DOES DECENTRALISING THE CARE OF PATIENTS WITH CHRONIC DISORDERS RESULT IN ALTERED PATIENT SATISFACTION

by

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Declaration

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Abstract

Introduction: In 1994 the Bonteheuwel and Valhalla Park clinics in Cape Town started a pilot project for the care of patients with chronic disorders. Patients in Bonteheuwel and Valhalla Park with chronic disorders who were previously under the care of Day Hospitals or Hospitals in other suburbs, can now receive treatment and follow-up at the local authority clinic. There are currently nearly two thousand patients under Bonteheuwel clinic and nearly two hundred patients under Valhalla Park Clinic.

Aim: To see if decentralising the care of patients with chronic medical conditions to local clinic level results in altered patient satisfaction.

Objective: To look at patient satisfaction with clinic care compared to satisfaction with care at the previous place of service through administration of a comparative questionnaire.

Methods: Data was collected by administering a questionnaire to a systematic sample of patients. The questionnaire was administered to 271 clients at Bonteheuwel and 43 clients at Valhalla Park clinics whilst they were waiting to see the doctor or to collect medication. The questionnaire asked patients to assess the clinic service in comparison to their previous place of service by asking whether various aspects of the service are better at the clinic, were better at their previous place of service or are much the same. Patients were also asked what they like best and least about the clinic's service and that of their previous place of service.

Results: Results showed a high level of satisfaction with the clinic service compared to the previous place of service, especially in terms of access, cost, surroundings and waiting times. 95% of patients at Bonteheuwel and 98% of patients at Valhalla Park preferred being under the care of the clinic rather than under the care of their previous place of service. Patients felt there was not much difference in the doctor's technical or communication skills at the clinic compared to their previous place of service. Some patients at Bonteheuwel Clinic voiced concerns about the lack of facilities available at the clinic and felt that the clinic needed to be expanded to become a day hospital.

Conclusions: Decentralising the care of patients with chronic medical conditions to local clinic level has resulted in increased satisfaction of patients. With the restructuring of health services in the Western Cape at present, decentralising the care of patients with chronic medical conditions to local clinic level may be an option for some communities.

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1.1 Motivation For The Study

At this time in South African history, with just over three years of a legitimate government in power, there is restructuring taking place in all government departments. Health is to be totally restructured with the introduction of the district health system and the primary health care approach. Part of the primary health care approach includes devolving medical care to the most appropriate level, with referral to a higher level of care as needed.

At present the health services within the Cape Metropolitan Council are fragmented. Local authorities are responsible for preventive / promotive medical care (at local authority clinics), whilst curative services are provided by the provincial authorities (at Day Hospitals and Hospitals). The two health systems run strictly independently. Since July 1, 1997 the local authorities have been restructured to form six new local authority structures within the Cape Metropolitan Council. The primary health care curative services (Provincial) will ultimately be incorporated into these six new local authority structures to form health districts in accordance with the new health plan.

Bonteheuwel and Valhalla Park are two adjoining suburbs within the Tygerberg Substructure of the Cape Metropolitan Council. They are served by a local authority clinic in each area which deals with promotive / preventive medicine (child health, family planning, TB and STD treatment). Curative services are provided mainly by two Day Hospitals in neighbouring areas - Heideveld and Bishop Lavis. A third Day Hospital, Abdurahman, although slightly further away, also serves people from these two areas.

Given the number of health care facilities available it may appear that these areas are reasonably well served and that the provision of new services would be unnecessary.

However, the Community Health Centres (Day Hospitals) are at present overloaded, and struggle to cope with the present numbers of patients. The communities they serve are poor and many of the patients are elderly and suffer from chronic debilitating conditions such as arthritis or the effects of strokes. These factors combine to make access to medical care an increasing problem for some of this group.

The Bonteheuwel and Valhalla Park communities saw a need for a Day Hospital (Community Health Centre) of their own. It was not feasible to provide such a comprehensive service within the existing local authority clinic structures because of size, staff and budget constraints. The former Cape Town City Council, in consultation with these communities, decided that a more limited service could be provided by opening up the clinics in these areas to the care of patients with chronic medical conditions such as arthritis, hypertension, asthma, epilepsy, diabetes etc. An under six curative service was also started at these clinics at the same time. The clinic structures needed only minor modification to accommodate the new services. A doctor, five clinical nurse practitioners, four staff nurses, an admission clerk and later a pharmacist and pharmacy assistant were employed to cope with the extra work-load at the two clinics.

Patients with chronic illnesses may be referred to the chronic care clinic by the day hospitals, private GP's or hospitals. Although the local day hospitals and hospitals were given details of the start of the new services, most patients seem to have requested referral themselves. Patients should ideally have been fully worked up and stabilised on medication before referral. At the time of data collection there were over 180 patients registered at Valhalla Park clinic and over 1700 patients registered at Bonteheuwel clinic.

The chronic care clinics are run at specific times and use an appointment system for consultations. Patients booked for the doctor have all routine observations done (e.g. B.P., HGT, etc.) before seeing the doctor. The doctor assesses the patient, makes adjustments to medication as necessary, and addresses any other medical problems. Frequency of follow-up consultations with the doctor depends on the stability of the

patient's condition, but would not exceed six months. Patients are automatically booked at monthly intervals to collect medication between consultations.

There are facilities to send off investigations from the clinic and patients can be referred to a local hospital for stabilisation or a specialist opinion / investigation as necessary. Patients who have problems before their next doctor appointment can request to have an earlier booking made. Patients arriving with acute medical emergencies will be stabilised and referred if necessary. If these patients arrive when no doctor is available at the clinic, then the nurse practitioners will arrange the referral if necessary.

When the sessions for patients with chronic conditions started they caused a lot of stress among staff members. Many of the nursing staff had been recently employed to assist with running the new service, with the resultant stress of settling down in a new environment. The doctors running the clinics had for many years specialised in preventive / promotive medicine and found the change to curative medicine stressful. The first patients arriving at the services had often run out of medication during the transfer process and were medically unstable on arrival.

Because of the initial overwhelming stress of the staff, the opinion of the staff six months after the service had started was that the pilot project was not a success, although they recognised that many of the patients seemed very happy with the chronic care clinics. With time the staff have settled and a more positive feeling is apparent. I believe that the chronic care clinics deserve to have the initial assessment reviewed.

1.2 Demographics: Bonteheuwel and Valhalla Park Communities

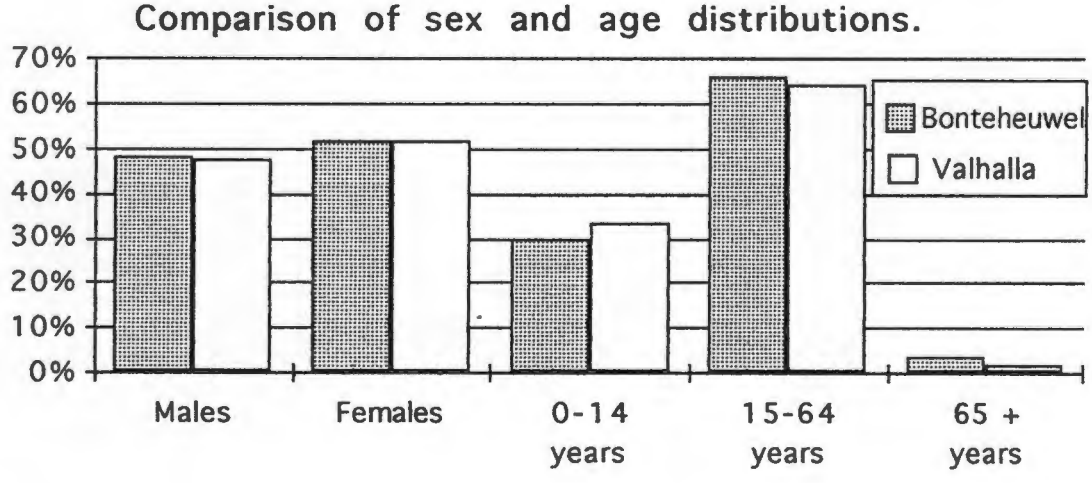
The following demographic data is based on the 1991 census, the 1996 census data not having been released yet. Although many political changes have occurred since 1991, the Bonteheuwel and Valhalla Park communities have remained relatively stable. Information was obtained from the former Cape Town City Council under which the Bonteheuwel and Valhalla Park areas fell.

1.2.1 Total Population With Age And Sex Distributions:

According to the 1991 census Valhalla Park has a total population of 11 596 people. Bonteheuwel has a population of 47 364 people - just over four times the population of Valhalla Park. The proportion of males and females in the two population groups is identical. The age distributions show that Bonteheuwel has a slightly older population than Valhalla Park with 4% of their population being 65 years and older compared to 2% in Valhalla park. When one compares actual numbers Bonteheuwel has a 65 and over age group that is 7.5 times greater than that of Valhalla Park.

Table Showing Sex And Age Distributions In The Bonteheuwel And Valhalla Park Suburbs.

	Bonteheuwel		Valhalla Park		Proportion
	Number	Percentage	Number	Percentage	Bont / VP
Total Population	47 364	100%	11 596	100%	4
Males	22 842	48%	5 557	48%	4.1
Females	24 522	52%	6 039	52%	4.1
0-14 years	14 137	30%	3 858	33%	3.7
15-64 years	31 413	66%	7 495	65%	4.2
65 years +	1 814	4%	243	2%	7.5

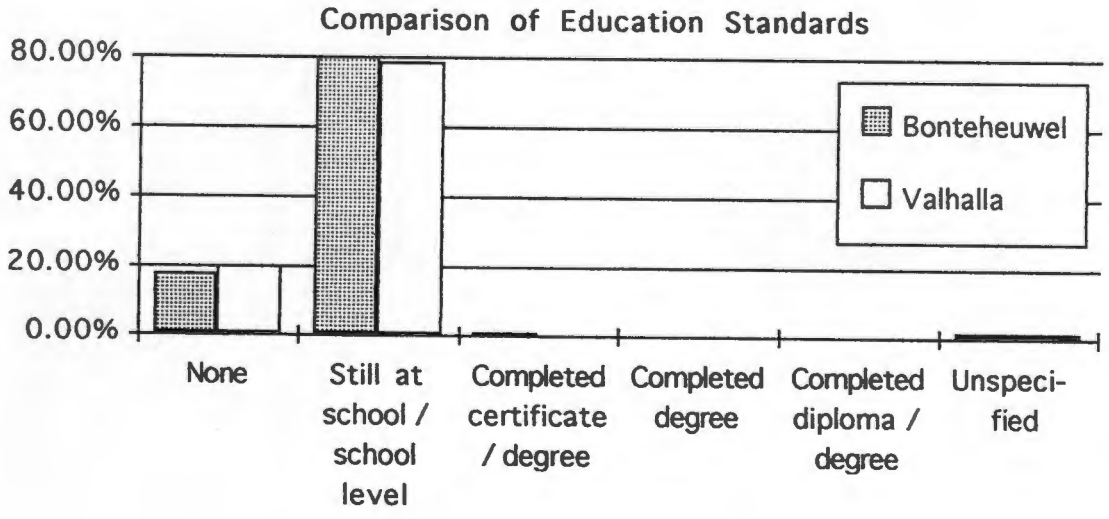


1.2.2 Education:

The vast majority of the populations in both communities are still attending school or have never progressed beyond a school level of education (80% in Bonteheuwel and 79% in Valhalla Park). Less than 1% of each population has any further qualifications - either certificates, degrees or diplomas. A significant proportion of the populations (18% in Bonteheuwel and 20% in Valhalla Park) have no education - this of course includes children not yet of school-going age.

Table Showing Education Levels In Bonteheuwel And Valhalla Park.

Education	Bonteheuwel		Valhalla Park	
None	8 503	17.95%	2 296	19.80%
Still at school / School level education	37 953	80.13%	9 113	78.59%
Completed diploma / certificate	214	0.45%	14	0.12%
Completed degree	46	0.10%	10	0.09%
Completed diploma/degree	6	0.01%	1	0.01%
Unspecified	642	1.36%	161	1.39%

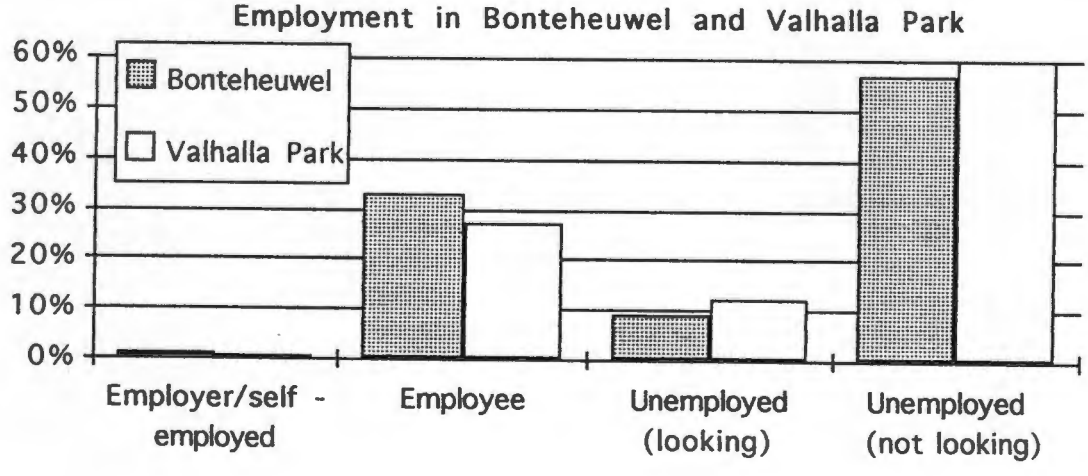


1.2.3 Employment:

Valhalla Park shows a higher unemployment rate than Bonteheuwel. 60% of the people in Valhalla Park are not economically active and not actively looking for jobs (this includes children, housewives and pensioners). The corresponding figure in Bonteheuwel is 57%. In Valhalla Park 31% of the potentially economically active population are unemployed and looking for work (this translates to 12% of the total population). This figure is 21% (9%) in Bonteheuwel. Therefore the economically active proportion of the population is only 28% in Valhalla Park and 34% in Bonteheuwel. Overall Valhalla Park is supported economically by 28% of its population with 12% of its population unemployed and looking for work. Bonteheuwel, whilst also a poor community, fares better with 34% of its population employed and 9% of its population seeking work.

Table Showing Employment Profiles Of Bonteheuwel And Valhalla Park.

	Bonteheuwel		Valhalla Park	
	Number	**Percentage**	**Number**	**Percentage**
Employer or Self-employed	507	**1%**	80	**0%**
Employee	15 545	**33%**	3 129	**28%**
Unemployed (Looking)	4 285	**9%**	1 432	**12%**
Unemployed (not looking)	27 026	**57%**	6 955	**60%**
Total	47 363	**100%**	11 596	**100%**

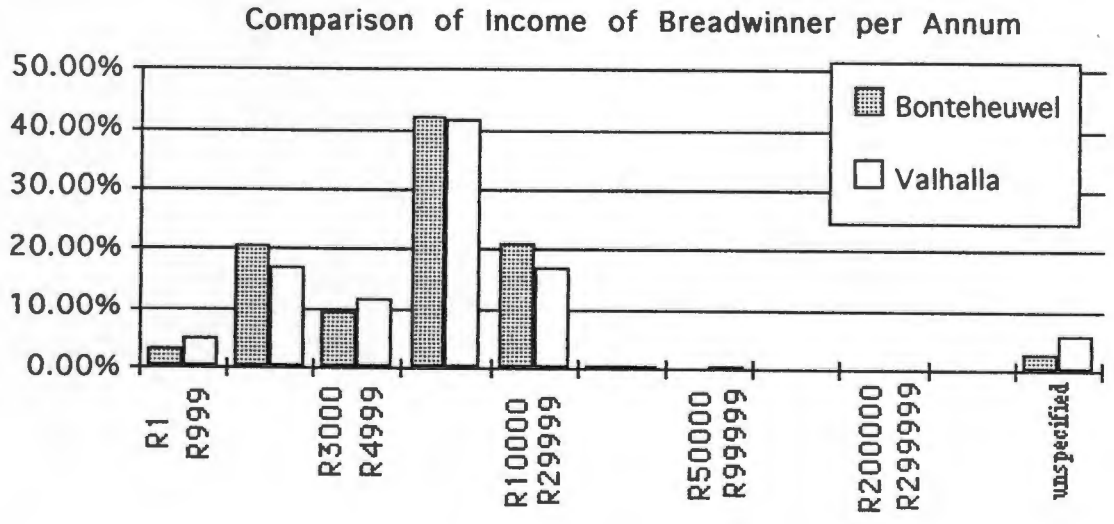


1.2.4 Income:

Both communities show generally low incomes by the breadwinner. At least 96.5% of the breadwinners in Bonteheuwel earn less than R30 000 a year. In Valhalla Park the corresponding figure is at least 92.9%. About 3% of people in Bonteheuwel and 6% of people in Valhalla Park have not specified their income. As can be seen from the table a very small percentage of people in either community earn R30 000 or more a year.

Table Showing Income Of Breadwinner Per Annum:

Income (p.a.)	Bonteheuwel		Valhalla Park	
R1 - R999	663	3.37%	202	5.18%
R1000 - R2999	4 026	20.46%	669	17.17%
R3000 - R4999	1 830	9.30%	462	11.86%
R5000 - R9999	8 289	42.12%	1 626	41.72%
R10000 - R29999	4 184	21.26%	660	16.94%
R30000 - R49999	82	0.42%	15	0.38%
R50000 - R99999	19	0.10%	18	0.46%
R100000 - R199999	11	0.06%	6	0.15%
R200000 - R299999	2	0.01%	0	0.00%
R300000+	5	0.03%	3	0.08%
Unspecified	570	2.90%	236	6.06%



1.3 Overall Aim And Objectives

Aim:

To investigate whether decentralising the care of patients with chronic medical conditions to clinic level results in altered patient satisfaction.

Objectives:

1. To evaluate patient satisfaction with clinic care compared to patient satisfaction with care at the previous place of service in terms of the following aspects of service provision:
   - access
   - cost
   - surroundings
   - waiting times and overall time taken
   - staff attitudes
   - technical aspects of care
   - general satisfaction

2. To examine patient's general comments about the best and least liked aspects of the chronic care clinic service and of their previous place of service.

3. To see if comparative satisfaction is influenced by any of the following:
   - demographic features
   - previous place of service
   - duration of attendance at the clinic

Chapter Two - Literature Review

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2.1 What Is Patient Satisfaction?

