

An Analysis of Non-Governmental Organizations: Health Nutrition Measures and Peoples Satisfaction

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Abstract

This study was carried out to measure the Non-Governmental Organizations intervention in health nutrition and people's level of satisfaction. A sample size of 230 out of 450 populations was selected through a simple random sampling procedure. The study revealed the children and women (lactating) benefitted through nutrition food, provision of purification tablets for safe drinking water, provision of food baskets to people. Children were benefitted through the provision of vitamin, and de-warming medication, treatment of pregnant and lactating women and children suffering from malnutrition were significantly associated with people's level of satisfaction. This study recommended that government, along with NGOs, must take measures for healthy nutrition irrespective of class, caste, and occupation, etc.

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Introduction

The government and Non-Governmental Organizations (NGOs) are facing challenges to implement large-scale health-related projects effectively (Yamey, 2012; and Mirzazada et al., 2020). The stakeholders continue to develop and implement various projects in the health sector to overcome these issues and provide healthy nutrition to the community (Steenhoff et al., 2017). The basic aim of NGOs is to empower and improve the life standard of people. Some of the NGOs are working in the field of income generation of poor people. They give small grants to people and established small enterprises for the people to improve their living standards, i.e., that they become able to support their families, provide nutritious food and protect their offspring from any kind of violation. Also, NGOs launch advocacy campaigns through which problems of people are identified and present the issues in front of concerned government departments to adopt policy reforms for its

solution especially related to health nutrition (Heintz, 2006; and Mehta et al., 2020).

Non-Governmental Organizations are nonprofit organizations working in different sectors for the development of people. NGOs are providing relief services to suffering people, working for the protecting environment, and playing a role for poverty alleviation, and it works for safeguarding basic human rights (Cleary, 1997). In other words, NGO can also be defined as a group of people who are combined with working for the development of their community or society and it is not controlled by the government (Mazibuko, 2005). When the government had lacks resources or is unable to provide services to people, then NGOs take the responsibility to provide services. In western industrialized countries, NGOs work in close association with the government. Many NGOs are working in developing countries. Since the beginning, NGOs are working independently to provide services to the people, but in the last two

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decades, the cooperation of NGOs directly increased with the government in the provision of the services to the masses. NGOs are working in different sectors like promoting democracy, civil society, and active citizenship (Hulme et al., 1997; [Darmstadt et al., 2020](#)). NGOs provide services in three steps; in the first step, NGOs are organized in case of any emergency, e.g., earth quack, flood, landslide, epidemic, etc. In the second phase, start programs for the development and recovery of people, like saving and credit groups for women, starting literacy classes, etc. in the third step, NGOs play their role to empower the local community affected by disasters; a role in the empowerment of marginalized people and to take on an advocacy role with the government, power holders in the society and work for the promotion of international unity ([NRC, 2000](#)).

Asian Development Bank defined NGOs as non-governmental or nonprofit organizations involved in empowering the mass society. Similarly, United Nations define that NGOs are not-for-profit organizations that carried out various activities and arranged events for the facilitation, protection and provision of basic needs and services to the people in need of an emergency ([Jabeen, 2010](#)). The main aim of the NGOs is to enhance the living status of people by providing them basic facilities including food, shelter, health, and education etc. in addition, NGOs are in the front line about the provision and protection of human rights ([Haslegrave, 2003](#)).

Many NGOs are working in various places throughout the world for the development of people. In Pakistan, the intervention of NGOs increased after the war on terrorism and natural calamity, i.e. flood ([Asian Development Bank, 2008](#); and [Mehta et al., 2020](#)). NGOs are working in the field of emergency response, disaster risk management, environment, poverty alleviation, health, culture, and education, etc., in Pakistan. In addition, it included the services related to health and nutrition like prenatal care, family planning, newborn baby care centres, skilled birth attendance, the awareness of women on the importance of breastfeeding and nutritional (Benova et al., 2014)

In Pakistan, NGOs are working since the partition at that time, and there were voluntary organizations involved in providing services to refugees. These NGOs are performing their roles in the field of rehabilitation, basic health,

education, and health sector. In 1970 and 1980, many NGOs are registered in Pakistan. In the 1990s, in rural Sindh and Punjab number of NGOs increased very rapidly. It was found by UNDP in 2001 that in Pakistan, there are 8,000 to 16,000 NGOs registered. While the total number could rise to 35000 were included with non-registered organizations ([Tufail, 2006](#)).

