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CONSUMER SATISFACTION AND MATERNITY CARE

A thesis presented in partial fulfilment
of the requirements for the degree of
Master of Arts in Psychology
at Massey University

Tony Peter Christensen

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ABSTRACT

The present study investigated women's satisfaction with maternity care using a self-administered questionnaire. The purpose of the present study was twofold: first, to address a series of specific questions posed by the health provider and to provide feedback on the findings. Secondly, to examine the nature of consumer satisfaction with maternity care as a psychological construct from both a multidimensional and global perspective. The measure of global satisfaction was derived from items of the frequently used Consumer Satisfaction Questionnaire - 8, whilst, the discrete (multidimensional) aspects of the questionnaire were derived from a pilot study, literature search and suggestions from the nursing personnel of the six maternity units assessed. Careful consideration was given to predispostional factors (e.g., life satisfaction) and the effects of demand characteristics, particularly reactivity, sampling error and response bias. Two hundred and forty-seven of the five hundred and thirty-eight women surveyed returned the questionnaire. The results showed high levels of global satisfaction with antenatal services, labour and delivery care, post-partum care and global satisfaction with maternity care in general. Multiple regression analysis showed satisfaction with maternity care to be a multidimensional construct with several discrete aspects of care significantly associated with the mother's global impression of each stage of their maternity care and their global satisfaction. The results also showed discrete aspects of the service with which mothers were especially dissatisfied. The methodological approach used in the present study and the statistical methods used to analyse the data were found to be especially useful in identifying areas in which the service could be improved, in addition to facilitating meaningful comparisons between similar facilities in the future.

For Johnathan Peter Christensen who inspired and ensured my continuing interest in the Psychology of Obstetric and Paediatric care, and Dr.Geof Aitken whose gentle ways and devotion to his tiny patients diminishes the pain of the bewildered parents

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CHAPTER ONE

CONSUMER SATISFACTION WITH HEALTH CARE: CONCEPT AND DEFINITIONS

A well constructed consumer satisfaction study can, profit health care providers by identifying areas in which a service delivery may be improved, and provide helpful information to be used in the future planning and implementation of a health service (Greenfield & Attkisson, 1989). In return patients or consumers of health care services benefit from a service delivery that is consistent with their needs (Kirkhart & Attkisson,1986).

Satisfied health consumers are more likely to comply with treatment (Kincey, Bradshaw & Ley, 1975; Weiss, 1988); seek medical assistance and maintain a continuing relationship with a physician (Ware & Snyder, 1975; Larsen & Rootman, 1976). Health consumers also express greater satisfaction when health providers show a personal interest in the consumer's welfare (Ware, Davies-Avery & Stewart, 1978); spend more time with the consumer (Linn, 1975); nursing and medical staff provide information and explanations and consumers are encouraged to participate in medical decisions (Seguin, Therrien, Champagne & Larouche, 1989).

While the health consumer's opinion of service delivery has formed an integral part of quality assurance evaluations in Great Britain and the United States for many years; consumer rated opinion of health service delivery, as part of quality assurance evaluations, are a recent development within the New Zealand public health care system. Nevertheless, health providers in this country have the distinct advantage of being able to draw on the knowledge gained from overseas studies. This knowledge can then be used to assist those who seek information from the

health consumer to avoid, in large part, the many practical and methodological problems that have undermined the reliability and validity of a large proportion of consumer satisfaction data in the past.

DEFINING CONSUMER SATISFACTION

To date no consensus has been reached as to a definition of consumer satisfaction with health care, although, as Lebow (1983b) has pointed out, operationalising consumer satisfaction with health care is not an easy task. The field has often been defined by a method of inquiry (e.g., post-treatment questionnaire) rather than by any a priori criteria. Many studies of health consumer rated outcome, never enquire about satisfaction with various aspects of treatment. Still others have been designed with a specific setting in mind and have included only those aspects of the service of most interest to the investigator. The result has been a conceptual muddle from which, until recently, no normative data or programmatic body of work has emerged.

A review of the literature indicates that researchers have approached the measurement of consumer satisfaction either directly or indirectly; or in terms of what Lebow (1983b) has referred to as a **narrow** (direct) or **broad** (indirect) definition. A narrow definition refers to "the extent to which the service gratifies the wants, wishes or desires for treatment" (p. 212) and includes inquiries into the consumer's perception of the treatment itself, the environment, cost, availability and accessibility of treatment. The broad definition extends to such factors as the consumer's global rating of outcome, complaints and compliments about the service, suggestions for improvement and utilisation of services.

Although the rationale for conceptualising consumer satisfaction under a narrow or a broad definition is unclear, it would appear to depend on whether the data is to be used as a dependent or independent variable. If the data is to be used as a dependent variable to access the consumer's opinion of the process and outcome of their care, then a narrow definition would apply. If the data is to be used as an

independent variable to predict the consumer's behaviour (e.g., use of services, completion of treatment) then a broad definition would apply.

Within the context of consumer satisfaction studies the terms 'narrow' and 'broad' appear to be misnomers. A broad definition implies a wide and comprehensive area and thus might also be expected incorporate the narrow definition. In reality it does not, and may, on its own, actually be a poor indicator of consumer satisfaction. For instance, failure on the part of some prospective parents to attend antenatal classes (service utilisation), may be due to situational factors, such as transport difficulties or work commitments rather than dissatisfaction with the antenatal service per se. Furthermore, Lebow's (1983b) finding that most of the factors contained within the broad definition correlate positively with those of the narrow definition, and therefore may also be viewed as important indices of satisfaction, supports the argument that these two definitions are not mutually exclusive. Although consumer satisfaction studies conducted under a broad definition can demonstrate the ways in which the **behaviour** of satisfied and dissatisfied consumers differs (Ware and Davies, 1983), the wealth of information that may have been gained under a narrow definition would be lost. Hence, there would appear to be little if any advantage in separating these two definitions.

McPhee, Zusman and Joss (1975) have noted that many attempts to define consumer satisfaction with health care are overly simplistic, and maintain that any definition should at least include: cost, accessibility, the perceived competence of the caregiver, interpersonal communication, the physical environment and satisfaction with the outcome of treatment.

McPhee et al's (1975) definition closely parallels the four determinants of health consumer satisfaction that Weiss (1988) found to be most consistently identified throughout the literature. These are:

1. **Characteristics of consumers**, including socio-demographic characteristics, expectations of the medical encounter, and health status.

2. **Characteristics of health providers**, including personality traits and the 'art' and 'technical' quality of care dispensed.
3. **Aspects of the physician-patient relationship**, including the clarity and completeness of communication between patient and provider and the outcome of the encounter.
4. **Structural and setting factors**, including accessibility, mode of payment and length of treatment, which may predispose patients toward a feeling of satisfaction or dissatisfaction.

While Weiss's (1988) definition incorporates most of the components of consumer satisfaction suggested by McPhee, Zusman and Joss (1975) and those of Lebow's (1983b) narrow definition, it includes few of the components of Lebow's broad definition. Hence, Weiss's definition is perhaps less adequate as a measure of consumer behaviour, and more applicable to the use of the data as a dependent variable.

A broad or indirect enquiry has little relevance to the present study, due to the nature of the subject matter. That is, maternity service delivery is not an area in which women are generally able to or would wish to avoid care, as might be the case in psychotherapy for example. Nevertheless, there are some aspects of maternity care which fall within the broad definition. Instructional classes in babycare (e.g., antenatal and postnatal classes) are an integral (although optional) part of maternity care services in New Zealand, and can be especially beneficial to new parents (Kitzinger, 1987). Therefore the possibility that mothers may chose not to attend these classes (service utilisation) due to situational factors rather than actual dissatisfaction is worthy of investigation..

As the present study is primarily concerned with women's experience and outcome of their maternity care, Weiss's definition is the most relevant to this investigation. However, as maternity service delivery also incorporates some aspects of service utilisation, it is important that the reasons for any failure to use these services is investigated. Thus the present study has defined consumer

satisfaction with maternity care in accordance with the four determinants identified by Weiss (1988) while also incorporating a direct enquiry into service utilisation.

QUALITY OF CARE AND CONSUMER SATISFACTION

Health care providers often refer to favourable consumer satisfaction studies as being indicative of the quality of care provided by the health facility. On the other hand it is sometimes implied that less favourable studies should not, necessarily, be viewed as reflecting the quality of care provided by a service. The underlying rationale of this latter view appears to be that few health consumers are qualified to judge the technical competency of medical procedure, therefore, it is legitimate to persuade them to want what is in their best interest (Marsh & Kain-Caudle, 1976). As Locker and Dunt (1978) have pointed out, however,

> "Studies of consumer satisfaction are not in *themselves* evaluations of the **quality of medical care** - either from the perspective of the provider or the consumer" (p. 291).

While not explicitly defined in the literature, quality of care might reasonably be viewed as a construct that subsumes the collective opinions of both the consumer and the health provider. Hence, any measure of quality of care should also identify and employ criteria for standards used by the consumer themselves (Locker & Dunt, 1978). This has rarely been the case. Most consumer satisfaction studies seek information about aspects of the service predetermined by the health provider as being relevant to that study (Kelman, 1976).

Standards of care that are provider defined are necessarily arbitrary, with the potential to not only undermine the validity of satisfaction data, but to also polarise consumer and provider opinion as to what constitutes quality care (Locker & Dunt, 1978; Windle & Paschell, 1981). For example, a woman giving birth by caesarian section may express dissatisfaction with the labour and delivery

procedure. However, assuming the operation was performed with technical competency, and that a less invasive procedure was not viable the health provider might justifiably argue that the mother's dissatisfaction is not indicative of poor care. On the other hand, the mother's opinion of the care she received may be quite different. Her dissatisfaction may relate to a possibility that she didn't understand the necessity for the procedure, that it was not explained to her or that her inability to deliver her baby vaginally has made her feel incompetent. In her opinion, a failure on the part of the caregiver to provide her with information, explanations or assurances, may constitute care of poor quality.

THE RELATIONSHIP OF CONSUMER VARIABLES TO SERVICE SATISFACTION

Weiss (1988) has suggested that the degree to which the consumer is satisfied with their health care may be governed by several predispositional factors, such as general life satisfaction, demographic characteristics, previous health status and continuity of care.

General Life Satisfaction

Although subjected to little empirical analysis in the past, the consumer's general life circumstances may effect their expressed satisfaction with the care they receive (e.g., Levois, Nguyen and Attkisson, 1981; Lebow, 1983b). Weiss (1988) found that health consumers who scored higher on a life satisfaction index reported significantly higher levels of satisfaction with physician care received. In a study of artifact in consumer satisfaction assessment Levois et al. (1981) found that satisfaction with the health service delivery not only correlated positively with general life satisfaction, but may also mediate consumer satisfaction since it accounted for a significant amount of the unique variance in satisfaction with care as measured by the Client Satisfaction Questionnaire (Larsen, Attkisson, Hargreaves & Nguyen, 1979). In contrast several researchers have found little evidence to support a relationship between the health consumer's general life

circumstances and satisfaction with the health service (e.g., Watson 1993; Attkisson & Zwick, 1982).

The reasons for these conflicting findings may depend on the sensitivity of the satisfaction measure used. According to Roberts, Pascoe and Attkisson (1983) **Micro** and **Macro** measures of health consumer satisfaction elicit different types of information. Whereas micro measures seek information that refers directly to specific aspects of the care or service the health consumer has received, macro measures seek information of a more general nature. Macro measures are more indirect in their approach to the measurement of consumer satisfaction; focusing such factors as on 'drop out' rates and complaints and compliments about the service. Consequently they tend to reflect the health consumer's positive or negative orientation towards the service or health provider, rather than satisfaction per se.

Roberts et al. (1983) used the Client Satisfaction Questionnaire (CSQ: a micro measure) and the Patient Satisfaction Questionnaire (PSQ) a macro measure to test this theory. The CSQ was the only measure able to gauge the health consumer's satisfaction with the health service directly, while no evidence was found of a covariate relationship between self-reported life satisfaction and consumer satisfaction, as measured by the CSQ. However, a significant positive relationship was observed between the PSQ and self-reported satisfaction with life in general. Thus macro measures may not only fail to assess consumer satisfaction directly, but may also be subject to bias from the consumer's felt life satisfaction.

Demographic Characteristics

The findings with regard to the relationship between demographic variables and satisfaction with health services are conflicting. In their review of 13 studies Ware, Davies-Avery and Stewart (1978) found family size, education, age, and income to be consistently associated with service satisfaction. Still others have found little evidence of any relationship between age, sex, education, income,

social class and satisfaction with health delivery services (e.g., Lebow, 1983b; Essex, Fox, & Groom, 1981; Balch, Ireland, McWilliams & Lewis, 1977).

A possible reason for this inconsistency has been provided by Weiss (1988), who found that the significant effects of such variables as sex, race and age did not remain significant when examined simultaneously with other complimentary variables. Thus, the effects of demographic variables may be attributable to such factors as prior expectations, life experience, life satisfaction or previous health status.

In conclusion, consumer satisfaction with health care is a complex construct without clear definition. Studies of consumer satisfaction are not in themselves evaluations of the quality of care that a particular health facility provides, nor does the quality of care provided in that facility necessarily reflect satisfied health consumers. Quality of care is a construct that not only subsumes the collective opinions of both the consumer and the health provider, but also incorporates standards of technical expertise such as those set down by the New Zealand Council on Health Care Standards (NZCHS). There is evidence to suggest that predispositional factors and consumer characteristics influence satisfaction with service delivery. One of the aims of the present study is to investigate the relationship between consumer satisfaction, life satisfaction and the demographic variables of age, education, ethnicity and marital status. The methodological issues associated with consumer satisfaction are discussed in chapter two.

CHAPTER TWO

METHODOLOGICAL ISSUES IN SURVEYING CONSUMER SATISFACTION WITH HEALTH CARE

The reliability and validity of consumer satisfaction data subsumes most, if not all, the methodological and pragmatic issues associated with seeking information from the health consumer. These issues include: method of data collection and the advantages and disadvantages of each method, selection of participants, sampling error, response rates and bias, reactivity, acquiescence, timing of data collection and how the data should be analysed and reported.

SATISFACTION MEASURES

The importance of careful scale development has been emphasised on more than one occasion in the past, (e.g., Greenfield & Attkisson, 1979; Ware, Davies-Avery & Stewart 1978; Lebow, 1987) yet, the methodological integrity of many consumer satisfaction studies continues to be questionable. Lebow (1987) has suggested that part of the methodological integrity problem can be attributed to a widespread practice among researchers of wholly developing scales to meet the needs of individual studies. Sorenson, Kantor, Margolis and Galano (1979) for example, found 69 different scales in mental health centres alone, despite each facility having similar interests in respect of content area. This factor allows for the ready abuse of satisfaction data. For example, treatment facility "A" may lay claim to the provision of a better obstetric service on the basis that 90% of its mothers are satisfied with their maternity care compared with only 70% in treatment facility "B". In the absence of standardised scales or baseline norms each of these claims is somewhat isolated. Moreover, such a comparison is

meaningless when the survey content and format differs from one setting to the next (Larsen, Attkisson, Hargreaves & Nguyen, 1979). Standardised measures facilitate such comparisons.

Several consumer satisfaction measures (that have been demonstrated to show some content, construct and predictive validity) now exist (e.g., Distefano, Pryer & Garrison, 1980; Flynn, Balch, Lewis & Katz, 1981; Love, Caid & Davis, 1979; Slater, Linn & Harris, 1982; Pascoe & Attkisson, 1983; Larsen, Attkisson, Hargreaves & Nguyen, 1979; Levois, Nguyen & Attkisson, 1981). This prompted Lebow (1987) to ask whether any excuse remains for not including a simple standardised set of items from one of these general scales in every assessment.

Arguably the most established of these standardised measures is the Client Satisfaction Questionnaire (CSQ) developed by Larsen, Attkisson, Hargreaves & Nguyen (1979). The CSQ has three variants: an eight-item form (CSQ-8) that has been used in a variety of health and mental health facilities, and two eighteen-item forms consisting of items that enquire into more specific aspects of care such as the location of the facility, cost, physical environment and staff attitude. The CSQ-8 on the other hand is considered to be a more appropriate measure of global satisfaction, described as satisfying the need for a serviceable standardised measure of satisfaction Greenfield (1983). Measures such as the CSQ may also slow the practice of developing 'one off' measures to meet the needs of individual studies and their questionable reliability and validity (Lebow, 1982b).

Methods of Data Collection

Surveys of health consumer opinion have generally employed one of several methods of data collection: (1) Mailed self-completion questionnaires (2) Personal interviews (in the home, treatment facility or by telephone), and less frequently, a combination of both (e.g., Franklin, 1974). However, a number of researchers hold to the view of a "one best" method of presentation (e.g., Gallagher, 1989; French, 1981). While these researchers tend to favour one or more of the interview

methods (primarily as a function of their greater response rate in comparison to self-completion questionnaires), this is not to say that interview methods are necessarily superior to self-completion questionnaires or without their limitations. Lebow (1983b) sums this up in the statement:

> "In selecting any method of presentation, one invariably also chooses a set of liabilities" (p.215).

The advantages and disadvantages associated with the methods typically used to assess the health consumer's satisfaction are presented in table 1.

