

Care Givers Perceptions Associated With Adherence to Scheduled Medical Appointments Among HIV Infected Children Aged 18 Months to Nine Years Receiving HIV Care Services at Kenyatta National Hospital, Kenya.

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Abstract- Perceptions of primary care givers influence adherence to scheduled medical appointments among HIV infected children on HIV Care and treatment, yet there is limited data on how HIV infected children are affected by perception of their primary caregiver on adherence to scheduled medical appointments. Qualitative study was done during the month of November, 2017 using two focused group discussion consisting of 8 participants per group among primary care givers of HIV infected children receiving HIV care and treatment at Comprehensive Care Centre, Kenyatta National Hospital, Kenya. The researcher and two trained research assistant used the audio tapes and a notebook to generated data on perception of primary care giver on services provided within 45 minutes. Deductive thematic analyses was done. Caregivers perceived HIV drug refilling, treatment of opportunistic infection, taking short time in the medical clinic and having friendly health care workers who understand care givers situation without stigmatizing and discrimination them as the main factors that encourages adherence to scheduled medical appointments. HIV care services provided to their HIV infected children such as HIV drug refilling, treatment of opportunistic infection, taking short time in the medical clinic and having friendly health care workers who understand their situation without stigmatizing and discrimination them are factors that influence adherence to scheduled medical appointments. Care services provided to HIV infected children such as HIV drug refilling, treatment of opportunistic infection and taking short time in the medical clinic and having friendly health care

workers, non-stigmatizing staff, these are factors that need to focused by HIV health care providers, ministry of health and be included in the policies on HIV prevention and treatment to enhance adherence to scheduled medical appointment among HIV infected children

Index terms - Adherence, scheduled medical appointment, HIV infected children

I. INTRODUCTION

Care givers perceive that once the HIV infected children adhere to scheduled medical appointment Mwiti *et al.*, (2021) it increases likelihood of receiving the benefits of HIV treatment; that is improves the health status, reduces morbidity and mortality (Caroline *et al.*, 2014). hospital admission is reduced and Viral suppression is achieved (Nabukeera *et al.*, 2021). Decrease of opportunistic infection occurrence (Van der kop *et al.*, 2018) Reduce drug resistant (Bastard, 2012), and delays developing of AIDS defining symptoms (Foresto *et al.*, 2017). Create opportunity for health care workers to assess the health status of the HIV infected patient and prevent medication interruptions (MChugh *et al.*, 2017). Caregivers perceive the following factors as motivating to adherence to scheduled medical clinic appointments among HIV infected children; HIV care services provided to their HIV infected children

Schneiderman *et al.*,(2016), taking short time in the medical clinic (Ezekiel *et al.*, 2012). Having friendly health care workers and appreciating them (Brainstein *et al.*, 2011) Having the opportunity to discuss on the scheduled appointments (Massavon *et al.*, 2014). Caregivers perception on challenges associated with adhering to scheduled medical appointments to include poverty, lack of food, distance to the clinic and transport costs have been expressed as barriers to the pediatric HIV care (Vreeman *et al.* 2009). Most caregiver has heavy financial burden which overweighs their income and thus leads to challenges of taking their children to medical clinic. Caregiver busy work schedule and lack of time Horstman *et al.*, (2010). Perceived stigma and discrimination continue to pose a major threat to adherence to HIV care (Schneiderman *et al.*,(2016). Children care givers perceive some of the solutions to promote adherence to scheduled medical appointments include: Reducing the numbers of scheduled medical appointments, reducing waiting time in the HIV clinic (Van der kop *et al.*, (2018)

II. METHODS AND MATERIALS

Two focused group discussions (FGDs) were done where purposive sampling was used to select eight participants per group of primary care givers both male and female. Principal investigator and two trained researcher assistants moderated and conducted an open free-flowing discussion at convenient private room and focus group discussion guide was used. The principal investigator created rapport. The audio tapes and a notebook was used to generate data on perception of primary care giver on services provided (perceived benefit, perceived problem, and ways of improving services related with adherence to scheduled medical appointment among HIV infected children on HIV care services within 45 minutes. Data was analysis based on themes (deductive thematic analysis). Ethical approval no P688/09/2016) was obtained from Kenyatta National Hospital / University of Nairobi Ethical Review Committee (KNH/UON ERC).