One of the weaknesses of many satisfaction studies is that the concept of patient satisfaction is rarely defined. [1] Webster's New Collegiate Dictionary defines satisfaction as the "fulfilment of a need or want". [2] In a study on Service Quality Profile, patient satisfaction is defined as "the extent to which consumers are pleased or displeased with care provided". [3]

According to Wilken et al "Satisfaction represents a complex mixture of perceived need, expectation of care, and the experience of care. It is a wholly subjective assessment of the quality of health care and, as such, is not a measure of final outcome." [4] Satisfaction is also probably best not viewed as a stable personal trait, but as the result of a constantly changing interaction between an individual and his environment. [5]

2.2 Why Measure Patient Satisfaction?

It has been argued that the ultimate test of medical care is patient outcome and that this is what should be measured when medical care is assessed. [6] The problem is that outcome is not always easy to measure. It is also argued that patient satisfaction should be considered as one of the components of outcome [6] and as an important component of evaluating quality of care. [7] Measuring patient satisfaction is important not only as a surrogate indicator of medical care but also as an indicator of quality of care.

Ley argues that patient satisfaction is important for two reasons: [8] patient satisfaction is a desirable goal in its own right and patient satisfaction is an important determinant of patients' compliance with advice.

Satisfaction influences whether a person seeks medical advice and the extent to which he / she complies with treatment and maintains a continuing relationship with a practitioner. [6, 9] The friendliness of the doctor can also influence the degree to which patients comply with treatment. [10] Satisfaction is related to improvements in health status [11] because patients who are satisfied are more likely to use health services appropriately. A causal relationship exists between use of services and satisfaction. [5]

In one study an enthusiastic attitude of patients towards a psychiatric day hospital was clearly associated with a good prognosis in contrast to the relatively poor outcome of those patients who were unenthusiastic or merely favourable. [12]

Another study showed that schizophrenia patients' assessments of the rightness of their treatment (assumed to be highly correlated with patient satisfaction) is predictive of their long-term outcome in terms of duration of subsequent hospitalisation. [13] These results are difficult to interpret because the more paranoid and emotionally withdrawn patients are known to have a poorer prognosis in terms of outcome; it is this same group of patients who will look less favourably on their treatment.

Low satisfaction levels can have a detrimental effect on health care. When consumers in the USA were asked to describe their response on experiencing poor service, [14] the most likely reaction was to complain to the person they were dealing with or to management. Between 30 and 40% would not use that provider again and 10% would complain to friends and families.

2.3 Difficulties With Measuring Patient Satisfaction

According to Fitzpatrick there are a number of incorrect negative assumptions prevalent about surveys of patient satisfaction, namely: [11]

- They uncover widespread and general dissatisfaction. (health professionals seem to estimate greater dissatisfaction than surveys disclose)
- Answers are ill considered or whimsical.
- Misjudgements arise from patients' reliance on perceptions based on surrogate indicators - the halo effect. (e.g. a patient will determine technical competence by the friendly and interpersonal manner of the doctor)

If these incorrect negative assumptions are held, then the relevance of patient satisfaction studies becomes highly questionable.

Even without these negative assumptions there are many problems with patient satisfaction assessments. The validity of the instruments used to measure patient satisfaction is a point of concern, [15] and there is no standardised and widely accepted method for measuring patient satisfaction. [13]

Another concern is the reliability of patient satisfaction scores. [15] Patients may have difficulty understanding the questions or expressing answers. The views of the patient may be only partly-formed or the patient may have no views at all because the service under review has impinged little on his / her consciousness. Patients may have a restricted view of service options, a low expectation of standards and / or a wish not to be seen to complain, all of which may bias the answers given. [1]

An unexpected difficulty with measuring patient satisfaction is that patient satisfaction studies generally elicit highly positive responses. [1, 19] This seems to apply in a variety of settings from hospital and day hospital settings to community care settings. [13] Typically 80% of patients will express satisfaction for any given question and there is a lack of variability in the results. [11]

The wording and manner of asking questions can affect the validity of the answers, [7] and the variability of results. One study that compared general questions with specific questions for a single sample of patients found that the specific questions resulted in more variation in answers. [20]

2.4 Location Of Testing Satisfaction

Although location of testing has been said to influence answers, [16] Deisher et al in their study on Mother's Opinions of their Paediatric Care found that there was no significant difference in answers between those who filled the questionnaire in at the doctor's office and those who filled the questionnaire in at home. [17] The one systematic analysis of the effect of setting failed to find any evidence that location influenced answers given. [18]

2.5 Factors Affecting Patient Satisfaction

2.5.1 Communication

Communication is an important factor influencing patient satisfaction. Ley found that measures of satisfaction with communications have a reasonably high correlation with

measures of satisfaction with the doctor-patient interaction as a whole, and satisfaction with other aspects of the consultation. [8]

Different types of doctor-patient communication are appropriate and necessary for various circumstances. Szasz and Hollender [21] have divided the relationship into three types: Activity-passivity where the patient is passive and is acted on by the doctor (e.g. infants, severe injuries); guidance-co-operation where the patient expects and follows direction and advice (e.g. acute illness); and mutual participation where the physician helps the patient to help himself (e.g. chronic medical conditions). Communication is an important and ongoing factor in the management of chronic diseases. [22]

Ley, however, in his review of literature on patient satisfaction, [8] comes to the following conclusions about communication and satisfaction:

- Despite a considerable emphasis on the importance of good communication in medical education, and over a decade of interest in patient satisfaction, there is no evidence that the level of satisfaction reported by patients is any higher now than previously.
- When doctors feel that they are making a special effort to communicate information to patients, satisfaction rates seem to be no higher.
- Patients who report that they have been told about their illnesses, treatment, investigations etc. are no less likely to be dissatisfied.

Korsch et al's findings [9] contradict Ley's last point. Korsch found that provision of information did result in higher satisfaction. However, Korsch et al [9] also noted that there was no difference in satisfaction levels between people with higher and lower education levels, although people of higher education were more able to express their concerns and have them dealt with, presumably with the provision of more information.

It is also suggested that the non-verbal communication / behaviour of the physician may affect patient satisfaction and understanding. [23]

2.5.2 The Doctor

Higher satisfaction levels have been reported [9] when the doctor is friendly rather than business-like; when the doctor is seen to be understanding of the patient's concerns; when the doctor is perceived as a good communicator; when information is provided.

A good doctor-patient relationship seems to provide an environment conducive to better care and satisfaction. A long standing warm relationship with a paediatrician correlates with better follow-through on medical advice by the patient. [24] The therapeutic process of the counsellor lies in the relationship rather than analytical expertise. [25]

A study done at a Children's Hospital found that whilst all paediatricians in the study had both satisfied and dissatisfied patients, there were a few doctors whose patients showed significantly more satisfaction with their visits. [10] Thus it is in the individual doctor's power to influence patient satisfaction levels, although with the many other factors influencing satisfaction, the doctor cannot provide satisfaction every time.

Korsch et al found that reassurance by the doctor correlated so consistently with satisfaction that the two dependent variables were combined for all aspects of their analysis. [9]

2.5.3 Patient Expectations

Satisfaction with care can also be influenced by factors such as patient expectations, attitudes and prior experience with medical care. [15] Korsch et al found that for those parents who expected to learn the cause and nature of their child's illness, the failure to have this expectation fulfilled led to dissatisfaction in a significantly larger number of visits compared with the remainder of the sample. They also found that the highest incidence of dissatisfaction occurred in those visits where neither expectation nor main worry received attention. (On analysing the doctor-patient interaction it was found that only 24% of main worries were specifically mentioned to the doctor by the patient during the visit.) [9]

2.5.4 Length Of The Consultation

Although some investigators have found a relationship between length of time spent with the physician and patient satisfaction, [8] Korsch et al found that there was no correlation between diagnosis and interaction time, or between diagnosis, time of interaction and satisfaction. [9]

"One thing is clear, however, that much time is lost in ineffective verbalisation, especially on the part of the doctor, and that the time the patient and doctor spend in the same room is of lesser import than how they spend this period of time." [9]

2.5.5 Technical Aspects Of Care

Several studies indicate that patients tend to rate satisfaction with technical aspects of care the highest. [15, 16, 26, 27] One interpretation of this finding may be that it is an area where patients have no expertise and they are therefore not informed enough to be able to judge it otherwise. Another interpretation may be that technical quality is of a higher standard because health care systems emphasise technical performance to the relative neglect of patient needs that fall outside the biomedical definition of health. [27] This interpretation would be supported by the fact that patients' reported levels of satisfaction have been found to reflect the doctor's technical competence as judged by independent, professional assessors. [4, 27]

2.5.6 Waiting Times And Administrative Factors

An area of lesser satisfaction is that of waiting times. In a Survey of Satisfaction with Care in a Rheumatology Clinic, [16] time spent in the waiting area before consultation was highlighted as the single aspect of the clinic which caused the greatest dissatisfaction. A study on Mothers Opinions of their Paediatric Care [17] found that although waiting times did not seem to be a major bone of contention, 19% felt that it was a very important factor in the selection of a paediatrician.

Administrative factors seem to rate poorly in patient satisfaction studies. A study looking at private and NHS patients in an outpatient setting found that the lower satisfaction rating among NHS patients were due to administrative rather than clinical factors. [28] The study on Mothers Opinions of their Paediatric Care found that areas of lesser satisfaction centred more on the mechanical or managerial aspects of medical practice. [17]

2.5.7 Other Factors

Other areas found to influence satisfaction include access; cost; staff attitudes; respect for privacy; consumer participation; continuity of care; and outcome of care. [29]

2.6 Patient Characteristics And Satisfaction

2.6.1 Demographics And Characteristics Of Patients

No consistent correlation has been found between satisfaction levels and patient characteristics or demographic features, [9, 13, 30] although age has been reported to be consistently related to satisfaction with young adults being more dissatisfied. [31]

2.6.2 Personality Of The Patient

Ley investigated the possibility of the patient's personality type affecting the degree of satisfaction. [8] The Cattell Sixteen Personality Factor (16 PF) Questionnaire was administered to a group of patients who were satisfied with communications and a group who were not. The groups did not differ significantly on any of the first or second order personality factors measured in the test. (The 16 PF test was first published in 1949 and has developed, but not fundamentally changed, over the years since then. The first and second order personality factors are based on a series of interlocking researches over twenty-five years, directed to locating unitary, independent, and pragmatically important "source traits", both in ratings and questionnaires.) [37]

Spelman et al, however, found that patients who reported feeling depressed while in hospital were significantly more likely to express dissatisfaction with communications than those who were not depressed. Whilst this may present some difficulties in interpretation in that it may be possible that depressed patients were depressed because of poor communication, or it may be that depressed patients were less able to communicate or be communicated with, there is an undoubted relationship between depressed mood and decreased satisfaction with communication. [8]

2.6.3 Cultural And Social Factors

Linn reported a lack of consistent findings between social or cultural factors and patient satisfaction. [19] Riffenburgh, however, points out that cultural factors may influence the outcome of medical visits and that the failure of congruence in the doctor and patient interchange can lead to a failure of communication of nearly the same proportions as when the doctor and patient do not speak the same language. [32]

Pope found a significant relationship between satisfaction and social class position with those patients who perceived themselves as being middle class or above showing higher satisfaction than those who perceived themselves as working class or lower. [26]

Korsch et al found no significant differences in satisfaction when different social classes or different educational levels were compared. [9] However, patients with higher education were more likely to express their fears and hopes to the doctor and had a better chance of having them dealt with.

2.6.4 Other Characteristics Of Patients

Pope found that patients with higher satisfaction levels were more likely to have a regular doctor, be older, and live in families that rated their health as excellent. Lower satisfaction levels were associated with those patients who did not have a regular doctor, and those who came from families that rated their health as less than excellent. [26]

Patient satisfaction has also been found to be dependant on the patient's ability to understand and recall what they are told. [7, 8] Patients' opinions may also change over time [7] possibly because time affects their ability to recall information accurately.

2.7 Satisfaction Questionnaires

The most widely used method for measuring patient satisfaction is through the administration of a questionnaire. However, there is no standardised, widely used and accepted questionnaire for measuring patient satisfaction. [15]

2.7.1 Themes Of The Questionnaire

Patient satisfaction is comprised of a multitude of factors which may influence the health experience. Different satisfaction questionnaires focus on different aspects of the health experience, but common themes can be identified when looking at different questionnaires. The following outline of themes comes from a meta-analysis of the literature which looked at 221 studies: [27]

Percentages and frequencies of studies in which different aspects of satisfaction were measured

Aspects	Percentage	Frequency
Humaneness	65	143
Informativeness	50	111
Overall quality	45	100
Competence	43	95
Overall	43	96
Beaurocracy	28	61
Access	27	59
Cost	18	40
Facilities	16	36
Outcome	6	13
Continuity	4	10
Attention to psychosocial problems	3	7

2.7.2 Ways Of Asking Questions And Recording Answers

The format in which questions on satisfaction are asked and the answers are given need to be patient friendly. A number of formats have been used in different satisfaction studies.

Questions can be asked in a straightforward question format with graded answers:

e.g. Did you get the kind of service you wanted?

1) No, definitely not; 2) No, not really; 3) Yes, generally; 4) Yes, definitely

Questions can be in the form of statements. The patient then gives a rating according to how much he / she agrees or disagrees with the statement (Likert scale). Positive and negative statements are randomly mixed in an attempt to reduce bias. Scoring for negative statements is then reversed:

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
e.g. Doctors need to be more thorough in treating and examining me	1	2	3	4	5

The number of options or gradings in the answers varies. The Likert scale can be in the form of a four-point to a seven-point scale. An even number of options disallows neutral responses. [4] An increased number of options encourages more variation in the answers, but may make answering the questionnaire more difficult for the patient.

It is also possible to use a visual analogue scale to record answers. Visual analogue scales, because they contain no numbers or word descriptions, avoid the ambiguity of value-laden labels which may convey different meanings to different patients. The patient is asked to mark a point anywhere on a 10 cm line between two extremes. Scores are derived by measuring the number of millimetres the mark is from the low end of the scale.

A visual analogue scale encourages increased variation in answers, but it may be problematic in that some subjects have difficulty understanding the task, possibly because of the degree of abstraction required. [33]

e.g. The quality of nursing care has been:

2.7.3 Comparative Studies

Straightforward satisfaction studies will tell you how patients feel about a particular service, but will tell you nothing about the satisfaction level in relation to another service or satisfaction before and after an intervention.

The DeWitt Army Hospital in Virginia introduced a new chronic care programme where the nurse became the primary caretaker. Bystran et al [34] did a study to evaluate the new program a few years after it's implementation. One component of the study included getting the patients' opinions of the programme through the administration of anonymous questionnaires. Patients were asked to compare the chronic care programme with their previous care.

The results of the questionnaire are presented in the following format:

Completeness of care

- more complete
- no difference
- less complete

Availability of caretaker (R.N.)

- more available
- no difference
- less available

Understanding of health problems

- increased significantly
- increased slightly
- no change
- more confused

Rapport with nurse

better than with physician

same as with physician

worse than with physician

Provider preference

physician all the time

physician most of the time

nurse most of the time

nurse all the time

Patients were thus asked to make their own comparison of previous care versus current care and give a rating accordingly.

Mangen and Griffith [1] did a study to compare satisfaction with a psychiatric nurse being the prime therapist for follow-up with satisfaction where follow-up was by an out-patient psychiatrist. Seventy one patients were randomly allocated to the two forms of follow-up. Patients made a global evaluation of satisfaction with current treatment on entry (no difference between the two groups) and were then interviewed by the authors at six month intervals for a total of 18 months. An interviewer-rated questionnaire was completed at each interview and a self-report schedule was completed by the patient at the end of the 18 months.

The answers from the self-report schedule in the two groups were compared to get a comparative rating of the two types of follow-up. Comparisons were also made between the answers from the two groups at the six-monthly follow-up interviews to get a comparative rating between the two forms of follow-up.

Comparisons were also made between the answers at the different time intervals to see if time under a particular mode of follow-up affected the satisfaction felt. Thus two different forms of comparison were made in the study - one between the two forms of follow-up, and the other between different time intervals under follow-up.

2.8 Administering A Questionnaire:

Questionnaires can be self administered, or may be filled in by an interviewer. There are advantages and disadvantages to both methods.

French, in her study of the satisfaction literature, [7] found that there was a markedly higher response rate through interviewing the patient than through self-completion questionnaires. This may be because being interviewed feels like less work to the patient. Self-administered questionnaires had a better completion rate if they were pertinent, short and easy to complete, and if the patient was "captive" (e.g. waiting at an outpatient clinic).

Self completed questionnaires allow for anonymity and eliminate interviewer bias. [11] A study done to compare written and oral administration of the Client Satisfaction Questionnaire found that although oral administration produced fewer unanswered questions, it also produced a higher overall level of satisfaction. [35] Therefore oral administration may introduce an element of positive bias.

It has been argued that an advantage of self-completed questionnaires is that they are better at eliciting answers to embarrassing questions than an interviewer would be. However, if the interviewer can convince the respondent that the research is important

and useful, that information is confidential and that the interviewer is not interested in making judgements, then embarrassment should not be a problem. [7]

In a study where participants were asked to keep a daily health diary it was found that although some people were reluctant to write in the diary the occurrence of illness episodes which were of a sensitive nature, they were prepared to talk about them at the monthly visit by the researcher. [36]

An interview also allows flexibility in covering topics, more detailed answers and an opportunity to clarify ambiguities. [11]

Distributing self-administered questionnaires may initially be cheaper and quicker than using an interviewer. However, the time and effort needed to eliminate non-responder bias may ultimately make this method more costly and time-consuming than using an interview method. [7]

2.9 Conclusions

One of the weaknesses of patient satisfaction studies is that the concept of patient satisfaction is rarely defined. It is the complexity of patient satisfaction which makes it a difficult concept to define. Patient satisfaction encompasses the following components:

- it is a fulfilment of a need or want
- it is a mixture of perceived need, expectation of care and experience of care
- it is a subjective assessment
- it is a constantly changing interaction between an individual and his environment
- it is not a direct measure of final outcome.

Patient satisfaction, although it is not a direct measure of outcome, is a component of outcome and an indicator of quality of care. Satisfaction influences:

- the seeking of medical advice
- the use of health services
- the extent of compliance with treatment
- overall health status
- final outcome.

There are many difficulties with measuring patient satisfaction. Many incorrect negative assumptions about patient satisfaction studies are prevalent. There is real concern about the validity of the instruments used to measure patient satisfaction with no single standardised questionnaire. Reliability is also of concern, given the ease with which bias can be introduced in asking questions and recording answers. Location of asking questions does not seem to influence answers.

Patient satisfaction studies seem in general to elicit highly positive responses. Technical aspects of care generally rate the highest with administrative factors and waiting times getting the poorest ratings.

There is no consistent correlation between satisfaction levels and patient characteristics or demographic features, although trends suggest that young adults generally seem to be less satisfied. Patient personality does not influence satisfaction levels, but there is a relationship between depressed mood and satisfaction with communication.

Patient satisfaction is generally measured through the administration of a questionnaire. Patient satisfaction is measured by focusing on a number of different aspects of health care. Although there is no set outline of which aspects of health care should be

measured, there are a number of common themes in patient satisfaction literature: humaneness, informativeness, overall quality, competence and overall satisfaction being the commonest.

There are a number of widely accepted methods for asking questions and recording answers. Studies comparing satisfaction before and after an intervention has been introduced can approach the problem in the following ways:

- a comparative study can ask patients to compare satisfaction before and after an intervention is introduced
- satisfaction levels can be measured before and again after an intervention has been introduced and these satisfaction levels compared
- satisfaction levels between an intervention group and a control group can be measured and compared.

