Knowledge, Attitude and Practices Regarding Malnutrition Among Rural Women in Punjab, Pakistan

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Abstract

Malnutrition deteriorates the physical condition of mental health and, the immune system. It also stops the growth of the whole body, slows down thinking, prevents proper development of the fetus and causes many infectious diseases. Present study was conducted in the Institute of Agriculture Extension and Rural Development during 2019 at District Rahim Yar Khan. The main purpose of the study was to identify the knowledge, attitude and practices regarding malnutrition among rural women. Rural women in the developing countries are affected due to unregulated fertility leading to health problems to them and their babies. One Tehsil (Sadiqabad) two Union Councils and four villages (two villages from each UC) were selected through multistage sampling from each selected village, 41 women coming from marginalized families were selected randomly. Malnutrition was explained by the four variables related to the demographic background such as age, education, size of landholding and income. More educated and high-income respondents were found to have more knowledge about proper nutrients. Highly educated women were more conscious about their health status as compared to uneducated. The young generation was found to be using more proper nutrients as compared to elderly women; therefore, they have less chance of suffering from malnutrition. The attitude of the respondents regarding malnutrition was identified with different responses. It indicated that a vast majority 81.7% of respondents believed lack of education is the main reason for malnutrition and 74.4% of the respondents believed lack of resources is the second most important cause of malnutrition. It was concluded that through non-formal education facilities such as extension services rural women should be mobilized and educated regarding malnutrition and to cope with the effects of malnutrition.

Keywords: Malnutrition; women; knowledge; attitude; practices; Punjab.

Introduction

On average, women represent 43% of the agricultural labor force in Pakistan. Women and infants are vulnerable to food insecurity, in part because they often deny basic rights such as the right to own property, the pursuit of decent work, education and health facilities (FAO, 2013). Rural women contribute to different agricultural practices but their food is not secure. The changing climatic conditions and economic statuses of families are affecting them to a greater extent. Women are most threatened by food insecurity in developing countries. A nutritional deficiency that leads to malnutrition does not let them reach their potential levels (Mehboob et al., 2016).

Malnutrition is a health condition that is due to the lack or insufficiency of essential nutrients leading to different diseases. Malnutrition is a serious threat to developing countries where the population is large; these pose a threat to universal public health (WHO, 2018). It is showed that almost 45% of children under the age of five mainly from low and middle-income countries suffer from malnutrition (WHO, 2018). It is also revealed that the burden of malnutrition in the world has serious, long-lasting consequences for the economy, society, and health for individuals and their families, communities, and countries (WHO, 2018). The nutritional status has a significant impact on the health of mothers and their children. It increases the sensitivity of women to illness and the slow recovery of illnesses and upsurges the risk of pregnancy mortality (Black et al., 2009).

Malnutrition is a heavy burden for the mother and their child in Pakistan. Every year, 177,000 infants die before their fifth birthday. Each year, more than 90 million cases of diarrhea and respiratory tract infections in infants are due to poor breastfeeding.
and zinc deficiency. Besides, more than two-thirds of Pakistan’s infants suffer from malnutrition such as anemia and iodine deficiency. Mental and physical deficits lead to lower academic achievement and lower adult productivity (WFP, 2017). Malnourished women mostly give birth to malnourished babies, which can lead to poor cognitive development, decreased height and a higher risk of morbidity and mortality of them and their infants. It also prevents the productivity of women and society as a whole (Victora et al., 2008). Malnutrition affects mental health, physical health, thinking, immune system and prevents fetal development among rural women and their infants. It has become a serious disease on a global scale, has spread from person to community, and then at the national and international levels (Inayat, 2008).

It reduces the person’s skills and finances and influenced national growth, while most adults suffer from malnutrition, which has already emerged from adulthood and can recover through treatment. Almost 45% of infants worldwide suffer from infant mortality and approximately 2.2 million children die each year by degrading and limiting uterine growth. Malnutrition also leads to the death of 1 million infants each year due to lack of vitamin A or zinc deficiency that affects health (WHO, 2013).

Every year, more than 200 million babies do not reach the maximum possible growth and cognitive potential of everyday life due to deficient nutrients (Walker et al., 2011). The nutritional status of women can also be influenced by nutrient intake and environmental factors. A mother’s mental health plays an important role in the health care of infants. Mental psychiatric depression leads to a risk factor that reduces the development of their infants (Surkan et al., 2011). According to the World Hunger Index, India is ranked 20th among the top countries with a serious threat of hunger, while Pakistan and Afghanistan are under the South Asian countries at 29.0 WHI (Global Hunger Index, 2015).

Causes of malnutrition

Environmental effect: It is one of the causes of malnutrition, which is directly targeted at nutrients such as lack of micronutrients in the environment, pollution, climate change, lacking resources, biodegradation, and dense population in the environment. All these issues combined with low consumption and inadequate food increases the risk of malnutrition (Johns and Eyzaguirre, 2000).

