-being are scrutinized in these domain questions.

3.2.1 DOMAIN I – Physical domain

3.2.1.0 Pain and discomfort

Distasteful physical feelings experienced by an individual along with the degree to which these feelings are upsetting in addition to interference with life are closely explored in this facet. The central line of inquiry within the facet includes the control mechanism the individual has over ache as well as the ease at which ache or pain relief could be attained. A postulation is made that, the easier the pain relief, the less the fear of pain and its consequences on QoL. Likewise changes in pain levels may be more upsetting than pain itself. Yet when someone is painless either through taking drugs or for the reason that the pain is on and off by nature, for example, migraine, his/her QoL possibly will be affected by the regular threat of pain. It's recognized that people's response to pain is diverse, and the contradictory forbearance and acceptance of pain is liable to affect its impact on life. Distasteful physical sensations such as tautness, ache, long or short-term pain, or itches included. The existence of pain is judged if an individual reports to be so even if there is no medical rationale to account for it (WHOQOL-BREF, 1998)

3.2.1.1 Energy and exhaustion or fatigue

This facet investigates the energy, eagerness as well as patience an individual has in order to carry out the fundamental tasks in daily living, in addition to other selected activities such as leisure. This possibly will extend from reports of disabling weariness to satisfactory levels of energy to feeling really alive. A number of reasons might result to weariness, for instance illness, depression, or overexertion. The impact of exhaustion or fatigue on social relations; increased reliance on others due to persistent exhaustion and the reason for any fatigue are beyond the scope of inquiring, even though they are embedded to the questions in this facet and facets concerned explicitly with daily activities and interpersonal relationships (WHOQOL-BREF, 1998)

3.2.1.2 Sleep and rest

This facet explores the aspects of sleep as well as rest, and how problems in this area might affect an individual's QoL. Questions' arising from this facet focuses on whether sleep is disturbed or not; this could be for whichever reason, either to do with the individual, or the surroundings. The questions in this subdomain also do not make inquiries into explicit characteristics of sleep such as waking up early in the morning or whether or not an individual takes sleeping medication. An individual's reliance on substances, such as sleeping drugs to help him/her sleep is covered in a separate facet (World Health Organization, 2004)

3.2.2 DOMAIN II – Psychological domain

3.2.2.0 Positive feelings

A person's experience of positive feelings of contentment, balance, peace, happiness, hopefulness, joy and enjoyment of the good things in life, is a subject of exploration in this facet. An individual's viewpoint and feelings about the future are seen as an essential part of this facet. For several respondents this facet may perhaps be considered as impossible to differentiate with QoL. Negative feelings are not included as these are covered elsewhere (World Health Organization, 2004)

3.2.2.1 Thinking, learning, memory and concentration

A person's opinion of his/her thinking, learning, memory, attentiveness and capacity to make decisions are explored in this facet. This includes the speed of thinking and clearness of thought. Questions in the facet pay no attention to whether a person is alert, conscious or awake, even though these underlie thinking, memory and attention. It's accepted that a number of people with cognitive difficulties may have no information on their difficulties, and in these cases alternative assessments may possibly be a necessary addition to the person's subjective evaluation. A related problem may be lack of enthusiasm to acknowledge to problems in this area among several respondents (World Health Organization, 2004)

3.2.2.2 Self-esteem

This facet inspects people’s feelings about themselves. Issues in the facet might range from positive feelings to exceedingly negative feelings. An individual’s sense of worthiness is also explored in this facet. The characteristics of self-esteem concerned with a person's feeling of self-efficacy, self contentment along with control dimension is also focused on in this facet. As to be expected, questions take account of people's feelings about themselves in a range of areas: skills to get along with other people, their education, their appraisal of their aptitude to change or achieve particular responsibilities or behaviors, their family relationships, and their sense of pride as well as self-recognition. Self-esteem to a number of people relies for the most part on their performance, whether at home, place of work or how they are perceived and treated by others. Some cultures’ esteem is felt within the family to a certain extent than individual’s self-esteem. It’s assumed that, questions will be reduced by respondents in momentous and appropriate ways to their life’s position. Questions do not incorporate specific orientations to body image and social relationships as these are covered in different areas. On the other hand, self-worth sense that comes from these areas is anticipated to be covered by the questions though in a more broad-spectrum level. It’s accredited that, some communities may possibly find self-esteem difficult to talk about, and questions are designed to try taking this into account (WHOQOL-BREF, 1998)

3.2.2.3 Body image and appearance

This facet explores the person's viewpoint of his/her body whether the body manifestation is seen in a positive way other than negative. The main point is on the person's satisfaction with the way he/she looks and the outcome it has on his/her self-concept. The extent to which “perceived” or actual physical impairments is corrected if present, case point, by make-up, clothing, artificial limbs etc. How others act in response to an individual's appearance is aptly to have substantial affect on the person's body image. The questions phrasing aims to persuade respondents to answer how they actually feel rather than how they feel they should respond. Moreover, questions are paraphrased so as to be able to include a person who is happy with the way they look and somebody who is severely physically handicapped (World Health Organization, 2004)

3.2.2.4 Negative feelings

Aspects of the questions in this facet consist of how much a person experiences negative feelings, including unhappiness, guilt, hopelessness, tearfulness, despair, nervousness, anxiety in addition to lack of pleasure in life. A thoughtfulness of how stressful some negative feelings are and their impact on the person's routinely performance are included in this facet. Individuals with reasonably disabling psychological difficulties such as relentless depression, mania or panic attacks are included in the question's framing. In addition, questions do not consist of items related to poor concentration or the relationship between negative influence and the person's social relationships for the reason that these are covered somewhere else. Nor do questions include in the least detailed evaluation of the relentlessness of the negative sensations or mind-set (WHOQOL-BREF, 1998)

3.2.3 DOMAIN III – Level of independence

3.2.3.0 Mobility

The person's opinion regarding his/her capacity to move from one location to another, to get around the residence, going to and from place of work, or to and from transportation services, are extensively explored in this facet. The individual's general capacity to move all over the place he/she wants devoid of whichever assistance from others in spite of the method used to do so, is the main innermost aspect of the facet. There is a supposition that, wherever an individual is reliant to a considerable extent for his/her mobility on another person, it's likely to have an undesirable influence on QoL. Nevertheless, questions derived from this facet attend to people with mobility difficulties despite the consequences of whether the changes in their mobility were abrupt or more gradual, even if it's accepted that this is liable to affect the impact on QoL drastically. An individual's impairment does not inevitably have an effect on his/her mobility. In view of that, for instance, anyone using a wheelchair or walking frame may well have acceptable mobility in a satisfactorily custom-made home or place of work. Not either does this facet include transportation services such as buses along with cars since these aspects are covered in a separate facet (transport) (World Health Organization, 2004)

3.2.3.1 Activities of Daily Living (ADL)

A person's propensity to carry out natural day-by-day living activities as well as self-care and properly care for personal possessions, are cross-examined in this constituent. The person's capability to carry out activities performed on daily basis is a major spotlight in this facet. It has been expressed that people's QoL is most likely to be affected by the degree of dependence on others in their daily activities. Nevertheless, aspects of everyday living which are covered in other areas are not included in the questions, that is to say; explicit activities affected by exhaustion or fatigue, sleep disorder, depression, anxiety, mobility, and so forth. A major line of inquiry in this constituent pay no attention to whether a person has a home or a family (WHOQOL-BREF, 1998)

3.2.3.2 Addiction on medication or treatments

The central point of exploration in this facet is whether a person's reliance on medication or optional medicines, such as herbal remedies and acupuncture, in support of his/her physical health in addition to psychological well-being. An individual's QoL possibly will in various cases be affected negatively by medication, case point, side effects of chemotherapy, whilst in other cases the person's QoL may well be enhanced, for example, cancer patients using pain killers. This constituent consists of medical interventions that are not pharmacological, however on which the person is still reliant, for example a pacemaker, and artificial limb or colostomy bag. The mode of investigation in this facet does not take account of exhaustive enquiry into the type of medication the person may possibly be reliant on (WHOQOL-BREF, 1998)

3.2.3.3 Working capability

This facet takes account of a person's use of his/her energy for work. Any major activity in which the person is deeply engaged in is termed as "Work", for example, voluntary communal work, paid and unpaid job, full-time study, care of children in addition to house chores are some of the major tasks included in this constituent. In view of the fact that such questions refer to these probable categories of foremost activities, the constituent's spotlight is mainly on a person's capacity to perform work, regardless of the type of work. The main theme of

exploration in this subdomain does not in any case encompass people's feeling about the nature of their work, not either do they encompass the quality of their working environment (World Health Organization, 2004)

3.2.4 DOMAIN IV – Social relationships

3.2.4.0 Personal relationships

In this subdomain, aspects explored encompass the degree to which people feel the friendship, feel affection for and support they need from close relationships in their life. This constituent as well takes in hand dedication to and current experience of caring for and providing for other people. Assessment of the person's capability along with the prospect to love and be loved, in addition to be intimate with others both psychologically and physically, are extensively included in the line of inquiry in this subdomain. The extent to which people feel they can share moments of both joy and sorrow with loved ones, and a sense of loving and being loved are integrated in this facet.
Furthermore, the physical characteristics of intimacy such as cuddling and touch are also addressed. It's conversely acknowledged that, this constituent will probably extend beyond, by far with the intimacy of sex which is covered in the sexual activity facet. The subject matter of evaluations embrace how much contentment an individual gets from others, or has in managing other people's tribulations and burdens. The likelihood of this being both a positive as well as a negative experience is also embedded to the facet. Moreover, this facet takes into account all kinds of loving relationships, such like close friendships, marriages and both heterosexual and homosexual partnerships (World Health Organization, 2004)

3.2.4.1 Social support

The core aspects of examination in this facet consist of how much a person feels the commitment, approval, and availability of practical support from family and friends. Key questions explore how much family and friends share in responsibility and in working together to resolve individual and family problems. Questions from the facet enforce emphasis on how much a person feels when he/she has the support of family and friends, in particular the

degree to which the support may possibly be depended on in a time of predicament. Aspects embedded in the facet comprise of how the individual feels he/she accepts approval and encouragement from family members in addition to friends. The potentially negative role of family members and friends in a person's life is addressed in this facet and questions are intended to allow negative effects of family and friends such as oral and physical maltreatment to be documented (WHOQOL-BREF, 1998)

3.2.4.2 Sexual activity

A person's urge as well as desire for sex and the degree to which the person is capable to express and enjoy his/her sexual desire fittingly, are the fundamental areas of concern in this subdomain. Sexual activity and intimacy are for many people entangled. Nonetheless, questions explored in the subdomain simply relates to the extent of sex drive, sexual expression and sexual accomplishment with other styles of physical intimacy being covered in a different place.

