CERCA PROJECT

Community-Embedded Reproductive health Care for Adolescents
Cuidado de la Salud Reproductiva para Adolescentes Enmarcado en la Comunidad

Reference Document

CERCA Project in Bolivia – SOUTH GROUP

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Introduction

Many health problems during adolescence are related to sexuality. Research on sexuality and its determinants during adolescence could help build, in a responsible way, education in the areas of communication and information which allows achieving a better quality of life for adolescents.

The CERCA Project's primary objective is to be part of and to strengthen the Public System and Primary Health Carein their focus on the care for the sexual and reproductive health of adolescents' in community-embedded interventions to improve access to qualitative, primary health care services in an appropriate patient environment with skilled personnel. The CERCA Project is multi-centred because of its presence in 6 countries and 7 organizations that work under the coordination of the ICRH of the University of Ghent, Belgium. The seven member organizations of the project are: South Group in Bolivia, the Faculty of Medicine of the University of Cuenca in Ecuador, the Centre for Health Research and Studies (ICAS) in Nicaragua, the Central American Health Institute (CIES) in Nicaragua, the International Centre for Reproductive Health (ICRH) of Ghent University in Belgium, the Amsterdam Institute for Social Science Research of the University of Amsterdam in the Netherlands and the Faculty of Public Health of the Lithuanian University of Health Sciences of Kaunas in Lithuania. Website: www.proyectocerca.org. The central theme is the promotion of sexual health of adolescents. Within this theme we focus specifically on teenage pregnancy, given its significance in the Latin-American context; nevertheless, we do not want to limit ourselves to sexual health promotion concerning teenage pregnancies or sexually transmitted diseases. Sexual health promotion deals with all the aspects related to sexual wellbeing including the development of skills to freely and healthy live and enjoy sexuality.

The objective of this work is to present a description of the research and implementation process of the CERCA strategies and, based on this, to offer a practical resource to the actorsof the different levels of the health and educational system.The critical analysis of the different components of the CERCA Project generates useful criteria and knowledge on how to develop, implement and monitor health and educational strategies. We hope that this document will be useful both for the health centre that plans to improve the quality of its services for adolescents as for the ministerial department of health or of education that plans a campaign on whatever health topic, especially on sexuality.In this document we reflect on the different components of the CERCA project: 1) analysis of the sexual health situation of adolescents; 2) the applied methodology; 3) the CERCA strategy; 4) the implementation of this strategy; 5) the results of the implementation, which in turn leads to 6) learned lessons and 7) recommendations.

Chapter 1: the sexual health of adolescents in Cochabamba

Bolivia is characterized by its young population, about 21% of the population are adolescents – in between 11 and 19 years old, and thisincreasesthe potential demand for sexual and reproductive health services (SRH).The adolescents still have unmet needs related to SRH, such as education, information and assertive communication about SRH, differentiated attention in health centres, etc. The percentage of female adolescents that already had sexual relationships is 26% and 17% of the female adolescents are or have been pregnant. Currently, Bolivia still has problems with the correct implementation of sexual rights, reproductive rights of adolescents and differentiated attention or attention aimed at sexual prevention for adolescents in the health centres. This, in a way, could have an impact on the fact that Bolivia has the highest levels of pregnancies, STD/HIV and AIDS amongst adolescents in Latin-America and the Caribbean.It is due to different factors, like social prejudices among health professionals who may consider consultations about adolescent sexualitytaboo.On the other hand, in the general public adults hold on tothe negative idea about what it means to be adolescent or youth, transmitting the idea that it is synonymous to immaturity; hence, of irresponsibility, criminality and fragility, the stigma and discrimination towardsgender identity, sexual orientation, disability, ethnic, intercultural and intergenerational difference.Discrimination against HIV/AIDS adds to this. And for fear of social rejection, adolescents do not attend health services to ask questions and satisfy their doubts on sexual health, toget tested and so on.Furthermore, the adolescents do not take responsibility in their actions and have sexual relationships without protection, exposing themselves to pregnancies, STD/HIV/AIDS. Having questions about their sexuality, they do not go to any adult or health centre to clarify their doubts. The attitude of adolescents could be explained by different factors that we will present in this document.

In Bolivia, the use of modern contraceptives has increased compared with the previous five-year period (2001-2005 and 2006-2009); nevertheless, the percentage of adolescents that are mothers or are pregnant has increased from 15.7% in 2003 to 18% in 2009, which is alarming as this figures are among the highest in Latin America.One of the reasons why there is no prevention of pregnancies, STD/HIV/AIDS, is that not one contraceptive method is used and that young people areundertaking this risky behavior permanently and continuously. The CERCA project has tried through its interventions to motivate changing risky behaviour towards a more healthy behaviour. These are the used methodologies and the results achieved during the whole research period of CERCA.

1.1 Used Methodologies

In Cochabamba, nobody denies that problems exist with the sexual and reproductive health of adolescents (SRH). However, a big taboo or shame prevails to speak openly on this topic, not only among adolescents, but also among education and health authorities, health personnel and others. This taboo among other factors results in high levels of pregnancies among adolescents, STD/HIV/AIDS infections, but also results in social and family problems. Families do not always know what to do when their 15-year-old daughter is expecting a baby, which causes terrible stress to the girl, her family and the society that does not know how to improve the future of its adolescents.

At the beginning of the research for the CERCA Project in Cochabamba, it was defined that the sexual and reproductive health problems were not only part of the field of medicine.From different discussions with experts, with persons actively working on this issue since years as well as different persons from the community arose that areas like economics, sociology and psychology too were important in a multidisciplinary and multisectoral approach. For example, the reason why a 14-year-old girl gets pregnant could originate from her environment, culture, education and monetary situation. Obviously, all the problems related to pregnancies of these girls in its various aspects come together in the area of medicine.

To design interventions for the Project more information was needed.We concluded that only the indicators of the incidence of pregnancy were not sufficient, therefore the design of the research went further:

1. Collecting secondary quantitative data on the state of sexual and reproductive health in Bolivia and Cochabamba.
2. Qualitative Analysis with focus groups to obtain information on the behaviour of adolescents and the sociocultural factors that influence this behaviour.
3. Design of a questionnaire as a baseline before the intervention but also to obtain some data that could help to define the interventions.

Quantitative Analysis (secondary data)
For this analysis were used: documents and statistics of the National Institute of Statistics (INE) and where possible information from organizations active in the area of Sexual and Reproductive Health (SRH). Not all the organizations wanted to share neither their data nor the strategies they used, but the national surveys were in general free and publicly accessible. However, the data were not always the most up-to-date or exact. This resulted in the fact that not all of the data could be compared with other countries.

Qualitative Analysis

The secondary data show that the problem of adolescent pregnancies is rather worrisome, but it does not show if there is a personal problem.Until now we only compared with international norms, but at no timethe personal aspects were taken into consideration. Therefore, focus groups were created where different topics have been discussed. All this in order to find out how the adolescents and parents think about the issue of SRH. And to identify the form and possible intervention that could improve the state of SRH.

