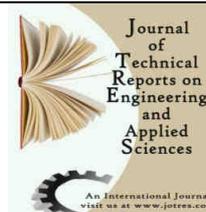




**JOURNAL OF TECHNICAL REPORTS
IN ENGINEERING AND
APPLIED SCIENCE**



Contents available at: www.jotres.com

Self efficacy and social support as predictors of adherence to antiretroviral therapy among the people living with HIV/AIDS (Plwha) in Ekiti state

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ARTICLE INFO

ABSTRACT

ORIGINAL RESEARCH ARTICLE

Article History

Received: April 2016

Accepted: April 2016

Keywords:

Self efficacy,
Social support,
Adherence,
Antiretroviral therapy,
People Living with
HIV/AIDS

Abstract

This study was designed to find out the influence of self efficacy and social support on adherence to antiretroviral therapy among HIV/AIDS patients using Federal Teaching Hospital {Ido-Ekiti} and Ekiti State University Teaching Hospital {ado-Ekiti} as the study settings. One hundred and sixty eight participants {43 males and 125 females} were used in this research work. This study employed the use of questionnaires to collect relevant data from the target participants (HIV/AIDS Patients). Multidimensional Scale of Social Support (MSSS) developed by Zimet, Dahlem, and Farley (1988, 1990) was used to measure social support received by patients on three sub-scales (friends, family, and significant others), while General Self Efficacy scale (GSE) developed by Schwarzer and Jerusalem (1995) was used to measure patients' self efficacy, and Medication Adherence Rating Scale (MARS) developed by Thompson (2000) was used to measure drug adherence. Four hypotheses were tested using Regression statistical method, One-way ANOVA and Descriptive statistical method. Results showed that, there is no significant influence of self efficacy on adherence to medications. There is a significant influence of social support-friend on adherence [Beta=-2.14, t (165) =-3.11, P<.05] to medications, while other forms of social support (family and significant others) did not have any significant influence on adherence. Female patients significantly adhere (74.4%) to drugs than their males counterparts (25.6%). Finally, Social economic status had a significant effect on self efficacy [F (2,165) = 3.27, P<.05] and social support-friend [F (2,165) =3.90, p<.05] but there is no significant effect of socio economic status on social support -friend and family.

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Introduction

Medication adherence is expedient to successful HIV/AIDS control and management, despite simplified regimens and the availability of tools to assist with medication taking, adherence remains

challenge for many people living with HIV/AIDS (PLWHA). Several factors have been associated with non adherence to medications, understanding these factors can increase clinicians' attention to adherence when working with susceptible patients and

this can also inform the development of interventions to improve adherence to medications.

Adherence to medications has been defined as “the extent to which patients comply with the instructions given on drugs by the medical practitioners in order to produce an efficient therapeutic result for the target ailment”. Adherence has become the preferred term, defined by the World Health Organization as “the extent to which a person’s behavior in taking medications corresponds with agreed recommendations from the health care providers”.

The value of this adherence to medications cannot be underestimated in maintaining current and future health status. Adherence to medication usually refers to, whether patients take their medicine as prescribed by the practitioners and as well as whether they continue to take prescribed medications. Medication non adherence is a great concern to clinicians, health care system and other stakeholders, because of mounting evidence that is prevalent and associated with adverse outcomes and higher cost of care which also occur as a result.

Antiretroviral therapy is the drugs used to prevent virus from damaging the body immune system, it consists of the combination of at least three antiretroviral drugs to maximally suppress the HIV disease. Huge reductions have been in the rates of death and suffering when the use of potent (Antiretroviral) ARV regimen is utilized. Since 2013, WHO also recommended the antiretroviral therapy (ART) use, for the prevention of HIV infection, particularly for pregnant women and to the young children and key populations exposed to HIV risk. These drugs do not kill or cure the virus; however, when taken in combination, they can prevent the growth of the virus. Combination of antiretroviral therapy (ART) is referred to as highly active antiretroviral therapy. As effective as Antiretroviral drugs are, patients

are yet to adhere expectedly to prescribed medications. Bangsberg D.R.; Hecht F.M.; Charlebois E.D.; Zolopa A.R. (2000). Confirmed that, non-adherence to antiretroviral therapy for HIV/AIDS has severe human, economic and social costs, which may reduce treatment efficacy, causes drug resistance, increases morbidity and mortality rates and can also yield to further opportunistic infections.

HIV/AIDS is a chronic and infectious disease that affects mainly the most disadvantaged populations and involves complex treatment regimens with potentially severe side effects; HIV/AIDS pandemics affect every continent in the globe with the largest concentration in the sub Sahara Africa.

