

CHAPTER IV

RESULTS



4.1 General Data from Respondent

There are 42 people taking antiretroviral treatment in Nepal 17 (female) in the NGO Maiti Nepal, and 25 (14 male and 11 Female) in the Government hospital. This study also included 42 people living with HIV/AIDS, and not on treatment, in Maiti Nepal hospice. Therefore 84 questionnaires were prepared and 7 interviewers interviewed all 84 subjects. There was a 100% response rate (prospective subjects were free to decline to participate, but all chose to participate). The responses from these 84 questionnaires were used in data analysis.

Table 4.1: Distribution of respondents by Socio-demographic Characteristics

Socio-Demographic	Grouping	Number	Percentage
Type of Respondent	DAART	17	20.2%
	Non-DAART	25	29.8%
	Without Treatment	42	50.0%
Age	20-24 Years	6	7.1%
	25-29 Years	27	32.1%
	30-34 Years	25	29.8%
	35-39 Years	17	20.2%
	40-44 Years	8	9.5 %
	45-49 Years	1	1.2%
Mean=32.12	SD=5.39	Min=21	Max=45
Gender	Male	14	16.7%
	Female	70	83.3%
Education	no education	24	28.6%
	Primary school	35	41.7%
	High school	9	10.7%
	Intermediate	1	1.2%
	Vocational training	15	17.9%
Employment status	Unemployed	39	46.4%
	Employed	13	15.5%
	Daily wages	7	8.3%
	Others	25	29.8%
Years since HIV Diagnosed	1	13	15.5%
	2	23	27.4%
	3	27	32.1%
	4	2	2.4%
	5	13	15.5%
	6	4	4.8%
	Missing	2	2.4

Table 4.1 shows that the average age of the respondents was 32.12 years old. The youngest respondent was 21 and the oldest respondent was 45 years old. Female respondents were more common than male respondents comprising 83.3% of all respondents within treatment and non-treatment groups. The majority of respondents has achieved primary school education 41.7%, another 10.7% has achieved high school education, 1.2% has achieved intermediate education, 17.95% has achieved other vocational training and 28.6% has no education. Within the type of respondent 20.2% was from Maiti Nepal within treatment, 29.8% respondents were from hospital with treatment and 50% respondents were from Maiti Nepal without treatment.

Among total respondents 46% of respondents were unemployed, 15.5% of respondents were employed, 8.3% respondents were working as daily wages and others were 29.8%.

Lastly the table shows that the distribution of number of years since HIV diagnosis (Median=3.0)

Table 4.2: Gender distribution of the respondents

Type of respondents	Sex		Total
	Male	Female	
DAART	0	17	17
Non-DAART	14	11	25
Without Treatment	0	42	42

Table 4.2 shows that gender was confounded with treatment status. That is, all males were in the non-DAART treatment group. This raises the possibility of gender bias in analytical results. In my analysis I worked to identify any such bias that might exist.

Table 4.3: Differences between people with and without treatment by age and years since diagnosed with HIV/AIDS

Variables	Without treatment		With treatment		<i>p-value</i>
	n	Mean	n	Mean	
Age	42	30.79	42	33.45	0.023
Years since diagnosed with HIV	42	2.50	40	3.30	0.011

Table 4.3 shows that respondents under without treatment had mean age 30.79 years while 33.45 years with treatment. On the other hand respondents under treatment has diagnosed with HIV/AIDS prior to respondents without treatment. This was significant different for age and year of diagnosed with HIV/AIDS at $p=0.023$ and $p=0.011$ respectively.

Table 4.4: Differences between people within DAART and Non-DAART treatment by age and year of diagnosed with HIV/AIDS

Variables	Non-DART		DAART		<i>p-value</i>
	n	Mean	n	Mean	
Age	25	34.28	17	32.24	0.184
Years since diagnosed with HIV	23	3.74	17	2.71	0.039

Table 4.4 shows that there was no significant difference under Non-DAART and DAART in terms of age $P=0.184$ but there was no statistically significant difference in terms of year of diagnosis with HIV/AIDS, i.e. and $p=0.039$ respectively.

Table 4.5: correlation between age and years since diagnosis with HIV/AIDS among respondents in three groups.

