

## Preschool Education: Strengthening of Integral Development and Health through the Promotion of Healthy Environments in Children under 3 Years Old in Rural Zones of Huánuco

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### Resumen

El estudio sobre el fortalecimiento del desarrollo y la salud integral a través de la promoción de ambientes saludables en niños menores de 3 años ha tenido como objetivo comprobar la eficacia de un programa relacionado con la atención integral a los niños a través de la promoción de entornos saludables, actividades de estimulación, control del crecimiento y desarrollo, capacitaciones sobre saneamiento básico, nutrición adecuada, para lo cual se ha tenido una muestra de 90 niños menores de 3 años que asistían a los centros no escolarizados de Pietbaf y Wawawasi en la localidades de Yanag, Colpa Baja, La Esperanza, así como a los padres de familia, a quienes se les capacitó y quienes participaron activamente en dicho programa. El tipo de investigación fue el cuasiexperimental, el diseño utilizado fue de pre y postest con un solo grupo. Las técnicas utilizadas fueron la observación, la encuesta y la entrevista, para las cuales se emplearon fichas de evaluación de acuerdo a las variables e indicadores del estudio. Luego se procesaron los datos porcentualmente, y los resultados determinaron la eficacia del programa. Se encontraron diferencias en los resultados entre el pre y el postest, en los que se reflejan un incremento en los indicadores de saneamiento básico, consumo balanceado de alimentos, mejoramiento en los ambientes y actitudes favorables relacionadas a la salud con la crianza adecuada de sus hijos, la importancia y seguimiento de sus controles médicos, el mejoramiento de los entornos y estilos de vida saludables.

### Abstract

The study on healthy environments promotion for the development and strengthening of comprehensive health care for children under 3 years conducted in the town of Yanag Colpa Baja, La Esperanza, has had like objective, to verify the efficacy of a program related to the integral attention of the children through the promotion of healthy environments, stimulation program, control of growth and development, training on basic sanitation, adequate nutrition and that it has been shown to 90 children under 3 years then attending programs of Pietbaf and Wawawasi in Yanag and parents who were trained and participated in activities considered in this programme. The kind of research is almost experimental using pre and postest with an only group, the techniques used was observing, the survey and interview, using as instruments cards of evaluation according to the variables and indicators of the study, them parentage data were the results determined the efficacy of the program. We found differences in outcomes between the pre and post-test, increase in the indicators of basic sanitation, balanced food, consumption, improving environments and favourable attitudes related to health, proper upbringing of their children, the importance of the control and pursuit of their medical checks, improving the environments and healthy lifestyles

**Palabras Claves:** Ambientes Saludables, Desarrollo Y Salud Integrales, Niños Menores De 3 Años.

**Keywords:** Healthful Environments, Integral Development, Smaller Children of 3 Years

### Introduction

The American nations have made several calls to action to improve the environmental health of children. The Pan American Health Organization (PAHO) has supported such calls and has responded through the "Healthy Environments: a movement to achieve healthy environments for children in the Americas" (2002). The strategy focuses on the regions of Latin America and the Caribbean, and develops several programs, such as comprehensive management of childhood diseases, child and adolescent health, and environmental health. It seeks the participation of local, national and regional levels throughout the hemisphere, with the creation of movements that improve the environments in which children live, grow, learn, play and work. The strategy revolves around four objectives that seek to increase public awareness, advocate for children, recommend policies and programs and establish solid bases for decision-making. The

strategy was designed together with the Healthy Environments for Children initiative of the World Health Organization and is consistent with the environmental health programs of children in the region.

In response to calls from leaders throughout the hemisphere, the strategy takes action to improve the health situation of children in Latin America and the Caribbean who represent almost a third of the population and are particularly vulnerable to the negative consequences of environmental pollution on health. The worse the environmental conditions, the more children suffer. Within this group, the most disadvantaged are poor children who suffer adverse health impacts due to environmental degradation, so that parents, families, communities, professionals and governments have a commitment to the well-being of children. More knowledge and information about the environment is required, mainly in relation to its impact on

children's health; therefore, it is necessary for families, communities, health professionals and governments to better understand children's environmental health in order to improve policies, strengthen laws, report the incidence of diseases related to the environment and provide information on the advances and changes of tendencies and behaviors, much more in those areas of greater risk in relation to poverty not only economic but also social and educational. And one of those areas of greatest poverty, with high rates of illiteracy, child malnutrition and inequality in relation to the urban area, is the Huánuco region.

