

# THE INTERACTION PROCESS BETWEEN MEDICAL STUDENTS AND FAMILIES IN A CONTEXT OF COMMUNITY HEALTH PROMOTION: THE CASE "ONE STUDENT, ONE FAMILY" AT LÚRIO UNIVERSITY (NAMPULA, MOZAMBIQUE)

## O PROCESSO DE INTERAÇÃO ENTRE ESTUDANTES DE MEDICINA E AS FAMÍLIAS NUM CONTEXTO DE PROMOÇÃO DA SAÚDE NA COMUNIDADE: O CASO "UM ALUNO, UMA FAMÍLIA" NA UNIVERSIDADE LÚRIO (NAMPULA, MOÇAMBIQUE)

Gaudêncio Monteiro,<sup>1</sup> Lars-Christer Hyden,<sup>2</sup> & Jorge Bonito<sup>3</sup>

<sup>1</sup> Delegation of Mozambique of Food and Agriculture Organization of the United Nations / [gaudenciom@gmail.com](mailto:gaudenciom@gmail.com)

<sup>2</sup> Institutionen för Medicin och Hälsa of Linköpings Universitet, Svenska / [lars-christer.hyden@liu.se](mailto:lars-christer.hyden@liu.se)

<sup>3</sup> School of Social Sciences of Évora University, Portugal. Center for Research in Education and Psychology of Évora University, Portugal. Center for Research Didactic and Technology in Training of Trainers of Aveiro University, Portugal / [jbonto@uevora.pt](mailto:jbonto@uevora.pt)

### ABSTRACT

This work aims to address the main features of communication used by students from Lúrio University (Nampula, Mozambique) in the family health promotion process under the project "one student, one family". Therefore, reflections on interpersonal communication were made, based on the analysis of verbal and nonverbal language, and the relationship/interaction between medical student and family during their conversation. This is a qualitative exploratory study using observation by video recording during the meetings between medical student and family. For data analysis, conversation analysis was used. For the research, we used as scenario, the Muatala community where the Unilúrio project took place, and the families are composed of several members living in the same house. And therefore, we worked with 10 medical students who attend different courses and different semester. From the results found it is necessary to highlight the relevance that medicine student and the environment exert in their interaction to the visited families; it was clear enough that there is an insecurity for the student of what he is going to speak in the meeting. It has been in a pacific way he sits down each one accept his mistakes. As a result of that it was concluded that it is worth noting to look at the necessity of developing a work that can make the students be aware of the importance that an effective communication has in the process of interaction between students and the households of Muatala quarter.

**Keywords:** Interaction process, students and families, promoting community health.

### RESUMO

*O estudo pretendeu abordar as principais características de comunicação utilizadas pelos alunos da Universidade Lúrio (Nampula, Moçambique) no processo de promoção de saúde da família no âmbito do projecto "um estudante, uma família". São realizadas reflexões sobre comunicação interpessoal, com base na análise da linguagem verbal e não verbal e na relação/interação entre estudantes de medicina e família durante a conversa. Pretende-se analisar o processo de interação para a promoção da saúde da família*

*para mudar hábitos de saúde das comunidades abrangidas pela saúde pública do programa de UNILÚRIO chamado de "um aluno, uma família". Trata-se de um estudo qualitativo exploratório com observação de gravação de vídeo durante as reuniões entre o estudante de medicina e a família. Para análise dos dados foi usada análise de conversação. Na pesquisa, foi utilizada como cenário a comunidade Muatala onde o projecto Unilúrio ocorreu. As famílias são compostas por vários membros que vivem na mesma casa. Trabalhámos com 10 estudantes de medicina que frequentavam os diferentes cursos e semestres. A partir dos resultados encontrados é necessário destacar a relevância que o estudante de medicina e o meio ambiente exercem na sua interação com as famílias visitadas. Ficou bastante claro que existe uma insegurança para o aluno sobre o que ele vai falar no encontro com as famílias. De uma forma pacífica, os alunos aceitam os seus erros. Como resultado, pode concluiu-se que vale a pena olhar para a necessidade de desenvolver um trabalho que pode fazer os alunos estar cientes da importância que tem uma comunicação eficaz no processo de interação entre os alunos e as famílias do bairro Muatala.*

**Palavras-chave:** processo de interação, estudantes e famílias, promoção da saúde na comunidade.

## **1. THE PURPOSE AND THE SCOPE OF THIS STUDY**

Nowadays, communication among future health professionals, especially medical students, is increasingly a component to be recovered by the educational institutions of health sciences. Some authors link the skills of communication as an indispensable tool for medical practice, since, for example one of the aspects of dissatisfaction amongst patients is often related to communication skills in the performance of health professionals.

According to the curricula of medicine in Mozambique, there is a tendency for the formation of a general practitioner, humanistic, critical and reflective, able to act, based on ethical principles, in the process of health and illness at different levels attention to promotion, prevention, recovery and rehabilitation of health from the perspective of comprehensive care. However, among the specific skills, not the priority of the student need to learn to communicate properly with future co-workers, patients and their families, informing them and educating them through appropriate techniques. The query that I carry out with the Mozambican universities found that does not exist any education literature on teaching and learning "communication" in undergraduate courses in medicine.

Assuming that communication is a skill that can and must be earned in the process of medical education the teaching of communication in the training of medical students can develop understanding of the communication process goes beyond words and has direct and profound consequences on the effectiveness of the medical act, interpreting it with the aid of verbal language. In this sense, the training of medical students should be accompanied by a training system for developing communication skills among students and the future patient. According to some literature, this activity can provide an excellent training for students to identify and reflect on the specifics of the relationship with patients. In the context of training a medical student with skills to interact with the patient, the Faculty of Medicine, University of Lúrio, introduced the program "one student, one family", aiming to promote family health and community Muatala.