Natural productiveness or fertility is one of the innermost aspects of this subdomain in various cultures; additionally, child bearing is a tremendously valued task. This facet slots in this aspect of sex in such cultures, and is more likely to be understood in such terms in these cultures.

Principal mode of assessment does not necessarily take account of the value judgments surrounding sex, and addresses solitary the significance of sexual activity to the individual’s QoL. As a consequence, the importance of a person's sexual orientation and sexual practices are not seen although the desire for sex, expression of, prospect for and achievement from sex that is the basic aspects of this facet. It’s acknowledged, however that, researcher finds it difficult to ask with reference to sexual activity and it’s even more likely that, some cultures’ responses to questions arising from this subdomain could be more guarded. It’s further projected that; questions from the subdomain may possibly be answered differently by people of different ages and gender. Diminutive desire for sex may perhaps be reported by several respondents without this having whichever adverse effects on their Quality of Life (WHOQOL-BREF, 1998)

3.2.5 DOMAIN V – Environment

3.2.5.0 Physical safety and security

The individual's sense of safety along with satisfactory security from physical harm is a focal point of exploration in this subdomain. A person's safety or security threat may possibly arise from whichever source of threats such as other people or political repression. And because of this reason, this subdomain is more likely to bear directly on the individual's sense of independence. Therefore, assessment questions in this area are formulated to permit answers that range from an individual who might have the opportunities to live with no constrictions, as well as to that of an individual who might live in circumstances or neighborhood that is tyrannical and considered to be unsafe.

The questions herein consist of a sense of how much the person thinks that, available resources which could protect or might protect his/ her sense of safety and security are accessible. Above all, this facet is likely to have particular connotation for certain groups, such as disaster victims, the homeless, people in dangerous professions, relations of criminals, and victims of ill-treatment.

Questions also do not look at in depth feelings of those who might be in a serious mentally ill status and perceive that their safety is threatened by, for instance, a feeling of being victimized by extraterrestrials. Questions main spotlight is on an individual's feeling of safety or lack of safety, security or insecurity in so far as these might have an effect on quality of life (World Health Organization, 2004)

3.2.5.1 Home Environment

Questions derived from this subdomain scrutinize the most important place where a person lives and, at a minimum, sleeps and keeps most of his/her valuable belongings, in addition to the way this impacts the person's life. The quality of the house would be appraised on the basis of comfort as well as the individual's capacity to meet the expense of a safe residential place. Other areas which are also explored implicitly includes: crowdedness, the amount of space available, cleanliness, opportunities for privacy, facilities available -such as electricity, toilet, running water, and the quality of the construction of the house -such as leaking roof

and dampness. The quality of the immediate neighborhood surrounding the habitation is important for life quality, and questions in this area include reference to the immediate neighborhood and are expressed so as to take account of the usual word for home, i.e. where the individual regularly lives with his/her family. Nevertheless, questions are phrased to include people who do not live in one place with their family, such as refugees, or people living in institutions. It should not, as you would expect, be likely to express questions to permit homeless people to answer eloquently (World Health Organization, 2004)

3.2.5.2 Financial resources

The major theme of assessment in this facet embarks on the person's analysis of how his if not her financial resources, and other redeemable resources, as well as the degree to which these resources meet up the needs for a healthy and comfortable life fashion. The center of attention is on what the person could or couldn't manage to pay for which might have an effect on the overall QoL. The basic questions incorporate a sense of contentment if not disgruntlement with those things which the person's revenue make possible for them to afford. Additionally, the assessment questions in this part take account of a sense of reliance if not independence provided by the person's financial resources, or exchangeable resources, as well as the strong feeling of having enough and being a self-sustainable individual. Assessment will take place in spite of the respondent's health status and whether the person is employed or not. It's though acknowledged that, a person's viewpoint on financial resources as "adequate", "meeting his/her needs" etc. is more likely to fluctuate greatly, and the question demands are structured to allow this difference to be accommodated (World Health Organization, 2004)

3.2.5.3 Health and social care, availability and quality

The subject matter of evaluation in this field takes into account the person's view of health and social care in the near vicinity. In this context, the lexis "Near" illustrates the time dimension which the individual require to obtain assistance. Central subject of evaluation constitute questions which are correlated to how the person views the accessibility of health facilities, social welfare services and the quality and comprehensiveness of the expected care received just in case these services are required. Questions also incorporate voluntarily community support, for example, religious aid organizations, places of worship, which could

possibly be supplementary if not may perhaps be the only available health care facility in the person's environment. Furthermore, questions in this part relates to how the easy or difficult it's to reach local health and social services in the process of bringing friends and relatives to these facilities. The focal point is on the person's view of the health and social services. Questions do not necessarily inquire on the subject of health care aspects which have little personal orientation or relevance to the person who will be answering the questionnaire (WHOQOL-BREF, 1998)

3.2.5.4 Opportunities for acquiring new information and skills

A person's ambition and prospect for learning new skills, achievement of new knowledge and being in contact with what is happening around is the vital aspects of exploration in this section. This may well be through formal education programs, adult education classes or through leisure activities, either alone or in groups, for instance, reading. This facet embraces being in touch and having information on what is going on of which for some people is broad -the "world news", and for others is more restricted to the expression of a village gossip. Even so, a feeling of being in contact with current interactions is of great significance to scores of people. The meeting point is on a person's probability to bring about a need for information and knowledge whether this refers to knowledge in an educational sense, local, national or international news that has relevance to the person's QoL. However, assessment questions are plainly phrased in such a way that will enable to capture these different aspects of acquiring new information in addition to skills ranging from world news to local gossip or further to formal educational programs and vocational training. There is a postulation that, the questions interpretation by the respondents will be in ways that are carrying great weight and of relevance to their position in life (World Health Organization, 2004)

3.2.5.5 Opportunities for recreation and leisure participation

In this section, questions structure explores an individual's capacity and preference to leisure participation, amusement along with relaxation opportunities. All forms of pastimes, relaxation in addition to recreation are systematically addressed in the questions. This possibly will range from visiting friends, sports, reading, watching television or spending time with the

family, to idling. Three key aspects are focused on: the person's aptitude for, opportunities for and gratification of recreation and relaxation (World Health Organization, 2004)

3.2.5.6 Physical environment (pollution/noise/traffic/climate)

Assessment questions in this facet are phrased to examine the person's view of his/her surroundings. This is all-embracing aspects of noise, contamination/pollution, climate and general aesthetic of the environment and whether this serves to improve or affects the QoL negatively. Certain aspects of the environment may well have a specific bearing on the QoL in some cultures, such as the central nature of the availability of water or air pollution. Home environment and transport are not included in this facet as these are covered in separate facet (WHOQOL-BREF, 1998)

3.2.5.7 Transport

This facet examines the person's view of the availability or the simplicity of finding and using transport services to move around. Questions are phrased to all sought of transport that might be available to the person, for example bicycle, car/bus. The center of attention is on how the availability of transport facilities enables the person to perform the necessary tasks in daily life and the freedom to perform chosen activities. The type of transport, and means used to move around in the home itself are not explored or inquired by the questionnaire. In addition, personal mobility of the individual is not included since it’s covered elsewhere –under the facet mobility (WHOQOL-BREF, 1998)

3.2.6 DOMAIN VI –Spirituality/Religion/Personal Beleiefs

3.2.6.0 Spirituality/religion/personal beliefs

The last segment looks at the QoL as affected by an individual’s personal beliefs. This may perhaps be by helping the individual cope with difficult circumstances in his/her life, giving structure to experience, ascribing meaning to religious and personal questions, and more commonly as long as the individual enjoy a sense of well-being. This facet concentrate on people with different religious beliefs, case in point, Buddhists, Christians, Hindus and

Muslims, and people with personal and spiritual beliefs that do not fit within a particular religious orientation. On behalf of many people, religious conviction, personal beliefs and spirituality are a vital source of comfort, well-being, security, and meaning, sense of belonging, purpose and strength. On the contrary, a number of people consider that religion has a negative influence on their life. As a result, assessment questions in this particular segment are carefully phrased to allow this aspect of the facet to come into view (World Health Organization, 2004)

CHAPTER FOUR

4.0 Research design and methodology

This was a hypothesis-generating cross-sectional study of a quantitative nature. The immigrant population in the present study constituted a selective sample group of individuals from Hedmark and Oppland counties in Norway. The two neighbouring counties have a general population of 377 709 inhabitants, whereas 25 768 of the population were immigrants during the time of the study. Representative sample of 145 selected subjects with immigrant background aged 20 years and over were invited by mail to participate in the study. The sample was selected from County Council for immigrants in both counties and non-governmental organizations. Apparently not all the selected sample of 145 individuals participated in the study. A sample of N= 92 individuals effectively participated in the study, whereas 53 non-respondents declined to participate in the study for various reasons.

4.1 Data collection

The online research survey which comprised of three sections includes: (i) Section one measure 10 items on sociodemographic information, (ii) Section two measure SOC using the long version "Orientation to Life Questionnaire" the SOC-29 items generic questionnaire and (iii) Section three measure QoL using the short version, the WHOQOL-Bref with 26-items. The survey was first launched on April.26.2011, first reminder was published on May.06.2011; second reminder was published on May.18.2011, third and the last reminder on May.24.2011. Finally, data compilation was closed on May.28.2011.

The initial sample of 145 selected individuals received a personal invitation by mail. In the invitation letter, they were informed about the aims of the investigation and that they were to participate in the survey by simply filling electronic self-administered sociodemographic information sheet, QoL and SOC questionnaires. Participation was voluntary and subject to informed consent. The sample N=92 successfully completed the online survey that was hosted on a secure website. Participants remained anonymous and all the collected data materials

were treated with confidentiality. The analysis of data materials was performed using IBM SPSS Statistics for windows version 19.0 and the interpretation of the results was embedded in the SOC concepts and QoL perspectives employed in the present study.

It's imperative to note that, conducting research particularly with fellow human beings; the probability of obtaining complete data sets from every single case is extremely rare. To ensure that all questions were answered in the present study, the online survey was programmed in a blocked-question-design setting, such that it was obviously impossible to miss out any single question. In the light of the present study, while screening and checking for random errors, there were no missing values, thus, the data sets were complete.