This data was entered and stored on a desktop which was protected by use of password while FGD guide and transcripts was kept under lock and key with only authorized study personnel having access. Qualitative data were presented in verbatim. Part of this methodology was published by International organization of scientific research journal (Mwiti *et al.*, 2020).

III. RESULTS

A. Perceptions of Care givers on benefit of HIV care services provided to HIV infected children

During the FGD among care givers the following benefit of HIV care services provided to their children during scheduled medical appointments were identified as follows: Children are in good health and attend school classes without problem. Children are rarely admitted to the hospital. Majority of caregiver pointed out that HIV cares services provided to their children are very beneficial to their health.

Children are in good health and attend school classes without problems.

“The primary care giver said, since I started receiving HIV care services and adhering to scheduled medical appointment my child now attends all school classes without problem” ,,,, (FGD, 2).

“Our children these days they don’t miss attendances of classes due to HIV related infection, we are very happy as our children can continue with schooling programme without problem” (FGD,1).

Our children are not admitted to the hospital

“Our children who are on HIV care services have reduced number of admission to the hospital” some of us, we have forgotten hospital admission due to HIV infection”.... (FGD,1).

“We thank the HIV prevention team, for providing us with free drugs which has contributed to reduction of hospital admission to our children” (FGD, 2).

Very beneficial to a child’s health

Most care givers recognized the value and importance of adhering to scheduled clinic appointments. “Majority of caregiver pointed out that HIV cares services provided to their children are very beneficial to their health, and now their live quality life” (FGD, 2).

Our children are growing normally like other children without HIV” (FGD,1). “It is very important to take our children to the scheduled medical appointment, so that we reduce death and development of opportunistic infection which requires frequent hospital admission” (FGD, 2).

B. Perception of Caregivers on factors motivating adherence to scheduled medical appointment

From the qualitative findings (FGD), most care givers perceive the following factors as motivating to adherence to scheduled medical appointment medical among their HIV infected children; HIV care services provided to their HIV infected children leading to non-detectable viral load, caregiver taking short time in the medical clinic and Having friendly health care workers who understands our situation.

HIV care services provided to their HIV infected children leading to non-detectable viral load,

The children caregivers appreciate the HIV care services provided to their HIV infected children such, drug refilling, laboratory investigation and treatment of opportunistic infection which motivate them to take their children to scheduled medical appointment thus leading to non-detectable viral load of their children.

“,,,In this HIV clinic our children are provided with very good HIV care services , our children has recovered energy their can perform activities like other normal children and always drugs are available which has resulted to non-detectable viral load of our children” (FGD, 2).

“Our children are very health since we started coming to this clinic, we will continue adhering to scheduled medical appointment of our children.” (FGD, 1).

Taking short time in the medical clinic and having friendly health care providers

Caregivers were satisfied with services provided as they are received by friendly health care providers who were encouraging them to attend all scheduled medical appointment. The HIV infected children are provided with the services within short time in the clinic.

“Caregivers reported that we are receiving friendly health care services from our care providers. They communicate to us with respect and listen and respond to our question with good attitude. They not stigmatize us. Currently we are taking very short period of time to receive all HIV care services for our children”(FGD, 1).

“We take very short time in the clinic and we return back home to continue with our duties. These days care providers are always ready and available to provide HIV care services to us, they start clinic very early.”(FGD, 1).

C. Care givers challenges associated with adhering to scheduled medical appointments

Caregivers perceive, distance to the clinic, transport cost and perceived stigma and discrimination and health status of the child as the challenges associated with adhering to scheduled medical appointment.

“....We do wages and if there is no work...We don't get transport money for vehicle...because the first thing is to buy food” (FGD, 2)

“The place we live is far away and transport cost is very high and we can't walk while carrying a child” (FGD,1)

“Some caregivers interpret high CD4 cell counts to mean improved health and thus influencing their decision negatively to take their children to the scheduled medical appointments” (FGD,2).

D. Some of the proposed solutions to promote adherence to scheduled medical appointments

Reducing the number of scheduled medical appointments, Synchronizing appointments with school holidays for students .reducing the waiting time in the HIV clinic and financial support to offset transport costs.

