



Agricultural Activities as a Health Enhancer among Elderly People in Buhera, Zimbabwe

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Abstract: A few documented studies have been done to examine the health-related effects of physical agricultural and domestic activities on the elderly in a rural setting. This study examined the effects of elderly people's engagement in field agricultural activities and domestic work on their health. A survey, using a questionnaire targeting 100 elderly people (54 males and 46 females, purposively selected), was conducted in the rural Buhera District in Zimbabwe. The results showed that agricultural and domestic activities done by the elderly had both positive and negative effects. The positive effects included the activities providing necessary physical exercise to keep their bodies fit and strong, affording an occupation to ward off idleness and avoiding social ridicule. The negative effects included worsening physical health, as some of the work required a lot of physical input, and some required intense concentration, which some elderly people could not handle. The study made recommendations that included the assistance of elderly people in doing physical activities that are within the scope of their physical and intellectual capabilities.

Keywords: Agricultural activities, elderly people, health benefits, physical activity.

Introduction

Globally, agriculture is the mainstay of rural communities in developed and developing countries. There are many reasons for the communities' engagement in agriculture, including social, health, economic and cultural aspects (Barnicle and Midden, 2003; Lee, Lan and Lee, 2012; and Bertera, 2003). In rural communities, such as those in

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rural Zimbabwe, agricultural activities provide opportunities for the communities to come together to interact and share information on the events taking place in their area. The agricultural gatherings are usually organised as work parties called *nchimbe* in the Shona language. At the *nchimbe*, *juveniles and young and middle-aged adults participate mainly* in the organised activity. Elderly people participate as well, though they are not expected to work as hard as the youth and young adults. Elderly people are often expected to encourage and boost the morale of the work parties by leading in the singing of traditional work songs. Elderly people are known to enjoy themselves when they are given the opportunity to share their knowledge of traditional songs while contributing to their community's work effort.

Apart from doing agricultural work in the community groups, elderly people also work in their fields to remain physically fit and ward off body weakness and idleness. Rural communities in developing countries like Zimbabwe have strong cultural values and norms that determine how individuals and groups in the community can achieve life expectations, such as marriage and leadership positions (Gelfand, 1982). The elderly people in a family are used as a yardstick to assess whether a particular family has a respectable social standing and is worthy of developing relations with, for example, marriage relations. If the elderly people in the family are known to have a history of hard work and achievements, that puts that family in a high social standing in the community. Agricultural activities are also done for economic reasons. They are done to raise income to meet other daily living needs. The elderly people, like other community members, engage in crop production to enhance food availability and variety to enhance nutrition. They also produce extra for trade in cash or kind, that is, by exchanging with needed goods and/or services.

This study was done to establish the reasons for the elderly to engage in agricultural activities at a time when they would be expected to relax and enjoy the golden years of their lives. The study also intended to explore the health-related benefits, if any, that the elderly people in a rural community derived from engaging in agricultural activities.

Theoretical Framework

Ajzen's theory of reasoned action influenced this study (1991). The theory of reasoned action (ToRA or TRA) aims to explain the relationship between attitudes and behaviours within human action. It mainly predicts individuals' behaviour based on their pre-existing attitudes and behavioural intentions. An individual's decision to engage in a particular behaviour is based on the outcomes the individual expects will result from performing the behaviour. In this study on the behaviour of elderly people in

a rural community engaging in agricultural activities to enhance their health and social standing, the elderly expected positive outcomes from such behaviour in the aspects mentioned above. The theory is also used in communication discourse as a theory of understanding.

The primary purpose of the TRA is to understand an individual's voluntary behaviour by examining the underlying fundamental motivation to perform an action. TRA states that a 'person's intention to perform a behaviour is the main predictor of whether or not they actually perform that behaviour. Additionally, the normative component (i.e. social norms surrounding the act) also contributes to whether or not the person will actually perform the behaviour. According to the TRA theory, the intention to perform a specific behaviour precedes the actual behaviour. This intention is known as behavioural intention and comes as a result of a belief that performing the behaviour will lead to a specific outcome. Behavioural intention is important to the theory because attitudes to behaviours and subjective norms determine these intentions. The theory of reasoned action suggests that stronger intentions lead to increased effort to perform the behaviour, which also increases the likelihood of the behaviour being performed. In this study, strong intentions to perform the behaviour (engaging in agricultural activities) were manifested by preparatory actions which included procurement of tools like hoes to use in weeding and digging in the garden, axes to use in cutting trees to use as fencing material to protect crops to be grown (in the garden or field) from ruminants and procurement of containers for use in fetching water from the water sources to water the crops.