4.2 Measurement of Sense of Coherence (SOC)

Antonovsky's original questionnaire "Orientation to Life Questionnaire" was adopted in this study. SOC was measured by the SOC29-items scale developed and refined by Antonovsky. The SOC-29 items scale consisted of three interrelated subscales: comprehensibility, manageability and meaningfulness. Eleven (11) items measured comprehensibility, Ten (10) items measured manageability and eight (8) items measured meaningfulness, when summed up rendering (11-77 points) for comprehensibility, (10-70 points) for manageability and up to (8-56 points) for meaningfulness, respectively. The overall score was (29-203 points). These items used a seven point Likert response scale and were scaled either in a positively (1-7) or negatively framed directions (7-1). The highest score denoted high level of SOC, whereas low score denoted weak SOC.

4.3 Development and measurement of Quality of Life (QoL)

According to Raphael, QoL is a conception that has meaning for citizens, professionals as well as government authorities (Raphael, 2010). Much of this has to do with its spontaneous notion of it representing "the good life". An average person may not know accurately what QoL is, but does seem to know whether their own QoL is good or bad. Scores of professionals have taken up the QoL concept to indicate whether their medical interventions or treatments in addition to services result in either good or bad outcomes. It's more and

more common for governmental authorities to guarantee citizens that their policymaking is concerned with improving citizen's QoL (Raphael, 2010)

According to Raphael, QoL is a normative notion, meaning that there are clear expectations of what QoL should be (Raphael, 2010). QoL of individuals, communities, and societies should be good, not bad. If it's not good then something needs to be done to improve it (Raphael, 2010). QoL can therefore be considered as a desired quality of individuals, communities, or even societies. Variety of forms of data can be based on in assessing QoL. These may possibly take account of objective (e.g., quantitative, survey and statistical), and subjective, for example, qualitative, interview, and thematic assessments; individual and community-sited data gathering, for instance, characteristics of individuals or features of communities; and the application of a range of broadly defined societal indicators such as societal status. QoL assessment can therefore range from considering elements of broad societal indicators to the actual lived experience of individuals. Everyone of these approaches are essential for considering QoL in addition to what should be done in order to improve it (Raphael, 2010). QoL is predisposed by a range of economic, political, along with social forces that fluctuate analytically among nations. In several QoL researches, there is unwillingness in taking into consideration how the political ideologies of governing authorities contribute to the present QoL issues. There is disinclination in identifying political solutions in terms of how policymaking and implementation on the parts of governing authorities could respond to these challenges (Raphael, 2010)

4.4 The validity and reliability of the SOC and QoL scales

Basic properties should be satisfied by all the measurements of QoL and SOC measures if they are to be of any clinical relevance. These are first and foremost validity, reliability, repeatability, sensitivity and responsiveness (Fayers, 2009). Structured questionnaires such as WHOQOL-Bref and SOC-29 should be based upon psychometric analysis; however, these basic properties are classified differently by various authors. The QoL and SOC questionnaires employed in this present cross-sectional study are well known validated instruments worldwide. Therefore, for the purpose of this paper, I mainly adopted Fayers and Machin's classifications and definitions of validity and reliability

4.4.1 Validity

According to Fayers & Machin, instrument validation is the process of determining whether there are plausible proof that the instrument examines what it's anticipated to measure, in addition to its convenience for its intended purpose (Fayers, 2009). For instance, to what extend is it logical to declare that a "QoL or SOC questionnaire" in actual fact is assessing QoL or SOC? Nonetheless, according to Fayers and Machin, since we are trying to examine an ill-defined and unobservable dormant variable, we can only assume that the instrument is valid in so far as it correlates with other recognizable variables. Such procedure of validation consists of a number of steps, in which it's hoped to gather compelling verification that the instrument taps into the intended construct and that it produces handy measurements reflecting persons' QoL or SOC. According to the authors (pp.77-108), validity can be subdivided into three main aspects: content validity, construct validity and criterion validity (Fayers, 2009). For purpose of this paper, there is a conviction that the QoL and SOC questionnaires are renowned instruments worldwide. Their validity, reliability, repeatability, sensitivity and responsiveness are tested and retested and are found to be genuinely for clinical research.

4.4.2 Reliability

According to Pallant, the reliability of a scale designates how free it's from casual mistakes (Pallant, 2010). In addition to this, evaluation of reliability comprises of shaping that an instrument/measurement yields reproducible along with consistent results (Fayers, 2009). Fayers & Machin suggested two approaches to determine reliability: first for scales containing multiple items, all the items should be consistent in the sense that they should all measure the same thing. This form of reliability is called internal reliability and it uses item correlations to assess the homogeneity of multi-item scales and is in many senses a form of validity (Fayers, 2009). The second aspect of reliability that can be assessed is internal consistency. This is the point to which the items that make up the scale are all measuring the same underlying trait, i.e. the degree to which the items "hang together". Statistically, related techniques are used in assessing both forms of reliability. Thus repeatability reliability is based upon analysis of correlations between repeated measurements, where the measurements are either repeated over time (test-retest reliability), by different observers (inter-rater reliability) or by the

instrument's different variants (equivalent-forms reliability). Internal reliability which is also often called internal consistency is based on item-to-item correlations in multi-item scales. Since these two concepts are related mathematically, estimates of the internal reliability of multi-item scales can often be used to predict the approximate value of their repeatability reliability (Fayers, 2009). A number of different measures have been proposed. Given that reliability is the degree to which repeated measurements will give the same results when the true scale score remains stable, measurement concerns the level of agreement between two or more scores. Though, from a statistical viewpoint, the reliability of continuous measurements may be more effectively explored using ANOVA models in the evaluation of the standard error (SE) of the measurements, and to explore the relationship of this SE to the other sources of variance (Fayers, 2009)

4.5 Research question and hypotheses

The central aim of the research was: "To explore the distributions of average Means (SD) sum scores SOC and perceived QoL among adult immigrant population in two adjacent counties-Hedmark and Oppland in Norway

The four major research hypotheses were:

- **Hypothesis one:** SOC has positive correlation with perceived QOL; the stronger the average means score SOC, the better the perceived QoL in general.
- **Hypothesis two:** SOC and perceived QoL tend to increase with age over the whole life span. The older the age of the population sample, the higher the average mean scores on SOC and perceived QoL.
- **Hypothesis three:** Men has significantly higher average mean score SOC and perceived QoL than women.
- **Hypothesis four:** Non-Western immigrants have lower average mean score SOC and perceived QoL compared to Western immigrants.

4.6 Ethical considerations

All the participants in the present study received written consent by mail. Further, the participant's personal identity (ID) or Norwegian individual's 11-digit personal identification number; names, postal address, e-mail address and other identifiable contact information were omitted when data materials collected are used for research purposes. The study was approved by The Norwegian Social Science Data Services (NSD) under licence number 26008/2011. Moreover, the entire research work in this present study has been conducted in full accordance with the ethical rules for research described in the World Medical Association Declaration of Helsinki.

CHAPTER FIVE

5.0 Statistical analysis

To measure internal consistency of a measurement scale, several methods can be applied, for instance, the calculation of Cronbach's alpha coefficients is the most commonly used statistical technique. Internal validity and reliability which is assessed in this master's dissertation employs interitem correlations to assess the homogeneity of multi-item scales by the statistical technique Cronbach's alpha coefficients. According to Pallant, this statistical method provides an indication of the average means correlation among all of the items that make up the scale (Pallant, 2010). Values range from 0.00 to 1.00, with higher values indicating greater reliability and validity. While different levels of validity are required, depending on the nature and purpose of the scale, however, Nunnally (1978), cf. (Pallant, 2010), recommends a minimum level of 0.70

Conversely, Cronbach's alpha levels dependent on the number of items in the scale. When there are a small number of items in the scale, e.g., fewer than 10, Cronbach's alpha values can be quite small. In this regard, it may be better to calculate and report the mean interitem correlations for the items. Optimal mean interitem correlation values range from 0.20 to 0.40 as recommended by Briggs & Cheek (1986), cf. (Pallant, 2010)

Cronbach's alpha coefficient is defined by the following mathematical expression:

$$\alpha = \frac{K}{K-1}\left(1 - \frac{\sum_{i=1}^{K}\sigma_{Y_i}^2}{\sigma_X^2}\right)$$

As indicated in the equation above, where K is above and $\bar{r}$ the mean of the K (K-1)/2 non-redundant correlational coefficients, i.e., the mean of an upper or else lower triangular, correlational matrix.

In this master thesis, descriptive statistical analyses were performed to assess the demographic characteristics of the total sample (N=92). Frequency distributions of the Means (SD) scores, Cronbach's alpha coefficients (α), 95% Confidence Interval of Difference (IC)

for both SOC and QoL scales were calculated. The test of Skewness focuses on the symmetry of the distributions; the test of Kurtosis examines its peakedness.

When it comes to T-test of normality distributions, Independent sample T-tests has been performed to compare variables and their scores. Shapiro-Wilk Tests for normality distribution have been explored. A one way analyses of variance (ANOVA) was performed to determine differences in continuous variables. All T-tests show that the responses are normally distributed along the SOC and QoL scales, though there were some slightly variations in Means Plots.

Reliability analysis of the SOC scale was performed by calculating the Cronbach's alpha coefficients for each of the three subscales of SOC, interitem-correlations was performed rendering the following Cronbach's alpha levels: Comprehensibility 0.76 (11 items), Manageability 0.76 (10 items), Meaningfulness 0.71 (8 items) and for the whole SOC 0.63 (29 items)

Regarding QoL scale, the reliability analysis was determined by computing the Cronbach's alpha coefficients for all the four domain solutions. The Cronbach's alpha level for the whole QoL domains was 0.86, Physical health domain = 0.85, Psychological domain = 0.84, Social Relationship domain = 0.78 and Environmental domain = 0.85. All T-test of normality distributions indicates that the responses were normally distributed across all the four QoL domains at 95% IC.

5.1 Main results

Descriptive statistics summarizes the data collected from the total sample participants N=92 who successfully participated in the study. The response rate was 64 % compared to 36 % non-response rate. Table 5.0 below illustrates the general demographic characteristics of the sample sorted by age groups, gender, marital status, cultural background, work status, reason of entry to Norway, housing (living together with), religion, educational level and county of residence in Norway. Out of the total sample, more male (54%) compared to female (46%) responded.