For the qualitative researchwe chose for dialogue and a form of intergenerational communication (adolescents, parents, teachers, health professionals) on sex and sexual relationships as relevant aspects for the development of norms for sexual behaviour that influence the practices of their love life.Secondly, identification of the culture was done by "talking by way of jokes" and talking on the morality that was transmitted in families as main point for making decisions and for sexual behaviour. Finally, non-hierarchical rooms were created for open dialogue on sexuality and communication between the participants.

As you can see in table 1.1 bellow, various topics have been taken into account in the different focus groups, which were used to create the interventions. Topics like relationships with their parents and significant adults, relationships in couple, why no contraceptive is used, etc. were treated in these focus groups. South Group continued with this work until the end of the interventions also to have a continuous presence with the parents and the adolescents.

Table 1.1 Details of qualitative focus groups

Group	# Groups	Topics
With parents	7	Sexuality, Abortion, Sexual Relationships, Talking with parents/children, Community, Homosexuality, Contraceptives, STD, etc.
With adolescents in Sarcobamba Area	7	
With adolescents in Quintanilla Area	8	

* we tried to have between 3-10 persons per group, therefore we organised more than 4 groups in order to collect results of between 3 to 10 persons

Design of the questionnaires

Technically, the questionnaire was designed to define T0 of the research, to see if the interventions have some effect comparing T0 with T1, the questionnaire that is carried out after the interventions. Nevertheless, T0 was of great value to better understand some behaviour of the adolescents. Moreover, it helped explain with clear data the state of SRH in Cochabamba to the adolescents, parents and authorities. South Group took advantage of these results and presented them in different meetings, seminaries and others so that different institutions that work on this issue, authorities, parents and

adolescents would know which is the reality in terms of SRH beyond the taboo in order to talk about this issue.In the end it is much more convincing and efficient to show numbers, like ‘only 1 out of 3 adolescents use contraceptives’ than to say ‘little adolescents use contraceptives’. On the other hand, the questionnaire helped the researchers to obtain more evidence, to be able to enter into communities, schools, etc. in order to disseminate the Project and execute the interventions. Communities that otherwise would have resisted to receiving workshops and interventions.

1.2 Results focused on the issue of juvenile pregnancy

The most revolutionary part of the methodology is the multidisciplinary part that CERCA Bolivia had and that drew the attention of the institutions that work on this issue. During analysis of the problem of the SRH, various disciplines were used. South Group relied on a primary team composed of a pediatrician, a psychologist, three economists, a systems engineer and two experts in marketing. During the 18 months of interventions, we noticed that the ages of our team were asymmetric towards the youth. This made it easier to understand the results and talk with the boys and girls.

The most surprising result of the quantitative and qualitative analysis was that, although the indicesof pregnancies decrease, it continues to be a serious problem. Following the statistics, 30% of the girls are or have been pregnant before the age of 19. We also see that this figure is higher on the countryside than in the city and it seems that low education and poverty are adding up to this figure.

At the beginning of the focus groups, the adolescents did not feel comfortable to speak about the issue of SRH, this was also confirmed by the enquiries in which the adolescents indicated that they did not discuss this issue much with their parents, friends and girl-/boyfriends. Around 30% said that they never discuss this issue at all. The problem encountered gets worse if you take into account the following aspects. They get pregnant, but don’t talk about it with the persons closest to them. Furthermore, the enquiry shows that adolescents don’t go to a health centre and often they don’t even knowone. Moreover, the pregnant girls are the only ones that go, but we cannot see any preventive behaviour or find any information about contraceptives or STD. The reasons why they do not go are diverse, but they mentioned most frequently:

1. I don’t like to wait much
2. I have no confidence in medical personnel
3. The health centre is too far away
4. It does not seem necessary to me to consult about SRH
5. The opening hours are not appropriate

6. The health centre lacks privacy
7. I don’t have money to come to the centre

An interesting fact is that money is not as critical as personal treatment and distance. However, we found out that several think that the health centre is not the right place to get information on SRH. Another surprising result is that the enquiries showed us that 70% of the sexually active adolescents at one time have used a contraceptive, but at present only 30% use something. This result shows that the knowledge and access clearly is not a major problem in the promotion of contraceptives, but more so the behaviour. From the enquiries, we can conclude that the sexual activity is related to the following factors:

1. *Socio-economic situation:* when an adolescent has a lower socio-economic status, in other words lives in a poorer neighbourhood, he/she starts earlier with sexual relationships.
2. *Age*, we see that when older, more are sexually active.
3. *Religion*, boys and girls that are more religious, postpone their first sexual activity.
4. *Gender attitudes*, when adolescents have a more equal perception of gender, we see that they postpone their first sexual encounter.
5. *Self-esteem*, boys or girls with more self-esteem seem to wait more time before having their first sexual activity.
6. *Presence of parents*, adolescents that grow up without the presence of their parents, are earlier sexually active than other adolescents that grow up with their parents.

Acritical point is that knowing the factors does not mean that we attack these factors in the interventions.Rather these are crucial aspects that one has to take into account. Changing the presence of parents or poverty for example would be impossible. Anyway, who are we to prohibit sexual relationships. What is important though is that the adolescents take into account the consequences of their actions, and that they have sufficient information and self-esteem to prevent pregnancies and/or STD. We designed the interventions according to this idea.

There are many existing regulations that would improve the SRH when implemented, but nor the government strengthens its implementation, nor the health centres or schools are at ease with the implementation of these; as the topic of sexuality certainly awakens a lot of reluctance in the population, as can be confirmed by the qualitative study that we will further look into.

Chapter 2: The CERCA strategy

2.1 Methodological model

In order to develop, implement and monitor the intervention strategies, the CERCA consortium, developed a generic methodology that could be used to tackle health problems, inclusive these that could be outside the field of sexual health. The presented methodological model, is an adaptation of methodological theories documented in scientific literature, based in the management of intervention cycles of a research project, intervention mapping and action research processes.

2.2 Phases of the model

Graphic 2.1. The CERCA Model

The methodological model that CERCA used is a complex participative process, because of the interaction between social, community, environmental and individual determinants that lay in the origin and solution of health problems. The development has a community focus, is based on applied theories on behavioural change, centered on personal needs and aligned with health systems.
The CERCA methodological model is a dynamic process, that adapts itself continuously to the necessities, with the purpose of changing the strategies and interventions and giving an answer according to the sexual and reproductive health situation.Therefore, the model does not develop in a chronological way, which in fact leads to the different phases of the process interacting continuously, generating stronger periodical adaptations.The phases of the methodology include: situational analysis, development of intervention strategies, implementation of intervention strategies and monitoring of activities.

Characteristics of the model
The model aspires to be an instrument thatguides the whole development process of programs linked to health and the solution of social problems.Furthermore it allows the implementation and monitoring of a strategy to adapt it dynamically, making it more in line with the necessities. The methodological model generates strategies that fulfill some required characteristics:

Complexity

A public health problem is determined by a series of factors. Therefore, an effective strategytackles a studied situation with a multifocal approach, taking into account the complexity of health problems and acting on different determinants.Nevertheless, at the same time it is crucial to weigh the viability of the strategies and avoid losing oneself in the abundance of determinants. The model helps make premeditated choices to maintain the equilibrium between viability and complexity.

