Utilization of Nutritional Information for Health Purposes in Loima Sub-County in Turkana County, Kenya

Jane Adhiambo Walwenda[1], Dr. Ben Namande[2]

[1]Masters in Library and Information Science, Student, Kenyatta University, Kenya

[2]Department of Library and Information Science, Kenyatta University, Kenya

ABSTRACT

The study will assess the role of traditional communication system in nutritional and health awareness among pastoralist in the 21st century. Nutritional information, broadly defined, refers to knowledge of concepts and processes related to nutrition and health including knowledge of diet and health, diet and disease, foods representing major sources of nutrients, and dietary guidelines and recommendations. Those included in the study will be NGO Managers, NGO county co-coordinators, Pastoralists in Loima-sub-county and county government ministry of health officers that will be randomly selected. The objective of the study will be to investigate whether organizations performance at Comply industries ltd is influenced by targeted talent management. The target population will consist of 5 top management heads of NGOs departments, 5 NGOs Turkana County co-ordinators, 3 Department of Health Nutrition and Dietetics Officers (County government of Turkana) 1 Head of Nutrition County government of Turkana, 1 Loima sub-county Head Nutritionist, 1 Loima sub-county Nutritionists, 15 Loima sub-county coordinators, 50 Turkana County pastoralists, 1 ward administrative, 1 village administrative and 1 chief, 15 Loima sub-county registered teachers. 1 Librarian Kenya National Library (Turkana County branch). The total number of target population therefore will be 100 respondents. The study adopted a stratified sampling technique to administered the questionnaire to the different strata with the same characteristics. The different nutritional communication approaches were used to. disseminate information to the community. In addition, the interview schedules were administered using selective sampling strategies to identify potential respondents for the stud. This study will adopt a descriptive research design. The study will collect qualitative data using questionnaires and qualitative data using interview guide. The interview questionnaire was subdivided into three sections: section A providing respondents bio data; section B and C tackles close ended questions as per the study objectives. The findings of the study will be analyzed using SPSS version 23 to generate tables, pie charts, and graphical representation and the analysis done to assess the median, mean, standard deviation, and percentiles of the data findings. The interview schedule will be recorded, transcribed, and coded as per the study themes to analyze the responses as per study themes. The two schedules: interview and questionnaires will be subjected to pilot test to assess the time and the effectiveness of the questions towards achieving the objectives of the study.

Key Words: *Food Security, Integrated Information Dissemination, Pastoralist Community*

DOI 10.35942/ ijcab.v7i2.325

Cite this Article:

Walwenda, J., & Namande, B. (2023). Utilization of Nutritional Information for Health Purposes in Loima Sub-County in Turkana County, Kenya. *International Journal of Current Aspects*, 7(2), 46-64. https://doi.org/10.35942/ijcab.v7i2.325

1.0 Introduction

1.1 Background of the Study

At large scales throughout the world, the idea of information has been widely or universally accepted as a fundamental resource that all people may utilize to enhance their standard of life and is thus critical to the development process. According to a general definition of nutritional information, it is the knowledge of ideas and processes that are related to nutrition and health, such as knowledge of the relationship between diet and health, the relationship between diet and illness, the knowledge of foods that are significant sources of nutrients, as well as dietary guidelines or recommendations (Axelson&Brinberg, 1992; McKinnon, Giskes, &Turrell, 2014; Moorman, 1996; Parmenter& Wardle, 1999). Despite the fact that some have argued that a more precise definition of nutrition information would be helpful, this is not the case (Axelson&Brinberg, 1992; Li, Miniard, &Barone, 2000). Following nutrition surveys performed over the previous 10 years, it was discovered that the global acute malnutrition (GAM) rate has risen significantly beyond the World Health Organization's emergency threshold of 15% in the vast majority of cases (WHO, 2006).

Additionally, ASALs inhabited by pastoralists are underserved in terms of health care and other necessary infrastructure. A combination of experience and knowledge will most likely result in the creation of knowledge that is critical to the healthy growth of any civilization in the meanwhile, in fact, growth and prosperity have become synonymous with knowledgebases since they are both reliant on the distribution and use of many kinds of information to be successful. Knowledge producers must make their work available to the public. Transferring evidence into the practice environment may be a time-consuming and challenging process, but developing successful dissemination methods is an important aspect of the procedure. When it comes to distribution of information, the process of making information accessible to the general public is characterized as follows: Furthermore, it may be described as the dissemination of information. A government of a country or an organization authorized for the purpose of disseminating information is typically the one that initiates or sponsors an information campaign. The process of disseminating information is a one–way street. The information that is disseminated travels downhill from its source (a government agency) to its intended audience (the public) (the public). There may or may not be input from the general public. The success of a particular information strategy is determined by a variety of variables, including the features of the invention, the target audience, and the communication channel used to communicate the information.

A strategy for information distribution is a phrase that refers to communication or the flow of information from a source. Dissemination is an active notion in which information is customized and targeted for a specific and identifiable audience. By contrast, dissemination is characterized as passive, untargeted, and untailored communication. Dissemination extends far beyond the usual channels of journal publishing and academic conference presentations. Lack of knowledge, it is claimed, acts as a barrier to development, owing to the critical role of information supply in "capacity building" and "community empowerment" (Apata and Ogunrewo, 2010). In Africa, knowledge is regarded as a critical resource for both rural and urban dwellers' elevation and development. (Chiabai et al., 2010) observe that a lack of knowledge may obstruct progress. Traditional indicators continue to be extensively utilized for forecasting and land use management purposes. The indicators are mostly local in nature and are well-understood by local residents (Okoola, 1996). Plants, birds, insects (bees, butterflies, red ants, termites), stars, hill shadows, moon, winds (direction, intensity, and beginning and ending times), clouds (position and

movement), lightning (location and pattern), springs and swamps, cowries, and so on are all traditional indications.

