



Treatment Communication Strategies and Adherence to Art- Perspectives From Clients and Health Professionals in Public Funded Treatment Sites

KEYWORDS

Treatment Communication Strategies, Interpersonal communication, Antiretroviral therapy, HIV and AIDS, People living with HIV.

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ABSTRACT

This paper analyses communication strategies employed by health service providers in ensuring medication adherence among HIV-positive clients enrolled in 3 outpatient drug treatment sites.

Communication has been identified as important for educating the public, influencing attitudes and perceptions, generating demands for services and improving provider-client interaction, hence the need to employ it as part of the strategies required for improving the quality of lives of PLWHA specifically, and generally, for fighting against the HIV scourge. As part of an open-ended semi-structured interview, 27 health service providers discussed the communication strategies employed in ensuring adherence to ART. Also, 580 HIV-positive adults currently on antiretroviral medications were recruited to participate in a questionnaire survey, and 48 others in focus group discussion. Adherence was linked with effective provider-client communication. Findings showed that interpersonal communication was intensively used in all 3 sites (over 77%) while all the other channels had no significant reach. Moreover, most health professionals and clients (80%) believed in the efficacy of interpersonal communication in bringing about behavioural change. The results demonstrate that HIV/AIDS communication need to move beyond assumptions to proper analysis of issues. While viable new channels may be initiated, existing channels should not be neglected.

1.0 INTRODUCTION

Within the last decade, many advances have been made against the scourge of HIV and AIDS including combination antiretroviral medications. The development of highly active antiretroviral therapy (HAART) has resulted in dramatic decreases in morbidity and mortality of HIV positive individuals, reducing progression to AIDS as well as the need for hospital admissions and generally improving the quality of life of people living with HIV and AIDS (PLWHA), (Mocroft, Devereux, and Kinloch-de-Loes, 2000; Palella, Delaney, Moorman, Loveless, Fuhrer, Satten et al., 1998). The efficacy of antiretroviral therapy (ART), however, in suppressing viral replication and delaying the progress of AIDS is related to optimal adherence. The benefits of HAART, which include reduced viral load, increased CD4 count, and improved health status, ordinarily should promote a high level of adherence, but often do not, due to certain characteristics of the drugs. These characteristics include debilitating side effects, the potential long term consequences of the medication, liver toxicity and the prospect of taking the drugs indefinitely. In addition, HIV treatment can be very complicated. The regimens require making and keeping of regular medical appointments, providing blood samples, monitoring CD4 counts and viral load progression, and taking of the antiretroviral medication itself. Also, for medications to be effective, they are required to be stored within a particular temperature, and require 95% or more adherence. For these reasons, providers have learned to offer services that would support adherence, including communication support. The complexity of medical care and treatment for HIV makes adequate health communication especially important. According to the Institute of Medicine (2004), low capacity of individuals to obtain, process and understand basic health information and services needed to make appropriate health decisions can affect clients' ability to follow medical directives, adhere to treatment and attend schedule medical appointments.

That communication contributes to vital health outcomes has been well documented (Parrot, 2004; Singhal and Rogers, 1999; UNAIDS, 1999; UNFPA, 2002 Hovland, 2005; Piotrow and Kincaid, 2001; Panos, 2005). Research and evaluation of ongoing health communications programmes have affirmed the value of using specific communication strategies to promote health and prevent disease ([http://cancer](http://cancer.gov/pinkbook)

[gov/pinkbook](http://cancer.gov/pinkbook)). Most health issues cannot be dealt with by drugs and treatment alone. The promotion of health and prevention of disease will usually involve some changes in lifestyles or human behaviour, thus the need for behaviour change communication. A successful behaviour change communication must include strategies that focus on increasing understanding of the target audience through application of appropriate methodologies. This requires strategic planning which is essential to any effective communication effort. Strategic planning includes identifying the audience for the communication programme and determining the best ways to reach them as well as assessing how effectively the messages reached the target audience with a view to modifying the programme if need be.

