EVALUATION OF A SERVICE DELIVERY PROGRAMME

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To

Louis, Sarah, and Kirsty

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ABSTRACT

The present study is an evaluation of the service delivery programme offered at the Palmerston North Plunket-Karitane family unit. The study had three aims: firstly, to replicate and extend an investigation conducted on a similar programme in Dunedin; secondly, to examine the eitiology and intensity of stress experienced by the service delivery staff; and thirdly, to systematically evaluate programme process and outcome. Results obtained in the present study were in many respects similar to those obtained in the Dunedin study, but some significant differences are also noted. Although valuable information pertaining to the causes of stress was obtained, the service delivery staff recorded stress levels comparable to other working women. Process and outcome evaluation data indicated that the programme was functioning in accordance with its aims and objectives, however recommendations for programme modification and improvement are offered.

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INTRODUCTION

Brief History of the Royal New Zealand Plunket Society (Inc.)

The Royal New Zealand Plunket Society (Incorporated) is a legally constituted organization whose members, also legally incorporated bodies, are the 119 Plunket Branch Societies throughout New Zealand. Each autonomous Branch embodies several sub-branches which functionally are sub-committees of the parent Branch, and are under its jurisdiction (Royal New Zealand Plunket Society, undated). The purpose of the Society is to provide a preventative health-care service to all New Zealand infants and pre-school children (Geddis and Silva, 1979).

The "Plunket Society" was founded in 1907 by Dr Fredrick Truby King, who was at that time Superintendent of Seacliffe Mental Hospital in Dunedin. Dr King saw a relationship between the high infant mortality rate; 73 per 1000 live births, (Parry, 1982) and the prevailing attitudes and practices associated with infant rearing. On the 14th May, 1907 he expounded his theories to an audience of influential Dunedin women, who enthusiastically embraced his doctrine of "... breast feeding, natural foods, cleanliness, and fresh air" (Travers, 1981, p.3). Within a year the Truby King Motherhood Movement, the forerunner to the Society for the Health of Women and Children, later to become the Royal New Zealand Plunket Society, was incorporated. The aim of the organization was to not only decrease infant mortality but also to improve the health of children through mutual support and education of parents. An early follower of the Truby King philosophy, Lady Plunket, wife of the contemporary Governor of New Zealand, gave her name to the specialist nurses employed to do this work, and later in recognition of her patronage the organization became known as the Plunket Society (ibid).

In the 80 years since inception the Plunket Society has become an integral part of the New Zealand health service. In 1980, Plunket nurses visited almost 42,000 new babies: 83% of all infants born in New Zealand that year (Parry, 1982), and a study of Dunedin families, (Geddis and Silva, 1979) reported 98% as having experienced some Plunket contact. The early years of the Society saw rapid expansion to provide a nationwide network of trained Plunket nurses who offered domicillary and clinic visits to parents needing practical assistance, advice, and support. By 1927 Karitane Hospitals had been established in Dunedin,

Christchurch, Auckland, Wanganui, Invercargill, and Wellington. The purpose of these hospitals was twofold: firstly, they served as training schools for Karitane nurses and Plunket nurses; and secondly, they were available for mothers and infants requiring more intensive residential care. Although the promotion of sound infant management practices has always been a primary concern, in the more recent past the Society has expanded its activities to include campaigning for hydatid erradication, bovine tuberculosis testing, fluoridation of water supplies, vaccination programmes, and child accident prevention.

Initially the Society was funded by donation, public subscription, and the fundraising activities of the volunteers who made up the Society's membership. As involvement in infant health care expanded, and running costs escalated, the Society was forced to seek Government assistance, however despite some pressure, it has retained its autonomy. Some funding is also provided by the Karitane Products Society Limited, a company set up in 1927 to manufacture the Plunket Society infant dietary supplements, which are only available for sale to Society members. Between 1979 and 1982 Karitane Products donated surplus profits of $200,000 to the Plunket Society (Parry, 1982).

The Development of Plunket-Karitane Family Units

By the 1970s it became obvious that the role of Karitane Hospitals in the care of premature and weakling babies was being taken over by public hospitals with sophisticated neo-natal units. As Parry (1982) has noted "Karitane Hospitals belonged to a past era, when costs were lower, labour cheaper, mothers more ignorant, paediatric advice less readily available." (p. 158.) Furthermore, for many cases hospital care was inappropriate and Karitane Hospitals were underutilized and expensive to operate (Clarkson, Brown, Fraser, Herbison and Geddis, 1985). Parry (1982) records that in 1977 while 63% of the Plunket Society annual budget was spent on district work caring for 96% of the Plunket caseload, Karitane Hospitals consumed 37% to benefit just 4% of cases. Additionally, admission to the hospitals had become more commonly for social reasons, and less and less for ill-health, nutrition, or infant management problems. Between 1978 and 1980 Karitane Hospitals were phased out, and replaced by community-based family units, staffed by Plunket nurses and Karitanes.

The aim of the Plunket-Karitane family service is to provide an 'extended family' for parents "... offering helpful and well informed assistance with problems that often concern young parents with infants and toddlers. In practice, it offers a broad educational approach to child-rearing and family relationships." (Royal New Zealand Plunket Society information brochure.)

The Plunket-Karitane family service operates a dual system of assistance to families with young children through the family units and the mobile Karitane service. The family units provide an informal environment where parents can be advised on such matters as infant-care, household management, and family relationships. Units are also a place where those in need of a break from the demands of parenting can obtain a few hours rest, and those seeking social contact can meet other parents. Mobile Karitanes are available to go to family homes and give practical assistance with child-care and household management.

The Plunket-Karitane family service assistance is offered free of charge to its users, although voluntary contributions are accepted. It is funded partly by Government contribution, and the balance by public donation and funds raised by the voluntary sector of the Plunket Society.

Evaluation of the Service

Evaluation of this new type of Plunket service was obviously desirable once family units became well established. However, because clients in different areas have different needs, each of the 27 family units throughout New Zealand was given the autonomy to develop its own identity within the parameters of the family unit concept. This suggests that any indepth evaluation of family service functioning should be done at local level, since national evaluations yield only very general information. To date the only completed formal evaluation has been of the two Dunedin units (Clarkson et al., 1985).

The present study was conducted following an approach made to the Department of Psychology at Massey University by the Palmerston North Plunket-Karitane family unit management committee, for an evaluation study to be conducted. The management committee request was prompted by a resigning family unit nurse, who linked the high turnover of staff to the stress associated with working in a family unit.

Although a formal brief for the research project was requested, the management committee failed to provide one, leaving the extent and focus of the evaluation to the discretion of the research designers. The Palmerston North family unit was established in 1978. Because no formal evaluation of the unit programme had been undertaken since the unit had begun operation, a detailed evaluation research study, looking at programme resources, implementation, and effects was indicated. It had been suggested that stress was a factor contributing to staff resignations, and so while this area was targeted for particular attention, the evaluation was comprehensive and covered all aspects of the family unit functioning.

1.0 EVALUATION RESEARCH: AN OVERVIEW

1.1 The Problem of Definition

Evaluation as a legitimate field of applied social science research has become increasingly important over the last two decades (Raizen and Rossi, 1982): however, as Freeman (1977) and Riecken (1977) have both noted, opinion as to what constitutes evaluation research varies considerably. Riecken (1977) has observed that while some research which falls within the area of evaluation is not classified as such by its authors, other research which merely assembles statistical information, or provides informed judgement, is claimed to be evaluation. Glass and Ellett (1980) assert that definitions of evaluation, both good and bad, abound. They reproach writers for creating definitions to emphasize new aspects of evaluation, accusing them of being indifferent to whether a definition is too broad thereby including spurious concerns; or too narrow and excluding legitimate areas of investigation.

Glass and Ellett (1980) favour Scriven's (1967) definition, maintaining it captures the essential features of evaluation.

> "[Evaluation] consists simply in the gathering and combining of performance data with a weighted set of critical scales to yield either comparative or numerical ratings, and in the justification of (a) the data-gathering instruments, (b) the weightings, and (c) the selection of criteria."
> (Scriven, 1967, cited in Glass and Ellett, 1980, p. 212.)

Glass and Ellett (1980) consider most definitions of evaluation are stipulative, and applaud Scriven for a definition which approaches description, i.e. gives an account of prior usage. The present writer suspects the scope of Scriven's definition relegates it to the over-inclusive category suggested by Glass and Ellett (1980). Furthermore, this definition may well be incomprehensible to readers without prior knowledge of the dimensions of evaluation research.

A definition that limits evaluation research to assessment of human resource programmes through the use of social science methodology has been provided by Freeman (1977).

> "... evaluation research is best defined as activities which follow the general mandates of social research, compromising these as minimally as possible because of the realities of the political and pragmatic environment in which investigators work. In other words, evaluation research is the application of social science methodologies to the assessment of human resource programs, so that it is possible to determine, empirically and with confidence that results from employing scientific procedures, whether or not they are useful." (Freeman, 1977, p. 25.)

Not only does this definition maintain reasonable boundaries for the field of evaluation research, but it also acknowledges the political and pragmatic constraints of applied research while stressing the need for empirical scientific methods. Unfortunately it falls short of being an acceptable definition by implying that the ultimate outcome of a programme is the only area of interest in evaluation research. (This issue will be discussed later in the chapter.) Freeman redresses the misconception in the Rossi and Freeman (1982) definition, used by Aiken and Kehrer (1985) to introduce a chapter addressing methodological issues in Evaluation Studies Review Annual.

> "Evaluation research is the systematic application of social research procedures in assessing the conceptualization and design, implementation, and utility of social intervention programs... Evaluation research involves the use of social research methodologies to judge and to improve the planning, monitoring, effectiveness, and efficacy of health, education, welfare, and other human service programs." (Rossi and Freeman, 1982, p. 20.)

The present writer has adopted the Rossi and Freeman (1982) definition because explicitly or implicitly it embodies all the facets of evaluation research recognized by Scriven (1967) and Rossi (1977), while at the same time acknowledging that evaluation research incorporates assessment of process, as well as outcome. The definition stresses the need to examine programme rationale and design, programme operation, the overall usefulness of the intervention, and the use of information obtained to modify the programme toward the direction of the desired outcome. In short, the definition embraces all aspects of programme intervention, and not merely assessment of the end result.

The foregoing discussion of definitions serves to highlight the broad scope of evaluation research, and provides an indication of the many potential areas of debate within the field. A detailed 'state of the art' review of evaluation literature is beyond the scope of the present discussion: instead a discussion of selected issues of particular relevance to the present study is offered.

1.2 Research Design

The experiment has been defined by Keppel and Saufley (1980) as the basic means of establishing causal relationships between environmental events and specific behavioural effects. Cook and Campbell (1976) divide experimental design into two major categories: 'true' experiments, in which assignment to condition or treatment is random; and quasi-experiments, which approximate 'true' experiments in all respects except random assignment. Thus, in quasi-experiments subjects are assigned to conditions on the basis of already existing differences, (i.e. non-randomly) and therefore are non-equivalent before independent variable administration. Obviously, 'true' experiments permit the drawing of stronger causal inferences, but random assignment is not always possible, (or ethical) in applied research settings.

The constraints of applied research should not however, be used as an excuse for poor experimental control, and the field researcher needs to be equally concerned with proper research design as those who conduct laboratory experiments. Cook and Campbell (1976) offer suggestions for overcoming some randomization difficulties and note situations where opportunities for randomization might be maximized. However, in many cases the most appropriate design for a field project is quasi-experimental. Cook and Campbell (1976) discuss the four types of validity to be considered by researchers, and offer quasi-experimental designs incorporating controls to overcome some threats to validity. They also observe that while the ordering of forms of validity for the theoretician is internal, construct, conclusion, and external validity, for the applied researcher the priorities are ordered as follows: internal, external, conclusion, and construct validity. Wortman (1975) notes that for the applied researcher criteria for internal and external validity are the most difficult to satisfy. He has incorporated these dimensions, along with conclusion, and construct validity, in his model of evaluation research which is examined in Chapter two.

1.3 Quantitative versus Qualitative Methods

The relative merits of quantitative and qualitative methods has been the subject of protracted debate in the evaluation literature (Conner, Altman and Jackson, 1984). Because evaluation methodologies developed from the strategies used by social scientists in experimental research, early evaluation researchers were urged to view social reforms as experiments calling for quantitative methods (e.g. Campbell, 1969). Deshler (1984) credits Weiss (1972) with being one of the early supporters of qualitative methods in evaluation research, but as Conner et al. (1984) noted, the advocates of qualitative methods had to emphasize the differences between the approaches in order to be heard, and polarization of opinion resulted. Riecken and Boruch (1978) observed that while the proponents of the experimental approach stressed the need for internal validity and unbiased estimates of treatment efficacy, the critics pointed to limited external validity arising from the differences between experimental situations and the applied setting. However, they did report that progress was being made toward developing methods which utilize both qualitative and quantitative information.

Fortunately, as Conner et al. (1984) note, "The issue no longer seems to be which approach is better but, instead, is how we can capitalize on the complementarity of these approaches to design more sensitive studies." (p. 17.) These authors express a hope that rather than develop an amalgam of traditional approaches, the evolution of a unique evaluation research methodology will be encouraged. It seems important to reiterate here that the difficulties of evaluation research are no excuse for poor research design or methodology. The onus is on the evaluator to maximize the overall validity of research design.

1.4 Evaluation of Process and Outcome

Freeman (1977) reduces evaluation activities to two fundamental questions: firstly, whether the programme intervention was implemented as specified in the programme design (process evaluation); and secondly, whether the programme was effective in producing change (impact evaluation).