Literature Review: According to Ashton-Shaeffer and Constant (2006), elderly people engage in agricultural or gardening activities for several reasons, including social, psychological, personal enrichment and leisure-time physical activity. According to Davies et al (2011) and Parmer et al (2009), elderly people who engaged in agricultural activities experienced positive health-related benefits, including improved diet and nutrition, due to the abundant variety of food crops they produced and the decrease in diastolic blood pressure. Nickellet et al (2016) found that agricultural/gardening activities by elderly people created a lot of physical activity, which reduced body weight or body mass index. This was believed to contribute towards positive health outcomes for elderly people. The United States of America's Department of Health and Human Services (2008) reported that regular physical activity was beneficial to elderly people as it prevented or delayed the onset of chronic conditions and helped in maintaining physical functioning. According to Heritage Independent Living (2019), there are health benefits for elderly people who engage in creative activities. The health benefits

include the following: Boosting one's self-esteem, increasing social opportunity, reducing Stress and Anxiety, stimulating cognitive function, overcoming barriers, and unleashing one's inner artist.

Boosting one's self-esteem: It was observed that when one has regular engagement with any creative activity, be it pottery, painting, music or dance, that activity enables an individual to progress and develop their skills gradually. A great deal of personal satisfaction is derived as one sees their talent begin to unfold, and that sense of achievement has an incredibly positive impact on self-esteem. Many elderly people reportedly find themselves feeling disempowered in later life, often due to physical limitations and difficulties associated with their health. Under such circumstances, a boost in self-esteem can have a profound effect, motivating the individual to tackle activities and challenges in other areas of their life that they may not have previously considered possible (Heritage Independent Living, 2019).

Increase Social Opportunity: A broad range of creative activities can create opportunities to engage with others and socialise, which is particularly important for elderly people who frequently become isolated and lonely in later life. Joining groups or getting involved with creative activities in the community provides plenty of scope for meeting and connecting with others through shared interests. Increased social connection often leads to improved well-being, which often positively impacts an individual's psychological health in general (Heritage Independent Living, 2019).

Reduction of Stress and Anxiety: The primary purpose of any artistic activity is to relax and have fun. This relaxation provides great health benefits to the individual due to the positive physical response evoked by creative expression. When engaging in and enjoying a creative activity, the brain releases feel-good endorphins and simultaneously stabilises the heart rate and hormone levels, leaving the individual feeling calm and content (Heritage Independent Living, 2019).

Stimulate Cognitive Function: Regular interaction with creative activities helps to keep the brain fit through cognitive stimulation. During the creative process, the elderly person is cognitively engaged, often utilising a part of the brain that would not necessarily be used during their usual daily routine. The brain relies on exercise and stimulation to keep it alert and sharp, and creative activities are especially effective in this regard, often providing long-lasting improvements to a person's memory and mental processing speed (Heritage Independent Living, 2019).

Overcome Barriers: Art can be especially beneficial for elderly adults who suffer the effects of dementia, as it aids communication and creates a foundation to build connections, even in situations where there is no verbal communication. Art therapy

has proven to be a fantastic tool for people with dementia or Alzheimer's, helping them tap into their imagination and express themselves freely, while activating all of the senses (Heritage Independent Living, 2019).

Unleashing One's Inner Artist: One may have previously resisted the urge to embrace their inner artist due to a lack of confidence in their abilities, but there are many different ways to express one's creativity. Regardless of whether one feels they are talented or not, art opens the door to a wealth of health benefits, and the most important thing is to focus on having fun (Reference??). Regularly enjoying a creative activity, whether it is writing, painting, drawing, dancing, photography, or gardening, is a wonderful way to connect with who one is and helps to keep one happy and healthy (Heritage Independent Living, 2019).

Agriculture is the mainstay of the economies in developing countries like those in the African region. Production in the various agricultural activities the people engage in is largely done manually, using hand tools like hoes, axes, machetes and animal-drawn implements like ploughs. Mechanisation is limited due to the high costs of procuring, running and maintaining sophisticated and expensive agricultural equipment. Agricultural activities involve both children and adults. The elderly people continue to engage in agricultural activities as long as they can still manage to participate. In many communities, for example in Zimbabwe, the elderly are expected to do field work to remain physically fit and maintain their good name as "*hurudza*" (successful crop producers). There is also a common belief that physical activity by all community members, including the elderly, enhances physical health (Reference??). The engagement of the elderly in agricultural activities is known to have psychological effects, both positive and negative (Heritage Independent Living, 2019).