Category	N	Mean	Std. Deviation	Pearson Correlation	<i>p-value</i>
2.Age:	84	32.12	5.398	.473	0.01
Years since diagnosis	82	2.89	1.423		

Table 4.5 shows that there was strong correlation between age of respondents and year of diagnosis with HIV/AIDS, this is significant difference at $p=0.01$

Table 4.6: differences between DAART, Non-DAART and without treatment in terms of educational qualification.

	N	Mean	Std. Deviation	<i>p-value</i>
DAART	17	1.59	.507	.002
Non-DAART	25	2.04	.735	
Without treatment	42	1.45	.633	
Total	84	1.65	.685	

Table 4.6 shows that respondents under Non-DAART had better educational level than the respondents under DAART and without treatment, this was significant difference at $p=0.002$, using ANOVA.

Table 4.7: The frequency and percentage distribution of patients by problems with getting information about anti-HIV treatment under Non-DAART and DAART

Treatment group	No		Yes		Total
	n	%	n	%	
Non-DAART	8	34.8%	15	65.2	23
DAART	13	76.5%	4	23.5	17
Total	21	52.5%	19	47.5	40

The table 4.7 shows that 65.2% of total respondents under Non-DAART had problem with getting information about anti-HIV treatment while 23.5% of total respondents under DAART had problem with getting information about anti-HIV treatment. There was significant difference between two group at $p = 0.009$.

Table 4.8: All Subject on Rx Problem in relation to knowledge about anti-retroviral therapy (ART), and about taking ART regularly

Category	DAART		Non-DAART		P=Value by X2
	n	%	n	%	
Knowledge about ART	6/17	35.3%	17/25	68.0%	0.037
Taking ART regularly	4/17	23.5%	16/25	64.0%	0.010

Table 4.8 Finding says that the 35.5% of respondents on DAART had problem in relation to knowledge about ARV while 68.8% in Non-DAART, 23.5% of respondents under DAART had problem in relation to taking ARV regularly and 64.5% in Non-DAART treatment.

Table 4.9: The frequency and percentage distribution of respondents by overall satisfaction of knowledge about anti-HIV treatment under Non-DAART and DAART.

Treatment group	No		Yes		Total
	n	%	n	%	
Non-DAART	17	70.8	7	29.2	24
DAART	6	35.3	11	64.7	17
Total	23	56.1	18	43.9	41

The table 4.9 shows that 29.2 % of total respondents under Non-DAART were satisfied with overall of knowledge about anti-HIV treatment while 64.7% of total respondents under DAART were satisfied with overall of knowledge about anti-HIV treatment. There was significant difference between two group at $p = 0.024$

Table 4.10: The frequency and percentage distribution of respondents by satisfaction in of knowledge about adherence under Non-DAART and DAART.

Treatment group	No		Yes		Total
	n	%	n	%	
Non-DAART	8	33.3%	16	66.7%	24
DAART	0	0	17	100.0%	17
Total	8	19.5%	33	80.5%	41

The table 4.10 shows that 66.7% of total respondents under Non-DAART were satisfied with knowledge about adherence while 100 % of total respondents under DAART were satisfied with knowledge about adherence. There was significant difference between two group at $p = 0.008$

Table 4.11: The frequency and percentage distribution of respondents by overall satisfaction of knowledge about resistance to anti-HIV treatment under Non-DAART and DAART

Treatment group	No		Yes		Total
	n	%	n	%	
Non-DAART	19	76.0	6	24.0	25
DAART	8	47.1	9	52.9	17
Total	27	64.3	15	35.7	42

The table 4.11 shows that 24.0% of total respondents under Non-DAART were satisfied with overall of knowledge about resistance to anti-HIV treatment while 52.9% of total respondents under DAART were satisfied with knowledge about resistance to anti-HIV treatment. There was marginally significant difference between two group at $p=0.055$

Table4.12: Number, mean and standard deviation of respondents under Non-DAART, DAART and without treatment by year of diagnosed with HIV/AIDS.

Type of Respondent	N	Mean	Std. Deviation
Non-DAART	23	3.74	1.738
DAART	17	2.71	1.312
Without treatment	42	2.50	1.065
Total	82	2.89	1.423

Table 4.12 shows that respondents under without treatment group had diagnosed before (mean=2.50 years) while respondents under Non-DAART and DAART has diagnosed before (mean= 3.74 and 2.71 years) respectively.