Today, nutritional information is seen as a vital resource that makes a significant contribution to a nation's growth, particularly in this age of information explosion. It serves as the bedrock for knowledge growth, the basis for innovation, and the resources necessary for an educated population, and therefore becomes a critical commodity for every society's advancement. According to Mchombu (2003), the paradox between information's critical role in development and its lack of government acknowledgment in poor nations cannot escape the notice of information experts. Specifically, the phrase "information dissemination" refers to the act of providing information to the general public by a government agency that has been granted permission to do so for any public sector. The government regulates the information provided to the public in terms of its substance and quality (Chiabai et-al, 2010). The purpose of information distribution should be to facilitate its use (CIARD, 2012). As a result, the results must be analyzed critically and extensively, and the person (or organization) must reconcile the new knowledge with their previous beliefs and experiences. Effective distribution is inextricably related to information's timeliness and comprehensiveness.

Nutrition communication programs in Sub-Saharan Africa have mostly followed Rogers' basic dissemination paradigm (1962). According to this paradigm, ideas begin with experts and flow down to nonprimary audiences. Schon (1973) observes that the model does not adequately account for the complexity of diffusion systems, which include social, political, and biological networks. In Dakar and Nairobi, for example, educating national supervisors who then taught field workers on how to make healthy meals from foreign goods was seen too complex by the main audience: the field employees (Recalde & Proja, 1984). Due to the absence of nutrition communication in the region's development programs, health professionals have been faced with enormous nutrition-related health problems. Western nations' foreign food assistance is a critical component of African governments' solutions to hunger. The Rwandan and Somalia crises are prime examples.

Nutritional education about the preparation of some foreign meals has been minimal. As a result, poverty and hunger are worsened across the continent, despite the West's seeming commitment to combating nutrition-related illnesses. Nutrition communication in the majority of poor nations has often been handled from a "disease-remedy" perspective, which implies that nutrition advice is conveyed to parents of malnourished children by nurses in health clinics. Frequently, such experts lack expertise in nutrition, let alone in the treatment of diet-related illnesses. Additionally, women who produce more than 60% of the food consumed on the continent are often excluded from training programs and development initiatives (Recalde & Proja, 1984). Male farmers who are wealthy dominate the services and resources of extension agents to a greater extent than poor farmers (Jelliffe & Jellife, 1984). These situations magnify the job at hand for development organizations and aggravate the region's nutritional problems. A critical component of the paradigm of nutritional information transmission is the employment of non-governmental organizations (NGOs) as communication agents (e.g., the Nairobi-based African Council for Communication Education [ACCE]). Despite Africa's strongly entrenched attitude of self-help and volunteering, the continent lacks significant indigenous volunteer organizations. However, there are many non-governmental organizations (NGOs) that have the trust and goodwill of the local populace due to their self-sufficiency, adaptability, and close interaction with them (Hyden, 1986). Among these non-governmental organizations are the ACCE, the Tanzania Media Women's

Network, and a variety of cooperative societies, clubs, and communication groups located across the area.

A key component of the nutrition-communications paradigm is the importance placed on small cultural groups, which are the basic units of social organization in sub-Saharan Africa. More than three-quarters of the estimated 400 million people live in rural areas in Sub-Saharan Africa. Nutrition educators should focus on rural regions where NGOs gather in small groups and use culturally appropriate speech patterns in order to reach as many people as possible with nutrition information. Additionally, rural poor people in Africa that band together have greater bargaining strength and are better equipped to advance their own causes. Additionally, involving neighborhood organizations opens up nutrition programs to a broader audience and encourages more people to take part. This means that growth should take place as a natural progression from the existing foundation.

Nutritional information is disseminated locally in Kenya through a variety of means, including NGOs, community elders, government officials, farmers, local businesses, chiefs, and other traditional title holders. This group's participation adds credibility to a nutrition communication program and improves the distribution and potential acceptance of nutrition information. This group is a trained group comprised of interested local government officials, farmers, and citizens. This group will get extensive instruction from nutrition educators and extension workers. Human resources are a problem for extension agents at the community level. Using the internet, a computer-based network that links people and information through computers and other digital devices, allowing for two-way information dissemination retrieval.

There are about 600 million individuals in Kenya who have access to the Internet, and another 31 million Kenyans who have access to and use mobile phones, which serves as more evidence. Another option is to use mobile technologies to accomplish your goals. This is particularly true in light of the fact that about 30 million Kenyans use mobile telephones. Another method is virtualization, which allows users to access data on a local level even if they do not have the software required to access the data. The idea of cloud computing, in which resources, both hardware and software, may be shared by users in different places, is described here. The benefits of information dissemination include raising awareness among the general public about the importance and relevance of nutrition information, providing practical information for problem-solving and environmental management, and spreading awareness about nutrition research findings, among other things.

Turkana has catastrophic levels of acute malnutrition, according to a recent SMART Survey conducted by the Kenyan Ministry of Health in collaboration with the United Nations and non-governmental organizations. When compared to June 2016 and January 2017, the pattern shows that the situation is worse. According to the SMART Survey experts, a significant incidence of severe malnutrition was seen throughout all sub-counties, with Turkana South having the highest rate at 12 percent. The incidence of malnutrition in Turkana County has reached a five-year high as a result of worsening food security conditions in the area. According to a UNICEF status report released in July, acute malnutrition was found in more over 30 percent of the population in three of the four sub-counties in Turkana, according to the study. Among the areas, Turkana South had the highest prevalence rate at 37 percent, followed by the North and Central regions, which had prevalence rates of 34.1 percent and 31.4 percent, respectively. Turkana West had the lowest incidence rate, at 23.4 percent of the population. According to the findings of the research, malnutrition has increased especially significantly in the past five months. The issue of