Table 2.0: *Advantages and Disadvantages of Mailed Self-completion Questionnaires and Interview Approaches to the Assessment of the Health Consumer's Opinion.*

Method of Presentation	Advantages	Disadvantages
Self-Completion Questionnaire	Low susceptibility to psycho-social artifact; Low cost (Cartwright, 1988). Anonymity can be guaranteed (Press & Ganey, 1989).	Low response rate (Gallagher, 1989). May require follow-up at increased cost and bias (Press & Ganey, 1989).
Interview in the Health Facility	Interviewer can probe answers (Locker & Dunt, 1978). High response rate (French, 1981).	High susceptibility to psycho-social artifact; (Levois, Nguyen & Attkisson, 1979) Moderate to high cost (lebow, 1982c). Lack of anonymity (Lebow, 1987).
Interview in the Respondent's Home	Interviewer can probe answers (Locker & Dunt, 1978). High response rate (Babbie, 1992).	High susceptibility to psycho-social artifact;very high cost (Lebow 1982c).Distractions and intrusions.Possible safety problems for interviewers (Babbie, 1992).Lack of anonymity(Lebow,1987).
Interview by Telephone	Interviewer can probe answers (Locker & Dunt, 1978).Moderate response rate (Babbie, 1992).	Some susceptibility to psycho-social artifact (Babbie,1992; Siemiatycki, 1979). Very high cost; difficult to use reference scales; lack of anonymity (Press & Ganey, 1989; Lebow, 1987).

VALIDITY

Lebow (1982b) is one of several researchers who have directly examined threats to the validity of consumer satisfaction surveys; amongst the more prominent is sampling bias. Two forms of sampling bias have generally threatened validity in consumer satisfaction research: selection of the participants and the extent of consumer response.

Selection of Participants

According to Lebow (1982b) the question of who should contribute consumer satisfaction data is largely governed by the aim of the study. This aim may be pragmatic or political in nature, such as, furthering public relations, building rapport with particular community groups or developing support for a specific program. These aims are consistent with those of the "Trapped Administrator". A term Campbell (1975) has used to refer to health providers who seek reactive methods favouring a positive response. Under these circumstances the decision as to who is to participate is likely to be facilitated by the tendency of health consumers to give high ratings of satisfaction as a function of demand characteristics (Lebow, 1982b).

A second set of aims are held by those health providers who seek unbiased indices of consumer opinion within the framework of a scientific investigation. These evaluators may wish to assess all services, specific aspects of those services, one area of service delivery in particular, or they may wish to compare various services within and across treatment facilities (Lebow 1982b). Hence, the target population might consist of all patients, various groups or subgroups of patients, inpatients and/or outpatients, or patients discharged from one or more health facilities within a particular time frame.

Comparison of Response Rates to Methods of Data Collection

Response rates to two methods of data collection were compared by French (1981) in her review of thirty-five consumer satisfaction studies. Return rates for the eleven studies that used self-completion questionnaires ranged between 33% and 100%, whilst the return rate for the twenty-four studies that used an interview approach consistently exceeded 80% with many in excess of 90%. Although French conceded that interview methods are not immune to distortion, she concluded that, in so far as researchers have a choice, interviews are to be preferred.

Lebow's (1983b) review of response rates to 63 studies of consumer satisfaction (conducted in community mental health facilities) found the average rate of returned self-completion questionnaires to be 40%. Phone interviews provided average response rates of 43%, whilst personal interviews in the consumer's home averaged 64%. Not surprisingly perhaps, substantially higher response rates (82%) were reported for both interview and questionnaire methods when the surveys were conducted during treatment.

Insufficient information was provided in either of these reviews to indicate whether length of interview, method of approach for participation or place of interview may have accounted for such a large discrepancy. Nevertheless, each of these reviews not only provides evidence of the comparatively higher rate of compliance to interview methods over self-completion questionnaires, but also suggests there is considerable variation **within** each method across the individual studies reviewed. The overall rate of compliance to interview methods in French's (1981) review consistently surpassed 80%. In contrast Lebow (1983b) reported the overall response rate (to interviews) averaged between 43% and 64% depending on location. This implies a substantially smaller differential in compliance rates between interviews and self-completion questionnaires than French's review would suggest.

This discrepancy may also reflect the finding that mental health researchers must often contend with a highly mobile population (Schainblatt, 1980). On the other hand, one can not entirely discount the possibility that French's (1981) findings (in respect of interview methods) represents what she refers to as a tendency on the part of some researchers to give an "inflated" response rate. That is, a response rate that also includes those patients whom the researchers intended to interview before they were dropped from the sample due to illness or unavailability for whatever reason (e.g., Carstairs, 1970; Wright, 1974 cited in French, 1981).

Comparison of respondents and Non-respondents

Although the major criticism levelled at self-completion questionnaires is their comparatively low response rate, and consequently their increased susceptibility to sampling error, a high response rate is not a guarantee. As Scott (1961) has pointed out, a response rate in the high nineties does not exclude the possibility that a particular group (or subgroup) has escaped the survey in some manner. Cartwright (1988) for example, found no significant differences in the nature of the replies, when comparing interviews and self-completion questionnaires which provided overall response rates of 75% and 92% respectively. Asian women however, were extensively under-represented in the responses to both methods despite the fact that they made up a substantial part of the population sample.

Siemiatycki (1979) compared the response rates to mailed self-completion questionnaires, telephone interviews and personal interviews in the home. Siemiatycki not only found little difference in nature of response as a function of survey method, but little difference between respondents and non-respondents in regard to overall level of satisfaction. Whilst self-completion questionnaires provided a lower response rate, they did provide useful comments, suggestions and a lower incidence of under-reporting, or what Siemiatycki referred to as a "higher quality response" (p. 244). Several earlier studies have also failed to find any significant difference between respondents and non-respondents (e.g., Scott, 1961, Loewenstein, Colombotos & Elinson, 1973; Ley, Kinsey & Atherton, 1976).

In each of the aforementioned studies the overall rate of response exceeded 70%. Hence it might be argued that the lack of a significant difference between respondents and non-respondents was attributable to this relatively high response rate. This raises the question as to what constitutes a good, average or high rate of compliance to a self-completion questionnaire? Babbie (1982) offers some guidelines in this respect. According to Babbie a response rate approaching 50% is adequate for analysis and reporting; 60% is good and 70% is very good.

Although Babbie has pointed out that these guidelines have no statistical basis, he stressed the point that a representative sample and a demonstrated lack of response bias are of far greater importance than a high response rate. Similarly, Press and Ganey (1989) have found that response rates to self-completion questionnaires of between 25% and 45% can provide a demographically representative sample of the hospital and general population. They also found that questionnaires sent randomly to at least half of the patients will consistently yield statistically valid results when response rates are 30% or more.

Enhancing Response Rates

Several researchers have attempted to enhance the response rates of self-completion questionnaires with varying results. Raphael (1973) found that when she changed the cover of her questionnaire to a more attractive colour and included a picture of a patient completing a questionnaire there was a significant increase in compliance rates from between 44% and 52% to between 51% and 73%.

Assurances or indications of personal commitment on the part of the evaluator or health provider may also enhance response rates. Skipper and Ellison (1966) attempted to enhance the response rates of self-completion questionnaires in an experiment conducted with the mothers of hospitalised children. After randomly assigning the mothers to either an experimental or control group Skipper and Ellison (1966) initiated extensive and recurring contact with the experimental group, but only brief contact with the control group at the time of the child's admission. After the children had been discharged a mailed self-completion questionnaire was sent to both groups. The response rate of 85% for the experimental group and 56% for the control group led Skipper and Ellison (1966) to conclude that the extra time and effort spent with each mother and child was the most significant factor in the response differential between both groups.

Question Bias

Most of the principles involved in formulating and compiling survey questions and questionnaires apply equally irrespective of what method is used to collect the data. Reactivity, acquiescence and social desirability are also potential sources of distortion within each method. Nevertheless, some methods are more susceptible than others.

The core element of any survey is the questions that are asked of the health consumer. Wording that encourages bias in a survey will not be compensated for by high compliance rates or a representative sample. The focus, brevity, clarity, vocabulary, grammar and ambiguity of questions all have implications for the way the respondent both understands and replies to the questions. In this regard it is essential that the questions are focused, brief and easily understood (Allreck & Settle, 1985).

French (1981) has observed that many studies (e.g., Gregory, 1978; Eardley & Haran,1977; Raphael,1977) which have reported low levels of satisfaction also had many questions in which the wording was suspect. French cites as an example, "Did you receive **enough** information" [about...]? French contends that enough is not the same as 'all you wanted to know' and as such represents a grudging amount, more in the manner of enough to be going on with.

A further question provided by Gregory (1978) asked respondents: "When you asked the doctors what you wanted to know, did you generally get a satisfactory answer?" French (1981) suggested that this question is worded in a manner that not only appears to combine a possible criticism of staff with the word 'satisfactory' but does so in a way which implies that satisfactory is consistent with low expectations.

Ambiguously worded questions may have special significance for surveys of the health consumer's opinion, given what Lebow (1983c) has pointed out, as the

health consumer's propensity to respond with a halo effect. Indeed, the existence of a defensive attitude towards hospital personnel was observed by French (1981) during a pilot study, in which consumers appeared to be on the alert for criticisms of staff. Questions that otherwise appeared to be innocuous, for instance, "Is there anything else that you feel hasn't been fully explained about your operation?" were met with answers such as "They are very good in this hospital" and "I couldn't criticise a thing they do here", or with what French described as "a perceptible frosting of the atmosphere" (p. 28).

Inappropriate vocabulary can adversely influence a response. Allreck & Settle (1985) note that...."pedestrian vocabulary is universal...." (p. 102). Words and sentences that are beyond the comprehension of less sophisticated respondents are likely to result in a non-response at best. Alternatively, grammatically complex or overly long sentences may also contribute to response bias.

There is some evidence to suggest that open-ended and direct questions produce different results (e.g., Cartwright, 1967; Locker & Dunt, 1978). For example when consumers in Cartwright's study were asked a direct question such as "how good is your doctor at explaining things?" the majority felt their doctor was good in this respect. Yet few consumers mentioned explanations as a quality they appreciated in their doctor in response to an open question put to them earlier.

Reactivity Acquiescence and Social Desirability

Personal interviews have the advantage of consistently high compliance rates, and an interviewer who can probe for answers, thereby minimising replies of 'don't know'. This advantage exists regardless of whether the interview is conducted in an outpatient clinic, in the home or at various points during treatment. A major disadvantage of interview methods however, is their tendency towards positive response bias (Levois, Nguyen & Attkisson, 1981) and their comparatively greater susceptibility to reactivity, acquiescence, and interviewer bias (Lebow,1982c) or more specifically the effects of:

(1) The socio-demographic characteristics of the interviewer such as sex, status, education and ethnic origin (Landis, Sullivan & Sheley, 1973; Babbie, 1989; Hagenaars & Heinen, 1982; Cosper, 1972; Williams, 1968).
(2) The respondent's and/or the interviewer's personal perceptions, expectations and attitudes (Brenner, 1982).
(3) Behavioural and content characteristics such as careless administration, inadequate probing and poor wording (DeLamater, 1982).

Lebow (1982c) has also found reactivity to be positively related to the degree of intimacy between interviewer and interviewee and has suggested that having a physician gather data is to be discouraged. In this case, the extent to which the consumer's response is an honest representation of their opinion may depend on their perception of the consequences for future treatment should they answer in the negative. Alternatively, the consumer may refrain from making a negative comment to someone who may have been largely responsible for a currently felt state of good health.

Timing of Data Collection

The point in time chosen to collect data may influence compliance rates, the extent of distortion and how the consumer deals with the evaluation process. Both Lebow (1982c) and French (1981) have found response rates to be influenced by the time differential between discharge from the health facility and the commencement of the survey. As recall of the treatment process and procedure faded, response rates decreased. A survey conducted almost immediately after discharge may therefore result in a reduced attrition rate. In addition post-discharge evaluations give all cases an equal probability of being selected and place the focus on the whole treatment. An assessment conducted several months after discharge is likely to be more susceptible to distortion as the person's memory fades and they forget particular experiences and events (Press & Ganey, 1989).

The importance the health consumer places on any aspect of treatment or their illness may also influence recall and hence their response. For instance, French (1981) interviewed a group of cancer patients upon admission and then again four to nine days after discharge. Two-thirds of the patients failed to remember anxieties and fears they had in relation to death, and which they had expressed at admission. In addition two-fifths of the patients who were worried about cancer could not recall having said so when interviewed post discharge.

Lebow (1982c) has suggested that interviewing the health consumer during treatment may be important in determining early acceptability and the consumer's continuation with treatment. A further advantage in targeting data collection to various stages of treatment is that it allows the natural history of the consumer's satisfaction or dissatisfaction to be studied. On the other hand, multipoint collection of data during treatment can be expected to increase the likelihood of a reactive set. Assessing consumer opinion at a set point in treatment also means that the consumer must attempt to evaluate a treatment that is not yet complete. Although Lebow's (1982c) preference is for assessments to be conducted early in treatment, during treatment and at time of discharge, he concedes the likelihood of multiple measures having little appeal to health providers, since they also represent a substantial increase in cost and time.

Data Analysis

Caution may be warranted in drawing inferences from many consumer satisfaction surveys. Lebow (1983c) found that researchers who seek information from the health consumer seldom design studies to respond to specific questions. Theoretical foundations are few, hypotheses are seldom presented, while experimental and control group designs are seldom employed. Furthermore, important aspects of the method are frequently not reported, thereby making the evaluation of the quality of much of this research extremely difficult.

The limitations imposed on satisfaction data by primitive design are also reflected in the statistical analysis. Although most studies now include in their data presentation means, standard deviations, frequency distributions and the overall percentage of satisfied consumers. This represents the minimum requirement for items which are to be used for comparative purposes (Lebow, 1987).

Lebow (1987) has also expressed concern at how little attention has been given to statistical violation and the probability of obtaining statistical significance. Additional statistics are almost exclusively correlational, which in view of the relatively large samples in many studies allows for many of these correlations to achieve statistical significance even when very low (e.g., r = .10).

SUMMARY

Many of the issues reviewed in this chapter might lead the health provider to ask whether the problems associated with obtaining consumer satisfaction data does not outweigh the usefulness of these surveys. Lebow (1982c) remains convinced however, that such surveys have considerable value, provided certain principles are adhered to during the process of seeking information from the health consumer. Careful selection of participants, and studies with strong theoretical foundations designed to seek responses to specific questions or with stated hypotheses will mitigate many of the problems associated with health consumer research. Although the use of standardised measures will help to validate comparisons between programs and treatment facilities, standardised measures will not resolve all the validity problems associated with seeking information from the health consumer.

Reactivity, acquiescence or poor wording may well result in an unjustifiably high degree of approval of a particular treatment facility. Careful questionnaire design will reduce bias from inappropriate wording and the more obvious sources of reactivity (e.g., halo effects) through the use of scales that elicit differential satisfactions. It should not be automatically assumed that the consumer's view is

distorted however, as variation between the health consumer and health provider is always likely to arise from differences in opinion (e.g., Windle & Paschell, 1981).

Choosing the method of presentation clearly poses problems. Interview methods provide higher compliance rates than self-completion questionnaires, can probe deeper and are more exact in targeting the person to whom they are directed. In contrast they are more susceptible to psycho-social artifact than self-completion questionnaires, and are considerably more expensive to administer. Self-completion questionnaires on the other hand invite less distortion, and are less expensive. Telephone interviews have perhaps the smallest combination of advantages and disadvantages, but become increasingly more expensive as the geographical boundaries widen.

Which method of presentation is chosen may also depend on the type of treatment facility and the aims of the health provider. Health providers who wish to conduct ongoing assessments of the health consumer's opinion are likely to be faced with additional considerations. Financial constraints will force many health providers to balance the need for valid satisfaction data against the restrictions imposed by a limited budget (Press & Ganey, 1989). Under these circumstances self-completion questionnaires may prove to be the most practical method of presentation for health providers. However, their propensity to produce lower return rates may cause them to be seen by some health providers as a less valid measure of consumer satisfaction.

Although the bulk of the literature suggests that there are few differences between respondents and non-respondents on demographic variables, there is some evidence to the contrary. Lebow (1982) has suggested that researchers err on the side of caution and test for differences in treatment characteristics and outcome, as well as differences in demographic characteristics between respondents and non-respondents when conducting follow-up studies. This also involves ensuring that the respondents are demographically representative of the hospital population.

CHAPTER THREE
THE NATURE OF CONSUMER SATISFACTION AS A PSYCHOLOGICAL CONSTRUCT

Central to defining and measuring consumer satisfaction with health care is the issue of whether it is a **unidimensional** or **multidimensional** construct. Those who hold to a unidimensional theory (e.g., Larsen, Attkisson, Hargreaves & Nguyen, 1979) maintain that the health consumer is unable to distinguish between discrete aspects of the health service and only forms an overall impression of the service delivery. Additional findings have suggested that consumer satisfaction with health care is a multidimensional construct. That is, the health consumer's overall state of felt satisfaction is shaped by discrete elements of the service delivery (e.g., Seguin, Therrien, Champagne & Larouche, 1989; Kelman , 1976).