Table 4.13: Comparison between respondents with and without illness since diagnosed with HIV.

Treatment group	No		Yes		Don't Know		Total	X ²	p-value
	n	%	n	%	n	%			
Non-DAART	2	11.8	14	82.4	1	5.9	17	14.624	0.006
DAART	3	12.5	20	83.3	1	4.2	24		
Without Treatment	20	47.6	18	42.9	4	9.5	42		
Total	25	30.1	52	62.7	6	7.2	83		

Table 4.13 shows that the respondents with DAART and Non-DAART have experienced greater illness since diagnosed with HIV 82.4% and 83.3% respectively. While respondents without treatment is 42.9%. There was significant differences among these three group at $p = 0.006$

4.2 Finding of Retrospective Study

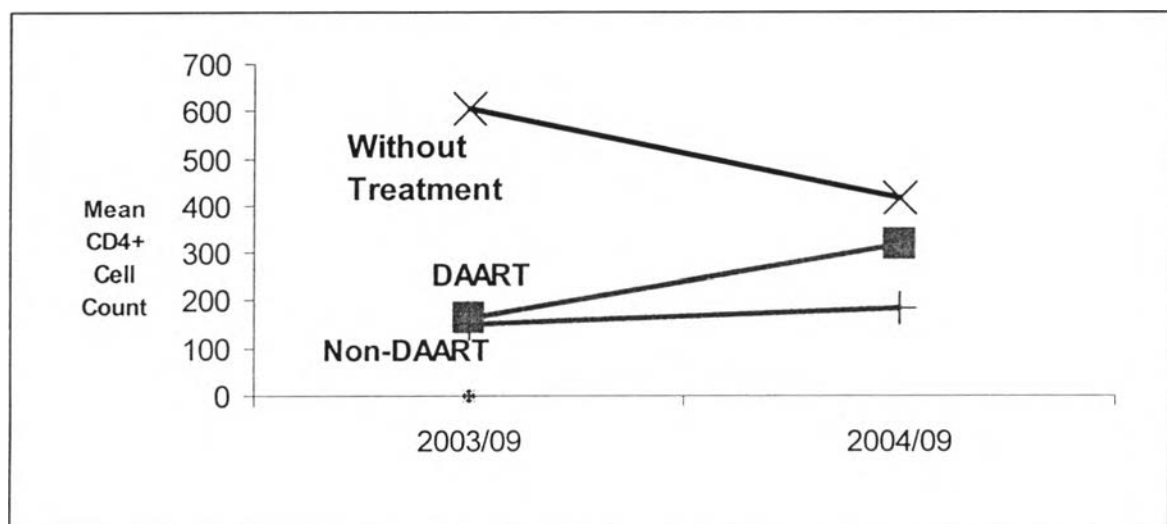


Figure 4.1: Baseline and follow-up mean CD4+ cell counts per mm³ by treatment status, all subjects

Figure shows that respondents without treatment has rapid decline of CD4+ count while in DAART and Non-DAART group it has increased from baseline to after one year.