One way to achieve this is through feedback. Any communication support programme would benefit from the people's feedback at every stage. In communication, feedback is a continual thing. As Rogers (2000) has observed, the purpose of human communication is accomplished when through continuous feedback, the parties involved in the communication event are able to achieve common understanding. Little, however, is known of the effectiveness of adherence support communication (Fogarty et al., 2002). Although there is some evidence (McPherson-Baker et al., 2000) that enhanced treatment education and social support improve patient adherence, rigorous evaluation has been lacking. Moreover, many communication programmes have been criticized (Airhihenbuwa & Obregon, 2000; Muturi, 2005) for using one-way communication approaches, with an audience at the receiving end, and for not being audience-centred, particularly, in Africa where social, cultural and economic factors undermine the adoption of healthy practices.

In this paper, we report on perceptions of adherence support communication as described during questionnaire survey, in-depth interview (IDI) and focus group discussion (FGD) with clients and staff at three health centres in Benue state of Nigeria. It is a quantitative and a qualitative report on adherence support, which explains acceptable and effective intervention not only from the health workers' perspective but also from the perspective of the clients, incorporating their own words and descriptions of their own experience. At the end of the day, the people are the ultimate judges of the

success of their own programmes. Besides, an examination of perspectives from both health workers and clients is intended to address real issues affecting the people, changing the overall objective from merely increasing awareness and hoping for behaviour change to focusing more on increasing understanding and relationship building with target audiences as a way of encouraging them to adopt and maintain new behaviours.

The study also sought to find out if there is a relationship between communication strategies adopted by health workers and adherence to ART.

2.0 Theoretical Background

Many behaviour change models focus on either individuals or community. Whereas researchers have reported success in the application of some these models and theories for communication programmes, others have raised questions concerning their relevance. Theories such as the theory of reasoned action (Fishbein and Ajzen, 1975); the health-belief model (Becker, 1974) and the stages of change model (Prochaska, 1992), have been regarded as being individual-centred, linear, one-way processes from sources to receivers, where audience members are viewed as individual objects rather than social groups. Critics call for communication strategies that are grounded in sound theories, flexible enough to be applied in different contexts. Airhihnbuwa and Obregon (2000:8) argue that:

The assumptions (such as individualism as opposed to collectivism) on which these theories and models are based are foreign to many non-western cultures where these models, theories, have been used to guide communication strategies for HIV/AIDS prevention and care.

Figuroa, Kincaid, Rani and Lewis (2002) call for a model of communication based on dialogue rather than monologue, horizontal rather than vertical information sharing, equitable participation, local ownership, empowerment and social versus individual change. This study found it useful to combine a number of models to assist the development of the messages in a broader context namely, the convergence/network model of communication, the integrated model of communication of social change; and the constructivist theory. Combining these models takes care of inherent limitations of models and theories that are strictly individual or collective in focus. An individual behaviour may have to depend entirely on a collective response to achieve success. It is important and beneficial, therefore, to adopt a social change strategy in addition to an individual one (Figuroa et al., 2002). For health in particular, both individual and social change are necessary for attaining sustained health improvement.

2.1 The Convergence Model of Communication

The Convergence Model of Communication was a response to the growing dissatisfaction with earlier models and theories. Developed by Rogers and Kincaid (1981), it has been described as a model of communication that describes a process of dialogue sharing, mutual understanding and agreement, as well as collective action (Figuroa et al., 2002). 'Convergence' is indicative of a process in which participants gradually converge toward mutual understanding and agreement. The model assumes that any collective action of any group would be based on information sharing, mutual understanding and mutual agreement. One of the features of the model is that information is shared rather than transmitted from one individual to the other. There are no passive participants as all participants act on what they receive. From the information shared, each participant perceives and arrives at his/her own unique interpretations, understanding and beliefs. Once reached, a person's understanding is expressed to others through verbal and non-verbal action. Turn-taking occurs as participants seek to clarify what others believe and understand. In other words, turn-taking is a feedback process that leads participants towards mutual understanding and

agreement. The relationship among participants is a horizontal, symmetrical one; the outcomes of information processing in this model are social, as when there is mutual understanding, agreement and collective action; and individual, as reflected in perceiving, interpreting, understanding and believing. It also stresses the important role of the perception and interpretation of participants. The cyclical process of information sharing which leads to the social and individual outcomes is vital to the process of adherence since adherence involves negotiation and shared decision making. This is particularly true of the African context where greater value is placed on collectivism.