The first case of HIV/AIDS was reported in March 1986. HIV (Human Immuno Deficiency Virus) is a virus that attacks the immune system, both the virus and the infection. It is this virus that leads to AIDS, whenever this HIV is diagnosed before it becomes AIDS, It can still be suppressed by medicine or controlled to stop the damage of the immune system. This virus can be transmitted through contact with infected blood, semen or vaginal fluids, unprotected sex, sharing sharp objects, through pregnant mother to the foetus or through breast feeding. Literatures have shown how pandemic HIV/AIDS has been in our global world today.

Antiretroviral therapy (ART) has been considered as a breakthrough in the battle against HIV/AIDS (Deeks et al. 1997), (Jones et al. 2007), (Crum et al. 2006), (Simioni et al. 2008). Available data suggest that long term treatments with 95% adherence or more, could suppress the augmentation of viral loads, improve immune system functioning (Paterson et al. 2002) & (Chesney 2003) and reduces HIV/AIDS related mortality and morbidity (Kalischman et al. 1999), (Crum et al. 2006). At the same time, evidence shows that lack

of adherence can lead to failure of the treatment and even accelerate the development of drugs resistance to HIV (Amberbir et al. 2008) as well as more rapid progression to AIDS (Bangsberg et al. 2001) and openness to opportunistic infections. Therefore adherence to prescribed antiretroviral therapy (ART) regimens becomes an important predictor of treatment success, which has direct impact on the disease progression and patients' quality of life (McInerney et al. 2008).

The time to start antiretroviral therapy depends on a person's CD4 count, the CD4 count is an important factor in the decision to start ART. A low or falling CD4 count indicates that HIV is advancing and damaging to the immune system. A rapidly decreasing CD4 count increases the urgency to start ART.

The concept "Self efficacy" is central to psychologist Albert Bandura's social cognitive theory which emphasizes the role of observational learning, social experience and reciprocal determinism in the development of personality. According to (Albert Bandura (1995) Self efficacy can be defined as the belief in one's capabilities to organize and execute the courses of actions required to manage prospective situations, in other words, self efficacy is a person's belief in his or her ability to succeed in a particular situation. According to Albert Bandura, "people who regard themselves as highly efficacious, act, think, and feel differently from those who perceive themselves as inefficacious. They produce their own future rather than simply foretell it. Self efficacy is an important component of Bandura's social cognitive theory, which suggests high interrelation between individual's behavior, environment and cognitive factors. High self efficacy individuals generate more effective tasks strategies to facilitate goal attainment

and respond more optimistically to negative feedback than low self efficacy individuals.

Social support was first conceptualized by social scientists in the late 1970s (Berkman & Syme, 1979), the definition of the concept varies widely among researchers and their study context.

Social support is generally defined as "the perception or experience that one is loved and cared for by others (Taylor 1977). It can also define as the perception and actuality that, one is cared for or has assistance available from other people and that one is part of a supportive social network. These supportive resources can be emotional (Nurturance), Tangible (Financial assistance), Informational (Advice), Companionship (Sense of belonging) and Intangible (Personal advice). Social support can be measured as the perception that one has assistance available, the actual received assistance, or the degree to which a person is integrated in a social network. Support can come from many sources, such as, support from family, spouse, friends, co-workers, pets, doctor, community ties or affiliations, neighbors, organization and government. Social support can be categorized and measured in different ways.

Methods

This research made use of ex-post-facto design through purposive sampling techniques. One hundred and sixty eight respondents consisting of [45 males and 125 females] were used for this study. The participants used in this study are people who are living with HIV/AIDS and who were on regular medications and who belong to different backgrounds, ages (Young and Old), educational qualifications (Literates, Semi-Literates and Illiterates), marital status (Divorced, Widowed, Single and Separated) and socio-economic status (High, Middle and Low).

Results

Table 1. Regression summary table showing the influence of self efficacy and social support on adherence to antiretroviral therapy.

VARIABLE	BETA	T	R	R ²	F
SELF EFFICACY	-.066	-.83			
SOC. SUPP. S.O	1.59	.183	.205	.042	1.79
SOC. SUPP. FAM	1.49	.223			
SOC. SUPP. FRD	-2.14	-3.11*			

*significant at .05

Result as indicated in the table 1 showed that: There is no significant influence of self efficacy on adherence to medications. While there is a significant influence of social support friend on adherence [Beta=-2.14, t (165) =-3.11, P<.05]; other sub types of

social supports (family and significant others) did not have any significant influence on adherence. There is no significant joint influence of self efficacy and social support on adherence to drugs among the HIV/AIDS respondents.