The average mean (M) age of the total sample was 45 years. A fraction of 27(29%) respondents reported they were Western immigrants, consisting of 13(26%) male and 14(33%) female respondents responded, whereas the largest proportion of the sample 64(65%) which consists of 37(74%) male versus 27(64%) female identified themselves as non-Western immigrants, also responded. A number of 60 (65%) respondents identified their country of origin compared to 32(35%) respondents who declined to identify their country of origin due to unknown reasons. The highest proportion of the sample 59(64%) reported they were married versus 20(22%) respondents who reported they were unmarried and 9(10%) respondents identified themselves as cohabitants. The least frequencies of the sample 2(2%) reported they were divorced, 1(1%) respondent reported as separated, and 1(1%) respondent reported as widow/widower.

While performing regression analysis controlling for the reasons of entry to Norway as dependent variable; 19(21%) respondents reported they came to work versus 8(9%) respondents who reported they came to study. And a fraction of 20(22%) respondents reported they came voluntarily or else for family reunion versus the highest percentage of 34(37%) respondents who gave the reason of entry to Norway as protection.

Among the immigrant group variables, a fraction of 43(47%) individuals reported they were 1st. generation immigrants versus 2(2%) respondents who reported they were 2nd. generation immigrants and others 7(8%). While controlling for the spiritual/religion domain variable, the highest proportion of sample 61(66%) respondents reported they were Christians versus 19(21%) Muslims and the least percentage of 2 (2%) respondents reported they were Buddhism or else philosophy, and others 8(9%)

While controlling for the educational qualification variable, 19 (20.7%) respondents reported they were attending or completed High School/vocational College during the time of the study compared to the highest fraction of 72 (78.3%) respondents who identified themselves as college graduates or were attending University College or University during the time of the study.

And finally, while checking for the county of resident as a dependent variable, the highest proportion of 69 (75%) respondents identified themselves as residents of Oppland County in comparison to 23(25.0%) as residents of Hedmark County during the time of the study.

Table 5.0 Distribution of the total sample along with the sociodemographic characteristics (n=92)

Variables		Total		Men		Women	
Age Gorups	20-29	13	14 %	8	16 %	5	12 %
	30-39	34	37 %	15	30 %	19	45 %
	40-49	28	30 %	16	32 %	12	29 %
	50-59	12	13 %	7	14 %	5	12 %
	60-69	5	5.0%	4	8.0%	1	2.0%
	70-79	0	0.0%	0	0.0%	0	0.0%
	80-<	0	0.0%	0	0.0%	0	0.0%
Gender							
	Men	50	54 %	50	54 %	0	0 %
	Women	42	46 %	0	0 %	42	46 %
Marital status							
	Unmarried	20	22 %	12	24 %	8	19 %
	Married	59	64 %	34	68 %	25	60 %
	Cohabitant	9	10 %	2	4 %	7	17 %
	Separated	1	1 %	0	0 %	1	2 %
	Divorced	2	2 %	1	2 %	1	2 %
	Widow/widower	1	1 %	1	2 %	0	0 %
	Others	0	0 %	0	0 %	0	0 %
Cultural background							
	Western immigrants	27	29 %	13	26 %	14	33 %
	Non-Western immigrants	64	71 %	37	74 %	27	64 %
	Specify country of origin	60	65 %	30	60 %	30	71 %
Work status							
	Health care and biology	9	10 %	5	10 %	4	10 %
	Education / schools	1	1 %	0	0 %	1	2 %
	Technical, scientific work / research	1	1 %	1	2 %	0	0 %
	Business Administration & Management	1	1 %	1	2 %	0	0 %
	Office	1	1 %	0	0 %	1	2 %
	Trade	0	0 %	0	0 %	0	0 %
	Agriculture, forestry, fishing	0	0 %	0	0 %	0	0 %
	Mining	0	0 %	0	0 %	0	0 %
	Transport and communication work	5	5 %	3	6 %	2	5 %
	Industry	1	1 %	1	2 %	0	0 %
	Construction	2	2 %	2	4 %	0	0 %
	Services	0	0 %	0	0 %	0	0 %
	Home	0	0 %	0	0 %	0	0 %
	Work assessment Money	0	0 %	0	0 %	0	0 %
	Disability pension / retirement	8	9 %	5	10 %	3	7 %
	Others	55	60 %	27	54 %	28	67 %

Distribution of the total sample (cont...)

Variables		Total		Men		Women	
Reason of entry to Norway							
	Work	19	21 %	8	16 %	11	26 %
	Study	8	9 %	5	10 %	3	7 %
	Voluntarily	20	22 %	11	22 %	9	21 %
	Protection	34	37 %	23	46 %	11	26 %
	Family reunion	20	22 %	8	16 %	12	29 %
	1st. Generation immigrant	43	47 %	25	50 %	18	43 %
	2nd. Generation immigrant	2	2 %	2	4 %	0	0 %
	Others	7	8 %	3	6 %	4	10 %
Housing(living together with)							
	Unmarried	20	22 %	13	26 %	7	17 %
	Spouse/Cohabitant	62	67 %	33	66 %	29	69 %
	Own children	43	47 %	24	48 %	19	45 %
	Grandchildren	1	1 %	1	2 %	0	0 %
	Generation living with family members	14	15 %	11	22 %	3	7 %
	Siblings	0	0 %	0	0 %	0	0 %
	Friends and girlfriends	0	0 %	0	0 %	0	0 %
	Others	1	1 %	1	2 %	0	0 %
Religion							
	Christianity	61	66 %	31	62 %	30	71 %
	Islam	19	21 %	12	24 %	7	17 %
	Buddhism	2	2 %	1	2 %	1	2 %
	Hinduism	0	0 %	0	0 %	0	0 %
	Judaism	0	0 %	0	0 %	0	0 %
	Philosophy	2	2 %	0	0 %	2	5 %
	Others	8	9 %	6	12 %	2	5 %
County of residence in Norway							
	Hedmark County	23	25 %	16	32 %	7	17 %
	Oppland County	69	75 %	34	68 %	35	83 %
Educational level							
	High school/vocational school	19	21 %	9	10 %	10	11 %
	University college/University	72	78 %	41	45 %	31	34 %
	Others	1	1 %	0	0 %	1	1 %

5.1.1 Orientation to Life Questionnaire (SOC-29) measuremnets

Face validity: A proposition put forward by Pallant suggests that the validity and reliability of a scale refers to the extent to which it evaluates what it's supposed to examine (Pallant, 2010). For the purpose of this master's dissertation, I performed statistical calculations of the Cronbach's alpha coefficients; Means (SD) scores along with distributions and correlations of SOC and QoL across gender and all age groups. Since the traditional threshold values for declaring statistical significance is 5% ($p< 0.05$), for this reason, alpha levels ($p< 0.05$) or less for any tests indicate significance. However, there is no perfect test for all forms of non-normality; therefore, in addition to the tests of normality distributions, I have examined the normal probability Means plots. Deviations from the straight line on the means plots designate non-normality.

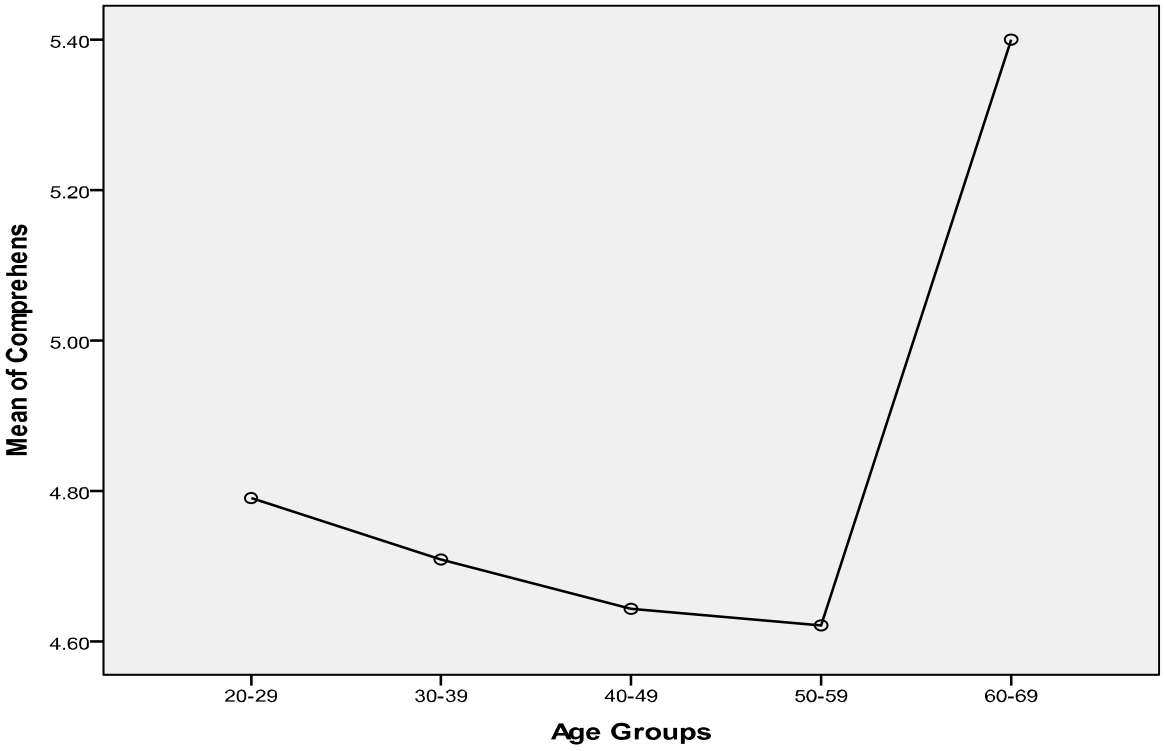
Table 5.1 Distribution of the Means (SD) sum scores SOC in the total sample, and across all age groups (n=92)

Viriables	Comprehensibility	Manageability	Meaningfulness	SOC
Age Groups	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
20-29 (n=13)	4.79 (0.74)	3.42 (0.31)	3.37 (0.43)	11.58 (0.84
30-39 (n=34)	4.71 (0.93)	3.52 (0.31)	3.39 (0.54)	11.62 (1.18)
40-49 (n=28)	4.64 (0.95)	3.57 (0.53)	3.58 (0.42)	11.79 (1.10)
50-59 (n=12)	4.62 (1.00)	3.74 (0.26)	3.39 (0.39)	11.75 (0.87)
60-69 (n=05)	5.40 (0.90)	3.58 (0.18)	3.33 (0.17)	12.31 (0.56)
Total (n=92)	4,73 (0,92)	3,55 (0,38)	3,44 (0,46)	11.72 (1.04)