“We are saying if the numbers of scheduled medical appointments are reduced it will lead to increased adherence to scheduled medical appointment as we are required to come to HIV clinic few times in the year....” (FGD,2)

“We need our health care providers to schedule our clinic the same day with our children on our HIV care during school holidays and mostly where both us are HIV positive” (FGD,1)

“If we get financial support to cater for transport expenses, we are likely to adhere to scheduled medical appointment” (FGD,2. This work is part of my PhD

thesis submitted at Jomo Kenyatta University of Agriculture and Technology in the year 2023. (Mwiti *et al.*,2023).

IV. DISCUSSION

In the FGD caregivers perceived HIV care services provided to their children as being very beneficial to their health. The benefits influence the decision of the children caregiver to adhere to scheduled medical appointments for example their live quality life so that we reduce death and occurrence of opportunistic infection requiring frequent hospital admission. Similar findings were noted by (Sunguya *et al.*, 2018; Massavon *et al.*, 2014; Brainstein *et al.*, 2011). In this FGD children care givers perceived the main factors that motivate adherence to scheduled medical appointment among their HIV infected children are; HIV care services provided to their HIV infected children such as HIV drug refilling, treatment of opportunistic infection. Caregiver taking short time in the medical clinic that provides the opportunity for them to return home or their work place to continue with their business. The Comprehensive Care Centre having friendly health care workers who understand care givers situation without stigmatizing and discrimination them. These factors need to be enhanced by health care workers, stakeholders and policy makes to improve on adherence to scheduled medical appointment among HIV infected children. Other Researchers have found out that following factors are associated with adherence to scheduled medical appointment among HIV infected children; HIV care services provided Schneiderman *et al.*,(2016), taking short time in the medical clinic while receiving HIV treatment (Ezekiel *et al.*, 2012) .Having friendly health care workers who does not stigmatize patients. (Brainstein *et al.*, 2011). In this FGD found out that care givers perceived some of the solution to promote adherence to scheduled medical appointments to include: Reducing the number of scheduled medical appointments, financial support to offset transport costs and Care providers focusing on HIV infected children with high CD4 counts. Study done by Mwiti *et al.*, (2020b) found out focusing on children with high CD4 counts is the factor to ensure adherence to scheduled medical appointments.

V. CONCLUSION

Care givers perceived the main factors that motivate adherence to scheduled medical appointments among their HIV infected children's are; HIV care services provided to their HIV infected children such as HIV drug refilling, treatment of opportunistic infection. Caregiver taking short time in the medical clinic and having friendly health care workers who understand care givers situation without stigmatizing and discrimination them. These are factors that need to be included in Policies on HIV prevention and treatment to enhance adherences to scheduled medical appointments among HIV infected children.