2.2 The Integrated Model of Communication for Social Change

The model, developed by the John Hopkins University Centre for Communication Programs in 2002, describes "an iterative process where 'Community dialogue' and 'collective action' work together to produce social change in a community that improves the health and welfare of all its members" (Figuroa et al., 2002:5). It is a synthesis of two paradigms – the individual and behavioural outcomes and the social change outcomes. The model identifies four types of processes: externally generated change; individual behaviour change, such as the adoption of oral dehydration solutions; social influence for individual behaviour change where individuals who adopt a new health behaviour publicly advocate its adoption to other individuals, so that the rate of decline in the prevalence of disease increases; and community dialogue and collective action in which members take action as a group to solve a common problem such as high rates of diarrhoea. The effect is twofold:

1. reduction in the prevalence of disease
2. social change that increases the collective capacity to solve new problems.

The model also focuses on a fourth type of change - community dialogue and collective action. The developer of the model acknowledges that the four types of change are not mutually exclusive. A collective action such as getting households to eliminate stagnant water in order to eradicate the spread of fever by mosquitoes, for example, may require individual behaviour change that results from social pressure from neighbours.

Three main domains identified in the model are catalyst or stimulus, which may be internal or external; community dialogue, arising from the stimulus, and which in turn leads to collective action if successful; and the resolution of a common problem. Other issues discussed in the model include external constraints and support; and outcomes.

2.3 The Constructivist Theory

According to the constructivist theory, "person-centred messages reflect an awareness of and adaptation to the subjective, affective, and relational aspects of communicative contexts" (Burlinson and Caplan, 1977:249). Constructivists examine person-centred communication in different contexts such as persuasion, comforting, informing, conflict management and discipline. Whatever the content is, a person-centred message is one that adapts to the needs of listener, accounts for situational contingencies and attends to multiple goals, a view further developed in the UNAIDS Communication framework (1999). The Constructivist theory is based on several theoretical foundations. For example, their assumptions about features of communication are based on Berstein's (1975) insights and Piaget's (1926) model of communicative development as well as symbolic interactionist (e.g. Mead, 1934, Miller, 2002).

The theoretical positions discussed here have formed the basis for the subject of this study which focuses on the communication strategies adopted by health workers involved in ensuring that PLWHA adhere to ART.

3.0 Method

We employed the triangulation approach in collecting data. Specifically, the questionnaire survey, the in-depth interview (IDI) and focus group discussion (FGD) were employed in conducting this research. The evaluation includes data from three treatment sites-the Federal Medical Centre, Makurdi; the General Hospital, Otukpo; and the Bishop Murray Medical Centre, Makurdi, all in Benue State of Nigeria. The study area had recorded the highest average State HIV prevalence rate in Nigeria and at the time of data collection, had the highest prevalence rate of 10.6% in the country (Federal Ministry of Health, 2008).

Using the purposive and available sampling techniques, a sample of 580 clients was drawn for the questionnaire survey and 24 health workers, for the in-depth interview. An additional 48 respondents, all PLWHA, from six support groups (6-10 persons per group) took part in the FGDs. Clients were eligible to participate in the questionnaire survey and in the FGDs only if they were 18 years of age or more; and if they had been on ART for at least six months.