According to Locker and Dunt (1978) one of three approaches have generally been used to measure consumer satisfaction with health care: (a) **global ratings** (b) **a satisfaction measure for each aspect of a health consumer's care**, or (c) **one or more composite measures derived from separate aspects of the service delivery.**

(a) Global Ratings

As Locker and Dunt (1978) have pointed out, global measures fail to take account of different aspects of treatment or specific instances of dissatisfaction, and are consequently biased towards the satisfaction end of the scale. Furthermore, global measures provide little indication of where to effect change in order to improve a service. For example, the consumer's response to the global question " Overall, how satisfied were you with your maternity care"? may result in a mean of 3 on a 4-point scale ranging from 'dissatisfied' (1) to 'very satisfied' (4). This finding may then result in a claim by the health provider that the majority of consumers were satisfied with the service they received. However, evidence suggests that

such claims may be misleading. Warren, Jackson, Nugaris and Farley (1973) for example, found that nearly 80% of clients would return to the treatment facility when responding to a global item, but few felt that they had really been helped when asked to comment on specific aspects of the service.

In some instances global measures may also have limited usefulness for comparative purposes. Two health settings may perform the same function (e.g., obstetric care) yet differ in the services provided to achieve this end (Locker & Dunt, 1978). For instance, mothers giving birth under the care of a homebirth midwife as opposed to a hospital obstetrician will receive different services by different providers, and perhaps in different combinations. Global measures are only comparable across facilities to the extent that **standardised** measures are used and the service deliveries are **similar**.

(b) A Satisfaction Measure for Each Aspect of a Health Consumer's Care

An alternative to global ratings is to treat each aspect of care as a discrete item and measure the consumer's level of satisfaction with each of these aspects. This approach provides an indication of consumer priorities and specific aspects of the service with which the consumer is most satisfied or dissatisfied. On the other hand, this approach has the disadvantage of not providing an overall measure with which to make comparisons between treatment facilities.

(c) One or More Composite Measures Derived from Separate Aspects of the Service Delivery.

A second alternative is a variation of the discrete item approach whereby the items are summed to provide an overall satisfaction rating. This second alternative is based on the assumption that each discrete item making up the composite score is of equal weighting. However, health consumers have priorities and thus place a different weighting on individual aspects of their care (e.g., Prager & Tanaka,

1980; Kaufmann, Sorensen & Raeburn, 1979). Hence, summative scores derived in this manner will 'mask' or undermine the importance of those discrete aspects of the service which contribute to the health consumer's overall satisfaction or dissatisfaction.

Each of these approaches differs according to the extent to which they measure satisfaction or dissatisfaction, and as to the quality of information each approach provides. Global measures for example, are, to a large extent, limited to a simple dichotomy - satisfied or dissatisfied. Although, the two alternative measures are multidimensional scales, and therefore more sensitive to the intensity, range and determinants of the consumer's satisfaction with the service; the health consumer's tendency to place a different weighting on various aspects of care suggests that these items should not be summed to provide an overall rating of satisfaction with a service.

In conclusion, the level and sensitivity of information to be gained from a consumer satisfaction study will depend not only on how it is defined and the, previously mentioned, methodological issues, but also as to whether one approaches the measurement of consumer satisfaction with health care from a unidimensional or a multidimensional perspective. Therefore, the implications that choice of approach has for the present study is that, when asking the question are women satisfied with their maternity care? different approaches will provide different answers and consequently information of dissimilar type and worth to the health provider. To overcome this problem Locker and Dunt (1978) have suggested that researchers employ different approaches concurrently so that the results from each can be compared.

CHAPTER FOUR
SATISFACTION WITH MATERNITY CARE

Lebow (1983c) has criticised consumer satisfaction research with health care in general, for a tendency towards primitive research design and analysis, and under-reporting of the method and procedure. A similar pattern is evident in studies of women's satisfaction with maternity care. According to Sullivan and Beeman (1982) not only are there few studies of consumer satisfaction with maternity care to be found in the published literature, but many of these studies have limited external validity due to sampling techniques or restricted content (e.g., Scaer & Korte, 1978; Norr, Block & Charles, 1977).

Aside from the issues previously discussed in chapter two, there appears to be several further methodological issues inherent in measuring satisfaction with maternity care. Halo effects may be more pronounced with maternity care, during which the birth of a healthy baby may be viewed by the mother as compensating for any negative experience, thereby creating a favourable environment for subsequent evaluations of care (Seguin, Therrien, Champagne and Larouche, 1989).

Early discharge policies in maternity care units may not only result in reduced levels of global satisfaction with maternity care, but may also be deleterious to the health of some mothers. Hellman, Kohl and Palmer (1962) found mothers discharged within three days of giving birth to be less satisfied with their maternity care in general than mothers who stayed longer. More recent observations by Hollings (1993) have indicated that early discharge policies may also have serious emotional and physical ramifications for some mothers. Thus, any negative feelings associated with early discharge may 'over-ride' the more positive aspects of the service.

Determinants, Dimensionality and Approaches to Measuring Satisfaction with Maternity Care

In a study of the components of women's satisfaction with maternity care (Seguin, Therrien, Champagne and Larouche, 1989) used factor analysis to identify five dimensions of women's satisfaction with maternity service delivery. These dimensions were:

1. Experience of delivery.
2. Medical services.
3. Nursing services.
4. Explanations provided and participation in the decision process.
5. The physical environment.

Seguin et al., (1989) then used multiple regression modelling to identify important correlates of satisfaction within each of these dimensions. Correlates of satisfaction with the **experience of delivery** differed according to type of delivery (i.e. caesarian or vaginal). The variables significantly associated with satisfaction with experience of delivery for women who gave birth vaginally were pain, length of labour and participation in the decision making process. For women who gave birth by caesarian section these variables were explanations given and participation in the decision making process. Women's satisfaction with **medical services** was also assessed according to whether the birth was vaginal or by caesarian section. The significant variable associated with satisfaction with medical services for both groups was frequency of explanations given. This same variable was also the only one to be significantly associated with satisfaction with **nursing services** for both the caesarian and vaginal groups. Frequency of explanations given during delivery was also the largest predictor of satisfaction with **explanations provided and participation in the decision process** for women who had a vaginal delivery. Additional statistically significant factors included participation in the decision making process, presence of complications and antenatal information regarding the labour and delivery process.

In the caesarian group information on the operation was the most significant predictor followed by antenatal information on the labour and delivery process. The only factor significantly associated with satisfaction with the **physical environment** was whether the women delivered in a birthing room, rather than the operating theatre.

Many variables that were thought to be potential predictors were not associated with any of the five dimensions of satisfaction, for example, demographics, antenatal information (with the exception of information regarding the labour and delivery process) clinical intervention (e.g., forceps, episiotomy) specialised care of newborn and physical environment in labour and delivery room.

Seguin et al. (1989) conceptualised women's satisfaction with their maternity care as a multidimensional construct and therefore provided a satisfaction measure for each discrete aspect of the service. This approach served to identify individual aspects of the service with which the women were most satisfied or dissatisfied and specific areas of the service that required improvement. However, in the absence of a standardised global measure, their study provided little information as to the contribution each of these discrete aspects made to the women's overall (global) satisfaction with the service. Furthermore, their failure to include a standardised measure of global satisfaction in their study prevents comparisons being made of the same facility or similar facilities at a later date.

Sullivan and Beeman's (1982) approach to measuring satisfaction with maternity care was more closely aligned to the use of a concurrent multidimensional and global approach. Sullivan and Beeman (1982) investigated satisfaction with communication patterns and interpersonal relationships with nursing personnel within two stages of maternity care (antenatal care and labour and delivery care). A satisfaction measure was provided for each of the three discrete aspects contained within each stage of these stages, whilst in a separate question women were asked to evaluate their overall satisfaction with each of the two stages.

The three discrete aspects of antenatal care were:

1. Time spent discussing problems
2. Used words I could understand
3. Tried to understand how I felt

The three discrete aspects of labour and delivery care were:

1. Explained procedures
2. Kept me/support person informed of progress
3. Explained choices available

Satisfaction with each discrete aspect was measured in terms of the percentage of satisfied women. Global satisfaction was measured in terms of the overall percentage of women satisfied with each stage. Chi square was used to evaluate the data, while the strength of the association between each discrete aspect and overall satisfaction with each stage of maternity care was measured with Cramer's V. Time spent discussing problems had the strongest association with global satisfaction with antenatal care, while kept me/support person informed of progress had the largest association with global satisfaction with labour and delivery care. In general, those mothers whose caregiver was less communicative, were also found to be less satisfied with their experience of both their antenatal and labour and delivery care.

Sullivan and Beeman's (1982) criticisms of earlier studies of consumer satisfaction with maternity care would appear to be equally applicable to their own - at least in regard to restricted content, and to a lesser extent research design, analysis and reporting. Although Sullivan and Beeman (1982) sought to identify discrete aspects of maternity care with which mothers were most satisfied or dissatisfied (i.e. interpersonal communications), these aspects represent only a small proportion of the overall process and experience of maternity service delivery. While Sullivan and Beeman (1982) might reasonably argue that the

central focus of their study was on communication patterns and satisfaction with maternity care, and not the service as a whole, the question then remains as to why the largely 'information oriented' stage of post-partum care was excluded from their study.

There is an inherent danger in focusing solely on a few specific aspects of maternity service delivery at the exclusion of all others. While communication patterns may account for a statistically significant proportion of women's satisfaction with their maternity care, this may not be the only factor or what women consider to be the most important factor when forming an overall impression of their maternity care. For example, in an earlier, but similar global and multidimensional approach to the study of post-partum care, Sullivan and Beeman (1981) found satisfaction with maternity care to also be associated with opportunity for parent-infant bonding, opportunity to practice infant care and instruction and information in this regard.

Sullivan and Beeman's (1981; 1982) concurrent multidimensional and global approach is useful in that it identifies discrete components of the service and also provides a measure of global satisfaction against which these discrete components can be compared. However, the limited content and design (nominal-level data) of such studies results in their falling short of what is required to elicit the wealth of information that can be gained from consumer satisfaction studies (e.g., Watson, 1993). Inappropriate design techniques for consumer satisfaction research are reflected in the need to use methods of statistical analysis such as chi-square, which, although appropriate to nominal-level data, lack the power and value of the parametric tests that are available to the researcher if more desirable design conditions are met.

In separating antenatal care from labour and delivery care and post-partum care, Sullivan and Beeman (1981;1982) appear to have partially recognised that a woman's total experience of obstetric care passes through three distinct, but interrelated stages (i.e. antenatal care, labour and delivery care and post-partum

care). In her study of the experience and psychology of giving birth Kitzinger (1987) has pointed out that each of these stages represents a period of transition between one state of physiological being and another, during which the women's needs differ, and accordingly so do those aspects of care most relevant to her satisfaction with the service. The labour and delivery stage for example, is a time when the mother is most likely to require invasive medical procedure (e.g., caesarian section) and also a time during which the woman is most likely to experience "a torrent of conflicting emotions" (p.57) - excitement, doubt, fear, joy, anger, disbelief, self-worth, satisfaction and dissatisfaction. In contrast antenatal care centres on regular medical checkups and imparting information and as to how to care for oneself during pregnancy, as well as providing information as to the process, techniques and technology associated with the experience of giving birth. Similarly, the post-partum period is also concerned with providing the mother with information, only in a more practical manner. During the post-partum stage greater emphasis is placed on instructing the mother and providing her with the opportunity to experience caring for herself and newborn in a supportive environment (Sullivan & Beeman, 1981).

Seguin, Therrien, Champagne and Larouche's (1989) findings, and to some extent those of Sullivan and Beeman (1981;1982) suggest that women distinguish between and place different levels of importance on various aspects of their maternity care. Accordingly, the present study approached the measurement of consumer satisfaction and maternity care from both a **multidimensional** and **global** perspective. This approach is predicated on the view that satisfaction studies will be more valid and provide information of greater quality and value when they examine differential satisfaction with discrete aspects of the service and investigate the contribution these aspects make to the consumer's overall satisfaction with the service.

Global satisfaction is the term used to refer to the consumer's overall state of felt satisfaction, while the term **multidimensional** refers to the discrete components of the service, for example, information on the labour process, needs met as to pain

relief, advice on breastfeeding. A multidimensional approach allows for the identification of those discrete components of the service with which women are most satisfied or dissatisfied. Thus providing caregivers with information to guide them in tailoring programs to the needs and expectations of the health consumer. Standardised global measures are useful for comparing the same or similar treatment facilities and client groups, and may, at regular intervals, also be used to give health providers a practical and low cost 'snapshot' of consumer opinion.

CHAPTER FIVE
THE PRESENT STUDY

The present study is based on a survey of six maternity care units within the central North Island of New Zealand. Specific questions provided by the Manawatu-Wanganui Area Health Board were addressed as was the nature of consumer satisfaction with maternity care as a psychological construct. In this latter regard the present study focused on whether mothers distinguish between and differentially evaluate specific aspects of their maternity care, or only form an overall impression.

The impetus for the present study was provided by the Manawatu-Wanganui Area Health Board, who approached the university for assistance in the development of a method to assess women's satisfaction with their obstetric care.

The concept of consumer satisfaction and the definition applied to the present study were outlined in chapter one. Similarly the methodological issues to be considered in consumer satisfaction studies in general were discussed in chapter two. In planning and implementing the present study careful regard was paid to these issues and several additional factors.

1. A self-completion postal questionnaire was preferred by the health provider in the present study for both practical and financial reasons. Direct costs were further reduced by approaching the mothers on their day of discharge rather than distributing the questionnaires by mail. This personal approach may have the added benefit of increasing response rates (Linsky, 1975; Skipper & Ellison, 1966).

2. At the health providers request, the questionnaire booklet was attractively presented in a soft mauve colour with a line drawing of a sleeping infant on the front. This factor has also been shown to increase response rates (Raphael, 1973).

3. As part of post-partum services, and wherever practicable, each mother is visited at home by a trained midwife approximately one week after discharge. At the health provider's request the midwives used these occasions (in addition to her/his normal duties) to remind mothers to fill in their questionnaires if they were participating in the present study.

Psycho-social artifact was likely to be of less threat to the validity of the present study - as a function of method of data collection. Anonymity was maintained and careful consideration given to the wording of items in the questionnaire. Participants were also assured of the researcher's need to know the negative as well as the positive aspects of the service.

Although the present study was both initiated and fully supported by the managerial personnel of the Health Board's Secondary Care services, 'input' was sought from the nursing and medical staff of all the maternity units during the development of the final questionnaire and throughout the assessment period in order to minimise the possibility of organisational threats undermining the validity of the research.

The present study had two objectives. The first objective was to attempt to provide answers to specific the questions supplied by the health provider in their formal brief to the researcher. The second objective related to the nature of consumer satisfaction with maternity care as a psychological construct; the measurement of which was left to the discretion of the present researcher.

OBJECTIVES AND HYPOTHESES

OBJECTIVE 1. INVESTIGATION OF FORMAL BRIEF

In accordance with the formal brief given the researcher by the Manawatu-Wanganui Area Health Board the first objective of the present study was.

(a) To determine whether there is any association between satisfaction with maternity care and age, education level ethnic origin, primipara/multipara mothers, the number of days mothers spent in hospital and the maternity unit in which the mothers gave birth.
(b) To identify any aspects of the service delivery with which mothers were less than satisfied.
(c) To summarise the reasons women gave on their questionnaire for not attending antenatal classes.
(d) To provide feedback to the Manawatu-Wanganui Area Health Board.

One hypothesis were generated in association with the first objective. This was:

HYPOTHESIS 1.

Satisfaction with Maternity care will not be significantly associated with the mother's (a) **Age** (b) **Ethnicity** (c) **Education level and** (d) **Marital status, but will be significantly associated with:** (e) **Delivery Procedure** (eg. Caesarian section) (f) **Number of previous babies** (primipara or Multipara) (g) **Days in hospital and** (h) **Maternity Unit in which the mother gave birth.**

ANTENATAL CLASS ATTENDANCE

Failure to attend or premature termination of antenatal classes may not necessarily reflect dissatisfaction with the antenatal services, and may instead be due to

situational factors. It was therefore requested that mothers indicate, in response to a direct question, the reason they did not attend antenatal classes.

OBJECTIVE 2. THE NATURE OF CONSUMER SATISFACTION WITH MATERNITY CARE AS A PSYCHOLOGICAL CONSTRUCT

The second objective was guided by Locker and Dunt's (1978) suggestions for approaching the measurement of consumer satisfaction with health care in general and Lebow's (1983c) criticisms of the design, measurement and analysis of consumer satisfaction studies.

Three hypotheses were generated in association with the second objective. These were:

HYPOTHESIS 2.

The possibility that the accuracy of consumer satisfaction data can be undermined by predispositional factors (Weiss, 1988) and particularly general life satisfaction, warrants the inclusion of a life satisfaction measure in the present study. However, as the present study used a **micro** measure (Roberts, Pascoe & Attkisson, 1983) to measure global satisfaction with care it was hypothesised that:

General Life Satisfaction will be Unrelated to Global Satisfaction with Maternity Care.

HYPOTHESIS 3.

As noted in Chapter three (p.23) opinion differs as to whether consumer satisfaction with health care in general is a unidimensional or multidimensional construct. Although few studies have specifically addressed this issue in regard to

maternity care, there is evidence to suggest that satisfaction with maternity care is a multidimensional construct (e.g., Seguin, Therrien, Champagne and Larouche, 1989). For instance, Seguin et al., (1989) noted that several discrete variables were crucial in determining a mother's satisfaction with her maternity care. These determinants were central to communications between mothers and nursing personnel, which provides mothers with a sense of empowerment and inclusion in the decision making process. It was therefore hypothesised that:

Women are able to differentiate between and independently evaluate discrete aspects of their maternity care.