Conceptually it is probably easier to discuss evaluation of programme outcome (impact) first. Impact evaluation proceeds through analysis of the relationship between programme objectives and outcome variables, to

ascertain whether or not the intervention has achieved the desired and predicted results. Obviously, the nature of impact evaluation makes it readily adaptable to experimental or quasi-experimental design, using the treatment or intervention as the independent variable, and the outcome as the dependent variable. Freeman (1977) alleges that because experimental designs incorporate control of external biases, most evaluation researchers consider this to be the most appropriate way to measure programme impact. However, Christensen (1980) has warned that conceptualizing evaluation research as an experiment may imply "a degree of finality that it does not really have." (p. 287.) Elaborating on this statement he observed that impact evaluation includes the tacit obligation of the evaluator to furnish recommendations for programme improvement where necessary. Wortman (1975), following Scriven (1972), refers to the outcome phase of evaluation as summative evaluation, while Williamson, Prost and George (1978) have termed it goal-outcome congruence.

Outcome or impact evaluation assumes the programme intervention has taken place as originally prescribed, but this assumption is not always valid. Modification of the independent variable may occur for a myriad of reasons: those suggested by Freeman (1977) include unavailability of resources, political interference, poor motivation of staff, or failure to attract appropriate programme recipients. As Freeman (1977) noted, knowing the impact or outcome of a programme is of little value unless it can be shown that the programme did take place, and as intended. The assessment of how faithfully a programme has been implemented is referred to as process evaluation.

Two questions are central to process evaluation: first, has the programme reached the intended target population or target area? and second, were the various intervention procedures performed in compliance with programme design or derived from the ideals explicated in that design? (Freeman, 1977).

Process evaluation does not fit any particular paradigm, and is therefore more difficult to assess than impact evaluation. The evaluator is faced with the task of assembling data on programme operation and comparing current functioning with that specified in programme design. Similarly, description of programme recipients is compared with the significant variables of the target population. The assumption here is that

programme elements have been adequately defined and the target population accurately identified in the planning stages of the programme. If this was not done, the evaluator needs to have the programme designers clearly define the proposed programme inputs, including programme personnel, treatments, and programme recipients. Process evaluation includes Quay's (1977) concept of programme integrity: ensuring the treatment is of sufficient quality and quantity to meet programme requirements. Wortman (1975) used Scriven's (1972) term 'formative evaluation' to discuss programme inputs and processes.

Formative evaluation, which Wortman (1975) defines as "the process of treatment development or formation and the selection of goals" (p. 564), is a dynamic process. It not only looks at programme inputs, but also uses the data obtained from process-type evaluation as an information feedback loop to modify and improve programme operation. Christensen (1980) has likened formative evaluation to a series of impact evaluations, however the present writer considers a more accurate conceptualization would be as a series of process-impact evaluations, thereby giving proper emphasis to the evaluation of the formation of the programme. Williamson et al. (1978) have called this stage of evaluation means-end analysis.

A long-standing debate amongst evaluators centred around the relative merits of evaluations aimed at proving a programme's value and worth, versus evaluations aimed at improving a programme (Deshler, 1984). Deshler credits Cronbach with initiating the debate when in 1963 he argued that formative evaluation was more important and useful than summative evaluation. Freeman (1977) expressed similar views on the relative worth of process, and impact evaluations, while advocating that all evaluations should incorporate both process and impact components. Riecken (1977) too stressed the value of incorporating both formative and summative evaluation in research design, and Wortman (1975), and Williamson et al. (1978) have developed models which utilize both formative and summative evaluation strategies.

Early evaluation research was biased toward evaluation of programme outcome, and Freeman (1977) criticized evaluators for avoiding process evaluation because lack of technique refinement made it difficult to undertake. Freeman (1977) cited an investigation of federally funded studies (Bernstein and Freeman, 1975) which revealed that 25 percent

failed to measure process, and has suggested the percentage is higher in studies undertaken at local level both in the United States and abroad. Cronbach (1982) concedes that purely summative evaluation studies can be utilized where treatments are fixed, as in drug and vaccine testing. He remains sceptical about the value of pure summaries of outcome in social research, except where a programme is already fully developed. Brook (1984) notes that one type of outcome evaluation which has gained acceptance with the present emphasis on fiscal accountability, is that of cost-benefit or cost-effectiveness evaluation.

At the present time researchers appear to recognize the contribution to be made by both process and outcome evaluation. As Deshler (1984) states, "Today both kinds of evaluation are considered to be equally important, and to argue that one is better than the other is ridiculous." (p. 7.)

1.5 Goal Setting and Evaluation

Goals are a vital aspect of programme planning and evaluation. Wortman (1975) discusses formative evaluation as the development of the treatment intervention and selection of appropriate treatment goals; and summative evaluation as being concerned with how effectively the programme attains those objectives or goals. The selection of programme goals is rooted in the value system of a society, and a programme which operates successfully to achieve worthless goals is of little value. As Wortman (1975) eloquently stated "... qualitative intuition generates goals and precedes quantitative, statistical understanding of the progress made toward achieving those goals." (p. 565.)

In discussing goals, Zusman and Wurster (1975) assert that for some service delivery programmes, agency goals may be appropriate, but for others "... for example, an agency devoted to improving the quality of child rearing among its clients ..." (p. xviii) the primary objectives are not clear-cut, and the problem of goal setting complex. Kiresuk and Lund (1975) advocate examining goals at individual rather than organizational level: Goal Attainment Scaling was developed as a behavioural method of assessing progress toward operationally defined individual goals in clinical and therapeutic interventions, that could also be used to evaluate overall programme functioning. A critique of Goal Attainment

Scaling by Calsyn and Davidson (1978) commends the attempt to make evaluation more relevant to service providers, but concludes that Goal Attainment Scaling is differentially effective in meeting its dual aims. While conceding that there is evidence that Goal Attainment Scaling is effective as a therapeutic or programme management tool, they note that it lacks of psychometric properties, and should not be used as an evaluation technique in isolation. This procedure should be used as part of a multivariate strategy which includes valid measuring instruments administered to all clients in the programme.

1.6 Goal Setting and Stress

Goal setting has also been utilized in the management of stress. Stress was defined by McGrath (1976) as an imbalance between environmental demands and the organism's capacity to respond. He postulated six potential sources of stress in organizational settings: role-based stress, task-based stress, stress intrinsic to the behaviour setting, stress related to the physical environment, stress originating in the social mileau, and intra-personal stress. The Cooper and Marshall (1976) model also identified role-based stress as a major source of occupational stress.

In discussing aspects of role-based stress, Glowinkowski and Cooper (1986) identified three prime components; role conflict, role ambiguity, and having responsibility for others. Rizzo, House and Lirtzman (1970) defined role conflict as perception of inconsistent demands which may arise from:

1) inter-sender conflict when two or more persons make incompatible demands on the role holder

2) inter-role conflict occurring when a person holds two or more positions with incongruent demands

3) intra-sender conflict when time, resources, and personal capabilities are incompatible with the expected role behaviour

4) person-role conflict arising when personal values and defined role behaviour are incompatible.

Role ambiguity results when the role holder has insufficient knowledge of the role behaviour requirements of a given organizational position

(ibid). Glowinkowski and Cooper (1986) note that early researchers found a correlation between role stress, and physical and mental ill health. Later studies (e.g. Keenan and Newton, 1984; Martin, 1984) support this relationship, while Kemery, Bedeian, Mossholder and Touliatos (1985) found role ambiguity and role conflict directly linked to job satisfaction, job-related tension, and the tendency to resign in a group of accountants.

Newman and Beehr (1979), who conducted a major review of personal and organizational methods for dealing with job stress commented on a paucity of empirical evidence in the area, and the lack of contribution from industrial and organizational psychologists. Landy (1985) suggests four basic approaches to dealing with job stress: behavioural intervention, physiological intervention, cognitive intervention, and job design and redesign. Although empirical evaluation of the efficacy of the basic approaches in reducing occupational stress is scant, he cited two studies which support intervention at organizational level (Jackson 1983; Ganster, Mayes, Sime and Tharp, 1982).

Most of the literature on goal setting has investigated the relationship between goal specificity and performance (Quick, 1979). A review by Latham and Yukl (1975); and Quick's (1979) study suggest that goal setting activities are effective in reducing role ambiguity through goal clarification. Steer (1976) found a relationship between job satisfaction and goal specificity.

It has been suggested in the literature on stress management techniques that goal setting is a useful coping strategy, (e.g. Dewe, 1985; Muldary, 1983; Selye, 1974; Tubesing, 1981). Ganster et al. (1982) observed however, that while an intrapersonal approach was moderately successful in their study, changing environmental characteristics is more appropriate than teaching the individual to cope with stress induced by environmental demands. After reviewing the relevant literature, Murphy (1984) observed that most occupational stress management programmes are not aimed at reducing or eliminating sources of stress, but rather at teaching coping skills. He considers job redesign approaches to be preferable, but notes that there are significant problems associated with their development and implementation.

1.7 Organizational Threats to Evaluation

The basis of every social intervention programme is a value judgement, made by an individual or group, about the needs of some section of society. Wortman (1975) credited Glennan (1974) with the observation that social experimentation is a 'political act', recognizing that social programmes cannot be isolated from the political climate in which they exist. Evaluation research is primarily a 'political decision-making tool' (Christensen, 1980), making it incumbent on the researcher to not only design research from which valid conclusions may be drawn, but also to maximize the probability that research findings will be utilized.

Cook (1978) discusses evaluation research utilization at a theoretical level using Caplan's concept of two cultures. The first is a knowledge-generating culture seeking truth, validity, and goal-oriented rationality. The second is a potential knowledge-utilization culture valuing pragmatic action and process-oriented reality. The second culture stresses feasibility over idealism, timeliness over accuracy, and self-preservation over truth. Because the two cultures have different orientations, communication between them is difficult; the products of the former are seen as only marginally relevant to the perceived needs of the latter.

At the pragmatic level the researcher needs some awareness of the purpose of the evaluation. If those commissioning the research propose to use the information to justify a stance, findings contrary to their expectations are unlikely to be utilized. For example, Riecken (1977) observed that evaluation research may be invoked for a variety of purposes which include programme justification or improvement, but may also include attribution of blame for failure, leadership change, or curtailment of activities. He considers that serious research is not justified for the latter class of purposes since the intentions of those requiring the evaluation are preformed and unlikely to be influenced by research findings. Several authors (Agarwala-Rogers, 1977; Barnes, Brook, Hesketh and Johnson, 1985; Bonoma, 1977; Dowell and Kriesel, 1981; Williamson et al., 1978) offer practical suggestions to enhance the probability of research utilization. The recommendations include: providing feedback <u>during</u> the evaluation; presenting results in simple, clear language; acknowledging broader community constraints such as the

economic climate; and responding to criticism of the research openly and non-defensively.

Ethical considerations, always important in experimentation, are particularly relevant to social research where large numbers of participants and sensitive issues may be involved. Riecken (1977) suggests that the overriding principle should be that the intervention does not harm participants in any respect. A major responsibility of the researcher is to ensure confidentiality of information. Other ethical issues include the question of informed consent, and the withholding of treatment from the control groups. These issues are discussed by Riecken (1977), and Riecken and Boruch (1978).

The concept, of two cultures intercepting in evaluation research serves to highlight further difficulties encountered in evaluation studies. Programme staff may undervalue the evaluation effort, lacking motivation to obtain complete and accurate data, while at times programme values and needs must take precedence over evaluation needs. Staff may also resist evaluation efforts in the belief that they, and not the programme, are the primary focus of the research. Other problems include environmental constraints, difficulty in maintaining control over the experimental situation, and the problem of staff continuity. A further problem may be an increase in stress for staff involved in a study which could have job repercussions. Some of these difficulties may be overcome by working in a collaborative alliance with programme staff, but others may need to be accepted philosophically as concomitants of applied research. They should not however be used to justify inadequate research methods.

1.8 Summary

As the field of evaluation research has developed, the polarity of opinion that characterized discussion of many of the major issues has resolved. The novice evaluator, now left without strict "either/or" choices may however be left with the impression that in evaluation "anything goes". While it is accepted that each evaluation must be tailored to the individual organization, the guiding principle still remains sound research design tempered with imagination and common sense. Fortunately, some writers have drawn the requirements of sound evaluation research into models for research design, and while it is unlikely that

a specific model will meet every requirement of a particular project, these do provide an overall organizing conceptual framework from which to work. The use of particular models to develop a conceptual framework for the present study will be discussed in the next chapter.

2.0 DEVELOPMENT OF CONCEPTUAL FRAMEWORKS

2.1 The Wortman Model

Wortman (1975) recognized the need for a comprehensive model for programme evaluation from a psychological perspective. Aware of the limitations of the classical research paradigm in applied settings, he proposed a model which integrates the hypothesis-testing experimental approach with less restrictive non-experimental evaluation strategies, and logically unites the essential components of evaluation in a general systems theory approach.

The model, illustrated in Figure 2.1, is organized along three major dimensions: organizational components, which include all groups and individuals associated in any way with the programme; theoretical concepts, those which have contributed to programme development; and evaluative processes, the various procedures for establishing cause-effect relationships, organized to form a complete set of feedback processes to appropriate levels of the system.