Data gathered were quantitative and qualitative in form. Questions focused on perceptions and experience with HIV in relation to communication strategies and HAART, adherence, factors that facilitated or served as barriers to adherence. The qualitative component of the evaluation was developed to ensure that respondents' viewpoints and detailed descriptions of their experiences were incorporated into the overall findings. Interviews and FGDs were audio taped and transcribed before being sorted into various thematic areas. The quantitative data was analysed using the SPSS statistical format. The data were gathered within four months.

4.0 Results

Any communication programme directed towards people's development would benefit maximally only by involving the people at every stage of the programme. One way to achieving this is to seek their opinion about the mode of implementing programmes. The audience survey questionnaire had questions targeted at eliciting opinions of respondents about communication strategies employed by health workers at the three treatment sites. Questions requested PLWHA to indicate specific communication strategies encountered at their various treatment sites, to rank order some communication channels in terms of their ability to persuade them to adhere to ART, and to indicate the degree of effectiveness of some channels. Findings are presented in tables below:

Table 1 – Communication Materials Available at Treatment Centres.

Variable	Frequency	Percentage
Channels of Communication		
Health workers	521	58.5
Posters	165	18.5
Television	113	12.7
Pamphlets	32	3.6
Handbills	25	2.8
Vests	13	1.5
Simple brochure	9	1.0
Caps	7	0.8
Others	5	0.6
Total	890	100.0

Of the 890 responses to the questionnaire item: what type of communication materials are made available to you at your treatment centre, health workers featured the most with 521(58.5%) of the respondents indicating that health workers were often available to them. Next to health workers were posters, representing 18.5% of the responses. Other IEC materials were poorly used by health workers. As table 1 shows, there were only 32(3.6%) and 25(2.8%) responses for pamphlets and handbills respectively. Encounter with simple brochure and collateral media (materials like vests, caps, pens and so on), were even more poorly used at the centres, ac-

counting for 1.0%, 1.5% and 0.8% respectively. The data indicates that television was the third most encountered channel at the treatment centres. Television represents 12.5% of all responses. The finding about television, however, was contradicted by interview data and researchers' personal observations. The finding on television therefore may be misleading as health workers were not seen using this medium at any of the centres all through the period of data gathering. One may conclude that some of the respondents may have been aware of the television as a potentially effective channel for creating adherence awareness but they did not actually encounter any at the centres as a channel of communicating adherence message. Another item sought to know from respondents the frequency of use of counselling, peer education, IEC materials, phone calls and entertainment education.

4.1 Counselling

Findings show that counselling was the most frequently used way to enhance adherence to ARV drugs at the centres. This accounted for nearly 82%, followed by peer education, with 38.6% as shown in Table 2. Forty one respondents (7.1%) claimed counselling was not used frequently and a mere 7(1.3%) denied any use of counselling as a strategy used by health service providers for communication.

Table 2- How Frequently Communication Strategies were used at treatment Centres.

Variables	Frequency	Percentage
Counseling		
Frequent	475	81.9
Infrequent	41	7.1
Not used	7	1.2
Not indicated	57	9.8
IEC Materials		
Frequent	78	13.4
Infrequent	77	13.3
Not used	348	60.0
Not indicated	77	13.3
Peer Education		
Frequent	224	38.6
Infrequent	70	12.1
Not used	210	36.2
Not indicated	76	13.1
Phone calls		
Frequent	39	6.7
Infrequent	14	2.4
Not used	444	76.6
Not indicated	83	14.3
Entertainment Education		
Frequent	104	17.9
Infrequent	31	5.3
Not used	338	58.3
Not indicated	107	18.4
Total	580	100.0

Interview and FGD data show that counselling was identified as one of the main strategies employed by health service providers in encouraging adherence. An interviewee said:

We basically talk to clients, nothing more; we give health talks in the morning. Then we counsel them. We know our strategy is effective because we see improvement in the clients. Now the number of those referred to adherence counsellors (as a result of failure to adhere) has reduced.