Participation

There is a universal consensus that active participation of the involved parties is a necessary condition for strategies to be successful.The model includes active participation of the involved parties in every phase of the process.

Evidence based

A lot of scientific evidence exists on many topics of public health. However, there still is a gap between scientific theory and the practical implementation of health strategies.This methodological model achieves the convergence of the scientific world and the practical development, implementation and monitoring of the strategy. The model includes: In the process, the knowledge on the determinants of health and on the interventions that have been used and described in scientific literature.The implementation of interventions of proven effectivenessas described in literature.The use of scientific theories that describe change processes of behaviours, relationships and systems.

Contextualization

The approach towards a health problem depends a lot on the surroundings. During the whole process, one must consider this context so that the strategy can be adapted.One strategy for the same problem can differ widely in its implementation according to among others its geographical, cultural, socio-economic, political environment. The realities are different for the human resources and financing available for the implementation of interventions. The model takes this context into account.In the same way, the interventions, that are part of the strategies, are dynamic over time and implemented simultaneously, monitored and evaluated continuously. The different phases of the process interact permanently and induce continuous adaptations.

Generalizable

The methodological model, does not aspire to develop a strategy that can be reproduced in whatever context, because due to the variability of the surroundings, it is not possible nor advisable to implement identical strategies in different realities. The objective is to create a strategy that serves as a general framework and that allows implementing interventions in a systematic and logical way.

Chapter 3: The implementation of the CERCA strategy Cochabamba

3.1 Description of the principal activities performed

In Cochabamba we performed different activities aimed at achieving the planned objectives for the CERCA Project that were to promote: 1) communication on sexuality, 2) access of adolescents to adequate and correct information, 3) that Adolescents use the SRH services of the health centres, 4) use of contraceptive methods in adolescents.The planned intervention activities were elaborated in collaboration with the community and its different actors, to name: parents, neighbourhood community leaders of the studied areas Sarcobamba and Quintanilla, participating health centres (Health Centre BeatoSalomón y Hospital Solomón Klein), NGOs and International Cooperation Organisations that work in the area, by suggesting intervention strategies that they already used or never could implement due to various reasons.

The CERCA project in Bolivia through its research institute South Group, made an inventory of these ideas and could merge some that had the same objective in order to avoid duplication of effort and to be more efficient.We noticed that some of the suggested strategies were costly in its implementation and the idea that we had in CERCA Boliva was to select those strategies that were in line with the national health policy and that did not cost much in terms of costs-benefits with the purpose that they could be implemented as well by the public sector if they proved to be successful.Finally, we also tried out strategies that never before were attempted; we can see that adolescents continuously use certain tools that should be taken advantage of for education on better health behaviour.So, tools like text messages (SMS), email, Facebook, Online Forums, chat, websites were used to approach this adolescent public with the purposes described by the Project. These strategies were never before used in Bolivia and we think that it was the right time to try them out and to measure its impact on adolescents in relation to the issue of sexual and reproductive health.

Now we will briefly describe the activities that were realized as intervention for the different actors of the community. These activities took place mostly in a period of 18 months in the areas of Quintanilla and Sarcobamba.

Table 3.1 presents all the activities with adolescents, parents and teachers. This type of activities were aimed at changing: behaviours, attitudes, knowledge, skills, external determinants and the cultural context related to Sexual and Reproductive Health (SRH), and to change the behaviour on SRH and reduce risk taking behaviour through these workshop messages, emails and text messages (SMS).Among others we also opened communication channels in between the adolescent and the health professional with the purpose of answering doubts which they did not like to ask directly to the medical personnel face to face, but which they did through the medium of text messages. On the other hand, this table also presents the works in focus groups that were made with a group of volunteer adolescents as well as volunteer parents (in a separate place). This qualitative work was done during the intervention months, beginning in March 2012.

Table 3.1 Description of the performed activities with adolescents, parents and teachers.

Activity	Aimed at	Objective
Workshops	1) Adolescents 2) Parents 3) Teachers	Change behaviour on SRH and increase communication channels among others
E-mail	1) Adolescents 2) Parents 3) Teachers	Have more information on SRH and somehow reduce risky behaviour
Sending text messages	1) Adolescents 2) Parents 3) Teachers	Have more information on SRH and somehow reduce risky behaviour
Receiving text messages	1) Adolescents	Open up a channel of communication with the adolescent for his more private questions and be answered by a health professional
Focus Groups	1) Adolescents Sarcobamba 1) Adolescents Quintanilla 3) Parents of both areas	Study of the sociocultural aspects and analysis of the external determinants for risky behaviour

Table 3.2 shows us the activities made towards the authorities. The meetings aimed at presenting the sexual and reproductive health situation of the adolescents in Cochabamba, Bolivia, as there exist very little statistics related to this topic and very little research on this matter. So, the frequent presentation of the results of our research was necessary to improve the ideas about planned interventions by NGOs, local and health authorities relative to this group of the population.We also organisedworkshops

with more detailed information that not only included the results but also the experiences on the interventions in the educative sector as well as the health sector, aimed at changing policies in these sectors to improve the state of sexual and reproductive health of the adolescents.These workshops were prepared specifically for the health personnel and educational policy makers throughout the entire department of Cochabamba.

Table 3.2 Description of activities towards the authorities

Activity	Aimed at	Objective
Reunions	1) Local Authorities 2) Health Authorities 3) NGOs	Present the situation of SRH with statistics and make the intervention more efficient among others
Presentation of Results	1) Local Authorities 2) Health Authorities 3) NGOs 4) Health Centres	Have more information on SRH and make the intervention more efficient towards improving SRH
Workshops	1) Health Centres 2) Educational Policy Makers	Change the behaviour of adolescents in relation to SRH

3.2 Monitoring results

Relative to the results, we can write the following. The adolescents of the Quintanilla and Sarcobamba area received in total 4 workshops on different issues like: raising sexual awareness, communication and search for information, self-esteem and life project, decision making and conflict resolution. In total 405 workshops were organized during the 18 months of community intervention reaching out to more than 2774 pupils. Among other interventional activities, the adolescents of five of these schools received 8 types of emails with information on sexual and reproductive health, promoting better behaviour to protect their health. On average 1823 adolescents received 8 types of text messages with information on SRH and from them we also received many medical and psychological questions through text messaging that were answered by health professionals. Of this population, 47% were new users and 53% that sent messages were users that repeatedly made use of this service (for more details, see table 3.3)

To reach a larger percentage of the population, the CERCA project Bolivia decided to move to five schools and realise medical-psychological health care visits in a consulting room created in every school.The visits were scheduled once every two weeks. In total on average 12 visits for every school were made during 7 months. This action had a big impact on the increase in coverage of the pilot health centres where the CERCA Project worked. For this activity a pediatrician, a psychologist and on a couple of occasions a nurse were necessary.The purpose of these visits was to carry out a basic medical check-up of the pupil as well as offer information about contraceptive methods and other things that the adolescent would like to know in complete confidentiality.