In regions such as the Muatala, where on one hand, we have a community with low literacy levels and difficulties in expressing themselves and the Portuguese on the other hand we have students interacting with communities. Given this framework of interaction between medical students and the families of Muatala we are faced with some issues. a) In what context the interaction process between medical students and the families of Muatala community is established? b) What are the stages of interaction and how they are characterized?; c) In what extent gender is a relevant issue in the context of health interaction between medical student and family?; d) What are the effects of interaction between health student and families, who come from different culture background, in use on the process of communication?; e) Do the members of family contribute and suggest new topics?; f) On the topic of interaction management, who talks more, is medical student, mother, father, sister, brother?

The field research took place at the Medical Science College at Lúrio University in Mozambique, specifically in the city of Nampula. According to the Mozambican national household survey in 1996-1997, it is estimated, in Mozambique, that only about 50% of the population have access to basic health services and

some of them live more than 10 km away from a health facility. The services are rendered more accessible by traditional doctors who are at an average distance of 15 km away from rural families. Doctors can on average be found 46 km away and a health center at 19 km. Thus, traditional healers treat 94% of the population in the villages, nurses treat 17%, midwives 20% and doctors only 2% (Newman, Gloyd, Nyangezi, Machobo & Muiser, 1998).

Mozambique has an epidemiological profile that is typical of diseases of developing country, with significant levels of child malnutrition and high prevalence of infectious diseases (malaria, tuberculosis, AIDS); paralleled by the emergence of other problems that are associated with a developing economy, particularly traffic accidents specifically in areas of rapid urbanization. These problems of poverty exacerbated by natural causes, Mozambique have been affected by disasters such as famine and floods (Moore *et al.*, 2003).

Currently, Mozambique's health system has a mixed economy, with actors in the public and private sector and some institutions that are a combination of both. Recently there is a tendency to institute a third sector in the Mozambican Health System, since the government recognizes the role of the sector of traditional medicine and of agents of the Community level health (Moore *et al.*, 2003).

In Mozambique medical students are trained in three colleges: Firstly, in Maputo, that is a public sector institution, the College of Medicine, University Eduardo Mondlane, and secondly Beira, the School of Medicine in Beira that is a private institution integrated at the Catholic University and thirdly in Nampula, the public school of the University of Lúrio.

Nampula is the capital of northern region of Mozambique, is located about 2,150 km north of the capital city of Mozambique (Maputo). According to the census of 2007, the province has a population of 38, 883, 56 people, facing an increase of 26,9% during just ten years; it remains the most populous province in the country. Lúrio University (UNILURIO) works since 2007 and has three faculties namely: Health Sciences; Engineering and Natural Sciences and Agricultural Sciences. The College of Health Science offers five distinct undergraduate programs in areas like pharmacy, medicine, dentistry, nutrition and optometry. Under the roof of the College of Health Sciences, the University Extension Program for family health "one student, one family" has existed since September 2007.

This study has no ambition to establish a strict historical timeline for this program to promote family health. The idea of this research is to describe how medical student and family organize their meeting in the framework of education for health taking into account the context in which the communication is established. Indeed, for over three years the project was released for health promotion "one student, one family." This program consists of students adopting a family from the beginning of the course, to convey basic knowledge of basic prevention of diseases. This program was designed taking into consideration that minor illnesses such as diarrhea, could be easily prevented and treated in self-management. In process of "adaptation" by the families, students also have to create a database that will reassess habits and suggest adequate nutritional and policies for health.

The emergence in 2007 program of family health promotion, "one student, one family" of Lúrio University has as an objective to promote good health habits of families in the community of Muatala, located around the Unilúrio. As we saw at the point where we contextualize our study objective, students are assigned a family in that they interact through weekly views, with the aim to promote primary prevention through health promotion family. It should be noted that the operating philosophy of this program recommends that each student adopt a family that he/she must work until the end of their course. That is, meetings between students and families occur from the arrival of the first year students at the university until the last year of its formation, *i.e.*, the total will be five (5) years interaction between students and their families. With the assignment (adopted) family, the student becomes regarded as virtually a new family member, including, *e.g.*, to be called the son, daughter or brother, sister (a) and he called family members of father, mother, sister or brother. The appearance of this work to promote community health is extremely important for both families as to Unilúrio since; it has brought a new approach process of teaching and learning process as well as primary prevention of health.

The program of health promotion in the community despite being an initiative of Unilúrio, most part of their activities is carried out together the families of Muatala community where students perform their activities.

All starts at 2 pm on Friday, in room magna College of Health Sciences Unilúrio, where they hold a meeting of up to one hour between the students and some College members. At this meeting the teachers give to the students some information that must be transmitted within communities, as well as students ask for some clarification and got questions about their field work.

Several qualitative studies have been performed since the 1970s about the process of interaction between doctor and patient. A study by Stewart (1995) showed that there is an association between effective communication and positive influence on physical and emotional health of the patient (Orth *et al.*, 1987, pp. 29-42; Stewart, 1995, p. 152).

Dubé (2000) in his study about communication skills for preventive interventions suggests that effective communication depends on the skills of doctors and his aims to build the relationship with the patient, facilitation, negotiation and partnership. According to him, the fundamental skills for the physician-patient communication are already part of many curriculum of medical schools in the United States (Dubé, O'Donnell & Novack, 2000).