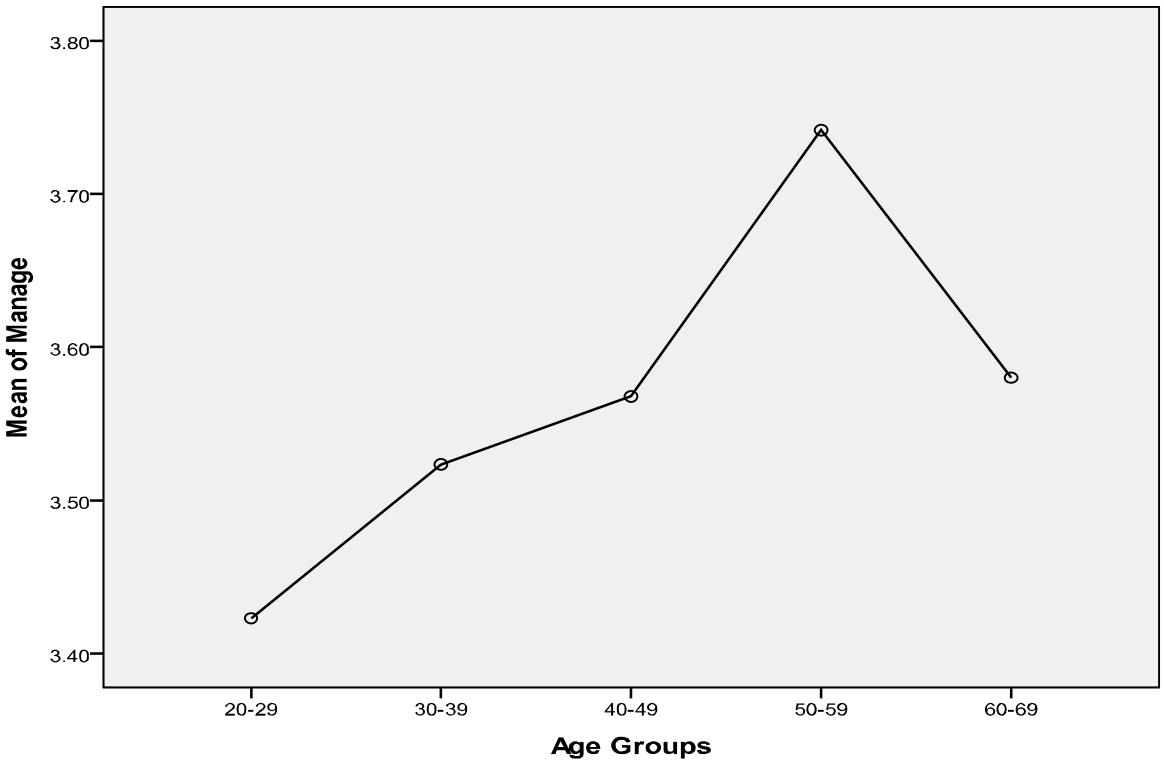
***Shapiro-Wilk Tests**

In a study conducted by Lindmark and colleagues, the distribution of the average Means (SD) SOC in a Swedish adult population (Ulrika Lindmark, 2010), showed that the degree of SOC increases with age and that younger adults have statistically significant weaker SOC Means (SD) scores compared to the sample population older than 30 years. Furthermore, demographic differences were statistically significant; men had significantly higher average Means (SD) score SOC than women. Statistically, the 95% Confidence Intervals in the present study fluctuates between 17.68 (upper bound) -16.65 (lower bound) in physical health domain, 17.69 (upper bound) -16.59 (lower bound) in psychological domain, 16.12 (upper bound) -14.86 (lower bound) in social relationship domain, and 16.82 (upper bound) -15.80 (lower bound) in environmental domain.

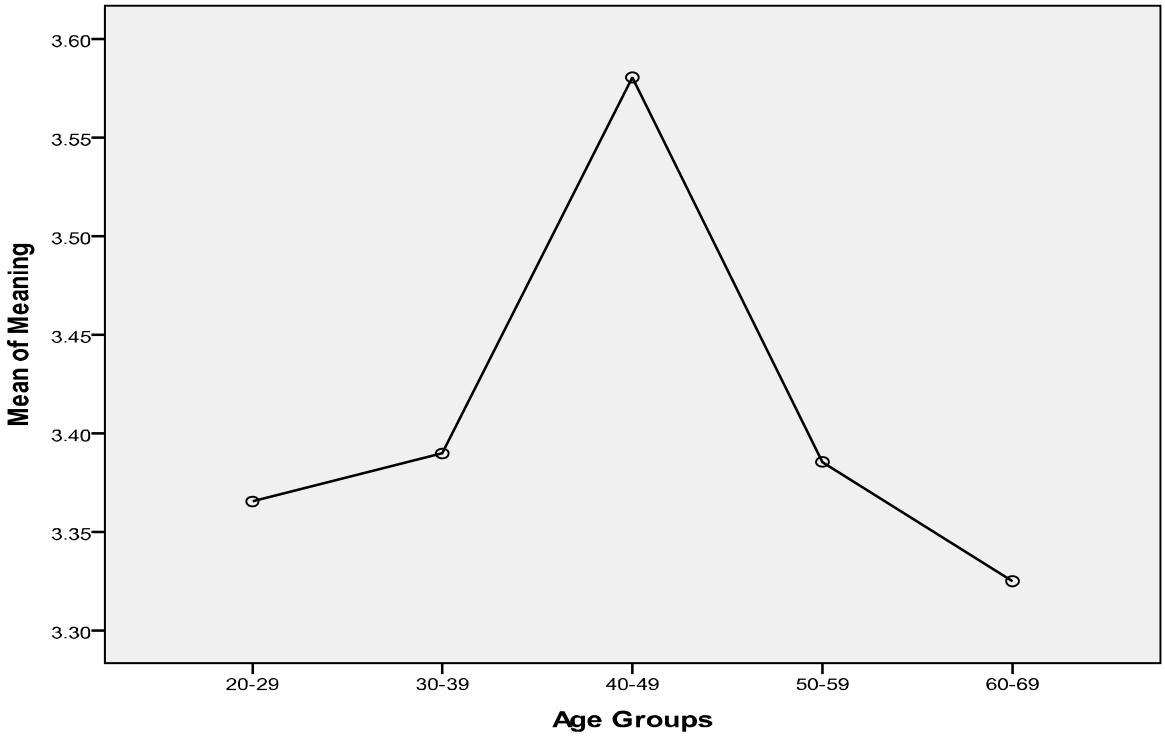
Comprehensibility Means Plots in all age groups



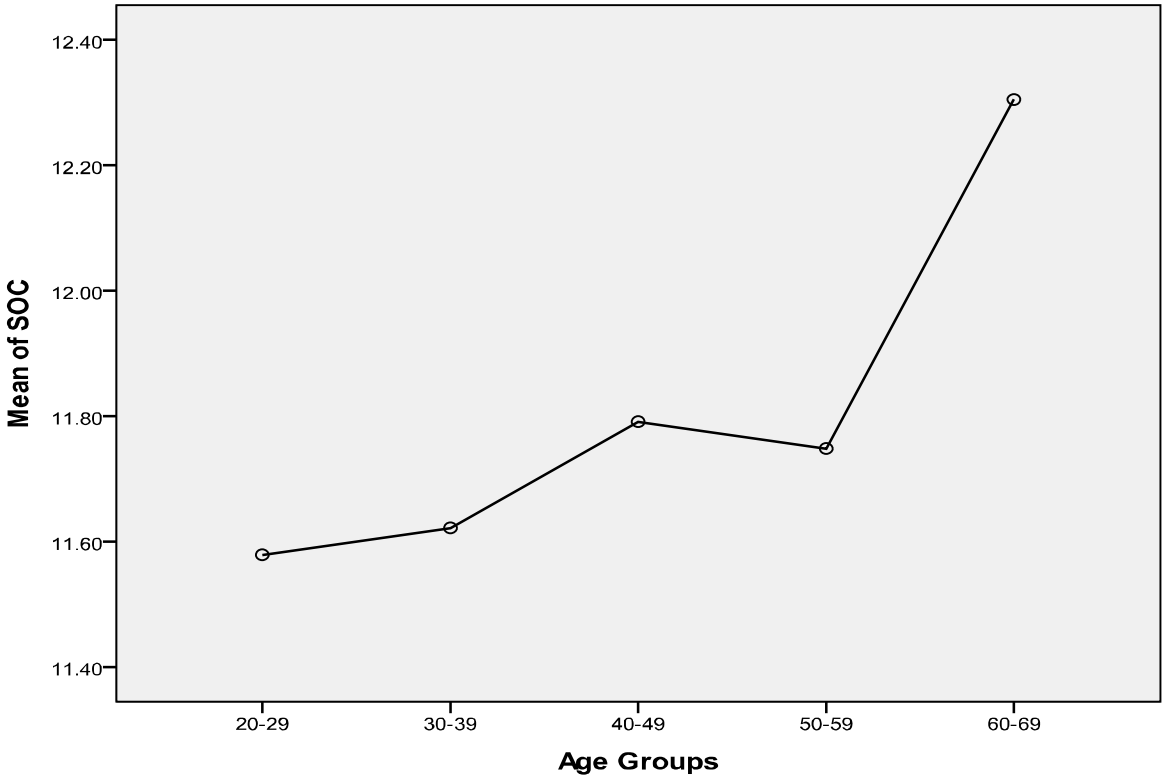
Manageability Means Plots among all age groups



Meaningfulness Means Plots across all age groups



The Sense of Coherence (SOC) Means Plots in all age groups



Median levels range from 4.45 age groups 40-49 to 5.82 age groups 60-69 with a total median of 4.64, and variance levels range from 0.55 age groups 20-29 to 1.22 age groups 50-59 with an overall level of 0.84 for Comprehensibility, median levels range from 3.40 age groups 20-29 to 3.70 age groups 50-59 and a total median of 3.55, and variance levels range from 0.03 age groups 60-69 to 0.29 age groups 50-59 with an overall level of 0.15 for Manageability, median levels range from 3.25 both in age groups 20-29 and 60-69 to 3.44 age groups 40-49, and variance levels range from 0.03 age groups 60-69 to 0.43 age groups 20-29 with an overall level of 0.21 for Meaningfulness subscale. The whole SOC median levels range from 11.61 age groups 40-49 to 12.57 age groups 60-69 with all domains level of 11.80, and variance range from 0.31 age groups 60-69 to 1.28 age groups 30-39 with an overall variance level of 1.10.