As the model shows, Wortman considered six evaluative processes essential to thorough programme evaluation. Construct validity examines the rationale for programme content, and rests on the accuracy of translating theoretical assumptions into operational terms in the form of independent and dependent variables. With the assumption that treatment implementation is sound, summative evaluation considers whether the programme has achieved the desired outcomes. Internal validity exists when the observed effects can be causally related to programme treatments, and rival hypotheses to explain programme outcome eliminated. Formative evaluation is the process of treatment development through testing, analysing, evaluating, and modifying interventions until it can be verified that the means employed are capable of achieving the desired results. Wortman (1975) has drawn an analogy between conventional pilot testing and formative evaluation. External validity depends on adequate population sampling procedures, and is satisfied if the observed effects of a programme can be reliably generalized to other populations, settings, or conditions. Finally, conclusion validity, like internal validity, relates to causal inference, and is

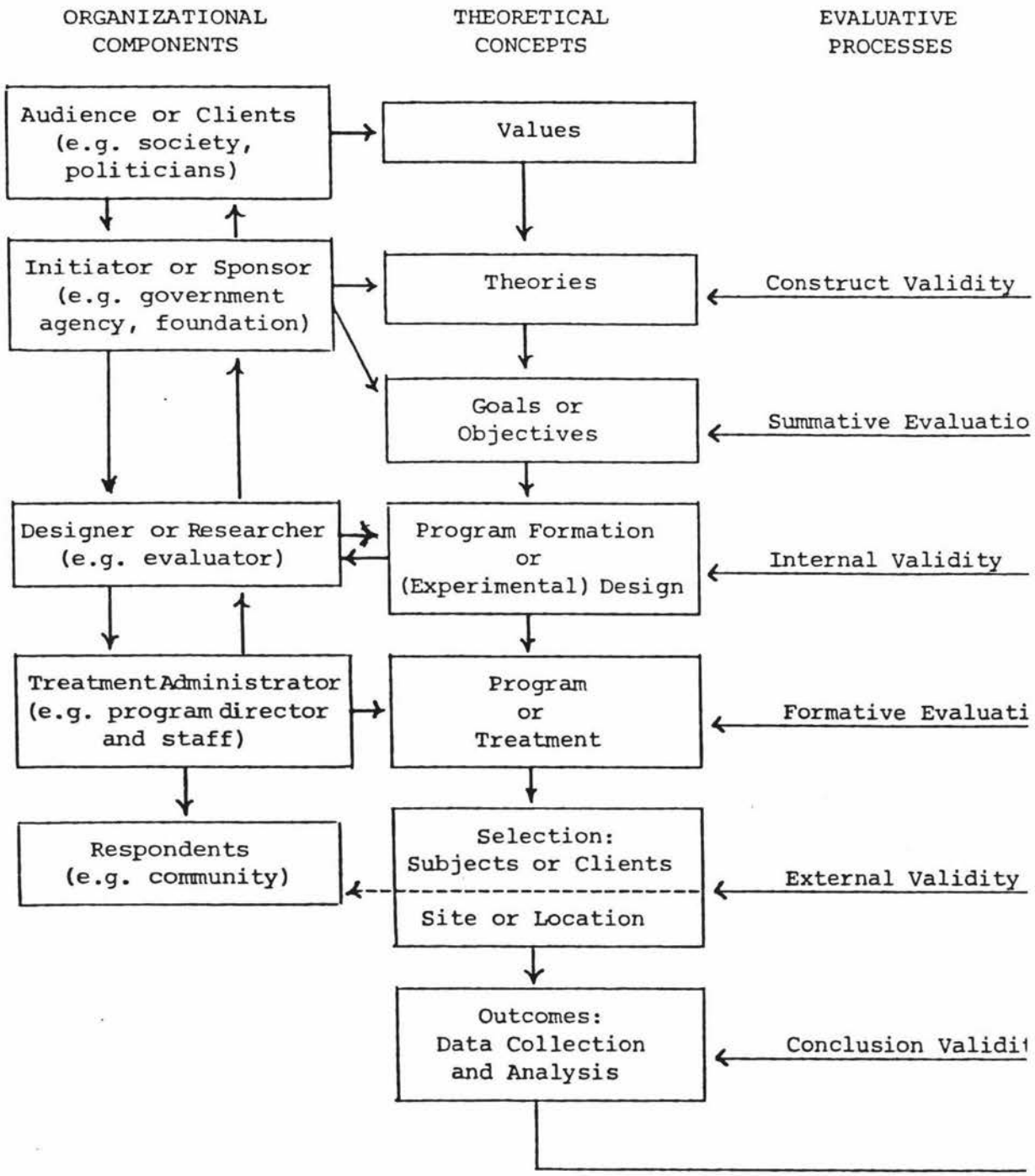


FIGURE 2.1 The Wortman (1975) model of evaluation research.

threatened by small sample size, inappropriate statistical analysis, and non-standard dependent, and independent variable administration.

The Wortman (1975) paper has been widely recognized, with many writers endorsing the views expressed, (e.g. Freeberg, 1976; Paquin, 1977; Perloff, Perloff and Sussna, 1976; Stewart, 1977; Wittrock and Lumsdaine, 1977). There is, however, a notable absence of published research reporting application of the model. Using the model to evaluate a management training programme, Brook (1982) found it necessary for practical reasons, to apply liberal interpretation to some aspects of the model in order to meet the demands of the applied setting. The Wortman model is complex, and probably best suited to large-scale evaluation research projects where the evaluator has large numbers of subjects with which to work, and sufficient power to maintain strict adherence to the research design. Wortman (1975) himself describes the model as an "explanatory model of evaluation" which may imply a bias toward theory building at the expense of practical applicability.

A trend in the literature toward reporting large-scale evaluations employing sophisticated methodologies has been noted by Dowell and Kriesel (1981). While acknowledging the importance of such reporting, these authors affirm the need for less complex models of evaluation relevant to small, community-based research projects. They suggest that the development of models applicable to small-scale projects would facilitate matching evaluation efforts to individual agency needs and thereby increase the probability of results being utilized.

Barnes, Brook, Hesketh and Johnson (1985) also recognized the need for simple models of evaluation and were able to use the model proposed by Williamson et al. (1978) to evaluate an industrial work unit for the disabled.

2.2 The Williamson, Prost and George Model

Prompted by the Wortman (1975) article, Williamson et al. (1978) proposed an elegant model of evaluation for use in the field setting or classroom. Their model employed consecutive procedures for feeding back information on programme operation into the system: a function they consider to be the primary role of the evaluator. Figure 2.2 depicts this process feedback loop, which operates at each stage of the evaluation.

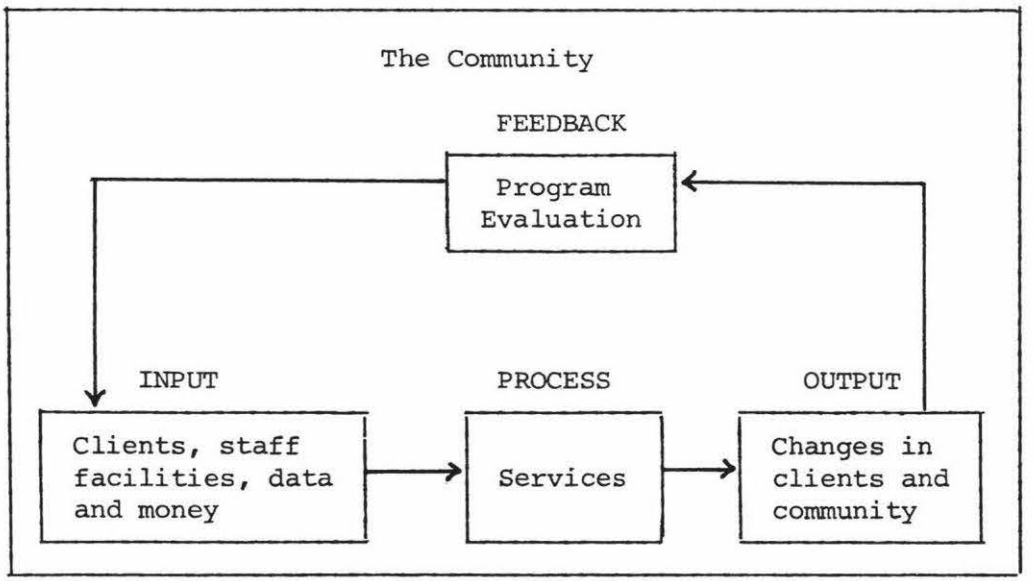


FIGURE 2.2 Programme evaluation as a system feedback loop.

(Source: Williamson et al. (1978)

The Williamson et al. (1978) six stages of service system evaluation, based on Wortman's evaluative processes dimension are:

a) general effectiveness
b) means-ends analysis
c) internal validity
d) goal-outcome congruence
e) external validity
f) construct validity

General effectiveness

Logically the initial stage of programme evaluation should be an investigation of whether the intervention has effected change in programme

clients. In assessing general effectiveness, the direction of any change is irrelevant; what is important at this stage is simply to ascertain whether the programme does have some impact on those it seeks to serve. In gaugeing general effectiveness the evaluator employs a variety of dependent variables, modifying and refining the measures until change is observed. Failure to record change after exhaustive investigation would raise serious questions about the effectiveness of the programme, and/or the researcher's reasoning and methods.

Means-ends analysis

Having established that the programme has indeed changed participants in some way, the evaluator proceeds to look at the relationship between programme elements and programme goals. A satisfactory means-ends analysis is achieved when adequate resources have been directed toward the most important goals, with proportionally fewer resources expended on lesser goals. As Williamson et al. (1978) observe, means-ends analysis assumes ranked programme goals are available: where there is no hierarchy of goals, they suggest the following method to obtain the information:

a) all relevant parties; including community spokespersons, those who deliver the service, and a representative sample from the target population, are asked to submit goals they consider to be appropriate for the programme.

b) a complete list of the goals obtained is taken back to the same people for ranking in order of importance to the programme.

c) a consensus rank ordering of goals can then be generated using simple statistics.

Having obtained a rank ordering of programme goals, the evaluator is then in a position to consider what proportion of programme resources (i.e. staff, time, finances) are committed to achieving each goal. The authors of the model suggest the use of non-parametric statistics to assess the degree of fit between goal rank and resource allocation ranking. Unrealistic means-ends analysis indicates a need for programme modification by way of redefinition of goals, or reviewing resource allotment.

Internal validity

Internal validity looks at cause and effect relationship, and the crucial question at this stage of the evaluation is whether outcomes can be

reliably attributed to the programme intervention, or are the result of some other variable. Williamson et al. (1978) list failure to include control groups; failure to randomly assign subjects to control or experimental conditions; inadequate dependent measures; biased sampling of the target population; and lack of experimental control in the follow-up period, as threats to internal validity.

Where internal validity is threatened the authors recommend the use of alternative client selection procedures, unbiased treatment assignment, more effective follow-up, or different dependent measures, depending on where the problem lies.

Goal-outcome congruence

At this level of evaluation the degree of matching between programme results and programme objectives is considered. Favourable goal-outcome congruence is achieved when outcome measures parallel the achievement of programme goals. Here again the authors offer a simple method of assessing this phase of the research:

a) a summary of rank-ordered goals has already been compiled for the means-ends analysis

b) each goal is operationally defined

c) outcome data is collected and treatment outcomes ranked

d) the correlation between goal rank and treatment outcome rank can be determined using simple statistical procedures such as the Spearman Rho test.

A positive correlation is obtained when outcome is congruent with goals. Failure to achieve goal-outcome congruence indicates the need to reconsider goals, programme interventions, or dependent measures.

External validity

Now it must be ascertained whether the programme achievements can be generalized beyond the present population and/or setting. External validity may be examined by the following method:

a) clients are grouped according to appropriate demographic variables and the number in each group tallied

b) treatment response for each group is calculated

c) generalization to groups is examined, and categories of potential clients not reached by the programme are noted

d) if sections of the target population are underserved by the programme, then client selection or programme interventions will need revision.

Construct validity

This final phase of the evaluation process calls for enquiry into the programme rationale. The authors maintain that satisfactory progression through the preceding analyses will have in effect supported the rational basis of the programme. Less than satisfactory evaluation of any of the preceding phases decrees modification of the programme, and complete re-evaluation, beginning with the initial stage of general effectiveness and systematically working through the stages in sequence. Thus, by the time the stage of construct validity is finally reached, the programme rationale has been justified, and construct validity satisfied.

2.3 Relationship Between Models

The ideal model of evaluation proposed by Wortman (1975) has been simplified by Williamson et al. (1978) to provide a pragmatic approach which is sensitive to the needs and resources of the small-scale, community-based evaluation enterprise. The two models embrace similar concepts despite some differences in terminology: Figure 2.3 expresses the relationship between the models.

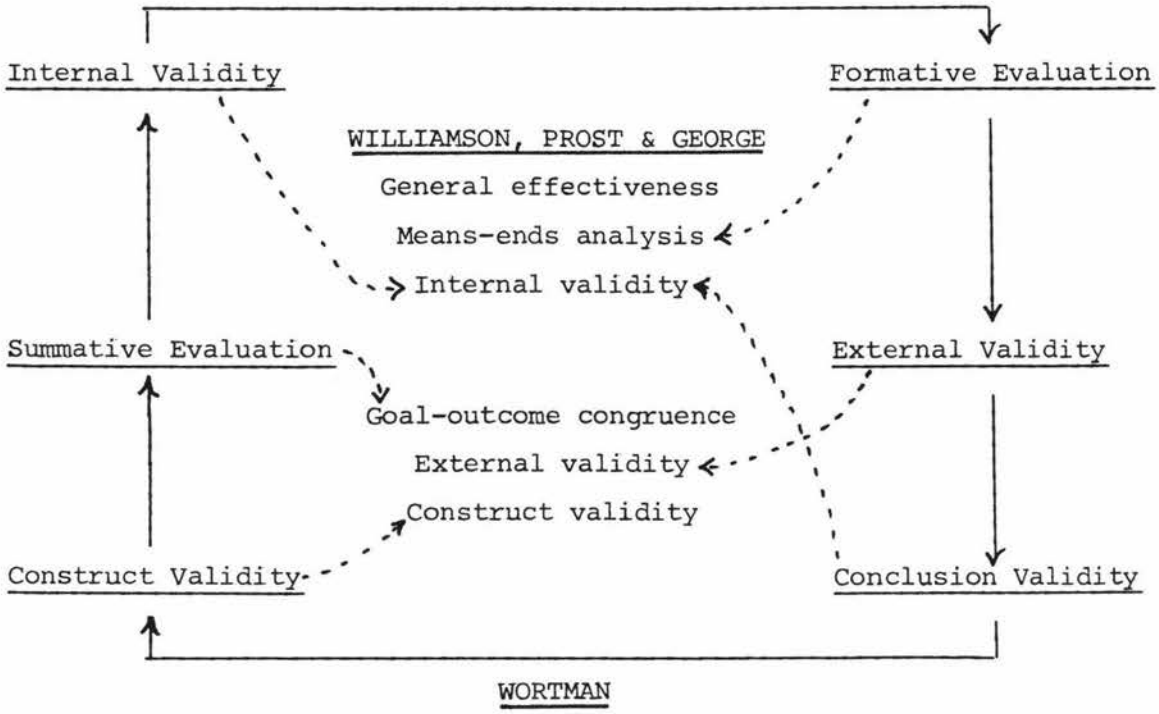


FIGURE 2.3 The relationship between the Wortman (1975) model, and the Williamson, Prost and George (1978) model.

