

## **Role of Gender Differences in Self Efficacy and Health Beliefs of Heart Patients**

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The present study was conducted to examine gender differences in self efficacy and health beliefs of cardiac patients. A purposive sample of 100 heart patients with an equal number of men and women was collected from a famous cardiac hospital of Lahore. General self-efficacy (Schwarzer & Jerusalem (1995) and Representations of Health Scale (Shahed, 2011) were the tools for data collection. The findings of the present study showed that health beliefs of men and women heart patients were different from each other reflecting their social and gender roles but there were also some similarities which refer to religious and cultural impact. There was no difference in patients in terms of self efficacy. The study has its significance in terms of the health beliefs the patient population have.

*Keyword.* Gender differences, self-efficacy, health belief model, cardiac patients, gender roles

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### **Role of Gender Differences in Self efficacy and Health Beliefs**

Differences in human beings can be due to many factors and one important differentiation is gender differences. Gender differences can be defined as a general difference in men and women on the basis of biological, social and/or physiological characteristics. Several studies have been conducted to differentiate between men and women on the basis of gender differences (e.g Burton, Hafetz & Henninger, 2007; McElwain, Korabik & Rosin, 2005; Chee, Pino & Smith, 2005). Gender differences are the results of gender role, gender identity, gender role attitude and gender stereotypes etc.

Gender based comparisons have been made in a variety of areas (such as achievement, stress, psychological disorders, psychosomatic disorders etc.). This research enables us to conclude that men and women are significantly different so far as incidence, diagnosis and prognosis of different physical, physiological and psychological ailments are concerned. One important area for research in gender differences is personality and more specifically the health, health beliefs and self efficacy. So we designed this study to evaluate the role of gender differences in health related beliefs and self-efficacy in patient population. Heart patients were selected for this purpose. Before going into details of our study; let us have a look on our main variables.

According to Ormrod (2006) Self efficacy is a tool to measure level of accomplishment in person and his ability to reach

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goals. Several aspects of self efficacy have been studied by psychologists; like mechanism of its development, its dynamics and a person's contribution in it.

Self efficacy influences almost all areas of human enterprise. If one can determine the beliefs of a person about her/his power to impinge on situations, it strongly influences a person's power to face challenges and the choices she/he would make. Especially the behaviours which affect health are influenced by these effects (Luszczynska & Schwarzer, 2005). With reference to current research Clarke and Dodge (1999) definition of self-efficacy elaborates its connection with health beliefs more precisely. They declared that "self-efficacy is the result of personal, behavioural and environmental factors and it is helpful in preventing disease and managing one's own care."

Health is the state of being well physically, mentally and socially and Health Behaviours are the specific attitudes and practices that affect our health either positively or negatively. Many researches indicate a strong relationship in self efficacy and health promoting behaviours. Conner and Norman (as cited in Luszczynska & Schwarzer, 2005) concluded that many behaviours which affect health e.g. smoking, maintaining health through dieting or exercise, dental hygiene, use of seat belt while driving or self examination of breast is dependent on self efficacy.

Beliefs of Self efficacy help determining if the person will initiate the change in health behaviour. If yes, then how much

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effort will he put and how consistent would he be in facing the obstacles and failures. Self efficacy also influences the attitude and strength of goal setting behaviour for maintaining health.

### **Health Behaviour Change**

According to Schwarzer (2008) the role of self efficacy in model of health behaviour change is tri-dimensional. Self efficacy sometimes works as mediator, sometimes a predictor and sometimes as moderator of health behaviour change. The role of self efficacy as predictor is to facilitate the formation of intentions but it also helps in development of action plan and initiation of action as well. When self efficacy works as mediator, it actually prevents reoccurring of unhealthy behaviour. Thirdly, as a moderator, self efficacy is one step ahead of intention; it supports to take action (Gutiérrez-Doña, Lippke, Renner, Kwon & Schwarzer, 2009).