HYPOTHESIS 4.

Kitzinger (1987) has observed that Labour and delivery care is a time when the mother is most likely to require invasive medical procedure (e.g., caesarian section) and also a time of greatest emotional upheaval (e.g., excitement, doubt, fear, joy, anger, disbelief, self-doubt, satisfaction and dissatisfaction). It was therefore hypothesised that:

The Mother's global satisfaction with their Labour and delivery care will make a larger contribution to her global satisfaction with her maternity care in general than the more information oriented stage of Antenatal Services or the more practical stage of Post-partum care.

CHAPTER SIX
METHOD

PARTICIPANTS

The study sample consisted of women residing within the catchment area of the Manawatu-Wanganui Area Health Board, who were admitted to a maternity unit (either a large base hospital or one of five smaller regional units) for the birth of their baby between October 1, 1992 and January 30, 1993. Of the 538 questionnaires distributed 247 (46%) were returned. This sample represents approximately 10% of the live hospital births in the locality annually.

The age and ethnicity of the participants in the present study were comparable with the hospital census for the 2,483 women who gave birth within the Manawatu-Wanganui Area Health Board environs during 1992.

Table 6.0: *Comparison of Age and Ethnicity Demographics from 1992 Hospital Census (maternity) with the Equivalent Demographics from the Present study*

VARIABLE *	Hospital Census (N=2,483)		PRESENT Study (N=247)	
	N	Percent	N	Percent
AGE				
15 - 19	204	8%	6	3%
20 - 24	612	25%	57	23%
25 - 29	906	36%	85	35%
30 - 34	568	23%	72	29%
35 - 39	160	7%	24	9%
40 - 44	29	1%	3	1%
ETHNICITY				
Maori	440	17%	36	16%
Polynesian	50	2%	4	2%
European	1998	81%	202	82%

* Age and ethnicity were the only demographic variables from the 1992 hospital census available for comparative purposes due to clerical error in compiling the hospital data in 1992.

The mean age for all women in the present study (n = 247) was 28 years (SD = 4.8 years) range 16-42 years. Mean days in hospital was 5 days (SD 3.1 days) range 1-30 days. The women in the present study were predominantly caucasian (n = 202, 82%). Thirty-six (15 per cent) of the women described themselves as Maori, and 4 (2%) described themselves as Polynesian. A further 5 (2%) of the women described themselves as 'other'. Table 6.1 lists the demographic characteristics of the participants in the present study.

Table 6.1: *Demographic Characteristics of the participants in the present study* (n =247)

AGE	
15-19 years	6
20-24 years	57
25-29 years	85
30-34 years	72
35-39 years	24
40-44 years	3
EDUCATION LEVEL	
No high school	58
School cert.	78
University entrance	33
Trade cert.	18
Professional diploma	32
Bachelor degree	18
Post-graduate degree	10
OCCUPATION	
Mother	74
Service	24
Clerical	50
Professional	42
Student	9
Administration	13
Production	23
Unemployed	9
ETHNIC ORIGIN	
Maori	36
Polynesian	4
European	202
Other	5
MARITAL STATUS	
Married	171
Defacto	49
Single	27

MEASURES

Pilot Study

Six months prior to the commencement of the present study the Manawatu-Wanganui Area Health Board conducted a pilot survey of women's opinions of the service delivery in all maternity units within its catchment. The pilot questionnaire was given to 146 mothers on the day of discharge from their respective maternity units, with the completed questionnaire to be returned in the pre-paid envelope provided. Ninety-seven (66%) of the respondents returned the questionnaire which contained a series of questions considered by the obstetric staff at the base hospital to be relevant to the mother's physical and emotional needs during her pre-natal, labour and delivery and post-partum care. These questions included such aspects of care as information provided by the nursing staff, the mother's participation in decisions regarding her care, rapport with nursing staff; fulfilment of the mother's choice and needs during labour and delivery; her opinion of the physical environment and several demographic variables including age ethnicity and marital status.

The pilot questionnaire was compiled in a manner that provided nominal data. This prevented a fuller statistical analysis that may have identified aspects of care that are predictive of satisfaction, or evidence of differential levels of satisfaction with specific aspects of the service. Primitive design and data analysis has been a major criticism of health consumer satisfaction studies in the past (e.g., Lebow, 1983c). Nevertheless, the results and the many comments mothers wrote on their pilot study questionnaires did raise questions regarding various components of the service. Accordingly, it was decided by the managerial personnel of the Manawatu-Wanganui Area Health Board that a more comprehensive and methodologically sound assessment be conducted. Information from both the pilot study and the staff of each maternity unit was used, in conjunction with a search of the relevant literature, to provide a foundation on which to base the questionnaire in the present study.

POSTAL QUESTIONNAIRE

The postal questionnaire used in the present study was made up into a booklet on A5 paper with 16 pages and was accompanied by a personalised letter. The booklet contained 115 questions which addressed various aspects of the mother's satisfaction with each of the three stages of maternity care, (1) antenatal, (2) labour and delivery and (3) post-partum care. In addition the questionnaire addressed the mother's overall satisfaction with the collective aspects of each stage of their care, including their satisfaction with life in general. Twelve questions examined demographic variables, 5 questions addressed global satisfaction with maternity care in general and 5 questions were directed at the mother's general life satisfaction (see appendix I).

For each mother, data was collected on the advice, information and explanations given in relation to her own and her baby's care, the fulfilment of her choice and needs, her participation in the decision process and her interpersonal relations with her caregivers. Items pertaining to medical procedures (eg., pain relief, obstetric procedure) were generated by the nursing and medical personnel of the maternity unit. Items associated with communication and interpersonal relations were derived from a literature search and comments made by mothers in the pilot survey.

A life-satisfaction measure was also used to examine any association between dissatisfaction with life and the respondent's dissatisfaction with their maternity services.

THE CONSUMER SATISFACTION QUESTIONNAIRE (CSQ)

The Consumer Satisfaction Questionnaire - 5 (CSQ-5, see appendix I) was used to independently evaluate the respondent's satisfaction with (a) Antenatal services. (b) Labour and Delivery (c) Post-partum services and (d) Global satisfaction with all aspects of the maternity services they received. The CSQ-5 is a shortened

version of the CSQ-8 (Larsen, Attkisson, Hargreaves & Nguyen, 1979).

The CSQ-8 uses 8 items with a 4-point semantically anchored Likert type scale. Evidence of the CSQ-8's high degree of internal consistency has been reported by Nguyen, Attkisson, & Stegner (1983) in a review of seven studies which provided coefficient alpha ranging between .90 and .93. Nguyen et al., (1983) have pointed out that an added advantage of the CSQ-8 is the fact that at it may be supplemented by open ended questions and/or items of special interest to a particular service or program to enhance the value and use of results without threat to its validity.

Three items were not included because they were of less relevance to the present study due to the type of service being assessed and the fact that almost no maternity services are provided privately in New Zealand. Specifically these items were:

1. If a friend were in need of similar help, would you recommend our program to him or her?
2. Have the services you received helped you to deal more effectively with your problems?
3. If you were to seek help again, would you come back to our program?

An additional factor in the decision to use items from the CSQ-8 is the fact that it has previously been use in assessing satisfaction with outpatient psychological services in New Zealand (Deane, in press; Watson, 1993). This factor would allow additional comparisons of ratings between services in the New Zealand context.

Satisfaction with the three separate stages of maternity care (Antenatal Services, Labour and Delivery care and Post-partum Care) was examined using the CSQ-8 as was satisfaction with maternity care in general.

ANTENATAL SERVICES

The Antenatal Services section of the questionnaire consisted of 22 items (including the CSQ-5) which asked mothers whether they received enough information or advice on diet, exercise, self and infant care, the labour process, complications, emotional adjustment, life-style changes, and whether they were accompanied by a friend or partner whilst attending antenatal classes.

Each item was accompanied by a 4-point Likert-type scale ranging from no, definitely not (1) to yes, definitely (4). The respondent's overall satisfaction with their antenatal care and services was assessed with the Consumer Satisfaction Questionnaire - 5 (CSQ-5).

LABOUR AND DELIVERY SERVICES

The labour and delivery section of the questionnaire contained 31 items (including the CSQ-5). Respondents were asked to rate, on a 4-point Likert type scale, their experiences during labour and delivery in relation to factors such as; pain, choice of delivery position, control, coping, delivery procedure, time with family, and help from nursing staff. The respondent's overall satisfaction with their labour and delivery was also assessed with the CSQ-5.

POST-PARTUM SERVICES

The Post-partum services section of the questionnaire contained 40 items (including the CSQ-5). Respondents were asked to rate their experiences in relation to the advice and assistance they received in caring for their baby and themselves. Specific items included; the opportunity to practice infant care in the hospital, information provided by nursing staff, the mother's emotional and physical comfort, the consideration of the mother's ideas and wishes regarding the care of her infant and her own confidence in caring for the infant.

The remaining items sought the mother's opinion of the physical environment in relation to such factors as food quality, hospital regulations, visiting hours, ward or room cleanliness, rest and noise levels. In line with the previous sections of the questionnaire a 4-point Likert type scale was used for each item. The CSQ-5 was once again used to provide an overall measure of the mother's satisfaction with her Post-partum services.

GLOBAL SATISFACTION WITH MATERNITY CARE

The CSQ-5 was also used to assess the respondent's satisfaction-dissatisfaction with their maternity services overall and to provide a basis by which comparisons could be made of the respondent's levels of satisfaction between the six maternity units.

THE SATISFACTION WITH LIFE SCALE (SWLS)

The Satisfaction with Life scale (SWLS) (Diener, Emmons, Larsen & Griffin, 1985) was used in the present study to assess the respondent's general satisfaction with life. The SWLS uses a 7-point scale on which respondents may strongly disagree (1) or strongly agree (7) in relation to 5 questions concerning aspects of their life. Evidence of the psychometric properties of the SWLS has been provided with a two-month test - retest correlation coefficient of .82 and a coefficient alpha of .87. Scores on the SWLS correlate moderately with other subjective well-being measures such as Andrews and Withey's (1978) Life 3 scale (0.68).

PROCEDURE

All eligible mothers were invited to participate in the present study on the day of discharge from their respective maternity units by a senior member of the obstetric nursing staff. Interested mothers were then given a one page written outline of the study's aim and purpose (see appendix II). Any questions regarding

the study were also answered at this time. Those mothers who then agreed to participate in the study (27 mothers declined) were given the questionnaire (see appendix I) to complete at home and return as soon as possible in the reply-paid envelope provided. Midwives visiting mothers at home during the course of their normal duties reminded mothers to fill in the questionnaire if they were participating in the present study.

CHAPTER SEVEN
RESULTS

All statistical analysis was performed using *SPSSPC*+. The data was examined as to its normality, linearity, homoscedasticity and for the existence of multivariate outliers. Although The distribution of scores for the CSQ-5 showed a small to moderate negative skew, this was not sufficient to violate the assumption of normality. All assumptions for multiple regression analysis were met, with the independent variable to case ratio well in excess of the 5 to 1 suggested by Tabachnick and Fidell (1989).

The results of the five research hypothesis generated to examine and measure women's satisfaction with maternity care are as follows:

OBJECTIVE ONE: INVESTIGATION OF FORMAL BRIEF

HYPOTHESIS 1.

Satisfaction with Maternity care will not be significantly associated with: (1 **Age** (2 **Ethnicity** (3) **Education level and** (4) **Marital status, but will be significantly associated with:** (5) **Delivery Procedure** (eg. Caesarian section) (6) **Number of previous babies** (primipara or Multipara) (7) **Days in hospital and** (8) **Maternity Unit in which the mother gave birth.**

The number of statistical tests conducted to examine the association between the variables in hypothesis one and satisfaction with maternity care may have resulted in an inflated alpha. While careful consideration was given to the various options available to mitigate this effect in the present study, it was decided that no real advantage would be gained from any adjustment to alpha in this instance, nor would an inflated alpha seriously undermine the validity of the results. As alpha and beta are inversely related, any adjustment to decrease alpha will increase beta.

This would have provided an additional problem for the present study since it was hypothesised that four of the variables (i.e. age, ethnic, qualify and marital) would not be significantly associated with satisfaction with maternity care.

1. Age

The age variable was dichotomised at the mean (28 yrs) to form a 'younger' and 'older' group of mothers. No significant difference in level of global satisfaction with maternity care in general (CSQTOT) was found between the younger mothers (n = 134; mean = 24.27) and the older mothers (n = 113; mean = 32.20) t (245) = .114, p>.05.

2. Ethnicity

No significant difference was found between Maori mother's (n= 36) and Caucasian mother's (n = 202) ratings of global satisfaction with labour and delivery care (CSQLD) t(236) = 1.98, p>.05; Post-partum care(CSQPP) t(236) = .80, p>.05; and global satisfaction with their maternity care in general(CSQTOT) t(236) = 1.19, p>.05. However, Maori mothers expressed significantly lower levels of global satisfaction with Antenatal services(CSQA) in comparison to caucasian mothers t(236) = 4.44 p<.001.

3. Education Level

Mothers self-reported levels of education were divided into seven categories (1. No high school (n = 58), 2. School certificate (n = 78), 3. University entrance (n = 33), 4. Trade certificate (18), 5. Professional diploma (n = 32), 6. Bachelor degree (n = 18) and 7. Post-graduate degree (n = 10)). A one way analysis of variance (ANOVA) showed there to be no significant difference between mother's scores on global satisfaction with antenatal services (CSQA) F(6,240) = 1.66, p>.05; labour and delivery care (CSQLD) F(6,240) = .756, p>.05 and maternity care in general (CSQTOT) F(6,240) = 1.58, p>.05 as a function of their education

level. However, Maori mothers had significantly less schooling and education than non-Maori mothers $t(240) = -3.54$, $p < .001$.

4. Marital Status

The mothers marital status was divided into one of three groups (married, defacto or single). Using analysis of variance (ANOVA) no significant differences were found between the mother's scores on global satisfaction with labour and delivery care (CSQLD) $F(2,244) = .73$ $p > .05$, post-partum care (CSQPP) $F(2,244) = 2.33$ $p > .05$, and global satisfaction with maternity care in general (CSQTOT) $F(2,244) = 2.48$ $p > .05$ as a function of their marital status. However, there were significant differences between the mother's antenatal service scores (CSQA) as a function of marital status $F(2,244) = 10.50$ $p < .001$. Defacto/single mothers expressed significantly lower levels of global satisfaction with their antenatal services in comparison to married mothers $t(49) = 3.69$, $p < .001$.

5. Delivery Procedure

The mother's global satisfaction with labour and delivery care (CSQLD), and their global satisfaction with their maternity care in general (CSQTOT) were examined in relation to the clinical procedure used to delivery the baby. Delivery procedure was divided into five groups (1. no procedure (n = 147), 2. Epidural (n =26) 3. Episiotomy (n = 28) 4. Caesarian section (n= 39) 5. Forceps (n = 8).Using analysis of variance (ANOVA) significant differences were found between scores on the CSQLD for mothers who received either no procedure (M = 19.00), an epidural (M = 17.50), an episiotomy (M = 18.81), forceps (M =17.20) or a caesarian section (M = 18.82) $F(4,243) = 2.55$, $p < .05$. However, mothers who received a clinical intervention during labour and delivery (n = 100) were no less satisfied than those mothers who received no clinical intervention (n = 147), $t(245) = 1.58$, $p > .05$.

6. Number of Previous Babies

No significant differences were found between the Primipara mother's (n= 81) and Multipara mother's (n = 166) level of global satisfaction with Antenatal services (CSQA) t(245) = .04, p>.05; Labour and delivery care (CSQLD) t(245) = -.96, p>.05; Post-partum care (CSQPP) t(245) = -1.66, p>.05 and global satisfaction with maternity care in general (CSQTOT) t(245) = -.93, p>.05.

7. Days in Hospital

Days in hospital was dichotomized at the median. Mothers who spent 5 days or less in hospital formed group one (n = 151; mean days = 3.48), with the remainder making up group two (n = 96; mean days = 7.96). There was no significant difference in levels of global satisfaction with maternity care in general(CSQTOT) between group one and two t(245) = 1.51, p>.05.

8. Maternity Unit

Analysis of variance (ANOVA) was used to examine the association between the maternity unit in which the mother gave birth and global satisfaction with Labour and delivery care (CSQLD), Post-partum care (CSQPP) and global satisfaction with maternity care in general. Mothers were divided into two groups; those who gave birth in the small rural units (n =57) and those who gave birth in the large base hospital (n=190). Significant differences in level of global satisfaction with labour and delivery care were found between mothers who gave birth in the small units (M = 19.37) compared with those mothers who gave birth in the base hospital (M = 18.38), F(1,246) = 8.46, p<.01. Significant differences in level of global satisfaction with post-partum care were found between mothers who gave birth in the small units (M = 18.95) compared with those mothers who gave birth in the base hospital (M = 16.73), F(1,246) = 24.73, p<.001. Significant differences in level of global satisfaction with maternity care in general were found between mothers who gave birth in the small units (M = 19.07) compared with those

mothers who gave birth in the base hospital (M = 17.15), F(1,246) = 26.15, p<.001. Mothers who gave birth in smaller maternity units expressed significantly higher levels of global satisfaction with Labour and delivery care, t(245) = -3.81, p>.001, Post-partum care, t(245) = -6.70, p>.001 and their maternity care in general, t(245) = -6.48, p>.001 when compared with mothers who gave birth in the large base hospital.