Questionnaires can be either self administered or they can be administered in interview form. There are advantages and disadvantages associated with both options. Interviewer administered questionnaires require more in terms of human resources, give higher response rates and flexibility, but may result in positive bias. Self-administered questionnaires allow for anonymity but may result in a poor response rate and incomplete questionnaires.

Measuring patient satisfaction is a complex task partly because of the complexity of the concept of patient satisfaction. Measuring patient satisfaction is fraught with the problem of possible bias at all stages. Patient satisfaction, however, is an important component in evaluating the outcome of care and an important indicator of quality of care, and is thus a worthwhile measurement in the assessment of health care.

Chapter Three - Methods

Chapter Three - Methods

3.1 Definitions

Clinic (also known as Community Health Centres): Clinic in this study refers to the Local Authority clinic which is responsible for promotive / preventive medicine (immunisations, family planning, treatment of TB and STD's, health education). Recently many of these services have expanded to take on curative services for children under six years of age. The Bonteheuwel and Valhalla Park clinics expanded to cater for the follow-up and treatment of people with chronic medical conditions - referred to as the chronic care clinics.

Day Hospitals (also known as Community Health Centres): Provincial community primary care facilities offering curative care on an out-patient basis.

Chronic medical conditions: At the chronic care clinics chronic medical conditions comprise of any medical condition requiring monthly medication. Most patients have epilepsy, asthma, diabetes, hypertension or cardiac conditions.

3.2 Study Design

This study is a survey of comparative patient satisfaction based on data collected by an administered questionnaire.

There were two obvious methods by which a comparative rating between previous place of service and present clinic service could be obtained:

- method one - by administering a service satisfaction questionnaire regarding the previous place of service to all new clients joining the service, and then re-administering the same questionnaire dealing with the clinic service a year later, and comparing the satisfaction scores.
- method two - by creating a questionnaire that asks patients to compare their previous place of service to the clinic service, to get a relative satisfaction rating.

I felt that both methods had merits and pitfalls. Method one is possibly a more objective assessment of any changes in satisfaction. The same people would answer the same questionnaire at two different times about two different services. They would be unable to remember their answers from the year before and therefore any changes in satisfaction recorded could thus be considered to be because of a difference in the services. However it would require greater resources in terms of time and money.

Method two asks the patient to give a subjective opinion on which service is more satisfactory. This allows the patient to be more overt in comparing the services. Asking patients to make their own comparison between two services may be a possible source of bias because a "helpful" client, wanting to please the interviewer based at the clinic, may give answers with a positive bias towards the clinic. However, asking patients to make their own comparisons between two services could result in a more accurate opinion of how patients feel the two services compare.

Using method two would also need less time and fewer resources because the questionnaire would only need to be administered once, and it is because of this practicality that I decided to use method two.

3.3 Study Population And Sampling

The study populations were those patients admitted to the Bonteheuwel or Valhalla Park chronic care clinic from before February 1996. (This corresponds to those patients attending the clinic with folder numbers of less than 901 at Bonteheuwel and less than 101 at Valhalla Park) The two clinics were dealt with separately. To get the demographic profiles of the two study populations I perused the folders of all eligible patients and recorded the folder number, sex and year of birth of those patients. The data was entered and analysed using Microsoft Excel.

I discussed sample size with Anne Johansen of the Urban / Demographic Research and Census Information Section of the former Cape Town City Council. Given the population size of the first 900 clients at Bonteheuwel clinic and the first 100 clients at Valhalla Park clinic (N), it was calculated that 270 questionnaires needed to be administered at Bonteheuwel and 80 questionnaires needed to be administered at Valhalla Park Clinic (n). (This was calculated using a confidence level of 95%, a reliability (L) of 5 and a sample proportion (P) of 0.5 using the formula $n = N / [1+N(L/100)^2 / 1{,}96^2.P(1-P)])$ [38]

3.3.1 Sample Population

The sample population was obtained by interviewing all the patients who qualified for the study when they attended the clinic (Bonteheuwel or Valhalla Park) either to collect medication or to see the doctor, regardless of whether they had an appointment or not, until the required number of questionnaires had been completed. Interviews started on January 7, 1997.

I recognise that by interviewing only patients attending the clinics the sample may have been biased by the exclusion of patients who had defaulted from the clinic. The number of defaulters and their reasons for defaulting could be an area of study at a future date.

In the case of those who were unable to answer the questionnaire satisfactorily (e.g. patients with mental retardation) the escort, if a regular attender, was asked to answer the questions. This fact was noted on the questionnaire.

All patients were read an introduction to the questionnaire and given the option of participating, or not participating.

3.3.2 Exclusions

- Patients who had attended their *previous place of service (pps)* for less than six months were excluded.
- Patients who were unable to answer the questions, and whose escorts were not regular attenders, were excluded.
- Patients who visited the clinic on more than one occasion during the month were only interviewed on the first visit.

3.4 Measurements:

With the poor literacy levels in the two areas (1991 census) it was not possible for the questionnaires to be self administered, so data was collected through the administration of an interviewer-completed questionnaire. The questionnaire consisted mainly of closed questions with an opportunity to make comments at the end. The questionnaire was written in English and then translated into Afrikaans. The translation was checked by

two bilingual people, one of whom, Dr Van Zyl Smit, has many years experience with questionnaires for research purposes.

Although I had considered doing the interviews myself, I realised that the patients would know me as one of the doctors at the clinic and this could have biased the answers given. On the advice obtained from the Medical Research Council I asked the staff at the clinics for names of people whom they thought might be suitable as interviewers; suitable interviewers having to have standard nine or matric schooling, be fluent in English and Afrikaans and be available for the month of January 1997. Three interviewers were chosen to administer questionnaires at the two clinics.

<u>The questionnaire was structured as follows:</u>

The following demographic and other data was collected:

- age
- sex
- education
- employment
- date of admission to clinic service
- previous place of service
- client or regular escort answering questions.

The aspects of the service to be covered by the questionnaire were initially based on my concerns and thoughts about the clinic service, and then modified by the results of the research for the literature review. They are as follows:

- access
- cost

- physical surroundings
- waiting times
- overall time from leaving home
- nursing staff attitudes
- doctor / nurse practitioner (technical / interpersonal / communication)
- general satisfaction.

Because of the introduction of free services at a primary health level I had considered omitting the cost factor from the questionnaire. However, on talking to patients, I found that cost of transport is still a relevant issue so the cost factor was retained.

Answers were graded on a five point scale (Likert-type scale) as follows:

pps much better	*pps* slightly better	much the same	clinic slightly better	clinic much better

pps - previous place of service

The appropriate box was crossed for each question. The order of clinic and previous place of service (*pps*) was reversed in some questions to try and minimise bias with the same box being crossed each time. The order used was determined by the spinning of a coin.

Structured open ended questions were asked at the end to elucidate the patient's best and least liked aspects of the services in an attempt to find out what the advantages and disadvantages of a clinic service are from the patient's point of view.

3.5 Pilot Studies

Although no formal pilot study was done, the questionnaire evolved through repeated informal testing at the clinics. The Likert-type scale that was used was developed through this process. I found that patients found it easier to grade their answers when this scale was used.

3.6 Implementation

Having decided that I would use interviewers to collect my data for me, I contacted the MRC for names of trained interviewers I could employ. Instead I got the advice to ask the staff at the clinics for the names of suitable candidates in those or similar communities. Although dubious about it, I followed their advice and ultimately employed three interviewers for the data collection.

The interviewers were all given an hour-long training on the questionnaire on January 6, 1997 before the data collection began on January 7, 1997.

Interviewers interviewed all eligible clients as they came to the clinic to see the doctor or fetch medication, until the required number of interviews had been done. At the end of each day of data collection I went through all the questionnaires completed that day and discussed any problem areas with the interviewers the next day.

3.6.1 Bonteheuwel Clinic

The three (or for smaller sessions two) interviewers were seated in front of the main waiting area at Bonteheuwel clinic. They each sat at a table surrounded by screens to ensure privacy.

Patients eligible for the study who attended to collect medication were given a slip of paper with their name and admission date to the clinic on it by the reception clerk. He then directed the patients to drop their folders at the dispensary and take the slip of paper to one of the interviewers so that they could be interviewed whilst waiting for their medication. The flow was not ideal because the dispensary is around the corner from the main waiting area.

Patients eligible for the study who came to see the doctor were also given a slip of paper with their name and admission date on it. They were interviewed whilst waiting for the doctor, but the flow for these patients was easier because the main waiting area is the same waiting area used for doing the blood-pressure measurements, HGT measurements etc. routinely done on all patients seeing the doctor.

When patients brought their folders back to the admission clerk at the end of the session to book their next dates, he would check with those eligible if they had indeed been interviewed.

Data was collected at all doctor or medication sessions - i.e. Tuesday morning and alternate Tuesday afternoons, Wednesday morning and afternoons, Thursday afternoons and Friday mornings. Data collection began on January 7, 1997 and was completed on January 21, 1997.

3.6.2 Valhalla Park Clinic

Valhalla Park clinic treats far fewer patients for chronic medical conditions. There is therefore only a doctor and medication collection session every alternate Tuesday afternoon, with a session for the collection of medication the following Wednesday afternoon. Thus there are four sessions per month at Valhalla Park clinic.

Due to an error in bookings there were very few patients booked for the first doctor session and too many patients booked for the second doctor session for the month of January 1997. There were no patients booked for the first medication session. This booking error complicated the process of data collection.

Only one interviewer was used to collect data at Valhalla Park. She was seated in one of the unused consulting rooms with a desk. At Valhalla Park Clinic patients are not given their folders on arriving at the reception desk, but patients who qualified for the study were warned that they would be called to be interviewed whilst they were waiting.

Eligible patients who came to collect medication had their name and admission date recorded on a piece of paper at the reception desk. They were then called from the waiting area outside the dispensary to the interview room. Eligible patients who came to see the doctor had the piece of paper with their name and admission date attached to their folders. After having their routine observations done they were then directed to the interview room, before seeing the doctor.

When patients brought their folders back to the admission desk to make their next appointments the clerk checked with all eligible patients whether they had gone for the interview.

Because of the overbooking on the second doctor session the flow was complicated by patients being backed up at the interview room. A number of patients agreed to be interviewed at the end of the session to facilitate the flow.

Data collection began on January 14, 1997 and was completed on January 29, 1997.

3.7 Data Analysis

Data from the questionnaires was entered onto an excel spreadsheet each day. Analysis and statistical calculations were done on the Microsoft Excel V4.0 package.

Chapter Four - Results

Chapter Four - Results

4.1 Bonteheuwel Clinic

Questionnaires were administered to patients attending Bonteheuwel clinic until 271 questionnaires had been completed. (The target was 270, but an extra questionnaire was completed due to an error in numbering the questionnaires.)

It took just over two weeks to complete the questionnaires which was longer than I had expected. To try and understand the extra time taken I reviewed the bookings for the month of January. Although 1685 patients were registered at the clinic at this time only 1301 patients were booked for the month of January - i.e. 385 (23%) patients registered at the clinic had either died or stopped attending for other reasons. For those patients with folder numbers less than 901 a total of 793 bookings were made for the same four week period in January - i.e. 107 (12%) patients had dropped out of the system.

An interesting area of further study would be to look at those patients who were not attending to find out their reasons for not attending, and whether those reasons were related to their satisfaction with the service.

Exclusions / Non-respondents.

Questionnaires were not completed for 41 patients who attended or sent an escort to the clinic during the study period. The reasons for the questionnaires not being completed are as follows:

exclusions

- escort who is not a regular attender came to collect medication - 30
- under the previous place of service less than six months - 9.

non-respondents

- did not like the questions - 1
- no reason given - 1.

4.1.1 Demographics

Chi square (X^2) testing was done to compare the proportions of the different demographic groups in the different population groups. For the purposes of analysis the Exclusion and Non-respondent groups have been grouped together into a non-respondent group.

Gender

	Study Population	Sample Population	Non-respondents
	N = 900	n = 271	n = 41
male	223 (25%)	67 (25%)	8 (20%)
female	673 (75%)	203 (75%)	32 (78%)
unknown	4 (0%)	1 (0%)	1 (2%)

There is a clear predominance of women in the study and sample populations with three times as many women compared to men attending the clinic.

There is no significant difference between the gender distribution in the sample population and the study population ($p = 0.98$) or the non-respondents ($p = 0.51$).

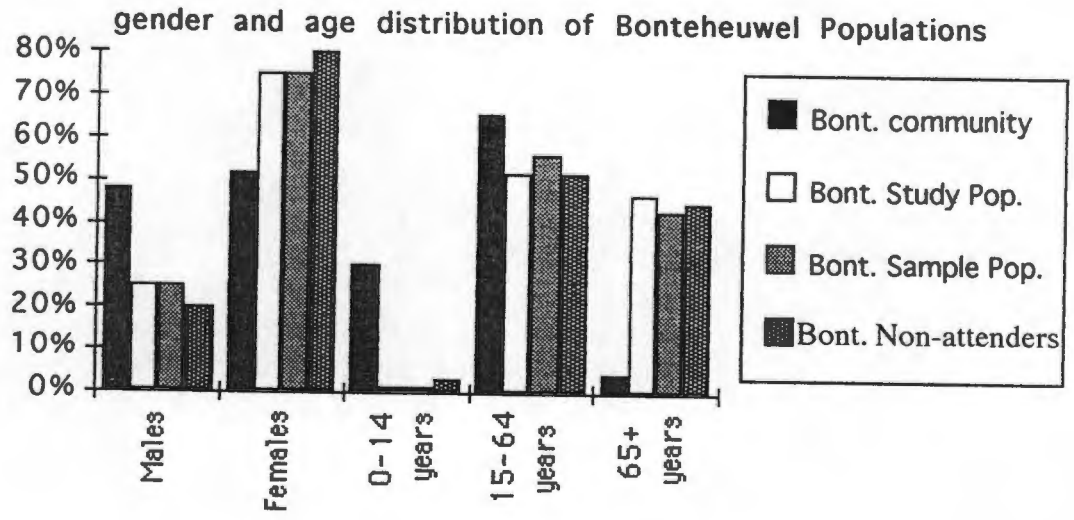
Age Group

	Study Population	Sample Population	Non-respondents
	N = 900	n = 271	n = 41
0 - 14 years	16 (2%)	3 (1%)	1 (3%)
15 - 64 years	465 (52%)	149 (55%)	15 (37%)
65+ years	415 (46%)	113 (42%)	13 (32%)
unknown	4 (0%)	6 (2%)	12 (29%)

Over forty percent of patients in the study and sample population groups are pensioners of sixty five years or greater. This is in contrast to the proportion of those in the community of sixty five years or over of only 4% (1991 census). This reflects the tendency of the frequency of chronic disorders to increase with age.

There was no significant difference between the age groups of the sample population and the study population ($p = 0.39$). A statistical comparison was not made between the sample population and the non-respondents because of the high proportion of unknown age groups in the non-respondent group.

The following graph gives a graphical illustration of the gender and age groups of the four population groups:



Duration Of Attendance At Clinic

admission date (time attending clinic)	sample population	non-respondents
	n = 271	n = 41
May 94 - Sept 94 (27 - 31 months)	110 (41%)	13 (32%)
Oct 94 - May 95 (19 - 26 months)	98 (36%)	17 (41%)
June 95 - Jan 96 (12 - 18 months)	51 (19%)	8 (20%)
unspecified	12 (4%)	3 (7%)

41% of the study population were first admitted to the clinic between May 94 and September 94. This was the time of fastest growth with many new patients being admitted at each session. 36% of the study population were admitted between October 94 and May 95. New sessions were added at this time to accommodate more patients, and the admission rate was still reasonably high. Only 19% of patients were admitted between June 95 to January 96. Hopefully this drop in admission rate means that most patients with known chronic disorders in Bonteheuwel have already been admitted to the clinic service.

There was no statistically significant difference between the sample population and the non-responders with regard to duration of attendance. ($p = 0.61$)

Client / Escort Answering The Questionnaire

person interviewed	sample population	non-respondents
	n = 271	n = 41
client	213 (79%)	8 (20%)
escort	49 (18%)	33 (80%)
unspecified	9 (3%)	0

Nearly 80% of the questionnaires were completed by interviewing the client, with the rest being completed on behalf of the client by a regular escort who agreed to being interviewed. Not surprisingly this statistic was reversed for the non-respondents because many of the non-respondents were excluded because the escort was not a regular attender. This was reflected by a highly statistically significant difference between the two groups ($p << 0.0001$).

Education Levels

education level	sample population	non-respondents
	n = 271	n = 41
none	15 (6%)	1 (2%)
primary	125 (46%)	10 (24%)
secondary	78 (29%)	0
tertiary	3 (1%)	0
unspecified	50 (18%)	30 (73%)

The education levels reflect to some degree the education levels of the community (1991 census). Unfortunately the high percentage of unspecified education levels makes it difficult to comment accurately on the education levels of the two groups. However, from the specified information at least 75% of the sample population had received some level of schooling, with at least six percent having had no schooling.

No comparison was made between the sample population group and the non-respondent group because of the high proportion of unspecified answers in each group.

Employment

employment status	sample population	non-respondents
	n = 271	n = 41
employed	12 (4%)	3 (7%)
unemployed - looking	10 (4%)	1 (2%)
unemployed - not looking	53 (20%)	3 (7%)
pension / grant	190 (70%)	25 (61%)
unspecified	6 (2%)	9 (22%)

The majority of patients in the study population group (70%) rely on a pension or grant for their income. Only 4% of the study population are formally employed with another 4% wanting to be employed. Unemployed patients had to have actively looked for work in the last four months to qualify for this category. A further 20% of the study population are not employed and not looking for employment - presumably housewives, children etc.

No statistical comparison was made between the sample population group and the non-respondent group because of the high percentage of unspecified employment groups in the non-respondent group.

Previous Place Of Service

previous place of service	sample population	non-respondents
	n = 271	n = 41
Heideveld DH	164 (61%)	10 (24%)
Bishop Lavis DH	39 (14%)	0
Other DH	21 (8%)	2 (5%)
GSH	24 (9%)	3 (7%)
Other Hosp	8 (3%)	4 (10%)
GP	7 (3%)	0
unspecified	8 (3%)	22 (54%)

In the study population 83% of the patients had been referred from the day hospitals, the majority having come from Heideveld Day Hospital. A further 12% had been referred from a hospital, most from Groote Schuur Hospital. Only 3% of the patients in the study population had been referred from a G.P.

No statistical comparison was made between the sample and the non-respondent groups due to the high number of unspecified answers in the non-respondent group.