Literature Review

The term NGO has become known recently, but the concept of human organization is present from the very ancient time involved in the process of development. In 1868, in Japan, the former organization played a very important role in the field of agriculture development. At that time, traditional associations were also established in Africa and Asia. In the 17th and 18th centuries, NGOs are involved in neglected issues related to rights of people, health, safety, gender, equality, and technology through the 19th and early 20th centuries, NGOs come into a formal structure. In 1910, 132 international NGOs registered under the UN international association, and they decided to co-operate with each other in solving issues of needed people. NGOs become popular all over the world with the establishment of the UNO in 1945 ([Mustaghis, 2004](#)). In the 20th century, it was realized by people that all problems of people could not be addressed nationally; to minimize these issues, the support of International treaties and International Organizations are required. As a result, the NGOs launched their projects in crises affected countries or when there is a genuine need ([Natalie, 2001](#)).

Medicines' Sans Frontiers' (MSF) is the organization that work to provide basic health facilities including a nutritional supplement to the people in case of emergency or in need. The Medicines' Sans Frontiers' (MSF) was the leading organization that provides medical support to people suffering from man-made and natural disasters. MSF has carried out a plan on drugs for a deserted communicable disease which combines capacity development, advocacy, investigation, and networking ([Trouiller et al., 2002](#)). Public health practitioners and donors have been focusing on fairly delivering health care and reduce inequality (Peters *et al.* [2002](#)). [Government programs](#) frequently have low exposure and quality, and here is several facts that NGOs better supported and facilitated the

locals in health emergencies and able to develop the inclusive health care delivery services system (Bhushan *et al.*, 2002).

It was estimated by WHO that due to severe bacterial infections 440,000 infants die each year (WHO, 1998). Most neonatal mortality is because of unclean delivery or unclean cord care practices (WHO, 2000). However, the most effective way to control the mortality during delivery by immunized the women through tetanus toxoid (TT) (WHO, 1998). It was concluded from a survey that unclean circumstances are the main factors contributing to the high incidence of neonatal and maternal tetanus and sepsis (WHO, 2000). NGOs have delivered technical training in environmental issues, agriculture, micro-credit, and free enterprise supported by training packages. Donors have taken an interest to provide environmental education, basic health, and hygiene, population education, however, introducing mechanisms concerning gender roles leftovers a responsive almost taboo matter (UN, 2000).

The militancy and flood destroyed the infrastructure of Swat Valley and on the other hand, the local people connect with the whole world. During the militancy, 109 Schools of Swat were totally or partially destroyed. Different governments and NGOs including Sarhad Rural Support Program (SRSP) started working to reconstruct schools (The Daily News, 2011). The militancy followed by the flood in Swat severely damaged the community physical infrastructures, houses, health facilities, educational institutions, bridges, irrigation, water supply and sanitation systems. The situation is more and more complex in flooded areas of Khyber Pakhtunkhwa especially in Swat and Malakand division in general due to the conflict in the provinces, where women and children, particularly girls, were already deprived of access to education and basic health services. Similarly, the flood disaster destroyed that communication and transportation system ultimately making this helpless population harder to achieve with life-saving interventions, as pointed out by Shandana (2010). The 2010 floods in Pakistan began in the last week of July 2010, due to heavy monsoon rains in Punjab, Sindh, Baluchistan and Khyber Pakhtunkhwa regions of Pakistan. About one-fifth land area of Pakistan was underwater (Goodwin, 2010). The flood affects 20 million people by mostly destruction of livelihood, property, and infrastructure, with

almost 2,000 people lost their lives (Singapore Red Cross, 2010). The report of United Nations shows that between 1990 and 2008, the proportion of the world's population with access to improved drinking water sources increased from 77 percent to 87 percent (UN, 2011) The wide damages to crops and infrastructure was harmed the Pakistani economy (Dawn News, 2010).