Antenatal Class Attendance

Five of the primipara mothers (n = 81) failed to attend antenatal classes, while 110 of multipara mothers (n = 166) failed to attend antenatal classes. The type and frequency of the reasons primipara and multipara mothers gave for not attending antenatal classes are shown in table 7.0.

Table 7.0: *Type and Frequency of Reasons for not Attending Antenatal Classes*

PRIMIPARA MOTHERS		
	REASON	**FREQUENCY**
	Couldn't get there	2
	Not enough time	1
	No interest	2
MULTIPARA MOTHERS		
	REASON	**FREQUENCY**
	Work commitments	2
	Not enough time	6
	Couldn't afford it	2
	Attended with first	55
	No baby sitter	2
	No partner	4
	Couldn't be bothered	8
	Didn't think I needed to	14
	Didn't want to	9
	Lived out of town	4
	Lack of transport	4

Identifying Satisfaction and Dissatisfaction with Maternity Care

Although studies of consumer satisfaction typically result in high ratings of satisfaction, most studies also show a minority of patients (approx.10%) who are dissatisfied with various aspects of a service (Lebow, 1983c). Therefore Lebow has suggested that health providers also focus on those aspects of the service about which consumers are dissatisfied if the objective of such studies is to improve service delivery.

The literature provides little in the way of guidelines to separate satisfied from dissatisfied responses. The structure of each response set in the present study is based on a four point Likert type scale whereby ratings of '1' and '2' represent a dissatisfied response, a rating of '3' represents a satisfied response and a rating of '4' represents a very satisfied response. Watson (1993) has suggested that, under these conditions, the most obvious way to separate the satisfied and dissatisfied groups is to use "3" as the cut of point. Following this line of reasoning, mothers in the present study were considered satisfied if their ratings were "3" and above and dissatisfied if their ratings were lower than "3".

Table 7.1 shows the **minimum** and **maximum** scores; the means, standard deviations and the percentage of mothers satisfied and dissatisfied with each discrete aspect of care within each of the three stages of maternity care. For example, antenatal services item 7 (antadv 7) 'Did you receive enough advice about caring for baby after he/she was born had a minimum score of "1" a maximum of "4" and a mean of 2.77. In total 68% of mothers were satisfied with the advice they received, while 31% were dissatisfied.

Table 7.1: *Percentage of Satisfied and Dissatisfied Mothers and Means and Standard Deviations for each Discrete component within Antenatal Services, Labour and Delivery Care and Post-partum care.*

Variable	Min\Max	Mean	S.D.	Percent Satisfied\dissatisfied
ANTENATAL SERVICES *				
At antenatal classes did you receive enough information about:				
1. Breastfeeding?(antadv1)	1 4	3.06	.84	80.10\19.9
2. Breathing/relaxation exercises?(antadv2)	1 4	3.26	.86	81.70\18.3
3. Good eating habits?(antadv3)	1 4	2.82	.80	67.90\32.1
4. Smoking during pregnancy?(antadv4)	1 4	3.05	1.02	71.80\28.2
5. What happens during labour?(antadv5)	1 4	3.42	.72	92.40\07.6
6. The maternity unit environment?(antadv6)	1 4	3.08	.86	81.00\19.0
7. Caring for baby after he/she is born?(antadv7)	1 4	2.77	.06	68.70\31.3
8. Caring for yourself while pregnant?(antadv8)	1 4	3.05	.06	80.10\19.9
9. Pain management?(antadv9)	1 4	3.16	.07	80.20\19.8
10.Possible complications of pregnancy?(antadv10)	1 4	3.05	.82	73.30\26.7
11.Psychological and emotional factors?(antadv11)	1 4	2.92	.06	71.00\29.0
12.Changes of lifestyle when baby arrives?(antadv12)	1 4	3.07	.74	79.40\20.6
13.Choice of birthing position?(antadv13)	1 4	3.56	.61	82.00\18.0
14.Early discharge?(antadv14)	1 4	2.77	.25	64.00\36.0
LABOUR AND DELIVERY CARE *				
1. Were you and your partner made welcome? (welcome)	1 4	3.66	.60	94.8\05.2
2. Did the nurse/midwife explain the examinations being carried out? (labexam)	1 4	3.84	.46	96.8\03.2
3. Did the nurse/midwife explain why the examinations were required? (labexpla)	1 4	3.75	.58	94.8\05.2
4. Did you understand the explanations? (labunder)	2 4	3.75	.47	98.8\01.2
5. Did the nurse/midwife explain to you what progress you were making? (labprog)	1 4	3.68	.60	93.5\06.5
Were your needs met with regards to:				
6. Relief of pain? (labmet1)	1 4	3.62	.70	90.3\09.7
7. Delivery position? (labmet2)	1 4	3.57	.79	89.9\10.1
8. Being in control? (labmet3)	1 4	3.53	.76	89.1\10.9
9. Being able to move around? (labmet4)	1 4	3.56	.79	89.5\10.5
10. Privacy? (labmet5)	1 4	3.73	.62	94.4\05.6
11. Were you satisfied with your delivery procedure? (delproc)	1 4	3.46	.83	88.2\11.8
12.Were the nursing staff friendly and helpful during your labour and delivery? (nurhelp)	1 4	3.81	.53	95.5\04.3
13.Were you satisfied with the amount of time given to hold baby? (babyhold)	1 4	3.57	.59	95.6\04.4
14.Were you able to put baby to to the breast? (babyreas)	1 4	3.39	1.00	80.1\19.9
15.Were you satisfied with the amount of time you were given to be alone with your family (famtime)	1 4	3.70	.60	94.7\05.3
16.Friend/partner present at the birth (partwas)	1 4	3.84	.53	97.2\02.8

table 7.1 cont..

Variable	Min\Max	Mean	S.D.	Percent Satisfied\dissatisfied
POST-PARTUM CARE *				
Were you given enough advice about:				
1. Bathing your baby? (babcare1)	1 4	3.51	.75	91.9\08.1
2. Breastfeeding? (babcare2)	1 4	3.44	.78	88.2\11.8
3. Care of your breasts? (babcare3)	1 4	3.19	.87	79.7\20.8
4. Settling your baby? (babcare4)	1 4	2.94	.92	69.6\30.4
5. Caring for yourself? (babcare5)	1 4	3.21	.84	82.6\17.4
Were you given enough opportunities to practice:				
6. Bathing your baby? (babop1)	1 4	3.48	.77	88.3\11.7
7. Breastfeeding? (babop2)	1 4	3.63	.68	94.0\06.0
8. Caring for your baby? (babop3)	1 4	3.61	.67	93.2\06.8
9. Settling your baby? (babop4)	1 4	3.49	.77	87.0\13.0
10.Were you introduced to the other mothers? (mumintro)	1 4	2.30	1.12	41.7\58.3
11.Did you find information given by the nurses to be conflicting? (nurinfo)	1 4	2.80	.89	67.6\32.4
12.Were the wards too noisy? (wardact)	1 4	2.76	.77	68.9\31.1
13.Were the visiting hours flexible enough? (flexhrs)	1 4	3.74	.49	98.0\02.0
14.Were the visiting hours convenient for you and your partner/family? (convhrs)	1 4	3.68	.59	95.6\04.4
15.Did you get enough rest? (rest)	1 4	3.00	.81	79.7\20.3
16.Was your ward/room cleaned adequately? (clean)	1 4	3.40	.65	93.1\06.9
17.Did you have enough to do in hospital? (bored)	1 4	2.99	.83	76.5\23.5
18.Were the regulations too strict? (hospregs)	1 4	3.25	.64	91.9\08.1
19.How would you rate the quality of the food? (foodqual)	1 4	2.82	.95	68.8\31.2
20.Did you go home feeling confident about caring for your baby? (careconf)	1 4	3.42	.57	97.6\02.4
21.Did you feel that your ideas and wishes on the care of yourself/baby were considered? (carewish)	1 4	3.36	.61	95.0\05.0

* The wording of many of the items within these sections has been edited to conserve space.

The means, standard deviations and percentages of mothers satisfied/dissatisfied with global Antenatal Services, Labour and Delivery Care and Post-partum care and global satisfaction with maternity care in general are shown in table 7.2.

Table 7.2: *Means, Standard Deviations and Percentage of Mothers Dissatisfied/satisfied with each Global aspect of Maternity Care*

Variable	Percent Dissatisfied	Percent satisfied	Mean	Stdev
Global Antenatal Services	2.0	98.0	17.89	2.66
Global Labour and Delivery Care	2.4	97.6	18.60	2.28
Global Post-partum care	12.1	87.9	16.24	3.08
Global Maternity Care in General	1.6	98.4	17.59	2.60

The internal consistency of the discrete items within each of the three stages of maternity care were examined with Cronbach's alpha. It can be seen from table 7.3 that each of these coefficients revelled high levels of internal consistency.

Table 7.3: *Alpha Coefficients for Antenatal Services, Labour and Delivery Care, Post-partum Care* and *Global satisfaction with Antenatal Services, Labour and Delivery Care and Post-partum Care(CSQ-5).*

VARIABLE	ALPHA COEFFICIENTS Discrete Items
Antenatal services	.81 (n=14)
Labour and delivery care	.83 (n=16)
Post-partum care	.87 (n=21)

The internal consistency of the discrete items within each global measure (CSQ-5) of maternity care were examined with Cronbach's alpha. It can be seen from table 7.4 that each of these coefficients revelled high levels of internal consistency.

Table 7.4: *Alpha Coefficients for Global satisfaction with Antenatal Services, Labour and Delivery Care, Post-partum Care* and *Global satisfaction with Maternity Care in General*

VARIABLE	ALPHA COEFFICIENTS CSQ-5
Global Antenatal services	.93 (n=5)
Global Labour and delivery care	.89 (n=5)
Global Post-partum care	.93 (n=5)
Global maternity care in general	.91 (n=5)

HYPOTHESIS 2.

General Life Satisfaction (satlife) will be unrelated to Global Satisfaction with Maternity Care in General (csqtot).

Small but significant correlations were found between life satisfaction (satlife) and global satisfaction with Antenatal services (csqa), post-partum care (csqpp) and global satisfaction with maternity care in general (csqtot).

Table 7.5: *Correlations of Life Satisfaction (**satlife**) with Antenatal Services (**csqa**) Labour and Delivery Care (**csqld**), Post-partum Care (**csqpp**) and Global Satisfaction with Maternity Care (**csqtot**).*

	SATLIFE
CSQA	.192 **
CSQLD	.057
CSQPP	.171 *
CSQTOT	.159 *

(n = 247) 1 - tailed signif: * - .01 ** - .001

Life satisfaction was then included as an independent variable in all multiple regression analyses conducted to assess the relationship between the group of independent variables (associated with objective 2) and global satisfaction with maternity care in general (CSQTOT) as the dependent variable. When entered into each standard multiple regression life satisfaction did not significantly predict global satisfaction with antenatal services (Beta .11, F = 1.82, p>.05); labour and delivery care (Beta = .02, F = .35, p >.05); post-partum care (Beta = .03, F = .55, p >.05 and global satisfaction with maternity care in general (Beta = .00, F = .01. p>.05

HYPOTHESIS 3.

Women are able to differentiate between and independently evaluate discrete aspects of their maternity care.

ANTENATAL SERVICES

A separate standard multiple regression analyses was conducted for each stage of maternity care (i.e. antenatal services, labour and delivery care and post-partum care) to identify which discrete variables predict global satisfaction with each stage, and to determine whether mothers differentiate between these variables in forming an overall impression of each stage of care. The 15 discrete antenatal service variables (including satlife) that were regressed onto the dependent variable global satisfaction with antenatal services (CSQA) are shown in table 7.6.

Table 7.6: *Standard Multiple Regression of the 15 Antenatal Service Variables on Global Satisfaction with Antenatal Services* (CSQA).

Variables CSQA (DV)	B	BETA	Semi-partial (Sr^2) (unique)
Antadv1	.254	.07	
Antadv2	.631*	.20	.03
Antadv3	-.160	-.04	
Antadv4	-.153	-.05	
Antadv5	1.177**	.31	.07
Antadv6	.106	.03	
Antadv7	-.326	-.08	
Antadv8	-.117	-.03	
Antadv9	.314	.09	
Antadv10	-.083	-.02	
Antadv11	.502	.14	
Antadv12	-.439	-.11	
Antadv13	.646	.15	
Antadv14	-.199	-.06	
Satlife	.006	.11	
Intercept	8.534		
			R^2 = .32[a]
			Adjusted R^2 = .23
			R = .56**
F (15,115) = 3.559			

* p <.05 ** p <.01 [a]Unique variability = .10; shared variability = .22

Sr^2 indicates the amount by which R^2 would be reduced if an IV were omitted from the equation. Two of the IVs contributed significantly to the prediction of global satisfaction with antenatal care services; (csqa) 'information on what happens during labour' (antadv5; sr^2 = .07) and 'information on breathing and relaxation exercises' (antadv2; sr^2 = .03). The 15 variables in combination contributed another .22 in shared variability. Altogether, 32% (23% adjusted) of the variability in global satisfaction with antenatal services (csqa) was predicted by knowing the scores on the 15 IVs.

LABOUR AND DELIVERY CARE

The 17 discrete labour and delivery care variables (including satlife) that were regressed onto the dependent variable global satisfaction with labour and delivery care (csqtot) are shown in table 7.7.

Table 7.7: *Standard Multiple Regression of the 17 Discrete Labour and Delivery Care Variables (including satlife) on Global Satisfaction with Labour and Delivery Care.*

Variables CSQLD (DV)	B	BETA	Semi-partial (Sr^2) (unique)	
Welcome	.324	.08		
Labexam	.802*	.16	.01	
Labexpla	-.093	-.02		
Labunder	.164	.03		
Labprog	.058	.01		
Labmet1	.426*	.13	.01	
Labmet2	.890***	.30	.04	
Labmet3	.074	.02		
Labmet4	-.278	-.09		
Labmet5	-.135	-.03		
Nurhelp	1.284***	.30	.06	
Babyhold	.461*	.12	.01	
Babyreas	.330**	.14	.02	
Famtime	-.431*	-.11	.01	
Partwas	.019	.00		
Delproc	.504*	.11	.01	
Satlife	-.012	-.02		
Intercept =	2.732		R^2 = .54[a]	
F(17,229) = 16.100			Adjusted R^2 = .52	
			R = .74***	

* p <.05 ** p <.01 *** p <.001 [a]Unique variability = .17; shared variability = .37

Sr^2 indicates the amount by which R^2 would be reduced if an IV were omitted from the equation. Eight IV's contributed significantly to the prediction of global satisfaction with labour and delivery care, 'explanation of examinations being carried out' (labexam; sr^2 = .01), 'ability to put baby to breast' (babyreas; sr^2 =

.02), 'delivery position' (labmet2; sr^2 = .04) 'satisfaction with delivery procedure' (Delproc; sr^2 = .01), 'friendly and helpful nurses' (nurhelp; sr^2 = .06), ' time to hold baby after the birth' (babyhold; sr^2 = .01) 'needs met as to the relief of pain' (labmet1; sr^2 = .01) 'time with family after the birth' (famtime; sr^2 = .01) The 17 variables in combination contributed another .37 in shared variability. Altogether, 54% (52% adjusted) of the variability in global satisfaction with labour and delivery care was predicted by knowing the scores on the 17 labour and delivery care variables.

POST-PARTUM CARE

The 22 variables (including satlife) within post-partum care (see table 7.8) were regressed onto the dependent variable global satisfaction with post-partum care (CSQPP).

Table 7.8: *Standard Multiple Regression of the 22 Post-partum Care Variables (including satlife) on Global Satisfaction with Post-partum Care.*

Variables CSQLD (DV)	B	BETA	Semi-partial (Sr^2) (unique)	
Mumintro	.271*	.09	.01	
Babcare1	.018	.00		
Babcare2	.585*	.14	.01	
Babcare3	.648*	.18	.02	
Babcare4	-.297	-.08		
Babcare5	.161	.04		
Babop1	.297	.07		
Babop2	-.167	-.03		
Babop3	.062	.01		
Babop4	-.029	-.00		
Nurinfo	.175	.05		
Wardact	.097	.02		
Flexhrs	.071	.01		
Careconf	.249	.04		
Clean	.734**	.15	.02	
Hospregs	.454	.09		
Rest	.360	.09		
Bored	.024	.00		
Carewish	1.438***	.28	.04	
Convhrs	-.124	-.02		
Foodqual	.178	.05		
Satlife	-.022	.03		
Intercept =	-.324			R^2 = .52[a]
			Adjusted	R^2 = .47
F(21,225) 11.78				R = .72***

* p <.05 ** p <.01 *** p <.001 [a]Unique variability = .10; shared variability = .42

Sr^2 indicates the amount by which R^2 would be reduced if an IV were omitted from the equation. Five IV's contributed significantly to the prediction of global satisfaction with post-partum care 'consideration of the mother's wishes regarding her own and her baby's care' (carewish; sr^2 = .04) 'clean ward/room' (clean; sr^2 = .02) 'information on caring for breasts' (sr^2 = .02) 'information on breastfeeding' (babcare; sr^2 = .01) 'introduction to other mothers' (mumintro; sr^2 = .01). The 22 post-partum variables in combination contributed another .42 in shared variance. Altogether, 52% (47% adjusted) of the variability in global satisfaction with post-partum care was predicted by knowing the scores on the 22 post-partum care variables.