Studies carried out by Hulsman (1999), on the doctor-patient relationship in the Netherlands emphasize the importance of communication in the doctor's professional activity. Hulsman (1999) that despite this finding, the medical schools are not enough to occupy more than 5% of the workload of the curriculum development of this ability, primarily focusing on the technological aspects of professional practice and biomedical (Hulsman, 1999, p. 655). In England, the *Imperial College of Science, Technology and Medicine*, in London, has a training mechanism for development of communication skills to students in the form of theatrical performance (Nestel, 2002, pp. 562-564). Such events, according to the authors, provide excellent training for students to identify and reflect on the specifics of the relationship with patients.

Data from the evaluation of a workshop held in Canada in 1992, addressing the topic of teaching and assessing communication skills in physician-patient relationship in Canadian medical schools revealed that of the 16 member schools involved in the event 15 have introduced communication for health in their academic curriculum. In 1996 the International Conference on Teaching Communication in Medicine took place in Oxford. They came to a consensus with recommendation of eight basic items that needed to be included in the curriculum of medicine for the formation and development of medical professionals (Makoul & Schofield, 1999, pp. 191-195). The guiding ideas and basis of this study is to analyze the conversation, that is based on assumptions, principles and knowledge of several authors: Heritage (1984), Silverman (2006), Creswell (2009) and Sacks, Schegloff and Jefferson (1974). The choice of this reference is due to the fact that the work of these authors constructs a tripod of support for working with conversation analysis of interactive communication processes, emphasizing the relationship between health professionals and patient.

## **2. RESEARCH METHODOLOGY AND DATA COLLECTION**

### **2.1 Methodology**

Because the study of interactions in a given social reality is understood here as the practice area of medical students in promoting family health, we understand that interactions can be investigated and the analysis would involve the participation of: 1) research subjects, 2) the theory/theorist of reference and the related area. To this study we chose qualitative, on the one hand, the paucity of time and nature of research that is intended to make, therefore, it works with a small sample therefore not be necessary to quantify the results. On the other hand, intends to study the degree of impact of process on the performance of students and the predominant of communication in the relationship with families, therefore, not intend to quantify the results. We also choose to descriptive method, since he wants to know and interpret the

characteristics of object of study, distribution by age, sex, education level, opinions, attitudes, belief, culture and others. In our study we intend to learn and analyze the background of the families as well as students, that is, getting a general idea of the characteristics of the object of study (education, culture, economic level) in this view was used the unstructured interview and a participative observation. Also to describe characteristics on the perception of medical students and their respective families on communication processes and reasons for joining the operations of the family health program, aiming to provide indicators about the interactions between these two subjects. Turner (1971) suggests that the ethno methodological research is done in two phases. The first, the researcher uses his knowledge to the members themselves interpret their materials, while in the second he examines this interpretation from a perspective (Turner, 1971, p. 177). The four types of strategy discussed above differ in manner in that they produce their materials. But ever study of these materials can be seen as organized in these two stages of composition and interpretation of analysis procedure. To collect the data for our research we chose to use two techniques, interviewing and non participative observation.

The interview was used to have background information about the subject of study. The interview structured was not used for collection of information next to the students and the members of the families. The researcher didn't use the structured interview or questionnaire because these techniques don't give us the opportunity to reap the views, concerns and expertise of the respondents on the subject under study. Therefore, non-structured interview allowed a bigger freedom to introduce new questions, when opportune, as well as to extend the informative picture of the interview. It has the objectives "to know the opinion of the one interviewed, to explore its activities and motivations and to get information of the interviewed for the resolution of a problem hanging between people" (Richardson, 1999, pp. 210-211). For interviews were chosen two types of guide questions, an interview guide addressed to students and another to families.

Given the limitations of interviews to collecting data that allow evaluating the skills, behaviors and relationships of the object of study in their normal environment of activity, we used non participative observation accompanied by video recording to assist us in profound visualization of data. These recordings are transcribed in a way that limits the use of procedures common sense to hear what is being said and seeing as it was said. Observation is an activity that human beings are always serving in the context of their interaction; one can say that is intrinsic to human beings (Strauss, 1985, pp. 16-17). Observation as a technique of data collection is not new, but may generate some controversy, especially when the scientist is part of the social world it studies. In this case we face problems of scientific rigor to be careful. It is also attempt to record not only the cause of the interaction, content that is recording dialogue and nonverbal expressions observed in each of the actors.

The researcher chooses to shoot film in the conversation, since it facilitated the uptake of sounds and images that reduce many aspects that can interfere with the reliability of data collection observed. The video also allow a more thorough analysis of the process because it lets you see many times as necessary and see more details about interaction (Kvale, 1994, p. 27).

The interactions analyzed from the perspective of conversation analysis necessarily need to be recorded. That's because, unlike studies that focus on the content of speech or just the content of what was said, the studies of conversation analysis focus primarily on the way things have been said. Thus, methods of data collection involving only observations with notes taken are not sufficient. It is only with data recorded on audio or video that we can focus on the details of actual interactions, such as breaks, co-constructed speech, simultaneous speech and other interactional phenomena, aspects that are so expensive this approach (Silverman, 2006, p. 20).

For our study, the observations were preceded by an explanation, the participants on the research and its goals. In order to preserve the identity of the persons observed in the transcript of the videos of the observations we use letters at the beginning of each turn. Due to the physical and spatial dispersion of individuals within the group studied social, medical students, we chose to observe each student in each interaction with their family.

Because it is an empirical social research, we had to define the focus of our observation; as recommends Gil (2004) is necessary to define the place and time where the study phenomenon occurs. From this perspective, our observations were conducted specifically in Mozambique in Nampula city, the environment of the residence of the families with observation by video recording. The same took place in August and September 2010, having made two visits of the fieldwork for each student and their respective families, the first visit was without video recording, and the aim was for the researcher become familiar with the subject of the survey (Gil, *idem*, p. 162).