malnutrition in Turkana is caused by a failure to communicate nutritional information effectively. Integrated Phase Classification (IPC) for Acute Malnutrition performed between January and February 2018 revealed that Loima Sub-County (Lokiriama/lorengipi) in Turkana County was categorized as being in a Critical Nutrition condition (phase 4; Global Acute Malnutrition 15.0 – 29.9 percent). In June 2015, SUN CSA commissioned a research on media exposure in Kenya, which was carried out by media monitoring company Reel forge between May 2014 and May 2015. According to the results, "radio coverage on nutrition-related problems was the most common type of media coverage throughout this period." This was attributed to the public's access to a vast number of outlets/channels. Despite having fewer (nutrition) stories than other forms of media, television had the largest proportion of advertising for nutrition goods and services value equivalents (the value of non-advertisements on nutrition, such as news and feature stories, whose value is calculated using advertisement rates).

The following recommendations were made as a result of the media visibility report: Regions and rural radio stations, in particular, should be encouraged to increase their coverage of nutrition issues in order to contribute to the reduction of malnutrition throughout the nation, particularly in regions most afflicted by malnutrition, such as Turkana County. Ultimately, the goal is to increase demand for health-care services while also encouraging the adoption of optimum eating habits. At the present, the media's coverage of urban areas is skewed. Improving nutrition education and awareness among key decision makers in the country would need more work on major media platforms such as television and print media (newspapers). It is anticipated that media sensitization of leaders would have an impact on their choices on development plans and finances that are important to nutrition.

Pastoralism, according to Wayua (2017), has been severely affected by the increasing effects of climate change. As a result of this severe climatic situation, droughts have begun to reoccur more often and with greater intensity, resulting in a gradual reduction in pastoralists' ability to earn a living while providing them with insufficient time to recuperate. In response to the change in drought patterns among pastoralist habitats, they have been subjected to unexpected poverty patterns, food shortages, and a dependence on humanitarian assistance. Wayua (2017) further states that over 75% of the Arid and Semi-Arid Land population, including pastoralists, live below the poverty line, resulting in a lack of viable economic choices for the community, which has severe implications for nutrition and food security for the pastoral community. Aside from that, the ASALs inhabited by pastoralist communities are not well-served by health-care services or other critical infrastructures.

This has resulted in efforts being injected by a variety of actors to address the issue of food insecurity, including the Ministry of Northern Kenya and other Arid Lands, the Arid Lands Resources Management Project (ALRMP), and the National Drought Management Authority (NDMA), all of which are working in collaboration with different counties in the Arid and Semi-Arid Lands to address the issue. Agriculture research, food security, and livelihood are all areas in which these communication agencies are involved, and they work in cooperation with international NGOs and government research institutes to help in the implementation of health and nutrition intervention approaches in ASALs. However, owing to a lack of a suitable sustainable nutritional and food awareness platform built specifically for pastoralist communities, these initiatives have proved ineffective.

The results of nutrition research generate a great deal of attention and publicity in the media. As recommended by the World Health Organization, nutrition actors should work with or form

partnerships with research firms in order to conduct nutrition surveys and educate the public about malnutrition trends in their respective countries. Such information will serve as proof for the purposes of planning and budgeting. The majority of ads identified by the media as nutrition items were mostly marketing for herbalists' "nutrition" goods; more awareness of what constitutes excellent nutrition is required. The researcher wants to create more channels for distributing nutritional information to the people of Loima sub-county in Turkana, Kenya, since the county is always afflicted by malnutrition during the dry season, as has been the case in the past. However, there are significant knowledge gaps regarding distribution channels on the one hand, as well as nutritional information disseminated to pastoralists in Turkana on the other hand, which calls for additional study on the manner in which nutritional information is communicated to the people of North Turkana in this digital age. As a result, the purpose of this research is to contribute to the existing literature on nutritional information distribution routes in Turkana County and to close a significant knowledge gap.

1.2 Statement of the Problem

As a result of a lack of effective communication channels to raise awareness among pastoralist communities, malnutrition and health-related problems are prevalent among these groups of individuals. Accordingly, this study's primary emphasis will be on communication for the establishment of pastoralism nutrition and health initiatives. The purpose of this research is to investigate the function of traditional communication channels in raising knowledge about nutrition and food security within the pastoralist community in the twenty-first century. Furthermore, according to Seid and colleagues (2016), the development goals of pastoralists have been mostly promoted by external actors, who link pastoral development with livestock development, and that this has resulted in a decline in the number of pastoralists. Despite the fact that the drylands are characterized by high vulnerability and require a dynamic flexible management system, the blueprint nutritional and food development programs, strategies, and policies, which have been developed in less variable contexts, have been widely implemented in the region and are gaining traction. This resulted in pastoralists being relegated to the status of passive receivers of technological transfers, which resulted in their being blind to the important role played by their traditional institutions and knowledge systems (Seid, et al, 2016). According to Seid et al (2016), communication, knowledge, and information accessibility are key elements in the socio-economic growth of pastoralists.

Communication and knowledge are crucial elements in the development of pastoralists. This is shown by the fact that pastoralists have a well-developed traditional communication system, which has been used to exchange information about local security, environment, and climate, as well as other aspects of political, social, and economic significance. As a result, contemporary communication tools like as cellphones have contributed significantly to the expounding of these traditions as well as the social, political, and economic transformation of the pastoral community's way of life. Consequently, contemporary communication systems should include traditional communication methods into the process of raising knowledge about sustainable nutrition and health practices among the pastoralist population. This is due to the fact that contemporary communication methods have overlooked the traditional communication system as an important instrument to be utilized in the development of nutritional and health in pastoral communities.