Poverty: A major cause of malnutrition is low income or poverty. Low socioeconomic status makes people more vulnerable to food insecurity, as buying power is a key factor in the food supply. Rural women who cannot consume nutritious food because of poverty are most likely associated with inadequate nutrition, resulting in malnutrition-related diseases. Serious malnutrition can lead to many consequences associated with the disease, while hospitalization, mortality and disability outcomes increase the cost of health care. Most of the income is spent on food in low-income households. In such cases, if a family member gets sick then the minimum curative expenses can reduce the money to be used for food purchase and this ultimately puts the food security at risk. Several adults from low-income countries are living in conditions where a smaller sickness can cost them food insecurity: health care costs are high and still rising. Malnutrition is a major cause of illness and disease and contributes to increased health expenditure.

The consequence of malnutrition due to poverty

The mutually reinforcing factors influence human well-being from cultural to economic and political perspectives (Bradshaw, 2006). For example, in the first two years of the lifetime, the health effects can irreversibly endanger adult health if the child has malnutrition or poor fetal development (Victora et al., 2008). The period between births is two years and is called the “window of opportunity” for dietary interventions. This crisis, when an improved diet can help prevent permanent damage. Malnutrition in children has been associated with slower aging, the lowest grade, the lowest income for adults, and a higher chance of giving birth to a degraded child. Malnutrition affects cognitive development and mental performance and contributes to poor educational achievement. Diet-related health problems can help reduce school time and school attendance (Black et al., 2008).

Lack of education among rural women is one of the major factors contributing to the development of the “cycle of poverty” because it results in a limited income. People do manual labor to earn livelihood in low-income countries. Low muscle weight and tiredness can result in the poor quality of work and decreased productivity. Low levels of iron and haemoglobin in women seen as an obstacle to economic growth as it impedes the work of women. Iron deficiency in some countries leads to projected national GDP losses up to 2% (Micronutrient Initiative, 2004).

Symptoms of malnutrition

Malnutrition reduces fat, respiratory failure, high depression, fertility problems, longer healing time, long time for recovery, lack of white blood cells, weekend immune system, increased risk of infection, reduc
muscle mass, increased fertility problems, dryness of skin, pale skin and liver failure (Nordqvist, 2016).

Factors of malnutrition
The low socio-economic status of rural women is due to the poor state of food in developing countries, while people enjoy good health because of their high socioeconomic status in developed countries. Protein Energy Malnutrition among rural women is the major cause of anemia in Pakistan. Rural women and their children suffer from malnutrition if they do not receive financial support compared to economically strong families (Gulati, 2012).

Diagnostic and treatment
There are different nutritious tests and assessment tools to diagnose the risk of malnutrition. Ferguson et al. (1994) indicated that nutrition screening tool is used to identify patients at high risk of malnutrition. Stratton et al. (2004) suggested that the global malnutrition-screening tool is used for detecting adult obesity and malnutrition among women and their infants. Kondrup et al. (2003) also added that the nutritional risk test is applied to identify malnutrition among patients. Guigoz (2006) also concluded that the mini nutritional assessment test is used for the nutritional risk of the elderly. Kruizenga et al. (2005) postulated that the SNAQ test is used for the identification of malnourished women and their infants without the BMI calculation. Subjective Overall Assessment is another tool used to evaluate malnourished patients (Detsky et al., 1987).

MATERIALS AND METHODS
The main objective of the research was to analyze the knowledge, attitude, and practices regarding malnutrition among rural women in Punjab. District Rahim Yar Khan was taken randomly as the universe of the study from the province of Punjab. Tehsil Sadiqabad was selected randomly from District Rahim Yar Khan. Out of twenty-nine rural Union Councils (UCs) of Tehsil Sadiqabad, two UCs and two villages were selected randomly from each UC. A list of marginalized rural women (those women having less accessibility to diet) in each selected village was prepared and necessary information regarding rural women’s income, farm size, household income, family size, and education were collected. This list of rural women served as a sampling frame for the four-stage sampling design.

First Stage: a sample size of 164 respondents (rural women) was selected through a multistage sampling technique. However, qualitative and quantitative observations were undertaken. In quantitative analysis, the respondents were interviewed regarding information about the income and food consumed daily.

Second Stage: Observation and group discussion with the key informant proved an excellent way of getting information about the various diseases. Rural women were brought under observation and they checked for physical appearance i.e. weight, height, nail color, skin color, eye color was checked with the help of nutritionists who graduated from the University of Agriculture Faisalabad.

Third Stage: Calculated the daily calories consumed by rural women/day as per their body requirements. Data were analyzed using the calorie calculator (www.yazio.com/en/calorie-calculator).

Fourth Stage: Measured the body mass index of rural women using the software to compute BMI. In the last, collected data were analyzed through the Statistical Package for Social Sciences (SPSS) Steel et al. (1997).

RESULTS AND DISCUSSION
Fig. 1 depicts that most of (62.2%) the respondents were illiterate and due to that, this narrow down their opportunities for gainful occupation, they also do not have proper information regarding measures necessary to tackle malnutrition. Fig. 2 showed that the majority of the respondents (68.9%) had income satisfaction for their social status was very low. This leads to a lack of control over food insecurity and food aid transfers. The above findings are consistent with the fact that low-income leads to depression or food insecurity use retinal child management methods and unfavorable parenting practices that may affect infants’ weight (Surkan et al., 2011). These results concur with a short income level, extreme poverty, poor nutritional diversity and lack of maternal education and are among the top five risk factors for child malnutrition in Pakistan. Malnutrition among Pakistani infants is directly related to maternal illiteracy, low family income and family size.

