

## **FACTORS CAUSING OBESITY: A CASE STUDY OF MARRIED WOMEN IN KINGDOM OF SAUDI ARABIA**

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**ABSTRACT:** *Obesity is a rising trend worldwide; however, in the KSA its increasing rates are alarming particularly for women. Existing research is limited to quantitative analyses which rely on quantifiable data and which don't explore the excessive weight in married women. The proposed qualitative study would highlight the causes behind this rising trend in obesity in females in the KSA and explore the relationship of the different causes to obesity and try to establish the measures which would change this trend.*

**KEYWORDS:** Obesity, KSA, Females

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### **INTRODUCTION**

According to NHS (2012) obesity is being overweight with excessive body fat. The high fat content in the body makes obese and overweight individuals more at risk of life threatening diseases like Diabetes, high blood pressure and heart disease. Obese people are also more prone to depression and arthritis. Today in developed and developing countries the number of people who are either overweight or obese is increasing very rapidly. According to a survey conducted by NHS 26% or over a quarter of the British population is obese. On the other hand in Kingdom of Saudi Arabia over half of the population is considered obese (KACST, 2013).

It is a fact that in KSA more women tend to be obese as compared to men (Al-Saif et al., 2002). According to the WHO report it was found that 44% of the women in Saudi Arabia are considered obese as opposed to 26.4% of Saudi males (WHO, 2010). These figures are significant because they indicate that there a number of factors which have contributed to the high number of obesity amongst the female population of Kingdom of Saudi Arabia. It has also been observed that married women and older women tend to become obese as they become older.

The purpose of this research is to explore obesity in married women in KSA specifically and to explore the causes which have led to high rates of obesity in married women in Saudi Arabia. Obesity is a global issue, and even though the proposed research is not directly related to the UK but its results can be compared in terms of the underlying causes for this condition. To this student this is important because millions of women in KSA are facing life threatening diseases because of this preventable condition. In addition, the limited review of literature, which will be discussed in the next section, will indicate that no research has yet been done on married women in terms of the causes behind their condition.

*Research Question:* what are the major factors which cause obesity in married women in Kingdom of Saudi Arabia?

## **LITERATURE REVIEW**

For a review of existing literature and in-depth secondary research was carried out following are the details of the databases, key words and

### **Search engines and terms**

This literature review was conducted online between 29 November and 31 December 2013, using the following search engines:

- Google Scholar
- Cochrane Library
- EMBASE
- Psych Info
- Science Direct
- Europe PubMed Central
- International Journal of Obesity

The key words and phrases searched for included:

- Saudi women obesity
- Saudi Arabia obesity
- Obesity prevalence in Saudi Arabia
- Lifestyle of Saudi women
- Lifestyle Saudi Arabia
- Saudi Arabia housewife obesity
- Saudi Arabia housewife lifestyle
- Saudi Arabia obesity lifespan
- Obesity age Saudi Arabia

### **Inclusion / Exclusion Criteria**

There were about 50 results meeting the research criteria, after filtering the articles seven articles were considered relevant, and five were ultimately chosen for the review. The criteria used for inclusion:

- Did the articles explore rates of obesity amongst Saudi *women* specifically?
- Was the research conducted on participants currently living in Saudi Arabia?

- Was the research published after 1995?
- Did the research focus on adults rather than on children?
- Does the research explore potential causes of obesity rather than just describing prevalence rates?
- Was the method used appropriate to the question asked?

### **Method of Analysis**

The five articles which were included in this review were analysed by breaking each down into a table including findings, methodology, gaps, limitations, relevance and analysis. The completed table is provided in Appendix A, and was used as the basis for this literature review.

## **DISCUSSION**

### **Obesity in Kingdom of Saudi Arabia**

This section assesses the five research articles selected for literature review. Although all the researches deal with obesity in KSA, however Al-Saif et al., (2002), El Hazmi and Warsy (1997) and Madani (2000) discuss the general population of the country but mention women specifically in their studies. While Al-Maliki, Al-Jaser and Warsy (2003) and Azm and Elbiary (2010) study women specifically. According to Al-Saif et al., (2002), El Hazmi and Warsy (1997) and Madani (2000) there is high prevalence of obesity in KSA.

### **Prevalence of Obesity in Women**

In addition, according to Al-Saif et al., (2002) women had higher incidence of obesity than men who tended to be more overweight than obese. El Hazmi and Warsy (1997) an earlier study also indicates the same fact, but at the same time the researchers also observe that with age BMI tends to increase in both men and women. While Madani (2000) who used secondary sources for his study also indicates similar conclusion. These studies also indicate that eating habits and sedentary lifestyle also contributed to the higher Obesity rates in women. However, these studies all do not consider women specifically and do not further divide them based on their ages or their marital status. In addition, since Saif et al., (2002), El Hazmi and Warsy (1997) are both from national surveys therefore they are more interested in demographic and geographic distribution. Also, all three don't explore the risk factors which cause obesity in great detail.