HYPOTHESIS 4.

The Mother's global satisfaction with their Labour and delivery care will make a larger contribution to her global satisfaction with her maternity care in general than the more information oriented stage of Antenatal Services or the more practical stage of Post-partum care.

Hierarchial multiple regression was employed to determine if the addition of information regarding global satisfaction with antenatal services (CSQA) and then post-partum care (CSQPP) improved prediction of overall satisfaction with maternity care in general (CSQTOT) beyond that afforded by global satisfaction with labour and delivery care (CSQLD).

Table 7.9 shows the correlations between variables, the unstandardised regression coefficients (B) the intercept, the standardised regression coefficients (Beta), the semipartial correlations (sr^2), and R, R^2, and adjusted R^2 after entry of all three IVs. After step 3, with all IVs in the equation, R = .82 F(3,243) = 159.54 p <.001.

Table 7.9: *Hierarchical Regression of Global Satisfaction with Antenatal Services (csqa), Labour and Delivery Care (csqld) and Post-partum Care (csqpp) on Global Satisfaction with Maternity Care in General* (csqtot)

Variables				B	Beta	Semi-partial (Sr^2) (incremental)
	CSQTOT(DV)	CSQLD	CSQPP CSQA			
CSQLD	.42**			.25	0.22	.17**
CSQPP	.78**	.26		.66	0.04	.48**
CSQA	.25**	.16*	.23**	.04	0.71	.00
				Intercept = 1.66		
						R^2 = .66
					Adjusted R^2	= .65
F(3,243) = 159.54 p <.001						R = .82**

* p <.05 ** p <.001

After step 1, with CSQLD in the equation, R^2 = .17, F^{inc} (1,245) = 53.14, p <.001. After step 2 with CSQPP added to prediction of CSQTOT by CSQLD, R^2 = .66, F^{inc} (2,244) = 238.01, p <.001. After step 3 with CSQA added to prediction of CSQTOT by CSQLD and CSQPP, R^2 = .66, F^{inc} = (3,243) = 159.54, p <.001. Addition of CSQA to the equation did not reliably improve R^2.

This hypothesis was not supported, with only 17% of the variance in global satisfaction with maternity care in general (CSQTOT) having been explained by knowing the scores on CSQLD. In contrast 48% of the variance in global satisfaction with maternity care in general (CSQTOT) was explained by knowing the scores on the CSQPP.

CHAPTER EIGHT
DISCUSSION :
FEEDBACK ON THE FORMAL BRIEF

This chapter provides feedback to the Manawatu-Wanganui Area Health Board on the specific questions posed, while a discussion of the issues relating to the nature of consumer satisfaction as a psychological construct and the measurement of this construct are presented in the following chapter.

Age

The Mother's age was not related to their global satisfaction with antenatal services, labour and delivery care, post-partum care or their global satisfaction with maternity care in general. Younger mothers were no more likely to be satisfied or dissatisfied with any of these stages of care than older mothers.

Education Level

Although the mother's self-reported levels of education did not significantly influence their global satisfaction with antenatal services, labour and delivery care, post-partum care and global satisfaction with their maternity care in general, Maori mothers were found to have had significantly less schooling than caucasian mothers.

Ethnicity

No significant differences were found between Maori and non Maori mothers in relation to their global satisfaction with labour and delivery care, post-partum care and global satisfaction with their maternity care in general. However, Maori mothers expressed significantly lower levels of global satisfaction with antenatal services and specifically in regard to 'information as to what happens during

labour' (antadv5). This variable was also a significant predictor of global satisfaction with antenatal services for all mothers.

Although, no firm conclusions could be reached within the present study as to the reason for these differential levels of satisfaction between the two ethnic groups, two possible theories are advanced here. As noted previously, Maori mothers were found to have had significantly less schooling than caucasian mothers, and accordingly may have had greater difficulty understanding the advice and information given during antenatal services. A second, and equally important possibility is that cultural issues may not have been adequately addressed in the case of Maori mothers. Specific cultural variables associated with a Maori perspective of birth and maternity service delivery were neither identified or investigated in the present study. A failure to address cultural factors in health care in general may have far reaching consequences, and is therefore worthy of further investigation within the context of maternity care.

Marital Status

The mother's marital status (i.e. married, defacto and single mothers) was not found to be significantly associated with global satisfaction with labour and delivery care, post-partum care and global satisfaction with maternity care in general. However, defacto and single mothers showed significantly lower levels of global satisfaction with their antenatal services in comparison to married mothers.

Once again no firm conclusions could be reached as to why single and defacto mothers rated themselves as less satisfied with their antenatal services than married mothers; or as to why this effect did not carry into labour and delivery care and post-partum care. However several factors that might account for this finding include: the possibility that single and defacto mothers were concerned at this time as to what effect their pregnancy may have on their present or future relationships; any social stigma attached to unwed mothers, or the mother's perception of their ability to cope with a newborn on their own.

One further issue should be noted in regard to the present study's findings of lower levels of global satisfaction as a function of education level, ethnicity and marital status. Previous research (e.g., Danziger, 1979) indicates that ethnic and minority groups receive less information in regard to medical procedure and the various options available to them. Danziger's findings and those of the present study may have even wider implications when one considers the possibility that, depending to some extent on overall socio-economic status of the population base which the hospital serves, the percentage of consumers who fall within two or more of these categories (e.g., Maori x Single x No school qualifications) may be quite large.

For example, 15% percent of the total population sample in the present study were Maori mothers, 30% of the total population sample were in a single or defacto relationship and 23% of the total population sample had no school qualifications. Over half, (8.9%) of the Maori mothers were single or defacto and had no school qualifications, while nearly 28% of the caucasian mothers were single or defacto and without any form of school qualification. In total nearly 37% of all mothers in the present study had two or more of these variables in combination.

Without identification of and careful consideration being given to the particular needs of these consumers the health provider may find that there is a commensurate rise in dissatisfaction with the service delivery in direct proportion to the number of health consumers who hold these factors in combination.

Delivery Procedure

Mothers expressed statistically significant differences in level of global satisfaction with labour and delivery care as a function of the clinical procedure used to delivery the baby. Clinical intervention during delivery was also a significant predictor of global satisfaction with labour and delivery care (see table 7.7). However, as those mothers who received clinical intervention (regardless of

type) during the labour and delivery stage were no less satisfied than those mothers who did not, it may be that the necessity for the procedure was well explained by medical personnel, and accepted and understood by the mothers concerned.

Number of Previous Babies

No significant differences were found between primipara and multipara mothers in relation to level of global satisfaction with Antenatal services, Labour and delivery care, Post-partum care and global satisfaction with Maternity Care in General.

Days in Hospital

The number of days mothers spent in hospital was not significantly associated with the mother's ratings of global satisfaction with maternity care in general. This result contradicts the earlier findings of Hellman, Kohl and Palmer (1962), who found that mothers discharged within three days or less of giving birth are significantly less satisfied than mothers who stay longer. Nevertheless, the present findings should not be seen as wholly supporting early discharge policies (at least in the absence of additional information) as recent evidence has also suggested that some mothers who are discharged early may be more susceptible to emotional and physical distress in the weeks following the birth (Hollings, 1993). As in the past, consideration for early discharge is perhaps more appropriately addressed on an individual basis, rather than by a global policy.

Maternity Unit

Mothers who gave birth in the small maternity units expressed significantly higher levels of global satisfaction with their labour and delivery care and post-partum care than mothers who gave birth in the base hospital. Although this finding was not investigated further in the present study, one factor that may account for

differential levels of satisfaction as a function of maternity unit is the slower pace and more 'personal touch' of small maternity units in comparison to the greater activity and more regimental style of large base hospitals. Fleeming (1981) found that many health consumers showed a preference for small non-teaching hospitals over larger hospitals, despite the greater technical expertise usually available in larger hospitals.

GLOBAL SATISFACTION AND DISSATISFACTION WITH EACH STAGE OF MATERNITY CARE

Lebow (1983b) has noted that a group of dissatisfied health consumers emerges out of most studies, although usually less than 10%. High levels of satisfaction also appears to be typical of studies of satisfaction with maternity care (e.g., Hood, Clarkson, Shannon and Neill, 1978; Sullivan & Beeman, 1982; Seguin, Therrien, Champagne & larouche, 1989). From a global perspective, the present study is comparable with each of these findings. As can be seen from table 7.2, with the exception of global satisfaction with post-partum care (12.1%) the mother's expressed levels of global dissatisfaction with each stage of care in the present study is less than 10%. However, the concurrent multidimensional and global approach taken in the present study indicated that these global findings are somewhat deceptive.

SATISFACTION AND DISSATISFACTION WITH DISCRETE ASPECTS OF EACH STAGE OF MATERNITY CARE

Of further interest to the Health Board were those aspects of the service with which mothers were particularly dissatisfied. This focus is of primary importance when seeking to improve service delivery.

Antenatal Services

Table 7.0 shows the type and frequency of the reasons primipara and multipara mothers gave for their failure to attend antenatal classes. As only five primipara mothers failed to attend antenatal classes it would appear that these mothers were both aware of the existence of the classes and the information and benefits that can be gained from attendance. Only two primipara mothers cited lack of interest as a reason for non attendance, while the remainder indicated situational factors.

In total 110 multipara mothers failed to attend antenatal classes and sighted a variety of reasons, ranging from the situational to personal. Multipara mothers often do not attend antenatal classes, except for refresher courses, having gained the knowledge during previous pregnancies. While it is difficult to ascertain whether the number who failed to attend antenatal classes in the present study is higher than, or within the normal range without comparative data; the most frequently given reason for non-attendance by multipara mothers was "attended with first" which may indicate that they felt sufficiently knowledgable of what was involved in infant and maternity care.

Table 7.1 shows that the mothers satisfaction with the discrete aspects of antenatal services ranged from a low of 64% for information on early discharge to a high of 92.4% for information on what happens during labour. While these findings would indicate that nearly all mothers were receiving the information they required as to the labour process itself; mothers were also dissatisfied with the information they received in respect of other important aspects of care during pregnancy. These aspects include diet (antadv3), changes in lifestyle after the baby is born (antadv12), caring for oneself during the pregnancy (antadv8) and caring for the baby after he/she is born, although greater emphasis is usually placed on this latter item during the post-partum period.

The high levels of dissatisfaction evident from these findings suggest that the current antenatal service should be reconsidered, with a view to providing

consumers with greater information on those topics with which the mothers expressed greatest dissatisfaction. This might take the form of a practical demonstration, video or a tour of the facilities. In addition, and while not explicit from the findings, the possibility exists that some mothers/couples may be reticent in asking questions during classes. This factor might be of particular relevance to Maori mothers, who, as noted earlier, rated themselves as significantly less satisfied with their antenatal services than non-Maori mothers. Therefore, consideration might be given to providing antenatal counselling on a 'one to one' basis for those who desire it, and to investigating the possible influence of cultural issues that may not have been adequately addressed in the present study.

It is particularly recommended that consideration be given to surveying mothers as to what information they personally wish to gain from their antenatal classes in addition to that required in order to facilitate a healthy pregnancy. In this regard Kitzinger (1987) has noted a tendency for some medical personnel to approach childbirth as risk-oriented. As such even antenatal classes can reinforce this sense of danger for the mother if to great an emphasis is placed on techniques and invasive technologies. Kitzinger also recommends providing mothers with the opportunity during antenatal classes to discuss among themselves, and with their antenatal counsellor, their previous experiences with pregnancy and labour. These occasions may be especially useful to primipara women, who may benefit from multipara women's experiences.

It can be seen in table 7.6 that two variables significantly predicted global satisfaction with antenatal services. Information on what happens during labour (antadv5) and information on breathing and relaxation exercises (antadv2) jointly accounted for 10% of the mother's global satisfaction with antenatal services. Collectively the 15 variables explained 32% of the mothers global satisfaction with their antenatal services. This finding suggests that if mothers are satisfied with the information they receive in regard to these discrete aspects of the antenatal service, they will be satisfied with their antenatal services as a whole. Nevertheless, caution is warranted in placing to greater weight on this finding.

Firstly, and as table 7.6 shows, whereas 32% of the variance in the mother's global satisfaction with their antenatal services was predicted by knowing the scores on all items, 68% of the variance in global satisfaction with antenatal services was due to unexplained sources not otherwise measured. In addition, and as was noted earlier there were many discrete aspects of the antenatal service with which a large percentage of the mothers were dissatisfied (see table 7.1).

Secondly, antenatal care represents the furthest distance between 'treatment' and the data collection point, therefore the possibility can not be discounted that some mothers may have experienced greater memory loss than others in regard to their impression of their antenatal care. As noted previously in chapter two, both French (1981) and Press and Ganey (1989) found that the greater the length of time between treatment and data collection the greater the likelihood of faded recall and the more likely the consumer is to distort their health care experiences.

Labour and Delivery Care

Table 7.1 shows that the mother's satisfaction with specific aspects of their labour and delivery care ranged from a low of 80.1% for satisfaction with being able to put the baby to the breast (Babyreas) to a high of 98.8% for understanding of explanations given by the nursing staff during the labour and delivery period. Although a mother's inability to breastfeed is a factor that is not always under the direct control of the caregiver, due to a variety of medical reasons, it should be noted that inability to put the baby to the breast was also a significant predictor of global satisfaction with labour and delivery care (see table 7.7). Therefore particular note should be taken of these breastfeeding statistics, especially in light of Kitzinger's (1987) finding that the ability to breastfeed can be a crucial factor in the mother's sense of self-worth after giving birth. After allowing for this factor the findings suggest that on the whole most mothers were satisfied with their labour and delivery care, with, in most cases, less than 10% of mothers being dissatisfied with any particular aspect. As table 7.1 shows the mother's mean scores for most discrete aspects of labour and delivery care favour the 'very

satisfied' end of the scale.

Table 7.7 shows the eight discrete items which significantly predicted the mother's global satisfaction with labour and delivery care. Explanation of examinations being carried out (labexam), ability to put baby to the breast (babyreas), delivery position (labmet2), satisfaction with delivery procedure (delproc), friendly and helpful nurses (nurhelp), time to hold the baby after the birth (babyhold), needs met as to relief of pain (labmet1) and time spent with the family immediately after the birth (famtime) explained 17% of the mother's global satisfaction with their labour and delivery care. These findings suggest that if a mother is satisfied with these eight aspects she will be satisfied with her labour and delivery care as a whole. All variables in combination explained 54% of the mother's global satisfaction with labour and delivery care. The remaining 46% of the variance in global satisfaction with labour and delivery care is attributable to unexplained sources, which suggests that caution be taken in interpreting the findings. It should be noted however that delivery procedure, explanations given and interpersonal relations' with nursing staff have also been found in previous studies (e.g., Seguin, Therrien, Champagne & Larouche, 1989; Sullivan & Beeman, 1982) to be the factors mothers most often identify in forming a global impression of their labour and delivery care. Sullivan and Beeman, (1982) also found these items to be highly correlated with a mother's perception of the technical competency of nursing staff.

Post-partum Care

Mothers expressed their lowest levels of global satisfaction with post-partum care (see table 7.2). As table 7.1 shows there was also considerable variation between discrete items as to the extent to which the mothers were satisfied and dissatisfied with their post-partum care. For example, 58.3% of mothers were dissatisfied with not being introduced to other mothers, whilst only 5.0% of mothers were dissatisfied with the consideration given to their wishes regarding the care of themselves and baby. Whilst it could be argued that consideration of the mother's

wishes is of greater importance than an introduction to other mothers in the ward, it should be noted that both variables were significant predictors of overall satisfaction with post-partum care in the present study. Indeed, Kitzinger's (1987) observation that primipara mothers may benefit from the advice and assurances that multipara mothers can provide, suggests that introducing new mothers in the ward to the other women has particular merit.

It can be noted from table 7.1 that, as with labour and delivery care, a large percentage of mothers were dissatisfied with the amount of advice given as to, breastfeeding (11.8%) and care of their breasts (20.8%) during post-partum care. Mothers also expressed high levels of dissatisfaction with, the advice they were given as to settling their baby (30.4%) the conflicting information given by nurses (32.4%), not getting enough rest (31.2%), the quality of the food (31.2%) and noisy wards (20.3%) A somewhat lower percentage of mothers were also dissatisfied with such factors as the opportunities given them to practice bathing (11.7%) and settling (13.0%) their baby.

The percentage of mothers dissatisfied with various aspects of their post-partum care in the present study is considerably higher than the 10% which Lebow (1983b) has suggested is usual for consumer satisfaction studies. These differential levels of dissatisfaction with their post-partum care are also reflected in the global measure of post-partum care (see table 7.2). Again this figure (12.1%) is outside the 10% of dissatisfied consumers that usually emerge from health consumer satisfaction studies.

Table 7.8 shows the 5 discrete items that significantly predicted mother's global satisfaction with post-partum care. Introduction to other mothers in the ward/room (mumintro), opportunity to breastfeed (Babop2), opportunity to practice caring for baby (babop3), clean room/ward (clean) and consideration of ideas and wishes in the care of yourself and baby (carewish) explained 10% of the mother's global satisfaction with their post-partum care.