The average Means (SD) sum scores of the three concepts of the SOC fluctuates from M=4.62 and SD=0.71 to M=5.40 and SD=0.90 with an overall M=4.72 and SD=0.92 in Comprehensibility, M=3.42 and SD=0.17 to M=3.74 and SD=0.53 with an overall M=3.55 and SD=0.39 in Manageability, M=3.33 and SD=0.17 to M=3.58 and SD=0.54 with an overall M=3.44 and SD=0.56 in Meaningfulness. In the whole SOC scale, the (M) & (SD) fluctuates from M=11.58 in age groups 20-29 and SD=0.56 in age groups 60-69 to a slightly higher M=12.31 in age groups 60-69 and SD=1.18 in age groups 30-39 with an overall M=11.72 and SD=1.04

Statistical data from the current study (Figure 5.1 above) shows that, the frequency distributions of the respondents along with the average Means (SD) score and Means Plots on the three constituents of SOC is shown for the total sample categorized into age groups. Additional factor analysis revealed that the three subscales of SOC average Means (SD) score, Median and Variance levels did not significantly differ in all the different age groups. Further analyses shows that there were no statistically significant differences across gender and within men versus women.

In a systematic review of the reliability and validity of Antonovsky's Sense of Coherence (SOC) questionnaire (Eriksson & Lindström, 2005), concluded that the Swedish respondents did not find it difficult to complete the questionnaire. Nevertheless, there are difficulties reported in other studies, for instance, Lee and colleagues found that Japanese respondents reported difficulties while filling the questionnaire compared to Chinese respondents (Lee JW,

2002). In a Swedish qualitative study on 15 Pentecostalists all the interviewees encountered difficulties to answer the SOC questionnaire (Benzein E., 1997). The study further revealed that items related to comprehensibility and manageability was considered the most difficult ones. In the current study, however, respondents did not report difficulties encountered during data compilation.

Table 5.2 Distribution of Mean (SD) scores SOC in the total sample, among males and females, in different age groups (n=92)

Variables	Number	Total	Men	Men	Women	Women
Age Groups	n	Mean (SD)	n	Mean (SD)	n	Mean (SD)
20-29	13	2.88 (0.35)	8	2.92 (0.32)	5	2.83 (0.42)
30-39	34	2.94(0.38)	15	2.87 (0.39)	19	2.99 (0.38)
40-49	28	3.03 (0.43)	16	3.04 (0.50)	12	3.02 (0.34)
50-59	12	3.02 (0.40)	7	2.87 (0.19)	5	3.24 (0.55)
60-69	5	2.76(0.17)	4	2.78 (0.19)	1	2.69 (0.56)
Total	92	14.63(1.73)	50	14.48(1.59)	42	14.77(2.25)

***One-Way ANOVA Tests**

According to Pallant (Pallant, 2010), the level of statistical significant does not indicate in any form how strongly the two variables are correlated (as given by Pearson Correlations Coefficient (r) and Non-parametric Correlations measured by Spearman's rho [rho]), but instead it indicates how much confidence we should have in the results obtained. The significance of r/ rho is strongly dictated by the size of the sample. In a small sample N= >100, moderate correlations coefficients may be obtained that cannot reach statistical significance at the traditional $p< 0.05$ level. Taking into consideration the size of the sample in the present study and its statistical power, the Cronbach's alpha level for the whole SOC scale was 0.63

Table 5.3 Sense of Coherence Mean (SD) scores in the total sample, Cronbach's alpha coefficients and 95% Confidence Intervals (CI)

Variables	Western immigrants Mean (SD)	Non-western immigrants Mean (SD)	95 % CI	Cronbach's alpha
Comprehensibilty	4.83 (0.92)	4.73 (0.92)	4.54-4.92	0.76
Manageability	3.60 (0.39)	3.54 (0.39)	3.47-3.63	0.76
Meaningfulness	3.42 (0.46)	3.43 (0.46)	3.35-3.53	0.71
SOC	11.85 (1.04)	11.70 (1.04)	11.51-11.94	0.63

***Shapiro-Wilk Tests**

Reliability of the SOC scale: In a total of 124 international studies (Lindström, 2005) found that the internal consistency of the SOC scale measured by Cronbach's alpha values range from 0.70 to 0.95. In the present study, the internal consistency of the of the SOC scale measured by Cronbach's alpha coefficients were computed and levels range from 0.71 in Comprehensibility to 0.63 as the overall Cronbach's alpha coefficient. The SOC scale statistics has an overall mean of 23.44, variance 4.34 and Standard deviation (SD) 2.08. The 95% Confidence Interval of Difference (IC) ranges from 3.35-3.53 in Meaningfulness to 11.51-11.94 in the whole scale.

5.1.2 WHOQOL-BREEF characteristics

Face validity and reliability: The Means (M) sum score of all QoL items was 66.11with Standard Deviation (SD) of 9.02. The test of reliability of QoL scale was performed by computing the Cronbach's alpha coefficients, and level for whole scale was 0.86. Frequency distributions of the Means (SD) score and Means Plots in all QoL domains and across all age groups are shown in the below figure 5.4. There were slightly statistical divergences in the total score across all age groups.

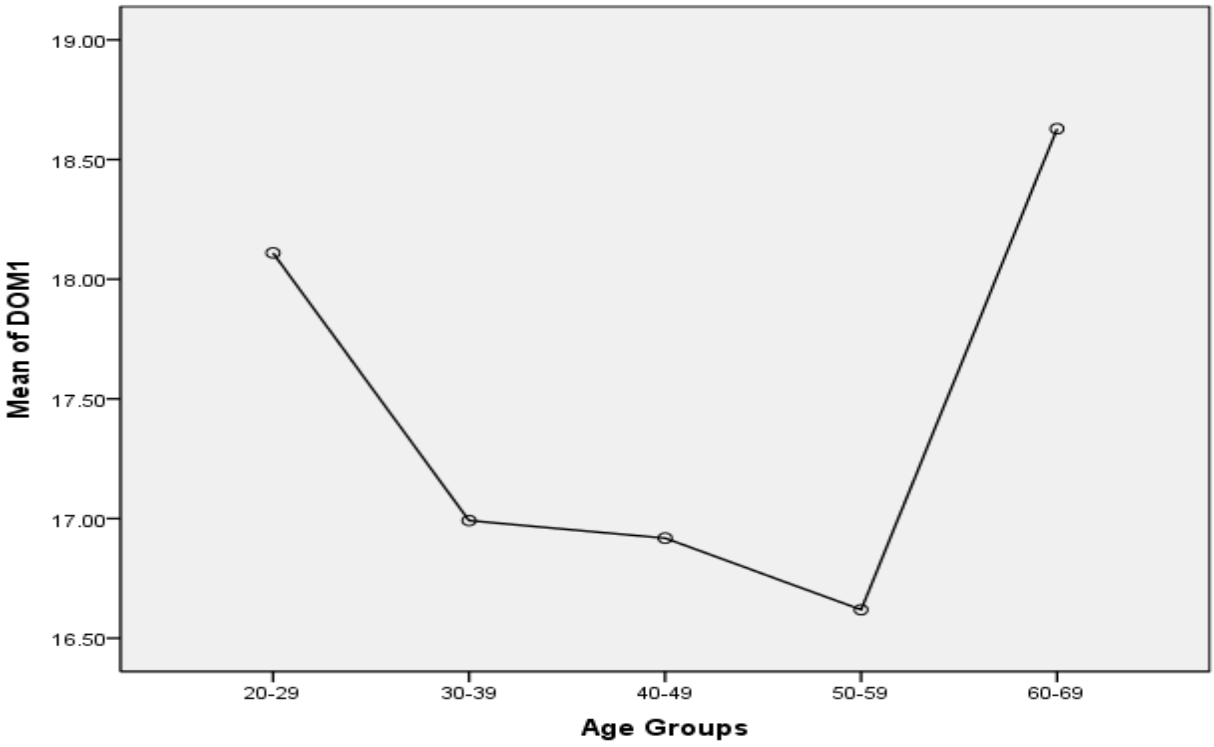
Table 5.4 Quality of Life domains Mean (SD) sum scores in the total sample, and its distributions across all age groups (n=92)

Domains/ Variables	Physical health	Psychological	Social Relationship	Environmental	All QoL domains
Age Groups	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
20-29 (n=13)	18,11 (1,89)	17,08 (2,87)	14,77 (3,00)	16,35 (2,16)	66,30 (8,14)
30-39 (n=34)	16,99 (2,70)	17,06 (2,51)	15,73 (3,23)	16,06 (2,69)	65,83 (9,13)
40-49 (n=28)	16,92 (2,38)	17,31(2,41)	15,48 (3,11)	16,20 (2,41)	65,90 (8,82)
50-59 (n=12)	16,62 (2,90)	16,39 (3,48)	15,22 (2,87)	16,21 (2,48)	64,44 (10,94)
60-69 (n=5)	18,63 (1,60)	18,67 (2,26)	16,53 (2,60)	18,80 (2,60)	72,63 (7,06)
Total items (n=92)	17,17 (2,49)	17,14 (2,64)	15,49 (3,05)	16,31 (2,48)	66,11 (9,02)