Williamson et al. (1978) begin evaluation by looking at general effectiveness, a very basic level, which although omitted by Wortman (1975) seems a logical starting point since to warrant evaluation, a programme must effect change. Wortman's formative evaluation: the proper development of the treatment intervention equates with means-ends analysis, which Williamson et al. (1978) operationalize as the match between programme focus and programme goals. Both models examine internal validity: the accurate attribution of outcome to programme intervention, with the Williamson et al. (1978) model incorporating Wortman's conclusion validity process at this stage. The degree of matching between programme objectives and treatment effects is discussed by Wortman (1975) as summative evaluation, and by Williamson et al. (1978) as goal-outcome congruence. The models share the concepts of external validity: the extent to which programme outcome can be generalized, and construct validity: examination of programme rationale. Thus it can be appreciated that while the Williamson, Prost and George (1978) model incorporates the essential features of Wortman's (1975) evaluation processes dimension, it does so in an elementary way, reducing the theoretical concepts to operationally defined steps.

2.4 Programme Integrity

A thought provoking paper published by Quay in 1977 criticized evaluators for emphasizing research design, and outcome measurement at the expense of what he termed "the third face of evaluation": programme integrity. Programme integrity refers to the quality and quantity of the treatment offered by a programme, and Quay (1977) maintains, "We need to be as equally concerned with the 'what' of evaluation as with the 'how'. (p. 342)

Quay (1977) has identified four critical areas relevant to programme integrity, and discusses several interrelated aspects within each area. Table 2.01 depicts this conceptual framework.

TABLE 2.01
Aspects of programme integrity.

1. Treatment characteristics and empirical basis
Specificity of intervention conceptualization
Empirical basis of intervention
Proven utility of intervention in less "complex" settings
2. The service delivered
Monitoring programme elements
Duration of the service
Intensity of the service
3. Personnel
Degree of expertise
Amount of training provided
Degree of supervision
3. Matching the treater, treatment, and treated

(Adapted from Quay, 1977)

Treatment characteristics and empirical bases

To assess the adequacy of any intervention it is first necessary to delineate the essential components of treatment through accurate description, and where appropriate quantification, of the independent

variable. Detailed specification of the independent variable also facilitates standardization of treatment implementation and replication. Once treatment has been conceptualized, its foundation on empirical evidence has to be considered, and while Quay (1977) concedes that translation from laboratory to applied setting is not infallible, a sound empirical base gives validity to treatment operations and techniques. The final consideration in the area of treatment characteristics is whether the intervention has proved successful in other settings, particularly where staff are not exposed to conflicting treatment demands. If intervention utility cannot be demonstrated in simple settings it is unlikely to succeed in a more complex environment.

The service delivered

The second area examined by Quay (1977) is that of service delivery: monitoring programme elements, and the duration and intensity of the intervention. The question posed here is whether the intervention, as specified in the programme design, actually took place. This, of course, not only relates to the specific components of the independent variable, but also to the continuation of treatment for the recommended period, and at sufficient magnitude to effect change. Investigation of service delivery is of prime importance, since without proper application of the independent variable, evaluation of treatment is pointless.

Personnel

While it may seem pedantic to suggest service delivery personnel should possess the expertise and training to implement the treatment programme, Quay (1977) actually cites instances where this assumption has been violated. Additionally, he calls attention to the need for support and guidance of programme personnel through adequate supervision.

The match of treater, treatment, and treated

Finally, Quay suggests, the efficacy of treatment is dependent on matching the service delivery personnel and the type of intervention, with the characteristics of the target population. Quay (1977) does not address the question of treatment outcome, but warns that drawing conclusions from research that ignores aspects of programme integrity will lead to major errors with serious implications.

2.5 Integration of Concepts

The issues raised by Quay (1977) place proper emphasis on the need for comprehensive formative evaluation as a prerequisite to summative evaluation, and as such provide an extra dimension to the Williamson et al. (1978) model. While means-ends analysis focuses on the relationship between resources and goals, Quay (1977) advocates indepth scrutiny of programme resources. His coverage of "treatment characteristics and empirical bases" adds substance to the Williamson et al. (1978) consideration of construct validity, an aspect of the model criticized by Brook (1984) as being a "limited approach to construct validity" which fails to emphasize the scientific basis of evaluation research. Finally, Quay's appeal for match between treater, treated, and treatment recognizes an important aspect of external validity. Figure 2.3 illustrates the relationship between the Williamson et al. (1978) model of evaluation research and the Quay (1977) concept of programme integrity.

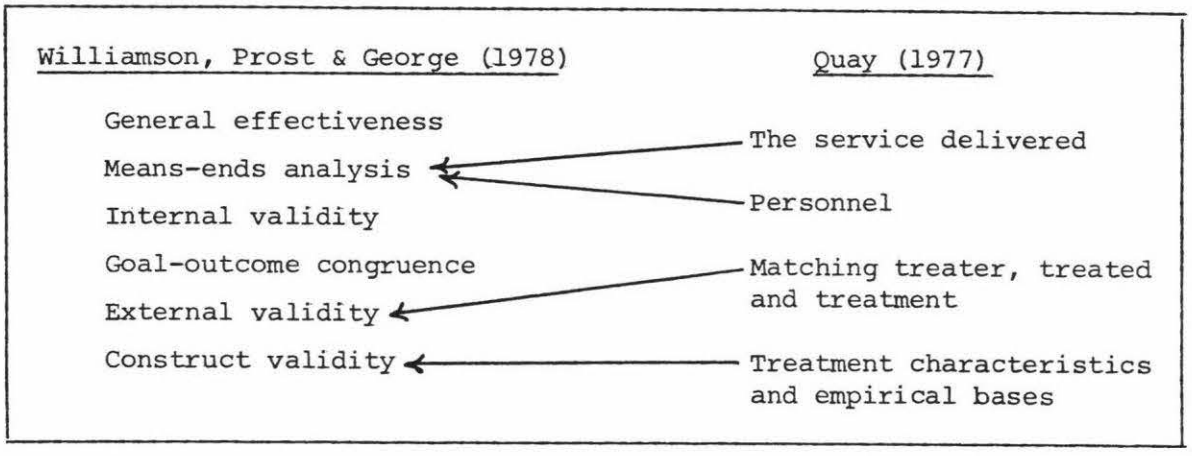


FIGURE 2.4 The complementarity between the Williamson, Prost and George (1978), and Quay (1977) approaches to evaluation research.

2.6 Summary

In summary then, the sound theoretical foundation of the Wortman (1975) model provides an ideal basis for the practical model of evaluation proposed by Williamson et al. (1978). The operationally defined stages of the Williamson et al. (1978) model are well suited to the requirements of community-based evaluation research projects with limited resources. Some stages of the model are underdeveloped, but Quay's (1977) discussion

of programme integrity complements the Williamson, Prost and George (1978) model, and together they provide a useful conceptual framework for the present research.

3.0 METHODOLOGICAL ISSUES

3.1 In Evaluation

The researcher charged with designing a programme evaluation study is faced with three important decisions regarding data collection: (1) who should contribute data? (2) by what method should data be obtained? and (3) when should data collection take place? These topics are usually discussed thoroughly in research design texts (e.g. Christensen, 1980; Keppel and Saufley, 1980), and so will only be briefly commented on to alert the reader's attention to some of the issues considered in designing the present study.

Initially, the researcher needs clear identification of the intended target population: whether defined by environmental location (e.g. all those living in a particular area); type (e.g. all females under 25 years of age); or both (e.g. all females under 25 years who live in a particular area). Because target populations are usually too large to include all members in the study, decisions need to be made about sampling methods and sample size. Consideration also has to be given to the question of whether experimental, and control or comparison groups are required, and how these groups are to be formed.

Once project participants have been identified, data collection methods must be appraised. Evaluation data is commonly obtained from direct observation, interview, and questionnaire. Interviews may vary in the degree of structuring, and whether conducted face-on or by telephone. Questionnaires may be standardized or non-standard instruments, administered face-on, by telephone, or by post. In some instances published information may also be a source of evaluation data.

Finally, the researcher must decide when the data is to be collected; whether measures are to be taken at a specific time, repeated measures at specified intervals, or continuous recording, and related to this, the duration of the data collection period.

In their discussion of evaluation methodological issues Burgoyne and Cooper (1975) stress the need for careful selection of measuring instruments, noting that most studies employ self-report measures, and researchers often 'deify' validated questionnaires with magical properties

beyond their actual value. To rectify this situation they advocate greater use of behavioural measures in evaluation research.

Stipak (1982) has addressed the question of using clients to evaluate programmes. He maintains that client surveys yield valuable objective and subjective data for evaluating service delivery programmes, which cannot be obtained from other sources. But he warns of a positive bias which exists in client evaluations, and reports studies supporting this observation, (e.g. Katz, Gutek, Katin and Barton, 1975; Campbell, Converse and Rogers, 1976; Fowler, 1974). Rather than disregard client evaluations Stipak (1982) offers a set of rules to guide analysis of client evaluation and satisfaction ratings. Particularly relevant to the present study is his recommendation that conclusions about programme effectiveness should not be based solely on client evaluation, to expect a majority of positive responses and to consider this inconsequential. However, a majority of negative responses should be regarded as an important indicator of programme effectiveness.

3.2 In Stress Research

Stress, previously defined as an imbalance between the organisms response capability and the demands of the environment (McGrath, 1976), may be manifest as functional deficits in three areas: the individual, the organization in which the individual is employed, and the social environment in which the individual exists. Effects of stress on the individual may be exhibited behaviourally, (e.g. increased drug or alcohol consumption, Caplan, Cobb and French, 1975); physiologically, (e.g. physical ill health, Cooper and Marshall, 1976; Frese, 1985); or psychologically (e.g. mental ill health, Cooper and Marshall, 1976; Frese, 1985). The stressed individual may experience low job satisfaction (Sarason and Johnson, 1979), affecting the organization through poor performance, absenteeism, or resignation. Outside working hours the effects of stress may rebound on family life and leisure activities (Voges, Long, Roache and Shouksmith, 1982; Voges, 1983).

Stress research presents its own set of methodological problems. Two issues discussed by Cooper and Marshall (1976) are particularly relevant to the present study; firstly, the use of correlation analysis in stress research, and secondly, the nature of stress measures.

Most research evidence pertaining to occupational stress has been derived from studies observing correlation between stressors and mental or physical ill health, as opposed to studies isolating causal relationship. Correlation fails to account for the contribution of intervening variables, (Cooper and Marshall, 1976; Frese, 1985), making prediction of the effects of stress unreliable. However, the correlational approach does permit (with some accuracy), identification of those individuals who are experiencing stress by measuring the effects denoted as correlates of stress.

The second issue, how to measure stress, is extremely important since the validity of any research is directly related to the validity and reliability of the dependent variable. Cooper and Marshall (1976) raise the question of whether stress should be measured objectively by physiological measures, or subjectively using self-report measures. Appraisal of 13 studies of occupational stress, reviewed by Murphy (1984) reveals physiological measures were employed in five studies, self-report measures were used in three, and five studies utilized both objective and subjective indices of stress.

Many researchers believe that the scientific objectivity of physiological indices makes them the obvious method of measuring stress, and studies employing blood pressure recording, heart rate, electrophysiological measures, and biochemical assay are common. Unfortunately, as Fletcher and Payne (1980) report, major studies using several physiological indicators concurrently found no significant intercorrelation between measures. Furthermore, no one physiological measure proved superior in predicting psychological stressors, and the physiological measures did not correlate with any specific psychological stressors. Although self-report measures have only found moderately strong correlation between stressors and experienced stress, Fletcher and Payne (1980) concluded that subjective measures are probably the best indicators of stress levels. While standardized measures may be utilized, the techniques used to ensure they are valid and reliable instruments may destroy their ability to detect small changes in specific populations. Thus the use of both standardized and non-standardized measures is often justified (Voges et al., 1982) and any co-variance between such measures would support the assumption of accurate measurement.

Fimian (1984) described the method used to develop an instrument to measure occupational stress in teachers. Items obtained from a large sample of teachers, researchers, and other relevant sources, were rated for relevancy, frequency, and strength. The data was subjected to factor analyses, followed by varimax and oblique rotations, and items not meeting the specified criteria were excluded. A similar method was employed by Koch, Tung, Gmelch and Swent (1982) to develop a stress measure specific to administrators of educational institutions. An interesting aspect of this study was data collection by means of a diary, or 'stress log' in which subjects recorded work-related stressful incidents.