4.1.2 Answers To Questionnaire

Scoring of answers

A five point Likert-type scale was used for answers - e.g.:

much better at *pps*	slightly better at *pps*	much the same	slightly better at clinic	much better at clinic

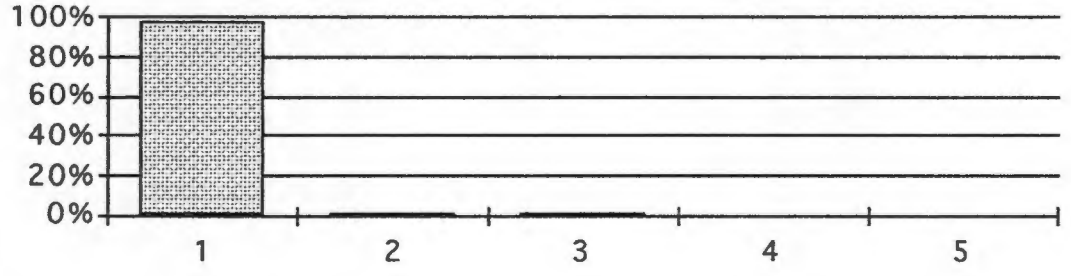
Answers were scored one to five from left to right depending on the box that was crossed. Questions that were omitted have not been included in calculations for mean, median, mode or SD. (i.e. disregarded and not included in the denominator)

An average score was calculated for each question (mean score with a possible maximum score of five and a possible minimum score of one) to give an overall impression of how the respondents felt about that issue. Because the order of the Likert-type scale was reversed for some questions a corrected average was then calculated with the maximum score possible being four and the minimum score possible being nought. A score greater than two shows higher satisfaction with the clinic compared to the previous place of service and a score less than two shows lower satisfaction with the clinic compared to the previous service.

1. Geographical Access

Do you find it easier to get to the clinic or was it easier to get to *pps*?

much easier to get to clinic	slightly easier to get to clinic	much the same	slightly easier to get to *pps*	much easier to get to *pps*
265 (98%)	4 (1%)	2 (1%)	0 (0%)	0 (0%)



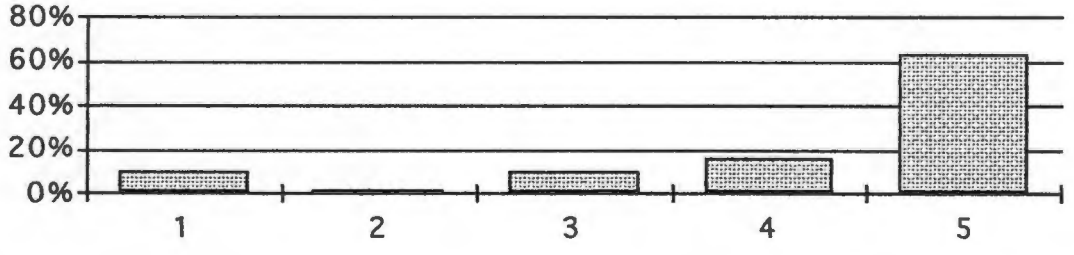
response rate = 100% SD = 0.21 median = 1

corrected average = 3.97 mean = 1.03 mode = 1

2. Access To Doctors

Was it easier to see a doctor at *pps* when it was not your appointment day, or is it easier to see the doctor at the clinic when it is not your appointment day?

much easier at *pps*	slightly easier at *pps*	much the same	slightly easier at the clinic	much easier at the clinic
16 (10%)	2 (1%)	17 (10%)	26 (16%)	103 (63%)



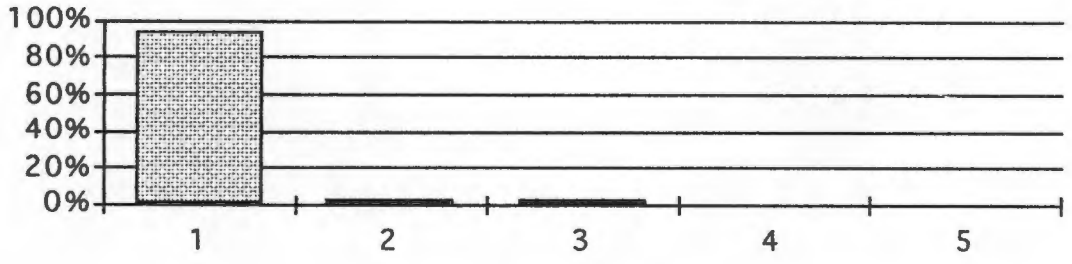
response rate = 61% SD = 1.27 median = 5

corrected average = 3.21 mean = 4.21 mode = 5

3. Cost

Is it cheaper for you to get to the clinic or was it cheaper to get to *pps*?

much cheaper to get to clinic	slightly cheaper to get to clinic	much the same	slightly cheaper to get to *pps*	much cheaper to get to *pps*
252 (94%)	8 (3%)	8 (3%)	0 (0%)	0 (0%)



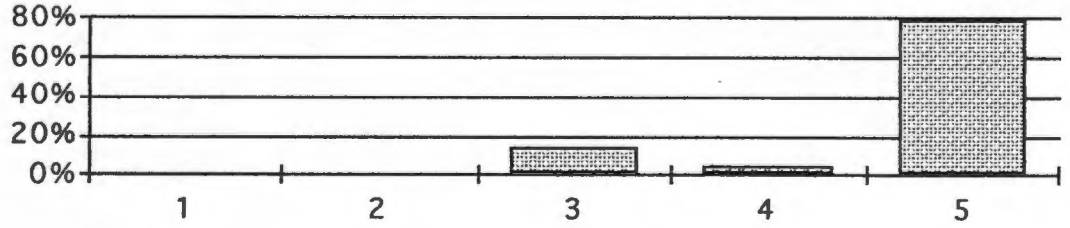
response rate = 99% SD = 0.38 median = 1

corrected average = 3.91 mean = 1.09 mode = 1

4. Pleasantness Of Surroundings

Did you find it more pleasant to wait at *pps* or do you find it more pleasant to wait at the clinic?

much more pleasant at *pps*	slightly more pleasant at *pps*	much the same	slightly more pleasant at clinic	much more pleasant at clinic
4 (1%)	1 (0%)	37 (14%)	14 (5%)	215 (79%)



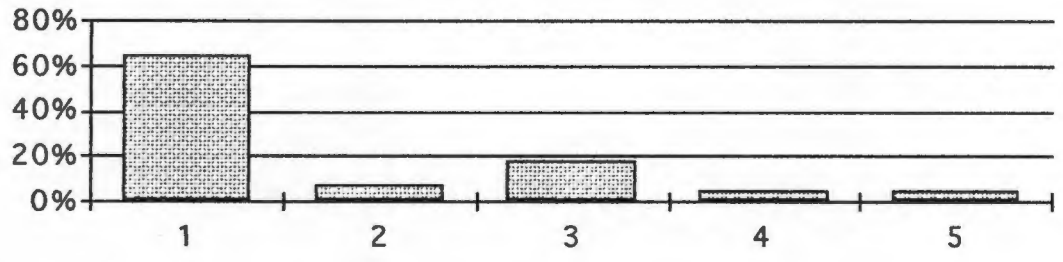
response rate = 100% SD = 0.84 median = 5

corrected average = 3.61 mean = 4.61 mode = 5

5. Waiting Times For Doctor

Did you have to wait longer at *pps* to see the doctor / nurse practitioner or do you wait longer at the clinic?

much longer at *pps*	slightly longer at *pps*	much the same	slightly longer at clinic	much longer at clinic
166 (65%)	17 (7%)	47 (18%)	13 (5%)	13 (5%)



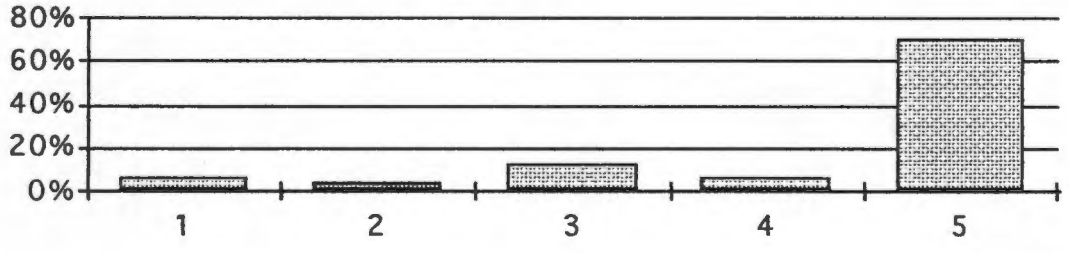
response rate = 94% SD = 1.21 median = 1

corrected average = 3.21 mean = 1.79 mode = 1

6. Waiting Times For Medication

Do you have to wait longer at the clinic to collect your medicines or did you wait longer at *pps*??

much longer at clinic	slightly longer at clinic	much the same	slightly longer at *pps*	much longer at *pps*
16 (6%)	12(4%)	35 (13%)	15 (6%)	189 (71%)



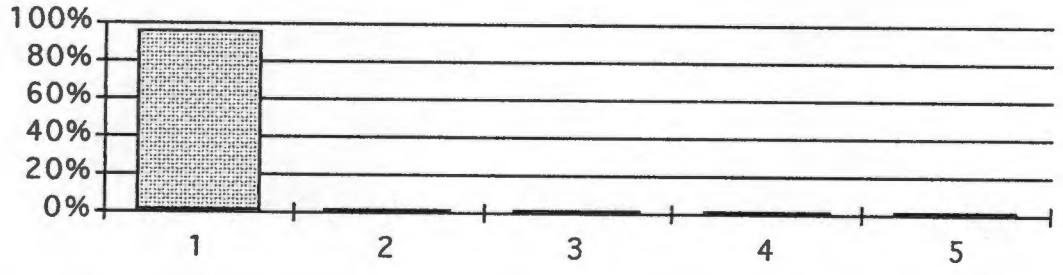
response rate = 99% SD = 1.21 median = 5

corrected average = 3.31 mean = 4.31 mode = 5

7. Overall Time Taken

Was the total time that you spent from leaving home to getting home again longer when you attended *pps* or is it longer now that you attend the clinic?

much longer attending *pps*	slightly longer attending *pps*	much the same	slightly longer attending clinic	much longer attending clinic
253 (96%)	4 (2%)	2 (1%)	2(1%)	3 (1%)



response rate = 98%
corrected average = 3.90

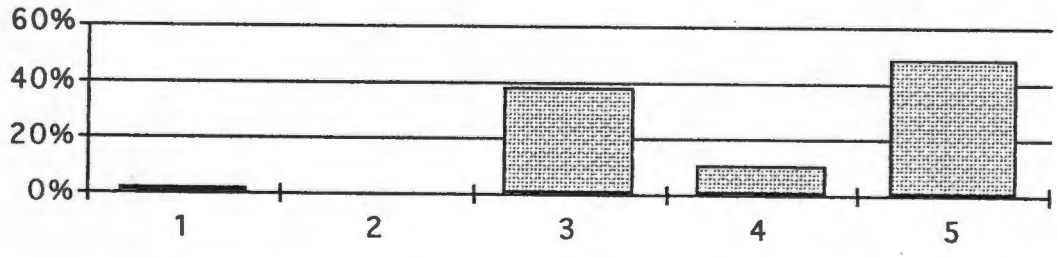
SD = 0.54
mean = 1.10

median = 1
mode = 1

8. Nursing Staff Attitudes

Do you find the nursing staff more helpful at the clinic, or were they more helpful at *pps*?

much more helpful at *pps*	slightly more helpful at *pps*	much the same	slightly more helpful at clinic	much more helpful at clinic
5 (2%)	0 (0%)	102 (38%)	29 (11%)	134 (49%)



response rate = 100%
corrected average = 3.05

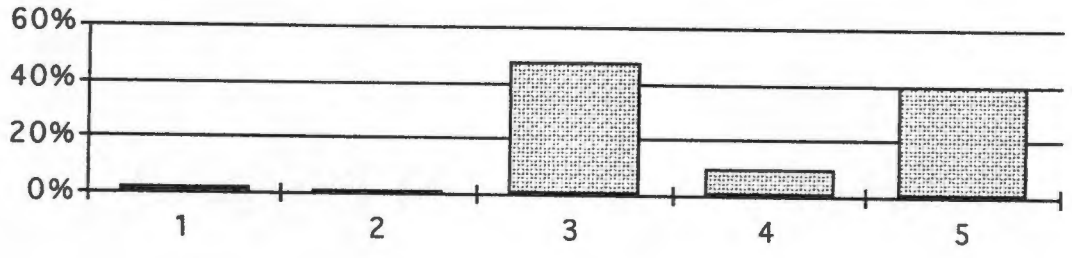
SD = 1.05
mean = 4.05

median = 4
mode = 5

9. Doctor Friendliness

Did you find the doctor / nurse practitioner more friendly at *pps* or are they more friendly at the clinic?

much more friendly at *pps*	slightly more friendly at *pps*	friendliness much the same	slightly more friendly at clinic	much more friendly at clinic
5 (2%)	2 (1%)	124 (47%)	26 (10%)	105 (40%)



response rate = 97%
corrected average = 2.86

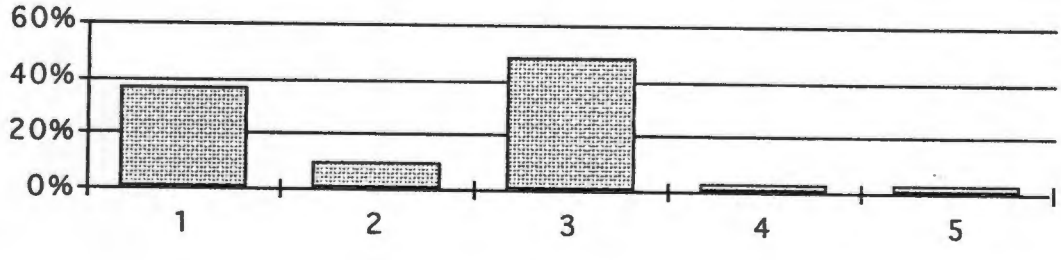
SD = 1.03
mean = 3.86

median = 3.5
mode = 3

10. Treatment Of Chronic Medical Conditions

do you think that the treatment you get for your chronic medical condition is better at the clinic, or was it better at *pps*?

much better treatment at clinic	slightly better treatment at clinic	much the same	slightly better treatment at *pps*	much better treatment at *pps*
97 (37%)	25 (10%)	127 (48%)	7 (3%)	7 (3%)



response rate = 97%
corrected average = 2.75

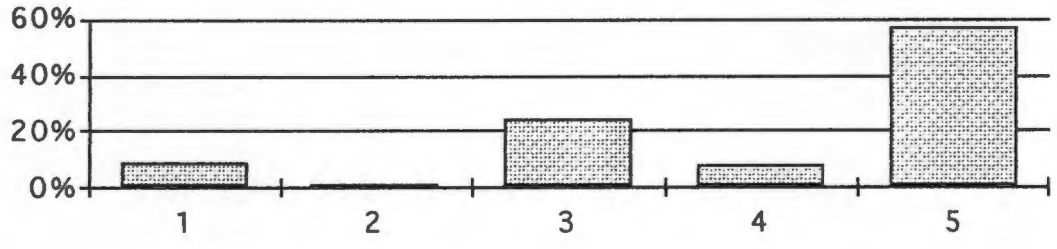
SD = 1.07
mean = 2.25

median = 3
mode = 3

11. Treatment Of Other Problems

If you had some other problem (e.g. 'flu or injury) did you get better treatment for that problem at *pps* or are other problems better treated at the clinic?

much better treatment at *pps*	slightly better treatment at *pps*	much the same	slightly better treatment at clinic	much better treatment at clinic
13 (9%)	2 (1%)	35 (24%)	12 (8%)	81 (57%)



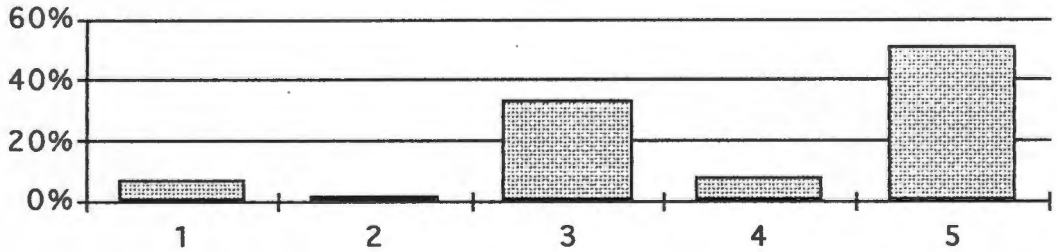
response rate = 53% SD = 1.30 median = 5

corrected average = 3.02 mean = 4.02 mode = 5

12. Time Spent With The Doctor

Did you get to spend more time with the doctor / nurse practitioner at *pps* or do you get to spend more time with the doctor / nurse practitioner at the clinic?

much more time at *pps*	slightly more time at *pps*	much the same time	slightly more time at clinic	much more time at clinic
17 (7%)	6 (2%)	86 (33%)	20 (8%)	132 (51%)



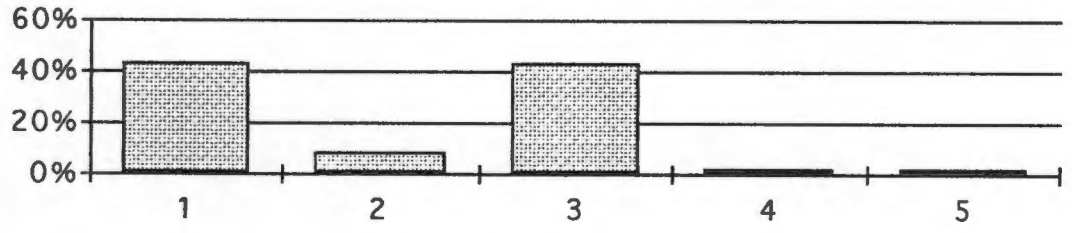
response rate = 96% SD = 1.23 median = 5

corrected average = 2.93 mean = 3.93 mode = 5

13. Answering Of Questions

Does the doctor / nurse practitioner answer your questions better at the clinic, or were they better answered at *pps*?

much better answers at clinic	slightly better answers at clinic	answers much the same	slightly better answers at *pps*	much better answers at *pps*
109 (43%)	22 (9%)	113 (44%)	8 (3%)	4 (2%)



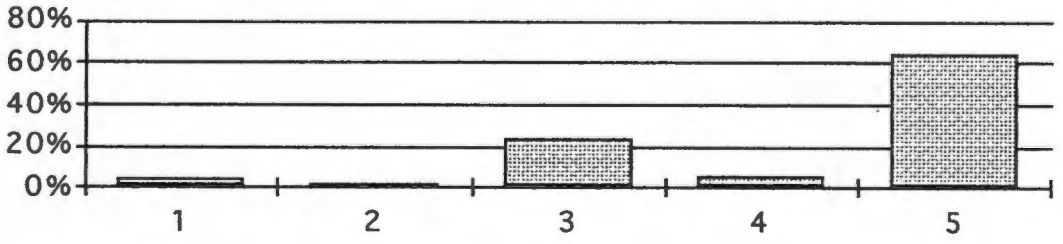
response rate = 94% SD = 1.06 median = 2

corrected average = 2.88 mean = 2.13 mode = 3

14. Service Provided

Overall do you think that *pps* provided a better service, or is the service better at the clinic?