The national system of medical services consisted of 482 RHCs, 4144 dispensaries, 4616 BHUs, and 796 hospitals (GOP, 2009). Though, these basic level services have limited hours of process, are often situated far away from the residents. Manpower is constituted of around 24 000 midwives, 6000 Lady Health Visitors, 28 000 nurses, 3000 dentists, 90 000 doctors. Only 25% of the RHCs and BHUs have skilled female health providers (Islam and Tahir, 2002). Saudi Arabia announcing a statement to establish an air bridge to transport relief supplies to Pakistan, 30 major air relief consignments were sent to land in Baluchistan, Khyber-Pakhtunkhwa, Punjab and Sindh. The ambassador of Saudi Abdul Aziz bin Ibrahim al-Ghadeer has been found in the field in the relief activities in Sindh and Punjab. Relief goods USD 40 million and USD 67 million worth had been delivered. Besides this, the National Disaster Management Authority (NDMA) of Pakistan has been received 5.3 million USD in cash. Along with this, the Government of Saudi Arabia has donated two mobile hospitals (100-bed) to the flood victims (Masood Azhar, 2010). About 600 Non-Government Organizations and 206 public service organizations are engaged to provide health services in Pakistan to the flood Affected (GOP, 2009). Oxfam has provided meals and clean water to more than 180,000 people. Similarly, Oxfam has been distributed clean water, sanitation kits, and hygiene kits among 900,000 people (Oxfam, 2010). CARE International has provided family hygiene kits, water purification tablets, tarpaulins, tents, mosquito nets, and kitchen sets to thousands of survivors. Health services have been provided to around 4,500 people through mobile and basic healthcare units (Care International, 2010).

In the past efforts of government and development partners, the fertility rate has been declined from 6.3 in 1975 to 3.0 in 2004 due to the high use of the contraceptive prevalence rate from 9.6% in 1975 to 58% in 2004. The availability of oral rehydration salt (ORS) has been increased in markets from 61% in 1999-2000 to 67% in 2004

(BDHS, 2004). The maternal mortality ratio has decreased from nearly 574 per 100000 live births in 1990 to between 320 and 400 in 2004 (NIPORT, 2001; and BDHS, 2004). Bangladesh has brought improvements in the health sector. The rate of Infant mortality has decreased from 94 to 67 per thousand during 1990-1996. The population growth has decreased from 3% to 1.5% during 1970-1990. Now the fertility rate is 3.3 as compared to 6.0 in 1970 (World Bank, 2003).

The majority of the local and international NGOs are working for the welfare of deprived people in close connection with the community people (Miller, 2000). In South Korea, a survey was conducted in 2000, and it concluded that (33.8%) of NGOs were working for protecting the rights of the excluded people, it was also found that (31.6%) NGOs are involved in delivering social services to the deprived people and (13.8%) play role for the solidarity of the community (Kang, 2001).

The above review signifies the importance of NGOs in the field of development

along with the government. The concept of sustainable development is essential and could only be materialized once the existing resources are properly calculated, and their use is then planned subsequently. Health, an important section of human life, is of immense importance towards this end. Health encompasses the quality of life, population growth and control and the proper utilization of available humans as sources towards the achievement of targeted objectives in development. Human as major actors of the socio-economic reality has been focused upon since long. Realization the fact of the inability on the part of the incumbent government to cater to the growing needs of its population, the NGOs concept has been vibrated with the sole objective to provide maximum facilities to mitigate the distress of the human population with a special focus on health. Although analysis of the review has led to the development of the following conceptual framework is shown as below;

Independent Variables	Dependent Variable
Provision of Health and Nutrition Services	People's level of satisfaction

Materials and Methods

This section deals with the study methodology, sampling, sample size, data collection tools and analysis used in the study entitled "An analysis of Non-Governmental Organization: health nutrition measures and peoples satisfaction". The study area consists of Union Council Pir Kally of Tehsil Matta District Swat. There were 15 villages in which five were randomly selected for this research study. This area is selected purposively as it is the most affected area throughout the whole district of Swat due to flood and militancy as well. Also, it possesses a high level of NGO interventions working in different walks of life. The stratified random sampling procedure was adopted to collect data from 230 family heads. As per the procedure adopted by Sekaran (2003) shown in her book sample size of 230 was taken from the total population size (those household heads, who are beneficiaries of NGOs) stands at 450 in the selected union council. The sample size was further distributed shown in table-1 on a proportional allocation basis while using the formula.

$$n_i = \frac{n \cdot N_i}{N} \text{ Chaudhry and Kamal (1996)}$$

Where

- n = sample size of the total population
- n_i = sample size of each village
- N_i = No of the household in each village
- N = Total no of household

Data were collected through a well-designed interview schedule. For accuracy and validity, the interview schedule was pre-tested in the study area to remove the irrelevant or add pertinent questions. The data was collected by the research through a face-to-face interview.