3.3 Relevant Standardized Measures

General Health Questionnaire

Goldberg (1972) developed the General Health Questionnaire (G.H.Q.) as a self-administered community research tool to detect mild or "just clinically significant" psychiatric illness, (Goldberg and Huxley, 1980). G.H.Q. items cover recent functioning in several areas including general health, sleep, subjective feelings of self-confidence, tension, depression, and anxiety, rated on a four-point Likert scale, with higher scores indicating lower mental health. Because questionnaire length is often a critical factor in applied research (Christensen, 1980), several shortened versions (G.H.Q. 30; G.H.Q. 20; and G.H.Q. 12) of the original 60 item measure have been developed by selecting the most discriminatory items.

The G.H.Q. has been widely used as a measure of psychological health in occupational stress studies (e.g. Cox, Thirlaway, Gotts and Cox, 1983; Fletcher and Payne, 1980; Liff, 1981; Pankhurst, 1982; Payne and Arroba, 1980; Pratt, 1978; and Warr, Cook and Wall, 1979).

The psychometric properties of the G.H.Q. 12 have been examined by Worsley and Gribben (1977) in Australia, and Banks, Clegg, Jackson, Kemp, Stafford and Wall (1980) in three separate investigations of British occupational groups. Factor analysis supported the use of the G.H.Q. 12 as a "unidimensional measure of minor psychiatric disorders" (Banks et al., 1980; Worsley and Gribben, 1977). Banks et al. (1980) also evaluated the scoring methods of the G.H.Q. 12, finding the Likert scoring method (0 - 3) preferable since its

distribution more closely approximated the normal distribution than did that of the G.H.Q. method which assigns a score of 0 for endorsing either of the first two categories, and 1 for endorsing the third or fourth option.

The G.H.Q. 12 has been used to study stress or well-being in unemployed men, (Hepworth, 1980); care-givers of severely disabled young adults, (Hirst, 1985); nurses, (Monro, 1985); young school leavers, (Stafford, Jackson and Banks, 1980); prison officers and their wives, (Voges et al., 1982); and the families of five occupational groups, (Voges, 1983).

Task-Goal Attributes Questionnaire

Steers (1975) noted that research literature suggests task performance may be enhanced by the act of setting clear goals. He developed the 16 item Task-Goal Attributes Questionnaire, (Steers, 1976), to assess: Participation in Goal Setting (four items), Feedback on Goal Effort (three items), Peer Competition (two items), Goal Specificity (three items) and Goal Difficulty (four items).

Factor analysis revealed low and non-significant intercorrelation between the five factor scores, and in a study of 133 female supervisors, alpha co-efficients showed high internal consistency (Steers, 1976). A seven-point Likert scale is used for scoring, and several items are negatively phrased to reduce response bias.

3.4 Summary

This chapter served to identify some of the methodological issues and standardized measures encountered in evaluation research and stress research as they might relate to the present study. As Freeman (1977) has stated, there is no way to insist that evaluation studies conform to the dictates of true experimental design, and this puts a major responsibility on researchers to alert consumers of the limitations of their investigations and conclusions.

4.0 RELEVANT STUDIES

4.1 Nurses and Stress

Nursing is considered a high stress occupation (Colligan, Smith and Hurrell, 1977; Leatt and Schneck, 1983) and a number of studies have investigated stress levels in specific hospital settings (e.g. Monro, 1985; Parkes, 1982) however the unique nature of the Plunket-Karitane Family Units makes these investigations only marginally relevant to the present study. Perhaps more applicable are the results of the three large investigations reported below.

Leatt and Schneck (1983) report on data obtained as part of a large research project involving some 1200 nurses from 24 hospitals in Canada. They found the highest source of stress for nurses across all types of specialities to be workload. A finding relevant to the present study was that paediatric nurses reported stress arising from role conflict, which was primarily related to interpersonal relationships, conflicting demands, unclear delineation of responsibilities, and insufficient knowledge or resources to do their job. Of the nine speciality groups of nurses, paediatric nurses ranked second highest in role conflict below intensive care unit nurses.

In reviewing 16 independent surveys of Australian nurses' occupational stress Linder-Pelz (1985) found it difficult to draw general conclusions because of the diverse and exploratory nature of the studies, however stressors noted included workload, poor staff communication, and lack of support from nursing and medical managements.

In 1985 Dewe (1985; 1986a; 1986b) conducted a postal survey of 2500 randomly selected nurses working in New Zealand general and obstetric hospitals. The research objectives were to identify situations experienced by nurses as stressful, to assess the impact of those situations on nurses well-being, and to study nurses coping strategies for stressful situations. From questionnaire responses five different sources of stress were identified and ranked. The most frequent stress provoking situations were related to work overload, followed by dealing with difficult or helplessly ill patients, and difficulties involved in nursing the critically ill. Fourth ranked was role conflict, which included interpersonal conflicts, conflicting opinions about how tasks

should be done and by whom, and conflicting work routines.

Large samples of nurses in three different countries have reported role-based stress, (as discussed by Glowinkowski and Cooper, 1986), resulting in particular from role conflict, (as defined by Rizzo et al., 1970), and the Leatt and Schneck (1983) study indicated paediatric nurses in Canada especially susceptible to role-based stress.

4.2 Part-time versus Full-time Employment

An area of organizational research reported by Eberhardt and Shani (1984) as being neglected is that of part-time versus full-time employment. Liff (1981) found the mental health of women factory workers, as indexed by the G.H.Q., was significantly poor for full-time workers as compared to part-time workers; however as the author noted, the results were confounded by financial and marital status variables. Eberhardt and Shani (1984) found that not only did part-time employees report higher overall job satisfaction than full-time employees, but part-time workers also held more favourable attitudes to the employing organization. No differences in attitude toward participation in decision-making, inter-personal relations, and co-operation were observed between the groups. A large study of full-time and part-time (non-medical) hospital employees, conducted by Wakefield, Curry, Mueller and Price (1987) also found part-time employees expressed greater job satisfaction, and held more favourable attitudes to the organization than full-time employees: the authors suggested the difference may be attributable to lower job expectations in part-time employees.

This brief review of the area suggests that for some occupations, part-time work may be more satisfying than full-time work.

4.3 Social Support

Some researchers have suggested social support as a mediator of stress, but Schradle and Dougher (1985) after an exhaustive review of the literature concluded that a relationship between social support and stress reduction had not been empirically established. Douglas and Jason (1986) found that a project which attempted to build social support systems through establishing a babysitting exchange had an undifferentiated impact on pre- and post-intervention stress scores on

several measures, for both high stress and low stress mothers.

4.4 Child Health in New Zealand

Following a critical examination of the mortality statistics for infant and young children, Watt, Buckfield, Clarkson, Geddis, Holdaway, Mortimer and Watt (1977) concluded that while New Zealand did not lack facilities for child health care, the facilities were being insufficiently or inappropriately used. They recommended that Plunket, and Public Health Nurses should be trained and available to operate within the community as well as in the Clinic, since many infants never attend a well baby clinic. Two years later Geddis and Silva (1979) conducted a survey in Dunedin of patterns of use and reactions to the service provided by the Plunket Society. While the results indicated that large numbers of mothers used the service and found it satisfactory, the survey also revealed a need for greater emphasis on behavioural and developmental problems, but not at the expense of the more traditional areas of Plunket involvement. Two main conclusions were drawn from the survey information. Firstly, there was an indication that mothers would like to use the Plunket nurse as a resource person providing counselling in all aspects of child development, and secondly, more staff would be needed to provide the additional support and help desired by mothers.

4.5 Summary

The literature research for information specifically related to the evaluation of the Palmerston North Plunket-Karitane Family Unit has proved somewhat unproductive, but this is hardly surprising since the concept is unique to New Zealand. Although some evaluation research is available for overseas early child-care programmes, the projects reported on were not sufficiently like the Plunket-Karitane family unit concept to warrant inclusion in the present literature review. An evaluation of two Plunket-Karitane family units has been conducted in Dunedin, and this project is fully reported in the next section.

4.6 A New Zealand Study

An investigation of particular relevance to the present study has been reported by Clarkson, Brown, Fraser, Herbison and Geddis (1985). The research centred on Dunedin's two Plunket family units, and over a period

of eight months information was gathered from a large number of clients attending these units. Interview and questionnaire responses provided the data base for the study. Variables of interest to Clarkson et al. (1985) were the demographic profile of the family, the nature of the identified problems, intervention type and frequency, and the impact of unit contact as perceived by all those involved in each case.

Summary of findings

Results presented by Clarkson et al. (1985) indicate most referrals to the units were initiated by Plunket nurses (58.2%), with self-referral being second most common, but much less frequent (28.9%). Referrals from all other sources, including general practitioners, social welfare, paediatric department, public health nurses and community workers totalled less than 13%. The majority of children attending the unit were less than one year old (69%), with nearly half (42%) being under three months of age. In approximately half the cases studied the presenting child was an only child (49.4%), less than one third had one sibling (30.5%), and the remainder had three to five siblings. Low birth weight, and preterm infants were over represented in the units' sample when compared to the incidence in the general population.

Using the Johnson (1983) classification, each family was assigned to one of six socio-economic status groups, revealing that the percentage of families in each group approximated the national distribution. Two thirds of the mothers had attended antenatal classes, and most reported having average, or better, parenting support from their partner and/or family and friends.

Unit staff observed that frequently the presenting problem was but one of several. The most commonly expressed need was social contact for lonely mothers, (mother support 74.3%), with child behaviour problems almost as common (63.9%), and breast feeding difficulties third (28.1%). The authors noted that "Almost one in four mothers were exhausted by lack of sleep or clinically depressed." (p. 808): 18.5% and 8.8% respectively. Typically, babies under six months were associated with difficulties related to feeding, lack of mothercraft skills, and excessive crying; weaning difficulties, mother support, exhaustion, and depression assumed greater importance when the infant was between six and 12 months; and behaviour problems were common in the two to three

years age group.

Problem management or treatment intervention was divided into five general categories:

a) Visits to the unit included discussion of problems with the mother, assistance in dealing with problems, and also gave staff the opportunity to observe mother-child interaction.

b) Home visits served a similar function to unit visits, but were only undertaken if naturalistic observation was considered necessary, or if the mother was unwilling to attend the unit.

c) Child care gave mothers time away from their child if the staff considered this an appropriate intervention.

d) Coffee mornings, held monthly, afforded informal contact with unit staff and served both social and educational functions.

e) Phone contacts were underestimated because work pressure often meant they were not logged.

All cases had at least one visit to the unit; more than three quarters (78.3%) had telephone contact; one third (32.1%) availed themselves of child care; less than one quarter (23.3%) attended coffee mornings; and a small number (18.9%) received home visits. In each of these categories more than 80% of cases required less than six interventions. The mean number of visits to the unit ranged from 1.7 for behavioural habits, to 7.0 for maternal depression; and for home visits, 0.1 for breast feeding problems and behavioural habits, to 1.2 for maternal depression. Thirteen percent of all cases were referred to other agencies for treatment.

Intervention outcome evaluation data was obtained from the mother, the unit staff, and where applicable the referring agency, one to 12 weeks after the family's last contact with the unit. A subjective, five-point rating scale was used: worse; same; mildly helpful; moderately helpful; and very helpful. Unit staff rated the intervention as mildly helpful in 25.5% of cases, and moderately, or very helpful in 59.3% of cases. The figures for the referral agency are 9.2% and 80.3%

respectively; and for mothers' ratings 6.5% and 80.6%. Thus, although satisfaction with the outcome of the programme was high, the unit staff tended to rate the intervention less highly than either mothers or referral agencies. When mothers were asked to anonymously rate the family unit intervention in comparison with other sources of help they had contacted, 91.6% rated the unit programme as moderately more, or much more helpful.

Summary of conclusions

Clarkson et al. (1985) begin discussion of the results of their study by drawing attention to the necessary compromise between obtaining adequate data, and the need to maintain rapport with unit clients. This problem was manifest in questions pertaining to socio-economic status, where complete data was not obtained for all cases, and the authors assume a data bias toward underestimation of lower socio-economic group membership. They conclude, however, on the basis of the data presented "that the units catered at least equally for all socio-economic classes ... attempts to provide care where it is needed are beginning to be successful." (p. 809)

The study established that in a majority of cases infants were under three months of age, with 10% of potential users in this age group being seen, however between the ages of four and five years this reduced to .3% of potential users. The authors were unable to relate this trend to the needs of preschool children because studies providing relevant information have not been undertaken in New Zealand.

Clarkson et al. (1985) anticipated that some of the problems encountered by staff would demand high input of programme resources with poor eventual outcome. This fear proved unfounded and the researchers were able to conclude that problem management used resources efficiently and was valued by those involved in the programme. The authors noted that staff were able to recognize the limitations of the family unit service and referred mothers to other agencies where necessary. They suggest the over-representation of preterm and low birth weight infants indicates the family units have assumed at least some of the functions previously performed by Karitane Hospitals, and interpret the low rate of referral from other health professionals as a need for more publicity of the family units.

Finally, the researchers maintain the complexity of objective outcome measures appropriate to this study put such measures beyond the resources available, but conclude that "We have shown that the family units are fulfilling a community role which is not being met from other resources. The service provided is valued by the people who use it, and it offers an effective management of the range of problems in families who are referred." (p. 809)

Critique

While the Clarkson et al. (1985) study was undoubtedly adequate for the purpose for which it was designed, as an evaluation it falls somewhat short of the definition of evaluation research adopted by the present writer. Although the research is titled an evaluation and some attempt was made to assess programme impact, it remains largely a statistical summary of the activities of the units involved. Comments made by the researchers about the data versus rapport dilemma, and the difficulty of obtaining objective outcome data for this type of programme, are acknowledged as valid and pertinent observations.

The overall value of the information contributed by the Clarkson et al. (1985) study is not questioned, however, some of the conclusions reached may be open to alternative interpretation. The present writer accepts that the low rate of referral from other agencies may indicate a need for more publicity, but equally plausible hypotheses could be entertained; there may be other agencies in the community serving similar functions; the interventions offered at family units may not be valued by other health professionals; mothers may be referred to the units but for a variety of reasons choose to ignore the recommendation; or the Plunket nurse may work in closer contact with young mothers than other health care givers, and therefore be the first person approached for help. Clearly these alternative explanations for low referral rates have very different implications for strategies to deal with the problem.

