Factors Related to Zimbabwe Women’s Educational Needs in Agriculture

Anna E. Mudukuti, Assistant Professor
Zayed University
College of Family Science
P. O. Box 4783
Abu Dhabi
UAE
mudu_925@yahoo.com

Larry Miller, Professor
Department of Human and Community Resource Development
The Ohio State University
204 Agricultural Administration Building
2120 Fyffe Road
Columbus, Ohio 43210-1067
miller.103@osu.edu

Abstract
The purpose of this study was to identify the perceived educational needs and perceived barriers to Extension participation of rural women in Shurugwi District, Zimbabwe. Data were collected from 377 rural women using face-to-face interviews. Perceived educational needs were assessed using the Borich needs assessment model. Analysis of data used a Statistical Package for Social Sciences (SPSS). Findings revealed that rural women’s highest educational needs were in nutrition, access to land, and credit. A majority of the women in this study did not own land as individuals. Therefore, women continue to have poor control over a range of resources. Seven items in the area of nutrition and six items in the area of access to land and credit were among the top 16 ranked very high educational needs. The findings indicated that these two areas are the major educational priority for respondents. Educational courses should be planned that meet the identified needs of the rural women. Findings of this study can help AGRITEX in placing its priorities on the items that were ranked high to meet the needs of rural women, attract a wider audience, and lead to the success of Extension programs in Zimbabwe. Outstanding barriers to Extension participation were transportation, lack of information, and time constraints. Perceived educational needs scores and the selected demographic characteristic were independent of one another. The selected demographic characteristics of the participants failed to predict the needs of rural women, giving the possibility of drawing a conclusion that in principle Shurugwi rural women were similar.
Introduction

Although women are the main actors in feeding the world, they often have little or no access to land, credit, education and technology. Little attention has been paid to alleviating women's problems, particularly those in rural areas. Due to gender blindness that still prevails, agricultural policies, on the whole, do not address the needs of women farmers adequately (FAO, 1998). A total of 40% households in communal areas of Zimbabwe are female headed, as men leave their homes in search of jobs in urban areas (Zwart, 1990). Hence, the role of women in agriculture has tremendously increased. This new trend has been called the "feminization of agriculture" and is most emphasized in Sub-Saharan Africa (World Bank, 1996). Extension educators are responsible for helping clients accurately identifying their educational needs. This is an important step in planning, developing and implementing programs. Programs are most often successful when they focus on clearly defined needs of the target group. According to Boldt (1987), audience targeting is a process of developing and delivering programs designed to meet the needs of specific segments of the population. Therefore, the accuracy with which needs are identified for educational input is a crucial step toward meeting Extension's objectives.

Purpose and Objectives

This study was designed to identify the perceived agricultural educational needs and barriers to extension participation of rural women in Shurugwi District, Zimbabwe. For this study, five objectives were developed to:

- describe rural women in Shurugwi District, Zimbabwe, according to selected characteristics (age, marital status, level of education, land ownership, and family size),
- determine the perceived educational needs of rural women,
- determine perceived barriers to Extension participation by rural women, and
- determine the relationship between selected demographic characteristics of rural women and their perceived educational needs and barriers to Extension participation.

Methodology

The target population for this study was rural women in Shurugwi District, Zimbabwe. Descriptive correlational research design was used for this study. A sample of 377 rural women was conveniently selected from five randomly selected wards in Shurugwi District. The researcher developed the instrument and translated to local Zimbabwe language (Shona). The instrument was field tested for face validity and clarity with 15 randomly selected Zimbabwean rural women of similar characteristics of those in the study. A panel of experts and a pilot test established validity and reliability of the instrument prior to implementation. A Cronbach’s alpha was used to establish the internal consistency reliability of the final instrument on educational needs and coefficients ranged from .74 to .94. Internal consistency reliability of the final instrument on 14 barriers to Extension participation was established using a Cronbach’s alpha and the coefficient was .91. Face-to-face interviews were conducted in the local language (Shona) to gather data. Perceived educational needs, the dependent variable, were assessed using the Borich needs assessment model. The model determines a need score by subtracting the perceived knowledge score from the perceived importance score and multiple the result by the average perceived importance score.
Descriptive and correlational statistics were used to analyze and summarize data. Missing values were handled by using mean substitution (Travers, 1969).