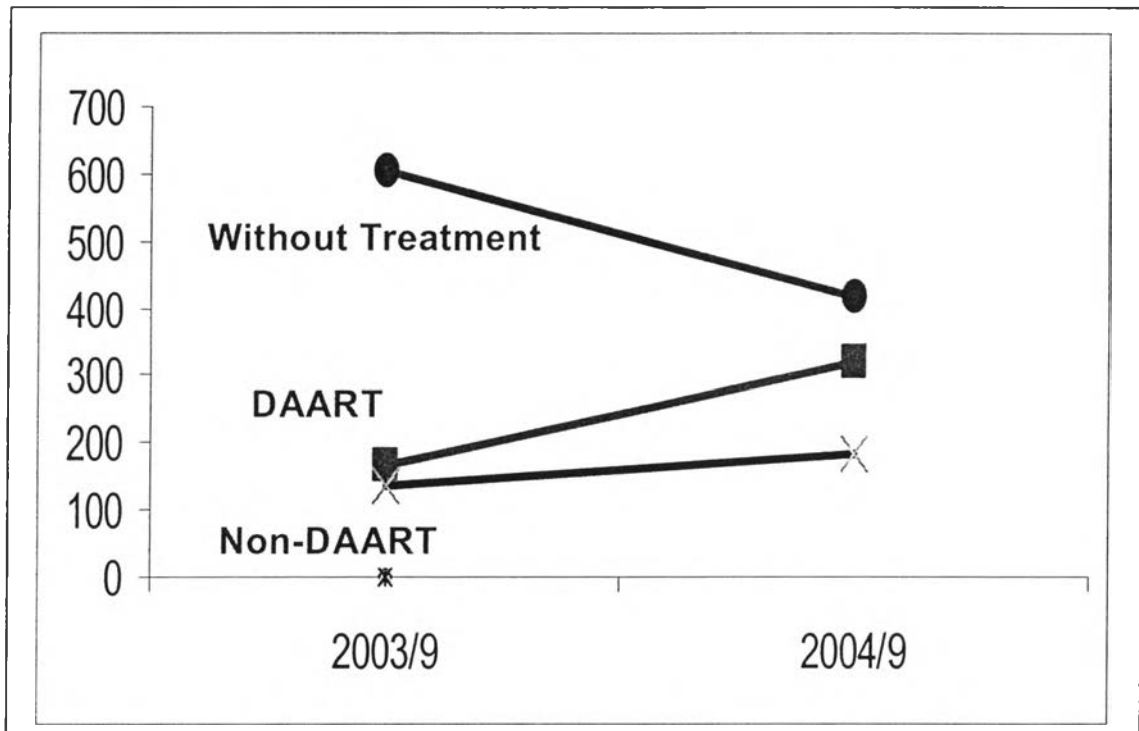


Figure 4.2: Baseline and follow-up mean CD4+ cell counts per mm³ by treatment status, females only

Figure shows the female respondents under without treatment has rapid decline of CD4+ count while in DAART and Non-DAART group it has increased from baseline to after one year. Also, in the non-DAART treatment group, there was little difference between all subjects and females only in the magnitudes of the baseline and one-year mean CD4+ counts, or in the slope of the non-DAART curves shown in the two figures.

Table 4.14: Change in CD4+ in all subjects with and without ART

	N	Mean	Std. Deviation	t-test	P-value
Treatment	42	82.48	36.82	14.006	<0.001
Without Treatment	42	-187.38	58.80		

Table 4.14 shows respondents under treatment and without treatment that change in CD4+ count from base line in treatment group has increased by mean 82.48, which is in positive direction while mean change in CD4+ count in respondents under without treatment was -187.38, and this was statistically significant at $p < 0.001$.

Table 4.15: Change in CD4+ in females with and without ART

	N	Mean	Std. Deviation	t-test	P-value
Treatment	28	112.25	99.62	13.619	<0.001
Without Treatment	42	-187.38	73.55		

Table 4.15 shows all respondents under treatment and without treatment that CD4+ count from base line in treatment group has increased by mean 112.25, which is in positive direction while mean change in CD4+ count in respondents under without treatment was -187.38, in the negative direction. This difference is statistically significant at $p < 0.001$.

Table 4.16: Change in CD4+ in treated subjects with and without DAART

	N	Mean	Std. Deviation	t-test	P-value
DAART	17	153.59	36.82	8.109	<0.001
Non-DAART	25	34.12	58.80		

Table 4.16 shows respondents under DAART and Non-DAART that the CD4+ count from base line in DAART group has increased by mean 153.59, which is in positive direction while the mean increase in CD4+ count in respondents under non-DAART treatment is only 34.12. This was statistically significant at $p < 0.001$.

Table 4.17: Change in CD4+ in treated females with and without DAART

	N	Mean	Std. Deviation	t-test	P-value
DAART	17	153.59	40.96	5.164	<0.001
Non-DAART	11	48.36	58.80		

Table 4.17 shows female respondents under DAART AND Non-DAART that mean change in CD4+ count from base line in treatment group has increased by 153.59, which is in positive direction while mean change in CD4+ count in respondents under non-DAART treatment is only 48.36. This was statistically significant at $p < 0.001$.

4.3 Finding of Satisfied with Knowledge about Treatment, Adherence, and Resistance

Table 4.18: Comparison between all respondents with and without DAART in terms of side effects.

