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Quality of Life (QoL) among Post Myocardial Infarction (MI) Women in Karachi, Pakistan

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Abstract:

Background

Coronary Artery Disease (CAD) has been prevalent amongst women for several decades but it is only now that it is being vigilantly studied and described in their medical literature. Mortality due to cardiovascular disease in Pakistan, in 2002, as estimated by WHO, is 154,338 (World Health Statistics 2008). Aim of the study is to explore the Quality of Life (QoL) among women after myocardial Infarction (MI). with intention that QoL, understanding the QoL factors will guide the health team members to adopt better health plans resulting in effective recovery.

Methods

This quantitative, descriptive study was conducted on 256 post MI women at the Karachi Institute of Heart Disease (KIHD). Data was collected using the WHOQOL-BREF questionnaire (Urdu version), which was composed of 26 questions.

Results

The overall scores in the entire QoL domain revealed to be significantly lower. The mean overall quality of life is (mean 2.23 \pm SD:0.527). Among all four, the social domain showed the highest score (mean \pm SD: 14.62 \pm 1.79), environmental (mean \pm SD: 10.09 \pm 1.14), Physical (mean \pm SD: 10.7768 \pm 1.18).

Conclusion

This study concludes that the findings from the present study can assist Nurses, Physician and family members to gain Knowledge about the attributes affecting QoL among post MI women. The results have important implications on health delivery team in the analysis and development of an appropriate treatment strategy. In addition, they will provide broad vision to the nursing profession that helps in raising the standard and quality of patient care.

Keywords: Quality of life, coronary artery disease, myocardial infarction, WHO-BREF

1. Introduction

1.1. Background

The Coronary artery disease (CAD) is among the leading causes of death for both men and women in the United States, and is on the increase for every year for more than a century (American Heart Association [AHA], 2000). According to the National Institute of Health (NIH), approximately thirteen million people have CAD in the United States and this figure is rising consistently each year (NIH, 2005). According to the World Health Organization (WHO) the (CAD) will take the lives of approximately 3.8 million men and 3.4 million women around the world, on an annual basis (Emslie, 2005). The American Heart Association reports that every minute someone dies of a cardiovascular event (2005). The burden of coronary artery disease (CAD) is increase at a rapid South Asia than in any other region.

During 2002, WHO estimated 154,338 casualties due to (CAD). According to a study by Asghar, Hassan and Hafizullah (2006), identify that the CAD disease burden has increased from 27% to 39% from 1995 to 2004. The (WHO) estimates, of 2003, also reveal that about 16.7 million people around the globe die of CVD every year. This is over 29 % of all deaths worldwide. Kulick, Marks, and Shiel, (2008) pointed out that CAD is the leading cause of death and disability in women after the age of 35 in the United States. In fact, a 50-year-old woman faces 46% risk of developing CAD and a 31% risk of dying from it. According to Jaffer (2007) "People of Indo-Asia origin have highest susceptibility to coronary artery disease in the world, and it is, therefore, not surprising that the(CAD) is now a leading cause of death in the Indo-Pakistan subcontinent" (p.408).

A study by Kulick, Marks, and Shiel (2008) revealed that the (CAD) results from the accumulation of athermanous plaques in the coronary arteries leading to a narrowing of the vessels which, in turn, causes a decrease in blood flow to the heart muscle. Once the vessels are narrowed by the fatty plaques, there is a decrease in blood flow through the coronary arteries, thus a lack of oxygen to the

myocardium. The lack of blood flow and oxygen can cause myocardial ischemia resulting in the symptoms of coronary artery diseases, such as angina, shortness of breath, and pain (NIH, 2005). If the ischemia is significant and prolonged, the myocardial tissue will become necrotic, resulting in a myocardial infarction (NIH, 2005).

According to the National Health Survey of Pakistan (NHSP), mortality due to CHD is on the upsurge (Dodani et al, 2000). Besides mortality, CHD has a great impact on a person's physical status, psycho-social well-being and social relationships. It is the health team members' responsibility to evaluate the quality of life as an integral part of an assessment, for long-term post myocardial Infarction outcomes, in order to assess the suitability of treatment for the Myocardial Infarction patient (Szygula-Jurkiewicz et al., 2005).