According to data from the state on children in Peru (2011), in Huánuco, 62% of children and adolescents reside in rural areas, of which 73% live in poverty, and the percentages are significantly higher than national average that is 29% and 45%, respectively. The same happens with access to basic services, educational services, mainly for children under 5 years of age. In the diagnosis of the population of Huánuco, chronic child malnutrition affects 46.2% of children under 5 years of age, according to the Demographic and Family Health Survey (Endes).

In recent years, it is the concern of researchers and organizations, such as Pathfinder International (USAID), to develop projects on healthy schools and municipalities in different departments of the country, in order to promote health and social development in Peru, in coordination with the Ministry of Health, national and local governments and educational institutions, including some areas of Huánuco.

For many years the early development of the children was only in the hands of the parents; however, currently poverty, diseases, violence, lack of quality services, breakdown of family structures, child nutrition represent a significant problem, as noted by Pollitt (2002): "child malnutrition is a national problem and a manifestation of poverty, especially in rural areas."

This problem requires inter and multidisciplinary intervention to promote a healthy child development on which to establish the future of any society; H. Brumaltland (2002) recommends that the promotion of healthy environments is important to ensure the healthy development of childhood.

Children are particularly vulnerable to the impact of environmental factors given their physiological characteristics, the process of rapid growth, their immaturity and also their limitations in recognizing environmental hazards and how to avoid them. This vulnerability is especially critical in the gestation period, with direct consequences on the risks of becoming ill in childhood; later, in adult life, this is increased by illiteracy, work, poverty, malnutrition, abuse and neglect.

The greatest threats to children's health occur many times in the places that should be the safest: home, school and community. Hazards such as contaminated water, polluted air, lack of basic sanitation, insect vectors of diseases and various chemical products pose health risks, disproportionately affect children; Thus, the home environment also becomes a risk for the child's development when there are family conflicts, child abuse, malnutrition due to poverty or a lack of knowledge of the food culture and

the early stimulation of children. Health promotion consists of providing individuals with the necessary means to improve their health and exercise greater control over it. To achieve an adequate state of physical, mental and social well-being, there is a wide range of healthy practices for children. Most of these interventions are focused on education, awareness, the development of multidisciplinary strategies, behavioral changes and the promotion of healthy lifestyles, which would be the ways or ways of acting or being to preserve, improve or maintain health, which generates well-being for children through comprehensive care.

According to PAHO (1992), comprehensive care is based on the principles of universality, solidarity, equity, in which the subjects of attention are the individual, the family, the community and the environment, where the health-disease process depends on the organization of health services and the lifestyles of the population; the socioeconomic part, the environment, as well as the biological part that has to do with the nutritional status and genetics are also taken into account.

For an adequate integral health it is necessary to see it in four fundamental dimensions:

- Physical dimension. It has to do with exercise, nutrition and stress control. It means taking care of our physical body, eating the right kind of food, getting enough rest and exercising regularly.
- Psychological dimension. Ability to think clearly, to reason with precision, related to the cognitive, affective and conative components. It also responds to needs and capacity development, where all emotional balance requires a healthy affective life directed towards positive attitudes. The cognitive processes related to the development of the psychic processes of sensations, perception, attention, memory, intelligence, thought, language and imagination that work interrelated and that from the educational point of view requires an adequate stimulation, potentialization for a better cognitive development.
- The social aspect. It has to do with relationships with others, in which it is necessary that the level of interrelation be positive, harmonious and that allows to interact easily with others and with a greater number of individuals. For this, it is essential to have the ability to understand, respect and possess ethics. The social factor is also a determining factor in the quality of life and well-being of people, and depends not only on the world in health, but also on the social world.
- The spiritual sphere. It is a fundamental aspect for every human being; here are the beliefs, the faith and the deep thoughts about what we identify as the spiritual world, and within this aspect, the will can be identified as the main engine of change; Through the will and personal decision making, man directs his life to a certain direction; it has to do with commitment, with values.