1.3 Objective of the Study

Generally, the research will seek to determine the function of the conventional communication system in disseminating knowledge on nutritional and health development among pastoralists in Loima subcounty.

Specific Objectives of the Study will be;

i. Establish knowledge level on the available food staff in supporting nutrition and food security among pastoralist community
ii. To determine the effectiveness of integrated information dissemination in supporting nutrition and food security among pastoralist community.
iii. To analyze the impact of contemporary information dissemination approaches on pastoralist communities' nutritional wellbeing
iv. To analyze the challenges faced during dissemination of information on nutritional and health development.

1.4 Theoretical Framework

This research will be explained using the two-step flow communication theory.

1.4.1 Two-step flow communication Theory

Paul Lazarsfeld, Bernard Berelson, and Hazel Gaudet first proposed the two-step flow communication theory in 1944, while researching the process of decision-making during presidential election campaigns. Since then, the idea has been widely adopted. They were hoping to learn more about how media messages directly affect people's voting intentions. Personal connections were cited much more often than mass media exposures such as newspapers and radio programs, which came as a surprise (Lazarsfeld, Berelson, &Gaudet, 1944). In accordance with this idea, information obtained through the media passes through two distinct phases. The information reaches the opinion leaders, who are the ones who are the first to receive and comprehend it. Afterwards, they disseminate their interpretation together with the real substance of the media to the general public. In this situation, opinion leaders have a great deal of power in guiding and influencing the behavior and attitudes of less engaged segments of the general public.

2.0 Review of Related Literature

2.1 Introduction

This study will review various pieces of kinds of literature in line with the study objectives. In order to present a wholesome view of nutrition information dissemination in the pastoral community in Turkana

2.2 Role of traditional information dissemination systems among pastoral community

Pastoral systems remain as the major source of livelihood options used for presenting food, employment, and income in the challenging boundaries, in mountain and dryland areas. Pastoralism practice not only benefits pastoral communities but as well those who reside in agricultural areas, coastal regions, and urban centers, all of whom benefit from the pastoral products value chain. Rota (2018) note that many cultures have survived without documentation and effective communication can occur without writing or reading.

2.2.1 Social Networks and Information Dissemination

Moreover, according to Sherraden (2015), not only do women's networks contain more kin, but their networks are also more diversified, which may be used for both personal and professional purposes. The use of formal and informal social networks by both men and women to learn about and get access to economic possibilities has become increasingly common. Depending on their content, size, and structure, formal networks are molded by the dynamics of social identity and the many desires and limitations that individuals must deal with on a daily basis (Magnan et al., 2014). There have been fewer empirical studies that have shown how networks operate to disseminate information as compared to prior research, with notable exceptions such as Chandrasekhar et al. (2015) and Mobius et al. (2015). Given that network topologies indicate a propensity for key nodes within a network to be of only one gender, it is conceivable that the transmission of information via social networks would aggravate existing gender informational disparities. Alternatively, changes in the friction encountered by information transmitted between central nodes and men's and women's networks may account for disparities in information disparity between men and women. If the good is a competitor or a non-competitive item, the diffusion process may be substantially different from one to the other. It has been well proven that non-rival good diffusion occurs when there are no supply constraints on a product (as in the case of microcredit, Banerjee and associates 2013, and vitamin distribution, Kim et al 2015), or when knowledge can be shared easily between network members (Miller and Mobarak. 2015; Mobius et al. 2015; Beaman et al. 2017).

2.3 Contemporary information dissemination approaches in pastoralist communities

The contemporary communication technologies, such as mobile telephone, have made substantial inroads within these conventional and participate in the political, social, and economic transformation of the pastoralist's behavior. Though conventional media are usually stigmatized as obsolete, contemporary mass media presents many challenges in the form of language barriers, limited coverage, and barriers in accessibility for the illiterate and rural poor. Improving the communication infrastructure in rural areas and training pastoralists in current communication approaches will enhance the desirable outcome in various under-focused areas such as nutrition (Seid, Yoseph, Befekadu, Mohammed, &Fikre, 2016). Therefore, an integration of modern and indigenous communication systems use is in a position to enhance economic performance and help in balancing cultural and social elements of the pastoral behavior. Seid*et al* (2016) associate the effectiveness in traditional communication to language which is the core element in information dissemination and its core ingredient; feelings, thought, and words. In case non-verbal conventional communication is engaged, the complexity increases compared to speech as it integrated meaning sharing with others via non-linguistic methods

As stated by Uzokwe (2014), traditional communication media (TCM) such as town criers, friends and neighbors, community elders (including women), and cooperatives should be integrated into the innovation delivery system to facilitate the fast spread and diffusion of innovations. This will improve extension service delivery effectiveness as it will increase the effectiveness of extension service delivery. Although interpersonal communication channels are widely used, Cheboi and Mberia (2014) state that more research is needed to determine the role of mass media in augmenting interpersonal communications networks in the diffusion and adoption of innovations, especially in areas where mass media penetration is lower than in other area. In spite of this, the study makes an attempt to provide a solution for bridging the knowledge gap by taking use of advancements in information technology.

2.4 Integrated communication systems of dissemination nutrition information

Seid, Yoseph, Befekadu, Mohammed, and Fikre (2016) note that a communication context where modern and indigenous systems operate independently historically has failed to be effective in providing sustainable pastoralists livelihoods as well as economic progress, especially in the African continent. As a result, there has been a consistent realization of the need to integrate modern and traditional communication systems for disseminating sustainable development information among the pastoralists. This has led to Chukwu (2015) affirming that combination of technological communication with traditional interpersonal communication to promote development as the central element in the indigenization framework where technological media is capable of providing capacity to interlink with indigenous patterns.