Methodology

This paper is based on a mixed-methodology study on the determinants of health-seeking behaviour among the rural elderly people in Buhera District in Zimbabwe. The data was collected for the author's Doctor of Philosophy Thesis whose title is "Determinants of Health-Seeking Behaviour among the Elderly People in Murambinda Hospital Catchment area in Buhera, Zimbabwe". The data collection methods comprised a quantitative approach using a survey, where a questionnaire was utilised to collect data; a qualitative approach, when in-depth interviews (using an in-depth interview guide) and key-informant interviews, where a key-informant interview guide and observations were used. Observations were done concurrently with the survey and in-depth interviews. One hundred elderly participants (54 males and 46 females) were

purposely sampled for the study. The purposive selection of the sample was made necessary due to the lack of documented census information on the number of elderly people in the area, and as a way of targeting participants who could provide information relevant to the study. Data was collected at the Murambinda Mission Hospital and in the villages around the hospital.

Results

The findings of the study are shown in the tables below, with explanations following the tables. Table 1: Percentage distribution of engagement in physical activity to promote personal health

<i>Activity engaged in</i>	<i>Per cent</i>
Domestic work – cooking, sweeping	41.0
Agricultural work in the fields	39.0
Walking long distances	1.0
Other (Specify)	19.0
Total	100.0

n=100,

Source: Muchinako's 2022 DPhil research data.

Table 1 shows the activities that the elderly respondents engaged in to promote their personal health. The majority (41%) is engaged in domestic work around the home. These activities often included tending to some small homestead gardens and caring for flowers and fruit trees at the homestead. Thirty-nine per cent reportedly engaged in agricultural work in the fields and in river valley gardens as a form of physical exercise to enhance good health. They also reported that produce from the riverine gardens and the fields added variety to the foods they ate. This, they said, improved their diets. Nineteen per cent reported engaging in other activities, including taking short walks and doing light work around the homestead.

Table 2: Percentage distribution of the Effects of physical exercises on the elderly people's health

<i>Effects</i>	<i>Per cent</i>
Yes (Explain)	81.0
No	19.0
Total	100.0

n=100,

Source: Muchinako's 2022 DPhil research data.

Eighty-one per cent of the respondents in Table 2 reported that the physical activities they engaged in had effects on their health. The reported impacts were that agricultural work caused backache, pain in the legs and sometimes made limbs swell. Some respondents reportedly did the agricultural activities out of necessity, as it was a source of food. The population of the Murambinda area in Buhera Rural District depends on subsistence agriculture, and they have to provide labour for work in the fields.

Many families had elderly people as heads of the households who had to provide labour for work in the fields since most of the young people migrated to the cities, and some had gone to other countries to look for greener pastures. The elderly reported that the physical work in the fields and river valley gardens was strenuous and stressed them. In the fields, they had to do 'zero' tillage. In this model of agriculture, the peasant farmers have to till or prepare the land manually using hoes, as many did not have cattle to use as draught power and could not afford to hire tractors or buy other machinery for tillage. They also had to plant the seeds, weed the fields and harvest the crops. In some villages, they also had to guard the fields to protect the crops from wild animals like wild pigs, monkeys, baboons and wild birds. They reported that this was strenuous and stressful work as they could only rest when the crops were harvested and safely secured in the granaries. They had no choice but to do the work as they had to provide food for their sustenance and earn some income from selling any produce in excess of their consumption needs. They, however, indicated that despite the difficulties, they never really felt lonely while in the fields, as there were always other people in neighbouring fields working or guarding their crops as well.

Nineteen per cent of the respondents reported that they enjoyed doing agricultural activities as they found them helpful in giving them opportunities to do physical activities and exercises to maintain good physical health. In addition, the respondents reported that the activities enhanced their mental health as they had to plan activities and participate in their implementation. They also enjoyed the positive appreciation they got from their community for their achievements. Even at times when they did not achieve as expected, their communities gave supportive comments for their efforts. The respondents in this group were among the well-to-do members of their communities. They had the wherewithal to participate easily in agricultural activities. They owned or had access to draught power and agricultural equipment. Although they physically participated in agricultural activities, they did it without any pressure, as they did it out of personal desire to exercise their bodies. They had the support of hired hands to take care of issues like guarding the fields from wild animals and wild birds, completing the harvests, transportation, storage and post-harvest care of the crops.