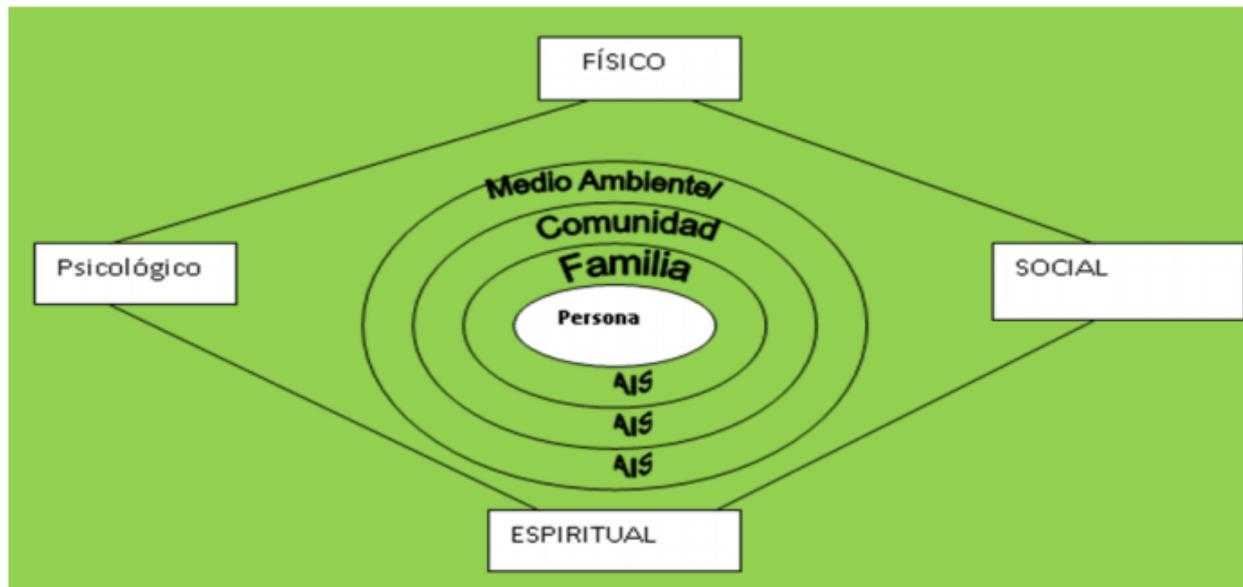
These four dimensions are interrelated and interact in the person, the family, the community and the environment. We see, then, that health is something more than a biological

dimension and not only depends on having or not having a disease. To speak of health is to make it a balance between the biological, psychological and social dimension of the person with or without disease.

The human being is conceived as a global being composed of biological and psychological components, with constant interaction with the environment in which he is immersed. Likewise, the community and the environment are not only part of the environment, but are an intrinsic part of the

reality of people and families. Therefore, the approach to care must integrate all these aspects.

It is important that health and education professionals lead and become agents of change and constant improvement to achieve the maximum well-being of people, family and community in a healthy environment, prioritizing care in childhood, meeting basic needs of them to improve the health process, mainly affecting their nutritional status, since malnutrition makes us more vulnerable to the disease.



**Figure 1.** Dimensions of integral development and integral care model

On the other hand, it is necessary to promote healthy environments not only in terms of family environment, but also in education, using healthy strategies and lifestyles.

It is necessary to consider the family as an open social system, in constant interaction with the natural, cultural and social environment, in which its members interact as microgroups that form, in turn, subsystems with highly relevant biological, psychological and social factors and that are decisive in the integral development of their children.

The promotion of health and child development place children in the first place of their action with the purpose of protecting their rights and their cognitive, social, emotional and physical potential so that they develop optimally in the following stages of the cycle vital. For this purpose, strategies are used that aim to promote and strengthen the integral development of children through the strengthening of families and the community, articulating institutions such as health, education, local governments and other organizations.

In this sense, this work was carried out to apply a program related to knowledge of the development and the integral health of the child, training and training in basic sanitation, nutrition, healthy lifestyles and early childhood stimulation. All this oriented to the promotion of healthy environments that guarantee the development and integral health of children under 3 years of age in the rural areas of Huánuco. For this we have proposed the following hypothesis: "The application of programs promoting healthy environments influences the strengthening of the development and

comprehensive health of children under 3 years of rural areas of Huánuco."

On the other hand, we know that children are more exposed to the same environmental risks than adults, and that is why PAHO strives to improve environments for children by using many programs such as integrated care for prevalent childhood diseases, the health of children and adolescents, school initiatives and health care. Likewise, the World Summit for Children, in 1990, assumed the commitment to improve children's health and well-being at the international level; In this sense, our contribution has been basically the achievement in the change of attitudes of the families and of the children themselves regarding the care of their health, and the determination of the importance of the coordinated work with the health institutions, the local governments and NGOs, which have allowed for the strengthening of capacities to address childhood health and well-being problems. This has been demonstrated in the results obtained from the entrance and exit assessment, which reflect an increase in positive behaviors after the information and awareness through the workshops that were developed.