much better service at *pps*	slightly better service at *pps*	service much the same	slightly better service at clinic	much better service at clinic
10 (4%)	3 (1%)	64 (24%)	17 (6%)	177 (65%)



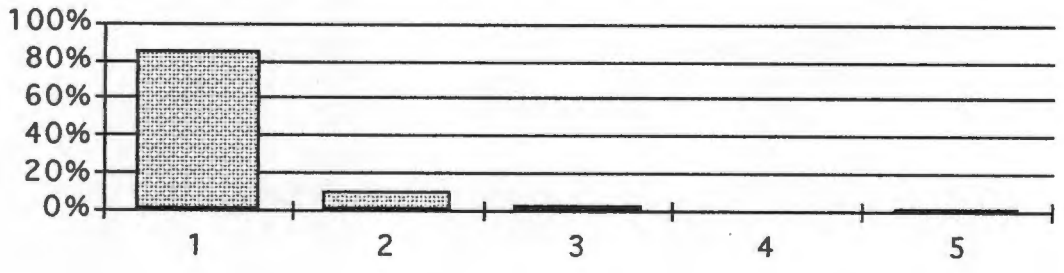
response rate = 100% SD = 1.09 median = 5

corrected average = 3.28 mean = 4.28 mode = 5

15. Preferred Provider

Do you prefer being under the care of the clinic or would you rather still be under the care of your *pps*?

much prefer being under clinic	prefer being under clinic	indifferent	preferred being under *pps*	much preferred being under *pps*
230 (85%)	28 (10%)	8 (3%)	1 (0%)	3 (1%)



response rate = 100% SD = 0.62 median = 1

corrected average = 3.78 mean = 1.22 mode = 1

Summary Table Of Answers In Ranking Of Corrected Average Score

	no. of answers	mean	SD	corrected average
Q1 - geographical access	271	1.03	0.21	3.97
Q3 - cost	268	1.09	0.37	3.91
Q7 - overall time taken	264	1.10	0.54	3.90
Q15 - preferred provider	270	1.21	0.62	3.78
Q4 - surroundings	271	4.61	0.84	3.61
Q6 - waiting for meds	267	4.31	1.21	3.31
Q14 - service	271	4.28	1.09	3.28
Q5 - waiting for doctor	256	1.79	1.21	3.21
Q2 - access to doctors	164	4.21	1.27	3.21
Q8 - nursing staff	271	4.05	1.05	3.05
Q11 - other treatment	143	4.02	1.30	3.02
Q12 - time with doctor	261	3.93	1.23	2.93
Q13 - answers	256	2.13	1.06	2.88
Q9 - doctor friendliness	262	3.86	1.03	2.86
Q10 - chronic treatment	263	2.25	1.07	2.75
average	251			3.31

4.1.3 Variation In Answers Of Demographic Groups

Chi square (X^2) testing was done to see if any of the demographic features recorded affected the answers given to a significant degree. I started by comparing all five answer categories plus the number of unanswered questions for each demographic group. I took a significant p-value to be $p < 0.01$. However, when a significant p-value was obtained I realised that by dealing with so many answer categories I was making it extremely difficult to isolate the area where the significance lay. Therefore, for those questions with a significant p-value, I combined the number of answers into groups of less then three, three and greater than three. The Chi-square test was then repeated and if the p-value remained significant, then each demographic group was compared to each of the other demographic groups separately to find where the significance lay. (Refer to the appendix on page 107 for an example of the statistical analysis done.)

There were no significant differences in answers by patients of different age groups, different gender groups or patients who had been under the clinic for different periods of time. Whether the client or escort answered the questions did not affect the answers significantly.

Education Levels

There was a significant difference in answers between the different education groups in question 15 - preferred service provider ($p << 0.001$). However, once the tertiary education group was removed because of its small numbers the difference disappeared ($p = 0.754$).

Employment

nursing staff attitudes (Q8) - Pensioners were more likely to rate nursing staff at the clinic as more helpful than the nursing staff at the previous place of service, compared to those who were employed ($p = 0.0004$).

Previous Place Of Service

For the purposes of analysis all day hospitals were grouped together and all hospitals were grouped together thus forming three groups - day hospitals, hospitals, GP. There were significant differences in answers to a number of the questions.

Access to clinic (Q1) - people who had previously attended a GP ($p << 0.001$) or hospital ($p = 0.008$) were more likely to rate the ease of getting to the clinic as similar to their previous place of service compared with those who had attended a day hospital. There was no significant difference in answers between those who had previously attended a GP and those who had previously attended a hospital ($p = 0.225$).

Access to doctors (Q2) - people who had previously attended a GP were more likely to answer that it was easier to see the doctor when it wasn't their appointment day at their previous place of service than those who had attended a day hospital ($p = 0.001$).

Waiting time for doctor (Q5) - people who had previously attended a GP were more likely to answer that they had to wait longer at the clinic to see the doctor than they had

had to wait at their previous place of service compared with those who had previously attended a day hospital ($p < 0.001$)

Waiting time for medication (Q6) - There was a very significant difference between patients who had previously attended a GP, who were more likely to say that the waiting time for medication at the clinic is much longer than at their previous place of service compared to patients who had attended a hospital ($p << 0.001$) or day hospital ($p << 0.001$)

Overall time taken (Q7) - there was a significant difference between people who had previously attended a GP, who found the overall time taken attending the clinic much longer than the overall time taken attending their previous place of service compared to people who had attended a hospital ($p << 0.001$) or day hospital ($p << 0.001$)

Service (Q14) - people who had previously attended a hospital were more likely to feel that the service at their previous place of service was better than the service at the clinic compared with those who had previously attended a day hospital ($p = 0.002$)

Preferred provider (Q15) - people who had previously attended a hospital ($p << 0.001$) or a G.P. ($p << 0.001$) were more likely to feel that they would prefer to be under the care of their previous place of service compared to those who had previously attended a day hospital.

Interviewers

	count	percentage
EG	113	42
IJ	90	33
JT	68	25
total	271	100

When the answers recorded by the different interviewers were compared there was a significant difference between answers for the following questions:

Waiting time for medication (Q6) - IJ was more likely to record that the waiting time for collecting medication was much the same or longer at the clinic than at the previous place of service compared to answers recorded by EG ($p = 0.0003$) and JT ($p = 0.0067$). There was no significant difference between answers recorded by JT and EG ($p = 0.109$).

Preferred provider (Q15) - overall this question had a significant p value ($p = 0.008$). However, when each interviewer was compared individually with each of the other interviewers the significance disappeared.

4.1.4 Open-Ended Questions

After being asked to rate the clinic care compared to the previous place of service for various aspects of service provision, patients were then asked what they liked best and least about the clinic service and their previous place of service. The interviewers were instructed to ask the questions but not to push for an answer if there was no spontaneous response. Many patients gave more than one answer.

When analysing the answers, answers with the same content were grouped together. The answers were then put into categories dealing with similar aspects of service provision. I was pleased to find that most of the answers could be put into the same categories of service provision that had been covered by the questionnaire.

What do you like best about the clinic?

No Comment (7)
no answer given - 7

Access (100)
It is convenient / nearby - 93
appointments are more convenient - 3
reception clerk friendly and considerate / flexible with appointments - 3
easy to see doctor - 1

Cost (16)
cheaper - 16

Surroundings (30)
the clinic is clean / tidy - 23
pleasant atmosphere - 3
clinic is attractive - 3
homeliness - 1

Waiting Times (32)
shorter waiting times - 28
short waiting times at the dispensary - 1
get helped quickly / easily - 3

Nursing Staff Attitudes (22)
nurses are friendly and helpful - 13
nurses/staff handle people better / speak well to people - 9

Doctors / Nurse Practitioner Attitudes (20)
doctors are friendly / caring / understanding - 15
doctors have time for you - 2
doctors answer your questions - 1
to see the doctor - 1
the doctors - 1

General Staff Attitudes (117)
staff are friendly / helpful - 111
understanding / caring / patience - 4
care about your illness - 1
pharmacist friendly - 1

Treatment (14)
treatment is good - 14

General (35)
service is good / better - 14
efficient - 4
not so many people - 1
good work is done - 1
reasonable / OK - 4
you can get everything at the clinic - 1
clinic is safe - 1
I like everything at the clinic / clinic is fantastic - 9

What do you like least about the clinic?

No Comment (216)
no answer given - 216

Access (6)
have to make an appointment - 2
difficult to see the doctor when it is not your appointment - 1
there are not always doctors present when you are sick - 1
if something happens I would like to be seen immediately e.g. diabetes- 1
need to get up early to see the doctor - 1

Cost (0)
no comments

Surroundings (7)
all the moving around inside the clinic - 1
toilet taps drip - 1
children should be to one side - it is too packed / noisy - 3
children are not controlled - 1
TB should be moved from the baby clinic - 1

Waiting Times (9)
waiting for doctors - 4
sometimes you have to wait long - 3
pharmacist is sometimes late - 1
long wait for medicines - 1

Other (1)
getting oxygen - 1

Nursing Staff Attitudes (1)
nurses are sometimes impatient - 1

Doctor Attitudes (4)
inconsiderate doctor / doctors - 2
doctor never examines me - 1
doctor should handle me better - 1

Staffing (9)
clinic should get more staff - 1
they should appoint more doctors / lack of doctors - 7
lack of nurses - 1

Facilities (22)
the clinic is too small - should be expanded for the people - 13
clinic should be better equipped / more facilities - 6
X-rays are needed - 1
clinic should be made into a day hospital - 1
clinic should give 24 hour service because Bonteheuwel does not have this - 1

General (4)
doctors should come earlier - 1
doctors should come in the morning, not the afternoon - 1
visits for adults should be earlier. Moslem Fridays preferably in the morning - 1
they should take the people who are more sick to see the doctor - 1

What did you like best about your previous place of service?

No Comment (206)
no comment made - 206

Access (7)
doctors always present - 3
they helped you without an appointment - 2
appointments - 1
*problems were attended to immediately - 1

Cost (0)
no comments were made

Surroundings (0)
no comments were made

Waiting Times (2)
got medicines quickly - 1
*problems were attended to immediately - 1

Nursing Staff Attitudes (3)
friendly nurses - 3

Doctors' Attitudes (18)
nice / friendly doctors - 16
doctors listen - 1
doctor answers questions - 1

Staff Attitudes (18)
friendly / helpful - 12
familiar staff / known for a long time - 2
treat people with respect - 1
concerned about peoples well-being - 1
sometimes the staff can be inconsiderate, but they are fine - 1
You can take your complaints to the Sister - 1

Treatment (11)
good treatment - 5
doctor examines - 4
dressing room gives good treatment - 1
the treatment is the same as at the clinic - 1

Facilities (13)
pps has more facilities / equipment - 6
day hospital is bigger - 5
there are more doctors - 1
everything is there - 1

General (5)
OK - 2
service is good - 2
efficient - 1

* comment fitted into more than one category

What did you like least about your previous place of service?

No Comment (101)
non comment - 101

Access (50)
travelling was far / inconvenient - 38
*travelling was expensive - 4
too far to walk - 1
inconvenient - 1
had to leave the house early - 1
it was unsafe (to walk) - 3
gangsterism in hospital - 2

Cost (11)
*travelling was expensive - 4
expensive - 7

Surroundings (19)
overcrowded - 13
the toilets are filthy / the bathroom is not clean - 3
place is dirty - 1
not pleasant - 1
people were noisy - 1

Waiting Times (108)
long waiting time - 74
long waiting time for medicines - 34

Nursing Staff Attitudes (8)
nurses are unfriendly / rude - 7
nurses are frustrated - 1

Doctors' Attitudes (6)
doctors are rude/ unfriendly / inconsiderate - 3
hassle with doctors - 1
certain doctors you don't like - 1
doctors - 1

Staff Attitudes (10)
staff are inconsiderate / rude / unfriendly - 6
staff don't know how to speak to people - 1
staff are too slow / careless - 2
staff are not as helpful - 1

Treatment (3)
give me wrong treatment - 1
treatment was not good - 1
the operations are scary - 1

General (3)
inefficient - 2
no routine - 1

Indecipherable Comments (3)
comments that could not be deciphered - 3

* comment fitted into more than one category

Any other comments?

No Comment (215)
no comment made - 215

Access (4)
clinic is very convenient - 2
having to make an appointment for the doctor is inconvenient - 1
small problem with appointments - especially for oxygen - 1

Surroundings (2)
doctors waiting room is too small because there are more patients now - 1
mothers with babies must be separate - 1

Waiting Times (1)
waiting for the doctor is inconvenient - 1

Facilities (29)
clinic should be expended to a day hospital / hospital - 11
clinic should be expanded - 13
trauma unit must be added - 1
need more facilities eg X-rays / therapy needed by other patients - 2
older children who get sick should also be treated at the clinic rather than having to take them to the hospital - 1
clinic should be open 24 hours - 1

Other (1)
I have a cataract in my eye -please ask doctor to give me a letter to have it removed - 1

Staff (8)
need more doctors - 5
there should be a social worker at the clinic - 1
staff should be more firm with demanding patients - 1
staff very helpful - 1

Doctor Availability / Treatment (6)
preferably doctors at night because other hospitals don't want to help eg asthma - 1
doctors should be available in the mornings - 1
doctor must examine you thoroughly, not just ask how it is going - 1
doctor should examine you every fourth month - 1
more time with patients - 1
doctors must also meet their appointments - eg must be there at 12h00 to handle appointments - 1

Dispensary (2)
give medicines out earlier - 1
people who are working would rather have the dispensary open earlier - 1

Service (10)
I'm very satisfied with the clinic / keep up the good work - 7
both the clinic and GSH are excellent - 1
this clinic is better than any other clinics - 1
try and better the clinic - 1

Summary Of The Issues And Number Of Comments Made By Patients About The Bonteheuwel Chronic Service

clinic best liked aspects	clinic least liked aspects	previous place best liked aspects	previous place least liked aspects
no comments - 7	no comments - 216	no comments - 206	no comments - 101
staff attitudes - 159 + 1	facilities - 22 + 29	staff attitudes - 39	waiting times - 108
access - 100 + 2	staff shortages - 9 + 6	facilities - 13	access - 46
service - 32 + 9	waiting times - 9 + 1	treatment - 11	staff attitudes - 24
waiting times - 32	surroundings - 7 + 2	access - 6	surroundings - 19
surroundings - 30	access - 6 + 2	service - 5	cost - 11
cost - 16	staff attitudes - 5 + 1	waiting times - 2	treatment - 3
treatment - 14	service - 4		service - 3

numbers following a plus sign relate to comments made when patients were asked if they wanted to make any further comments

Patient Priorities By Total Number Of Comments Made

Taking the total number of comments (positive and negative) made on each issue one can get a rough ranking of the aspects of the services that most concern patients. Issues and total number of comments are as follows:

- staff attitudes - 238
- access - 162
- waiting times - 152
- facilities - 64
- surroundings - 58
- service - 53
- treatment - 28
- cost - 27
- staff shortages - 15

4.2 Valhalla Park Clinic

Questionnaires were administered at all three chronic patient sessions in January 1997 to all patients who qualified for the study. Unfortunately only 43 questionnaires were completed in this time although the target number of questionnaires to be completed was 80. There were seven non-responders.

A retrospective look at the bookings for January 1997 showed that a total of 137 patients were booked for the month. The total number of patients registered at the clinic at this time was 181. This means that a total of 44 (24%) patients, although registered at the clinic, had stopped attending. A total of 64 patients with folder numbers less than 101 were booked for this period, leaving a drop-out rate of 36 (36%) for the eligible study population.

With 43 questionnaires completed and 7 patients excluded, a total of 50 out of 64 eligible patients were identified during the study period. Because of the system of calling patients to be interviewed at Valhalla Park Clinic as opposed to relying on patients to present for interview when requested as at Bonteheuwel Clinic, I do not believe that patients could have attended the clinic without being identified. It would seem that the other 14 patients booked did not attend that month, or attended at a time other than the chronic care sessions.

Exclusions

There were a total of seven exclusions. Reasons are as follows:

- escort who is not a regular attender came to collect medication - 6
- wife who is herself an eligible patient for the study also came to collect her husband's medication - 1

4.2.1 Demographics

Gender

	Study Population	Sample Population	Exclusions
	N = 100	n = 43	n = 7
male	32 (32%)	11 (26%)	3 (43%)
female	68 (68%)	32 (74%)	4 (57%)
unknown	0	0	0

There is clearly a higher proportion of females and a lower proportion of males in both the study and sample populations.

There is no significant difference between the gender distribution of the sample population group compared to the study population group ($p = 0.44$) or the exclusion group ($p = 0.35$).

Age Groups

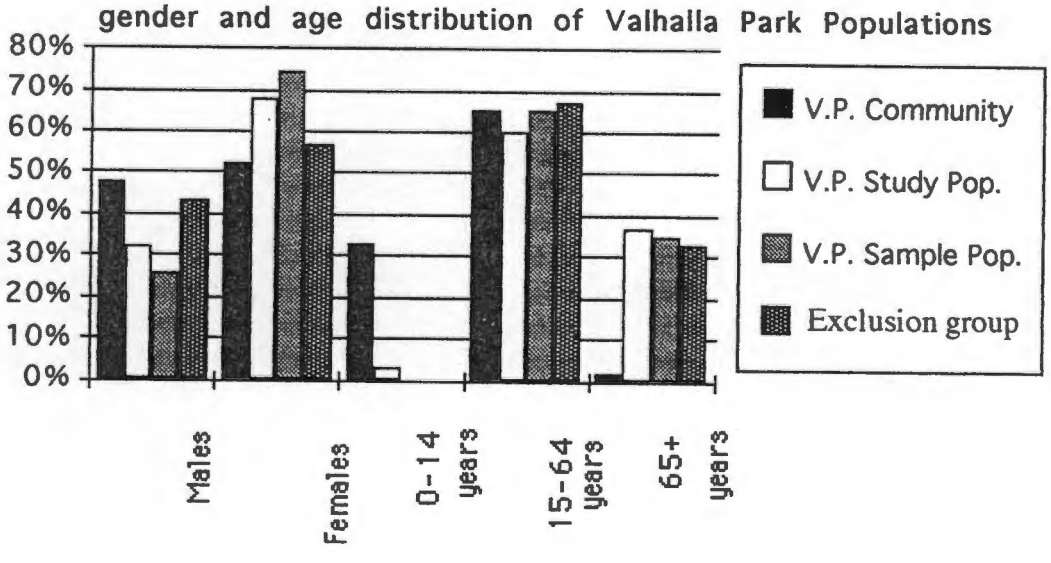
	Study Population	Sample Population	Exclusions
	N = 100	n = 43	n = 7
0 - 14 years	4 (4%)	0	0
15 - 64 years	58 (58%)	28 (65%)	4 (57%)
65+ years	37 (37%)	15 (35%)	2 (29%)
unknown	1 (1%)	0	1 (14%)

It is not surprising that the proportion of 0-14 year patients in the study and sample populations is much lower than that of the community, and the proportion of those over sixty-four years in the study and sample populations is much higher than that of the

sixty-four years in the study and sample populations is much higher than that of the community (1991 census). This reflects the increasing incidence of chronic diseases with increasing age.