Discussion

Some respondents reported that they did manual work in the fields and gardens to maintain a positive social standing in their community. In the community where the study was done, all physically able persons were expected to participate in manual work in the gardens and fields to meet the family's food needs. One who did not participate for no clear reasons was labelled a *nyope* (a lazy person), and this had adverse social and psychological effects on the person so labelled and their family. This agrees with the theory of reasoned action, where the individuals participated knowing that they would get appreciation for their efforts from their communities. Physical activities engaged in out of necessity reportedly made some elderly people overwork themselves in order to enhance their chances of getting good harvests. This, in many instances, led to the experience of physical pain, such as backache, headache and pain in the arms and legs. This was reported to increase as the elderly persons advanced in age. It was also noted that the amount of physical work tended to decrease with the advancement in age of elderly persons.

However, some respondents reported that physical activities helped them remain active and healthy. They explained that daily activities enabled them to exercise their bodies and helped them remain fit. They noted that the intensity of the exercises they could do decreased as they grew older, as their bodies became less capable of strenuous activity.

The findings of this study have similarities and some differences with the findings in the literature cited above. As pointed out by Davies et al (2011) and Parmer et al (2009) elderly people who engaged in agricultural activities experienced positive health-related benefits, which included improved diet and improved nutrition, due to the abundant variety of food crops they produced and a decrease in diastolic blood pressure. This is similar to the findings of this study among the elderly people in Buhera district, which indicated that agricultural activities helped diversify the diet of the communities. Also, Nickellet et al (2016) found that agricultural and gardening activities by elderly people created a lot of physical activity, which resulted in a reduction of body weight or body mass index. This was believed to contribute towards positive health outcomes for elderly people. Again, the findings of this study show that the elderly had to engage in a lot of physical activities in their agricultural work. At times, the physical activities were found to be very strenuous, requiring a lot of physical input from the elderly people.

The findings of this study are similar to those of Heritage Independent Living (2019) in the six aspects they presented, but there are situational or contextual differences. In this study, while the focus was on the engagement of the elderly people in physical

activities to enhance their health, a few did so to improve their health, but many did so out of necessity. Due to grinding poverty, many had to spend hours working on the land to produce food for their sustenance and/or for sale to raise income to meet other expenses for daily living. While it could be assumed that, although the intention of the elderly in these circumstances was to get food and income, their physical health might have inadvertently benefited in the process.

When they had difficulties working on the land, they faced the challenge of social stigma, like being labelled lazy and good for nothing. This had other effects as well. Their social circles could be limited as people in their community might not have been keen to be associated with 'lazy' persons. Some parts of the community recognised the challenges faced by elderly people, so they supported them by giving them roles they could manage and supporting them materially when they were in need.

Conclusions

From the findings of this study, it can be concluded that agricultural work or activities play an important role in the lives of rural elderly people. Agricultural activities were noted to enhance the health of elderly people from the physical, social and psychological points of view. It can also be noted that agricultural activities in developing societies, where this study was conducted, were done out of necessity to produce food to meet consumption needs. There was recognition of the importance of physical exercise to keep the body fit and strong, even in old age. In the rural community studied, there were no physical fitness training facilities and communities engaged in agricultural and other physical activities whose aims were usually two-pronged: to enhance physical fitness and to acquire some skills or income.

Recommendations

The following are recommendations for promoting agricultural activities to enhance the health of the elderly people in the area and possibly in any other similar developing rural society:

- The elderly should be encouraged to do agricultural activities such as field crop production and nutrition gardening as and when they can without placing undue strain on their physical, social and psychological well-being.
- There is a need to support the elderly to meet their food needs at the community level so that when they do gardening and other agricultural activities, they would do them for physical and social reasons to enhance their health and not

necessarily to produce food for basic needs, as this could put a strain on their health.

- Relevant and adequate tools need to be provided to the elderly so they can use them in their agricultural activities. The local community can provide the tools by raising awareness and appealing to community members to support the elderly with the tools they might be able to spare. Efforts can be made to procure the tools for the needs of the elderly from well-wishers and charitable organisations.
- There is a need to provide knowledge on health issues of the elderly, both to the elderly and the community, so that they might appreciate the importance of controlled physical exercise to the health of persons, including the elderly.
- The elderly should be encouraged and allowed to share their agricultural knowledge and experience with the community by arranging or allowing them to facilitate community knowledge-sharing meetings and workshops. This could be psychologically fulfilling as the elderly people will realise their recognition as important community assets.
- The focus on enhancing health for the elderly people should be comprehensive, that is, it should focus on the different aspects of health, including the physical (addressed by the physical work in gardens and fields) and the psychosocial aspects (which should be addressed by, for example, providing counselling).

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