The group with parents was the most difficult to engage. The fact of convening talks to touch the topic of sexuality already aroused a lot of resistance.Nevertheless, 5 schools achieved the participation of the parents to perform 4 different workshops and around 480 parents were capacitated about the same issues that the adolescents were, namely, not only sexuality but also communication, decision making etc.The teachers of this schools were also invited to participate in this workshops, together with the parents and they also did the 4 workshops.

With the parents as well as with the adolescents we also worked on the aspect of qualitative research based on the work in focus groups.This research based its analysis on four core issues and worked on these with a group of adolescents of the Sarcobamba area, with a group of adolescents of the Quintanilla area and a group of volunteer parents of both areas.During almost one year, there were 7 meeting groups from Sarcobamba, 8 meeting groups from Quintanilla and 7 meeting groups of parents.They worked only on 4 issues but we took advantage whenever a group of parents or adolescents wanted to add to the results obtained of a previous group. These sessions in focus groups gave a lot of information to the CERCA team Bolivia and based on this three-monthlywork we changed the content of the workshop that later was to be held with adolescents and parents.

The local authorities (community leaders of the state recognized “Organizacionesterritoriales de base” or“OTB”) of these pilot areas were informed on a regular base (once a month) about the performed and the planned activities.This way, they could keep track of the activities that were performed and among others of the fact that they included the suggestions that they gave us at the beginning of the Project.In the same way, we returned regularly to the health and educational authorities to inform them about the performed activities. We had a lot of activities with themthat not only included meetings, but also workshops and presentations of results (see table 3.3). This helped a lot to raise awareness among the authorities of the issue of SRH that until nowonly represented a visible problem,

Table 3.3 Description of the performed activities with adolescents, number of activities and number of participants per activity

Target group	Type of activity	Number	Number of participants
WORKSHOPS			
Adolescents in 6 schools Quintanilla area	Workshops students on: sexual awareness, communication and search for information, self-esteem and project of life, decision taking and resolution of conflicts.	4 types of workshops per school, class and to all the last 4 classrooms of secondary education.	1616 students, 59 classrooms and 236 workshops done in total.
Adolescents in 6 schools Sarcobamba area	Workshops students on: sexual awareness, communication and search for information, self-esteem and project of life, decision taking and resolution of conflicts.	4 types of workshops per school, class and to all the last 4 classrooms of secondary education.	1158 students, 43 classrooms and 169 workshops done in total.
E-mail			
Adolescents in schools Quintanilla and Sarcobamba areas	emails with information on sexual and reproductive health promoting a healthier behaviour	8 types of emails sent to 5 schools	500 students received the 8 emails
Multiple text messaging (SMS)			
Adolescents in schools Quintanilla and Sarcobamba areas	SMS with information on sexual and reproductive health promoting a healthier behaviour	8 types of SMS sent to 9 schools	1823+- students received the 8 SMS
Text messaging (SMS): receiving and answering questions			
Adolescents in schools Quintanilla and Sarcobamba areas	Text message with personal medical or psychological questions	more than 600 SMS answered in 18 months	47% new users 53% repeated users
Medical and psychological visits on site (school setting)			
Adolescents in schools Quintanilla and Sarcobamba areas	medical and psychological consultation was offered in a school setting for free and with confidentiality on SRH	1 time every two weeks during 7 months, except during vacations	more than 283 students used the consulting room

but they had no statistics nor other studies performed on this issue and on adolescents in Cochabamba, which are essential to have impact on the national health policy.On these

occasions, the authorities always expressed that having specific statistics and studies was of great help to understand about SRH in Bolivia and about our adolescents, what the public is thinking about this topic, etc. They considered carrying out this research of major importance, as none of the public institutions nor the NGOs have the budget to conduct research and as they perform their interventions with the tools and ideas that appear to them to possibly work well.

Chapter 4: Results of the implementation: accomplishments and obstacles

4.1 Background

The CERCA study is a research project that ran during four years (2010 to 2014) and its goal is to prove the impact of the CERCA intervention on the behaviour of adolescents in three countries (Bolivia, Ecuador, Nicaragua) in relation to:

1) The access to precise and correct information on sexual and reproductive health (SRH);
2) the ease and scope of communication on topics as sex and sexuality;
3) The use of existing sexual and reproductive health services, and finally,
4) The use of modern contraceptives and condoms

The intervention took place in Nicaraguan city districts and in Bolivian and Ecuadorian schools.
The selection of the schools in Bolivia and Ecuador that received the intervention was based on the area covered by the health centres that were partners of the research group.
Within the Ecuadorian intervention area, the intervention activities were performed in three randomly selected secondary schools, and twelve secondary schools were selected in Bolivia.
For each intervention school, a control school with similar characteristics was selected from a different district.
The interviewers visited all the classrooms and invited all pupils to fill out a self-administered questionnaire. 18 months later, the adolescents were again invited to take part in the study.
Concerning the results of the CERCA project we can mention two types of results: the results that evaluate the intervention in a quantitative way and the results oriented to evaluate the interventions in a qualitative way.

4.2 Results of the quantitative research

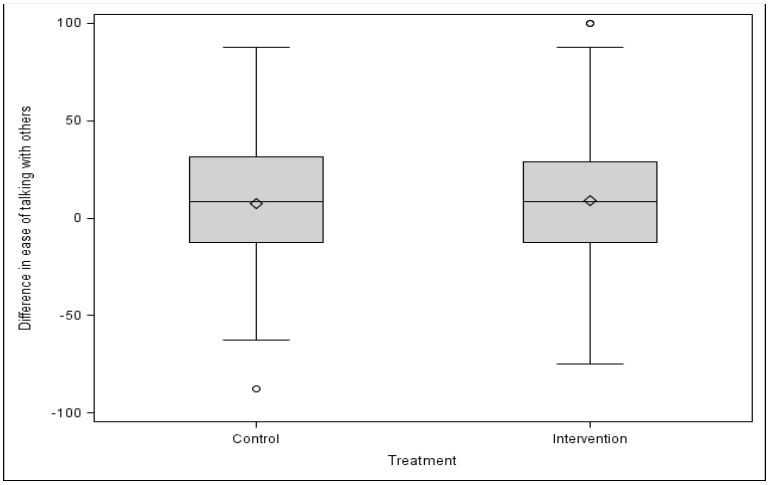
Within the quantitative part, 4 aspects will be presented. The first three aspects evaluate the effect of the interventions performed by CERCA with the adolescents at the level of 1) communication, 2) condom use and 3) knowledge of the health centres. The fourth aspect reports on the use of information and communication technology (ICT) with the adolescents and which of the ICT strategies had the greatest impact related to the interventions.

A) Communication on the topic of sexuality

In Bolivia there is pre and post intervention data for 651 persons. These persons are part of 20 schools (schools 1-10 are part of the intervention group, schools 11-20 are part of the control group). From these 651, 216 belong to the control group and 435 to the intervention group. There is no lost data in the outcome variables.