Mothers were asked to rate the usefulness of the family unit intervention against the help they had received from other sources, and a large majority rated the family unit very positively, however it is respectfully suggested that had the mothers been satisfied with other sources of help they would not need to attend the family unit programme. Furthermore, the Clarkson et al. (1985) paper does not report whether "the various

sources of help" were specified, or could include non-professional help such as friends and neighbours.

Subjective measures are always open to accusations of bias, and the outcome measures used in the Clarkson et al. (1985) study are no exception. Although the report does not make it clear how the mother was asked her opinion of outcome, the "Plunket Karitane Family Unit Data Sheet" used in the study stipulates that the parent's opinion of outcome was "To be asked by Charge Nurse within 4 weeks of termination of contact." The units charge nurses also assessed the staff perception of outcome, and were responsible for soliciting outcome evaluation from the referral agent, who in most cases (81.97%: i.e. 58.2% of the 71% not self-referred) was a fellow Plunket nurse. The issue of unconscious subject/experimenter bias is well documented in texts examining experimental methodology, (e.g. Christensen, 1980) and will not be pursued here.

The foregoing discussion is in no way intended to diminish the contribution made by the Clarkson et al. (1985) study, but merely serves as an introduction to the changes the present writer considered necessary in the portion of the present study which seeks to replicate the original study.

5.0 THE PRESENT STUDY

5.1 Introduction

The intention of the present study was to conduct both a process and an outcome evaluation of the service delivery programme offered by the Palmerston North Plunket-Karitane family unit, using the Williamson, Prost and George (1978) model for evaluation research as an overall organizing structure for the project, and utilizing Quay's (1977) conceptualization of programme integrity to complement areas of the model which were considered underdeveloped. Throughout the evaluation a collaborative approach to investigation was emphasized, in an attempt to reduce organizational threats to the viability and research validity of the project, and to keep to a minimum any additional staff stress engendered by the research project. To facilitate information gathering, the evaluation included several small studies designed to collect both qualitative and quantitative data on the various aspects of programme functioning.

5.2 Replication Study

The present study replicated, in a modified form, the Clarkson et al. (1985) investigation of the Dunedin Plunket-Karitane family units. A questionnaire, seeking similar information to that canvassed by Clarkson et al. (1985) was designed but with some important additions and omissions. The Clarkson et al. (1985) study did not record ethnicity of either the parents or child because they considered the non-European population of Dunedin too sparse to warrant the additional questions being included on the already long data collection instrument (Clarkson, verbal communication). Establishment of the ethnic origin of clients and infants was considered to be an important variable for the Palmerston North study. A question regarding residential location was included in the anonymous data collection instrument so that proximity of clients to the unit could be ascertained, and an extra problem management intervention, "individual counselling session" was added to accommodate local treatment approaches. The present study made no assumption about the sex or status of the person presenting with a child, referring to "client" rather than "mother". The duration, as well as the frequency of contact with the unit was recorded in the present study, as well as whether the client was discharged by staff or terminated

contact of his/her own volition: an important indicator of satisfaction with the programme.

The present study did not enquire about gestation period or antenatal class attendance, neither were clients asked about other agencies involved in their case, nor asked to compare the effectiveness of the family unit with other agencies. Clients were not asked how much parenting support they received from family and friends. The Clarkson et al. (1985) study asked unit nurses to judge maternal depression according to D.S.M. lll (1980) criteria; in the present study nurses were merely asked to indicate if the client was depressed. This stance was taken because the present writer was seeking symptom and not syndrome information, and did not consider it appropriate for unit nurses to diagnose clinical depression.

In the area of problem identification, the present study did not seek to elaborate on the type of feeding problem; excess crying and colic were not differentiated, and various behavioural excesses and deficits were subsumed under the heading of behaviour. As Clarkson et al. (1985) noted, data collection is usually a compromise between the desired and the attainable: the differences in emphasis between the two studies merely reflect their different purposes.

The replication study served two functions. Firstly, as part of the evaluation to provide information on programme inputs and a limited outcome evaluation, and secondly, to replicate the Clarkson et al. (1985) work, using a different population, and thereby obtain valuable comparative data for Plunket Society use.

5.3 The Follow-up Study

The follow-up study was a telephone survey designed primarily to obtain further outcome evaluation data, but the opportunity was taken to also procure information relevant to the client needs analysis, gauge the public profile of the family unit, and gain some indication of similar facilities available in the community.

Consideration of client confidentiality prevented the drawing of a random sample of those clients who presented at the family unit during the data collection period, and so the Follow-up Study consisted of all those clients who gave signed consent to being further contacted. It was

expected that this sub-set would be somewhat different to those in the Replication study, and so some comparative data on problem type and problem management was also recorded. Finally, participants in the Follow-up Study were invited to make general comments about the family unit programme.

5.4 Comparison Study

This research study was a quasi-experimental, ex post facto design postal survey, introduced as a further evaluation of family unit intervention outcome. The hypothesis tested was that parents who had received the family unit programme intervention would be more comfortable in their role as a parent than those who had no opportunity to attend the family unit.

The Palmerston North family unit does not operate a waiting list system, and this presented the researcher with the difficulty of obtaining an adequate non-intervention control group. The comparison groups were drawn from two towns which did not have a family unit in the area: this obviously prevented random assignment to condition. Unfortunately the size of both experimental and comparison groups precluded random sampling.

The G.H.Q. 12 was selected as a measure of parental well-being, and was supplemented with a question probing the subject's confidence in his/her parenting ability.

5.5 Stress Measure Development

One of the aims of the present study was to develop a stress measure specific to the unique occupational setting in which Plunket-Karitane family unit nurses work. The model employed by Fimian (1984) was used as a basis for stress measure development, but the small number of subjects available prevented the use of sophisticated statistical analysis to validate and establish the reliability of the measure. To maximize the external validity of such a measure, data collection extended beyond the evaluation setting to include staff working in similar units in other areas. Detailed information was obtained about stress provoking work-related incidents, and a questionnaire compiled incorporating examples of each type of stressor elicited. The items

rated by nurses as being most significant were included in the Stress Diary Booklet used in the Stress Study.

5.6 The Stress Study

The Stress Study was a quasi-experimental design study, which extended over a period of five weeks, and utilized an experimental group, (Palmerston North family unit staff) and two non-equivalent comparison groups, (the staff of two other family units). The hypothesis tested was that the experimental group, who participated in a clients' needs analysis and a subsequent goal-setting exercise would have reduced stress scores as indexed by the instruments included in the Stress Diary Booklet; that is, the G.H.Q. 12, and the job specific stress measure, the Daily Diary. Any reduction in stress score achieved by the comparison groups, who did not receive goal setting instruction, would not be as great as that achieved by the experimental group.

Stress measures were taken at three points during the study: before the interventions, following needs analysis information gathering, and following goal setting discussions. The number of parents and children attending the unit during these periods was also recorded, since it appeared that workload and stress levels would be related.

5.7 Needs Analysis

A needs analysis was carried out to assess the current needs of unit clients as perceived by the parents themselves, the agencies that referred them, the unit staff, senior Plunket personnel, and key members of the Palmerston North Plunket-Karitane family unit management committee.

Client data was obtained indirectly, from information recorded for the Replication Study, and from suggestions made by clients during the Follow-up Study data collection. Non-client respondents were asked to identify the main aim of the Unit, and subsidiary objectives. They were also asked to comment on appropriate/inappropriate cases for unit referral, areas of staff expertise, changes envisaged, and unit liaison with relevant agencies and individuals.

Time constraints prevented extending this part of the project to rank ordering of aims and objectives by respondents as had been originally

planned, and so this exercise yielded mostly qualitative data.

5.8 Summary

This chapter briefly outlines the main components to the evaluation project. Further information was obtained from various sources including, informal observation, and Plunket records. The following chapter details methods of data collection.

6.0 METHOD

6.1 Replication Study

Subjects

Subjects in this phase of the research project were 55 mother-child dyads and triads who presented as new cases at the Palmerston North family unit. The original intention was to collect the information over a period of three months, but staff changes prevented this and so in reality the data was obtained from 35 mothers who presented during a six week period, and then 11 weeks later a further 19 mothers during a seven week period. All new cases presenting at the family unit during the data collection periods were included in the replication study.

Materials

The data collection instrument was prefaced with a 'Client Identification Sheet' (see Appendix A) on which the unit Plunket nurse recorded client identification information and the client's code number. This sheet, which was retained by the Plunket nurse and not made available to the researcher, was the only means by which specific data could be identified as pertaining to a particular family: thus client confidentiality was strictly maintained.

The 'Client Data Sheet' assembled information similar to that collected by Clarkson et al. (1985) including referral source; family demographic variables (which included ethnicity); problem identification and management; and evaluation of outcome as perceived by staff, client, and referral agency. (A copy of the 'Client Data Sheet' is included in Appendix A.) The Client Data Sheet also included questions probing community awareness of family unit function; parental attitude to seeking help; the client's formulation of the presenting problem; duration and intensity of contact with the unit programme; and residential proximity to the family unit: information not sought in the Clarkson et al. (1985) study.

Procedure

Although the questionnaire was largely self-explanatory, the researcher went through the requirements with the unit Plunket nurse to clarify any ambiguity. The questionnaire was pilot tested on a small group of ordinary citizens before data collection proper commenced: no changes were considered necessary. The nurse was asked to complete a Client Identification Sheet and a Client Data Sheet for each new case presenting during the data collection period. She was instructed to obtain completed information for each case; but to use judgement where rapport might be jeopardized, and perhaps collect sensitive information at a more appropriate time. Problems identified, and problem management data was to be recorded as it became available, and on client discharge the outcome data was to be recorded exactly as specified. Completed Client Data Sheets were given to the researcher, and Client Identification Sheets retained at the family unit.

Unfortunately, the circumstances of staff changes prevented the establishment of inter-rater reliability between the two Plunket nurses involved in data collection.

6.2 The Follow-up Study

Subjects

Palmerston North family unit clients from whom data was obtained during the replication study were invited by the Unit Plunket nurse to take part in the follow-up study. Twenty-four mothers from the original 55 consented to being contacted, with one subsequently withdrawing leaving a total of 23 cases to be followed up.

Instruments

All participants in the replication study were given a Client Information page outlining the purpose of the follow-up study, with an attached Consent Form (see Appendix A).

The follow-up study questionnaire probed the client's attitude to seeking help and awareness of needs, satisfaction with the programme's treatment components, evaluation of outcome (with a reliability check), and satisfaction with the service. Information was also sought on community awareness of family unit function, the needs of families with young

children relevant to the family unit concept, and the existence of similar services in the Palmerston North area. A copy of the Client Follow-up questionnaire is included in Appendix A.

Procedure

The Client Information page was retained by clients who agreed to take part in the follow-up study, and the Consent Form was given to the researcher. Within one week of a consenting client terminating involvement with the unit, the researcher contacted that parent, in most instances by telephone, to ascertain client evaluation of outcome. Two weeks later the client was re-contacted, by telephone where possible, to obtain a second evaluation of outcome as perceived by the client, and to complete the data collection.

6.3 Comparison Study

Subjects

A total of 50 parents agreed to contribute data in the comparison study. The experimental group comprised the 23 mothers who completed data in the Palmerston North family unit Client Follow-up Study, all of whom agreed to take part in this phase of the research. The comparison group was composed of a total of 27 mothers with similar problems but with no access to a family unit.

The comparison group were samples drawn from each of the two provincial towns approximately 100 kilometres apart, and equidistant from Palmerston North, with inclusion criteria being:

1. The parent had attended the local Plunket clinic seeking assistance with a problem.
2. The local Plunket nurse would have referred the case to a family unit had one been available in that area.
3. The parent signed a consent form agreeing to being contacted by the researcher.

The Plunket nurses were not asked to select a specific number of participants, but rather to adhere strictly to the criteria, and include all suitable candidates presenting within a 16 week period. The resulting comparison consisted of 3 mothers from one town and 24 mothers

from the other. Because of the disparity in numbers it was decided to combine subjects from the 2 towns into a single comparison group.

Measure

The measure employed in the comparison study was a short questionnaire which included the G.H.Q. 12 as a measure of parental general well-being, a question probing the respondent's confidence in the role of parent, demographic details, and residential location, (necessary because responding was anonymous). A copy of the questionnaire is contained in Appendix A.

Procedure

The local Plunket nurse gave clients considered appropriate for inclusion in the comparison group a brief, written statement of the purpose and requirements of the survey before requesting participation in the study (see Appendix A). The experimental group had already consented to involvement in the research project.

All participants in the comparison study were contacted by telephone to confirm their willingness to participate in the survey, and to provide an opportunity for them to obtain further information about the research project.

The survey questionnaire, along with a stamped, addressed envelope for reply, was mailed to participants in each group simultaneously.

6.4 Stress Measure Development

Subjects

For this portion of the research project data collection extended beyond the family unit staff directly involved in the evaluation to include, at various times, the staff of six other family units within reasonable travelling distance of Palmerston North; the nurse advisers for the regions in which the family units were situated; and some nurses who had previously worked in family units. Those who voluntarily provided information were:

3 Regional Nurse Advisers
8 Plunket nurses who currently worked in a family unit
3 Plunket nurses who had previous family unit experience
18 Karitane nurses who currently worked in a family unit

Thus a total of 32 female nurses, from various levels of the Plunket hierarchy and from various locations contributed data for the development of a stress measure specific to nurses employed in family units.