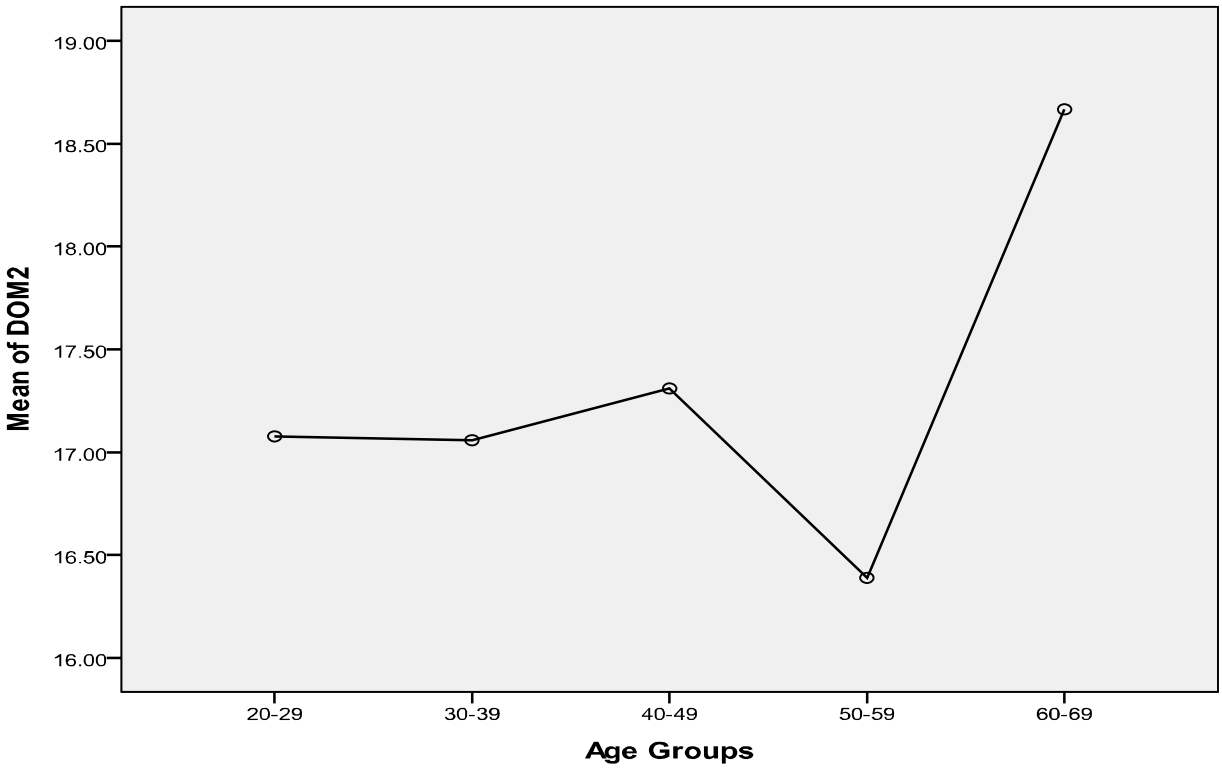
***One-Way ANOVA Tests**

The significant T-test of normality in all domains was computed and levels obtained were: 0.91in physical health domain, 0.90 in psychological domain, 0.95 in social relationship domain and 0.96 in environmental domain. The Standard Deviation (SD) ranges from 1.60-2.90 in physical health domain, 2.26-3.48 in psychological domain, 2.60-3.23 in social relationship domain, and 2.16-2.69 in environmental domain and 7.06-10.94 in all domains.

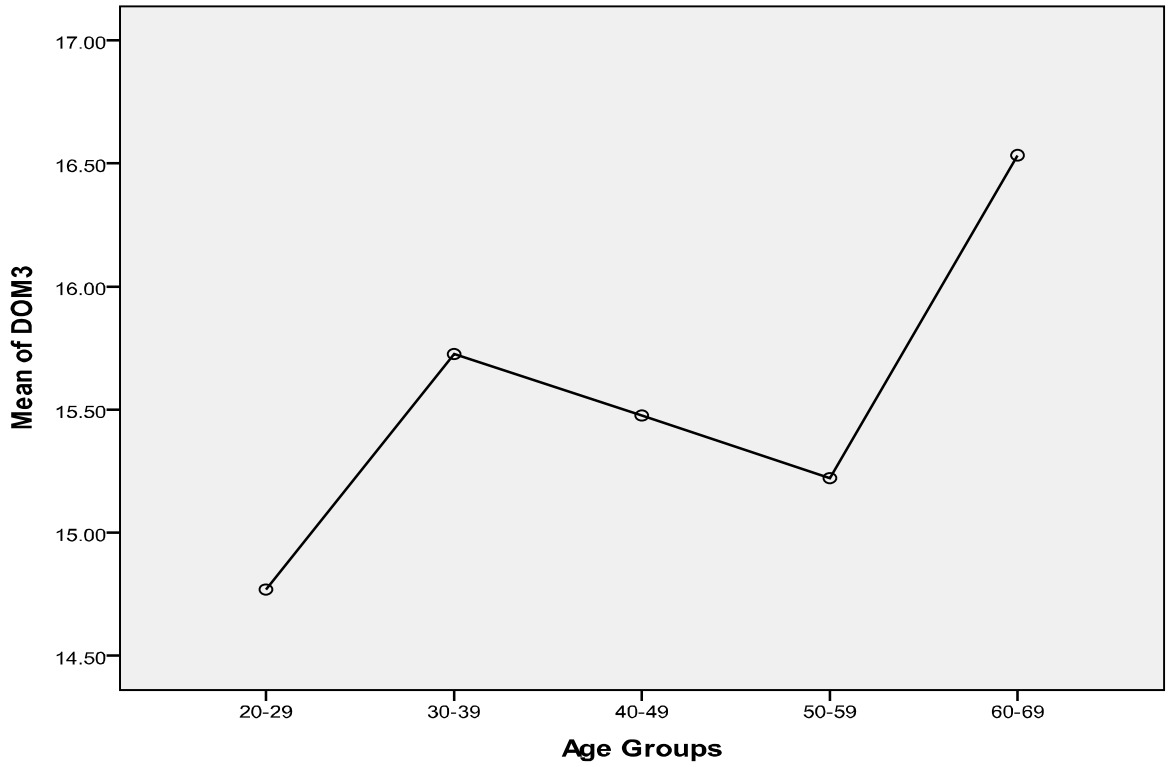
Physical health domain Means Plots across all age groups



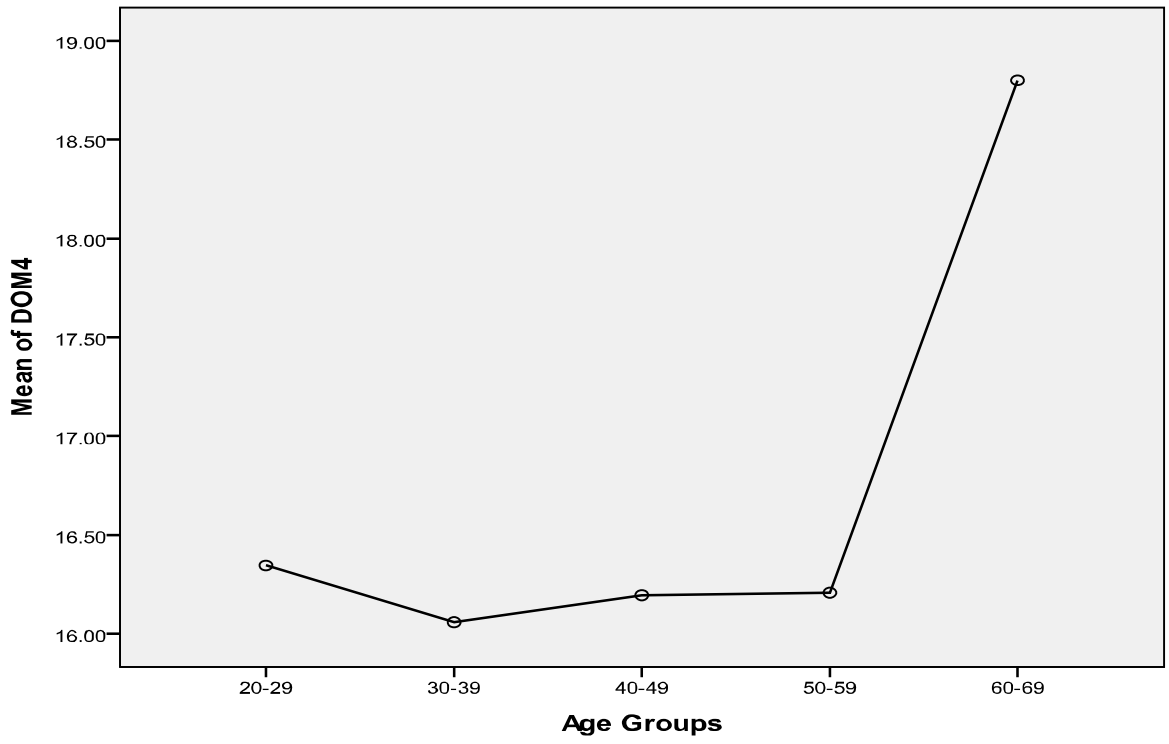
Psychological domain Means Plots across all age groups



Social relationships domain Means Plots among all age groups



Environmental domain Means Plots in all age groups



Total QoL doamins Means Plots across all age groups

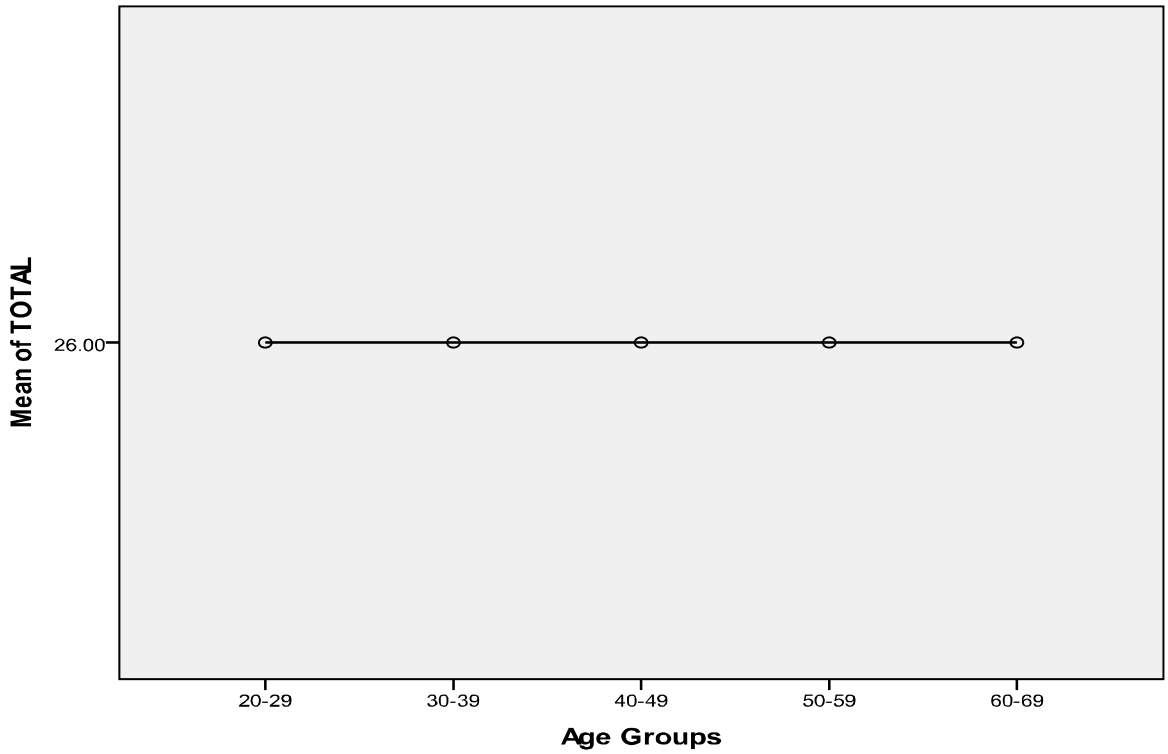


Table 5.6 Distribution of Mean (SD) sum scores, 95 %(CI), Kurtosis, Skewness and Cronbach's alpha coefficients in the whole QoL domains in the total sample (n=92)