The World Health Organization defines (2008) QoL as an individual's perception of his or her position in life, in context of the culture and value system in which they live and in relation to their goals, expectations, standards, and concerns. Among the health sciences, Quality of Life (QoL) is divided into five main categories: physical and material well-being; relations with other people; social activities; personal development; and, recreation (Anderson et al., 1999). QoL encompasses a holistic approach to medicine by including not only the patient's physical status, but mental, emotional, and social status as well (Szygula-Jurkiewicz et al., 2005).

QoL lies on a continuum, extending from optimum health to illness, with perceived benefits of health. The World Health Organization defines QOL as an individual's perception of their position in life in the context of the culture and value system in which they live; and in relation to their goals, expectations, standards, and concerns. Furthermore, such indicators are also used to evaluate treatment in terms of human costs and benefits. In patients with chronic conditions, such as heart disease, the QoL becomes a significant variable in patient care and an important component of clinical decision making. Wingate, (1995) focused in the availability of scanty data, related to women's recovery and quality of life after MI. Most of the accessible data on the subject is retrieved from studies on male after MI, thus creating a niche for the need of exploring multi-dimensional view of QoL in women after MI.

Borzak and Weaver (2000) indicate age as an obvious factor affecting gender differences in coronary artery disease incidences and outcomes. He further reveals that Women with acute ischemic syndromes tend to be five to ten years older than men with such syndromes because the premenopausal state protects against coronary artery disease. Rosengren et al. (2004) further explain that because of loss of hormonal protection after menopause, the proportion of women with MI rises, thus, the epidemiological significance of myocardial infarction is much high as age advances.

One of the descriptive studies that was carried out by Pakistani cardiologist Abid et.al (2003) at Nishtar, Multan City Hospital under the title of acute myocardial infarction, evidenced for a sex-age interaction, described the age according to the National Centre for Health Statistics (2003), women's life expectancy was now 79.8 years. Apparently, women's life expectancy has increased, but their health status and quality of life is in question. A majority of people in Pakistan do not have access to basic health-care, because of inadequate health facilities. As far as women's health is concerned, the status of women in Pakistan is not homogenous because of the interconnection of gender with other forms of exclusion in the society. Dr. Farzana Bari (2009), asserts that there is a considerable diversity in the status of women across the existing classes and regions, and due to the rural / urban divide, uneven socio-economic development and the impact of tribal, feudal, and capitalist-social reformations on women's lives. Furthermore, the low health status of women is the result of women's lower social, economic, and cultural standing in the society. Social and familial controls over women's sexuality, their economic dependence on men, and restrictions on their mobility, determine the differential access of males and females to health services (Tinker.1998, p.5.). All the above-mentioned factors have an immense effect on the health-related quality of life in Pakistani women.

In my limited search, the researcher could not find any concrete study carried out on this issue in the Pakistan context. Thus, a huge gap exists for which a quantitative study, emphasizing on the exploration of QOL in post MI women in Karachi, Pakistan, is needed.

1.2. Significance of the Study

Empirical literature related to MI and its impact on the QoL was specifically found on men. Contrary to this very limited studies have found on women's QoL after MI. There is a major lack of research in exploring QOL in this area. The study underway will be one of its kind in Pakistan, and will substantiate the existing research knowledge exploring the QOL among post MI women. It will also uncover the QoL in Pakistani women in the context of its four domains, which are physical, psychological, social health, and their connection with the environment.

This study may enable Pakistani nurses to understand QoL as evident amongst women with post MI. In addition, sharing of the study outcomes may facilitate health team members help their clients cope better with the ailment and in the designing of a long term holistic health-care plan. It may also enhance insight as to how discharge teaching can be planned for the post MI women of Pakistan.

1.3. Purpose

The aim of this study was to explore the QoL among post MI women in Karachi, Pakistan.

1.4. Study Objectives

The study objective aims to:

- Explore the variation in the (QOL), Physical Health, Psychological Health, and satisfaction from social and environmental relationships of patients after MI.
- Identify the significant reported concerns of women after myocardial infarction.

1.5. Study Question

Information regarding quality of life (QOL) of women with post MI will be assessed based on the following questions:

1. What are the effects in terms of physical, mental, and emotional aspects, on the QOL of women after (MI) as measured by the World health organization Quality of Life-BREF (WHO-BREF) questionnaire?
2. What is the most significant domain of QOL as report by the patients, as measured on WHO QoL-BREF questionnaire?