Treatment group	No		Yes		Total	X²	p -value
	n	%	n	%			
Non-DAART	4	16.0	21	84.4	25	6.461	0.011
DAART	9	52.9	8	47.1	17		
Total	13	31.0	29	69.0	42		

Table 4.18 shows that the respondents within DAART treatment has lower side effects (47%) than the respondents in Non-DAART treatment (84.4%). Its also shows significant different between DAART and Non-DAART at, $p = .011$

Table 4:19: Comparison among female respondents with and without DAART in terms of side effects.

Group	No		Yes		Total	X ²	p-value
	n	%	n	%			
Non-DAART	3	27.3	8	72.7	11	1.797	0.180
DAART	9	52.9	8	47.1	17		
Total	12		16		28		

Table 4.19 shows that 72.7% of female subjects under non-DAART side effects, 47% of subjects under DAART ($p=.180$ by X²).

Table 4.20: Comparison between all respondents with and without DAART missed dosage in two weeks.

Treatment group	Never		1-2 times		More than 3 times		Total	X ²	p-value
	n	%	n	%	n	%			
	Non-DAART	7	28.0	13	52.0	5			
DAART	15	88.2	2	11.8	0	0	17		
Total	22	52.4	15	35.7	5	11.9	42		

Table 4.20 shows that only 28% of respondents under Non-DAART have never missed the dosage in comparison to 88.2 of patients under DAART. In Non-DAART 52% of Non-DAART have missed dosage 1-2 times, this is significant difference at $p=0.000$ using chi square test. (The prescribed schedule was to take medication twice

per day. Thus, missing 2 doses in 2 weeks is equivalent to missing 2 of 28 possible doses, or taking 26 of 28 possible doses, for an adherence rate of $26/28=93\%$.)

Table 4.21: Comparison between Female respondents with and without DAART missed dosage in two weeks.

Group	Never		1-2 times*		More than 3 times		Total	X ²	p-value
	n	%	n	%	n	%			
Non-DAART	2	18.2	8	72.7	1	9.1	11	13.893	0.001
DAART	15	88.2	2	11.8	0	0	17		
Total	17		10		1		28		

Table 4.21 shows that 11.8% of female under DAART had missed dosage 1-2 times, 72.7% in Non-DAART had missed the dosage 1-2 times. ($p=0.001$ by X^2)

Table 4.22: Comparison between with and without DAART in terms of problem with access to treatment

Treatment group	NO		YES		Total	X ²	p-value
	n	%	n	%			
Non-DAART	9	36.0	16	64.0	25	17.575	0.000
DAART	17	100.0	0	0	17		
Total	26	61.9	16	38.1	42		

Table 4.22 shows that In regard to access of treatment, respondents were asked about the problems that they have faced accessibility of antiretroviral treatment. 64% of respondents under Non-DAART responded to have some kind of problem regarding accessibility, while none in the DAART group reported this problem ($p>.001$).

4.4 Finding of Quality of Life of Respondents Under Treatment and Without Treatment

Table 4.23: Comparison of overall quality of life among patients under Non-DAART and DAART treatment

Treatment group	Poor		Good		Total	X ²	<i>p</i> -value
	n	%	n	%			
Non-DAART	21	87.5	3	12.5	24	4.437	0.035
DAART	10	58.8	7	41.2	17		
Total	31	75.6	10	24.4	41		

Table 4.23 shows that Respondents were asked to rate their overall quality of life among the respondents under Non- DAART and DAART groups; the quality of life is significantly different between these two groups. Almost 75.6% of respondents perceived poor quality of life, compared to 24.4% perceived good quality of life. The overall good quality of life is higher among patients under DAART in comparison to the Non- DAART patients.

Table 4.24: Comparison of overall quality of life among patients under treatment and without treatment

Group	Poor		Good		Total	X ²	<i>p</i> -value
	n	%	n	%			
Without treatment	24	57.1	18	42.9	42	3.165	0.075
With treatment	31	75.6	10	24.4	41		
Total	55	66.3	28	33.7	83		

Table 4.24 shows that the respondents treatment and without treatment groups, the quality of life is significantly different. Almost 66.3% of respondents perceived poor quality of life compared to 33.7% who perceived good quality of life. The overall good quality of life is marginally significantly higher among patients under non-treatment group comparison to the treatment group ($p=.075$).