Among the first results shown in the plots below can be seen that the mean and the median of the change in communication is positive, but close to zero. Although this result is for both participating groups, the intervention and the control, no large difference in the results was observed[1]. This means that if the adolescents that participated in the intervention (with workshops, medical visits, text messages, email, and other) had any change like better communication skills concerning sexuality, losing fear and shame in some way, this change is not as big as expected.

Figure 1: Distribution of the difference in communication about sexuality for both treatment groups.



The model (2) $Y_{ij}=\beta_0+\beta_1 Treatment + \beta_2 AgeCenter + \beta_3 EqualityDimension + \beta_4 AlcoholUse + \beta_5 Treatment*AlcoholUse + b_i+\varepsilon_{ij}$ with $b\sim N(0,\sigma_b^2)$ and $\varepsilon\sim N(0,\sigma_\varepsilon^2)$ (2)

The estimated mean pre and post intervention concerning communication on sexuality is -2,75% for an individual in the control group with mean age (15.32 years of age), who never consumes alcohol and believes that men and women are “equals“. The mean difference in progress between individuals from the intervention group and the control group is 6.18% (with 95% confidence interval [-0.39, 12.74]) when these individuals have the same age,

[1] 100% means maximal progress in communication between the start and the follow up of the group.

“equity between sexes” and never consume alcohol.Nevertheless, this association is not significantly different from 0.

With the above, a negative association can be observed between the result and the “age”(-4.14%) and a positive association between the result and the dimension “equity in sexes” (1.93%). Concerning age and communication, it can be seen that as adolescents grow they maintain bad communication habits or lack of communication. Therefore it could be necessary to start with the workshops on an earlier age.

This means that a good level of communication aboutsexual issues exists in the intervention group between two individuals of the same age and with the perception that men and women are equal, when at least one of them does not consume alcohol or only monthly (with other words, consumes very little).[2] So we can conclude that the adolescents that participated in the different intervention strategies of the CERCA study did improve their communication skills about issues of sexuality.

If we refer to the relation between communication about issues of sexuality and assistance of the adolescents to the workshops given by the CERCA project, a positive tendency is seen in the average results of the levels of participation.

It is necessary to take into account that the word sexuality itself already awakens distrust, fear, shame and the idea that it is only about “sexual relationships” and therefore, nobody wants to talk about this topic. In Bolivia this issue is considered “taboo” not only by adolescents, but also by adults, and even by health and educational professionals.Although their might not be a big improvement in het level of communication through the interventions, a small improvement was achieved, which proves that we should continue having intervention strategies aimed at improving the quality of communication at different levels (self-esteem, negotiation, communicating the wish to postpone sexual relationships or the use of a contraceptive, etc.).

B) Condom use

In the CERCA questionnaire, individuals that are sexually active were asked to specify how many condoms they used during their three last sexual contacts (Answers: 0 – 1 – 2 – 3 – I don’t know). The persons that answered “I don’t know” were recodified as “missing data” and this data were not used.

For this analysis longitudinal data from Bolivia were used consisting of 651 individuals. From these persons, only 34 show a difference in the use of preservatives between the

[2] The level of communication about issues of sexuality is 16,11% in the intervention group and 13,46 % in the intervention group.

baseline and the follow up. An important part of the explication can be found in the large amount of individuals that were not sexually active at the start of the study. From the 34 individuals with an observed result, 15 are part of the control group and 19 of the intervention group. The sample is very small taking into account that those are also distributed over different schools.

The goal of this analysis is to compare the progress in the use of this contraceptive between the control and the intervention group corrected for the covariates of reference. Therefore, we focus on the difference in condom use between the baseline and the follow up, namely, between the data obtained by the questionnaire taken in 2011 and the data obtained by the questionnaire carried out in 2013 after the realisation of a set of interventions during 18 months.

The results of the comparison between the performed questionnaires in 2011 and 2013 shows on the one hand a slight decrease in condom use for the control group, that is, where not a single intervention was done. On the other hand a slight increase in condom use is seen in the intervention group, that is, where different types of interventions were performed. Although the differences seem small, it is a significant change if you take into account that it concerns changing behaviour based on cultural roots, macho gender perceptions deeply rooted in Bolivia. Despite this, we have a slight positive change towards a better quality of sexual health. Condom use has improved through an intervention of 18 months despite of very strong cultural roots which means that “doing something” is indeed better than “doing nothing at all” for the adolescents and their health.

A major limitation of this comparative study of the questionnaires is that the question on the use of contraceptives during the last three sexual contacts does not include or facilitate the inclusion of the answer “use of emergency contraceptive or morning-after pills”. During the qualitative research and the use of ICT for bidirectional communication, we became aware that adolescents shun the use of contraceptives and prefer the use of this emergency contraceptive pill. We learned about various cases that used them after each sexual intercourse, and adolescents that used it up to 5 times a month, unconscious of the negative effects that frequent use of these pills may have on their health.

C) Knowledge of the health centres

The longitudinal data in Bolivia consist of 314 individuals that answered this question in 2011, of which 32(equivalent to 10%) belonging to the intervention group indeedused a health centre and of those belonging to the control group19 (equivalent to 6%).Of these persons, those that answered the question in 2013, 13,55% of the intervention groupused a health centre and of the control group 27 (equivalent to 9%).

For this study Generalized Estimating Equations were used (GEE model). This model broadens the generalized linear models to accommodate clustered longitudinal correlated data.

In Bolivia, the results are not very encouraging since there are no significant differences between the adolescents who attended the interventions and the adolescents in the control group. Even though an increase in knowledge of health centres is seen for those adolescents that took part in the interventions. Moreover, it is necessary to take into account that in Bolivia people only go to health centres when they are very ill. In fact, the study also found a significant difference between the adolescents that are sexually active and those who are not, maybe because a majority of those that are already pregnant visit health centres.

A major limitation of this comparative study of questionnaires is that the questions on knowledge of health centresdoes not facilitate the inclusion of the answer: "we know the health professionals that come to our school once every two weeks which are a physician and a psychologist". We have seen that in six months of medical and psychological care, in equipped consulting rooms in five of the schools in the intervention areas based on the strategy called "consulting rooms within the schools", a high percentage of visits was achieved. This way we measured that in the Sarcobamba area, visiting 2 schools[3] once every two weeks, 62% of visits of the total adolescent patients that normally come to the health centreBeato Salomon was achieved.In the same way in the Quintanilla area, visiting 3 schools[4] once every two weeks, 72% of visits of the total adolescent patients that normally come to Hospital Solomon Klein was achieved. The coverage of health care to adolescents would definitely further increase if these interventions were to be continued in the future.