They have improved the attitudes of the families in relation to the care of the environment, consumption of boiled water, the importance of promoting green areas, as well as in relation to communication, respect and resolution of problems among the members of the family.

However, the time, the various occupations of the families, the lack of economic resources, have interfered with some activities of our program, which impels us to continue

applying and taking these experiences to other communities in order to improve the overall health of the children.

## Material and Methods

The present study is of an applicative, quasi-experimental type, and the research design is pre and posttest with a single group. We worked with 90 children from 0 to 3 years old, from rural areas of the city of Huánuco (Yanag, Colpa Baja, La Esperanza), and their families.

The work consisted in the application of the program of promotion of healthy environments that consists of the promotion of the following dimensions: healthy climate in the home and the educational environment, safe water, recreational areas, hygienic services, green areas, solid waste management and external areas of the home

(independent variable); and strengthening the development and integral health of children under 3 years of age (dependent variable), for which the following dimensions have been taken into account: physical and psychological health. For the measurement, the evaluation sheets were used according to the indicators of the program.

## Results

In this table we can see that families' attitudes have improved according to the indicators indicated in the posttest compared to the pretest. Regarding the indicators, we can observe that, after applying the program, through training workshops for parents, they have improved the quality of their relationship, share concerns, do things together, parents fight less, communicate better and make decisions together.

**Table 1:** Characteristics of parents-children coalition in rural areas of Huánuco

Parent-Child Coalition	Percentage
<b>In the family:</b>	
The children watch the fights of the parents.	40%
Parents often ask for help from others to solve their problems.	35%
Frequently the children fight.	60%
Parents punish to correct their children.	55%
<b>In relation to time:</b>	
Parents spend most of their time with their children.	45%
The father is not permanently in his home for work.	37%
The children live alone with their mother.	42%
The children are under the care of siblings or grandparents.	30%
<b>In relation to space:</b>	
They share the same spaces always.	51%
They are frequently in rooms or places	20%
They have only one bedroom for everyone.	40%

**Table 2:** Percentage results of the evaluation form in the pretest and posttest on the integral health of children under 3 years of rural areas of Huánuco

	INDICATORS	PRETEST			POSTEST		
		No	Reg.	Yes	No	Reg.	Yes
1	The quality of the relationship between parents and children is good.	40%	30%	30%	10%	40%	50%
2	All the family members share feelings and concerns.	20%	50%	30%	0%	40%	50%
3	Parents do several things together, they talk frequently.	40%	30%	30%	10%	40%	50%
4	In the family, parents often fight.	10%	40%	50%	30%	40%	30%
5	The children intervene in the problems or fights of the parents.	10%	70%	20%	60%	30%	10%
6	In the family they spend most of their time together.	60%	30%	10%	30%	30%	40%
7	Parents, before their problems, coordinate and make decisions together.	40%	40%	20%	20%	50%	50%
8	When they do not work they always stay together at home.	30%	60%	10%	20%	70%	40%
9	The father and the mother have equal authority in everything.	40%	40%	20%	20%	30%	50%
10	In the family there is discipline with the children.	60%	30%	10%	10%	40%	50%
11	Everyone knows what they have to do at home and they assume responsibilities	40%	40%	20%	20%	30%	50%

12	There is good communication between parents and children.	60%	20%	20%	29%	40%	40%
13	Parents punish children to obey.	20%	20%	60%	60%	30%	10%
14	Parents responsibly come to the control of comprehensive care of their children	40%	30%	30%	10%	20%	70%
15	Parents are aware of the nutritional status of their children.	60%	20%	20%	20%	30%	50%
16	Parents have knowledge about preventing their children's illnesses.	50%	20%	30%	10%	30%	60%
	<b>Average</b>	39%	36%	25%	21%	34%	45%

**Source:** Results on comprehensive health record

In this table we can see that families' attitudes have improved according to the indicators indicated in the posttest compared to the pretest.

Regarding the indicators, we can observe that, after applying the program, through training workshops for parents, they have improved the quality of their relationship, share concerns, do things together, parents fight less,

communicate better and make decisions together. Likewise, they understood the importance of having equal authority, encourage greater discipline of children, assume their responsibilities equitably, and at the same time have improved their communication.

The parents also understood that to correct their children, they should not necessarily punish them.