Some studies made questions whether the presence of the camera may interfere with the behavior of participants. Authors like Heacock, Souder and Chastain (1996) said that the behavior may change, but only for a short period of time, pointing out that after few minutes the participants will get used to the equipment and re-submit his usual behavior (Heacock *et al.*, *idem*, pp. 336-338). Despite being the subject of extensive study, we did not have to delimit the scope of our observation because the observation was being videotaped. Therefore, we chose a simple sample. To the observation we didn't play any role in research, we were as spectator and it was unstructured observation where the observation is free (Gil, *idem*, p. 104).

## 2.2 Participants

Participants in the study are students of the College of Health Science, Lúrio University who are graduating in the fields of health sciences and also constitute part of the study families. For the development of this research we worked with sample of 21 individuals; 10 students (4 girls and 6 boys) and one professor, and the rest are from families, different families usually consist of 5-10 individuals per family. However, in addition to qualification, subjects of research, particularly students, were not selected taking into account, in general, elements of representing the students constituted by male, female, of diverse ages, representing the pharmacy courses, nutrition, general medicine dental medicine and photometry. It was based on accessibility.

In a particular way, for the observation we try not to select the students taking into account the different backgrounds of students in terms of courses, field of local language, sex, age and previous experiences in education, health and communication. The interviews with students were carried through before and after the session visit to the relatives, in order to analyze the input and output of the communication process. As for the families also were not selected any characteristics of the interviewees, since we intended to interview and observe the families corresponding to the selected students. The interview of families was made after the session of the home visits of students, interviews with this target group the researcher aims to understand how families relate to students. The social environment is the place where the actions and interactions of social actors. The field of our research is the scope of practice of medical students, understood as the area of health promotion of the family. It is in this social environment of this area that we identify interactions, obtain the meanings given by medical students and families during typical operations of health care practice of the family. And as this study only we talk about family health promotion, the social environment was defined as one's own practice, where the students' act perform their actions on families where they belong.

For cases in that we made the observation, we went out together with students from the Faculty to their families and when we arrived there, the student greeted the family and made a brief presentation and explanation of the objectives of its presence and was followed by the interaction, according to what the student had planned.

Due to reduced time to visit 15 of the 16 hours we could only record two observations per week in the end we recorded 8 observations. After the interaction followed by videotaped the transcripts was made by the researcher after the end of the fieldwork. On average each field observation had duration of 5 to 15 minutes. To preserve the anonymity of study participants, all names were replaced by Roman letters of the alphabet. For each interaction that we observe assign a different letter to distinguish from each other and members of the same interaction we use the numbers associated with letters. For example, to conversation number 1 we use the letter D, and to distinguish speaker's member we use other numbers, and we follow the logical sequence of the alphabet until the end of eight observations.

In this paper, we present the results from the Meeting between medical student and Muatala's Community Family.

### 3. MEETING BETWEEN MEDICAL STUDENT AND MUATALA'S COMMUNITY FAMILY

This stage constitute one of the most relevant stage of the interaction, meanwhile it is in this stage where the process of communication interaction must show that is much effective as it consists of having the basis of related dialogue through the method of interview that is conducted by the student of medicine himself. It is noted that the questions raised during the interview are previously selected by the students to allow them to have a conversation guide. With the help of the guide the student makes questions to a family member with regard to the health of the community, but in this case they are particularly directed to the heart of the family trying to obtain the most relevant information related to the programs objectives.

In summary, the families that answer the questions of the conversations in the interaction student-family shows that both speakers guide themselves to the relevance in different questions of the conversation while producing them (either the attributions or the answers gave to them). We cannot affirm that this constitutes a rule. Meanwhile in our data as it is discussed in the following stage, it was noted that families try to position their attributions or responses so that they can make it possible the student to continue with the questions, this in order not to interrupt the questions. The students themselves, they rarely respond to the questions, since just in few occasions that the families interrupt the student because they have doubt or they need better clarification of some questions.

In this stage, the student gathers important data related to the program of his visit, identifying either positive or negative aspects existing in the heart of the family about the family's health that in the future they will be target of analysis to obtain conclusions that will allow him to generalize to the all health of the community of Muatala in the future.

The passage of the conversation 4 below, shows a conversation development, where the interviewee reveals a very critical health situation in the society in that she lives.

Example 4 (from conversation 6)

D6- [don't you go to hospital to make family planning?]

M6- I did not go anymore when I went for antenatal they said that I was HIV positive[ ] and I must start with the treatment against AIDS.

D6- Is it true?[ ] if the mother treats herself how will the baby be? will she born with no HIV and the mother will have treatment?

M6- (Crying) I am very sad

D6- (Giving hug the father) don't be sad, daddy already knows.

With regard to the non-verbal communication all the observations show that students seldom sit and discuss together with their families. What happens is that most of the meetings reveal that students seem to be very far from their family. The occasions that they fulfill what they say are few that can support what is being said with non-verbal actions.

This can be seen as the last stage of the interactive process, here the student makes the last comments about the interview target material with the family matching the responses obtained from the interview with the material related to the health of the community studied in the classroom, that allows students to give recommendations to the family about their health.

It is noted that in this process the student does not give any medical prescription to the problem found because he is merely a student of medicine and not a professional of community's health authorized to prescribe the medicines. He is a beginner that can therefore promote small actions that can make difference in the community. To illustrate this, we will transcribe some samples that demonstrate the conversation between the student of medicine and the families of Muatala community.