2. Material and Methods

2.1. Study Design

This is a quantitative, descriptive, study. This study is descriptive in nature because it attempts to accurately portray the characteristics of people and situations and the frequency at which the specific phenomena occur (Polit & Beck, 2004). This research is also explorative. Burns and Grove (2007) state that the purpose of an exploratory study is to investigate a specific concept about which little is known. It emphasizes on the identification of factors related to a phenomenon of significance. Thus, the, study explores facets of the concept of Quality Of life (QOL) and the women being studied with myocardial Infarction (MI) are studied.

2.2. Study Sample

The study population was women whose age was more than or equal to 18 years, who were diagnosed with MI, and were coming to the Outpatient department(OPD) and were admitted to the coronary care unit (CCU) female ward at the Karachi Institute of Heart Disease (KIHD).

2.3. Study Sample Size

Convenience sample of women assuming 18.5% as the expected proportion of women with a poor quality of life among women with post myocardial infarction in Pakistan, 5% as the bond of error, 95% as the confidence interval, the sample size was calculated as 232. With 10% adjustment for missing, non-response, and errors, the final sample size was **256**. The sample size for the prevalence of MI

among women in Pakistan has been estimated by using the formula:
$$n = \frac{(Z \alpha / 2)^2 \hat{p} \hat{q}}{B^2}$$

Where

- n = sample size estimates
- p = expected proportion of poor quality of life in unexposed is 0.185
- q = 1 – p =0.815
- = 5%
- = value of Z at the selected level of significance is 1.96
- B = arbitrary values for bond on error =5%

With 10% inflation for errors, non-response and missing data, the required sample size is 256.

2.4. Study Setting

The Karachi Institute of Heart Diseases (KIHD), is one of the main tertiary care teaching hospitals of Pakistan. It is located in the center of the city of Karachi and started functioning on June 3, 2005. It was established to meet the national need to cope with the increasing demand for the diagnosis, management, and prevention of cardiovascular diseases and also to keep pace with the rapid technological advances in the practice of cardiology through research and development. KIHD is a 370 bed teaching hospitals. It caters to patients from all over Pakistan as well as some from the neighboring countries. The hospital setting caters to patients from all financial classes of Pakistan, thus it presented a true generalizability of the study on the Pakistani population at large.

2.5. Sample Taking Procedure

The principal investigator took permission in writing from the Medical Director, (KIHD) (see Appendix B). A written consent in the Urdu language was given to those participants who met the Inclusion criteria and were willing to participate in the study (see Appendices E&F).

2.6. Inclusion Criteria

The inclusion criteria for participation included women who were:

- Diagnosed with MI.
- ≥ 18 years old female patient.
- Married /unmarried.
- Able to understand/speak Urdu.

2.7. Exclusion Criteria

The inclusion criteria for participation included women who were:

- Women age ≤ 18 years.
- Men.
- Those about to undergo elective Coronary artery bypass grafting (CABG).
- Terminally ill patients.

2.8. Data Collection Tool

The instrument chosen for this study for data collection was the WHOQoL-BREF questionnaire, Urdu version; comprising 26 questions (see Appendix C). This instrument was chosen because it was used extensively in the studies reviewed and has a high reliability and validity in studying quality of life. Permission and access to this tool was gained with approval from the author and those that hold the copyright to the tool. It took 15-20 minutes to answer. The Questionnaire has been translated and validated in Urdu by the department of psychiatry, post Graduate Medical Institute, Lahore, Pakistan. The translation was carried out utilizing the existing standard guidelines by the WHO QoL group. The linguistic, conceptual, and scale equivalence of the Urdu version with the English version has shown that it can be the useful measures of the QoL assessment in Pakistan.