Instruments

a) Nurses' Daily Stress Record

This was a daily diary which nurses were requested to fill in every 30 minutes during the working day and for a short period in the evening. Information to be recorded included the major event(s) of the time period, subjective stress level, and the number of cigarettes and/or cups of coffee during each half hour period. A section for somatic symptoms was also included for recording the time and duration of symptomatology, the type and severity of the complaint, and how it resolved. The diary face sheet included subjective scales for rating stress and severity of physical complaints. Appendix A includes a copy of the Nurses' Daily Stress Record.

b) Initial Questionnaire

The initial questionnaire was made up of eight open-ended statements designed to elicit information about the perceived difficulties encountered by nurses working in family units. A brief explanation of its purpose prefaced the questionnaire (see Appendix A).

c) Job Satisfaction and Work Pressure Questionnaire

The 48 statements in this questionnaire were compiled from initial questionnaire responses, and information obtained during interviews, and included an example of every type of difficulty reported by the nurses. The full set of 48 statements was presented twice in the questionnaire: firstly, to be rated for relevancy to family unit work, using a four-point Likert rating; and secondly, for a frequency of occurrence count, and rating of distress intensity, again using a four-point Likert scale. The questionnaire was briefly introduced on the cover sheet. The full questionnaire is presented in Appendix A.

Procedure

The first attempt to elicit information regarding the stress nurses experienced working in a family unit was to ask the staff of the Palmerston North family unit to keep a detailed record of daily events (Nurses' Daily Stress Record), so that incidents provoking stress might be isolated. The nurses were asked to complete a record sheet for each day they worked in the unit for a period of two weeks, and to include their name on each data sheet.

When this exercise proved unsuccessful in pinpointing stressors, (due to non-reporting of stress), an approach was made to the Nurse Advisers in two other regions to see if their family unit nurses might also be included in the data collection sample. Approval was given, and the researcher embarked upon a familiarization tour, visiting each of the seven units and holding informal group interviews with staff to discuss the general functioning of the unit, and positive and negative aspects of the work involved. At the end of the discussion period the nurses were invited to participate in the study, and were given the initial questionnaire to complete and return anonymously. The names of some previous family unit staff were suggested as people who might also contribute data to the study, and so these nurses were also contacted and asked to complete the questionnaire. Further information about family unit work was obtained during interviews with three Regional Nurse Advisers. Thus, in this phase of data collection all 32 subjects contributed information.

Information gained during the staff interviews, and from the initial questionnaire provided the basis for the statements contained in the Job Satisfaction and Work Pressures Questionnaire, which was completed anonymously by the staff of each of the family units: a total of 24 nurses. The questionnaires were delivered to the subjects, the requirements explained, and then collected one week later. Nurses who at that time had not completed the questionnaire returned it by post. The Stress Diary was compiled using information obtained from the Job Satisfaction and Work Pressures Questionnaire.

6.5 The Stress Study

Subjects

Eleven subjects contributed data in this study.

The staff of the Palmerston North family unit, one full-time Plunket nurse and four Karitane nurses who worked part-time in the unit served as the experimental group. The comparison groups were the staff of two other family units who had taken part in the earlier phases of the research. These particular units were selected because the staffing was stable, whereas other units had nurses leaving or positions vacant. One unit employed a full-time Plunket nurse and two full-time Karitane nurses, and the other a full-time Plunket nurse and three part-time Karitane nurses. Participation in the study was voluntary and the decision to take part was made at unit level.

Measures

a) The Stress Diary Booklet

The Stress Diary booklet (included in Appendix A) consisted of two questionnaires: the G.H.Q. 12, a standardized measure of psychological health; and Daily Diary recording sheets for each day of the working week. The booklets were colour coded so that data from each unit could be identified.

The Daily Diary page contained the 15 most significant items from the Job Satisfaction and Work Pressure Questionnaire. Respondents were requested to indicate which events occurred each day, and rate on a four-point scale the amount of distress experienced as a result of the event. A final question asked for a rating of satisfaction with the working day.

b) Goal Clarity Questionnaire

A Goal Clarity Questionnaire was constructed from the Task-Goal Attribute Questionnaire (Steers, 1976), using the three items from the Goal Specificity sub-scale and six items from other goal attribute sub-scales as distractors, (i.e. 2 items each from Participation in Goal-Setting, Feedback on Goal Effort, and Goal Difficulty). The items were presented in random order. Items were scored using a seven-point Likert scale, with 2 Goal Specificity questions being positively phrased, and one negatively phrased and scored in reverse order to counter response bias. A score of seven on each of the three Goal Specificity items indicates the highest degree of goal clarity. Participants were asked to include their name on the questionnaire. (The questionnaire is presented in Appendix A.)

Procedure

Stress diary booklets were delivered to each of the participating family units the week prior to commencement of the stress study. The instructions, repeated on the booklet face-sheet were explained, and staff were asked to complete the G.H.Q. 12 the following Monday, and to record data on the Daily Diary sheet each day they worked in the unit during that week: week one. In week two needs analysis data was collected from the Palmerston North family unit nurses, and various other sources. The procedure, for all subjects in week three was similar to that of week one except the booklets did not include the G.H.Q. 12 questionnaire. The Goal Clarity Questionnaire was completed by the Palmerston North family unit nurses in week four, followed by identification and discussion of goals. In week five the procedure was the same as week one for all subjects, except the G.H.Q. 12 was completed on the Friday instead of at the beginning of the week as previously.

6.6 Needs Analysis

Subjects

Data relating to client needs was obtained from a total of 77 subjects representing all groups involved at various levels with the Palmerston North family unit programme, and included:

- Plunket Director of Nursing Services
- Palmerston North Regional Nurse Adviser
- Palmerston North family unit nurses (5)
- all Palmerston North district Plunket nurses (6)
- general practitioners, (or their practice nurse) who referred patients during the data collection period (3)
- other referring community organizations and health professionals (3)
- key members of the Palmerston North family unit management committee (3)
- the clients who contributed data in the Replication and Follow-up studies (55)

Procedure

Needs analysis data was obtained during face-on or telephone interview with subjects, except in the case of the anonymous clients contributing

data to the Replication Study, where needs analysis probes were included in the questionnaire.

6.7 Other Sources of Information

Evaluation data was also gleaned from Plunket literature and records, and from informal observation of the functioning of the Palmerston North family unit.

7.0 RESULTS

7.1 Replication Study

A total of 55 adult clients and 57 infants attended the Palmerston North Plunket-Karitane family unit as new cases during the data collection period. Because the object of the research project was to evaluate the family unit programme, and not the performance of individual staff members per se, analysis of data did not differentiate between the two periods of data collection. In the early part of the study incomplete data was recorded, particularly in respect of socio-economic status and ethnicity, and so there are missing cases on some variables.

The adult clients were in all cases the mother, (or stepmother) of the child/children attending. These women ranged in age from 18 to 43 years, with 75% being 20 to 29 years old, and a modal age of 25 years. Almost two-thirds of the women, (65.5%) were in a stable relationship; 9.1% were solo parents, and the remainder, (25.4%) did not furnish partner information.

Table 7.01 shows the age of the child on presentation at the unit, and the proportion of the family unit programme target population they represented in two demographic locations; Palmerston North City, and Dunedin City (Clarkson et al., 1985).

TABLE 7.01
Age of child on presentation at unit.

Age	Present Study (n = 54)		Clarkson et al., 1985 (n = 249)	
(months)	%	% of potential users*	%	% of potential users*
0 - 3	45	10.0	42.8	10.6
3 - 6	11	2.4	14.1	3.5
6 - 12	11	2.4	12.1	3.0
12 - 24	23	4.8	15.3	2.5
24 - 36	8	1.6	11.7	1.9
36 - 48	0	0	2.4	0.4
48 - 60	2	0.4	1.6	0.3

*assuming Palmerston North 1,000 births per year

*assuming Dunedin City 1,500 births per year

The "percentage of potential users" figures for the present study were obtained by adjusting the data collected to represent an annual figure, and calculated on the basis of approximately 1000 new babies born each year: a figure obtained from Plunket Society records of new birth notifications for the relevant years. As can be readily seen, the majority of infants presenting at the Palmerston North family unit were in the first few months of life, with older children presenting progressively less frequently, except in the 12 - 24 months age group. Apart from this second peak in the age distribution, figures for both presenting age, and percent of potential users approximate those recorded by Clarkson et al. (1985).

As with the Dunedin study, low birth weight children, (i.e. less than 2.5 kg) were over-represented in the Palmerston North sample (7.3%), which although higher than that expected in the general population, (6.2% : Buckfield, 1978, cited by Clarkson et al., 1985), was lower than that reported by the Clarkson et al. (1985) study (10%).

One mother identified herself as polynesian, (1.8% of adult clients) and four infants, (7%) were classified as of polynesian origin by their mother.

TABLE 7.02a

Socio-economic status of mothers presenting at family units in the present study and the Clarkson et al. (1985) study.

S.E.S.	% in present study (n = 34)	% in N.Z.	Clarkson et al. (1985) % in study*
1	5.9	7	5.0
2	17.7	14	13.9
3	23.5	29	19.4
4	29.4	23	26.4
5	5.9	18	14.9
6	14.7	9	15.9
(Unemployed or Student)	2.9		4.5

*(n not recorded)

TABLE 7.02b

Socio-economic status of fathers in the present study and the Clarkson et al. (1985) study.

S.E.S.	% in present study (n = 29)	% in N.Z.	Clarkson et al. (1985) % in study*
1	6.9	7	7.7
2	24.2	14	11.0
3	31.0	28	19.9
4	17.3	29	33.7
5	10.3	14	16.0
6	0	8	6.1
(Unemployed or Student)	10.3		5.5

*(n not recorded)

Tables 7.02a and 7.02b depict the socio-economic status of parents attending the family unit, as indexed by the Elley and Irving classifications (Johnson, 1983), for both the present study and the Clarkson et al. (1985) study. These data suggest the socio-economic status of families attending the Palmerston North unit was higher than that recorded in Dunedin, but as noted previously, there were missing cases on this variable. Whilst the Clarkson et al. (1985) study recorded response rates of 80.7% for mothers and 72.7% for fathers on socio-economic status information, the corresponding figures for the present study are 61.8% and 52.7% respectively.

Table 7.03 shows the number of children in the families who presented at the family units.

Table 7.03

Size of families who presented at the family units in the present study and the Clarkson et al. (1985) study.

Number of children	Present study %	Clarkson et al. (1985) %
1	52.7	49.4
2	34.6	30.5
3	10.9	14.5
4 - 6	1.8	5.6

The figures for the present study are similar to those obtained by Clarkson et al. (1985): approximately half the presenting children were an only child, with about one-third from two child families, and the remainder from families with 3 - 6 children. Analysis of the present study data suggests that where there were two or more children in a family, the younger/youngest child presented more often, (52.2%) than the older/ oldest child, (43.5%).

An analysis of the sources of referrals to the units is presented in Table 7.04.

TABLE 7.04
Source of referral to the family unit in the present study and the Clarkson et al. (1985) study.

Referral source	Present study (n = 55)	Clarkson et al. (1985) (n = 249)
	%	%
Plunket nurse	63.7	58.2
Self	25.4	28.9
General practitioner	7.3	5.2
Social Welfare	-	1.6
Paediatric department	-	1.6
Public health nurse	-	0.4
Community worker	3.6	0.4
Other	-	3.6

As with the Clarkson et al. (1985) study, the majority of referrals to the unit were from Plunket nurses working in community clinics. Mothers who had previous knowledge of the unit functions and who self-referred were a lesser, but nevertheless important source of unit clients. Because in the present study less than 11% of referrals came from other health professionals or community agencies, clients were asked how they first became aware of the Palmerston North family unit and its purpose. The data presented in Table 7.05 indicates that less than a third of clients gained their initial information from non-Plunket sources.

TABLE 7.05

Source of clients initial knowledge of unit in the present study (n = 49).

Source	%
Plunket nurse	59.2
Karitane nurse	10.2
Hospital	10.2
General practitioner	6.1
Community organization	6.1
Friend	8.2

On presentation at the Palmerston North family unit, clients were asked to identify the problem(s) for which they were seeking help. Analysis of this information revealed that 70.9% indicated the problem concerned the child, while 29.1% reported the problem as being with themselves. Later, when unit staff were asked to isolate the problem(s), 38.9% were identified as child related difficulties, 20.4% were parent problems, and 40.7% concerned difficulties related to both mother and child. A breakdown of presenting problems as identified by unit staff is shown in Table 7.06. It should be noted that in both the present study and the Clarkson et al. (1985) study, the ranking of child-related problems is the same, (i.e. behaviour, feeding, mothercraft, crying,) although the percentage in each class of problem varies considerably.

TABLE 7.06

Presenting problems in the present study and the Clarkson et al. (1985) study.

Problem	Present study* % (n = 54)	Clarkson et al. (1985) study* % (n = 249)
Mothercraft	16.7	22.9
Feeding	37.0	50.6
Crying	3.7	11.2
Behaviour	40.7	63.9
Mother support		74.3
Social isolation	13.0	
Mother exhaustion	38.8	18.5
Mother depression	9.3	8.8
Other	11.2	

*Note multiple response coding of presenting problem

Data analysis shows that difficulties identified as child behaviour problems (see section 5.2) occurred most often with infants under one year (45%), particularly in the period 6 - 12 months (30%), with a decline thereafter: 1 - 2 years 25%; 2 - 3 years 20%; and 3 - 5 years 10%. More than three-quarters of feeding and mothercraft problems occurred within the first three months post-natally, (76.2% and 85.7%) respectively.

In the Clarkson et al. (1985) study, a client who presented with loneliness and in need of social contact was classified as requiring "mother support". As has been already discussed, this category was not used in the present study: clients with this type of problem were accounted for under the heading of "social isolation". Whilst almost 75% of the Dunedin mothers required "mother support" only 13% of the Palmerston North mothers required similar inputs; rather than primarily needing social contact they were much more likely to be identified as suffering from exhaustion, (38.8%).