Once again caution is advised when interpreting these findings. Whereas all 22 variables in combination explained 52% of the mother's global satisfaction with this stage of maternity care, the remaining 48% of the variance in global satisfaction with post-partum care is attributable to unexplained sources. Therefore, although multiple regression analysis identified five significant predictors of global satisfaction with post-partum care, the 48% unexplained variance suggests that there are additional factors that contribute to women's overall impression of their post-partum care. Nevertheless, a large percentage of mothers still expressed dissatisfied with many aspects of their post-partum care.

Maternity Care in general

Since Labour and delivery is the period in which the mother is most likely to require invasive care, and potentially the most emotional period of the birth (Kitzinger, 1987), it was predicted that global satisfaction with labour and delivery care would have a larger influence on global satisfaction with maternity care in general than antenatal services or post-partum care. This hypothesis was not supported. The results indicated that mothers place particular importance on the post-partum stage of their maternity care, which in turn has a significant impact on their overall satisfaction with maternity care in general.

As table 7.9 shows global satisfaction with post-partum care was the largest contributor to global ratings of satisfaction with maternity care in general; followed by global satisfaction with labour and delivery. On the other hand, global satisfaction with antenatal services did not reliably predict global satisfaction with maternity care in general. This finding indicates that the largely 'hands on' experience and general and specific information provided during post-partum care may be especially valued by all mothers.

SUMMARY

In summary, the demographic variables of age, education level, marital status

were not associated with satisfaction with maternity care, nor were number of previous babies and the number of days the mother spent in hospital. Delivery procedure was also found to significantly predict global satisfaction with labour and delivery care. Ethnicity was found to be associated with global satisfaction with antenatal services, with Maori women being less satisfied with the advice and information they received in comparison to caucasian women. It was suggested that particular attention be paid to the needs of minority groups (e.g., single/defacto x low education level) and to cultural issues in regard to Maori mothers.

As expected, high levels of global satisfaction with antenatal services, labour and delivery care and maternity care in general were found. However, mothers expressed considerably lower levels of global satisfaction with post-partum care. While there were also high levels of satisfaction with many discrete aspects within each of the three stages of care, high levels of dissatisfaction also emerged.

Although multiple regression analysis failed to account for all the variance within each of the three stages of maternity care, it nevertheless indicated that women have priorities, upon which they place different weightings when determining their satisfaction with their maternity care.

In addition to focusing on those aspects of the service with which women are particularly dissatisfied, future efforts to improve, develop and plan maternity services need to research this area in greater depth, with a view to identifying the 'causes' of women's satisfaction with their maternity care. Towards this end the concurrent global and multidimensional approach used in the present study should be especially useful.

CHAPTER NINE
DISCUSSION:
THE NATURE OF CONSUMER SATISFACTION AS A PSYCHOLOGICAL CONSTRUCT

This chapter discusses the central issues of data collection and analysis in relation to the present study within the context of a requirement to balance the need for valid satisfaction data against the practical constraints imposed by a limited budget. The nature of consumer satisfaction with maternity care as a psychological construct and the findings in this regard are also discussed.

The present study sought to improve, both the quality of consumer satisfaction data, and our understanding of the nature of satisfaction with maternity care as a psychological construct, through a concurrent global and multidimensional approach. This approach was guided in part by Locker and Dunt's (1978) suggestion that researchers employ different approaches concurrently, and in further part by Lebow's (1987) criticisms of the self-imposed limitations placed on the design and analysis of health consumer satisfaction research.

POTENTIAL THREATS TO THE VALIDITY OF THE PRESENT STUDY

Life Satisfaction

An increasing number of researchers have expressed concern with the contribution that the consumer's general life satisfaction may make to their satisfaction with the service delivery (Weiss, 1988). Although, the findings in this regard are somewhat conflicting, evidence suggests that the extent to which the consumer's general life circumstances influences their satisfaction with their health service depends on the way in which service satisfaction is measured (Roberts, Pascoe & Attkisson, 1983). The present study used a shortened version of the CSQ-8 and

hypothesised that life satisfaction would not be significantly associated with global satisfaction with any of the three stages of maternity care, or with global satisfaction with maternity care in general. Small, albeit significant relationships, were found between global satisfaction with antenatal services, post-partum care and maternity care in general. However, when life satisfaction was entered into each multiple regression analysis as an independent variable, it did not significantly predict global satisfaction with any stage of maternity care. Accordingly, life satisfaction was not subjected to further analysis in the present study. It should be noted however, that the two stages of maternity care with which life satisfaction was most highly correlated (csqa and csqpp), were also the stages with which women expressed the highest levels of dissatisfaction.

Sampling Error

The present study had a response rate of 46% which is within the 33% to 100% range that French (1981) has identified as being typical of self-completion questionnaires. A response rate of 46% is also above the 43% average typically found in studies of satisfaction with mental health services.

It could be argued that the low response rate and the lack of a follow-up of non-respondents predisposes the present study to some degree of sampling error likely to undermine its validity. However, Press and Ganey (1989) have found, that in their experience, mailed self-completion questionnaires consistently yield statistically valid results when response rates are 30% or more, provided such studies are demographically representative of the hospital and general population - as was the case with present study (see tables 6.0 and 6.1). Babbie (1992) also found response rates approaching 50% to be adequate for analysis and reporting.

Several measures were taken to enhance this response rate. Anonymity was guaranteed and the need to know the positive and negative aspects of the service was stressed. Medical and nursing staff were consulted and kept informed throughout the study to prevent any discouragement to participate being given to

the mothers, the questionnaire was presented in a colourful and appealing manner, and the mothers were approached personally with a request to participate.

Although careful consideration was given to the issue of response rates and how they might be enhanced in the present study, the overall view was that a demographically unrepresentative sample would pose greater threat to the validity of this study than a low response rate.

Positive Response Bias

A second form of bias concerns the possibility that satisfied clients are more inclined to return questionnaires (Lebow, 1983b), which would, it could be argued, account for the high levels of global satisfaction obtained in the present study, although this argument seems to discount the possibility that the majority of consumers could actually be satisfied with a particular service delivery. Halo effects, to which maternity care research is especially prone (Lumley, 1984 cited in Seguin, Therrien, Champagne & Larouche, 1989), would also account for the high levels of global satisfaction in the present study.

However, it should be remembered that high levels of global satisfaction typically emerge from consumer satisfaction surveys (Lebow, 1982b), while, by their very nature, global measures also mask discrete aspects of a service with which women may be especially dissatisfied.

As noted in chapter two reactivity may also increase the likelihood of positive response bias, and while careful consideration was also given to minimising the effects of reactivity, particularly the questionnaire's wording, several factors may have served to negate this consideration. Any gain from the measures taken to increase the response rate in the present study may have been 'offset' to an unknown extent by the health provider's request that (a) the covering letter be signed by the manager of Maternity Services and (b) that the completed questionnaire be returned to the base hospital. Consequently, less satisfied

participants may have inferred an 'organisational bias' in the study. This may have resulted some participants electing not to return the questionnaire or to give a grateful testimonial.

Timing of Data Collection

Evidence suggests that longer the time frame between completion of treatment and data collection the greater the likelihood of decreased response rates due to fading recall (French, 1981) and poorer quality data due to distortion (Press & Ganey, 1989). Therefore, if recall and distortion effects influenced the present study, the mother's opinions of their antenatal services would have been the most unreliable. In order to minimise this threat to the validity of the present study, the participation of each mother was sought on her day of discharge from hospital, with a request to return the completed questionnaire as soon as possible. An added advantage of collecting data immediately post-discharge was the fact that all mothers had an equal possibility of being selected.

Standardised Questionnaire

The standardised questionnaire (a shortened version of the CSQ-8) used to measure global satisfaction enhanced not only the validity of the present study, but also its usefulness, by providing a means with which to compare levels of satisfaction across similar maternity facilities. Thus also avoiding the problem of the isolated and often meaningless data (for comparison purposes) derived from scales developed in an ad hoc manner. The pilot study further enhanced the validity of the discrete items used in the present study by providing the researcher with some indication of those aspects that mothers themselves consider to be essential to their satisfaction with their maternity care.

Data Analysis

Lebow (1983c) has criticised researchers for the self-imposed limitations placed on health consumer satisfaction data by primitive research design, lack of a theoretical foundation and limited statistical analysis. Careful consideration was given to these criticisms when designing the present study, and when deciding on a method of statistical analysis that would accommodate the concurrent multidimensional and global approach on which the present study is based . These considerations were also was extended to answering the specific questions posed by the Area Health Board.

Unidimensional and Multidimensional Theory

Unidimensional theory (discussed in chapter 2) is predicated on the view that health consumers form an overall (global) impression of service delivery and are therefore unable to differentiate between various aspects of a given service. Any evidence found in support of unidimensional theory firstly, limits the conclusions that can be drawn from the findings, and casts doubt on the value of health consumer satisfaction research. Secondly, it provides little incentive to further our understanding of health consumer satisfaction as a psychological construct. For example, as can be seen in table 7.4 90% of women in the present study were satisfied with their maternity care in general. From a unidimensional standpoint the only conclusion that can be drawn from these findings is the possibility that the present health facility is providing a better service than a similar facility in which only 80% of women are satisfied - provided a standardised measure was used and the facilities were similar. This finding is of little value to the health provider who wishes to know what aspects of the service the consumer is most satisfied or dissatisfied with, or what aspects must be improved to meet the future needs of the consumer. Furthermore, a unidimensional approach provides few clues as to what constitutes satisfaction from the health consumer's viewpoint, whether any factors predispose satisfaction or dissatisfaction with a service (eg. satisfaction with life in general), whether or not consumers have priorities for

care, or whether the consumer's dissatisfaction only reflects what may be unrealistic expectations of a service. Unidimensional approaches, on their own, would appear to be of greatest value to those health providers who seek favourable outcomes for pragmatic, political or administrative purposes.

In contrast multidimensional theory holds that the health consumer distinguishes between, and independently evaluates discrete aspects of the service delivery. However, while a multidimensional approach may evidence those discrete aspects of the service with which the consumer is most satisfied or dissatisfied; on its own, this approach provides little evidence of the contribution that the discrete aspects make to the consumer's overall satisfaction, or the consumer's priorities in relation to their satisfaction with the service.

However, by operationalising consumer satisfaction with maternity care as both a multidimensional and a global construct, the present study was firstly, able to establish the multidimensional nature of consumer satisfaction with maternity care, as well as those aspects of the service with which mothers were most dissatisfied. Secondly, by using a standardised global measure and multiple regression analysis, the present study was able to determine which of these discrete aspects significantly contributed to the mother's global satisfaction with each stage of her maternity care.

INTERPRETATION OF FINDINGS

The specific questions posed by the Manawatu-Wanganui Area health Board were discussed in the previous chapter. This section is concerned with the findings in regard to the nature of satisfaction with maternity care as a psychological construct.

Multiple regression analysis revealed that mothers not only differentially evaluate discrete aspects of their maternity care (see tables 7.6, 7.7, 7.8) but also independently evaluate each stage of care in forming an overall (global)

impression of their maternity care in general (see table 7.9). These findings indicate that satisfaction with maternity care is not only a multidimensional construct, but also that mothers place varying emphasis on each phase or stage of maternity care when forming an overall impression of the service.

It was hypothesised that because the labour and delivery stage was a period in which medically invasive procedure was most likely to be required, and potentially the time of greatest emotional turmoil for the mother, that this stage would be the largest contributor (of each of the three stages) to the mother's global satisfaction with her maternity care in general. The results failed to confirm this hypothesis, and in fact the mothers rated post-partum as the most significant contributor to their global satisfaction with their maternity care in general.

Emphasis during the post-partum period is largely placed on ensuring confidence, imparting information and advice in the care of oneself and baby in the ensuing months, and on the practical demonstration of this care. Hence it is a period in which interpersonal relationships and rapport with nursing personnel is important, and communication frequent.

Although the large contribution that post-partum care made to the mother's global satisfaction with maternity care in general was unexpected, there is indirect support for this finding in the literature. For instance, Sullivan and Beeman (1981; 1982) found communication patterns to be significantly associated with labour and delivery care and post-partum care. In addition, Seguin, Therrien, Champagne & Larouche, 1989) found interpersonal communications and rapport with nursing personnel to not only significantly predict women's satisfaction with their maternity care in general, but to also be positively correlated with the mother's opinion of the technical expertise of nursing personnel.

The results of the multiple regression analysis conducted on each of the three stages of maternity care showed that mothers distinguish between and differentially evaluate each aspect of care within these stages, and also place

different weightings on the statistically significant aspects of their care. However, the extent of the unexplained variance found within each of the three stages (Antenatal services 68%; Labour and delivery 46%; Post-partum care 48%; Maternity care in general 40%) indicates that there are additional, as yet unidentified, factors associated with women's satisfaction with maternity care that were not assessed in the present study. Accordingly, further research is required aimed at identifying these unexplained factors and the contribution that they may make to satisfaction with maternity care.

The extent of this unexplained variance highlights the need to identify those factors which health consumers *themselves* consider relevant to their satisfaction with a service. It also cautions against arbitrary decision making on the part of the health provider as to what questions to include in any survey, or to automatically assume knowledge of the criteria for standards used by health consumers themselves. This is in large part a methodological issue.

No direct attempt was made (largely for practical reasons) to ask women what their expectations of the service were, or as to what, for them personally would constitute a satisfying experience of their maternity care. Such an approach may have resulted in less unexplained variance in the analysis, and would have at least allowed for a comparison to be made of the mother's prior expectations with their actual experience of the service. Although this methodological approach has the practical disadvantage of requiring extra time and cost talking to women before compiling the survey questionnaire, it does provide for a personal approach and indicates a commitment to understanding the consumer's needs, which may increase response rates (Skipper & Ellison, 1966). However, the problems still remains as to when to conduct the initial approach.

Although women could initially be approached when they attend antenatal classes, not all women, (particularly multipara women) attend these classes. To approach women when they enter hospital for the birth has the disadvantage of leaving antenatal care out of the evaluation, but would increase the number of women that

could be included in the survey, and gives all women equal opportunity of being selected.

An alternative approach would be to conduct multi-point evaluations. That is, to assess the mother's level of satisfaction at the end of each stage of the maternity service delivery (e.g., antenatal, labour and delivery and post-partum care). Lebow (1982c) has suggested that this method allows the consumer's experience and satisfaction with the service to be studied as they progress through their care or treatment. However, such an approach takes the focus off the care as a whole. In addition multi-point assessments have the potential to increase reactivity, and are likely to require a substantial increase in time and cost, which may have little appeal for the health provider.

Sound methodologies and informative and appropriate statistical analysis play an integral part in obtaining valid health consumer satisfaction data. However, of equal importance is the identification of the criteria used by consumers themselves to measure satisfaction.

The strength of a concurrent multidimensional and global approach lays in its ability to firstly, identify those discrete aspects of the service with which women are particularly satisfied or dissatisfied. Secondly, it provides a means whereby any contribution these discrete aspects may make to women's global satisfaction with the service can be examined. In addition this approach can provide normative data against which the same or similar facilities can be compared in the future. However, the comprehensive nature of this approach may hold practical limitations (e.g., time, cost) for those health providers who wish to conduct ongoing evaluations of the same or similar facilities. Therefore, once a normative baseline has been established some health providers may find it more practical to use the same standardised global measure at regular intervals to provide a practical and low cost 'snapshot' of consumer opinion. The findings can then be compared with the baseline data, which may indicate the need for further investigation.

CONCLUSIONS

Using survey data the present study systematically examined consumer satisfaction and maternity care. The study began with an outline of the concept of health consumer satisfaction in general and discussed the various attempts to define and operationalise the construct. The practical and methodological issues of research design and data collection were discussed, along with the advantages and disadvantages of the various methods of presentation. The fact that much of past consumer satisfaction research has reflected the consequences of poor methodologies, has led to some concern as to the validity and usefulness of consumer satisfaction research. The present study has attempted to allay this concern by formulating a theoretical foundation and a sound methodology coupled with appropriate and informative statistical analysis.

Consumer satisfaction research is at an early stage of development in New Zealand, but is rapidly increasing in importance as part of the evaluation process as health providers in New Zealand compete with each other for limited financial resources. Although the incentive now exists for health providers to satisfy the needs of their consumers, this same incentive also provides for the ready abuse of satisfaction data by 'trapped administrators' seeking reactive methods that favour a positive response.

Nevertheless, even when conducted within the framework of a scientific investigation, the validity of health consumer satisfaction data may still be undermined by various forms of reactivity, psycho-social artifact, sampling error, and response bias. These and other related issues and the specific procedures used to negate their effects have been addressed in depth in the present study. This information provides a guideline for those who seek information from the health consumer in the future. Many of the practical and methodological problems associated with health consumer research in the past may thus be avoided. Thereby, also avoiding unnecessary expenditure, while ensuring the validity of the data leading to greater benefit to the health consumer.

The present study has used a method of statistical analysis decided as being most appropriate to answering the specific questions possed by the area health board and to the multidimensional and global approach taken. This was due in large part to the absence of any clear guidelines as to how consumer satisfaction data should be analysed, beyond the usual means, standard deviations and percentage of satisfied or dissatisfied consumers commonly found in health consumer studies.