In addition, a simple and concise data sheet (see Appendices G & H) was used to collect relevant demographic and clinical information about the study participants (n=256)

2.9. Data Analysis

Data were entered and analyzed in the Statistical Package for Social Sciences (SPSS) version 19.0. Descriptive statistics have been reported as mean \pm SD and frequency in percentages, for continuous and discrete variables. Responses for the physical, psychological, social, and environmental domains of quality of life have been measured on the Likert scale. The transformed scores of all four domains have been reported as mean \pm SD. In addition, Steps for checking and cleaning data and computing domain scores conducted with the define WHO manual for WHOQoL-BREF, introduction, administration, scoring and generic version of the assessment Field Trial Version, December 1996 (see Appendix I).

2.10. Ethical Consideration

Ethical approval was obtained from Ethical Review Committee Aga Khan University (AKU-ERC) prior to conducting the study (see Appendix A). Request for collecting data was sent to the Karachi Institute of Heart Disease (KIHD) (see Appendix B). The participants were approached to seek their consent for voluntary participation (see Appendices E & F) and were informed that they had the freedom to choose to terminate their participation at any time during the study and that their participation did not involve any potential physical or psychological harm. They were assured that the data collected would not be utilized for any other study. They were also assured by the researcher that confidentiality would be maintained.

3. Results

This chapter covers the study findings. The study findings are organized stepwise to provide a clear understanding of the descriptive and inferential data findings. The socio demographic and clinical characteristics of the study participants will be defined initially and then the study findings on the basis of QoL WHO-BREF 26 items questionnaire and an overall analysis of the four Domains (Physical Domain, Psychological domain, Social Domain and Environmental Domain) score will be discussed. This analysis will be presented under the WHO provided syntax as well as under each domain components computation.

Data were gathered on the basis of a set Inclusion and exclusion criteria. In all 256 female participants from the outpatient department (OPD) of the (KIHD) were approached for an Interview on the WHO-BREF questionnaire (Urdu Version). All the participants who were contacted agreed to participate. They were aware throughout the interview that they had the freedom to withdraw from participating or to answer any further questions. There were no missing data. The following table provides a description of the individuals who participated in the study.

Table 1 describes the socio demographic profile of the study participants. The sample consisted of females with a mean age of 52 years (S.D. ± 10.43). This is to be expected, given the typical age of women suffering from MI. The age range was 34- 97 years. The majority (85.2 %) of the study participants were married. The majority of the participants completed some college studies. Most of the participants lived either with their spouse and children (88.3%) or with their spouse only (5.5%), with the small percentage of the participants (3.5%) living with the family members or other than spouse and children, as well as alone (0.4 %)

Characteristics	Sub-Characteristics	Mean \pm SD or n (%)
		Participants (n= 256)
Gender	Female	256
Age	Mean Age in years	52 (10.432)
	Age Range In years	34-97
Marital Status	Single	4 (1.6)
	Married	218 (85.2)
	Divorced	0
	Widow	34 (13.3)
Education Level	Illiterate	64 (25.0)
	Below matriculation	72 (28.1)
	Matriculation	86 (33.6)
	Intermediate	21 (8.2)
	Graduation	7 (2.7)
	Post-graduation	5 (2.0)
Living status	Others	1 (.4)
	Alone	1 (.4)
	With Spouse	14 (5.5)
	With spouse and Children	226 (88.3)
	With relatives	9 (3.5)
	Joint	6 (2.3)

Table 1: Socio-demographics variables of females diagnosed with Myocardial Infarction (MI)

Table 2 describes the cardio vascular risk factors and co morbidities, Including the Body Mass Index (BMI) of the females in the sample revealed that overweight adults are at an increased risk of developing the coronary artery disease according to the CDC. The BMI and weight status are listed respectively to determine the degree of fatness in an individual. A BMI<18.5 = underweight; 18.5-24.9 = normal weight; 25.0-29.9 = overweight; and >30.0 = obesity. The participants in this study were overweight (BMI = 65.2%), which is a modifiable risk factor for myocardial Infarction (MI), whereas another modifiable factor, smoking, showed that 98.4 % of the women were nonsmokers identifying the use of tobacco products like betel leaf (Pan), or betel nut(Gotka)and Gotka, as prevalent in our culture, the percentage was quite lower (20.3%) and (5.1%) respectively. Similarly, among those uses both the items percentages were (5.5%) which is quite low as compare to the percentage of non-tobacco users.