**Table 3:** Pre and posttest results on basic sanitation in the families of the town of Yanag, Pillco Marca, 2007

Basic sanitation	Pretest	Posttest
<b>Water</b>		
- Spring	20%	24%
- Cistern	10%	4%
- Home network	70%	72%
<b>Storage and hygiene</b>		
- Good	15%	32%
-Regular	50%	64%
- Bad	35%	4%
<b>Form of consumption</b>		75%
-Boiled	40%	13%
- Raw	30%	12%
- Direct	30%	
<b>Elimination of excrement</b>		72%
- Latrine	40%	16%
-Open field	38%	12%
- Accumulated fill	22%	
<b>Disposal of garbage</b>		34%
- Incinerated	20%	34%
-Open field	60%	12%
-Landfill	10%	44%
-Dump	10%	10%

In Table 3, we observe the pre- and post-test percentage results on the integral development of children under 3 years of age, in which we find differences, which indicates that the application of the program consisting of awareness-raising and training has been positively influenced families to take responsibility and accurately their roles as parents to ensure the healthy development of their children.

As we can see, according to the indicators, parents have improved in terms of hygiene, consumption of boiled water by all members of the family, the elimination of excrement in latrines and the incineration of garbage and waste.

## Discussion

The present study has been conducted in the rural areas of Huánuco, where families, 80%, have primary and secondary education; most are farmers and workers, with temporary jobs; their homes show inadequate conditions in relation to hygiene, services and security.

In family relationships it has been recorded that, when parents drink alcohol, situations of conflict occur in front of their children, which resembles characteristics of Peruvian households in rural areas indicated by Moyano (2002), who

indicates that poverty is It manifests as a situation of underconsumption, malnutrition, inadequate and precarious housing conditions, low educational levels, precarious insertion into the labor market and insufficient income. On the other hand, Harlem Brumaltlande (2002), general director of the World Health Organization (WHO), says that the greatest threats to the health of children are home, school and community, but that these can be prevented with strategies such as healthy environments; This shows us that the increase in the consumption of boiled water from 40% to 75%, as well as the elimination of garbage and the use of latrines, favor the development of the child, as well as the programs of clean, safe environments and ordered allowed the increase of ecological awareness of families. Likewise, PAHO is working on environmental health, insisting throughout the hemisphere to improve the environments in which children live, grow, learn, play and work. Carlos Rivera (1999), in a study carried out with children on the application of an ecological program, points out that these programs establish guidelines for the ecological training, values and technologies that the child must capture in his daily life.

On the other hand, in the aspect of psychological health has increased the improvement of attitudes in terms of communication from 20% in the pretest to 40% in the posttest, so there is also a favorable development in the resolution of problems and communication.

Alberto Tolcachies (2003), notes that when the child receives affection, care, stimulation and health care, development and learning are faster; likewise, the appropriate upbringing and education helps you to connect with the social and moral values that will allow you to live in harmony and will allow you to build a support on which to better project your future. On the other hand, regarding the results on the diseases in the children of the sample, it indicates a serious problem of health and malnutrition, so it was important the intervention of the health institution, that with the information and attention they have improved significantly.

We can point out that one way to promote the integral development of children are health promotion actions, which guide the family as a primary social space where skills, customs, values and healthy lifestyles are acquired. Experiences carried out by Pathfinder-Usaid (2005) in some educational institutions with the support of municipalities in the province of Huánuco have given positive results in the change of attitudes of students, teachers and families.

Finally, in relation to the development and the integral health of the children, the families increased their favorable attitudes of 39% (negative result in the pretest) to 45% of positive responses in the posttest; only 10% did not achieve the change and were not sensitized to improve the health and the integral development of their children; this is corroborated with the programs that are being applied in some communities by some NGOs, such as Prisma (2004), which affects training for families on nutrition.

## Conclusions

- The application of programs to promote healthy environments has positively influenced the

strengthening of the development and integral health of children under 3 years old in the rural areas of Huánuco where they have been operated.

- Differences were found in the results between the pre and posttest evaluation. These are reflected in the indicators of basic sanitation, safe water, balanced consumption of food, improvement in environments and favorable attitudes related to health.
- The families have been sensitized on the adequate upbringing of their children, the importance of the surveillance and monitoring of their medical controls and the improvement of the environments to guarantee healthy lifestyles.

## Recommendation

It should be noted that programs to promote the healthy development of children must be comprehensive to guarantee physical, psychological, social and general well-being; they must directly depend on working with parents, who must be sensitized and trained in aspects of promoting their children's health and their capacities must be strengthened in order to assume their parental roles in a responsible and knowledgeable manner.

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