There exists a substantial capacity for using traditional channels to execute external information. This is reflected in folk media (dance, music, puppet shows, and popular theatre) frequently and effectively-being embraced to promote important issues to marginal groups. Said et al. (2016) notes that the topic differs between medical treatment, female genital mutilation, family size, HIV/AIDS syndrome and human immune deficiency virus diseases, teenage pregnancy, literacy programs, agricultural practices, introduction, and environmental protection. In the same capacity, informal oral practices, like the *Dagu* practices among Afar pastoral community in Ethiopia, are in a position to serve as an effective device for HIV/AID communication media in the predominantly pastoral communities. This conventional approach has been strengthened by local institutions and 'apprenticeships' promoting the dissemination of information techniques. This view is further elaborated by Jessica and Leslie (2009) as cited by Srikanth, Harvey, and According to Peterson (2016), better solutions to difficult choice tasks require collaboration among partners who can successfully integrate distinct, relevant, and often varied informational sources. As a result, there is a growing interest in information sharing.

2.4.1 Nutritional Information dissemination

The objective and substance of nutrition education initiatives are influenced by the nutrient needs of the population. Dietary education messages are often targeted towards a specific nutritional issue (such as a nutritional deficit or excess) that has been discovered in a certain community. The messages are intended to influence a certain eating behavior that is believed to be the root cause of the nutritional issue. An activity or service that is decided by scientific understanding rather than by the perceived requirements of the people who are receiving the service is referred to as a "nutrient-based approach."

While nutrition education is often community-based and developed with regard for the social and cultural context, it is organized in both form and content in accordance with the demands of medical and nutritional research (Holechek, Cibils, Bengaly&Kinyamari, 2017). Message reinforcement and dissemination materials are created in textual format, embellished with drawings or photographs, in audiovisual format, or in broadcast forms for radio and television. Sender-oriented information is information that has been created (both in terms of form and substance) by the person who is delivering the communication, typically a dietician (Holechek et al. 2017). Rather than being based on technical or scientific principles, the information is patterned after the sender's social and cultural environment. Receiver-oriented communications, on the other hand, are messages that are intended (both in substance and in form) to encourage critical thinking in the recipients and to meet their information requirements. It follows from this that the notion of an audience must be critically examined. Receiver-oriented communications require extensive

audience research in order to ensure that the content, language, visual style, pictures, colors, clothing, personal appearance, and other aspects of the message more closely match those of the recipients than those of the senders. A significant advance in nutrition education research came with the realization that food habits and eating patterns are complex multi-dimensional behavior, rather than merely biological processes.

2.5 Information dissemination constraints to pastoralists nutrition

Development communication (DevCom), according to Basseterre (2016), is described as "the structured and coordinated use of communication resources, channels, techniques, and strategies to serve the goals of socio-economic, political, and cultural development." However, development communication and communication in general confront a variety of challenges before they can be successful in promoting economic, social, and cultural development in pastoralist communities. The major approaches used with limitation is the participatory strategies and approaches by the governments as well as other development agencies when operating in pastoral development. These agencies apply one-way communication approaches aligned towards disseminating the intended information among the pastoralists. Despite adopting the one-way approach and participatory strategies the agencies tend to limit such strategies, engaging the local community specifically as information providers when the stakeholders intend to collect more data. This closes the decision-making process locking out active integration of the pastoralist in the determination of their affairs.

The second main limitation is the existence of weak capacity presented through the poor infrastructure (such as electricity, roads, telecommunication among others) and the ultimate limitation of Information and Communication Technology (ICT) services coverage, the general expensive ICT equipment and services, and the absence of requisite skills and training among the pastoralist to maintain or operate the available communication technologies (Ngowi, Mwakalobo & Mwamfupe, 2015). These authors further affirm that even where there is the availability of ICT services, such as community-oriented initiatives, the information tends to be exogenous. This is because the Web-based media provides limited practical assistance towards improving the marginalized group's livelihoods.

3.0 Research Methodology

This research will used mixed research design approach by using both quantitative exploratory approach and qualitative phenomenological research. The exploratory approach will attempt to acquire the limited information on the linkage between nutrition and communication among the pastoralist community of Turkana. The design assist in obtaining information where there is no or limited information by acquiring first-hand information. The nutritional level among pastoral community associated with lack of proper communication avenues have led to increase in the level in nutritional issues in the region. The acquisition of data will be conducted through structured questionnaires. However, the information which might not be acquired through questionnaires, due to limiting of participants and leaving out other behavioral elements, will be filled using phenomenological approach.

Target population is total individuals' number who share similar qualities that are being studied in the research (Kothari, 2005). Psychometricians have defined target population based on the information gained beforehand regarding the intended use of the study and the relevant demographics appearing in the study (Duong & von Davier, 2012). In this study the target population will consist of 21, Health officers 21, 2 Administrative Officers (Chief and Assistant

Chief), 10 Political representatives, 7 Library Personnel, 12 Religious leaders and 10 Community Leaders at Loima. The total target population therefore will be 62 respondents in Loima Sub-County.

Table 1: Study Population

Population Classification	Respondents Number (N)
Health officers	21
Administrative Officers (Chief and Assistant Chief)	2
Political representatives	10
Library Personnel	7
Religious leaders	12
Community Leaders at Loima	10
Total	**62**

Sampling is a method for obtaining representative samples from a population in order to extrapolate information about the entire population (Levy & Lemeshow, 2020). Sampling is done to ensure fair representation of the population to have the final results capture a generalized representative image of the population as depicted from the study (Fletcher, 2017). The study will use census sampling technique and a target population of 62 respondents will be employed in the study. Census sampling method will be used because it gives reliable, representative, and accurate information. This is because the researcher will be able to observe each item individually because of having a manageable population

The study used a mixed approach data collection instrument. Structured questionnaires will be administered to the target population, especially those with average and above literacy rate in the society, as they are in a position to fill the questionnaire without assistance or manipulation. The Interview Schedule questionnaire will be used as the main tool for data collection in this study. The data for this research project will be gathered via the use of semi-structured interview schedule questionnaires, which will be sent to the selected respondents. For the purpose of gathering primary data in this research project, Interview Schedule questionnaires will be the most appropriate instruments to use. The semi-structured interview questionnaire will include both open-ended and closed-ended questions, which will make it easier to gather information regarding the study's goals during the interview.