Example 5 (from conversation 7)

D7: Ok still this week we are going to the hospital. And if we have.

B7: They. there at the hospital will say what to do so that we can live safely even with the disease

D7- hum:.....( . ) ok

B7- (undress) ok older brother, until the next visit, take care of you don't forget to go to the hospital

B7- Ok, thank you older brother, have good classes.

The question this model of global structuring of the conversation between the student and family throughout their conversations is like defending some authors have developed studies on different sequential structure of conversation that should follow: the opening, developing and closing (Schegloff 1972; Schegloff 1974).

Based on the observations and analysis of the transcripts it is clear that the way in which interaction is conducted at the student's activity is reduced to obtaining responses from the family and is just restricted to answering the questions. As we saw previously the student visit the families with the chosen topics, and the results of the survey confirmed this finding. See transcript below the extracts from the conversation that may illustrate this phenomenon.

Example 6 (from conversation 2, 3, 4 and 5)

D2- humm(.) we came here to do the work that we had explained that day

D3 - As I had said, I just came to ask some questions for a task from the College.

D4 -father, I just came for us to have a conversation. Do you like conversation?

D5- no mummy, I was very busy at the College.> today I came here because of that matter I have talked to my father (.) it was for you to go to the hospital today<(0.)

Based on the above statements, we can conclude that it is the student who proposes the topic/subject of interaction and little room is left for the family to enter with new issues, since the student has his agenda to meet or even has its guide with issues that must be answered. To illustrate this phenomenon, note when the student completes the questions he says goodbye to family without asking whether they have any questions or concerns. He/she is always the person who have been opening and closing the conversation as noted in the extracts of the conversation below:

Example 7 (from conversation 4, 5 and 6)

D4- ok:: I will stop, thank you very much to have answered the questions.

D5- aham:: ya:> with regard to the problem, you now have my telephone number, just call me, I am now ashamed because you did not tell me in advance that you had this kind of problem< So, I will see you on Friday at 11am.

D6- ((dismisses)) ok brother, see you next visit, take care of you

Also according to the survey at any time of observation we have seen, by the student, questions that encouraged the family to air their concerns or to introduce new topics that were unrelated to the subject under discussion. And so the family could have a role as co-producer on student questions and not just limited to responding and not able to contribute in an active way in the discussion. Thus, in a socio-interactive (in that elements of the interaction are included as participants in their interactions and not simply determined by aspects of personality), we can say that the actions of the student are also examined as influential in the conversation and the types of responses provided by families. Based on the premise that the interaction between the student and the family built on a non-joint construction of the interaction, it is evident the asymmetry of roles between the parties involved in this interaction health promotion community of Muatala. This phenomenon of asymmetry will be further developed in the following section.

Interactions for health promotion in Muatala community are characterized by the existence of two basic elements, a medical student and family. They are two elements with completely different characteristics.



Where on the one hand, we have students enrolled in higher education in medicine and on the other hand, we have the family in community of Muatala with a low level of schooling and their characteristics.

From field observations and reading of the transcript were evident two main aspects, the asymmetry and the explanations (accounts).

We have seen that there is an asymmetry in interactional roles/discursive (who says and does what) between the student and family. Such asymmetry is expressed primarily in the conduct of conversation by the student, who determines the topics to be explored in conversation, as well as the different moments of interaction. As he also expressed by aspects related to resources and to their own interaction and language used by student and family. That is, the co-construction of turns for the family as a way of showing that they also participate in this interaction, situations, and descriptions of the topics presented by the student.

It was evident in our study that the interaction between student and family in few times that family give their contributions by building a round of talks still under construction by student. This phenomenon is widespread in almost all observations, see the transcript below.

According to our data, it is observed that, frequently, families use the resource co-construction of turn. Interestingly, these interactions between the student and family, is that the discursive role of co-builder of turn the other happens only with the student. In other words, the family never finished a round of the student, can see it in all transcripts.

Another phenomenon observed at this point is related to the explanation (accounts) in that the family can ask for clarification of some passage misunderstood or understood. This request for clarification can demonstrate that both the family and the student are interacting and building a single idea within a single round of talks.

On this basis of non-participation in the turn and not asking questions of the family may be using this feature as a way of showing that he/she has no prior knowledge on the subject or, in other words, that remains in its role as who knows nothing (and everything that the student is talking about is new to then). This phenomenon is evident in the actions of the student, when he determines the agenda of topics to be explored in conversation and often interrupt the turns at talk of family, and bring the interaction for matters scheduled for him.

Despite this separation, in some cases it is noticed the student's effort to reduce the obvious distance that exists between him and his family. This phenomenon can be observed for example when the student tries to alleviate the discomfort that a certain type of questions can cause or words of encouragement and comfort as the following example illustrates:

Example 8 (from conversation 2, 4 and 5)

D2- I am going to ask a question but I think that the response will be wrong hum:::> how is he and if you are with him how do you accept his style of life? Perhaps the paces are the same, how do you manage to overcome your problems, has it been in a pacific way or he sits and each one accepts his mistakes?<

D2 [grade six] > that is what we really want and much more<

D4- [ yes, exactly]

D5- aham:: ya:> with regard to the problem, you now have my telephone number, just call me, I am now ashamed because you did not tell me in advance that you had this kind of problem<

In short we can say that meetings with families are mostly characterized by high degree of control over the students' interactions. This control is visible on the one hand, the fact that few families can submit questions to the students and secondly, that there was a sort of separation/barrier caused by the position of how the players are seated and expression in which each holds in the interaction.