Maliki, Al-Jaser and Warsy (2003) and Azm and Elbiary (2010) both specifically study women. Maliki et al., (2003) studied the prevalence amongst women of childbearing age and assessed them based on their marital status and age. It was found that obesity was prevalent in women and that married women and older women tended to be more obese and overweight than single and younger women. Azm and Elbiary's (2010) research focuses on the younger age group of women who are nursing students. Even though this study explores the lifestyle, eating habits and exercise levels of the participants, and give insights into their food choices, habits and activity levels, but fails to assess if any of the respondents are married, also the target population is younger age group (18-22 years). Maliki et al., (2003) have divided the targeted populations into different groups but they have just assessed the prevalence of overweight and

obesity in women. On the other hand, Azm and Elbiary (2010) explore the different causes and risk factors responsible for causing obesity and overweight, but since its focus is the younger age group and doesn't distinguish between single and married women therefore it's limited in its scope.

### **Gap and Need for Further Research**

The above discussion indicates that married women have not specifically been studied in terms of rates and prevalence of obesity and overweight. In addition, in the case of this specific group underlying causes and risk factors have not been explored especially related to their lifestyle, eating habits, activity levels. In addition, the intended study will also assess the reasons for prevalence of obesity in married women.

### **Research Methods and Methodology**

Research tends to have different implication, depending on the needs of an inquiry. It is an investigative process which is carried out in a systematic manner and based on the specific research paradigm. It is believed that research should be carried out to explore ideas, experiences, information, theories, values and questions (Amaratunga et al., 2002). Within the empirical research there are two fundamental reasons used by the researches, they are deductive and Inductive reasoning. In the deductive approach researchers and scholars usually test a theory which already exists and to see its applicability to a particular situation (Hyde, 2000). From this certain deduction are made, thus it starts from a general idea and moves towards specific information. On the other hand, induction is about reaching a theory through observations of different phenomena, where generalization is used based on the experiences being explored and interpreted. Thus, research moves from a specific experience to a general idea (Hussey and Hussey, 1997). Over the years academics have debated which type of reasoning is the better. Within these two approaches the positivists support quantitative research based on deductive reasoning, while the interpretivists use inductive reasoning the qualitative approach. Baker (2001) is of the view that the choice of the method adopted is based on how a researcher wants to carry out his research.

### **Qualitative Research**

*Shank* (2002; p. 5) defines qualitative research as “a form of systematic empirical inquiry into meaning”. By systematic the author means that the research is methodological. This approach is interpretivist and naturalistic in its philosophy. Qualitative approach explores the subjects and participants in their natural surroundings and what meaning is associated by people to certain situations and conditions. There is an emphasis on the experiences and reactions of individual and their environment. The research is about observing and asking questions with a socially constructed reality and phenomenon are not explored in terms of their quantitative, strength or frequency. There are several characteristics of this research (Bogdan and Biklen, 1982). The research is carried out in natural setting and the researcher plays an important role. It is descriptive in nature and the reasoning used is inductive. There are no statistical evaluations rather relationships between different variables can be explored. Examples are observations, in-depth interviews and focus groups etc.

This type of research has the flexibility that it allows the researcher to change the focus of research as it progresses. Since the research is qualitative data is not quantifiable. The main

weakness of this research method is that the bias of the researcher is present in the research as he or she is the one who interprets the descriptive data. (Bogdan and Biklen, 1982)

### **Quantitative Research**

According to Aliaga and Gunderson (2000 cited in Muijis, 2010), 'Explaining phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics)'. Thus quantitative research is about collecting numerical information to explain a specific occurrence. This type of research is about hypothesis testing and theory testing in a given situation. It may seem that quantitative research is quite rigid and limited in its scope. This method uses deductive reasoning and the positivist approach the quantitative researchers believe in objectivity, they are of the view that a reality has to be observed and rational individuals who look at the same occurrence will agree on its existence and the features of that phenomenon. The idea is to for the researcher to be neutral and detached, this is the very opposite of the qualitative researcher where the investigator is actively engaged. Quantitative research uses a narrow angle view because the focus is on a few causal factors simultaneously while those factors which are not studied are held constant. The variables studied are dependent variables and independent variables; here the dependent variables are subject to the independent variable. This approach deals with the cause and effect relationship between two or more variables (Muijis, 2010).

This research is useful in data analysis and generalization and precise numerical data is obtained and the bias of the researcher is not present. This research is useful when large groups are being studied and people may find the statistical information more informative. However this type of research is limited in its scope because of its narrow focus and the difference in real-life situations and controlled studies. In addition the results may also be limited.