### **Health Belief Model (HBM)**

It was developed by Rosenstock in 1966 for the first time and it is considered to be the best social cognition model for health behaviour change. It also emerged as a psychological model for studying and promoting the uptake of health services along with explaining and predicting the health behaviours. Originally, the model was designed to predict the behavioural response of chronically ill patients towards treatment but now HBM can be used predict more general health behaviours (Abraham & Sheeran, 2005).

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The original HBM model included four constructs based on individual's perception. These are as follows:

**Perceived susceptibility** (an individual's assessment of their risk of getting the condition) It is a common practice that the greater is the perceived risk of getting an illness, the more precautionary measures one takes. Getting vaccinated, brushing teeth and working out all are precautionary measures for staying healthy (Orbell et al., 1995).

**Perceived severity** (an individual's assessment of the seriousness of the condition, and its potential consequences)

The assessment of severity of illness is totally a subjective issue and it depends on a person's perception. For example for one person getting flu is not a big deal but for someone who is already having some underlying medical condition, it can become worst. Perception of the severity of disease varies because of individual differences.

**Perceived barriers** (an individual's assessment of the influences that facilitate or discourage adoption of the promoted behaviour)

It refers to the subjective perception of unseen obstacles which hinder adoption of a new behaviour and persisting to the old ones. It is an important construct because it helps establish that someone will definitely adopt a new behaviour if he/she feel it is beneficial for them (Harrison et al., 1992).

**Perceived benefits** (an individual's assessment of the positive consequences of adopting the behaviour)

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Perceived benefits again are a subjective phenomenon which explains why people engage themselves in health promoting behaviours. For example fruit and vegetable intake, regular health screening etc. people choose the behaviour which they think will be preventive in getting diseases.

Later on, some mediating factors were included in this model which are as follows:

Demographic variables (for example gender, age, occupation and ethnicity etc.), Perceived efficacy (an individual's self-assessment of ability to successfully adopt the desired behaviour), Cues to action refers to the external influences for promoting a desired behaviour for example information provision, reminders by some powerful or significant person or source, personal experiences or persuasive communications, Socio-psychological variables (e.g. coping strategies, personality, social economic status etc.), Health motivation (which makes a person to stick to a given health goal), Perceived control (a measure of level of self-efficacy) and Perceived threat (perception that if a recommended health action is not followed it will lead to greater risk or danger. Jones et al, 1987). These factors play an important role in determining a person's health behaviours. Motivation and execution are important when we talk about health belief model because if we are motivated to adopt pro-health behaviours, execution would be easy.

### **Pakistani Health beliefs and Practices**

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In this context it would be worth mentioning that Pakistan like any other culture has some specific health beliefs, practices and health trends. First of all spicy and curry based food is preferred in Pakistan and usually this food is high in fat and sodium. Along with a non-active life style especially in urban areas this food type increases the risk of hypertension, diabetes, cardiovascular diseases and other lethal illnesses (Carmel et al., 2013). Health services are not up to the mark and are usually divided into public (less than 30% use these services though it's free) and private health services. Health practices include mineral based medicines, spiritual therapies, use of holy water, manual techniques and exercises (alone or may be in combination with regular allopathic treatment (Ghaffar, Kazi, & Salman, 2000). Being the Islamic country patients believe and practice salah (praying), fasting, recitation of Holy Quran and giving alms for physical health benefits (Walton, Akram, & Hossain, 2014). They also believe that disease could be a cause of evil eye, witchcraft and punishment of sins but it helps reduce the burden of sins and alleviate one spiritually. So in Pakistani culture health belief model is also determined by spiritual aspects.

So far as the literature is concerned a lot of researches have been conducted by foreign researchers to establish and describe the relationship between self efficacy and health belief model especially in young and middle aged people. There is also an indication of gender differences in health beliefs and behaviours

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e.g. Courtenay, McCreary and Merighi (2002) indicated gender differences in health beliefs and behaviours.