As we saw, in general the communication refers to take actions that it can make common thought ideas or feeling between people through a message sent from one person to another with the objective to inform, persuade or entertain. That is, in this action is developed individual communication relationship that

depends on the conditions of the elements of communication such as the channel, context, sender, receiver and communication code (Lopes, 1994) that can positively or negatively influence on efficiency of perceptions of individuals involved in the scheme of communication and thus become noisy or misleading information in an interaction.

As in all communication processes, this reality became evident also in our field of study so that the interaction between the student and family member was strongly influenced by those elements of the communication process. For example, from the conversation in the research area between two male students (D2 and D2a) and mother (M2), as it is shown in the attached conversation 2 see example number 8. D2 reveals a skepticism with regard to the role that he is going to play in the communicative process, when showing the evidence of questions to be "raised (... what should I ask in the first stage?"). And this difficult of the student can be overcome through the response given by his colleague in the passage number 8 D2a when "responding in the first stage you should ask the total number of the family members and then you start selecting men and women".

The student D2, in his speech in example number 8, raises the following question again "sister, you consider yourself an upset person". The expression upset is ours, because we simply try to show the evidence that in our point of view does not seem to be a difficult word for the lady M2 it means that it would be difficult for the interviewee to provide the meaning of the word, this fact would also be recognized by the student by asking help from our author to translate the word into others that would be easier for the interviewee. The other example of noisy communication<sup>1</sup> can be found in example number 9 below, the student when he raises a very complex question to his interviewee while knowing that she has problems to master the language: "(...) I am going to ask a question but I think that the answer will not be correct hummmmm".

The conversation "(...) hamm, yes because hernia is located, is somewhere you see, when it is a sickness, it is something that we can diagnosis. Going to see a doctor he can identify and operate it, normally it is like that" it is noted that the student faces problems to answer clearly the question raised by the interviewee who influences the perception of what is being discussed.

In the following passage of conversation number 8 (see example below), the student raises questions about difficulties to have access to health care, the question seems to be ambiguous, as the member of the family (F8) next asks the other question to understand better the question raised before: F8- how difficulties. In this stage the student tries to make the question clear making the other one D8- financial problems, may be something, for the family member it became easier to understand the speaker's question.

Example 9 (from conversation 8)

D8- > access to health care, have you difficulties? have access to hospital? have you a clinic? have you difficult to go to the central hospital?( )to clinic<

F8- difficult, how?

D8- < financial problem, maybe something>

F8- a:::h no, I have no problems.

D8- [haven't you] is there anybody with two wives in your family?

F8- *wha* :::[who has?]

((the word "*wha*" in emacua language means " what?"))

D8- more than two wives?

F8- [two wives, how?] ( .) For example I have one and that one has the other?

D8- (hi::) two wives... and the other

The other variants that can influence the communication between the student of medicine and the family is the level of trust they have that can make them be limited or explain better the questions that will be asked. Thus the communication relations depend on the approximation the speakers have to trust each

other and give reliable information attitudes and feelings. However the quality of the relation depends on the capacities and technical skills of communication posed by the student. See above example of trust:

Example 10 (from conversation 8)

D8- [ ] Do you use anything for protection? [do you protect yourself?]

(0.9)

F8- yes::

D8- With condom?

F8- [ ] No

D8- No, is it::?

Regarding these conversation passages it is noted that there is centralization to some extent of some aspects of the conversation conducted by the student during the interaction that reveals lack of trust of the interviewee in conversation 7, contrarily to the above one. In other words the interviewee appeals the student to have the conversation about the number of wives later or in another occasion. Therefore the interviewee has lack of trust.

Example 11 (from conversation 7)

D7- [Brother, why do you always have a new wife?]

B7- this matter is very innermost. We can only talk two of us [ ] the next time you come

D7- Ok:: agreed

According to Burton and Dimpleby (1995), all relationships are conceived, affirmed, conducted and even broken by the use of communication. Communication is used to establish information about others to reduce uncertainty as we postulated on the last paragraph. Empathy and trust are important for building positive relationships, whereas game playing can have detrimental effects. Empathy involves trying to feel with the other person in order to understand their point of view. Trust involves accepting others without judging them, and believing that they are basically sincere, competent and accepting. As a result of such trust, individuals should be able to rely on the communicative behaviors of others. Without trust, even the most effective of communications is unlikely to bring about the desired effects. In healthcare settings, trust is particularly important, as family members often feel helpless and vulnerable. Trust is enhanced when health providers use supportive communicative behaviors, whereas it can be hindered by the use of defensive behaviors. As Hargie and Dickson (2004) noted, health professionals should not assume that patients will automatically trust them as a result of their status. It is important to foster trust and credibility, by attending to patients' needs and communicative behaviors appropriately, and then to maintain them. It has frequently been commented that it can take a long time to build trust, but trust can be lost in a brief moment.

Communication in healthcare encounters some literature that we read defends that the process of interpersonal communication is composed by at least two parts, the verbal part that is composed by the speaking and the non-verbal part that is composed by gestures, signs, signals and other aspects existing in each culture. Thus aspects are not noted in the observation that we conducted, according to the data, almost 80 per cent of the conversations taking place; occur without taking into account in the process of communication the elements of non-verbal communication. To illustrate this phenomenon we can look at the passage of the conversation number 05.

Context: conversation between a student of health Science College of Unilúrio D5 and a his "mother" (M5) from the community of Mutauanha, in Nampula. The conversation is taking place in the yard of his "family" house and all the participants are sitting on the chair. The student is wearing a white overall, similar to the doctor's one, that is his College uniform. The student is sitting 1 meter distance far from his mother, there is no face:to:face visualization since his mother is looking to one direction and the student is also looking to a different direction.