After the collection of data, it was transferred into SPSS, i.e., 20 version, which facilitated the enumeration of answers to the questions. At the univariate level, percentages and frequencies were used to know about the phenomenal aspects of the study. Moreover, T-test statistics (paired t-test) was used to measure the before and after difference and peoples satisfaction with the help of given formula (Chaudry and Kamal, 1996),

$$t = \frac{\bar{d} - \mu_d}{s_d / \sqrt{n}}$$

t = Student t distribution

\bar{d} = Mean of the two different sample observations

μd = Difference between two sample observations

S_d = Standard deviation

n = Sample size

Results and Discussions

Health is a strong role to play in human dynamism both in mental and physical aspects as well table 4.2.2 reveals that out of total 230 (100%) respondents, no one was benefitted through nutrition food before the NGOs intervention, while 3.9%, followed as (1-25) percent, 26.1% upon (26-50) percent, 31.1 % upon (51-75 percent), 38.7% up to (76-100) people benefitted through nutrition food after an intervention. It is concluded that the basic aspect of nutrition was also focused on by the NGOs to cover differences of physical nature to inhabitants it plays a pivotal role in women with pregnancies as shown by the earlier review that pregnant and lactating women and children under the age of two years were in target beneficiaries with a newlywed couple in their children were given food packages as a combination of pulse under rice powder and molasses (BINP, 1999). World food program and FAO provided basic nutrition food to undernourished people (world food summit, 2005; FAO, 2011; and Bollido, 2020)

About the water purification tablets distribution, the total respondents, i.e., 230 (100%) answered that no water purification tablets were distributed before NGO interventions. While 20.9% of the respondents said that 0 percent, 36.1% said 1-25 percent, 20.0% said 26-50 percent, 17.8% said 51-75 percent, 5.2% responded to 76-100 percent their results confirm that water purification tablets were distributed after intervention these results confirm that water purification tablets were distributed after NGOs intervention. These results were like CARE international which had provided family hygiene kits, water purification tablets to around 4,500 people (Care international, 2011).

Moreover, out of a total of 230 (100%), all the respondents disclosed that they had not benefitted before NGOs interventions. While 2.6% respondents had opined that were benefitted up to 1-25 percent, 5.7% were up to 26-

50 percent, 26.5% were up to 51-75 percent and 65.2% were up to 76-100 percent after NGOs interventions, they benefitted in terms of food baskets. Marshal (2010) highlights that a plan was developed which gave several targets to the non-governmental and governmental organizations to achieve food security at all levels, e.g., individual to global levels, QATAR charity in collaboration with the WFP (World Food Program) has started the delivery of food packages. A non-government organization, FOCUS has provided 200 MT food among the affected population across Sindh, Chitral, and Gilgit-Baltistan (Akdin, 2010).

Furthermore, out of a total, 100% provided the information that they have not benefitted before NGOs interventions through safe drinking water. While 1.7% were not benefitted after NGOs interventions, followed by 90.4% benefitted up to 1-25 percent, 4.3% up to 26-50 percent, 1.7% up to 51-75 percent, and 1.7% benefitted up to 76-100 percent in term of safe drinking water. It could be attributed to the efforts heaving rendered on the part of NGOs to protect human beings from water contamination. Oxfam provides clean water, sanitation kits, and hygiene provision to 900,000 (Oxfam, 2010). The report of the United Nation shows that between 1990 and 2008, the proportion of the world's population with access to improved drinking water sources increased from 77 percent to 87 percent (UN, 2011). Muslim Charity is providing clean drinking water it could be contributed to the efforts being reduced on part of NGOs to protect human beings from water contamination to 50,000 people (RTÉ News, 2010).