Findings

Demographic Characteristics

The characteristics of the rural women in this study are summarized in Tables 1 and 2. Table 1 presents the means and standard deviations for the demographic characteristics that were measured using ratio scales. The mean age of rural women in this study was 44 years. The youngest respondent was 19 years of age and the oldest was 74 of age years. A majority of respondents had completed between 1– 7 years of schooling and almost one- quarter never attended school. A majority of households (58%) in this study had 6-10 members, and 9% had more than 11 members. Table 2 presents the frequency and percentages of the background characteristics of the respondents that were measured using nominal scales. Data revealed that majority of the participants (68%) in this study were married and 17% were widows. In respect of land ownership, 42% of the participants jointly owned land with their husband, 25% owned land separately, and 26% did not own land. Most of the respondents (74%) in this study could read and write and 25% could not.

Perceived Agricultural Educational Needs

The perceived educational needs were calculated through the use of the Borich (1980) model. Educational need scores ranged from a mean of 1.65 to a mean of 5.52. Using the Borich’s model (1980) a higher mean indicates a greater educational need. Overall the highest educational need was controlling of livestock diseases. Seven among the top 16 highest educational needs were related to nutrition, and six to access to land and credit. The least important educational needs were related to crop production. The following six areas were reported as the highest educational needs in crop production: 1) how to maintain regular records of crop spraying, 2) information about new agricultural technologies, 3) how to maintain safety measures when spraying crops, 4) how to spray crops, 5) identifying insects that affect crops, and 6) control of crop diseases and insects. Five items in crop production were reported as the lowest needs: 1) preparation of land for planting, 2) selection of suitable crop varieties, 3) how to plant crops, 4) how to identify weeds that affect crops, and 5) how to grow vegetables.

Analyzing the knowledge in crop production, rural women had high knowledge in how to plant crops, how to prepare land for planting and how to identify weeds that affect crops. Rural women reported little knowledge in how to spray crops, and how to keep records of crop spraying. Analyzing the level of importance in crop production, rural women perceived higher levels on how to determine suitable planting dates, how to plant crops, how to prevent soil erosion and how to select suitable storage methods for harvested crops. Lower levels of importance were reported in the following areas: how to spray crops, controlling of crop diseases, and how to keep records on crop spraying. Five highest educational needs reported by rural women in the area of livestock production were: 1) how to control livestock diseases, 2) how to determine when animals are ready for sale, 3) how to control livestock pests, 4) how to feed animals, and 5) how to raise animals. The two lowest educational needs reported by participants in the area of livestock production were 1) how to select appropriate breed, and 2) what profitable animals to keep. Rural women reported having more knowledge in livestock production in these two area: 1) how to select of appropriate breed, 2) what
profitable animals to keep; and little knowledge in 1) how to control diseases and 2) how to feed animals. Analyzing the level of importance in livestock production, rural women placed high levels in 1) pests control, and 2) what profitable animals to keep. However, they placed low levels of importance for 1) how to feed the animals, and 2) how to control diseases.

Analysis of knowledge possessed in nutrition by rural women showed that they perceived more knowledge on 1) information on nutritional needs of household members, and 2) understanding of life stage nutrition. The participants reported little knowledge about 1) special dietary needs, and 2) how healthy food choices affect life. Respondents placed high level of importance on 1) information on nutritional needs of household members, and 2) how to preserve food. They placed a low level of importance on 1) how healthy food choices affect life, and 2) how to budget food. Rural women reported little knowledge on 1) information on marketing segments, and 2) book keeping methods. Data indicated that respondents placed high levels of importance on 1) how to sell livestock, and 2) how to sell crops, and lower levels on 1) information on marketing segments, and 2) how to determine prices. The respondents reported five highest educational needs in the area of resource management as: 1) how to improve household safety, 2) how to integrate agricultural activities, household work and personal life, 3) how to start home based income generating activities, 4) how to improvise resources, and 5) how to use resources effectively. Management of family finances was reported as the lowest educational need in the area of resource management.