4.2 Peer Education

Peer education was perceived to be the second most frequently used (38.6%) strategy at treatment centres. About 36% of the respondents however, indicated non-usage of peer education at their centres. During the interviews and FGDs, there were claims that peer education was used as one of the strategies to encourage adherence. A health worker at the General Hospital, Otukpo expresses his opinion about peer education:

The institute of human virology has employed treatment patients. These are patients that are used to communicate effectively to clients based on their personal experience of the disease. They are able to tell clients they are positive and have been able to cope with the disease and are living positively. They use their own experiences to encourage clients. They give them education and enlightenment. They are placed at the adherence office.

This was not exclusive to Otukpo. A number of the counsellors at the Federal Medical Centre Makurdi shared this experience.

4.3 IEC Materials

A good number of respondents (60%) said IEC materials were not made available to them at their centres. Only 13.4% indicated that some of these materials were frequently given to them. This finding supports earlier finding on IEC presented in table 1, where most of the IEC materials recorded less than 1% of the responses. Results from the interviews and FGDs show that opinions about the use of IEC materials at the treatment centres differed. This is understandable as situations regarding the use of IEC materials varied from centre to centre. While at one centre, an interviewee declared: 'We basically talk to clients, nothing more', at another centre, another participant said,

We have posters, pamphlets on adherence to the drugs, feeding and other things. We give them to the patients. Those who can read read them and for those who cannot, we read out and explain to them, in addition to talks.

Yet at a third centre, a respondent said:

Formerly, they gave IEC materials but because of the number of people accessing treatment now, they say it is very expensive to provide such, except when donors come to talk with us, they bring such materials

4.4 Telecommunications

Of the total number of respondents who answered this question, 444(76.6%) said they had never received calls or text messages from their treatment centres either for the purpose of encouraging them to be consistent with taking the drugs or reminding them of their appointments. Only 53 (9.1%) respondents within the frequent and infrequent dichotomy admitted having received such calls.

The FGDs and in-depth interviews also show that the use of phones were not very popular at the treatment centres as a strategy of communicating with PLWHA. At the Federal medical centre, Makurdi, a health service provider said:

We try to exchange phone numbers with the clients –for those who have phones. We are doing what we are able to do but not 100% successful.

Another interviewee said:

Phone calls and home visits are encouraged by the centre.

At the time of this interview, there was no functional home-based care unit at the FMC. Those who used the phone did so on the basis of their personal relationships with clients. One of the participants called for the establishment of the unit. According to him:

Home-based care should be put in place so we can reach out effectively to people in their local communities. It will afford us the opportunity to give practical lessons on personal hygiene.

The story about home-based care was different at the General Hospital, Otukpo and at the Bishop Murray Medical Centre, Makurdi, but basically the same for the use of the phone. At the Bishop Murray Medical Centre, a respondent said:

Usually communication is verbal, face-to-face, in groups. Usually we take their phone numbers during their visits in the

enrolment phone, or the number of someone they think we should contact. It's unfortunate the project has not purchased phoning system or telecommunication so that we'll be reaching out to people with phones in their houses.... We have home-based care – home visiting for patients who have problems and need our assistance and support. The programme is doing very well in that area.

At the Otukpo General Hospital, an interviewee said:

We have home-based care unit and PMTCT programme, not just drug treatment. We also do community mobilization...if we don't see you after a month, we run to your place to find out why. For those who default, we want to see why they default, and if they are very sick, we go there, take care of them and give them drugs.

4.5 Entertainment –Education (Edutainment)

Three hundred and thirty eight (58.3%) of the questionnaire responses show that entertainment education was not used in the treatment centres to communicate adherence information to clients. Only the centre at the state capital had a television in the waiting hall, as at the time data was being gathered. There was no indication of the use of radio either. The television in the waiting hall was used for the purpose of general entertainment education and not for the specific purpose of entertainment education in HIV and AIDS. One of the participants interviewed said:

We have not started that much on the programme

but the principal investigator will know better.

When the principal investigator, was interviewed, he said, of strategies other than interpersonal communication:

We have but I don't know whether we are using them.