Grembowski et al. (1993) expanded the horizon and worked with older population to conclude that high self efficacy is negatively correlated with lower health risk in all behaviours and better health.

Later on, Holloway and Watson (2002) examined that behaviour change is important in endorsement of health and prevention of disease. Schwarzer and Schroeder (1997) found strong effect of self efficacy and social support on post surgical recovery of heart patients. Self efficacy proved to be a better predictor than social support.

Self efficacy has been recognized as an important determinant of existing and future health behaviour, and health behaviour change. The empirical evidence supported the link between self efficacy and predictions of health behaviours.

Based on Health Belief Model it was attempted to study the effects of self-efficacy on health behaviours of Pakistani adults in addition with the effect of gender on self efficacy and health behaviours. Review of literature proves a strong relationship in self efficacy and health beliefs. It was expected that health beliefs of male and female heart patients will be different based on their gender roles. Researchers (being women) also expected that female heart patients will have a lower self-efficacy than male patients.



## Method

### Research Design

Cross sectional survey design was used.

### Sample

Quantitative method was used to conduct this research project. By using purposive sampling technique a sample of 100 heart patients was taken with equal ratio of men and women. As we were mainly concerned with gender differences only so demographics were not emphasized. The sample was taken from Punjab Institute of Cardiology (PIC) Lahore. The patients were either in pre-operative or post-operative phase. All the patients were admitted in the hospital at the time of research.

Table 1

#### *Demographical Characteristics of Sample*

	Gender	Education		Marital Status		Nature of Disorder	
		Educated	Uneducated	Married	Single	Pre-operative	Post-operative
Men	50	34	16	42	8	31	19
Women	50	29	21	35	15	28	22

The above table indicates that more men were educated and married than females and most of the participants were in pre-operative phase

### Measure

Representations of Health Scale: was used in this research designed by Shahed (2011) to measure health related behaviours. It comprised 15 questions about health related beliefs and

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behaviours. It is a 5 point Likert type scale ranging from Strongly disagree (1) to Strongly Agree (5). With an Alpha level .78. Composite score for this scale could not be found as each item measures different construct/perception about health behaviour.

To assess self efficacy, General Self Efficacy Scale (GSE) by Schwarzer and Jerusalem (1995) was used which comprised of 10 questions. It is based on 4 point Likert type scale. And total score can range between 10-40. Corncbach alpha for this scale was between .76 and .90. Validity of scale was also established by the authors of scale. The scale was available in both English and Urdu languages.

### **Procedure**

After taking permission from hospital and advice from doctors, patients were approached. Informed consent was taken. They were briefed about the purpose of research and were ensured about the confidentiality. Although many of our patients were educated yet most of the patients liked the researcher to read out the items for them and they responded to those questions verbally. The answers were noted down and data was subjected to further analysis.

### **Analysis**

Perceptions regarding health beliefs were analysed through graphical representation whereas two independent samples t- test was used to explore gender differences in self-esteem.

## **Results**

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The results indicate the perception of men and women about the concept of health. 15 statements regarding what a healthy person is were presented to participants and they rated their choices on 5 point Likert scale ranging from Disagree to strongly agree.