Regarding the number of children who benefitted through vitamins before NGOs interventions, 41.7% of respondents disclosed that they had not benefitted, followed by 7.0% up to 1-25 percent, 10.9% up to 26-50 percent, 20.0% up to 51-75 percent and 20.4% 76-100 respectively. While 11.3% is attributable to the fact that NGOs had also focused on the distribution of vitamins vitals for human efficiency. Literature review highlight that vitamin have been provided up to 90% to the beneficiaries after NGOs interventions (BINP, 1999). Some nutrition program runs throughout the world which provides school meals and Vitamin doses (World Food Summit, 2005; and FAO, 2011).

About the number of people supported through cash grant, 73.9% answered that they

had not benefited from it, 26.1% were benefited up to 1-25 percent before NGOs interventions. While 1.3%, respondents replied that they had not benefited through cash grant, followed by 39.6% up to 1-25 percent, 54.8% had up to 26-50 percent, 4.3% up to 51-75 respectively after NGOs interventions. It is depicted from these data that NGOs prefer distributing in kind and not in cash through grants for seeds. The result is more like Global Crisis Response Program has launched to improve agriculture productivity through grants for seeds ([World Food Summit, 2005](#); and [FAO, 2011](#)).

Moreover, asking about the number of children who benefited through De-worming medicine out of a total, 37% of respondents answered that they were not benefited before, while 59.1% benefited 1-25%, 3.9% up top 26-50%. While 13.9% of respondents answered that they were not benefited, 13.0% benefited up to 1-25 percent, 17.4% were up to 26-50 percent, 30.9% had up to 51-75%, and 24.8% were 76-100% respectively. Children, especially from rural areas, are given immunization and de-

worming medicine during the campaign ([UNICEF, 2010](#)) De-worming medicine would be given to 130974 children from two to five years of age ([City News, 2011](#)).

Similarly, about the number of pregnant and lactating women and children suffer from malnutrition 43.5% of the respondents responded that there was no assistance available to them before NGOs interventions, 41.3% were assisted up to 1-25 percent, 13.0% up to 26-50 percent, 2.2% up to 51-75 percent. While 8.3% responded that they were no assistance available to them after NGOs interventions, 14.8% assisted up to 1-25 percent, 9.6% up to 26-50 percent, 26.1% up to 51-75 percent, and 41.3% up to 76-100% assistance provided after interventions. The UNICEF report indicated that they have screened approximately 730,000 children for malnutrition in Pakhtunkhwa and eastwhile FATA. Among them, more than 62,000 had received treatment and food supplements who were malnutriant ([Youngmeyer, 2011](#); and [Wilke et al., 2020](#)).

Table 1. Showing Health Nutrition

Statements	Total	Range	Pre	Post
Number of people (children and Women) benefitted through nutrition food (Plumpy doze, Wawa mam, RUFs, HEBs, etc)	230(100)	0	230(100)	0
		1-25	0	9(3.9)
		26-50	0	60(26.1)
		51-75	0	72(31.1)
		76-100	0	89(38.7)
Number of water purification tablets distributed among people	230(100)	0	230(100)	48(20.9)
		1-25	0	83(36.1)
		26-50	0	46(20.0)
		51-75	0	41(17.8)
		76-100	0	12(5.2)
Number of households benefitted through food baskets (Food security)	230(100)	0	230(100)	0
		1-25	0	6(2.6)
		26-50	0	13(5.7)
		51-75	0	61(26.5)
		75-100	0	150(65.2)
Number of people benefitted through safe drinking water	230(100)	0	219(95.2)	4(1.7)
		1-25	7(3.0)	208(90.4)
		26-50	3(1.3)	10(4.3)
		51-75	1(0.4)	4(1.7)
		76-100	0	4(1.7)
Number of children benefitted through vitamins	230(100)	0	96(41.7)	66(28.7)
		1-25	16(7.0)	26(11.3)
		26-50	25(10.9)	23(10.0)
		51-75	46(20.0)	36(15.7)
		76-100	47(20.4)	79(34.3)
230(100)	0	170(73.9)	3(1.3)	