Primary data collection will be carried out via the use of questionnaires in interviews. There will be both open-ended and closed-ended questions on the interview questionnaire for the participant. Interview schedule questionnaires, according to Mbwesa (2006), are pre-formulated sets of questions written to which respondents independently record their responses. Interview schedule questionnaire will have these different parts: Part one collecting data on the respondent's age, marital status, gender, education, and category of employees. Part two requesting respondents to supply the information on utilization of nutritional information to pastoralists. In order to gather primary data, the questionnaire will be administered to a particular focus group or individual since it is simpler to administer and allows for a greater diversity of social classes and literacy levels to be represented in the process of data collection.

The structured questionnaire will be administered through emails to the administrative officers in Turkana area while the interview questionnaires will be administered to respondents who have knowledge on conventional communication media used to present nutritional lessons among the Turkana community. The study will exclude the children who are not in a position to comprehend the impact of communication on nutritional information utilization. In order to get approval to administer the interview schedule questionnaire to the respondents, consent will be first sought from the organization. Data collection will be conducted after the validation of the research instrument. A letter of introduction obtained from the university will be used in order to get consent from the County government and NGOs. The researcher will hand deliver the questionnaires to the selected respondents for them to fill and collect them in two weeks' time. The feedback will be recorded, transcribed, coded and analyzed using excels to generate pie chart, graph and tabular representation that will be described and discussed as per findings. This will provide easy presentation of the information collected from the respondents per the objectives of this research. This information will be analyzed using thematic content analysis where the themes will follow study objectives.

4.0 Data Analysis Results

4.1 Introduction

In this chapter, the findings and discussion of results from chapter three's variables and approaches on utilization of nutritional information for health purposes among the Turkana of the north western kanya. The interpretation and conclusions generated from the data are in keeping with the precise goals that are the subject of the data analysis. According to the results stated in this article, this was achieved.

4.2: Response Rate

Table: 1 Response Rate

Respondents	Response rate	Percentage
Respondents	51	82%
Non-respondents	11	18%
Total	**62**	**100%**

A study was done among 62 respondents in Loima Sub-County. Following the delivery of the questionnaire, only 51 questionnaires were returned by respondents, accounting for 82 percent of the total response rate; 11 questionnaires (18 percent) were not returned by respondents, as shown in the preceding table 4.1. According to Mugenda & Mugenda (2006), a response rate of 50 percent is sufficient, a response rate of 60 percent is excellent, and any other response rate more than 70 percent is extremely good. According to these criteria, the response rate of 82 percent was considered to be excellent. As a result, the information gathered was sufficient to allow the researchers to reach a satisfying conclusion regarding the study based on the information gathered.

4.3: Integrated information dissemination

Table 2: Integrated information dissemination

Particulars	Mean	Std Dev
We are trained frequently on the use of various methods to disseminate information on nutritional and health development	4.25	0.53
We use various methods to pass through information on nutritional and health development to pastoralists	4.11	0.72
The community heads are involved in selecting the methods to be used to pass through information on nutritional and health development to pastoralists	4.37	0.81
We are able to reach many people by using integrated information dissemination methods	4.24	1.73
There are sufficient numbers of health professionals and other primary care providers, who play an essential role in dissemination of information on nutritional and health development.	4.75	0.92
To ensure that the clients have understood, they are asked some basic questions and also given a change to ask question on the arears they need more clarification	4.07	1.04
The pastoralists are engaged in activities that contribute to their own self-development.	4.32	0.47

In table 2, the research looked at the effectiveness of integrated information dissemination in pastoral communities

4.4: Contemporary Information Dissemination technique

Table 3: Contemporary Information Dissemination technique

Particulars	Mean	Std Dev
The community prefer the use of microblogs to create awareness on food security and nutritional values to the pastoralists.	3.93	0.62
We use news portals to create awareness on food security and nutritional values to the pastoralists.	4.05	1.16
The community prefer using television to create awareness on food security and nutritional values to the pastoralists.	4.54	0.78
We use oral communication to create awareness on food security and nutritional values to the pastoralists.	4.29	0.85
News portal information dissemination process to create awareness on food security and nutritional values to the pastoralists.	4.11	1.06
Short message service information dissemination process to create awareness on food security and nutritional values to the pastoralists.	4.83	0.37
We us Cell phone information dissemination process to create awareness on food security and nutritional values to the pastoralists.	4.66	0.58

In table 3, the research looked at the Contemporary Information Dissemination technique on food security and nutritional values to the pastoralists.

4.5: Contemporary Information Dissemination Approaches

Table 4: Contemporary Information Dissemination Approaches

Particulars	Mean	Std Dev
Contemporary information dissemination approaches enhance the decision-making process since more data is provided than it is the case with traditional media	4.02	1.54
Contemporary information dissemination approaches improve how disaster management is carried out by providing communications for respondents during a natural or man-made disaster	4.26	0.82
Contemporary information dissemination approaches are used to transmit information from a public organization to a wide audience	4.11	1.20
Contemporary information dissemination approaches are used where information can be disseminated only within a limited distance.	4.42	1.13
Information source can be transmitted in a short time because there are many microblog fans	4.30	1.03
Contemporary information dissemination approaches is used due to a long communication time periods via the communication media	4.14	0.61
We use a combination of several information dissemination media to increase the efficiency of information dissemination and provide people with more time and more accurate information	3.97	1.45

In table 4, the research looked at the Contemporary Information Dissemination technique on food security and nutritional values to the pastoralists.