Perceived Barriers to Extension Participation by Rural Women

The third objective of the study was to determine the perceived barriers to Extension participation by rural women. Barriers to extension participation scores ranged from a mean of 1.79 to a mean of 2.66. The most highest barriers were: 1) lack of transportation, 2) lack of information about Extension activities, 3) time constraint, 4) permission by husband, and lack of access to credit.

| Table 1 |
| DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS ( N = 377) |
| Characteristics       | M    | SD    |
| Age                  | 44.33 | 11.91 |
| Years of Schooling   | 5.80  | 3.80  |
| Household Size       | 6.85  | 2.90  |
| Number of Dependents | 1.99  | 1.97  |
Table 2
BACKGROUND CHARACTERISTICS OF THE RESPONDENTS (N = 377)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>259</td>
<td>68.7</td>
</tr>
<tr>
<td>Divorced</td>
<td>29</td>
<td>7.7</td>
</tr>
<tr>
<td>Separated</td>
<td>17</td>
<td>4.5</td>
</tr>
<tr>
<td>Single</td>
<td>8</td>
<td>2.1</td>
</tr>
<tr>
<td>Widow</td>
<td>64</td>
<td>17.0</td>
</tr>
<tr>
<td>Land Ownership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wife</td>
<td>95</td>
<td>25.2</td>
</tr>
<tr>
<td>Husband</td>
<td>98</td>
<td>26.0</td>
</tr>
<tr>
<td>Jointly</td>
<td>159</td>
<td>42.2</td>
</tr>
<tr>
<td>Other</td>
<td>25</td>
<td>6.6</td>
</tr>
<tr>
<td>Ability to read and write</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>280</td>
<td>74.3</td>
</tr>
<tr>
<td>No</td>
<td>97</td>
<td>25.7</td>
</tr>
</tbody>
</table>

Demographic Characteristics and Agricultural Educational Needs

An overall educational need score was computed for each of the six areas of domain and an overall mean score of each of 14 barriers was computed. These mean scores were treated as interval data. Correlations coefficients were calculated among the mean scores of the calculated needs, the barriers and the selected demographic characteristics. A low association (.10) existed among crop production and years in school. Negligible associations existed among livestock production and age, years in school and resource management and marketing. The correlation among nutrition knowledge and age was negligible. Crop production, marketing, resource management and access to land and credit, had negative association with age. Negative associations existed among years in school and livestock production, nutrition knowledge and access to land and credit. All the barriers were negatively associated with age except for one barrier (women’s inability to read and write) with a negligible association of .06. The following barriers had low associations with number of years in school: 1) no access to credit (.14) and 2) Extension agents do not often organize training programs for rural women (.15). Two of the barriers (bad roads and women’s inability to write and read) had negative association with years of schooling and the rest had negligible associations ranging from .02 to .09. Three selected independent variables (marital status married, land ownership other, and barriers) explained approximately 9% of the variance in educational needs of Shurugwi rural women were statistically significant.

Conclusions and Implications

The following conclusions and implications were drawn from the research findings and are applicable only to the participants of the study. From the analysis of the findings three majors conclusions are drawn: 1) rural women’s highest educational needs are in
livestock production, nutrition and access to land and credit, 2) the perceived educational needs scores and the selected demographic characteristic of the rural women are independent of one another, and 3) rural women’s outstanding barriers to Extension participation were 1) transportation, 2) lack of information about Extension activities, 3) heavy loads of household task and time constraints, 4) poor roads, and 5) permission from husband.