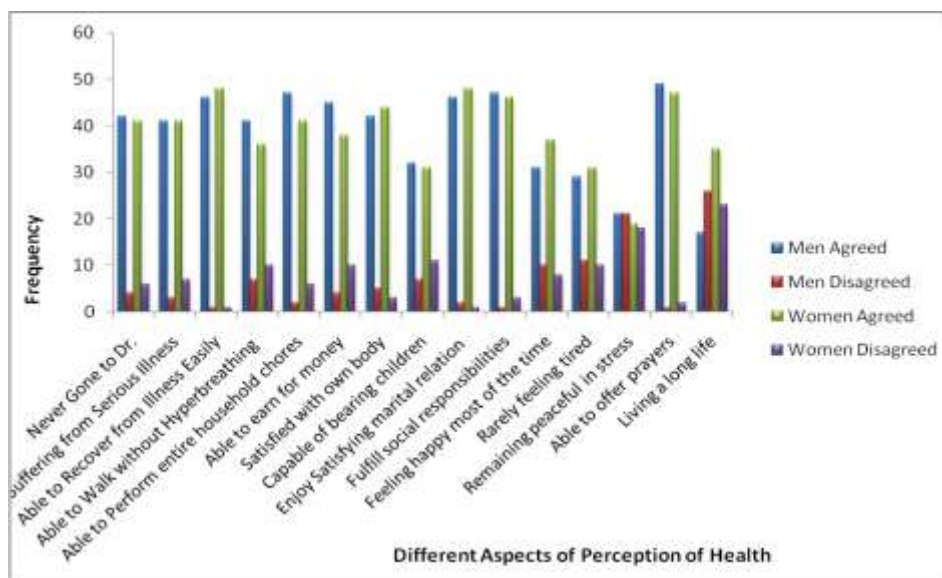


Figure 1: Graphical Representation of Health Perception

The graphical presentation of frequency of responses indicates that men and women had somehow similar health beliefs but at some items there seemed a marked disagreement for example on the statement that remaining calm in stress is an indication of health. Interestingly this item yield equal weightage of agreed and disagreed men. Although women scored slightly low on this item but here again strength of agreement and non-agreement remained almost equal.

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Men outscored women on four health beliefs i.e. Health indicates that

- 1) one is able to walk long distances without hyper breathing; on this item more men agreed than women and more women showed disagreement with statement than men who disagreed.
- 2) able to perform all household chores; men generally agreed on this statement as frequency of disagreement was less
- 3) able to offer prayer; yield general consensus as very few disagreed from statement but men scored higher on this item
- 4) The largest difference seemed in “Able to earn for money”. Most of the men agreed that it’s a sign of health.

So far as perception of women is concerned; women outscored men on following health beliefs

- 1) Able to recover from illness easily; women scored slightly higher than men and it was an agreed upon statement as very few disagreed on it.
- 2) satisfied with one’s own body; here again disagreement appeared and women scored higher
- 3) enjoy satisfying marital relation and rarely feeling tired were items where women scored slightly higher than men.
- 4) The largest difference seemed in “Feeling happy most of the time”. Most of the women considered that they are healthy if they are happy

Living a long life seemed most controversial item. Although women markedly outscored men on this item but a large number of

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women too did not agreed that it's a sign of healthy life. Similarly men too had a split opinion if it's a sign of health or not. Similarly remaining peaceful in stress too yield most split opinions having equal number of agreed and disagreed men and slight difference in women's opinion.

It would be interesting to mention here that both men and women scored almost equal on perceptions "never gone to doctor, not suffering from serious illness and able to bear children". See Figure 1 for graphical presentation of data.

So far as self efficacy in gender is concerned, it was attempted to measure the difference between men and women with the help of two independent samples t-test. The results of *t* test indicated non-significant differences in men and women on self efficacy  $t(99)=1.415$ , ns.

## **Discussion**

The results indicate the gender differences in health behaviours indicating different perspective towards health behaviours of men and women. It appeared that men consider themselves healthy if they are able to walk long distances without hyper breathing, able to earn money, offer prayer and fulfill social responsibilities. It highly resembles their social and gender role in our society where men are supposed to earn, to socialize and to perform outdoor chores. Men in our research believed that they consider themselves healthy if they are able to well perform their social role and the role of the head of family. On the other hand women consider themselves healthy if they are able to enjoy a satisfying married life, able to recover from illness easily, satisfied with one's own body, rarely feeling tired" and above all "Feeling happy most of the time and Living a long life".