Table 2. Descriptive table that shows the percentage of adherence and non adherence to drug between male and female patients with HIV/AIDS.

SEX	ADHERENCE	NON ADHERENCE	TOTAL
MALE	21	22	43
	48.8%	51.2%	100%
	25.6%	25.6%	25.6%
FEMALE	61	64	125
	48.8%	51.2%	100%
	74.4%	74.4%	74.4%
TOTAL	82	86	168
	48.8%	51.2%	100%
	100%	100%	100%

*significant at .05

Result as indicated in the table 2 showed that: Females significantly adhered (74.4%)

to antiretroviral therapy than male patients (25.6%).

Table 3. One way ANOVA table showing the effect of social economic status on social support and self efficacy.

VARIABLE	HIGH. (n=15)	MIDDLE. (n=84)	LOW. (n=69)	F
SELF EFFICACY	31.80	33.62	30.98	3.27*
SOC.SUP. S.O	21.47	21.02	19.17	1.13
SOC.SUP. FAM	17.07	18.45	15.72	1.94
SOC.SUP. FRD	19.13	19.75	16.06	3.90*

df = 2,165 * sig at .05

The result as indicated in table 3 showed that: There is a significant effect of social economic status on self efficacy [$F(2,165) = 3.27, P < .05$] and social support-friend [$F(2,165) = 3.90, P < .05$]; other sub types of social supports (family and significant others) did not have any significant effect.

Discussion

Finding of the present study indicated that, self efficacy did not have significantly influence on adherence to drugs among HIV/AIDS patients.

Everybody has strong belief and confidence in performing various tasks if the results are perceived to be rewarding, the result of this finding could be due to the belief system of the client about the nature of the illness. The belief that HIV/AIDS is a debilitating incurable illness and the perception of adherence as unrewarding derailed the efficacy of patients to medication taking. This belief affected their ability, capability and confidence in drugs taking as well as complying strictly to medical instructions on drugs. Hence, patients lose confidence and belief in their capability to take drugs and build their belief in consulting churches and traditional centers for possible supernatural or diabolical healings of their illness because they perceived these centers as immediately rewarding. This finding is consistent with Thomas, Valerie, Genevieve and Mary (2011) who reported that, coping self efficacy is partially associated with adherence ART, efforts at building self efficacy are likely to improve and maintain adherence to medications. This finding is contrary to Nancy, Margaret et al (2004), who revealed that beliefs about the importance of Antiretroviral adherence and ability to take antiretroviral medications as directed (adherence self efficacy) were generally positive, while less positive beliefs about antiretroviral therapy adherence were associated with greater stress, depression and symptoms distress.

Result also indicated that, only social support-friend had a significant influence on adherence, while social support-family and social support-significant others did not have any significant influence on adherence to antiretroviral therapy among the HIV/AIDS patients. The fact that only social support provided by friend had a significant influence on adherence could be because, social support provided by family or significant others are mostly accompanied by negative attitudes such as: (Aggression, slothful responsive discharge of support, low exhibition of care, help and affections, clear manifestation of perceived stigma from the support provider to the patients, wearing negative countenance when providing support to their patients), these negative attitudes surface when the client illness is negative, or perhaps as a result of his or her disobedience (prostitution) to early warnings given by family and significant others or due to perceive severity, incurable and contagious nature of the illness which might maximally reduce the intensity of love, care and support from the support provider. Since these patients' behavior had earlier summon warning from family and significant others, but which was then supported by friends, then there is a high tendency that such friends could also help in times of problem.

All these negative attitudes that accompany social supportive network of family and significant others pose a threat to patients adherence to medications, and may evoke sense of guilt, depressive state, regret, fate acceptance, feelings of hopelessness and neglect. The fact that social support- friend had a significant effect on adherence to medications is supported by a popular phrase, which says: "A friend in need is a friend indeed", from this we have genuine friends and false friends, both may choose to give support in times of problem and difficulties, genuine friends provide help under their willful intention (natural disposition) while false friends provide

camouflage support to call for benefits and desires after such problem is being solved, this made us to understand that, friends as a whole provide support in times of trouble. Relating and rooting this to the scripture, Proverb 17 vs 17 confirmed it that, a friend loveth at all time, likewise proverb 18 vs 24 says, a man of many companion come to ruin but there is a friend who stick closer than a brother.