This phenomenon contradicts the requirements of interpersonal communication, defended by Fiske (1993), in which he says that in a process of interpersonal communication the information exchange can be oral, by gestures, and by other aspects that have to do with visualization of the individuals. Then, with the aspects noticed above and with the support of the author Fiske, we can ensure that the process of interaction between the student and the family is not effective, since non-verbal communication complements the verbal communication.

To answer this question we had to raise many hypothesis, theories and traditional practices of Mozambique or of the place where the research took place. The first is related to the way people are sitting with the same example of conversation 05, one of the reasons of lack of interaction is the distance between the speakers and the way the student is sitting, not facing the interviewee.

As we saw the student is looking to one side and the lady is looking for a different side and the distance between them is almost 1, 5 meter. As Lazure (1994) and Killingsworth and Palmer (1992), point the way we sit, stand or lie can communicate certain meanings, sometimes related to interpersonal attitudes, the friendliness, hostility, superiority or inferiority. It may also indicate an emotional state, especially of high tension or relaxation. Another aspect is movement of the eyes and eye contact, the frequency and duration of looking is a way to send messages about the relationship, or alliance domain. Establish eye contact at the beginning or during the first phase of a verbal act indicates the desire to dominate the listener and/or to pay attention.

As noted by Street (2003), medical consultations, like other types of social interactions, are dynamic, creative and, usually, socially constructed events. The primary activity is typically 'talk', as the different partners exchange information, make decisions and establish or maintain a relationship. The nature and quality of the interaction will depend on how participants select, adapt and co-ordinate their responses in order to achieve desired goals.

The second may have to do with habit factors and cultural factors. The distance that exists between them can be a way of avoiding problems, being a married woman and with the same age with the student, if they sit close together it will seem to try to persuade each other according to Mozambican tradition and habits. Therefore they prefer to keep sitting far from one another and to avoid looking at the other's face in order to avoid being suspected to be falling in love. We cannot bring the hypothesis of being shame because the student knows a family for 3 years. As Lazure (1994) and Killingsworth and Palmer (1992) point the degree of proximity to the approaching students and families can convey a message about the relationship between them. There seems to be distinct characteristics about the distance. Sitting close to a meter; to eight feet is personal, and more than eight feet is considered semi-public, and also vary from culture to culture.

#### **4. CONCLUSION**

To conclude, we saw that the process of interaction between the student of medicine and the households of Muatala has the following stages of interaction: a) introduction, the student introduces himself to the family, b) development, the interactive conversation, c) and the conclusion where the student gives some recommendations and suggestions to the interviewed household. With regard to the analysis of the research results we noted that the student cannot give any medical prescription because he is not any health technician yet, neither any health professional. The fact that students do not have to give prescription does not harm the objectives post-interaction set before to promote the health program "one student, one family".

The relationships between the students and family members are basically affected by four factors that can act as barriers to effective communication on the relationship. These are: uncertainty over the particular 'role' that the family members are expected to play; uncertainty over who is responsible for managing particular aspects during the conversation and the fact that the students tend to use medical jargon that is unfamiliar to the family members. Apart from that, the majority of communication problems that occur in healthcare interactions involve health professionals making some very basic mistakes. This includes not introducing themselves, not asking for clarification from the family members, not allowing or encouraging

family members to ask questions, not asking about family member's feelings and not providing information in a form that they can use.

In conclusion, this study was to analyze the organizational structure of the process of interaction among students of the College of Medicine, Unilúrio in Nampula and families of Muatala resident neighborhood College as well as some factors that influence the effectiveness of this process within the program one student, one family.

And according to the observations and analysis made it appears that the process of interaction between medical students and families has the following phases of interaction: Introduction, Development and Conclusion. The introduction concerns the presentation to the family of the student program objectives and the need and importance of it for the health of the community. Development is the unfolding of the interaction phase in which students carry their exploratory study on aspects related to the program across the issues affecting family health. In conclusion, being the last stage of interaction, a student makes some recommendations and suggestions for a family interview.

Access to community health information can negatively affect the health of the community, running the rising levels of illness in the community. On the other hand, the poor knowledge about basic rules of health also affects community endangers the success of the program. Therefore the findings of family members who had difficulties in speaking the official language, and take too long to explain the questions, even the existence of family members who cannot read or write, leads us to suggest to the medical students pay more attention on these issues.

And because the issue of divergence in the fluency of verbal communication through the Portuguese language, it is suggested that students could put it more clearly as possible and use shorter sentences and avoid medical terminology in communications. Moreover, it was seen that this access to information is even lower when the question is female, and they are the ones that dominated in our interviews, we can say that this factor is quite significant in the validation study of the interaction and associated to the factor of poor access to information regarding the health of the community, it contributes negatively to the success of the program.

The socio-cultural characteristics of family members interviewed in the community of Muatala , being different from each other with regard to beliefs, attitudes, values, socio-cultural rules, results in the differentiation of perception of the goals of the community health led out by students, negatively affecting the success in promoting the health of the community although it can also be an element of great source for obtaining more data for deeper analysis and recommendations because of their diversity.

Our analysis focused on linguistic evidence and the communication strategies used by participants in the consultation. Because the student is interested in obtaining information from health factors relevant and sufficient to determine their influence and make appropriate recommendations, their conversational strategy is to consider the items of the problems of real life families. The student relies mainly on specific questions in the search for factors that are determinants of health. His style of management topic can be characterized as the speaking style on a particular topic, instead of speaking topically.