We have TV but most of the time

I see some other programmes on it.

Opinions at the FGDs were not much different as expressed by this participant:

Not everybody has access to TV or even radio, and because most of the people do not understand well the message being put across, it's the nurses here in the hospital and the seminars that we attend that educate us about how to take the drugs...

Tables 3 and 4 summarise the communication channels used by health workers in all treatment sites. This data was gathered from interviews with four different professions of health workers.

Table 3 – Number of channels used by each profession of health workers.

Health worker	Number of channels used
Doctors	3
Nurses	1
Counselors	6
Pharmacists	4

Table 4 – Use of various channels by health workers

Channel	No. of Health workers who indicated use
Posters	2
Handbills	1
Pictorials	1
Health talk, counselling	24
Home visits	3
Radio	1
TV	6
Pamphlets	2
Advocacy/community mobilization	2

Tables 3 and 4 show that altogether, the counsellors were the most flexible in diversifying their channels of communication to clients. Perhaps the fact that a number of counsellors, (treatment patients) were also HIV positive may have created in them empathy and the sensitivity in responding to communication needs of PLWHA. The nurses were rather rigid in their approach as they did not explore other means of reaching PLWHA outside of talks or counseling.

Respondents were also asked to express their views about effectiveness of communication strategies. Any communication strategy can only be determined from its ability to impact its target population. Impact in this study will be the increased level of adherence of PLWHA to ARVs. Questionnaire items sought to know directly from respondents if strategies encountered were effective. Table 5 provides response to the question of effectiveness of strategies used by health service providers in their respective treatment centres.

Table 5- Degree of effectiveness of Communication Strategies.

Strategies and degree of effectiveness	Frequency	Percentage
Counseling		
Very effective	437	75.3
Moderately effective	44	7.6
Little effective	13	2.2
Not effective	37	6.4
Not indicated	49	8.4
IEC Materials		
Very effective	39	6.7
Moderately effective	68	11.7
Little effective	74	12.8
Not effective	252	43.4
Not indicated	147	25.3
Peer Education		
Very effective	90	15.5
Moderately effective	122	21.0
Little effective	60	10.3
Not effective	190	32.8
Not indicated	118	20.3
Phone calls		
Very effective	29	5.0
Moderately effective	19	3.3
Little effective	11	1.9
Not effective	368	63.4
Not indicated	153	26.4
Entertainment Education		
Very effective	30	5.2
Moderately effective	82	14.1
Little effective	38	6.6
Not effective	223	38.4
Not indicated	207	35.7
TOTAL	580	100.0

PLWHA perceived counselling to be very effective (75.3%) in enhancing adherence to ARVs. Data shows that often, those who spoke to PLWHA before commencement of treatment were counsellors (44.1%); doctors (36.2%); pharmacists (1.6%); nurses (10.2%), and others (1.0%). Except for 'others', all the categories of profession listed here belong to the medical profession, supporting the finding that interaction with health service providers is crucial to adherence behaviour. Underscoring the regular use of counselling, an interviewee said:

We give them counselling on adherence. Every day they come, we educate them on how they should take their drugs. If any of them defaults, we counsel the person on adherence so they are doing well.

Discussions at the FGD were quite definite about the effectiveness of counselling. One of them said:

Counseling has been very helpful. You can see us. Many of us came two years back. If you had seen me then, you won't believe I'm the same person today. Based on the counsel and advice, we have changed. You can see it on us.

Effectiveness of counselling one may conclude, demonstrates that from the perspective of clients, relationships and connections to empathetic staff such as those developed through counselling sessions represent important components of HIV care.

A high percentage (32.8%) of questionnaire respondents felt peer education was not effective as a strategy for enhancing adherence to ART. Views at the interviews however, differed as expressed by this health worker at the General Hospital, Otukpo:

I will say at least 85% are adhering because of the efforts of treatment patients who spend a lot of time with them.