A problem for this activity is that the health records given to the adolescents could only be registered as health promotion in the statistics of Hospital Solomón Klein because of the lack of medical care outside the health centre, except for vaccines and health promotion.
A second problem was that a primary health centre normally does not dispose of a psychologist and thus they does not have a specific book to record their statistics which is why they were not taken into account in spite of having lots of patients demanding their service during the six months of care. A third problem was that the health centre Beato Salomón could not register these consultations in its care statistics because normally they charge for consultations and since no money was received for the free consultations in the schools the centre could otherwise have problems with the Municipality. These problems

[3] The 2 schools are both of the afternoon shifts: Richard Von Weiszacker and Edgar Montaño.
[4] The 3 schools are the entire morning shift: Kanata, Boliviano Japonés and Hughes School.

should be resolved in order to effectively continue with those medical-psychological consultations.

D) Use of information and communication technology (ICT)

We noticed the importance of carrying out a study to investigate the effects of information and communication technology (ICT) on the adolescents, because of the relevance these technologies nowadays have acquired in different dimensions: socially, economically, politically, etc. The internet with its characteristics is generally seen as a source of opportunities while others see it as a possible harm to the lives of adolescents. We also saw that there are many differences in the use of ICT between age groups and sexes, since few elderly know how to use a computer or a mobile phone. Consequently, two more surveys were performed to obtain more information.

The survey, performed during the years 2012 and 2013, was directed to all of the students of the last four years of secondary level of selected schools (private and public) in the Condebamba and Quintanilla areas in the province of Cercado- Cochabamba. In 2012 1526 surveys were performed and in 2013 3506. The main results are:

Table 4.1. Distribution of ICT according to sex and SR*

ITC	Woman	Man	Total	IM
Mobile phone	85,3%	79,2%	82,4%	85,4
Internet	59,6%	65,9%	62,6%	99,4
Computer	49,4%	59,4%	54,1%	108,1
Fixed Telephone	44,7%	37,5%	41,3%	75,5
Total	**100%**	**100%**	**100%**	**89,8**

SR = Sex Ratio

Source: Use of ICT in Cochabamba, Bolivia (Rojas M., 2013)

As can be seen in table 4.1 respective to the use of ICT the mobile phone is used the most, 82 out of 100 adolescents declared at the moment of the survey to have used a mobile phone during the last 3 months. Internet is the second most used ICT, 63 out of 100 adolescents used these service in the 3 months previous to the survey, in contrast with the use of a computer on the third place, 53 out of 100 adolescents used one during the last 3 months which means that a percentage of the adolescents use internet on their mobile phone, a service that is currently offered by all the telecommunication companies in Bolivia (Rojas M. 2013). Based on this observation we focused our attention more on strategies using text messages (SMS) in order to create behavioural changes in adolescents towards a better sexual and reproductive health.

As can be seen in table 4.2, we could not have succeeded with forums or interactive activities as the adolescents in Cochabamba are not used to take part actively in online media through answers or debates. However, they indeed use the internet to look up/check things and to read.

Table 4.2. Distribution of activities according to sex and SR

Activities	Woman	Man	Total	IM
1. Games and leisure activities				
Playing online/lan games	13,90%	59,10%	35,30%	381,3
Downloading videos or music	38,10%	60,70%	48,80%	143,1
2. Communication and information				
Reading newssites	10,80%	14,50%	12,60%	120,7
Reading e-mail	21,30%	28,00%	24,40%	118,1
Chatting	49,40%	52,50%	50,90%	95,5
Publishing, updating and posting on social networks	35,0%	39,9%	37,3%	102,5
Participating in forums	1,70%	5,50%	3,50%	285,7
Revising messages on facebook	52,40%	56,80%	54,50%	97,4
3. Educational				
Looking up for shool or other topics	74,10%	57,60%	66,30%	69,8
Learning how to use certain programs	10,10%	18,80%	14,20%	167,9

Source: Use of ICT in Cochabamba, Bolivia (Rojas M., 2013)

For Abregú and Prego (2011) ICT is a world in which images are very important and the existence of anonymity essential, a situation that creates a much more fluent and open communication, even on issues that are taboo. Therefore we performed an intervention with text messages (SMS). Within the ICT interventions, these text messages had a lot of success and it was one of the two-way ICT methods used, the other being Facebook although to a lesser extent.

Table 4.3 shows the percentages of the issues received by text message from the adolescents and shows a wide variety of issues, worries and above all it proves the necessity for the adolescents to have a communication channel for sending their questions confidentially. According to CórdovaPozo and Hagens (2013), 507 SMS messages were received in the timeframe of one and a half year, which represents approximately 44% of the collected mobile phone numbers among the total adolescent population in the study group.Ofthese 507 questions, 47% were adolescents who sent a text message for the first time, while 53% were persons who previously sent other questions. The recurring inquiries show a level of confidence and the habit adolescents developed over time using the text message system. This could also account for the success of this strategy, as it shows that the system can bridge the gap between primary/ preventive health services and the adolescents. Moreover, we have seen that it is an excellent tool to make an adolescent,

which already gained confidence; consult a physician of psychologist or to make a referral/ counter-referral to health centres as not all questions can be answered by text message.

Table 4.3. Issues received by questions in text messages, period of 18 months, Cochabamba

Topic. Sexual relationships	Frequency (in perc.)
1. Sexual relationships, without protection, with probability of pregnancy, use of morning after pill and its effects, question about pregnancy tests and symptoms	26,9%
2. Questions about sexual relationships: physical discomforts, STD	5,1%
3. Contraceptive method, coïtus interruptus	8,0%
4. Abortions	1,7%
5. First sexual relationship, proof of love	8,0%
Topic. Partner relationships	
6. Problems and instability of the couple - relationships with adults, ignorance	20,6%
7. Harassment by a known person	0,6%
Topic. Information on sex and sexuality	
8. Concepts	2,9%
9. Doubts about the development of the body, size of the penis, amenorrhea, pain, how much time sexual intercourse can take, urinary infections, ovulation	24,6%
10. Information on STD	5,7%
11. Masturbation	4,0%
12. Doubts about the use of condoms and other contraceptive methods	17,1%
13. Attention in hospitals (costs and opening hours)	8,6%
Topic. Search for help	
14. Search for help, advice, health centre, psychologist, improving relationship with parents, self-esteem	18,3%
15. Pregnant persons looking for help	2,9%

Source: Córdova Pozo and Hagens (2013).

4.3 Results of the qualitative research

A) Work methodology

During the intervention phase, the peer-group discussions became the feedback loop for the CERCA consortium from the parents and youth on the studied issues during the intervention activities. The non-hierarchical nature and the dialogue in this methodology, and the commitment of the facilitators in the debates instead of giving purely "educational workshops" helped immensely because it meant that these sessions were really guided by members of the community regarding the questions and problems on sexuality and the like.