Fig. 3 relealed that majority of respondents are small land holders having up to five acres where as Fig. 4 indicated that most of the respondents (31.7%) having income Rs. 4000 - 6500 per month.
R-Square value in the model summary is 0.707 in Table 1. This shows that the 70% knowledge level of the respondents regarding malnutrition was explained by the four variables related to the demographic background such as age, education, size of landholding and income in the model. Education was found to have a positive association with the level of knowledge of malnutrition. This signifies that educated respondents were having more knowledge about proper nutrients. Therefore, they were more conscious of their health status as compared to uneducated women. The coefficient value in the above table is statistically significant according to the findings of the research results. To judge the significance of the model F-test was applied.

**Impact of education**

The coefficient (Cof.) value is 0.577 which is significant positively at 1% level of significance. It indicates that educated women were more aware of malnutrition as compared to uneducated women. However, the findings from this study are in line with (Bradshaw 2006, WFP, 2017) the main reason for malnutrition among rural women is lack of education about proper nutrients that lead to iron deficiency, reduced muscle mass and fatigue which ultimately result in poor work performance and low productivity. Kanjilal (2010) also confided that weakness and fatigue are common signs of malnutrition especially in women and children due to a lack of awareness about proper nutrients in their diet. In Fig. 5 showed that the attitude of the respondents regarding malnutrition was identified with different responses. It indicates that a vast majority 81.7% of respondents believed that lack of education is the main reason for malnutrition and 74.4% of the respondents believed lack of resources is the second most important reason for malnutrition. Similarly, lack of awareness, gender discrimination, quality and quantity of food and ignorance also play an important role in malnutrition with percentage 65.5%, 63.4%, 61%, and 57.9% respectively. Sarfraz (2013) concluded that cultural and social factors in most of the countries had a very great impact people's attitude towards feeding
Malnutrition among rural women in Punjab

Table 2. Relation between demographic characteristics of the respondents and their utilization of proper nutrition

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>T - value</th>
<th>P - value</th>
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<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.642</td>
<td>-0.624</td>
<td>12.893</td>
<td>0.000</td>
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<tr>
<td>Education</td>
<td>0.267</td>
<td>0.253</td>
<td>2.631</td>
<td>0.009</td>
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<tr>
<td>Income</td>
<td>0.477</td>
<td>0.582</td>
<td>5.285</td>
<td>0.000</td>
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<tr>
<td>Size of land holding</td>
<td>0.140</td>
<td>0.186</td>
<td>2.117</td>
<td>0.036</td>
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a. Dependent Variable: Practice, R² = .592, F - value = 57.65, P - value = .000*

practices and food preferences. It also concluded that 26.1% of people facing malnutrition were due to ignorance and 29.2% of the respondents pointed out a lack of resources as the reason behind malnutrition. Micronutrient Initiative (2004) also concur that lack of education is a factor contributing to the development of the “cycle of poverty” as it results in limited income. Goulding et al. (2014) also indicated that short income levels, extreme poverty, poor nutritional diversity and lack of maternal education, were among the top five risk factors for child malnutrition in Pakistan.

R-Square value in the model summary is 0.592 in Table 2. It is indicating that the 59 % change in utilization of proper nutrition was explained by the four variables related to demographic background characteristics such as the size of landholding, education age and residential status in the model. Age is found to be negatively associated with the practices of nutrient utilization by respondents in their daily lives. The coefficient value of age is -0.642 which is significant at a 1 % level of significance. It is indicated that the young generation was found to be using more proper nutrients as compared to elderly women. Therefore, they had less chance of suffering from malnutrition. Whereas income associated with the nutrients utilization was found to be positive among respondents. It means that respondents with high-income levels are more inclined to utilize proper nutrients in their diet as compared to fewer income categories of respondents.

CONCLUSION

In Pakistan, women are mostly illiterate because they have no access to education, traditional cultural codes of conduct and early-marriages. Malnourished women have a significant impact on children’s health. Malnutrition affects mother and their infant’s growth as both have a positive relationship among them and several factors, such as lack of knowledge of proper nutrition, lack of awareness of malnutrition, low income, cultural and socio-economic factors. Lack of education, awareness and resources are the most common causes of malnutrition and are particularly problematic in the research area. Deficiency of adequate nutrients affects not only women but also their infants as it reduces their intelligence level. So there is need to create awareness regarding the nutritional status of women. The nutritional status of women and their infants is particularly important because the negative effects of malnutrition transmit to the future generation.

REFERENCES


## CONTRIBUTION OF AUTHORS

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Author’s name</th>
<th>Contribution</th>
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<tbody>
<tr>
<td>1.</td>
<td>Hafiz Ali Raza</td>
<td>Conducted research and prepared write-up</td>
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<td>8.</td>
<td>Adeela Manzor</td>
<td>Helped in paper setting</td>
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