4.6: Challenges faced during dissemination of information

Table 5: Challenges faced during dissemination of information

Particulars	Mean	Std Dev
It is challenging to demystify some of the myths and believes of the people on nutrition	3.85	1.51
Low literacy level of the pastoralists had a negative impact on information dissemination	3.79	1.31
There are limited resources aimed towards dissemination of data on nutritional and health development among pastoralists	4.10	0.61
There was no link between all actors involved in dissemination of information on nutritional and health development among pastoralists	4.09	1.07
It takes long time to access information through web health information search	4.37	1.43
Lack of effective monitoring, review and close follow-up on implementation of the knowledge gained on nutrition and health development	3.94	1.19

In table 5, the research looked at the challenges faced during dissemination of information on nutritional and health development

4.7: Pearson's Correlation

Pearson bivariate correlation coefficient was used to calculate the relationship between the dependent variable (Dissemination of nutritional information) and the independent variables (Food Staff Knowledge Level, Integrated information dissemination, Contemporary Information Dissemination technique, Challenges faced during dissemination of information). According to Sekaran (2015), this connection is thought to be linear, and the correlation coefficient ranges from -1.0 (perfect negative correlation) to +1.0 (perfect positive correlation) (perfect positive relationship). A correlation coefficient was calculated in order to determine how strong of a connection there is between the dependent variable and the independent variables.

Table 6: Pearson's Correlation

	Variables	Dissemination of information	Food Staff Knowledge Level	Integrated information dissemination	Contemporary Information Dissemination technique	Challenges faced during dissemination of information
Food Staff Knowledge Level	Pearson Correlation	.351**	1			
	Sig. (2 tailed)	.000				
Integrated information dissemination	Pearson Correlation	.782**	.284**	1		
	Sig. (2 tailed)	.000	.000	.		
Contemporary Information Dissemination technique	Pearson Correlation	.097	.056	.168**	1	
	Sig. (2 tailed)	.000	.040	.000		
Challenges faced during dissemination of information	Pearson Correlation	.281**	.051	.211**	.013	1
	Sig. (2 tailed)	.000	.574	.000	.971	

***. Correlation is significant at the 0.01 level (2-tailed).*

Table 6 revealed a favorable association between Food Staff Knowledge Level and (r = 0.351, P = 0.000). As a result, increased credit availability results in an increase in the challenges faced during dissemination of information to residents of Loima Sub-County. The correlation coefficient was likewise positive in the case of Integrated information dissemination (r = 0.782, P = 0.000) in this case. Therefore, an improvement in lending policy would result in an increase in the dissemination of nutritional information by residents of Loima Sub-County. When the cost of the loan was taken into consideration, the correlation coefficient was equally positive (r = 0.097, P = 0.000).

4.8: Model Summary

Table 7: Model Summary

Model	R	R Square	Adjustment R Square	Std. Error of the Estimate
1	.632a	.399	.347	.16489

Predictors: (Constant), Food Staff Knowledge Level, Integrated information dissemination, Contemporary Information Dissemination technique, Challenges faced during dissemination of information

There is a high link between the independent variables (Food Staff Knowledge Level, Integrated information dissemination, Contemporary Information Dissemination technique, Challenges faced during dissemination of information) and the dissemination of nutritional information by residents of Loima Sub-County, as shown in Table 4.7, which shows the multiple correlation coefficient R = 0.632. The R-squared measures the amount of variation in the dependent variable that can be accounted for by the independent variables. The results reveal that the three independent variables (Food Staff Knowledge Level, Integrated information dissemination, Loan Cost, and Challenges faced during dissemination of information) can explain 39.9 percent of the variance in the dependent variable with an R-squared of 0.399. (Dissemination of nutritional information by residents of Loima Sub-County.). For this research, the dependent variable, dissemination of nutritional information by Residents of Loima Sub-County, was shown to be influenced by other variables that were not investigated.

4.9: ANOVA

Table 8: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.831	4	.208	7.640	.000[b]
	Residual	1.251	46	.027		
	Total	2.082	50			

a. Dependent Variable: Dissemination of Nutritional Information

b. Predictors: (Constant), Food Staff Knowledge Level-Integrated information dissemination, Contemporary Information Dissemination technique, Challenges faced during dissemination of information

The ANOVA statistic was employed to determine the suitability of the regression model under consideration. The significance F-value was 22.564 (P=0.00), which indicates that the result was significant. In other words, the regression model that was developed was both fit and statistically significant, and it may be considered suitable for use in prediction tasks.

4.10: Coefficient Correlation

Table 4.9: Coefficient Correlation

Model	Unstandardized Coefficients		Standardized Confidents		
	B	Std. Error	Beta	T	Sig.
(Constant)	1.503	.710		2.118	.040
Food Staff Knowledge Level	.319	.135	.277	2.357	.023
Integrated information dissemination	-.609	.298	-1.107	-2.044	.047
Contemporary Information Dissemination technique	.771	.305	1.375	2.528	.015
Challenges faced during dissemination of information	.215	.093	.289	2.315	.025

Dependent Variable: Dissemination of nutritional information

If all of the independent factors (food staff knowledge level, integrated information dissemination, Contemporary Information Dissemination technique, and Challenges faced during dissemination of information) were held constant, the proportion of dissemination of nutritional information would increase by 15.03 percent. It is estimated that a one-unit improvement in Food Staff Knowledge Level identification would result in a 31.9 percent rise in dissemination of nutritional information by residents of Loima Sub-County. The dissemination of nutritional information by residents of Loima Sub-County. would improve by an average of 0.609 units if the number of units used to identify lending policy was increased by one.