Table 2 further describes the comorbid characteristics of the participants in the study. The majority of the participants did have some other comorbid conditions that are to likely leads towards the progression and effects of their cardiovascular disease. The main comorbidities that were found in this sample included hypertension (48.4%), Type I (18.8%), II (14.5%) diabetes mellitus, Dyslipidemia (4.7%), Renal Failure (4.7%)and family history (10. 5%).All (100%) of the patients reported at least one co morbidity.

Risk Factors	Mean \pm SD or n (%)
	Participants (n= 256)
BMI	
Normal weight 18<23s Kg	15 (5.9)
Overweight 23- <27	167 (65.2)
Obese 27 Kg or >	74 (28.9)
Current Smoker	
Yes	4 (1.6)
No	252 (98.4)
Tobacco Users	
Non-tobacco users	177 (69.1)
Pan	52 (20.3)
Gutka	13 (5.1)
Both	14 (5.5)
Co-morbidities	
Family History of cardio vascular disease.	27 (10.5)
Hypertension	120 (46.4)
Insulin Dependent Diabetes Mellitus	48 (18.8)
Non-Insulin Dependent Diabetes Mellitus	37 (14.5)
Dyslipidemia	12 (4.7)
Renal failure	12 (4.7)

Table 2: Cardio Vascular Risk Factors and Co-morbidities

Table 3 reveals the cardiac characteristics of females diagnosed with MI. The most significant feature is this that 88.7% participant fall in to the NYHA class II and III 10.2, indicative of Patients with cardiac disease, resulting in slight limitation of physical activity. Ordinary physical activity results in fatigue, palpitation, dyspnea, or angina pain. The majority of the participants identified that their chest pain aggravated both during rest and on the activity state.

Characteristics	Mean \pm SD or n (%) Participants (n= 256)
New York Heart Association (NYHA) Functional Class	
Class I	2(.8)
Class II	227(88.7)
Class III	26(10.2)
Class IV	1 (.4)
Chest pain history	
Once or twice in a month	209(81.6)
Once or twice in a week	40(15.6)
3-4 times in a week	5(2.0)
Daily	2 (.8)
Chest Pain aggravated on	
Activity only	8(3.1)
persist on rest	7(2.7)
Both	241(94.1)

Table 3: Cardiac characteristics of females diagnosed myocardial infarction (MI)

Table 4 defines the overall QOL scores in all four domains that computed on the set syntax by WHO, computing QoL with the help of 26 items in the BREF questionnaire. In this Domain1, (physical) showed mean10.7and showed mean 10.7 SD \pm 1.185, Domain 2(psychological) showed mean of 10.7 SD \pm 1.41, Domain 3 (social) showed mean of 14.6 and SD \pm 1.79 and Domain 4(environmental) showed mean1 of 0.0 and SD \pm 1.14.

Domains	Mean \pm SD or n (%) Participants (n = 256)
DOM1	10.7768 (1.18518)
DOM2	10.7104 (1.41916)
DOM3	14.6198 (1.79505)
DOM4	10.0912 (1.14020)

Table 4: QoL Scores in all Four Domains

Table 5 illustrates the facets incorporated within the four domains and shows scores in Mean and SD \pm . The Physical Domain 1 has six and the Psychological Domain 2 has five components, whereas the social domain 3 and environmental domain 4 have 3 and 8 sub components.

Domains	Sub-Domains	Mean \pm SD	Overall Scores
	Overall Quality of Life	-	2.23 (.527)
	Satisfaction with general health	-	2.29 (.526)
Physical Domain	Dependence on medical	2.63 (.587)	10.7768 (1.18)
	Energy and fatigue	2.79 (.576)	
	Pain and discomfort	2.42 (.615)	
	Mobility	2.32 (0.506)	
	Sleep and rest	2.89 (.874)	
	Work capacity	2.95 (0.655)	
Psychological domain	Body image and appearance	2.57 (0.635)	10.7104 (1.41)
	Negative feelings	2.30 (0.644)	
	Positive feelings	2.41 (0.645)	
	Self-esteem	2.37 (0.612)	
	Concentration	2.99 (0.528)	
Social relationships	Personal relations	3.72 (0.551)	14.6198 (1.79)
	Social support	3.59 (.714)	
	Sexual activity	3.37 (1.142)	
Environmental domain	Financial resources	2.59 (0.546)	10.0912 (1.14)