Statements	Total	Range	Pre	Post
Number of people who benefited through a cash grant		1-25	60(26.1)	91(39.6)
		26-50	0	126(54.8)
		51-75	0	10(4.3)
Number of children De-warmed through medication		0	85(37.0)	32(13.9)
		1-25	136(59.1)	30(13.0)
		230(100)	26-50	9(3.9)
Assistance and Treatment to a number of pregnant and lactating women and children suffer from malnutrition.		51-75	0	71(30.9)
		76-100	0	57(24.8)
		0	100(43.5)	19(8.3)
		1-25	95(41.3)	34(14.8)
		230(100)	26-50	30(13.0)
		51-75	5(2.2)	60(26.1)
		76-100	0	95(41.3)

T-Test Statistics

Appropriate statistics i.e., T-test was used to measure the comparison between the pre and post scenario of NGOs interventions in health nutrition in the study area.

Testing Hypothesis of Health Nutrition with T-Test Analysis

T-test results for 08 hypotheses are given in Table-2 and explain below.

Ho = Number of people who benefited through nutrition food has not increased after NGOs intervention.

H1 = Number of people who benefited from nutrition food has increased after NGOs intervention.

The study further explored that the people benefitted through nutrition food as shown by significant value ($p = 0.000$). Therefore, the null hypothesis is rejected, and the alternative hypothesis is accepted. The mean difference value of -70.730 shows an increase in negative benefits through nutrition food. It is concluded that the basic aspect of nutrition was also focused on by the NGOs to cover differences of physical nature to inhabitants it plays a pivotal role in women with pregnancies as shown by the earlier review that pregnant and lactating women and children under the age of two years were in target beneficiaries with a newlywed couple in their children were given food packages as a combination of pulse powder rice powder and molasses (BINP, 1999). World food program and FAO provided basic nutrition food to

undernourished people ([world food summit, 2005](#); and [FAO, 2011](#)).

Ho = Number of water purification tablets distributed among the people has not increased after NGOs intervention.

H1 = Number of water purification tablets distributed among the people has increased after NGOs intervention.

Furthermore, the water purification tablets were distributed after NGOs intervention indicated as ($p = 0.000$), and the mean difference value - 32.800 shows more water purification tablets. These results were supported by CARE international that provided family hygiene kits and water purification tablets to around 4,500 people ([Care international, 2011](#)).

Ho = Number of households benefited through food basket has not increased after NGOs intervention.

H1 = Number of households benefited through food basket has increased after NGOs intervention.

The study disclosed that household benefited through food basket has a high significant value ($P=0.000$). It points out the rejection of the null hypothesis and acceptance of the research hypothesis. The mean difference value (- 81.830) also shows its strength on the research hypothesis. Marshal (2010) highlight that a plan was developed which given a number of targets to the non-governmental and governmental organizations to achieve food security at all levels e.g. individual to a global level, QATAR charity in collaboration with the WFP (World Food Program) has started the delivery of food packages. A non-government

organization FOCUS has distributed 200 MT food items among the affected population in Sindh, Gilgit-Baltistan and Khyber Pukhtunkhwa ([Akdn, 2010](#)). The NGOs have provided diet food items to the affected population of Syria during the emergency ([Ghreiz, 2020](#)).

Ho = People have not benefited from safe drinking water after NGOs intervention.

H1 = People have benefited through safe drinking water after NGOs intervention.

The study further explores a high level of significance ($P=0.000$) “people benefitted through safe drinking water” which causes the null hypothesis rejection. The mean difference value (-7.061) indicates that they were more satisfied after the intervention of NGOs. It could be attributed to the efforts, heaving rendered on the part of NGOs to protect human beings from water contamination. Oxfam provides clean water, sanitation kits and hygiene provision to 900,000 ([Oxfam, 2010](#)). The report of the United Nation shows that between 1990 and 2008, the proportion of the world’s population with access to improved drinking water sources increased from 77 percent to 87 percent (UN report, 2011). Muslim Charity is providing clean drinking water it could be contributed to the efforts being reduced on part of NGOs to protect human being from water contamination to 50,000 people ([RTE News, 2010](#); and [Wilke et al., 2020](#)).

Ho = Children have not benefited through vitamins after NGOs intervention.

H1 = Children have benefited through vitamins after NGOs intervention.