Statistically there is no significant difference between the age groups of the sample and study populations ($p = 0.37$). The sample and exclusion populations were not compared because of unspecified data in the exclusion group.

The graph below is a graphic illustration of the age and gender distribution of the four different population groups - community population, study population, sample population and exclusion group.



Client / Escort Answering The Questionnaire

person interviewed	sample population	exclusions
	n = 43	n = 7
client	40 (93%)	0
escort	3 (7%)	7 (100%)
unspecified	0	0

The client was interviewed for the completion of 93% of the questionnaires. The exclusions were all escorts who were not regular attenders and were excluded on this basis. Statistically the two population groups differ dramatically ($p << 0.0001$).

Employment

employment status	sample population	exclusions
	n = 43	n = 7
employed	1 (2%)	1 (14%)
unemployed - looking	0	0
unemployed - not looking	10 (23%)	1 (14%)
pension / grant	29 (67%)	5 (71%)
unspecified	3 (7%)	0

The majority of the sample population (67%) rely on a pension or disability grant for their income. Only 2% of the sample population are employed with 23% unemployed and not looking for work.

There is no significant difference between the sample and exclusion groups ($p = 0.33$).

Duration Of Attendance At Clinic

admission date (time attending clinic)	sample population	exclusions
	n = 43	n = 7
May 94 - Sept 94 (27 - 31 months)	12 (28%)	0
Oct 94 - May 95 (19 - 26 months)	12 (28%)	2 (29%)
June 95 - Jan 96 (12 - 18 months)	19 (44%)	5 (71%)
unspecified	0	0

Surprisingly a lower proportion of patients in the sample population group were admitted to the clinic service as the service began, with an increase in admissions more recently. This may have been because of an initial resistance from the nearest day hospital (Bishop Lavis Day Hospital) to transfer patients to the clinic for care.

There was no significant difference between the admission dates of the sample and exclusion populations ($p = 0.24$).

Previous Place Of Service

previous place of service	sample population	exclusions
	n = 43	n = 7
Heideveld DH	7 (16%)	1 (14%)
Bishop Lavis DH	29 (67%)	3 (43%)
Other DH	1 (2%)	0
GSH	5 (12%)	0
Other Hosp	1 (2%)	1 (14%)
GP	0	0
unspecified	0	2 (29%)

Over three quarters of the patients in the sample population (85%) were previously under the care of a day hospital, most having come from the Bishop Lavis Day Hospital. The rest of the patients were referred from a hospital, most having come from Groote Schuur Hospital. None of the patients had previously been under the care of a G.P.

No comparison was made between the sample and exclusion groups because of the high proportion of previous place of service that is unknown for the exclusion group.

Education

education level	sample population	exclusions
	n = 43	n = 7
none	1 (2%)	0
primary	25 (58%)	3 (43%)
secondary	13 (30%)	1 (14%)
tertiary	0	0
unspecified	4 (9%)	3 (43%)

Over three quarters of patients in the sample population (88%) have had school level education, most having been to primary school only. Only 2% of the sample population had never had any education and no-one in the sample population had tertiary education.

No comparison was made between the sample population and the exclusion group because of the high proportion of unspecified education levels in the exclusion group.

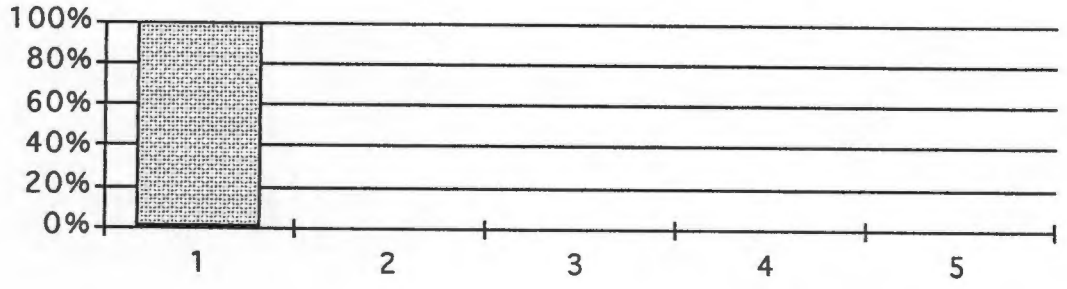
4.2.3 Answers To Questionnaire

The scoring of this section is the same as that used for the Bonteheuwel Clinic results.

1. Geographical Access

Do you find it easier to get to the clinic or was it easier to get to *pps*?

much easier to get to clinic	slightly easier to get to clinic	much the same	slightly easier to get to *pps*	much easier to get to *pps*
43 (100%)	0	0	0	0



response rate = 100%
corrected average = 4

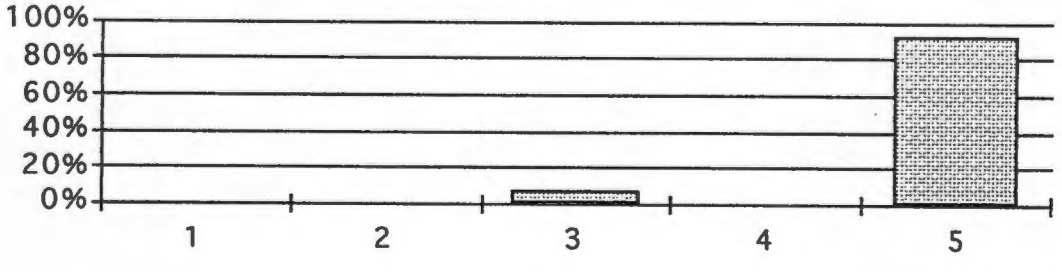
SD = 0
mean = 1

median = 1
mode = 1

2. Access To Doctors

Was it easier to see a doctor at *pps* when it was not your appointment day, or is it easier to see the doctor at the clinic when it is not your appointment day?

much easier at *pps*	slightly easier at *pps*	much the same	slightly easier at the clinic	much easier at the clinic
0	0	2 (14%)	0	12 (86%)



response rate = 30%
corrected average = 3.85

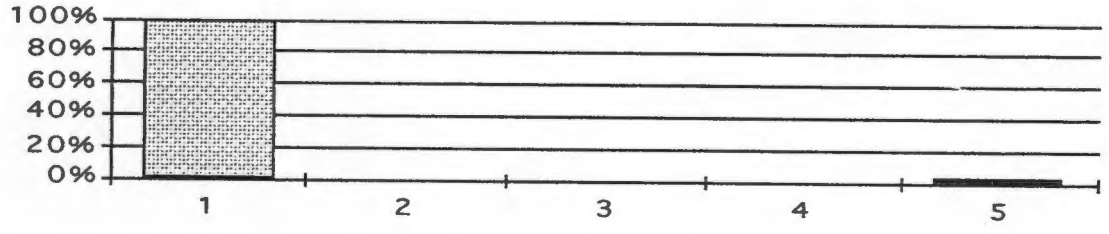
SD = 0.55
mean = 4.85

median = 5
mode = 5

3. Cost

Is it cheaper for you to get to the clinic or was it cheaper to get to *pps*?

much cheaper to get to clinic	slightly cheaper to get to clinic	much the same	slightly cheaper to get to *pps*	much cheaper to get to *pps*
42 (98%)	0	0	0	1 (2%)



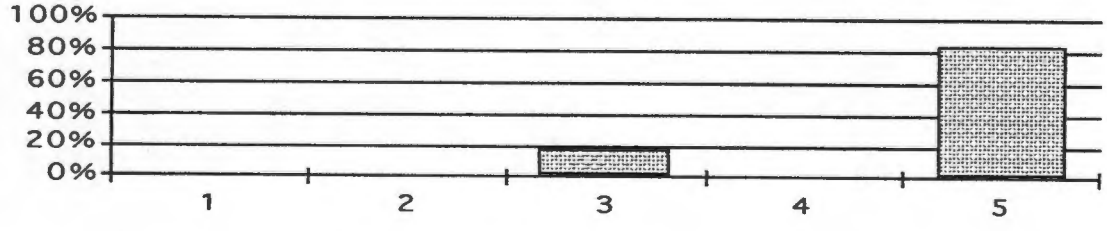
response rate = 100% SD = 0.61 median = 1

corrected average = 3.91 mean = 1.09 mode = 1

4. Pleasantness Of Surroundings

Did you find it more pleasant to wait at *pps* or do you find it more pleasant to wait at the clinic?

much more pleasant at *pps*	slightly more pleasant at *pps*	much the same	slightly more pleasant at clinic	much more pleasant at clinic
0	0	7 (17%)	0	35 (83%)



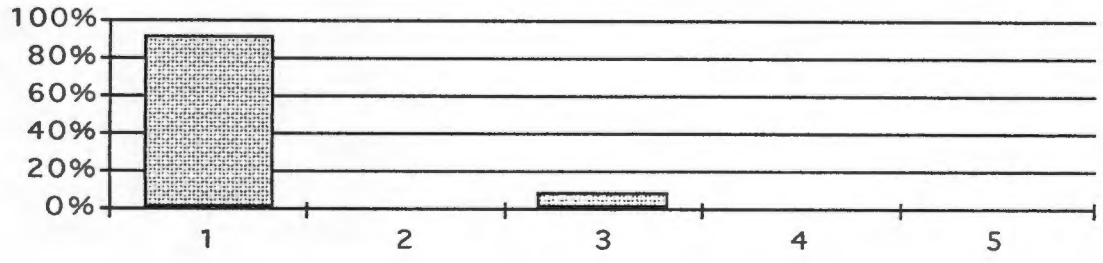
response rate = 98% SD = 0.75 median = 5

corrected average = 3.67 mean = 4.67 mode = 5

5. Waiting Times For Doctor

Did you have to wait longer at *pps* to see the doctor / nurse practitioner or do you wait longer at the clinic?

much longer at *pps*	slightly longer at *pps*	much the same	slightly longer at clinic	much longer at clinic
39 (91%)	0	4 (9%)	0	0



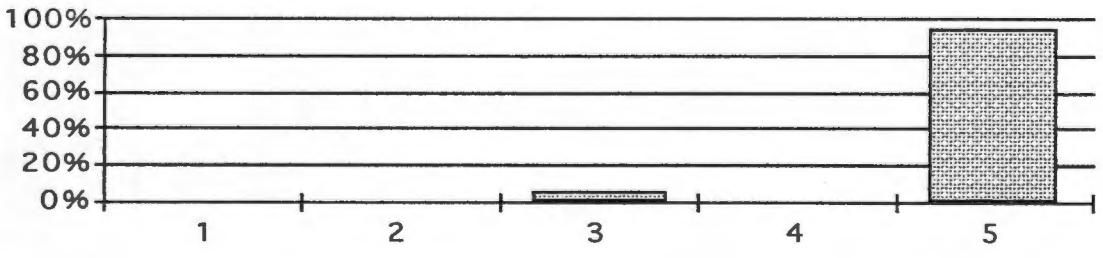
response rate = 100% SD = 0.59 median = 1

corrected average = 3.81 mean = 1.19 mode = 1

6. Waiting Times For Medication

Do you have to wait longer at the clinic to collect your medicines or did you wait longer at *pps*??

much longer at clinic	slightly longer at clinic	much the same	slightly longer at *pps*	much longer at *pps*
0	0	2 (5%)	0	43 (95%)



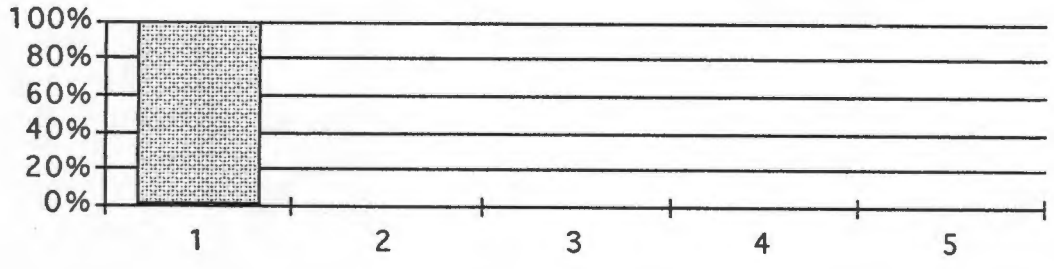
response rate = 100% SD = 0.43 median = 5

corrected average = 3.91 mean = 4.91 mode = 5

7. Overall Time Taken

Was the total time that you spent from leaving home to getting home again longer when you attended *pps* or is it longer now that you attend the clinic?

much longer attending *pps*	slightly longer attending *pps*	much the same	slightly longer attending clinic	much longer attending clinic
43 (100%)	0	0	0	0

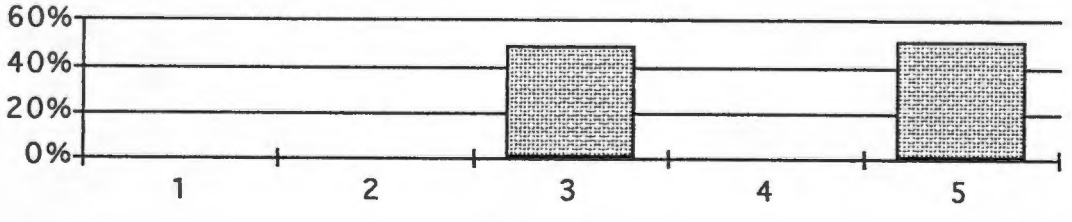


response rate = 100%
SD = 0
median = 1
corrected average = 4
mean = 1
mode = 1

8. Nursing Staff Attitudes

Do you find the nursing staff more helpful at the clinic, or were they more helpful at *pps*?

much more helpful at *pps*	slightly more helpful at *pps*	much the same	slightly more helpful at clinic	much more helpful at clinic
0	0	21 (49%)	0	22 (51%)

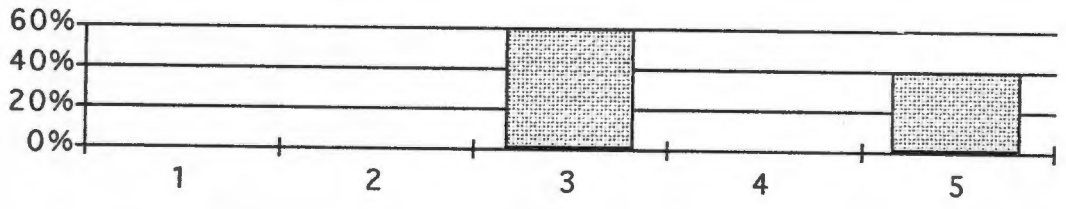


response rate = 100%
SD = 1.01
median = 5
corrected average = 3.02
mean = 4.02
mode = 5

9. Doctor Friendliness

Did you find the doctor / nurse practitioner more friendly at *pps* or are they more friendly at the clinic?

much more friendly at *pps*	slightly more friendly at *pps*	friendliness much the same	slightly more friendly at clinic	much more friendly at clinic
0	0	26 (60%)	0	17 (40%)



response rate = 100%
corrected average = 2.79

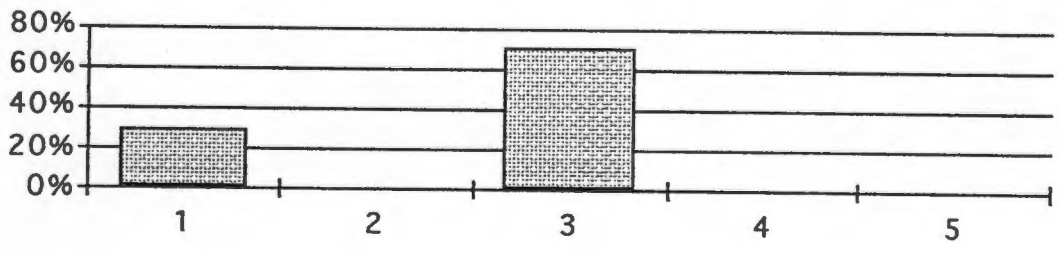
SD = 0.99
mean = 3.79

median = 3
mode = 3

10. Treatment Of Chronic Medical Conditions

do you think that the treatment you get for your chronic medical condition is better at the clinic, or was it better at *pps*?

much better treatment at clinic	slightly better treatment at clinic	much the same	slightly better treatment at *pps*	much better treatment at *pps*
13 (30%)	0	30 (70%)	0	0



response rate = 100%
corrected average = 2.60

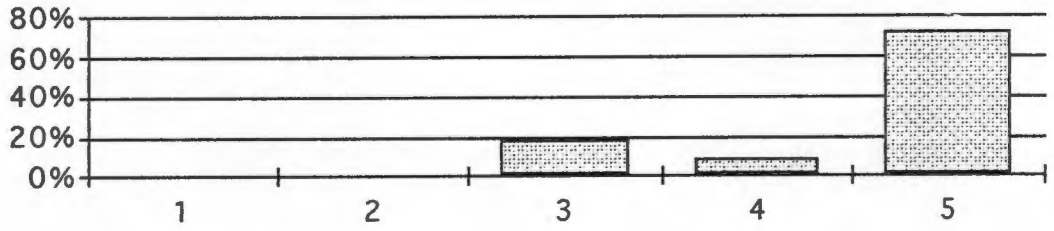
SD = 0.93
mean = 2.40

median = 3
mode = 3

11. Treatment Of Other Problems

If you had some other problem (e.g. 'flu or injury) did you get better treatment for that problem at *pps* or are other problems better treated at the clinic?

much better treatment at *pps*	slightly better treatment at *pps*	much the same	slightly better treatment at clinic	much better treatment at clinic
0	0	2 (18%)	1 (9%)	8 (73%)



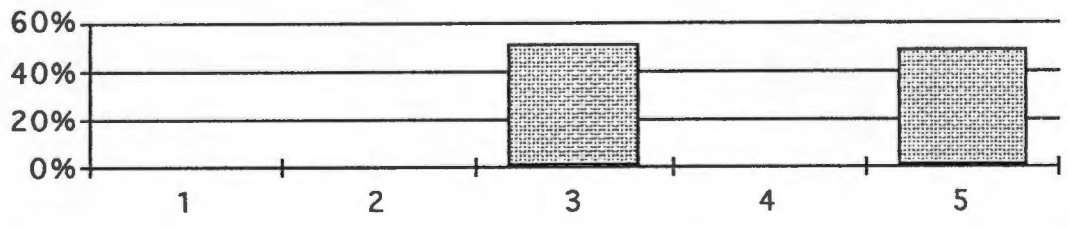
response rate = 26% SD = 0.82 median = 5

corrected average = 3.55 mean = 4.55 mode = 5

12. Time Spent With The Doctor

Did you get to spend more time with the doctor / nurse practitioner at *pps* or do you get to spend more time with the doctor / nurse practitioner at the clinic?

much more time at *pps*	slightly more time at *pps*	much the same time	slightly more time at clinic	much more time at clinic
0	0	22 (51%)	0	21 (49%)