	Physical safety and security	2.82 (0.470)	
	Access to health care	2.36 (0.635)	
	Home environment	2.46 (0.537)	
	Information	2.46 (0.537)	
	Recreation and leisure	2.31 (0.505)	
	Physical environment	2.86 (0.556)	
	Transport	2.36 (0.678)	

Table 5: QoL Domains, and Single Items in the WHOQoL-BREF

*Scores on single items range from 1 to 5; a higher score implies better health/quality of life,

Table 5 shows responses to each item for the total data set. The mean overall quality of life is poor (mean 2.23 \pm SD:0.527). Among all four, the social domain showed the highest score (mean \pm SD: 14.62 \pm 1.79), indicative of adequate quality while the environmental domain is the lowest (mean \pm SD: 10.09 \pm 1.14) i.e. poor quality. Physical (mean \pm SD: 10.7768 \pm 1.18).and psychological domains (mean \pm SD: 10.7104 \pm 1.41 are almost similar. Detailed analysis showed that their mobility was decreased (mean \pm SD: 2.32 \pm 0.506).

3.1. Missing Data

There was no missing data. The WHO QoL-BREF questionnaire was completed through face to face interviews with the participants. The instrument was self-administered, but in this study direct interviews were selected due to the low literacy level of the participants. In self-administration, questions can be misunderstood and can go undetected by the researcher and thus the response may lead to invalid conclusion. Participants were aware throughout the interview, that they were free to decline to participate or to answer any further questions.

Those participants who asked for further description in order to understand a particular question were provided with the sufficient information, only few of the participants sought classification. For instance, the participants of the study required additional explanation to WHO QoL-BREF questionnaire question # 6, 914, 17, and 26.

4. Discussion

In order to answer the first study question which, address the effect on QOL of women after (MI), in term of physical, mental, and emotional aspect measured using the WHOQoL-BREF questionnaire. The questionnaire comprising 26 questions helped in the assessment of women's QOL post MI. Their satisfaction with the physical, psychological, social and environmental health covered as four domains of the QoL concept.

4.1. Effect on the Physical Aspect

The CAD compromises the health related quality of life widely (Loponen, Luther, Wisbacka, Korpilahti, Laurikka, & Sinotonen et al., 2007). Study findings showed a significantly lower scores in physical, mental, and emotional domains of QoL. Lower scores of the physical domain and its subclasses clearly showed that experiencing an MI limits physical abilities, such as activities of daily living, work capacity, mobility, and energy, and increases pain, discomfort, fatigue, and dependence on medical treatment. As the physical domain mean $10.7 \pm$ SD is 10.77 which is the lowest score compared to the findings of Norekval et al. (2007), who reported the physical domain score as mean \pm SD 56.7 . Similarly, subdivisions such as work capacity sleep and rest mobility, pain and discomfort, energy and discomfort and, lastly, dependence on medical treatment under the physical domain revealed a lower score than Norekval et al. (2007) study results of Physical domain and its subclasses. Moreover, physical functioning when measured by the WHOQoL-BREF questionnaire in the current study, the findings supplemented, as only 0.78% women were fall under NYHA class I and 88.67% women fall under NYHA class II, whereas, NYHA class II describe as: Patients with cardiac disease resulting in slight limitation of physical activity. They are comfortable at rest, ordinary physical activity results in fatigue, palpitation, dyspnea, or angina pain, American Heart Association, AHA, 2011 in their studies. Whereas, remaining women came under NYHA class III and IV respectively. According to the above-mentioned results, the majority of the women faced limitations in physical functioning as NYHA class II. Whereas Stenigart et al. 1991, and caroline, 2006, found post MI physical limitation to the as NYHA class III and IV.