In general, the communication strategy is the negotiation of meaning because it is notorious throughout the research how meaning is negotiated between the student and family members for a particular topic when there are differences in communication.

The family strategy, moreover, is to avoid talking about topics that are introduced by the student. Thus, although semi-literate, the family shows have the conversational skills needed to answer the questions raised by the student, since there were few cases in that the question remained unanswered. His management style is characterized by topic talk topically, ie talk about a topic. For our object of study, several topics were observed, the main survey were related to the determinants of community health Muatala.

In the communication strategy, the bilateral topics, or converging, are widely developed and evaluated, thus providing the student an opportunity to collect information more relevant to the collection of information on the subject under discussion. Watching the linguistic mechanisms of involvement and

assessment that the family uses, he can learn not only what is of interest to the student, but also what worries the family.

As a result of language difficulties, we found that linguistic differences are actually observed in the comparison. Language strategies are introduced by the student in an attempt to obtain information more relevant to the health of the family. Thus, it is suggested that students develop a conscious awareness of the characteristics and complexities of information obtained in the search field. This would make them learn to listen more to learn than listening to interrogate. In fact, their ability to ask would be enhanced by their ability to hear and identify contextual cues, such as the assessment and engagement that signals the real problems of the families visited.

I hope the results of this study will contribute to a better understanding and better result of health promotion of medical student and families from Muatala and also better interaction.

## 5. REFERENCES

- Burton, G., & Dimpleby, R. (1995). *Between ourselves - an introduction to interpersonal communication* (2<sup>nd</sup> ed.). London: Arnold.
- Dubé, C. E., O'Donnell, J. F., & Novack, D. H. (2000). Communication skills for preventive interventions. *Academic medicine*, 75(7), S45-S54.
- Fiske, J. (1993). *Introdução ao estudo da comunicação*. Lisboa: Edições Asa.
- Gil, A. C. (2004). *Como elaborar projetos de pesquisa* (4<sup>a</sup> ed.). São Paulo: Atlas.
- Hargie, O., & Dickson, D. (2004). *Skilled interpersonal communication: research, theory and practice*. Hove: Brunner Routledge.
- Heacock, P., Souder, E., & Chastain, J. (1996). Subjects, data, and videotapes. *Nursing research*, 45(6), 336-338.
- Lazure, H. (1994). *Viver a relação de ajuda*. Lisboa: Lusodidacta.
- Lopes, A. (1994). *Comunicação e difusão*. Porto: Porto Editora.
- Hulsman, R. I., Ros, W. J. G., Winnubst, J. A. M., & Bensing, J. M. (1999). Teaching clinically experienced physicians communication skills. A review of evaluation studies. *Medical education*, 33(9), 655-658.
- Killingsworth, M. J., & Palmer, J. S. (1992). *Ecospeak: rhetoric and environmental politics*. Carbondale, IL: Southern Illinois University Press.
- Kvale, S. (1996). *Interviews: an introduction to qualitative research interviewing*. London: Sage.
- Makoul, G., & Schofield, T. (1999). Communication teaching and assessment in medical education: an international consensus statement. *Patient Educ. Couns.*, 37(2), 191-195.
- Moore, S., Eng, E., & Daniel, M. (2003). International NGOs and the role of network centrality in humanitarian aid operations: a case study of coordination during the 2000 Mozambique floods. *Disasters*, 27(4), 305-318.
- Nestel, D., Muir, E., Plant, M., Kidd, J., & Thurlow, S. (2002). Modelling the lay expert for first-year medical students: the actor-patient as teacher. *Med. Teach.*, 24(5), 562-564.
- Newman, R. D., Gloyd, S., Nyangezi, J. M., Machobo, F., & Muiser, J. (1998). Satisfaction with outpatient health services in Manica Province, Mozambique. *Health policy and planning*, 13, 174-180.
- Orth, J. E., Stiles, W. B., Scherwitz, L., Hennrikus, D., & Vallbona, C. (1987). Patient exposition and provider explanation in routine interviews and hypertensive patients' blood pressure control. *Health psychology*, 6(1), 29-42.
- Richardson, R. J. (1999). *Pesquisa social: métodos e técnicas* (3<sup>a</sup> ed.). São Paulo: Editora Atlas.
- Schegloff, E. A. (2006). Introduction. In H. Sacks H. (ed.), *Lectures on Conversation* (vol. 1). Oxford: Blackwell.
- Silverman, D. (2006). *Interpreting qualitative data. Methods for analyzing talk, text and interaction* (3<sup>rd</sup> ed.). London: Sage.
- Stewart, M. A. (1995). Effective physician-patient communication and health outcomes: a review. *CMAJ*, 152(9), 1423-1433.
- Strauss, A. L. (1987). *Social organization of medical work*. Chicago: University of Chicago Press.

Street, R. L. (2003). Communication in medical encounters: an ecological perspective, in T. L. Thompson, A. M. Dorsey, K. L. Miller, R. Parrott (eds.), *Handbook of health communication* (pp. 63-89). Mahwah, NJ: Lawrence Erlbaum Associates.

Turner, R. W. (1971). Utterances, activities. In Jack D. Douglas (Ed.), *Understanding everyday life: towards a reconstruction of sociological knowledge*. London: Routledge & Kegan Paul

Yates, R., & Zorzi, N. (1999). Health expenditure. *Review mozambique*. Technical Assistance Provided by Family Planning Management, Development Project Management Sciences for Health.

## Notes

<sup>1</sup> Noise - is one factor that undermines the perfect transmission of the message, may be an interference call, a voice too low or masked by a background music (Fiske). For the purpose of our study we use this term to refer to when communication is not having the desired effect or question is understood differently.