Nutrition and access to land and credit were the two areas that received the highest educational need scores. Seven items in the area of nutrition were among the top 16 ranked very high educational needs. Women are the key to household nutritional security. In Zimbabwe, many organizations affirm women’s role in household food security, hence, have promoted and provided relevant programs (Muchena, 1994). About 1 in 5 people of developing countries is chronically undernourished, therefore, the researcher recommends a multidisciplinary dialogue among Subject Matter Specialists to create programs in nutrition that meet the needs and interests of rural women. From the findings of this study extension agents involved in planning programs must realize that rural women in Shurugwi District need education in the area of nutrition, access to land and credit and livestock production. Extension program will be more effective as they focus on the educational needs of the people. Six items in the area of access to land and credit were the top 16 rank high educational needs. Participants in this study perceived to possess very little knowledge about access to credit and land. The findings indicated that this area was a major educational priority for Shurugwi rural women. Educational courses should be planned that meet the identified needs of the rural women. Despite rural women’s valuable contribution in agricultural production, they still have limited access to credit and land. A majority of the women in this study did not own land as individuals. Land was either jointly owned or belonged to the husband (World Bank, 1991). The problem with this arrangement is that when divorce takes place, particularly in the rural areas, a woman traditionally has no rights to her husband’s land. In Zimbabwe, legal instruments were put in place soon after 1980 to give women rights to property ownership, but local customs may still override these laws. The uncertainty of women’s access to land makes it a problem for them to obtain the credit they might need to fully put into practice extension advice. However, women continue to have poor control over a range of resources, such as land, credit, education, and information.

A positive relationship is expected between land ownership and increased agricultural productivity. Individualized land rights can enhance the credit merit of rural women and improve their chances of obtaining credit.

One-quarter of respondents in this study had never attended school and the majority (44%) with only 1 –7 years of schooling, indicating that rural women in Shurugwi District were a disadvantaged group of individuals, who have limited educational opportunities. Women’s access to agricultural extension and their ability to comprehend and use technical information are lower when they lack education. Women have been excluded from Extension programs because literacy was used as a requirement for access to training programs. More men than women are enrolled in training programs and gain more from developmental programs (FAO, 1994; World Bank, 1991). Low investment in female education reduces productivity, efficiency and economic progress, inside and outside the household (World Bank 2000).

Participants in this study perceived fewer barriers to extension participation. Results suggest that extension services in Zimbabwe are reaching women, as supported by Pazvakavambwa (1994), that Zimbabwe has developed a strong agricultural extension
services accessible to communal people. By asking rural women about their perceived barriers to Extension participation, strategies for overcoming barriers can be developed. For people in rural settings, barriers related to living in geographically isolated areas such as lack of transportation become paramount.

The researcher ranked educational needs for each item under the six-domain areas. The information can help AGRITEX in placing its priorities on the items that were ranked high. Targeting planning will help meet the needs of rural women, attract a wider audience, and lead to the success of extension programs. Educational courses should be planned that meet the identified needs of the rural women, with emphasis given to those needs ranked highest.

**Recommendations**

The recommendations are based upon the findings and conclusions presented above. The findings of this study could be useful to the AGRITEX in its endeavor to focus on rural women’s needs, as a guide in developing educational materials; and in-service training for extension agents. The researcher recommends that developing of extension programs for rural women take into account the barriers they face in accessing land and credit. The researcher makes the argument that women’s needs cannot be separated from barriers as they help explain, shed light and making needs more dimensional. The quality of extension contact is affected by sociocultural and institutional factors. It is, therefore, essential to understand the nature of barriers rural women face and the implications of these barriers for extension programming. The selected demographic characteristics of the participants in this study could not predict the needs of rural women, giving the possibility of drawing a conclusion that in principle Shurugwi rural women were similar. But there was some diversity in terms of age, educational level, land ownership, and marital status. Rural women are not a homogeneous group and treating them the same can bring about inappropriate solutions and causing disadvantages for others. The researcher recommends appropriate target planning and Extension programs that address and take into account the existing diversity within rural women.

**Further Research**

This study could be replicated in other communal areas that are in Natural Region III, and IV, throughout Zimbabwe, and other developing countries. These further studies could analyze the relationship of selected demographic characteristics and educational needs in other Districts in Zimbabwe and other developing countries in order to verify if there are differences or common patterns in findings. Similar studies could be conducted with other variables, such as size of land/plot, years of farming experience, farming status full or part time, and use of hired labor to find out if there are common patterns or differences. Considering that the majority of the women in this study did not own land as individuals, the researcher recommends a policy–relevant research on how rural women are affected by changes that have taken place in land rights. Finally, a follow-up study should be conducted to determine if rural women needs have changed and barriers to extension still exist.
Reference