Table 4.4. Intervention Activities (January 2012 – April 2013)

Intervention	Cochabamba, Bolivia
Total of in-depth interviews	14
Total of youth to youth interviews	10
Total of Group Discussions with youth	13

Source: Nelson (2013)

Five rounds of peer-groups, with each 2-4 groups, in which the participants were maintained from the first round onwards. The topics of these peer reviews include: 1) Generational differences and talking on sex and the relations within the family; 2) Gossip, scandal and stigmatisation; 3) Sex versus sexuality and challenges to achieve sexual health; 4) The perceptions on "virginity" and the ideals of "couples" and, ultimately, 5) Generational differences (in general?).Already during the first round, the participating adolescents made clear that they wanted extra space where they are listened to, for they normally are only allowed to speak from a position at the receiving end of lectures on contraceptive methods or on the advantages of abstinence. In much the same way, the parents expressed their wish to have additional opportunities to share life experiences related to communication with the adolescents, on sex and relationships. These demands, transmitted to the partners of the consortium resulted in a bigger effort to include the parents in the intervention activities as of spring 2012.

B) Results

a. **Sexual behaviour:** In the five Focus groups or meetings with youth/parents, there was always a base for discussion or debate. From the first meeting onwards, the adult participants expressed their worries on the changing models of educating children and a perception of loss of control on the sexual behaviour of adolescents because they were having promiscuous behaviours among them because parents are losing their authority.

   Speaking of the different ways young women and men are classified according to their sexual experience (real or pretended), the participants, both adolescents and adults, varied the lists of pejorative terminologies to describe young sexual active women and adolescent men that were not sexually active. From "roses without petals that are worthless" and "ball warmers" for young sexually active women too "future priests" and "mummy's boys" for young men that are virgins. This exercise showed the ambiguity in social norms related to sexual activity and the lack of "gender equity" in relation to sexuality because there exists a known classification in the society and "criticism" if they deviate from the culturally accepted sexual behaviour.

b. **Contraceptive use:** for this subject, a brief open survey adopted from the website of SSRA based in the United States (www.scarleteen.com) was used to go into greater depth on the challenges of SRH from the perspective of adolescents and adults. The survey was carried out in a way that individuals could mark options from a list of possible challenges to reach sexual health (with health in its broadest sense). The discussions revealed an underlying ambiguity on relationship aspects of sexuality and especially on talking about desire and consent in the context of a sexual relationship. It was remarkable that adult participants were the only ones that

chose the option “not using constantly or never using contraceptives” as the major challenge that adolescents face in the development of a healthy sexuality. The adolescents in turn suggested they were more interested in the relationship aspects of sex, such as the “negotiation of consent in sexual couples” and “getting to know what they would like or want of physical sexual contact”. In the Focus groups, the adolescents mentioned that they would not ask to use contraceptives as it “interrupts the romance of the moment” or as “I don’t want that he feels that I already had more experiences and that I know about these issues, I prefer that he sees me as a serious person”. For the adolescents a “serious” person or “appropriate for marriage” does not talk nor know much about contraceptives.Many girls that are aware of the risk, use morning after pills or emergency pills after each intercourse to avoid discussing the issue with their partner.

c. **Communication about sex and sexuality – ambiguity of messages:** the communication between parents and their children and the results of SRH through observations, conversations and interviews reveal the sexual comportments of the adolescents. These are commented upon, observed, controlled and judged. The idea of improving the SRH so that adolescents will have a better sexual behaviour with less risks, does not take into account that knowledge is not only exchanged in direct words but also by the example given by the attitudes (a family’s ways of talking/sayings and indirect conversations) of the family, the neighbourhood or the community.

   There is a strong interconnection between sociosexual norms and the sexual behaviour of adolescents in terms of gossip. It is through gossip that communities regulate the behaviour and the expressions of sexuality of its adolescents. The expression of these norms is given by verbal and silent communications between adolescents and their parents on issues related to sex and partner relationships.

   The CERCA Project has designed its intervention strategies partly on the research of “open communication” at the family level[5] due to the fact that we saw an almost complete absence of talking about sex and sexuality between adolescents and their parents. The ethnographic research wanted a more nuanced understanding of communication at the family level to see how sexual advices and partner relationships were perceived. What we found was that the direct verbal communication on advice about sex and relationships takes place, but is in no way the only way by which the adolescents learn the types of sexual or relationship behaviour that are acceptable to adults and to their communities. It is obvious that the exposure to phrases/sayings with strong moral content, gossip, family histories or scandals make that adolescents receive contradictory messages on sex and sexuality.

[5] During the intervention and the development of the qualitative research, the aim was to 1) “have a positive sexual and reproductive behaviour, 2) Search medical care

On this issue there is also the fear to be embarrassed and sanctioned for asking the wrong question or revealing incorrect information regarding sex and sexuality. The fear of punishment (verbal and/or physical) is so frequent that adolescents confirmed not to have any communication with their parents or any significant adult and indicated that is better NOT to admit being sexually active. At the same time, the male adolescents that do have communication, receive an ambivalent communication, referring to "condoms" like Tovi, a 17-years-old, that told "they said me that I have to take care (protect me), that I have to wait until a certain age to have sexual relationships, and my parents said that I have to use a condom when one day the opportunity shows up".

d. **Education and culture on sexuality – differences per gender:** We also came across the national public health model that assumes erroneously that the knowledge of SRH is unilaterally transmitted from parents to their children.This means that the educational stance is not aligned with the realities experienced by the participants and withtheir frustrated attempts to involve their parents in direct conversations on "having sex, with whom, how to know when one is ready to have sex, under what conditions is it ok to have, etc.".

   On the one hand the adults (parents, teachers, medical personnel) ask that there be more talking to adolescents on sexuality in order to avoid pregnancies, violence, pressures to have sex without being really prepared, etc. On the other hand, it are these same adults that hinder that their children attend capacitation classes in workshops on this issue or that feel scandalized when adolescents know better than them about contraceptive methods or talk too easily about abortion. Another contradiction was found in the communication on different and contradictory sexual experiences for both sexes: while adolescents describe contradictory messages on sexual behaviour, from boys it is expected to have multiple premarital sexual relationships. Whereas for girls sex itself is seen as a way of losing innocence.And this is currently part of the Bolivian education and culture.

It becomes clear that the Bolivian society places high value on virginity, especially for women. Those values search to "postpone the start of sexual activity", as a metaphor for purity in women in the context of mothers / female relatives giving advice to the youth. The message is: once the virginity of a young woman is given away or lost it leaves an incurable wound or damage that cannot be repaired, and a beauty that cannot be regained. The point is that the direct message on virginity and maintaining "emotional control", is given through advice on sex as if it were something punishable, and it exists in parallel with other kinds of messages for males of having multiple sexual partners "being macho" and "being a man" or of "having children everywhere". Both morally very ambivalent messages are communicated to adolescents and they remain as sociosexual values that impede making progress towards a healthy and open sexual and reproductive health.

Chapter 5: Lessons learned

In an integrated project like the CERCA Project one can plan everything in detail and nevertheless, by its nature it is practically impossible to prevent some unexpected surprises. In this chapter we show the biggest problems we encountered and conclude what we can learn from these problems to avoid them when implementing the CERCA strategy in our environment.