The study further revealed that the research hypothesis “There were more children benefitted through vitamins after NGOs intervention in the area was high than before the intervention” as a highly significant value ($P= 0.000$). The mean difference values (-8.487) also explore that more children benefitted after NGOs intervention. Literature review highlight that vitamin has been provided up to 90% to the beneficiaries after NGOs intervention of ([BINP, 1999](#)). Some nutrition program carries out throughout the world which provides school meals and Vitamin doses ([World Food Summit, 2005](#); and [FAO, 2011](#)).

Ho = People have not supported through cash grants after NGOs intervention.

H1 = People have supported through cash grants after NGOs intervention.

The study also explored that the statement “people supported through cash grants after NGOs intervention” had a high significant value ($P= 0.000$) indicate the rejection of the null hypothesis and acceptance of the research hypothesis. The mean difference value (-31.509) also shows its dependence on NGOs intervention. It is depicted from these data that NGOs prefer distributing in kind and not in cash through grants for seeds. The result is more like Global Crisis Response Program has launched to improve agriculture productivity through grants for seeds ([World Food Summit, 2005](#); and [FAO, 2011](#)).

Ho = De-worming medicine for children has not increased after NGOs intervention.

H1 = De-worming medicine for children has increased after NGOs intervention.

The study also disclosed that the De-worming medicine after NGOs intervention has a high significant value (0.000) It indicates the rejection of the null hypothesis and acceptance of the research hypothesis. The mean difference value (-47.917) shows its intensity on the research hypothesis. Children, especially from rural areas, be given immunization and de-worming medicine during the campaign ([UNICEF, 2010](#)) De-worming medicine have been given to 130974 children from two to five year of age ([City News, 2011](#)).

Ho = Number of assistance and treatment to pregnant and lactating women and children suffer from malnutrition has not increased after NGOs intervention in the area.

H1 = Number of assistance and treatment to pregnant and lactating women and children suffer from malnutrition has increased after NGOs intervention in the area.

The study further explores a high level of significance ($P=0.000$) “assistance and treatment to pregnant and lactating women and children suffer from malnutrition” the null hypothesis was rejected. The mean difference value (-51.483) indicates that they were more satisfied after NGOs intervention in the area. It is clear from the UNICEF report that they have screened approximately 730,000 children for malnutrition

in Pakhtunkhwa and erstwhile FATA. Among them, more than 62,000 had received treatment

and food supplements which were malnutriant (Youngmeyer, 2011; and Wilke et al., 2020).

Table 2. Showing the Health Nutrition Variable Result with T- Test Analysis

Statement	Pre		Post		Mean difference	T value	P value
	Mean	Standard Error	Mean	Standard Error			
Number of people (children and Women) benefitted through nutrition food (High Energy Biscuits etc.)	0.000	0.000	70.730	1.558	-70.730	-45.409	0.000
Number of water purification tablets distributed among people	0.000	0.000	32.800	1.917	-32.800	-17.110	0.000
Number of household benefitted through food baskets (Food security)	0.000	0.000	81.830	1.213	-81.830	-67.471	0.000
Number of people benefitted through safe drinking water	0.900	0.413	7.961	1.034	-7.061	-6.496	0.000
Number of children benefitted through vitamins	41.126	2.619	49.613	2.654	-8.487	-4.022	0.000
Number of people benefitted through cash grant	3.000	0.396	34.509	.971	-31.509	-33.222	0.000
Number of children De-warmed through medication	8.830	0.717	56.748	2.352	-47.917	-20.811	0.000
Assistance and Treatment to a number of pregnant and lactating women and children suffer from malnutrition.	13.687	1.122	65.170	2.287	-51.483	-21.780	0.000

Conclusions and Recommendations

The study found that the NGOs, working in the study area had successfully contributed to the uplift in the health nutrition. As indicated the number of that children and woman (lactating) benefitted through nutrition food, provision of water purification tablets for safe drinking water, provision of food baskets, children were benefitted through vitamin, de-warming medication to children, treatment of pregnant

and lactating women and children suffered from malnutrition. Based on the findings of the study, appraisal of strict criteria needed to be adopted and provision of funds needed to be linked to the outcome of these appraisals. Extend projects focus on health nutrition to other far plunged and neglected areas. These programs need to be run through locals under the sole supervision of donors and the NGOs must ensure the availability of nutritious food items to all irrespective of class, caste, and occupation, etc.

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