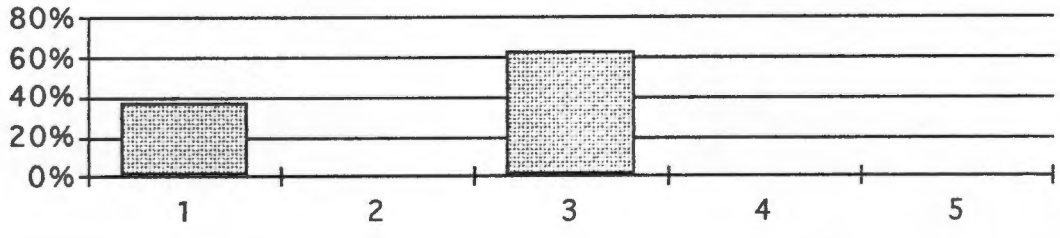
response rate = 100% SD = 1.01 median = 3

corrected average = 2.98 mean = 3.98 mode = 3

13. Answering Of Questions

Does the doctor / nurse practitioner answer your questions better at the clinic, or were they better answered at *pps*?

much better answers at clinic	slightly better answers at clinic	answers much the same	slightly better answers at *pps*	much better answers at *pps*
16 (37%)	0	27 (63%)	0	0



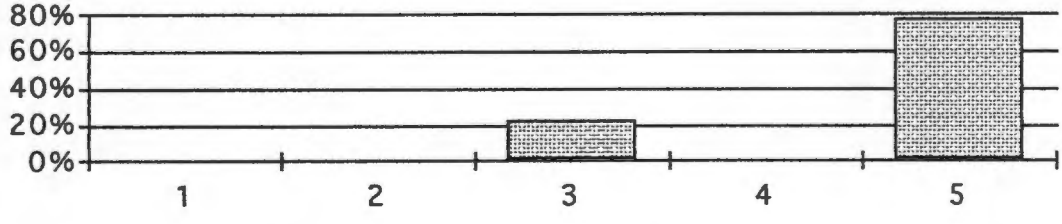
response rate = 100% SD = 0.98 median = 3

corrected average = 2.74 mean = 2.26 mode = 3

14. Service Provided

Overall do you think that *pps* provided a better service, or is the service better at the clinic?

much better service at *pps*	slightly better service at *pps*	service much the same	slightly better service at clinic	much better service at clinic
0	0	10 (23%)	0	33 (77%)



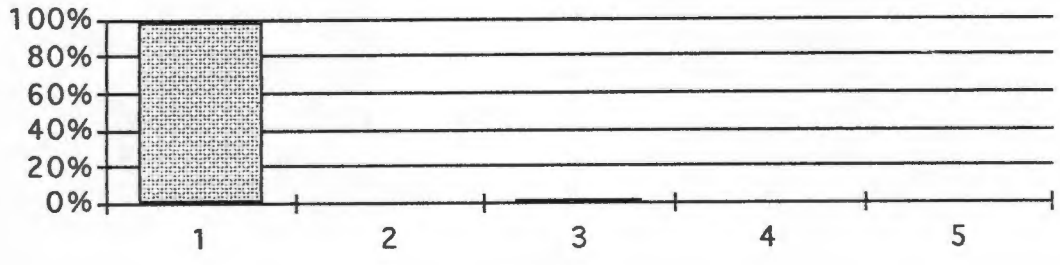
response rate = 100% SD = 0.85 median = 5

corrected average = 3.53 mean = 4.53 mode = 5

15. Preferred Provider

Do you prefer being under the care of the clinic or would you rather still be under the care of your *pps*?

much prefer being under clinic	prefer being under clinic	indifferent	preferred being under *pps*	much preferred being under *pps*
42 (98%)	0	1 (2%)	0	0



response rate = 100% SD = 0.31 median = 1

corrected average = 3.95 mean = 1.05 mode = 1

Summary Table of Answers in Ranking of Corrected Average Score

	no. of answers	mean	SD	corrected average
Q7 - overall time taken	43	1.00	0	4.00
Q1 - geographical access	43	1.00	0	4.00
Q15 - preferred provider	43	1.05	0.31	3.95
Q6 - waiting for meds	43	4.91	0.43	3.91
Q3 - cost	43	1.09	0.61	3.91
Q2 - access to doctors	13	4.85	0.55	3.85
Q5 - waiting for doctor	43	1.19	0.59	3.81
Q4 - surroundings	42	4.67	0.75	3.67
Q11 - other treatment	11	4.55	0.82	3.55
Q14 - service	43	4.53	0.85	3.53
Q8 - nursing staff	43	4.02	1.01	3.02
Q12 - time with doctor	43	3.98	1.01	2.98
Q9 - doctor friendliness	43	3.79	0.99	2.79
Q13 - answers	43	2.26	0.98	2.74
Q10 - chronic treatment	43	2.40	0.93	2.60
average	39			3.49

4.2.5 Variation In Answers Of Demographic Groups

Chi square testing was done to compare the answers given in the different demographic groups to see if the demographic group affected the answers given. See results of Bonteheuwel Clinic for details. A significant level was taken to be $p < 0.01$.

Gender, age, education, employment, admission date, previous place of service or whether the questionnaire was administered to the client or escort did not affect answers given to a significant degree.

4.2.6 Open-Ended Questions

Patients were asked what they liked best and least about the clinic service and about their previous place of service. The interviewer was instructed not to press for an answer, but rather to allow for spontaneous answers. Patients were also given an opportunity to make any other comments at the end.

Answers to what patients liked best and least about the clinic and their previous place of service are listed in the tables overleaf.

What do you like best about the clinic?

No Comment (1)
no answer given - 1

Access (3)
convenient - 1
never send you away - 1
appointments are made earlier if I have a problem - 1

Cost (0)
no comments on cost

Surroundings (13)
clinic is neat and tidy - 9
clinic is not overcrowded - 1
I feel at home at the clinic - 2
toilets are clean - 1

Waiting Times (5)
I save a lot of time - 4
*nurses help me quickly if I have a problem - 1

Nursing Staff Attitudes (4)
nurses are friendly / considerate - 3
*nurses help me quickly if I have a problem - 1

Doctors' Attitudes (3)
doctors are considerate - 1
doctors examine you properly - 2

Staff Attitudes (34)
staff are friendly / helpful / interested - 33
staff has more time for you - 1

Treatment (4)
treatment is good - 3
clear answers are given - 1

General (1)
service is fantastic - 1

* comment fitted into more than one category

What do you like least about the clinic?

No Comment (41)
no answer given - 41

Surroundings (1)
toilets are sometimes dirty - 1

Facilities (1)
they should get extra machines - 1

What did you like best about your previous place of service?

No Comment (41)
no answer given - 41

Staff Attitudes (1)
friendly at hospital - 1

General (1)
there are no complaints - 1

What did you like least about your previous place of service?

No Comment (11)
no answer given - 11

Access (2)
you have to get up early - 1
they are very short with you at reception - 1

Cost (1)
travel costs are high - 1

Surroundings (1)
too overcrowded - 1

Waiting Times (25)
long waiting times - 20
long waiting time at dispensary -5

Staff Attitudes (5)
doctors and nurses were inconsiderate - 1
staff can be very rude at times - 1
no empathy with your illness - 1
don't always help you as they should - 1
staff's friends are helped before you - 1

Treatment (2)
the treatment was not good - 1
they do not examine you properly - 1

Facilities (1)
there is a lack of facilities - 1

Do you want to make any other comments?

No Comment (38)
no answer given - 38

Staff Attitudes (1)
everyone is friendly - 1

General (4)
get another clinic in Valhalla Park - 1
continue with your excellent service - 3

Summary Of The Issues And Number Of Comments Made By Patients About The Valhalla Park Chronic Service

clinic best liked aspects	clinic least liked aspects	previous place best liked aspects	previous place least liked aspects
no comments - 1	no comments - 41	no comments - 41	no comments - 11
staff attitudes - 41 + 1	facilities - 1 + 1	staff attitudes - 1	waiting times - 25
surroundings - 13	surroundings - 1	general - 1	staff attitudes - 5
waiting times - 5			access - 2
treatment - 4			treatment - 2
service - 1 + 3			surroundings - 1
access - 3			cost - 1
			facilities - 1

numbers following a plus sign relate to comments made when patients were asked if they wanted to make any further comments

Patient Priorities By Total Number Of Comments Made

Taking the total number of comments (positive and negative) made on each issue one can get a rough ranking of the aspects of the services that most concern patients. Issues and total number of comments are as follows:

- staff attitudes - 48
- waiting times - 30
- surroundings - 15
- treatment - 6
- access - 5
- service - 4
- facilities - 3
- cost - 1
- general - 1

Chapter Five - Discussion

Chapter Five - Discussion

5.1 Strengths And Limitations Of The Study

5.1.1 Issues Around The Interviewer-Administered Questionnaire

There is no standardised, widely used and accepted questionnaire for measuring patient satisfaction. [15] Formulating my own questionnaire specific to the chronic care clinics was therefore an obvious and legitimate option. I believe that developing a questionnaire in the form of a comparative questionnaire has resulted in more useful and interesting results.

Using an interviewer to administer the questionnaire may have resulted in a higher level of satisfaction being recorded, [35] but also resulted in a high response rate. My impression was that many patients enjoyed being interviewed and appreciated the opportunity to express their opinions.

Training interviewers from the community may have been an advantage over using professional interviewers, as they were interested in the patients and highly motivated to do a good job. There was a significant difference in answers between interviewers in only one question, showing a general high agreement in answers between interviewers.

I found training the interviewers a stressful experience having had no prior experience of this, but it was an essential step towards preparing them for the job. Reviewing the completed questionnaires the same day and giving feedback to the interviewers was also essential for ironing out difficulties and maintaining standards. With hindsight all I would change would be to add role-play into the training session.

The clinic was clearly the most practical venue for administering the questionnaires, but I had concerns about whether using the clinic would introduce bias. I was pleased to find that there is support in the literature that the location of completing the questionnaire does not seem to influence answers to a significant degree. [17, 18]

I felt it was important that patients were interviewed whilst they were waiting for the doctor or medication so that overall waiting time was not affected. We managed to do this for the vast majority of the patients, but the flow from the dispensary to the interview area at both clinics was not ideal, and may have resulted in a few patients being "missed". Under similar circumstances I would try and have a separate person to escort patients to the interview area to encourage an easier flow, and to ensure that all eligible patients are recorded.

5.1.2 Study And Sample Populations

One of the strengths of the study was that the sizes of the sample populations were calculated by a statistician before data collection began, and the required number of questionnaires was completed at Bonteheuwel clinic. However, the target number of questionnaires was not completed at Valhalla Park Clinic due to a higher non-attender rate than I had anticipated.

As the survey progressed, I realised that a fair proportion of the patients registered with the clinic had defaulted from follow-up. The sample population in the study consisted of patients attending the clinic as opposed to patients registered with the clinic. For a more accurate assessment of patient satisfaction patients not attending the clinic would need to be interviewed, as their staying away from the clinic might be due to dissatisfaction with the service. This would be an interesting area of further study.

5.2 Results

There are many similarities between the results from Bonteheuwel Clinic and Valhalla Park Clinic. Because the target number of questionnaires was not completed at Valhalla Park Clinic and the results cannot be assumed to be representative of the Valhalla Park study population, the results are discussed in terms of the results from Bonteheuwel Clinic, with reference to the findings at Valhalla Park Clinic where they differ markedly from the findings at Bonteheuwel Clinic.

5.2.1 Demographics

There was a close match between the demographic profiles (age and gender) of the study and sample populations which supports the hypothesis that interviewing patients as they arrived at the clinic would result in a random, representative sample of the study population. The high proprotion of women compared to men found in the sample population is similar to the findings at a Leeds Rheumatology clinic [16] (52 out of 70 patients were female) and the chronic care clinics at the De Witt Army Hospital in Virginia [34] (66% of the patients were female).

The exclusion and non-responder population also matched the sample population in the demographic features that could be compared (gender, admission date) showing that this population did not differ from the sample population significantly, and should thus not have resulted in any bias in answers.

5.2.2 Corrected Average Scores

Looking at the corrected average scores, all the scores are greater than two. This shows that for all issues dealt with in the questionnaire patients feel that the clinic "performs" positively compared to their previous place of service. These results are highly positive in favour of the clinic service and need to be interpreted with the knowledge that patient satisfaction studies generally elicit highly positive responses, [1, 19] and that oral administration of the questionnaire may produce a higher overall level of satisfaction with the clinic. [35]

The Five Aspects Of The Service That Patients Felt Were Most Improved

The three issues that patients at Bonteheuwel Clinic felt differed most positively from their previous place of service are geographical access, cost and overall time taken. All three of these issues are related to the fact that the clinic is situated within the community allowing for easy access, decreased transport costs and decreased travelling time and thus overall time (although waiting times at the clinic would also affect overall time taken). These three issues also had the lowest standard deviation scores showing high agreement between patients on these issues.

The fourth highest corrected average score at Bonteheuwel Clinic was for preferred provider, with the vast majority of patients preferring to remain under the care of the clinic. This result confirms my belief that the clinic is providing a valuable and appreciated service for the community, and that other communities may benefit from a similar service.

The fifth highest corrected average score at Bonteheuwel Clinic was for surroundings. From comments made in the open-ended section of the questionnaire it would seem that patients appreciate the fact that the clinic is kept clean and tidy, and that it is not as overcrowded as other services. Another aspect of pleasantness of the surroundings has to do with overcrowding. Patients commented on the unpleasantness of continual noise, especially if children were also present and not well controlled.

The Valhalla Park patients ranked decreased waiting times rather than pleasantness of surroundings in the five most improved aspects of the service. Waiting times at Valhalla Park Clinic are shorter because of smaller patient numbers at the chronic sessions.

The Five Aspects Of The Service That Patients Felt Were Least Improved

Although they were still more satisfied, patients found least improvement in the treatment given for their chronic medical condition. There was also not much improvement with regard to the friendliness of the doctor, having questions answered, time spent with the doctor and treatment of other medical problems. These aspects of care can all be related to the technical and communication skills of the doctor. The literature review suggests that patients tend to rate satisfaction with technical aspects of care the highest, [15, 16, 26, 27] and that communication is an important and ongoing factor in the management of chronic diseases. [22]

The biomedical training of doctors is of a high standard and similar nature throughout South Africa, and therefore one could expect there to be minimal differences between doctors from service to service. It is also possible that patients assume doctors are all the same and are thus less critical of this aspect of the service.

The issue of treatment for other medical conditions does not appear in the Valhalla Park Clinic lowest five corrected average scores, but is replaced by the issue of nursing staff attitudes. It is my impression from working at the clinics that staff stress levels at Valhalla Park Clinic are higher than those at Bonteheuwel Clinic, which has an impact on nursing staff attitudes.

The Aspects Of The Service That Had The Lowest Response Rates

Of interest are the two issues that had the lowest response rates. The question of availability of the doctor at times other than the appointment date had the second lowest response rate. This low response rate indicates that either many patients have never needed to see the doctor on a non-appointment day, or that patients were not able to understand the question.

At Bonteheuwel Clinic the patients who did answer this question gave mixed responses (second highest standard deviation score) although overall it would seem that most patients feel that it is easier to see the doctor at the clinic on a non-appointment day compared to their previous place of service. Judging from the comments made when the open-ended questions were asked it would seem that patients fall into two groups around this issue. Some patients find it more convenient to speak to the clerk and make an appointment to see the doctor at the clinic, whilst other patients find it more convenient not to have to make an appointment, but would rather know that a doctor is available daily and that as long as they go early and are prepared to wait they will be seen that day.

The question dealing with the treatment of other (acute) medical problems had the lowest response rate. Having worked at the clinics I find it hard to believe that nearly half of the patients did not answer this question because they have never needed to have any other medical problems dealt with, although for a portion of these patients it may be the case.

I believe the poor response rate here may be due to patients being unable to separate what treatment is for their chronic medical condition and what is for other medical conditions, and therefore being unable to understand the question properly. The hypothesis that patients may not have fully understood the question is indirectly supported by the fact that this question scored the highest standard deviation score at Bonteheuwel Clinic showing a high degree of variation in the answers.

If this hypothesis is correct then it is important for doctors to be aware that patients may have difficulty differentiating between their chronic and other medical conditions, because I believe it is an area that can lead to frustration and miscommunication between doctors and patients. Doctors can be very quick to see what is related to the chronic medical condition (and is thus part of their job for that chronic session) and what is not related to the chronic condition (and can thus be ignored or referred to a curative clinic). Patients, of course, can be very unhappy with this kind of fragmented treatment.

5.2.3 Patients' Comments

I find the response rates to the open-ended questions interesting. It seems that nearly all patients found it easy to comment on what they liked best about the clinic service and about half had a comment to make about the what they liked least about their previous place of service. Patients seemed to have difficulty finding something to say about the

least liked aspect of the clinic or best liked aspect of their previous place of service. Whilst this may have been influenced by the study being done at the clinic, it seems to reflect a very positive attitude by patients towards the clinic.

Looking at patients' comments about the clinic and their previous place of service one can get an idea of patient-issues that need to be responded to. If one assumes that the frequency with which a topic came up is an indication of how important that topic is to patients, then a ranking of patient issues can be obtained.

Staff attitudes topped the list at both Bonteheuwel and Valhalla Park Clinics. I believe that this reflects the importance of the human element in any health care service. First and foremost patients are people, and personal interactions are taken to heart. No matter how good the biomedical service is, if patients are not treated with friendliness and respect their personal impression will be of a service that does not care for their well-being. With the overwhelming number of positive compared to negative comments about staff attitudes at Bonteheuwel Clinic, there appears to be a high appreciation of staff attitudes at the clinic.

Access was the next most commonly commented on topic at Bonteheuwel Clinic. This is not surprising as one of the advantages and purposes of decentralising primary health care is so that primary health care will be more accessible to communities. It is gratifying to see the patients' appreciation of the easier geographical access.

Another aspect of access is the patient's ability to be seen on a non-appointment day. Here the comments indicate that patients are divided on the issue. Some patients are very positive about the appointment system and the flexibility of the admission clerk, whilst a few dislike the appointment system and feel that the best thing about their previous place

of service was that doctors were always present and they could attend any day they pleased. The lack of a doctor being available at the clinic on a daily basis obviously affects access, but judging by the comments this is an issue for only a few patients.

Waiting times was also an aspect of care much commented on. The literature review suggests that waiting times may be the aspect of service provision that causes the most dissatisfaction. [16] The multitude of comments about long waiting times at the previous place of service reflects the overcrowding of public health facilities in the Western Cape. Generally the clinic seems to be viewed favourably in terms of waiting times, probably because of the ability to control numbers through the appointment system and new patients not being accepted to the service unless they can be accommodated.

Although some patients spontaneously mentioned lack of facilities at the clinic and the better facilities at their previous place of service, it is my impression that referrals because of a lack of facilities at the clinic are rare. Overall these clinics now cater for children under six, patients with chronic medical conditions, patients with TB or STD's and patients for family planning. Only adults and older children with acute medical conditions are not catered for and need to travel to one of the nearby day hospitals for curative services. However, the acquisition of their own day hospital has long been an item on the agenda of the Bonteheuwel community, and this is reflected by the many patients attending the clinic who seem to feel that the clinic service needs to be expanded further.