Table 4.25: Comparison of overall satisfaction level of health among respondent under Non-DAART and DAART treatment.

Treatment group	Dissatisfied		Satisfied		Total	X ²	p -value
	n	%	n	%			
Non-DAART	19	79.2	5	20.8	24	8.050	0.005
DAART	6	35.3	11	64.7	17		
Total	25	61.0	16	39.0	41		

Table 4.25 shows that the respondents were asked to rate their overall satisfaction level about their health. It was found out that 61.0% of respondents were dissatisfied with their health status. The level of satisfaction was higher among patients under DAART in comparison to Non- DAART patients.

Table 4.26: Comparison of overall satisfaction level of health among respondents under treatment and without treatment.

Group	Dissatisfied		Satisfied		Total	X ²	p -value
	n	%	n	%			
Without treatment	19	46.3	22	53.7	41	1.766	0.184
With treatment	25	61.0	16	39.0	41		
Total	44	53.7	38	46.3	82		

Table 4.26 shows that 53.7% of respondents were dissatisfied with their health status. The level of satisfaction was somewhat higher among patients under without treatment in comparison to with treatment group, but this difference was not statistically significant.

Table 4.27: Quality of life of all respondents by domain

Domain	Treatment	Without treatment	t	p-value
	Mean score			
Physical	11.71	12.65	1.660	0.101
Psychological	12.41	11.84	-765	0.447
Independence	10.83	11.12	.491	0.625
Environment	19.56	17.53	-2088	0.040
Spirituality	12.83	14.21	2780	0.007

Table 4.27 shows that average score of quality of life among patients were analyzed. There is no significant difference on physical, psychological and independence among patients under treatment and without treatment. The environmental quality of life is higher among patients under treatment in comparisons to the patients without treatment and the difference was statistically significant. The spiritual QOL among patients without treatment was found to be significantly higher than the patients under treatment.

Table 4.28: Quality of life among female respondents by domain

Domain	Treatment	Without treatment	t	p-value
	Mean score			
Physical	12.19	12.65	.695	0.490
Psychological	12.60	11.84	-.903	0.370
Independence	11.04	11.12	.124	0.902
Environment	20.56	17.53	-2.895	0.005
Spirituality	12.46	14.21	3.026	0.003

Table 4.28 shows that quality of life among the female respondents by domain no significant difference was found on physical, psychological and independence among female patients under treatment and without treatment. The average environmental domain is higher among patients under treatment in comparisons to the patients without treatment and the difference was statistically significant. The average score of spiritual domain among patients without treatment was found to be significantly higher than the patients under treatment.

Table 4.29: Quality of life among respondents under DAART and Non-DAART by domain

Domain	DAART	Non-DAART	t	p-value
	Mean score			
Physical	12.75	11.04	-1.897	0.074
Psychological	13.99	11.34	-2.836	0.007
Independence	11.71	10.24	-2.331	0.025
Environment	23.63	16.85	-6.255	<0.001
Spirituality	11.71	13.60	2.608	0.013

Table 4.29 shows that quality of life among the respondents under treatment, the average score of all physical, psychological, independence and environmental domains were found to be higher among patients under DAART in comparison to the patients under Non-DAART. The difference was statistically significant. The average score of spiritual domain is found to be higher among patients under Non-DAART in comparison to the patients under DAART and was statistically significant.

Table 4.30: Quality of life among female respondents under DAART and Non-DAART by domain

Domain	DAART	Non-DAART	t	p-value
	Mean score			
Physical	12.75	11.36	-1.487	0.153
Psychological	13.99	10.45	-3.201	0.004
Independence	11.71	10.00	-1.991	0.057
Environment	23.63	16.09	-7.395	<0.001
Spirituality	11.71	13.64	1.885	0.071

Table 4.30 shows that quality of life of female respondents under two methods of treatment, the mean score of physical well being is not significantly different. The average psychological domain score is higher significantly among the female patients under DAART. The average independence domain score was marginally significantly higher in female respondents under DAART than under Non-DAART. The average score of Environment domain is significantly higher among the female respondents under DAART in comparison to Non-DAART. The average score of spiritual domain was marginally significantly higher among female patients under Non-DAART than the female patients under DAART. All significance tests for quality of life domains were done with independent-samples T-tests.