On other hand, sub division under the physical domain, which has been identified by the researcher, hindering activities of daily living (ADL), is the feeling of loss of energy and fatigue after MI. This is also evidenced with the low score i.e. mean of 2.7, when compared with the score identified by the Norekval. et al. (2007) study which was scored means of 3.19 among group of post MI women. In the Pakistani context, where majority women lifestyle is sedentary, as they diagnosed with MI their ADL affect too much. The study findings indicated that women have fear to perform ADL because it might lead to further complications. In addition to that, researcher observed during her clinical experience that post MI women keep themselves isolated and don't performed household works due to the same fear. Furthermore, 59.8 % women responded dissatisfaction in the response of question that how much they are satisfied with the condition of your living place? 11% participants responded satisfaction with the living places and want to resume or perform physical activities after MI. The result of the study is consistent with the study by sultana (2011) in which she indicates unsafe environment leading further risk to health. Besides that, result findings under physical domain also indicate that the physical activity became ineffective due to lack of support groups. Lindsay et al (2000) their study emphasized the importance of the role of support group enhancing physical activities among post MI patients to improve their QoL. Moreover, study conducted by Crane.

(2005) has identified fatigue as One of the most frequently reported barriers to physical activity which supported the present study findings.

Present study also revealed that women after MI also lost their quality of sleep and rest as well and it's been evident with the low score under physical domain of the study. Earlier studies agreed over and indicated that post MI patients suffer from sleep disturbances and the quality of sleep (Fatima., Snigdha., Prachi and Virend.,2010, Norekva, et al. 2007). 90% of the present study participants shared that they are losing quality of sleep after MI. The most pertinent reasons shared by the participant are due to the experiencing of pain or the fear of death while at sleep. Karlson. Brink. (2009) also supported these findings in his study.

4.2. Effect on Mental (Psychological) and Emotional Aspect

Women post MI in this study reported that they experienced sadness, anxiety, and depressed feelings significantly. Anxiety and depression after MI has been reported in extensive research (Lane, Carroll, Ring, Beevers, Li, 2001., Jong. M.J., et al2004., Spijkerman, 2004). Studies on women, however, are limited. Present study's psychological domain results also point toward a possibility that positive and negative emotions exist among post MI women. Lower scores of psychological domains and its sub divisions were assessed by using WHO QoL- BREF questionnaire. Lower scores as identified by the present study's result have strong support to the study findings of, Norekval., et al. (2007) comparative study's result to psychological domain.

These findings could also be attributed to deteriorating physical health, chest pain or restricted Activities of daily living (ADL) due to the MI as deterioration in physical health as well as sleep disturbances thus, affect worse on the psychological health of the patient. Ben-zur et al. (2000) point towards strong association between limited physical activities and provoked distress and depression. During the present study, MI women strongly shared with the researcher, the aspect of the fear of death at any point in time increases anxiety level in them. Patients may show negative psychological reactions such as fear, anxiety, and depression (Ginzburg, 2006; Al-Hassan and Sagr, 2002).study findings revealed lowest score on negative feelings created post MI among women but contrary to it Hassani, Afrasiabifar, khoshknab & Yaqhmaei (2009) reported that participants of their study found one or more positive changes following myocardial infarction depending on what meaning they have attributed to it, such as severe physical diseases show that patients' attempts to cope with the illness may be accompanied with positive changes like more diverted towards religion or enhanced spiritual growth.

In order to define most significant domain of QoL reported by the participants, as measured on World health organization Quality of Life-BREF (WHO-BREF) questionnaire it was revealed that the environment (Domain 4) scored lowest in their mean and \pm SD. Even sub division under these domains rated low, while gathering data through WHOQoL-BREF questionnaire participant significantly express their immense concern to the environmental domain and its sub division (access to health care, recreation and leisure, transport and Physical safety and security). In the response, under environmental domain. 90% of the participants of the study expressed their utmost concern regarding massive violence and terror in the city (Karachi).

One of the study finding is that the frequent riots in the city made their internal and external environment fearful and life threatening. Such fearful environments across the city create great stress and tension on them and as MI patient such mental exertion causes more deterioration of the health affecting overall QoL. In addition, as most of the time the city suffered violence, target killing and strikes this caused them worry all the time regarding their family members' safety and security. Moreover, an uncertain situation in the city resulted in delay in reaching the medical facility due to non-availability of the transport and was a source of great risk to them as well as their family members as been indicated by the result of transportation under environmental domain in which 62.9% participants responded as dissatisfied with the transportation. A study by Norris (2009) reported that political violence left immense traumatic effects on a person's physical and psychological health resulting in symptoms of depression and anxiety.