This divergence in opinions of health workers and clients in relationship with the effectiveness of peer education as a strategy underscores the need for a bottom-up approach that gives priority to the participation and involvement of the people for whom the programme is planned.

Generally, table 5 shows that strategies which were not employed much by health workers in reaching PLWHA with adherence message were perceived to be ineffective or little effective by PLWHA. This is logical as they could not assess what they had little or no exposure to. Perception is said to be a function of one's level of awareness and knowledge, so naturally, those communication channels that were not encountered by respondents were perceived as being ineffective.

Another indicator of effectiveness of strategies employed by health workers was the impact of strategies in encouraging respondents to adhere to ART. The findings are presented in Table 6.

Table 6 – Channels that encourage PLWHA to adhere to ART.

Channel	Frequency	Percentage
Health worker	371	55.9
Television	143	21.5
Pamphlets/ Hand-bills	67	10.1
Radio	59	8.9
Church	7	1.1
Other PLWHA	6	0.9
Vests/caps	5	0.8
Support Group	1	0.2
Workshop	1	0.2
Drama	1	0.2
Friends	1	0.2
None	2	0.3
TOTAL	664	100.0

Findings reveal that health workers were the most recognized as encouraging PLWHA to adhere to their drugs. This item recorded 371 (55.9%) responses. This is consistent with perceptions of health workers gathered from in-depth interviews. Health service providers had expressed their confidence in the effectiveness of interpersonal channel of communication. As one of them said:

When you talk about communication, the most effective is face to face communication. I think that is the most effective; where you can stand and you are able to convince whoever you are talking to...

5.0 Discussion

This study explored treatment communication strategies employed by health care providers in ensuring that PLWHA adhere to ART regimens. Research and evaluation of ongoing health communications programmes have affirmed the value of using specific communication strategies to promote health and prevent disease. Health communication is especially critical for persons dealing with a chronic illness such as HIV that requires following specific medical directions, adhering to rigorous treatment protocols and attending regularly scheduled medical appointments. The problem of coping with non adherence in these centres is examined both quantitatively and qualitatively. The use of qualitative data helps us understand the broad range of issues associated with communication and non adherence as well as the different types of strategies used by health workers. While researchers have pointed out the usefulness of provider-patient communication, (Roter & Hall, 2004; Stoskopf, Baek and Jeon, 2006) they have not addressed the types of strategies that are available and what choices health workers make in relation to adherence in HIV and AIDS communication. The first major issue in the study relates to the specific strategies adopted by health service providers in three different treatment centres in the study area. Results show that health workers used diverse strategies to reach PLWHA with adherence message. Strategies employed in ensuring adherence at the three health centres include: counselling, IEC, peer-education, home visits, mass media and advocacy/community mobilization. This is appropriate as the data on socio-demographic characteristics show that PLWHA who participated in this study cut across various socio-demographic backgrounds and may require a variety or an integration of various communication strategies in ensuring that they adhere to ART. Moreover, as has been observed in the literature, (Backer, et al., 1992; Simons-Morton, Donohew, and Crump 1997; Maibach and Parrott, 1995) effective strategies combine theories, frameworks, and approaches from behavioural sciences, communication, social marketing, and health education. A one-dimensional approach to health promotion, such as reliance on mass media campaigns or other single-component communication activities, has been shown to be insufficient to achieve programme goals. The theories and concepts on which this study is anchored are demonstrated in this finding, as health care providers combined interpersonal strategies with advocacy and community mobilization in few cases. Interpersonal communication channels, however, were the most used. The claim that most communication and development efforts rely heavily on printed materials (Mowlana and Wilson, cited in Adekunle, 2004) was not substantiated by the findings. Except for the poster, IEC materials were perceived to be the least encountered by a significant number of respondents. IEC materials, however, are very important in bringing about change in people's orientation or attitude. They are also capital intensive and this should be taken into account from the early stage of the planning process. Perhaps IEC materials would have been popular among PLWHA but for cost. In Nigeria, most intervention programmes depend heavily on donor support. Consequently, a number of the inhibitors of such programmes are tied to funding. This in turn, negatively affects provision of appropriate resources and other efforts geared towards HIV prevention as well as treatment when funding from donor agencies drop. Sources of funds, therefore, need to be diversified.