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REFERENCES

- [1] Bastard, M., Pinoges, L., Balkan, S., Szumilin, E., Ferreyra, C., & Pujades-Rodriguez, M. (2012). Timeliness of clinic attendance is a good predictor of virological response and resistance to antiretroviral drugs in HIV-infected patients. *PLoS One*, 7(11), e49091.
- [2] Braitstein, P., Songok, J., Vreeman, R., Woos-Kaloustian, K., Koskei, P., Walusuna, L., & Yiannoutsos, C. (2011). 'Wamepotea'(They have become lost): Outcomes of HIV-positive and HIV-exposed children lost to follow-up from a large HIV treatment program in western Kenya. *Journal of acquired immune deficiency syndromes (1999)*, 57(3), e40 – e64.
- [3] Caroline, D., Carlota, L., Catarina, M., Michelle, G., Eugenia, M., Stélio, A. D., Emily, A. B., & Laura G., (2014). Access to HIV prevention and care for HIV-exposed and HIV-infected children: a qualitative study in rural and urban Mozambique. *BMC Public Health*. 14, 1240
- [4] Ezekiel, M.J., Leyna, G.H., Kakoko, D.C. & Mmbaga, E.J. (2012) Attitudes towards and perceptions of reproductive health needs of persons living with HIV/AIDS in rural Kilimanjaro, Tanzania. *Culture, Health & Sex*14: 1153
- [5] Foresto, J.S., Melo, E.S., Costa, C.R.B., Antonini, M., Gir, E. & Reis, R.K. (2017). Adherence to antiretroviral therapy by people living with HIV/AIDS in a municipality of São Paulo. *Revista Gaúcha de Enfermagem*38: e6315
- [6] Horstmann, E., Brown, J., Islam, F., Buck, J., & Agins, B.D., (2010). Retaining HIV-infected patients in care: Where are we? Where do we go from here? *Clin Infect Dis*. 50(5), 752-761.
- [7] Massavon, W, Barlow-Mosha, L, Mugenyi, L, McFarland, W, Gray, G, & Lundin, R. (2014). *Factors Determining Survival and Retention among HIV-Infected Children and Adolescents in a Community Home- Based Care and a Facility-Based Family-Centred .Approach in Kampala*, Uganda: a cohort study. Hindawi Publishing Corporation.
- [8] McHugh, G., Simms, V., Dauya, E., Bandason, T., Chonzi, P., Metaxa, D., ... & Ferrand, R. A. (2017). Clinical outcomes in children and adolescents initiating antiretroviral therapy in decentralized healthcare settings in Zimbabwe. *Journal of the International AIDS Society*, 20(1), 21843.
- [9] Mwiti P.K., Magu D., Opondo E., Mutai J., (2020). Social Demographic Factors Associated With Retention to Scheduled Medical Appointment among HIV Infected Children Attending HIV Care Services at KNH, Kenya.” International Organization of scientific research (IOSR) Journal of Nursing and Health Science (IOSR-JNHS), 9(01), pp. 55-60.
- [10] Mwiti P.K., Magu D., Opondo E., Mutai J., (2020b). Association Between Child Clinical Characteristics And Retention To Scheduled Medical Appointment Among HIV Infected Children Aged 18 Months To Nine Years Attending HIV Care Services At KNH, Kenya; International Journal of Scientific and Research Publications (IJSRP) 10(04) (ISSN: 2250-3153), DOI: <http://dx.doi.org/10.29322/IJSRP.10.04.2020.p10093>
- [11] Mwiti P.K., Magu D., Opondo E., Mutai J., (2023). PhD thesis on determinants of adherence to scheduled medical appointments among HIV infected children aged 18 months to nine years receiving care at Kenyatta National Hospital, Kenya. Publication by Jomo Kenyatta University of Agriculture and Technology, Thesis and dissertation- JKUAT Institutional repository-Cohes.2023-03-15 <http://irjkuat.ac.ke>.
- [12] Mwiti P. K., Magu.D.G., Chelogoi.E., (2021). Factors associated with adherence to scheduled medical appointment among HIV infected children attending HIV Care services at Kenyatta National Hospital, Kenya. International Journal of Scientific Research and Engineering Development- Volume 4 Issue 5, Sep- Oct 2021 Available at www.ijrsred.com
- [13] Nabukeera, S., Kagaayi, J., Makumbi, F.E., Mugerwa, H., & Matovu, J.K.B., (2021). Factors associated with virological non-suppression among HIV-positive children receiving antiretroviral therapy at the Joint Clinical Research Centre in Lubowa, Kampala Uganda. *PLoS ONE* 16(1), e0246140
- [14] Schneiderman, J. U., Smith, C., Arnold-Clark, J. S., Fuentes, J., & Kennedy, A. K. (2016). Pediatric return appointment adherence for child welfare-involved children in Los Angeles California. *Maternal and child health journal*, 20(2), 477-483.
- [15] Sunguya B.F., Matemtu.S., Uruasa, D.P., (2018). Antiretroviral therapy clinic attendance among children aged 0-14 years in Kahama district, Tanzania: a cross-sectional study. *Tanzania Journal of Health Research*, 20(1), 1 - 7.
- [16] Van der Kop, M. L., Nagide, P. I., Thabane, L., Gelmon, L., Kyomuhangi, L. B., Abunah, B., ... & Lester, R. T. (2018). Retention in clinic versus retention in care during the first year of HIV care in Nairobi, Kenya: a prospective cohort study. *Journal of the International AIDS Society*, 21(11), e25196.

[17] Vreeman, R.C., Nyandiko, W.M., Ayaya, S., Walumbe, E., Marrero, D. & Inui, T. (2009). Factors sustaining pediatric adherence to antiretroviral therapy in western Kenya. *Qualitative Health Research*, 19(12), 1716–172

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