The above-mentioned concern of the participants is consistent with the findings of the Human right commission report (2012) that 34% of the country's population suffered from some form of mental illness. The ratio is higher in Karachi, as for the last few years ethnic, political and sectarian violence has increased manifolds. In evidence, death toll reported by staff reporter, that At least 39 people have been killed in two days of political and gang violence (DAWN July 8, 2011). Furthermore, most of the time city violence intensified such manner that city get completely paralyzed which been reported (Dawn. July 11,2011) that Violence continued for the fifth day in Karachi and the death toll from the current wave of killings rose to 102, such uncertain conditions affect gross on women with post MI QoL.

4.3. Conclusion

The findings of the study indicated a poor QoL among post MI women Karachi, Pakistan. The QoL was assessed by using the WHOQoL-BREF questionnaire comprising of 26 items (Questions) encompassing four major domains of QoL, i.e. physical (Domain 1), psychological (Domain 2), Social (Domain 3) and environmental (Domain 4). Results from the study showed significant lower scores in the physical, psychological and environmental domain and in the subdivisions under them, except in the social domain which showed a good score as compared to the other domains. The social domain, scores showed significant higher scores because of the strong family network in this part of the world. In our culture the definition of QoL varies from person to person. The perception of patients in our culture does not comprise of four distinct domains, as described theoretically.

The present study also identified a few important concerns that women faced a lot, including safety and security due to the, most often, violent riots in the city (Karachi) that paralyzed the whole city life. Furthermore, physical limitations due to the, feelings of fatigue and dissatisfaction from sleep and rest and psychological components like anxiety, depression, and negative feelings were also highlighted by the study participants. These findings can enhance the awareness and identify appropriate measures that to the health

care team members can take as they provide treatment and suggestions to the patients for optimizing their QoL after MI. The present study emphasized the great need for further researches focusing factors affecting the QoL of women with cardiac diseases and their domain separately, in accordance to our culture.

5. Acknowledgement

In the name of ALLAH, most beneficent and merciful.

I would like to extend my heartiest gratitude to all the following respected members for their valuable contribution, To Dr. Fauziya Ali, Thesis supervisor, To Dr. Ishaq, Executive Director Karachi Institute of Heart Diseases, to those 256 women diagnosed with Myocardial Infarction who agreed to be my study sample and came to the Karachi Institute of Heart Diseases for the treatment. Farhan Qadir Khan my husband, for his love, patience, and understanding I could not have completed my goal.

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Appendix A: Ethical Review Committee Approval Letter



آغا خان یونیورسٹی
THE AGA KHAN UNIVERSITY

August 2, 2011

Ms. Sadia Sherwani
School of Nursing
The Aga Khan University
Karachi

Dear Ms. Sherwani,

Re: 1955-SON-ERC-11. PI - Ms. Sadia Sherwani: Quality of life among post myocardial infarction women Karachi, Pakistan.

Thank you for the response received on July 27, 2011 to the Committee's recommendations regarding the above mentioned study.

The modified documents submitted by you were found satisfactory. The study was given an approval for a period of one year. Any changes in the protocol or extension in the period of study should be notified to the Committee for prior approval.

All informed consents should be retained for future reference. A progress report should be submitted to ERC office after six months.

Thank you.

Yours sincerely,

Dr. S. Q. Nizami
Chairman
Ethical Review Committee

Stadium Road, P. O. Box 3500, Karachi 74800, Pakistan
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Appendix B: Permission Letter for Head of Cardiology Department at Karachi Institute of Heart Disease (KIHD)

Executive Director
Approval from the Medical Director,
Karachi Institute of Heart Diseases,
Karachi, Pakistan

June, 2011
Medical Director,
Karachi Institute of Heart Diseases
Federal, B area, Karachi, Pakistan.

Respected Sir,

I am a student of the Master of Science in Nursing (MScN) Programme, at the Aga Khan University Hospital School of Nursing, Karachi. As part of my MScN curriculum, I have to conduct research study. The title of my thesis is, "Quality of life (QOL) of Post-Myocardial Infarction Women in Karachi".

For this purpose I would like to approach your institution because it's one of the best care giving cardiac facility to the sindh.

The findings of the study will assist in the management of cardiac patients. In addition, it provides focal view to the nursing profession; it would help raise the standard and quality of patient-care at the local and national level. In the process of collecting the data following participants would be approached to participate in the study.