These latter methods of statistical analysis represent the bare minimum required for comparative purposes (Lebow, 1987). However, health consumer satisfaction studies have the potential to generate a wealth of raw data depending on the questions asked. In this regard multivariate analysis, and in particular anova and multiple regression are especially useful statistical tools that can identify differential levels of satisfaction within and across individual groups and facilities, and, as was the case with the present study, those discrete aspects of the service mothers feel are most important when forming an overall impression of their maternity care.

The present study has answered the specific questions possed by the Manawatu-Wanganui Area health Board, and also provided them with a valid data base against which future evaluations of their maternity service delivery can be compared. In addition the concurrent multidimensional and global approach taken in the present study has provided the ground work for the future evaluation of women's satisfaction and experience with maternity care services in New Zealand.

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APPENDICES

APPENDIX I: CONSUMER SATISFACTION QUESTIONNAIRE

Consumer Satisfaction Questionnaire

Thankyou for agreeing to fill in this Consumer Satisfaction Questionnaire and thereby helping us to meet our commitment to provide quality health care. We are interested in your honest opinions, whether they are Positive or Negative. We do not want you to give your name.

To enable us to collect this information quickly we ask that you fill in and return the completed questionnaire as soon as possible after returning home. Return the questionnaire in the Pre-paid envelope provided.

Should you have any difficulty in completing this questionnaire, please feel free to contact Jeanette Wylie. You may also write on the questionnaire or put comments beside any of your answers if you wish.

Jeanette Wylie,
Manager,
Women's Health Services,
Manawatu-Wanganui Area Health Board.
Ph. 3569169 Ext. 8822.

PERSONAL INFORMATION

These details are required for statistical purposes only and will not be used to identify you in any way. (Please circle a number most appropriate to your answer)

Is this your first baby?

Yes 1
No 2

If No, how many babies have you had?

_____

How old are you?

Years _____

Which cultural group do you identify with?

Maori 1
Polynesian 2
European 3
Asian 4
Other 5

Are you:

Married? 1
In a defacto relationship? 2
A single parent? 3

What is your highest educational qualification?

No school qualification	1
School certificate	2
University entrance	3
Trade certificate	4
Professional diploma/certificate	5
Bachelor Degree	6
Post-graduate degree/diploma	7

What was your occupation prior to having this baby?

Occupation_____

In which of the following areas does your partner's occupation belong?

I do not have a Partner	1
Unemployed	2
Administrative	3
Clerical	4
Sales	5
Service	6
Agriculture	7
Production	8
Professional	9

At which Maternity Unit did you have your baby?

Palmerston North	1
Dannevirke	2
Pahiatua	3
Otaki	4
Levin	5
Feilding	6

How many days were you in hospital?

Days _____

Were you transferred after the birth?

If YES - to where? _____

Where did you attend Antenatal classes?

I did not attend(Go to question 3)	1
At the hospital	2
At Parent Centre	3
At health Centre	4
At my G.P's	5
With Practice Nurse	6
With the Community Midwife	7
With my Homebirth Midwife	8
With my Midwife	9

Below are a series of questions about the ANTENATAL CARE AND SERVICES you received. Using the four point scale below, please CIRCLE A NUMBER for each item which best describes your experience.

SCALE

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

1. **At antenatal classes do you feel that you were given enough advice on:**

(a) Breast-feeding?	1	2	3	4
(b) Breathing and relaxation exercises?	1	2	3	4
(c) Good eating habits?	1	2	3	4
(d) The dangers of smoking during pregnancy?	1	2	3	4
(e) What happens during labour?	1	2	3	4
(f) The Maternity Unit environment?	1	2	3	4
(g) Caring for baby after he/she is born?	1	2	3	4
(h) Caring for yourself while pregnant?	1	2	3	4
(i) Pain management?	1	2	3	4
(j) Possible complications of pregnancy?	1	2	3	4
(k) Psychological and emotional factors?	1	2	3	4
(l) Changes of lifestyle when baby arrives?	1	2	3	4
(m) Choice of birthing position	1	2	3	4
(n) Early discharge?	1	2	3	4

2. **Did a friend or partner attend antenatal classes with you?** (Please circle your answer)

Never	1
Sometimes	2
Mostly	3
Always	4

3. **Please state briefly why you did not attend antenatal classes?**_____

_____

4. Where did you have antenatal checkups ?

I did not have checkups (Go to question 5)	1
At the hospital	2
At the health centre	3
With the homebirth Midwife	4
With the practice nurse	5
With the community Midwife	6
With a Specialist	7
With my G.P.	8
With my Midwife	9

5. Please state briefly why you did not have antenatal checkups?_____

_____

6. In an overall, general sense, did you receive the kind of services you expected during your antenatal period?

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

7. How would you rate the quality of the antenatal services you received?

Poor	1
Fair	2
Good	3
Excellent	4

8. Did you get the kind of antenatal services you wanted?

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

9. To what extent did the antenatal services meet your needs?

None of my needs have been met	1
Only a few of my needs have been met	2
Most of my needs have been met	3
Almost all my needs have been met	4

10. How satisfied were you with the amount of help you received with the antenatal services ?

Quite dissatisfied	1
Indifferent or mildly dissatisfied	2
Mostly satisfied	3
Very satisfied	4

11. In an overall, general sense, how satisfied were you with the antenatal services you received?

Quite dissatisfied 1
Indifferent or mildly dissatisfied 2
Mostly satisfied 3
Very satisfied 4

Below are a series of questions about YOUR LABOUR AND THE BABY'S BIRTH. Please CIRCLE A NUMBER which best describes your experience.

12. Did the nursing staff make you and your partner feel welcome when you were admitted for the birth of your baby?

No, definitely not welcome 1
No, not really welcome 2
Yes, generally welcome 3
Yes, definitely welcome 4

13. Did the nurse / midwife explain to you what examinations were being carried out?

Never or rarely explained 1
Occasionally explained 2
Usually explained 3
Always explained 4

14. Did the nurse / midwife explain to you why the examinations were required?

Never or rarely explained 1
Occasionally explained 2
Usually explained 3
Always explained 4

15. Did you understand the explanations you were given by the nurse?

Never or rarely understood 1
Occasionally understood 2
Mostly understood 3
Always understood 4

16. Did the nurse / midwife explain to you what progress you were making during labour?

Never or rarely explained 1
Occasionally explained 2
Usually explained 3
Always explained 4

Below are some more questions about YOUR LABOUR AND THE BIRTH OF YOUR BABY. Using the four point scale below please CIRCLE A NUMBER for each item which best describes your experience.

SCALE

Never or rarely met 1
Partially met 2
Mostly met 3
Fully met 4

17. Were your needs met during labour and delivery with regards to:

(a) Relief of pain? 1 2 3 4

(b) Delivery position? 1 2 3 4

(c) Being in control? 1 2 3 4

(d) Being able to move around? 1 2 3 4

(e) Privacy? 1 2 3 4

18(a) How much did you want to have a friend/partner with you in the delivery room?

Not at all 1
Part of the time 2
Most of the time 3
All of the time 4

18(b) How much was your friend/partner with you in the delivery room?

Not at all 1
Part of the time 2
Most of the time 3
All of the time 4

19. Did you feel you knew as much as you needed to know about labour and delivery?

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

20. What was your best single source of information about pregnancy and birth? (Please circle one)

Antenatal classes	1
Doctors	2
Nurses	3
Books	4
Friends	5
Relatives	6
Television	7
Radio	8

21. Did you find the techniques you learnt in antenatal classes were useful during labour and delivery (Ignore this question if you did not attend antenatal classes)

Not useful at all	1
Not really useful	2
Generally useful	3
Very useful	4

22. Who delivered your baby?

Not sure	1
Another doctor	2
The midwife	3
My own doctor	4

23. How well do you feel that you coped during labour and delivery?

I hardly coped at all	1
I coped a little	2
I coped reasonably well	3
I coped very well	4

24. Were you happy with the obstetric procedure(s) used during delivery? (e.g. Epidural, Episiotomy, Forceps, Caesarian section). Ignore if the birth was un-assisted.

No, not happy at all	1
Not really happy	2
Yes, reasonably happy	3
Yes, very happy	4

Please state the obstetric procedure(s) used_____

25. Did you find the nursing staff to be friendly and helpful during your labour and delivery?

No, not at all	1
Sometimes	2
Most of the time	3
Always	4

26. In an overall, general sense, did you receive the kind of services you expected during your labour and delivery?

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

27. How would you rate the quality of the services you received during labour and delivery?

Poor 1
Fair 2
Good 3
Excellent 4

28. Did you receive the kind of service you wanted during labour and delivery?

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

29. To what extent did the services meet your needs during labour and delivery?

None of my needs have been met 1
Only a few of my needs have been met 2
Most of my needs have been met 3
Almost all my needs have been met 4

30. How satisfied are you with the amount of help you received during labour and delivery?

Quite dissatisfied 1
Indifferent or mildly dissatisfied 2
Mostly satisfied 3
Very satisfied 4

31. In an overall, general sense, how satisfied are you with the services you received during your labour and delivery?

Quite dissatisfied 1
Indifferent or mildly dissatisfied 2
Mostly satisfied 3
Very satisfied 4

32. As soon as baby was born were you satisfied with the amount of time you were given to hold him/her?

Quite dissatisfied 1
Mildly dissatisfied 2
Mostly satisfied 3
Very satisfied 4

33. In the hour after baby was born were you <u>able</u> to put him/her to the breast?

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

34. As soon as baby was born were you satisfied with the <u>amount of time</u> you were given to be alone with your baby and family?

Quite dissatisfied 1
Mildly dissatisfied 2
Mostly satisfied 3
Very satisfied 4

35. Would you have preferred a <u>room of your own</u> rather than the ward?

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

36. When you arrived back in the ward after the birth of your baby were you properly <u>introduced</u> to the other mothers?

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

Below are a series of questions about YOUR AND YOUR BABY'S CARE FOLLOWING THE BIRTH. Using the four point scale below please <u>CIRCLE A NUMBER</u> which best describes your experience.

<u>SCALE</u>

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

37. Were you given enough <u>advice</u> about:

(a) Bathing your baby? 1 2 3 4

(b) Breast-feeding? 1 2 3 4

(c) Care of your breasts? 1 2 3 4

(d) Settling your baby? 1 2 3 4

(e) Caring for yourself? 1 2 3 4

38. Were you given <u>enough opportunities</u> to practice:

(a) Bathing your baby? 1 2 3 4

(b) Breast-feeding? 1 2 3 4

(c) Caring for your baby? 1 2 3 4

(d) Settling your baby? 1 2 3 4

39. When you attended post-natal talks were you given <u>enough advice</u> on: (If you did not attend <u>go to question 40</u>)

(a) Post-natal exercises? 1 2 3 4

(b) What to do if baby stopped breathing? 1 2 3 4

(c) Birth control? 1 2 3 4

(d) The community support services available? 1 2 3 4

(e) When to attend your G.P? 1 2 3 4

(f) Your body changes after giving birth? 1 2 3 4

(g) Keeping your baby safe? 1 2 3 4

(h) Care of your nipples/breasts? 1 2 3 4

(i) How to cope with a new baby in the family? 1 2 3 4

(j) Emotional adjustment? 1 2 3 4

(k) Feeding your baby? 1 2 3 4

40. Briefly explain why you did not attend Post-natal talks

_____

_____

41. Did you find the <u>information</u> given to you by the staff about caring for your baby was conflicting?

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

42. Did you find the <u>daily activities</u> carried out in the ward to be:

Always noisy 1
Usually noisy 2
Occasionally noisy 3
Not noisy at all 4

43. Did you feel that the visiting hours were flexible enough?

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

44. Did you feel the visiting hours were convenient for your partner/family?

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

45. Did you feel that you got enough rest?

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

46. Was your room/ward cleaned adequately?

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

47. Did you feel that you had enough to do in hospital?

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

48. Did you feel that the hospital regulations were too strict?

Never or rarely 1
No, not really 2
Yes, generally 3
Yes, definitely 4

49. How would you rate the quality of the food?

Poor 1
Fair 2
Good 3
Excellent 4

50. Were you experiencing any physical discomfort when you left hospital? (e.g. painful stitches)

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

PLEASE IGNORE THE NEXT TWO QUESTIONS (51 & 52) ONLY IF THEY DO NOT APPLY TO YOU.

51. If your baby had any health problems (e.g. respiratory distress) were you kept adequately informed of his/her progress?

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

52. Do you feel that You were given adequate help in dealing with the problem?

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

53. Did you go home feeling confident about caring for your baby?

Definitely not confident 1
No, not really confident 2
Yes, generally confident 3
Yes, definitely confident 4

54. Did you feel that your ideas and wishes in the care of your baby were considered?

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

55. In an overall, general sense, did you receive the kind of services you expected after your baby was born?

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

56. How would you rate the quality of the service you received after your baby was born?

Poor 1
Fair 2
Good 3
Excellent 4

57. Did you get the kind of service you wanted after your baby was born?

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

58. To what extent did the service you received after your baby was born meet your needs?

None of my needs have been met 1
Only a few of my needs have been met 2
Most of my needs have been met 3
Almost all my needs have been met 4

59. How satisfied are you with the amount of help you received after your baby was born?

Quite dissatisfied 1
Indifferent or mildly dissatisfied 2
Mostly satisfied 3
Very satisfied 4

60. In an overall, general sense, how satisfied are you with the services you received after your baby was born?

Quite dissatisfied 1
Indifferent or mildly dissatisfied 2
Mostly satisfied 3
Very satisfied 4

Below are a series of questions about your TOTAL OVERALL SATISFACTION WITH YOUR MATERNITY CARE, INCLUDING ANTENATAL, LABOUR AND DELIVERY AND AFTER YOUR BABY WAS BORN. Please CIRCLE A NUMBER on a scale of 1 to 4 which best describes your experiences.

61. In an overall, general sense, how would you rate the quality of the services you received?

Poor 1
Fair 2
Good 3
Excellent 4

62. In an overall, general sense, did you get the kind of service you wanted?

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

63. In an overall, general sense, to what extent did our services meet your needs?

None of my needs have been met 1
Only a few of my needs have been met 2
Most of my needs have been met 3
Almost all my needs have been met 4

64. In an overall, general sense, how satisfied were you with the amount of help you received?

Quite dissatisfied 1
Indifferent or mildly dissatisfied 2
Mostly satisfied 3
Very satisfied 4

65. In an overall, general sense, how satisfied were you with the services you received?

Quite dissatisfied 1
Indifferent or mildly dissatisfied 2
Mostly satisfied 3
Very satisfied 4

For some people the birth of a baby represents a major change in how they feel about themselves and their life in general. Below are six questions about your satisfaction with life at this time about which you may agree or disagree on a scale of 1 to 7. Please indicate your agreement with each item by circling the appropriate number.

Strongly disagree 1
Disagree 2
Slightly disagree 3
Neither agree or disagree 4
Slightly agree 5
Agree 6
Strongly agree 7

66. In most ways my life is close to the ideal.

1 2 3 4 5 6 7

67. The conditions of my life are excellent.

1 2 3 4 5 6 7

68. I am satisfied with my life.

1 2 3 4 5 6 7

69. So far I have obtained the important things I want in my life.

1 2 3 4 5 6 7

70. If I could live my life all over again I would change almost nothing.

1 2 3 4 5 6 7

71. How do you feel about your life as a whole? (Please circle a number)

Terrible 1
Very dissatisfied 2
Mostly dissatisfied 3
Mixed, but equally satisfied and dissatisfied 4
Mostly satisfied 5
Very satisfied 6
Delighted 7

Once again, thankyou for taking part in this survey. Please feel free to comment on any part of your Maternity experience/care or to qualify or expand on any of your answers. Use extra paper if you wish.

APPENDIX II: INFORMATION SHEET

INFORMATION SHEET

What is this study about?

It is the aim of the Manawatu-Wanganui Area Health Board to provide the best care possible for you and your baby. In order to maintain this aim we need to survey you, the consumer, in order to find out not only what we are doing right, but where we might also make improvements.

What would I have to do?

If you agree to take part in this study you will be required to fill in a questionnaire telling us how satisfied or dissatisfied you were with the care and services you received. You will not have to identify yourself in any way, and we specifically ask that you do not give you name. Therefore the answers you give are in complete confidence. We do ask however, that you give honest answers whether they are Positive or Negative.

What can I expect from researcher?

If you agree to take part in the study, you have the right to:

* Refuse to answer any particular question, and withdraw from the study at any time.
* Ask any further questions about the study that occur to you during your participation, and to consult the researcher if you have any problems completing the questionnaire.
* Provide your answers only on the understanding that you cannot be identified and that all information is confidential.

If you are interested in participating in this quality assurance survey please sign the attached consent form and return it to the person who gave you this information sheet.

Jeanette Wylie
Manager,
Women's Health Services,
Manawatu-Wanganui Area Health Board.
Ph. (06) 3569169 Ext.8822.

APPENDIX III: CONSENT FORM

CONSENT FORM

I have read the information sheet for this survey and have had the details of the survey explained to me. My questions about the survey have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I also understand that I am free to withdraw from the study at any time, or to decline to answer any particular questions in the questionnaire. I agree to complete the questionnaire on the understanding that I do not have to identify myself in any way.

I wish to participate in this survey under the conditions set out on the information sheet.

Signed: . . . . . .

Name . . . . . .

Date . . . . . .

Researcher/Agent . . . . . .