Results of this study indicate that health workers may benefit from training in the use of communication skills as many of them indicated limited knowledge in this area. This may explain in part, the heavy dependence of health workers on interpersonal channels which they are more familiar with. Given the potential for health care providers to increase (or jeopardize) HIV treatment adherence, it is imperative that clients have access to additional sources of information and support. Health workers should be trained and have the resources to refer patients to different services and/or colleagues.

The second major issue addressed in this study had to do with the effectiveness of treatment communication strategies used in communicating adherence. Communication strategies employed by health service providers showed varying degrees of effectiveness in ensuring adherence to ART. Interpersonal channels were, however, perceived to be the best in terms of their ability to achieve change. Specifically, clients valued their interactions with health workers, who often talked with them. The electronic media and in particular the television was perceived to be effective as well. Interpersonal communication messages need to be supported by mass media messages. Respondents' perceptions also lend credence to the long standing claim of the superiority of interpersonal communication channels over other media when the issue is communication for change (AED, 1985). Also, as noted by Ley, cited in the Kacperek (1997), interpersonal communication is vitally important to all caring profession. Reaching a large audience with IPC requires a lot of human resources, which in turn may be capital intensive. At the treatment centres used for this study, human resources were so limited that there was a huge burden on the available few. It will be important to employ diverse strategies in each health facility, including community mobilization and the mass media for wider reach.

A recurring theme in the study is that communication is one available tool to address the HIV and AIDS epidemic. Yet communication cannot stand alone as many factors identified as being responsible for treatment failure were outside the scope of communication, therefore challenging the usual hypodermic-media explanation of project failure in development communication which attributes project failure to communication failure. This view finds support in Healthy People, 2010(undated) and is at the heart of the conceptual framework for this study. In this context, behaviour change communication which targets individual change is merged with advocacy and social mobilization, which target enabling and supportive environment for social change. This point explains why multiple theories were employed to form the bases for the conduct of the study. Systemic problems related to health, such as poverty, appropriate environment, or lack of access to health care, must be factored into health communication programmes. A high perception of some of the barriers to achieving adherence identified in this study could actually explain why some of the respondents failed to adhere to ARV drugs. The importance attached to peer-to-peer communication as evidenced in some of the submissions by health care providers and during the FGDs is something that needs to be further explored. The data presented here are important as reporting on perceptions using the clients' own words and experiences, rather than forcing them to choose among a limited number of predetermined categories, facilitates fuller understanding of adherence and the various ways to support it. The distinctiveness of individuals, their common concerns, and the thought processes underlying medication-taking behaviours are effectively illustrated through these personal statements. Counselling had the most significant impact; therefore training programmes suggested earlier could focus on these skills.

The study, in investigating perceptions of health workers and those of clients found that they were agreed on most of the claims made by health workers concerning approaches adopted by them. Communication involves feedback. It is important to determine whether health service providers and their clients are agreed on the message of communication. Health service providers need to build into their programmes, appropriate feedback mechanisms so as to accurately determine if their efforts on their clients are achieving the expected results. What are their clients thinking about their approaches? Knowledge of this will help health service providers, at the individual level, to achieve greater self awareness and develop more effective interpersonal relations with their clients.

6.0 Conclusion

The study demonstrates that PLWHA can be effectively influenced. Health communication programmes must involve their target audience in their communication plans so as to derive maximum benefit from perspectives of target population. Communication involves feedback. It is important to determine whether health service providers and their clients are agreed on the message of communication. Health service providers need to build into their programmes, appropriate feedback mechanisms so as to accurately determine if their efforts on their clients are achieving the expected results. It is essential that a framework for effective communication between health service providers and their clients is designed and adopted by all treatment centres within a community. This would form the basis for all communication.

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