1) *Strategic work in schools.* The core of this research was the communities, health centres and schools. For operational reasons, it was easier to meet the adolescents in their schools and the authorities during community meetings. Working in schools proved more complicated than we thought. This was due to the big differences in between schools on various aspects as: number of pupils per class and grade, infrastructure, distance, access, goodwill of the principal and teachers for the workshops and subsequent workshops during the year and a half we worked with them, available time and availability of the CERCA personnel at the time and dayallocated by the school. At the beginning, in some schools the topic of sexuality made it very difficult for receiving and accepting CERCA.In other schools, the fact that other NGOs[6] already gave a workshop made them think that they did not need the interventions of CERCA.

2) *Reaching out to communities.*Partof the project consisted of keeping the communities updated on the activity and the advances of the CERCA project.Because it was difficult to bring together the authorities of the community, we decided to reserve some fixed time during the monthly meetings of the community leaders (of the state recognized 'OrganizacionesTerritoriales de Base' or 'OTB') and each time they gave us in between 20 to 30 minutes. These meetings always include various issues related to the development of or conflicts in the community and they did not always feel likededicating much time to the topic of "sexuality". We think that in order to change their mentality to listening more attentively it is good to mention the importance of this topic in their community and let them participate by asking their opinion on the strategies to implement, telling them about the difficulties and asking them suggestions. The feeling of being involved in the research awakens their interest.

3) *Support from the authorities.*At the time of presenting results or the sexual health situation of the adolescents; we saw that some authorities or political decision makers want to deny that there is a sexual health problem. Examples of this were: "pregnant

[6] The involvement of NGOs in schools generated three positions: 1) "they already gave a workshop in 2010 so we know it already as well as our pupils", thinking that a capacitation lasts forever and reaches everyone, 2) Duplication of effort and dealing with contradictory discourses: "NGO x told us that abstinence is the best and therefore we do not want to hear others about the same issue, because maybe they want to promote having sex to our students", 3) the feeling that schools are used for everything and that the information obtained for their own use will not be returned to them "organisations always come to gather information and later they leave without giving us information that we could use".

adolescents do not have any problem to attend to school because it is an inclusive educational system", "adolescent pregnancy is a problemof city-dwellers, the adolescents of the rural area are more innocent and do not have this problem", "the problem is that they do not know what is a condom and do not know how to use it", etc. Meanwhile, the problem is not accepted and no solution is given.In this case, the political decision makers can facilitate actions towards the solution of the problem.

4) *Changes in administrations (authorities, teachers and principals)*: We found out that there is a lot of turnover in the administration of different schools or public organisations and little dissemination of information by the administration to the rest of the personnel. This hinders work continuity or results in loss of time to execute the interventions since it is necessary to obtain authorisations, present the project again with the risk that this person does not want to keep on collaborating with the development of the research topic.The same could happen with teachers and school principals that refuse access and do not accept agreements that were signed by previous school boards until they have been informed again. So, it is important to reserve time for this step and be prepared to present the research project to the new school principal/administration.

5) *Opening hours*: while planning the different activities (interventions, meetings, workshops, etc.) we saw that the health centres did not always have time available to collaborate due to the immense workload that the personnel has. The same happens with the schools that have its exam weeks and/or vacations. In Bolivia it occurred several times that, due to political instability, there were strikes or blockades which resulted in changing dates for different activities and these sudden changes were no easy tasks.

6) *Engagement to participate in focus groups*. Maybe just because of the taboo of "sexuality" it hindered on numerous occasions that they did not show up. To solve this, we tried to compensate them by paying for their transport, refreshment, souvenirs for their participation, but attracting them to the meetingswas alwaysa problem that required a lot of time and creativity.

Chapter 7: Recommendations

As this was a complicated project, both because of the topic as because of our wish to approach this topic from a multidisciplinary and multicentric point of view, different recommendations can be made.On the one hand the recommendations hereunder can contribute to a better implementation of the CERCA strategies, on the other hand, these can be taken into account at the time when the authorities decide to change their policies on sexual and reproductive health.

1. The health centres should create a communication channel with text messages so that adolescents can find quick answers on their questions in a reliable and correct way.In addition, this system can work as a good referral system. The adolescents that cannot be helped this way can be referred to a health centre to offer appropriate support.

2. The schools should implement a standardized educational system about sexual and reproductive health. This educational system should be the same in the entire country “with the same vision on with what and how sexuality will be taught” and should take into account not only issues on how to prevent STD or pregnancies but also the broader aspects of sexuality like communication, discussing the use of contraceptives orthe postponing of sexual relationships, self-esteem, life project and so on. Best is to start at a young age (11 to 13-year-olds) because we saw that sexual activity starts increasingly at a younger age, moreover it seems to be more effective when they start earlier with these workshops.

3. It is a mistake to maintain a health system where the health centre/personnel hope that adolescents will come to their centre with their problems and questions. We found out that there are many barriers that lead to the fact that only boys with serious problems or pregnant girls go to the health centre for medical treatment. Healthy adolescents that want to learn more about prevention or that want psychological assistance do not come.The adolescents indicate that they do not like to wait, that they do not trust the personnel and that they are far away. Therefore the centres should be present in the schools with a physician, a nurse and a psychologist to care for the adolescents and create a trusting relationship so that they go by their own free will to the health centresonce outside school.

4. The schools and health centres should cooperate to plan workshops, activities and the presence of the health centre in the school to thereby avoid duplication of effort, different visions on education and sexuality “promote only abstinence” “promote the use of condoms after parties where alcohol is consumed”. Both the health centres as the schools need to have “a vision and a message on sexuality” as part of a strategic plan on health and education for Bolivia. Therefore, the coordination and final responsibility on SRH is a government task and not one for NGOs.**The**

government is the centrepiece that has to establish a countrywide vision on Sexual and Reproductive Health as policy that organisations that work on this issue, NGOs, the educational system as well as the health system follow. This will avoid that NGOs and other organisations (including health personnel) make different types of interventions according to their own vision. Every one of these organisations and their personnel has an important role to suggest policies to the government on the SRH Policy and they can assist in the research, evaluation and dissemination of these policies.

5. Among *Policies and future research* we hope that more effort is made to improve the communication on SRH in society. There still is an important taboo on this issue that makes that adolescents do not discuss it with their partner, parents, and friendsneither with medical personnel. We noted this lack of communication also in professional environments, where teachers and physicians deny the problem and do not talk on critical situations.

6. An obstacle for research like that of the CERCA project that takes place in different countries, is that in every country the interventions were designed according to the criteria of the organisation of this country. On the one hand it is necessary to give freedom to every country to adjust to local parameters, but on the other hand there is the risk that each one promotes a different vision on the issue or gives more weight to one aspect of sexuality, forgetting others. This can also affect the results so that they will not be easy to interpret when different interventions have been used. Secondly it is possible that in two countries the same intervention “was invented” without sharing knowledge and materials, resulting in duplication of efforts. This can also occur within a country when a public organisation develops a vision on SRH, for example in the health system and another from the educational system develops its own stance. Because of all this, we consider it necessary that there would be a good coordination in the execution of the SRH-project, under a vision, a stance on each one of the different aspects of sexuality.

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