### **Systematic Review**

Research reviews are usually also called literature review which analyse the result from a small number of researches already carried out. They also take what is written at its face value. A systematic review on the other hand clear and transparent methods are employed. This follows a standard procedure, the review can be cross-checked, it can be reapplied and changes can also be made. User involvement is also there to ensure that the studies are valid and reliable. The aim of systematic review is to find as much information as possible related to the research questions and to use particular methodology to point out what these studies indicate. The information is synthesized so that it can be used by individuals.

Systematic review is important because it allows a methodical analysis of existing literature and provides a basis for further research. In an empirical research it is better to carry out a primary research rather than relying on previous information.

### **Choice of Research Methodology**

Based on the review of literature it is apparent that the research area being explored in this particular study has limited research on it particularly in the context of KSA. Although previous researches are there but they don't target married women specifically, rather they tend to focus on the general population or women as a group. This is the reason a systematic review is not the option for this particular research. Quantitative research is deductive in its approach and limited in its reach. In addition, at this point the factors causing obesity in Saudi married women is unknown as yet, this particular study is therefore exploratory in nature and studying a real

life phenomenon where causes of obesity are to be investigative. It is believed that the inductive reasoning will be effective in understanding the causes of obesity in women. Instead of finding a correlation this will be a descriptive study which will explore the causes for this condition.

## **Research Proposal**

### **Design and Methods**

As mentioned in the earlier section qualitative method is the preferred research methods. The design of the intended research is non-experimental research design. The proposed study will be a descriptive analysis, exploring the causes of obesity in married women in Kingdom of Saudi Arabia. It will use several research questions to find a relationship between the yet unknown causes and obesity. This research will be a cross-sectional case study of married women in KSA.

### **Participant Selection**

The targeted population is married women in KSA. This research will seek out married women between the ages of 20 and 50 from two main cities of KSA. This age group is selected because women in KSA tend to get married relatively early so the age group targeted is from young adults to middle aged women. Women with BMI's more than 28 will be selected. 10 women each from Riyadh and Jeddah will be chosen based on their marital status. Participants will be approached at two women's health clinics in both the cities. Volunteers will be needed who are willing to participate for this research

### **Data collection**

Data collection for the proposed research will be carried out using triangulation of data using two types of instruments for the research. Jick (1979) has pointed out that accuracy of results can be improved significantly by using different ways to collect information on the same topic. Triangulation makes a research more comprehensive giving it a holistic view of the research and makes interpretation of data easier. First a qualitative semi structured questionnaire would be administered followed by ace-to face interviews. The participants will be invited to the clinic where they will be weighed and asked to fill out the questionnaires and answer to some open-ended interview questions.

### **Data Analysis**

In qualitative data analysis the focus is on meaning. It is more about a more detailed data on a limited number of participants. The study would be in-depth and in detailed without any predetermined categories (Schutt, 2011). The researcher is also an instrument, and sensitivity to context is important. Five steps will be carried out for the data analysis process (Schutt, 2011):

- Data documentation
- Organization of data into ideas and concepts
- Connection of data to show the relationship
- Corroboration of data by assessing alternate explanations
- Reporting of findings

## **Ethical Issues**

For a research to be valid and reliable it has to be ethical. The proposed research will take necessary steps to ensure that there are no ethical issues would remove any possibilities that may question the ethical questions about the proposed research. The interviews and the survey will be carried out with the full cooperation and consent of the participants. They will be given prior notice. Personal information including name will remain confidential. And only the information which is voluntarily given will be used by this student.

## **Research Governance**

Since this research is related to health conditions of married women in KSA, research governance framework applies to it. To safeguard the interests of the participants and to ensure ethical standards and procedures an undertaking will be taken by this researcher that she will apply the questionnaires and carry out interviews keeping in mind strict confidentiality of the participants. In addition no step will be taken which may potentially harm them either physically or emotionally.

## **Limitations**

The main limitations of the intended research are:

- Inexperience of the student
- Difference in language, as all the interviews and survey would be carried out in Arabic
- Time constraints
- Financial constraints
- Limited scope of the research because of the inexperience, time and financial constraints.

## **CONCLUSION**

A qualitative approach allows the student to understand the attitude of women to their condition and variables, like activity levels, lifestyle choices and eating habits amongst other things which may be responsible for their high levels of weight. The interaction with the women will also allow the researcher to interpret their responses and to understand their emotional and psychological responses to their condition.

Even though the proposed research is limited in its scope but it will shed light on a group of women who are at a higher risk of obesity in KSA. The findings will also allow health practitioners and nutritionists to understand the issues causing obesity better.

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