So far as enjoying a satisfactory married is concerned McCarthy (2012) declared that usually a peaceful and stable life is considered successful marriage life and it appears that this situation can be obtained by a healthy person. Similarly health and happiness are positively correlated (Veenhoven, 2008). Thus women of our study are right when they think that they are healthy if they are happy.

Moreover it is also apparent from results that health beliefs reflect social and gender specific role. In our society it is expected from a woman to attend her house, to have a satisfying married

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life, not to feel ill and be happy or at least to portray that she is happy. So her health beliefs highlighted the effect of socialization. As the literature emphasized that our health beliefs are highly correlated with our socialization and gender roles (Sears, 1970, Eagly & Wood, 2010). The results proved our first hypothesis that there would be gender differences in health beliefs of men and women and it is also in line with previous research which indicates gender differences in health beliefs (Conner & Norman, 1995; Courtenay, McCreary & Merighi, 2002).

So far as similarities in perception of males and females are concerned; it appeared that in Pakistan people have the schema that they are healthy if they are able to bear children, not suffering from serious illness and never gone to doctor. Absence of illness and serious health condition are also in line with Alidu and Grunfeld (2017) research who highlighted that people consider themselves healthy if there is absence of any illness or absence of some serious illness at least. It might be indicative of social pressures and strain which people face because of being infertile or if anyone has a terminal illness. It may also be reflective of the fact that going to doctors is a stigma (so we see that self-medication and home remedies are on peak in Pakistan (Khan et al., 2014). If we see it in the context of Islam; Muslims are being taught that any suffering (even if it is as trivial as mild temperature) will be beneficial in terms of thinning of our sins and ensuring higher ranks in Jannah.

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So we might conclude that our sample is a bit far from religious teachings.

The next attempt to study the gender differences in self efficacy did not come up with desired results. Our second hypothesis was that women heart patients would have a lower self efficacy than men. Results of t-test were not significant. Thus we could not prove our research hypothesis, which indicates that men and women heart patients do not differ significantly in self efficacy. Research indicates that self efficacy is a strong determinant and predictor of health beliefs and behaviour changes (Strecher, DeVellis, Becker, & Rosenstock, 1998).

Bandura (1977) argued that perceived self-efficacy influences all aspects of behaviour, including the acquisition of new behaviours, inhibition of existing behaviours, and disinhibition of behaviours, so it was expected that it might cause some change in our sample but this could not happen. One reason for this could be that it is usually said that self efficacy does not exist in isolation. It has strong ties with context. Self-efficacy is not some global trait or a personality characteristic which operates independently of contextual factors. This means that an individual's efficacy expectations will vary, greatly depending on the particular task and context which confronts him/her. It is therefore inappropriate to characterize a person as having high or low self-efficacy without reference to the specific behaviour and circumstances with which the efficacy judgment is associated



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(Bandura, 1977). This could be one reason that we took into account a specific behaviour but not the circumstances of individuals, so we could not judge our participants on this aspect.

### **Conclusion**

Culture and society is a major building brick in our thought process. We are a product of what is expected from us and it appeared from our research as well. Our research indicates that the health beliefs of Pakistani men and women heart patients are very much similar to what is expected of them (gender and societal specific role). They feel themselves healthy if they are able to perform the society assigned tasks. Gender differences also appeared because society expects men and women to behave differently so a man feels healthy if he is able to perform out door chores well and a woman considers herself healthy if she is able to well play the role of a wife and a mother. But the research could not detect the noticeable gender differences in self efficacy of Pakistani heart patients. It might be a cause of their illness because research indicates that when a chronic illness is involved, it sometimes seems that we are unable to do anything worthwhile and we therefore label ourselves as “worthless (Starlanyl & Copeland, 2001)

### **Future suggestions and limitations**

The study is limited in its scope because of smaller sample and restricted to patient population only. Future research can focus

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the evaluation of self-efficacy during illness and after successful recovery will be worth examining.

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