Varibales/Domains	Mean (SD)	95% CI	Kurtosis	Skewness	Cronbach's alpha
Physical health	17.17 (2.49)	16.65-17.68	-0.78	0.14	0.85
Psychological	17.14 (2.64)	16.59-17.69	-0.86	0.34	0.84
Social Relationship	15.49 (3.05)	14.86-16.12	-0.17	-0.64	0.78
Environmental	16.31 (2.48)	15.80-16.82	-0.40	0.17	0.85
All QoL domains	66.12 (0.00)	64.24-67.98	-0.12	-0.68	0.86

***Shapiro-Wilk Tests**

The psychological domain in the QoL scale may possibly determine an individual's mental or cognitive capacity. On the other hand the psychological domain may as well predict the possibility that an individual has mental health problems.

In a Norwegian General Population study (Hanestad, 2004), the Cronbach's alpha levels were: physical health domain 0.84, psychological domain 0.82, social relationship domain0.60 and environmental domain 0.79. However, in the present study, the Cronbach's

alpha values range from 0.78 to 0.86. The relationship between the four domains of QoL was investigated by Non-parametric Correlations using spearman's rho correlations and value levels range from 0.50 to 0.82 (correlation is significant at 0.01 level 2-tailed)

Table 5.7 Quality of Life Mean (SD) sum scores in the total sample, among Western immigrants and Non-Western immigrants and differences between genders

Variables/	Western immigrants	Non-Western immigrants	Men	Women
Domains	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Physical health	17.18 (2.49)	17.18 (2.49)	17.113 (2.72)	17.21 (2.23
Psychological	17.14 (2.64)	17.14 (2.64)	17.37 (2.50)	16.86 (2.81)
Social relationship	15.49 (3.05)	15.49 (3.05)	15.65 (3.15)	15.30 (2.95)
Environmental	16.31 (2.48)	16.31 (2.48)	16.60 (2.67)	15.96 (2.22)
All QoL domains	26.00 (0.00)	26.00 (0.00)	26.00 (0.00)	26.00 (0.00)

***One-Sample Nonparametric Tests**

A hypothesis Test summary was performed by computing the One-Sample Nonparametric Tests of the total sample; in all four domain solution of QoL along with four independent variables and the domain Mean (SD) scores QoL and its distribution along the demographics are shown in Table 5.7 above. Asymptotic significances are displayed. The significance level is $p< 0.05$, One-Sample Kolmogorov-Smirnov Test. Standard multiple regressions (i.e., all predictors entered at once) was used to generate a basic model. In this model, there were no statistically significant differences between the two immigrant groups and in sexes.

5.2 Discussion and limitations

It was assumed by Antonovsky that the individual SOC stabilizes on the threshold of adulthood, and thereafter the degree of SOC fluctuates slightly. The purpose of this paper was to investigate the distributions of average Mean (SD) scores SOC and perceived QoL in adult immigrant population in Hedmark and Oppland counties in Norway. A number of four major hypotheses were proposed for investigation (p.77). In the light of the objectives of the study, findings revealed that SOC is highly correlated with QoL. The stronger the average Mean (SD) score SOC the better the perceived QoL in general. Pearson product-moment correlation (r) for SOC and QoL was at level of 0.45 (Correlation is significant at the 0.01 level 2-tailed), and sum of squares and cross-product for both SOC and QoL ranges from

98.72 to 386.37 and 386.37 to 7411.40, covariance for SOC and QoL ranges from 1.09 to 4.25 and 4.25 to 81.00 On the nonparametric correlations, the Spearman's rho for SOC and QoL correlation coefficient (2.tailed) was 0.55 (correlation is significant at the 0.01 level 2-tailed). The Mean (M) scores for SOC = 11.72, SD=1.04, and Mean (M) for QoL= 66.11 and SD=9.02. Relevant data from the current study discloses that there were no statistically significant differences in the distributions of average Mean (SD) scores SOC and QoL and its distributions across the demographics.

The limitations of the current study may possibly be related to the size of the sample and its statistical power. In total, there were 92 respondents, thus, the size of the sample poses risk for errors of random findings in small sample design. Besides, data materials were compiled electronically, individuals older than 69 years might have been missed either because they were not well versed with the Internet usage or due to language barriers. In future studies, survey scales should be translated into different languages and dispatched by both ordinary postal mail and Internet based. Further, since the WHOQOL-Bref measures focuses upon respondents "perceived" QoL it's not accepted to present a source of assessing in whichever detailed fashion to pinpoint symptoms, diseases/conditions, nor disability as objectively judged but rather the perceived effects of diseases and health interventions on the individual's QoL. Similarly, to embrace the assessment of SOC in adult immigrant population does not represent a source of assessing symptoms, diseases/conditions, nor disability, since the scale is designed to provide assessments involving generic health concepts that are not specific to any disease/conditions or treatment group. In future studies, however, it's imperative to consider use of disease-specific scales such as Hopkins Symptom Checklist-25 (HSCL-25), IDS, BDI, SLC-90 and Montgomery-Åsberg Depression Rating Scale (MADRS), as this may possibly map the actual status of immigrant's mental health in Hedmark and Oppland counties in Norway.

5.3 Implications on mental health care and psychiatric nursing

Mental health care and psychiatric nursing are complex and dynamic processes. In this respect, mental health care and psychiatric nursing are viewed as interactive, human developmental activities that are more concerned with the development of the individual,

rather than focusing on the original causes of the individual's mental health problems, and this approach is in line with the salutogenic health model as outlined in chapter two. Psychiatric nursing in particular is concerned with establishing the conditions necessary to promote the individual's growth and development. Such growth and development will necessarily involve the person's adaptation to, or overcome challenging life circumstances that are associated with mental illness. These preconditions will per definition be determined by individual norms, society, and the family's interpersonal structure as well as cultural values. The psychiatric nurse affects these complex variables in an attempt to establish appropriate form of care-specific model targeting the individual needs. When the patient is unable to express his/her own needs and desire, the psychiatric nurse as a caregiver assumes the role as the patient's spokesperson (Hummelvoll, 2004 p.46-53, my translation). In this broader sense of knowledge, the psychiatric nurse has an obligation to voice the voiceless in the society.

In literature, there is a general consensus that mental health is closely correlated to living conditions and the best preventive health measures with regard to mental health among the immigrant groups is to create good living conditions and equal services that will contribute to participation, inclusion and achievements. People from minority groups often receive less assistance than the general population. Many people from minority backgrounds lack knowledge of how and where to seek help, how to be referred, who issue referral, not to mention, lack of awareness about rights that exists in society. The politicians and the central government must put more pressure on health care services so that they work in a systematic perspective, delivering equal services to all with focus on ethnic minorities and mental health, and not least, cultural sensitivity in health care services. To ensure that all those who need help get the right and necessary help they are entitled to, the overall integration and welfare policy must combat health disparities; care givers must do more to reach out to those who are in need of health care services.

Scores of previous studies suggest that, good economic status is regarded as a buffer against mental health problems. Of the two qualitative questions in the present study, 88% of the sample suggested that SOC and perceived QoL should be understood on contextual grounds of what an individual is capable of in terms of meaningful work, educational achievements, good economical status, social networks, stable family life, good housing, equal treatment and participation and inclusion in the mainstream society, as the most important factors.

A startling report on discrimination in the workplace in Norway, was released by Midtbøen & Rogstad (Midtbøen, 2012), from the Institute for Social Research in Norway. According to the report, job seekers with foreign names have far less opportunity to be invited for interview. Overall, the results from field experiment show that discrimination in the hiring process constitutes a substantial barrier to access to employment for people from ethnic minority backgrounds. Likelihood of being called in for an interview is reduced on average by 25% if the applicant has foreign sounding names compared to identically qualified applicants with a majority background.

According to the Oslo HUBRO-survey, men from minority groups admitted that been discriminated on the labor market is the biggest challenge for immigrants , thus, they regarded it as violation of human rights, while women from minority backgrounds admitted that been discriminated in the housing market is considered as a direct violation on a fundamental human rights.

Discrimination has major consequences because it takes place in arenas that means very much for the individual's living conditions. Health care systems and care givers from all levels (governmental and non-governmental), must stop discrimination of minority groups. Policy makers and health care givers must also stop stigmatization, the myth of categorizing immigrants as homogenous population, stereotypical attitudes and negative attitudes towards employees from ethnic minority groups. People from minority groups should be regarded as citizens with equal rights and as active participants in the society. If Norway is to be transformed to a real multiethnic and multicultural society, the mainstream must stop the paradoxical phenomenon –the migration xenophobia.

Findings from the present study shows that there were no statistically significant differences in the demographics taking into consideration the distribution of average Mean (SD) sum scores SOC and perceived QoL.

5.4 Conclusion

In the light of the aims of the present study, findings revealed that there were no statistically significant differences between the immigrant groups, precisely, Western immigrants versus non-Western immigrants. Clearly, this is an indication that, non-Western immigrants may as

well be a resourceful group, similar to their counterpart, the Western immigrants. Time dimension and use of disease-specific scales should be considered in future studies as this may possibly give a clear picture of prevalence and incidence of mental health problems among the minority groups in Hedmark and Oppland counties in Norway.

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