

# Measuring adherence to antiretroviral treatment and assessing factors affecting adherence in a state primary healthcare clinic, Mitchells Plain Community Health Centre

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## Abstract

**Background:** A need was identified to measure adherence levels to antiretroviral treatment (ART) in a resource-poor setting and to assess the impact on adherence to ART of partner disclosure, partner support, other support, and length of time between diagnosis and ART commencement.

**Method:** A retrospective case-control study was conducted and the information was obtained by means of a file audit. One hundred and ninety-nine participants were chosen based on the inclusion and exclusion criteria. Adherence for each patient was measured using a formula documented in a published study. For the comparison group, 82 cases (nonadherent patients) were matched for age and gender with 82 adherent controls.

**Results:** The mean adherence for the initial group of 199 participants was 80.1%. Disclosure to a partner and partner support were not found to affect adherence significantly. The time between human immunodeficiency virus (HIV) diagnosis and ART commencement was also not found to make a statistically significant difference to adherence. There appeared to be an association, though not statistically significant, between support from other sources than the partner and equal to or greater than 95% adherence ( $P = 0.0579$ ).

**Conclusion:** It can be concluded that adherence is probably influenced by a wide variety of factors. More qualitative studies or larger samples are recommended for better assessment of the impact on adherence of partner support and acceptance of HIV. Approaches to partner disclosure prior to commencing ART should be reviewed. The mean adherence level of 80.1% is an indication that more work is urgently needed to improve adherence levels in state-run clinics in South Africa.

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## Introduction

A need was identified to measure adherence levels to ART in a resource-poor setting and to assess the impact on adherence to ART of partner disclosure, partner support, other support and length of time between diagnosis and ART commencement. Research has shown that perceived support from a partner impacts positively on adherence.<sup>1</sup> Similarly, it has been shown that disclosure results in improved adherence.<sup>2</sup> Furthermore, only about 50% of patients feel ready to commence treatment at the time of their human immunodeficiency virus (HIV) diagnosis.<sup>3</sup>

## Method

A retrospective case-control study was conducted by means of a file audit. Information from the files was excellent as standardised forms were used. These were completed

thoroughly by the medical officer and included pill counts, which were used to measure adherence in this study. Random selection of files was carried out to obtain the final sample of 199 eligible folders. The cases were defined as those participants with less than 95% adherence. Each case was matched for age and gender with one control from the adherent group (at least 95% adherence). Eighty-two of 94 participants could be matched.

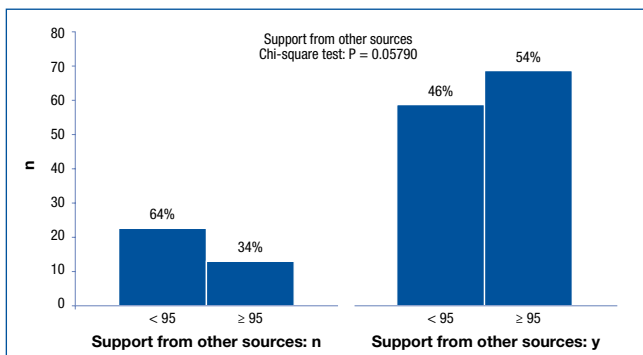
An adequate sample size was calculated in consultation with a statistician. Standard summary statistics were used to summarise the data, and analysis of variance (ANOVA) and cross-tabulation were used to compare variables.

Ethical approval to conduct the study was obtained from Stellenbosch University.

## Results

The mean adherence of the 199 participants was 80 %. There was no difference in adherence between those with a partner and the group without a partner. Most participants had disclosed their HIV status to their partner: 107 out of 121 (88.4%) participants, with no statistically significant difference between the group that had disclosed and the group that had not.

A fair number of participants who had disclosed their status had received support from their partners: 67/107 (63%). There was no significant difference in adherence between the group with support from their partners and the group without partner support. Most participants (78%) had social support from other sources. Comparing the adherence of the group with support from other sources to the group without support from other sources, the difference is not statistically significant ( $P = 0.0579$ ), but there appears to be a trend (Figure 1) towards better adherence being associated with social support other than that received from the partner.



**Figure 1:** Categorised histogram of adherence categories in the groups: no support from sources other than the partner (support from other sources: n) and support from sources other than the partner (support from other sources: y)

About half of the patients were commenced on ART within one year of their HIV diagnosis. There was no statistically significant difference for the factor length of time between HIV diagnosis and ART commencement between the groups with adherent and nonadherent participants.

## Discussion

The differences in the results of this study compared to other literature might be explained by the difference in the methodology used. More qualitative studies on larger samples are recommended to enable better assessment of the impact of partner support and acceptance of HIV on adherence.

The interesting positive trend in adherence seen in the group with support other than that provided by the partner might influence the manner in which we approach support and disclosure prior to commencing ART. In this setting where most patients are strongly encouraged to disclose their HIV status to their partner, it appears that it does not improve adherence. Ethical debate surrounding patient autonomy vs. the risk of injury to a third party has been rife. It seems appropriate to suggest that further studies will be required to assess the healthcare burden of delaying disclosure to a partner.

The mean adherence level of 80.1% is an indication that more work is urgently needed to improve adherence levels in state-run clinics in South Africa.

## References

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