This finding is contrary to the work of Rachel, Dennis, Margaret, Lousa and Jonathan (2003) who demonstrated that, perceived satisfaction with support from partner was associated with taking antiretroviral therapy as prescribed, whereas satisfaction with supports from friends and from family were not significantly related to adherence. Habtamu, Tekabe & zelalem (2013), reported that participants who had family support adhere less to the treatment than those who had no family support, which indicates that those who had family support can miss their dose in work places and outside home, this implicates that family support alone is not a factor to increase the uptake of antiretroviral therapy, support from friends, community, government also need to be emphasized.

Result also indicates, female patients significantly adhered (74.4%) to antiretroviral therapy than male patients (25.6%).

There are different reasons why females adhere to medications than males, these reasons could be as a result of:

Firstly, there are differences in the personality set up of males and females, these personality differences affect how males and females engage in their health seeking behavior and their compliance to medications. Studies have made us to realize that, women take greater responsibility in maintaining and establishing bond with others, they are more social and gregarious than their male counterpart, this personality type of female enable female patients to

relate more with their health care provider, by seeking advices, obtaining clear instructions about regimen taking and depending on others to survive, this personality type of female enable females patients to adhere more to medications than males. Males on the other hand are seen as highly independent and assertive on their thoughts, they do not easily comply with instructions, this personality type affected their health seeking behavior, health promoting life styles and their agreement to medical advices, all these are factors responsible for low adherence in male patients. These contrasting personality types they had, set a foundation to their level of adherence to drugs.

In support of this; Eagly, Wood and Fishbaugh (1981) found out that, women are more concerned than men about the quality of interpersonal relationship.

Secondly, the natural status of men in the society as an authoritative figure and the nature of their profession affect their health seeking behavior and health promoting life styles, self perceived authoritative status among men contributes to their low adherence to instructions on prescribed medications. Unlike women in whom their natural place submissiveness to authority contributes to their high compliance to instructions on prescribed medications. This is supported by a study conducted by Eagly (1981). Who found out that, gender informs people about status, because it is normally perceived in our society that men have higher status than women.

Thirdly, another factor which may be responsible for either high or low adherence between males and females is determined by the composition of the group, the ratio of males versus females present in the group have the propensity to determine the level of drugs compliance between both genders, because the direction of the majority influences the decisions of others (Conformity). As regards this, we realized

that, adherence levels between both genders depend on the numbers of males and females that are present in the group; high group composition of females may lead to high adherence among females while low group composition of males may also leads to low adherence among males and vice versa.

This is supported by a study conducted by Johnson and Schulman (1989) who reported that, what determines the level of compliance of males and females to instructions depends on the composition of the groups, such as the number of females versus the number of males present in the group.

Finally, females are seen as people who drive high attention and support from people, these supports and attention is given to females either with subsequent motives or not, these supports from different people have the tendency to stimulate females towards adherence to medications than men who mostly have less social supports and less attention from people.

In support of this result, corresponding literature by Oner, Ali Nihat, peri, Cahit and Mete (2004) in Turkey, reported that, higher rates of adherence was observed among females than males (79.2% vs 58.4%) respectively. While contrary literature by Rana and Parisa (2014) in Australia, reported in their research work that, lower rates of adherence were observed among female patients (46.3%) compared to males who have high adherence to medications (65.8%).

Result also showed that, there is a significant effect of socio-economic status on self efficacy and social support friend among HIV/AIDS patients. The explanation for this is that, socio economic status is an influencee of self efficacy in all varieties of individual, not in HIV/AIDS patients alone. In HIV/AIDS patients, those from high social economic status are likely to have inflated self efficacy and high self confidence on drugs taking because their

level of wealthiness, affluence, influence and power provide access to all necessities of treatment which the poor cannot access, it also provides for them tangible supports from others, all these supports are motivators of adherence self efficacy to medications, because it gives patients the belief that life hasn't come to an end, while low socio economic status is likely to produce low adherence self efficacy. Social economic status had a significant effect on social support-friends because, many people want to keep intimate friendship with people of high social economic status, all these people are all looking for an opportunity to become their intimate friends, so a period of challenges like this pave way for supports from either equivalent friends who had been friends for a while or from low status friends due to expected subsequent rewards and benefits they could received. Patients of low socio economic status, often attracts low social support from friends during the period of challenges because people perceived them as people who have nothing to offer aftermath of their illness. This finding is supported by the work of Mayer and Uichol (2000) which revealed that self efficacy beliefs are positively correlated with socio economic status, mothers' education and support from parents, teachers, and friends.

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