Patients were mostly positive about service and treatment issues at the clinic. One of the concerns about decentralising care is that a small local clinic may not be able to cope with curative medicine except on the most basic level. It would appear that although patients

have concerns about the lack of facilities, they feel that the service and treatment at clinic level is good.

Some patients seemed to appreciate the lower cost of care at the clinic. Although health care is now free at a primary health care level, transport costs may be significant for some patients, impacting on their ability to access health care.

Staff shortages at Bonteheuwel Clinic was a problem identified by fifteen patients. With the restructuring of the Local Authorities it has not been possible to fill vacant posts or create new posts. The issue of staff numbers is something that will need to be assessed by the new Tygerberg Municipality created on July 1, 1997.

5.2.4 Variation In Answers Of Demographic Groups

Consistent with the findings in the literature review, [9, 13, 30] none of the demographic data (age, gender, education, employment) consistently affected answers to a significant degree at either Bonteheuwel or Valhalla Park Clinics.

At Bonteheuwel clinic the previous place of service was the only factor that consistently affected the answers to a significant degree. Being referred by a G.P. seemed to be most likely to affect answers significantly. It influenced answers about ease of access to the clinic, access to doctors, waiting time for doctors and medication, overall time taken and preferred provider. The G.P. service compared more favourably with the clinic service in these areas, compared to the day hospital or hospital services.

I believe that this may be due to the decentralised nature of the G.P. service, which gives advantages in terms of access, waiting times and overall time taken, which in turn influences the preference of the provider. However, it needs to be borne in mind that the sample referred from G.P.'s was small and that this may influence the validity of the results.

Being referred from a hospital also affected answers in terms of access to the clinic and the service provided. It is not easy to explain why patients who had previously attended a hospital were more likely to answer that the ease of getting to the clinic was much the same as getting to the hospital, except for those patients referred from Princess Alice Orthopaedic Hospital where transport is arranged for patients. Patients referred from a hospital possibly feel that the service at the hospital was better than at the clinic, because of the greater number of facilities, investigations, specialists etc. available at a hospital level.

Previous place of service did not significantly affect the answers given at Valhalla Park Clinic, possibly because of the smaller numbers and the fact that none of the patients had been referred by a G.P.

5.3 Conclusions And Recommendations

Decentralising the care of patients with chronic medical conditions in Bonteheuwel and Valhalla Park to a local clinic level, has resulted in increased patient satisfaction.

According to patients the clinic performs very well compared to other services in the following areas:

- geographical access
- cost
- overall time taken from leaving home to getting home again
- preferred provider of care
- surroundings
- waiting times for medication
- service provided
- waiting times for doctors
- access to doctors.

Patients did not feel that there was much difference between the new clinic service and the previous place of service in the following areas:

- nursing staff attitudes
- treatment of other medical conditions
- time spent with the doctor
- answers to questions
- friendliness of the doctor
- treatment of the chronic medical condition.

Patients had the following areas of concern about the clinic service:

- the lack of facilities
- the need for expansion
- staff shortages

- appointment system disliked by some patients
- waiting time, especially for medication, is sometimes long
- staff are sometimes impatient or inconsiderate.

The following areas would possibly benefit from further study:

- the number of patients registered at the chronic clinic who no longer attend for follow-up, their reasons for not attending and their satisfaction with the chronic clinic service
- fragmentation of care: concomitant use of other health facilities by patients registered at the chronic clinic, and the reasons for using other services
- ability of decentralised chronic service to practice comprehensive medical care: number of, and reasons for, referrals from the chronic clinic to other services.

The study indicates that the clinic service for the follow up of patients with chronic medical conditions is much appreciated by patients - 95% of patients at Bonteheuwel Clinic and 98% of patients at Valhalla Park Clinic prefer being under the clinic service rather than their previous place of service.

With the current restructuring of the health care services into districts, the present health services are being assessed for adequacy. Knowing that the health budget has been cut in the Western Cape and that there is no money available to build new day hospitals, and knowing that the present day hospital services are overloaded and often not able to cope with the number of patients who wish to be seen, an alternative plan needs to be devised for coping with present patient numbers. Patients with chronic medical conditions require a lot in terms of resources because of the need for monthly, and often costly,

medication, as well as the need for frequent doctor appointments and investigations. Because these patients are often elderly and have diseases that affect mobility (arthritis, stroke), access to the day hospitals can be difficult.

As a result of this study I believe that expanding the local clinic to accommodate patients with chronic medical conditions would increase the satisfaction of those patients, and for some communities would be a creative step towards equitable and accessible primary health care.

List Of Appendices

Comparative Questionnaire Introduction:

The service for the follow-up and treatment of people with chronic medical conditions provided for you at this clinic is only provided at the Bonteheuwel and Valhalla Park clinics. We want to find out if a similar service should be offered at other clinics.

To help us decide we would like to find out what *you* think about the clinic service. We are going to ask you to think back to the place where you got your treatment before and compare it with the clinic service and tell us what aspects you think are better, worse or the same.

Think carefully - don't tell us what you think we want to hear - give us your honest opinion!

Vraelys Inleiding:

Die diens vir opvolg van chroniese mediese probleeme wat ons vir jou by die kliniek lewer, is net by Bonteheuwel en Valhalla Park se klinieke gelewer. Ons wil uitvind of 'n gelykesoortige diens aangebied moet word by ander klinieke.

Om ons te help besluit ons wil uitvind wat *jy* dink van die diens wat ons lewer. Ons wil he dat jy moet terug dink aan die plek waar jy voor jou behandeling gekry het en dit verlgeyk met die diens wat ons by die kliniek lewer, en vir ons se wat is beter, erger of die selfde tussen die twee diense.

Dink hard - moenie vir ons se wat jy dink ons wil hoor nie - gee vir ons jou eerlike gevoelens!

Abbreviations:

M - male; F - female
N - none; P - primary school; S - secondary school; T - tertiary
U - unemployed not looking for a job; L - unemployed but looking for a job; E - employed; P - pension or grant
B - Bonteheuwel clinic; V - Valhalla Park clinic
C - client; E - escort

10. Do you think that the treatment you get for your chronic medical condition is better at the clinic, or was it better at *pps*?

much better treatment at clinic	slightly better treatment at clinic	much the same	slightly better treatment at *pps*	much better treatment at *pps*

11. If you had some other problem (e.g. 'flu or injury) did you get better treatment for that problem at *pps* or are other problems better treated at the clinic?

much better treatment at *pps*	slightly better treatment at *pps*	much the same	slightly better treatment at clinic	much better treatment at clinic

12. Did you get to spend more time with the doctor / nurse practitioner at *pps* or do you get to spend more time with the doctor / nurse practitioner at the clinic?

much more time at *pps*	slightly more time at *pps*	much the same time	slightly more time at clinic	much more time at clinic

13. Does the doctor / nurse practitioner answer your questions better at the clinic, or were they better answered at *pps*?

much better answers at clinic	slightly better answers at clinic	answers much the same	slightly better answers at *pps*	much better answers at *pps*

General:

14. Overall do you think that *pps* provided a better service, or is the service better at the clinic?

much better service at *pps*	slightly better service at *pps*	service much the same	slightly better service at clinic	much better service at clinic

15. Do you prefer being under the care of the clinic or would you rather still be under the care of your *pps*?

much prefer being under clinic	prefer being under clinic	indifferent	preferred being under *pps*	much preferred being under *pps*

What do you like best about the clinic?

What do you like least about the clinic?

What did you like best about *previous place of service*?

What did you like least about *previous place of service*?

Do you want to make any other comments?

Name of Interviewer:

Questionnaire To Assess The Level Of Satisfaction Of Patients

date of birth:	sex: M / F	questionnaire number:
education: N / P / S / T	employment: U / L / E / P	clinic: B / V
date of admission: dd-mm-yy	client / escort: C / E	referred from: (time) (*pps*)

Access:

1. Do you find it easier to get to the clinic or was it easier to get to *pps*?

much easier to get to clinic	slightly easier to get to clinic	much the same	slightly easier to get to *pps*	much easier to get to *pps*

2. Was it easier to see a doctor at *pps* when it was not your appointment day, or is it easier to see the doctor at the clinic when it is not your appointment day?

much easier at *pps*	slightly easier at *pps*	much the same	slightly easier at the clinic	much easier at the clinic

Cost:

3. Is it cheaper for you to get to the clinic or was it cheaper to get to *pps*?

much cheaper to get to clinic	slightly cheaper to get to clinic	much the same	slightly cheaper to get to *pps*	much cheaper to get to *pps*

Surroundings:

4. Did you find it more pleasant to wait at *pps* or do you find it more pleasant to wait at the clinic?

much more pleasant at *pps*	slightly more pleasant at *pps*	much the same	slightly more pleasant at clinic	much more pleasant at clinic

Waiting times:

5. Did you have to wait longer at *pps* to see the doctor / nurse practitioner or do you wait longer at the clinic?

much longer at *pps*	slightly longer at *pps*	much the same	slightly longer at clinic	much longer at clinic

6. Do you have to wait longer at the clinic to collect your medicines or did you wait longer at *pps*??

much longer at clinic	slightly longer at clinic	much the same	slightly longer at *pps*	much longer at *pps*

Overall time taken:

7. Was the total time that you spent from leaving home to getting home again longer when you attended *pps* or is it longer now that you attend the clinic?

much longer attending *pps*	slightly longer attending *pps*	much the same	slightly longer attending clinic	much longer attending clinic

Nursing staff attitudes:

8. Do you find the nursing staff more helpful at the clinic, or were they more helpful at *pps*?

much more helpful at *pps*	slightly more helpful at *pps*	much the same	slightly more helpful at clinic	much more helpful at clinic

Doctor / Nurse Practitioner: **(technical / interpersonal / communication)**

9. Did you find the doctor / nurse practitioner more friendly at *pps* or are they more friendly at the clinic?

much more friendly at *pps*	slightly more friendly at *pps*	friendliness much the same	slightly more friendly at clinic	much more friendly at clinic

PASIËNT TEVREDENHEID VRAELYS

geboortedatum:	geslag: M / F	vraelys nommer:
opleiding: N / P / S / T	werk: U / L / E / P	kliniek: B / V
eerste keer by die kliniek:	klient / geleide: C / E	verwys van: (tyd) (*vp*)

Toegang:

1. Is dit makliker vir jou om by die kliniek uit te kom of was dit makliker om by jou *vp* uit te kom?

baie makliker om by kliniek uit te kom	bietjie makliker om by kliniek uit te kom	min of meer dieselfde	bietjie makliker om by *vp* uit te kom	baie makliker om by *vp* uit te kom

2. Was dit makliker om die doktor te sien by jou *vp* as dit nie die dag van jou afspraak was nie, of is dit makliker om die doktor by die kliniek te sien as dit nie die dag van jou afspraak is nie?

baie makliker by *vp*	bietjie makliker by *vp*	min of meer dieselfde	bietjie makliker by die kliniek	baie makliker by die kliniek

Koste:

3. Kos dit minder om by die kliniek uit te kom, of het dit minder gekos om by jou *vp* uit te kom?

baie minder as ek *kl* bywoon	bietjie minder as ek *kl* bywoon	min of meer dieselfde	bietjie minder as ek *vp* bywoon	baie minder as ek *vp* bywoon

Omgewing:

4. Was dit meer aangenaam om by jou *vp* te wag, of is dit meer aangenaam om by die kliniek te wag?

baie meer aangenaam by *vp*	bietjie meer aangenaam by *vp*	min of meer dieselfde	bietjie meer aangenaam by *kl*	baie meer aangenaam by *kl*

Wag Tyd:

5. Het jy langer gewag om die doktor / verpleegster te sien by jou *vp* of wag jy langer by die kliniek?

baie langer by *vp*	bietjie langer by *vp*	min of meer dieselfde	bietjie langer by die kliniek	baie langer by die kliniek

6. Moet jy langer by die kliniek wag om jou medisyne te kry of het jy langer by jou *vp* gewag?

baie langer by die kliniek	bietjie langer by die kliniek	min of meer dieselfde	bietjie langer by *vp*	baie langer by *vp*

Totale tyd geneem:

7. Was die tyd vanaf jy die huis verlaat het tot jy weer by die huis teruggekom het langer as jy na jou *vp* gegaan het, of is dit langer as jy na die kliniek kom?

baie langer as ek *vp* besoek	bietjie langer as ek *vp* besoek	min of meer dieselfde	bietjie langer as ek *kl* besoek	baie langer as ek *kl* besoek

Verpleegster se houding:

8. Vind jy dat die verpleegsters meer behulpsaam is by die kliniek, of was hulle meer behulpsaam by jou *vp*?

baie meer behulpsaam by *vp*	bietjie meer behulpsaam by *vp*	min of meer dieselfde	bietjie meer behulpsaam by *kl*	baie meer behulpsaam by *kl*

Doktor / Verpleegster: **(tegnies / interpersoonlik / mededeling)**

9. Het jy gevind dat die doktor / verpleegster meer vriendelik was by jou *vp* of is hulle meer vriendelik by die kliniek?

baie meer vriendelik by *vp*	bietjie meer vriendelik by *vp*	min of meer dieselfde	bietjie meer vriendelik by *kl*	baie meer vriendelik by *kl*

10. Dink jy dat die behandeling wat jy kry vir jou chronies mediese probleem beter is by die kliniek of was dit beter by jou *vp*?

baie beter behandeling by *kl*	bietjie beter behandeling by *kl*	min of meer dieselfde	bietjie beter behandeling by *vp*	baie beter behandeling by *vp*

11. As jy 'n ander mediese probleem het (byvoorbeeld griep of besering) het jy beter behandeling vir die probleem gekry by jou *vp* of is dit beter behandel by die kliniek?

baie beter behandeling by *vp*	bietjie beter behandeling by *vp*	min of meer dieselfde	bietjie beter behandeling by *kl*	baie beter behandeling by *kl*

12. Het jy meer tyd by die doktor / verpleegster deurgebring by jou *vp* of spandeer jy meer tyd by die doktor / verpleegster by die kliniek?

baie meer tyd by *vp*	bietjie meer tyd by *vp*	tyd min of meer dieselfde	bietjie meer tyd by die kliniek	baie meer tyd by die kliniek

13. Beantwoord die doktor / verpleegster jou vrae beter by die kliniek, of was jou vrae beter beantwoord by jou *vp*?

antwoorde baie beter by *kl*	antwoorde bietjie beter by *kl*	antwoorde min of meer dieselfde	antwoorde bietjie beter by *vp*	antwoorde baie beter by my *vp*

Algemeen:

14. In die algemeen dink jy dat die kliniek 'n beter diens gee, of was die diens by jou *vp* beter?

diens baie beter by *vp*	diens bietjie beter by *vp*	diens min of meer dieselfde	diens bietjie beter by *kl*	diens baie beter by kliniek

15. Sou jy verkies om eerder by die kliniek behandel te word of sou jy eerder by jou *vp* behandel word?

defenetief eerder by *kl* wees	eerder by *kl* wees	geen verskil	eerder by*vp* wees	defenetief eerder by*vp* wees

Van wat hou jy die meeste by die kliniek?

Van wat hou jy die minste by die kliniek?

Van wat het jy die meeste gehou by jou *vp*?

Van wat het jy die minste gehou by jou *vp*?

Is daar enigiets anders wat jy vir ons wil se?

Naam van Ondervraer:

Questionnaires Not Answered

date of birth:	sex: M / F	defaulter number:
education: N / P / S / T	employment: U / L / E / P	clinic: B / V
date of admission: dd-mm-yy	client / escort: C / E	referred from: (time) (*pps*)
reason for not answering the questionnaire:		

date of birth:	sex: M / F	defaulter number:
education: N / P / S / T	employment: U / L / E / P	clinic: B / V
date of admission: dd-mm-yy	client / escort: C / E	referred from: (time) (*pps*)
reason for not answering the questionnaire:		

date of birth:	sex: M / F	defaulter number:
education: N / P / S / T	employment: U / L / E / P	clinic: B / V
date of admission: dd-mm-yy	client / escort: C / E	referred from: (time) (*pps*)
reason for not answering the questionnaire:		

date of birth:	sex: M / F	defaulter number:
education: N / P / S / T	employment: U / L / E / P	clinic: B / V
date of admission: dd-mm-yy	client / escort: C / E	referred from: (time) (*pps*)
reason for not answering the questionnaire:		

date of birth:	sex: M / F	defaulter number:
education: N / P / S / T	employment: U / L / E / P	clinic: B / V
date of admission: dd-mm-yy	client / escort: C / E	referred from: (time) (*pps*)
reason for not answering the questionnaire:		

Variation In Answers Of Demographic Groups - Example Of Statistical Testing

The following is an example of the statistical analysis done to determine whether the previous place of service attended affected the answers given to the question on ease of seeing the doctor on a non-appointment day (Question 2).

Answers given to question two were simplified into three groups; those that were greater than three, three, and less than three. Initially answers from all three previous place of service demographic groups were compared to each other using the Chi Squared test (which compares observed answers with calculated expected answers).

obs.	**<3**	**3**	**>3**	**total**	**exp.**			
DH	9	15	109	133	14	13	105	
Hosp	5	1	14	20	2.1	2	16	
GP	3	0	3	6	0.6	0.6	4.8	
total	17	16	126	159				**p = 0.0022**

In this example a significant p value of p = 0.0022 was calculated. To find the area(s) of significance each previous place of service has to be compared with each of the other previous places of service - i.e. DH (Day Hospital) compared to Hosp (Hospital); DH compared to GP (General Practitioner); Hosp compared to GP.

DH compared to Hospital

obs.	**<3**	**3**	**>3**	**total**	**exp.**			
DH	9	15	109	133	12	14	107	
Hosp	5	1	14	20	1.8	2.1	16	
total	14	16	123	153				**p = 0.0262**

DH compared to GP								
obs.	**<3**	**3**	**>3**	**total**	**exp.**			
DH	9	15	109	133	11	14	107	
GP	3	0	3	6	0.5	0.6	4.8	
total	12	15	112	139				**p=0.00099**

Hospital compared to GP								
obs.	**<3**	**3**	**>3**	**total**	**exp.**			
Hosp	5	1	14	20	6.2	0.8	13	
GP	3	0	3	6	1.8	0.2	3.9	
total	8	1	17	26				**p = 0.4677**

Thus in this example there is no significant difference between the answers given by those previously attending a hospital compared to those previously attending a day hospital, and no significant difference in the answers given by those previously attending a hospital and those previously attending a GP. (A significant p value being a value < 0.01 - i.e. less than 1% chance that those values occurred by chance)

There is, however, a significant difference between those previously attending a day hospital and those previously attending a GP (p = 0.00099). Looking at the observed compared to the expected answers it is clear that you would have not expected so many people who had previously attended a GP to have answered with a score less than three (slightly or much easier to see the doctor on a non-appointment day at the previous place of service compared to the clinic). Thus people who had previously attended a GP were more likely to answer that it was easier to see the doctor when it wasn't their appointment day at their previous place of service compared to those who had previously attended a day hospital.

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