5.0 Summary, Conclusions and Recommendations

5.1 Summary

The study aimed to establish knowledge level on the available food staff in supporting nutrition and food security among pastoralist community. The second variable aimed to determine the effectiveness of integrated information dissemination in supporting nutrition and food security among pastoralist community. The third objective analyzed the impact of contemporary information dissemination approaches on pastoralist communities' nutritional wellbeing. The final viable looked at challenges faced during dissemination of information on nutritional and health development. 17.Policies that promote a radical transformation of food systems need to be empowering, equitable, regenerative, productive, prosperous and must boldly reshape the underlying principles from production to consumption.

5.2 Conclusion

The study sought to establish the knowledge level on the available food staff in supporting nutrition and food security among pastoralist community. The study found that a significant advance in nutrition education research came with the realization that food habits and eating patterns are complex multi-dimensional behavior, rather than merely biological processes. The study concluded that better solutions to difficult choice tasks require collaboration among partners who can successfully integrate distinct, relevant, and often varied informational sources. As a result, there is a growing interest in information sharing. The study aimed determining the effectiveness of integrated information dissemination in supporting nutrition and food security among pastoralist

community. After the analysis the study concluded that the that combination of technological communication with traditional interpersonal communication to promote development as the central element in the indigenization framework where technological media is capable of providing capacity to interlink with indigenous patterns.

The study sought to analyze the impact of contemporary information dissemination approaches on pastoralist communities' nutritional wellbeing. The study concluded that contemporary communication technologies, such as mobile telephone, have made substantial inroads within these conventional and participate in the political, social, and economic transformation of the pastoralist's behavior. The study aimed at analyzing the challenges faced during dissemination of information on nutritional and health development. The study concluded that development communication and communication in general confront a variety of challenges before they can be successful in promoting economic, social, and cultural development in pastoralist communities.

5.3 Recommendations

New and proven technologies should blend with valuable indigenous knowledge systems to enhance community resilience and viability blending proven appropriate technologies with valuable indigenous knowledge systems strengthen local knowledge and emphasize the value of local food and eating patterns.

References

Axelson ML, Brinberg D. The measurement and conceptualization of nutrition knowledge. Journal of Nutrition Education. 1992;24(5):239–246. doi:http://dx.doi.org/10.1016/S0022-3182(12)81238-6. [Google Scholar]

Barreiro-Hurlé J, Gracia A, de-Magistris T. Does nutrition information on food products lead to healthier food choices? Food Policy. 2010;35(3):221–229. doi:http://dx.doi.org/10.1016/j.foodpol.2009.12.006. [Google Scholar]

Barreiro-Hurlé J, Gracia A, De-Magistris T. Using latent classes to determine consumer heterogeneity in nutritional label valuation. Food Economics ActaAgricultScand C. 2008;5(3):178–193. [Google Scholar]

Bialkova S, Grunert KG, Juhl HJ, Wasowicz-Kirylo G, Stysko-Kunkowska M, van Trijp HCM. Attention mediates the effect of nutrition label information on consumers' choice. Evidence from a choice experiment involving eye-tracking. Appetite. 2014;76(0):66–75. doi:http://dx.doi.org/10.1016/j.appet.2013.11.021. [PubMed] [Google Scholar]

Bialkova S, van Trijp H. What determines consumer attention to nutrition labels? Food Quality and Preference. 2010;21(8):1042–1051. [Google Scholar]

CIARD, (2011) Introduction to "Access, sharing and transformation of data and information" breakout session accessed from (http://www.ciard.net) on 22th August, 2019.

Cooper, D. R. & Schindler, P. M. (2006) Business Research Methods (9th Edn). New York: McGraw Hill

Holechek, J. L., Cibils, A. F., Bengaly, K., &Kinyamario, J. I. (2017). Human population growth, African pastoralism, and rangelands: a perspective. *Rangeland ecology & management*, Vol.70, No.3, pp. 273-280.

Ifukor, M. O. (2013). Channels of information acquisition and dissemination among rural dwellers. *Academic Journals* Vol. 5, No. 10, pp. 306 – 312.

Jenet, A. (2017). The path to greener pastures: Pastoralism, the backbone of the world's drylands. VSF International Veterinaires Sans Frontieres

Ngowi E., Mwakalobo A. &Mwamfupe D. (2015). – Making ICTs work for agro-pastoral livelihood: using the telecentre as learning tool for agro-pastoralists communities in Tanzania. *Jjournal of Sustain. Develop.,* Vol. 8, No**.** (2), pp. 89–98.

Rota, A. (2018). How to do engaging with pastoralists-a holistic development approach. *Pastoral Development, IFAD Investing in Rural People.*

Seid, M.A, Et, al. (2016). Communication for the development of pastoralism. *Rev. Scie. Tech. Off. Int.Epiz*, Vol. 35, No. 2, pp. 639 – 648

Seid, M.A, et al. (2016).Communication for the development of pastoralism, Rev. sci. Tech, Off. Int. Epiz, Vol. 35, No. 2, pp 639 -64

Srikanth, K., Harvey, S., & Peterson, R. (2016). A dynamic perspective on diverse teams: Moving from the dual-process model to a dynamic coordination-based model of diverse team performance. *Academy of Management Annals*, Vol. 10, No.1, pp. 453-493.

Turkana County Government (2018/2022). Communication and media strategy 2018-2022: Department of public communication and media relations 2018. *The Turkana County Government* Report.

Wayua, F. (2017). Nutritional and health challenges of pastoralist populations in Kenya. African Journal of Food, Agriculture, Nutrition and Development, Vol. 17, No. 1, pp. 11592 – 11602