Mothers in the present study who presented as exhausted were likely to have an associated child-related problem such as feeding difficulties (38%); behaviour problems (38%); or poor mothercraft skills (14%). Of those mothers reporting exhaustion, 42.8% had one child, and 57.2%

had two children: their infants were 0 - 6 months, 38%; 6 - 12 months, 19%; 1 - 2 years, 9.5%; and 2 - 3 years old, 19%.

Table 7.07a shows the frequency of usage of each type of problem management employed by the Dunedin units, (Clarkson et al., 1985) as discussed in a previous chapter.

TABLE 7.07a

Frequency of usage of types of management (n = 249).

Clarkson et al. (1985)

	Management %				
No. times used	Visits to unit	Home visits	Child care	Coffee morning	Phone contact*
0	0	81.1	67.9	76.7	21.7
1 - 5	83.5	17.7	26.5	22.5	66.7
6 - 10	8.8	1.2	3.6	0.8	8.8
11 - 20	4.0	0	0.8	0	2.8
21 - 40	3.6	0	1.2	0	0

*underestimated

TABLE 7.07b

Frequency of usage of types of management (n = 54).

Present study

	Management %						
No. times used	Visits to unit	Home visits	Child care	Coffee morning	Phone contact	Individual counselling	Parenting skills** course
0	5.6	100	83.3	92.6	85.2	79.6	88.6
1 - 5	85.2	0	14.8				
6 - 10	1.8	0	0	7.4	14.8	20.4	11.4
11 - 20	0	0	1.9				
on going	7.4	0	0				

**not available during second period of data collection (n = 25)

Table 7.07b depicts similar information relevant to the present study. The treatment interventions offered by the Palmerston North family unit included visits to the unit, home visits, child care, coffee mornings, telephone contact, individual counselling, and a parenting skills course. Visits to the unit were the most frequently used intervention, (94.4%). During unit visits clients were able to discuss problems with the staff and engage in collaborative problem solving. Visits also provided opportunities for parent education, and for the nurses to observe parent-child interaction. The next most common intervention was individual counselling with the unit Plunket nurse, (20.4%). Under certain circumstances the unit staff were prepared to child-mind to allow a parent time-out from parental responsibilities, and this intervention was utilized in 16.7% of cases. Approximately 15% of clients required telephone contact, and 11.4% attended the parenting skills course, a formal parent education programme of six lectures. Coffee morning attendance was suggested for 7.4% of parents, although other parents also attended these social occasions. Home visits could be undertaken for parents who were unwilling to attend the unit, but during the data collection period this intervention was not necessary.

As Table 7.07b shows, apart from visits to the unit, treatment interventions were poorly utilized, with more than three quarters of clients not needing any intervention other than the unit visit. Of those whose problem management was visits to the unit, 85.2% required less than five visits, a figure similar to that found by Clarkson et al. (1985). However, when the present study figure was further broken down, as in Table 7.08, it became avident that of the total number of clients in the study, more than three quarters were managed with less than three unit visits. A small number, (14.7%) required 3 - 6 visits, while the remaining 7.4% were receiving on-going treatment consisting of time-out from intolerable situations, or counselling.

TABLE 7.08

Frequency of unit visits (n = 54) in the present study.

No. times used	%
0	5.6
1	51.9
2	20.4
3	3.7
4	7.4
5	1.8
6	1.8
on going	7.4

For the present study, the mean number of unit visits ranged from 1.1 for maternal exhaustion, to 2.4 for maternal depression. In the Clarkson et al. (1985) study the range was from 1.7 visits for habits disliked by parents, to 7.0 for maternal depression.

Table 7.09 shows that for the majority of clients the duration of contact with the Palmerston North family unit was less than one week.

TABLE 7.09

Duration of contact with the Palmerston North family unit (n = 54).

Duration	%
up to 1 week	67.3
1 - 2 weeks	12.7
2 - 3 weeks	5.4
3 weeks plus	14.6

In the Dunedin study, (Clarkson et al., 1985) 13% of families were referred by family unit staff to other agencies; the comparable figure for the present study was 27.8%, and as Table 7.10 shows, most referrals were to community Plunket clinics.

TABLE 7.10

Referral of family unit clients to other agencies in the present study*.

Agency	%
Plunket nurse (district)	13.0
General practitioner	9.2
Play centre	5.5
Day care	1.8
Mobile Karitane	1.8

*multiple referral in some instances

The Replication Study outcome data was obtained from three sources: firstly, the unit staff recorded their evaluation of outcome efficacy within one week of the client being discharged; secondly, and after staff evaluation, the unit Plunket nurse sought the client's opinion of outcome; and thirdly, the unit Plunket nurse contacted the referring agency to solicit their evaluation of treatment efficacy. Table 7.11a and 7.11b set out outcome evaluation data for the Clarkson et al. (1985) study and the present study.

TABLE 7.11a

Outcome evaluation - all problems combined.

Clarkson et al. (1985)

Opinion of:	Worse	Same	Mildly helpful	Moderately helpful	Very helpful
Unit staff	15.3		25.5	59.3	
Referral agency	10.5		9.2	80.3	
Mother	12.9		6.5	80.6	

TABLE 7.11b

Outcome evaluation - all problems combined.

Present study

Opinion of:	Worse	Same	Mildly helpful	Moderately helpful	Very helpful
Unit staff	0	19.5	17.1	34.1	29.3
				63.4	
Referral agency	0	5.9	41.2	17.6	35.3
				52.9	
Client (total)	0	7.9	13.2	31.6	47.3
				78.9	
Client - telephone	0	9.1	22.7	31.8	36.4
Client - face on	0	0	0	33.5	66.5

Information shown on Table 7.11a suggests that while overall satisfaction with treatment outcome was high, unit staff were less optimistic about outcome than either the mother or the referring agency, (Clarkson et al., 1985). Table 7.11b information suggests that for the present study, while the clients rated the intervention highly, the opinion of outcome was less favourable when rated by either the unit nurses, or the referring agency. Furthermore, client evaluation of outcome was less favourable when asked by telephone, than when asked face-to-face, and more closely resembled the distributions of unit staff and the referring agency.

At the end of the data collection period 7.4% of clients were receiving ongoing treatment, 44.4% had been discharged from the treatment programme, and 7.4% had terminated contact with the unit against staff advice; no data was recorded for the remainder. Twenty-four clients (43.6%) consented to take part in the Follow-up study.

The suitability of the location of the unit was also looked at in the Replication Study. The city of Palmerston North may be divided into quadrants by using the four main streets originating in the Square as intersects. Figure 7.01 illustrates this concept.

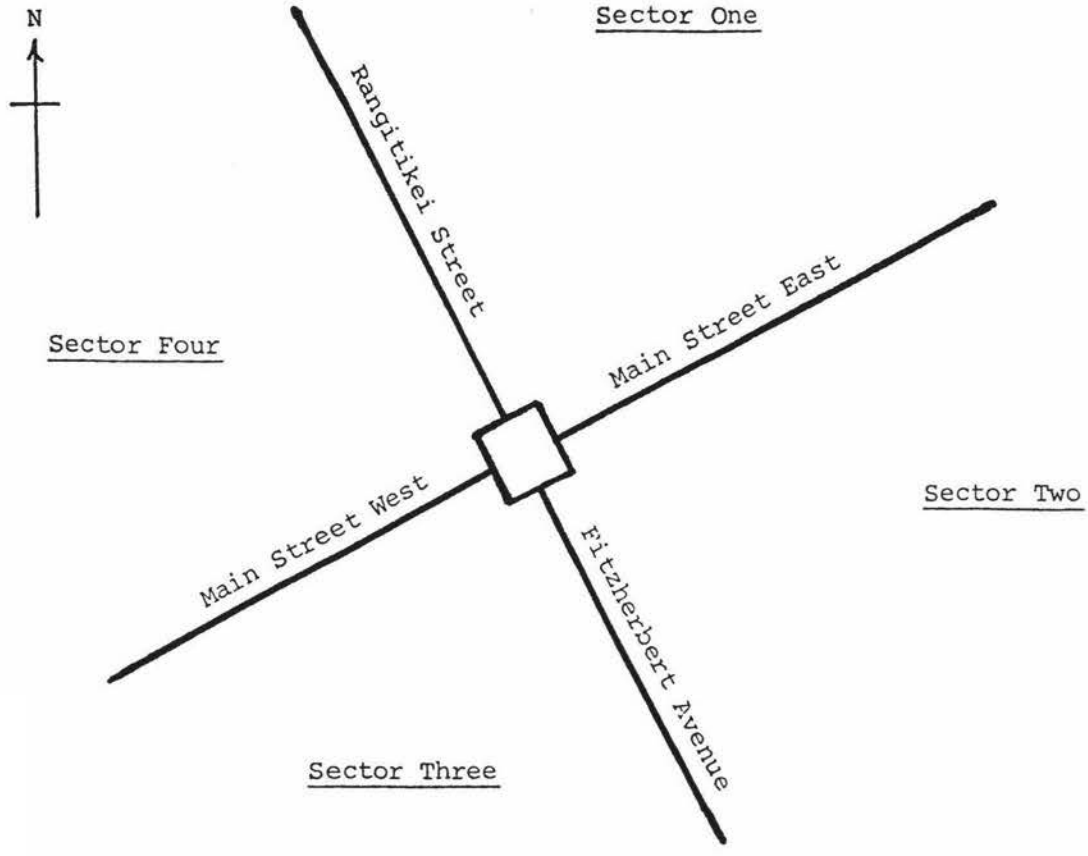


FIGURE 7.1 Division of Palmerston North City into quadrants.

The Palmerston North Plunket-Karitane family unit is located in sector one, approximately two kilometres from the Square. Inspection of client residential location data indicates that while about 20% of clients reside in each of sectors one, two, and four, (18.60% : 20.93% : and 18.60% respectively), more than twice this number, (41.87%) reside in sector three. Table 7.12 shows the percentage of clients living within specified distances from the unit.

TABLE 7.12
Percentage of clients living at specified distances from the family unit.

	Distance in Kilometres				
	0 - 1	1 - 2	2 - 3	3 - 4	4 - 5
Percentage of clients	9.30	23.26	30.23	13.95	23.26

More than half, (67.44%) live further than two kilometres from the family unit, and almost a quarter live more than four kilometres away from the unit.

7.2 Follow-up Study

Twenty-four women who had attended the Palmerston North Plunket-Karitane family unit subsequently agreed to take part in the Follow-up Study, however, one mother later withdrew, leaving 23 subjects from whom data was obtained.

Table 7.13 compares incidence of presenting problems in the Follow-up sample with those of the Replication Study. Behaviour and feeding problems occurred at similar rates in each sample, but mother exhaustion, and to a lesser extent mothercraft deficits and maternal depression were less frequent problems for Follow-up Study mothers. Excessive crying, mother support, social isolation, and "other problems" did not feature in the Follow-up Study sample of mothers.

TABLE 7.13
Presenting problems in the present study.

Problem	Follow-up Study %	Replication Study %
Mothercraft	4.4	16.7
Feeding	34.8	37.0
Behaviour	43.5	40.7
Mother exhaustion	13.0	38.8
Mother depression	4.3	9.3

The frequency of usage of the various types of problem interventions utilized by the Follow-up Study mothers is depicted in Table 7.14. Data suggests that for most interventions this sample of mothers were higher consumers of family unit services than the Replication study mothers as a whole. The intervention most often rated as "most helpful" by Follow-up Study clients was individual counselling. Ratings of "least helpful" intervention were equivocal because these clients insisted that all interventions had been helpful.

TABLE 7.14

Frequency of usage of types of problem management in the Follow-up Study.

No. times used	Management % Visits to unit	Child care	Coffee morning	Phone contact	Individual counselling	Parenting skills course*
0	0	39.0	78.2	69.6	43.4	95.6
1 - 5	82.6	47.8	17.4	21.7	52.2	4.4
6 - 10	13.0	4.4	0	8.7	4.4	0
11 - 20	4.4	4.4	0	0	0	0
21 - 40	0	4.4	4.4	0	0	0

*not available during second period of data collection

Information presented on Table 7.13 and Table 7.14 indicates that subjects in the Follow-up study differed markedly from those in the Replication study, and are therefore not a representative sub-set of the clients who attended the family unit during the data collection period.

Clients taking part in the Follow-up study were asked on two separate occasions, by telephone, to evaluate how successfully the family unit programme had dealt with their problem. The first evaluation, within a week of termination of unit contact, was rated as "very helpful" by 73.9% of mothers, "moderately helpful" by 21.7% and "made no difference" by 4.4%. The second evaluation, two weeks later, yielded identical figures. This data indicated that Follow-up study clients valued the family unit intervention much more highly than did the larger sample of Replication study subjects, for whom comparable figures were 47.3%; 31.6%; and 7.9% respectively, with 13.2% indicating the treatment was "mildly helpful", (see Table 7.11b).

Further evidence of perceived satisfactory intervention outcome for Follow-up study clients was obtained from two questions which asked: (1) was there anything else that should have been done by unit staff to alleviate the problem?; and (2) would they go back to the family unit again? To the first question all subjects indicated that everything had been done to help solve their problem. To the second question 22 gave affirmative replies, while one mother reported that she had felt inferior at the unit and would not go back there again.

Other data obtained during the Follow-up study pertained to the needs analysis, public awareness of the family unit and its functions, and the availability of similar services in the community. This information will be reported in later sections of this chapter.

7.3 Comparison Study

All subjects agreed to complete the survey questionnaire. Eighty-six point nine-five percent of the experimental group, and 92.59% of the comparison group returned the questionnaire, giving an overall response rate of 90% without prompting. The demographic characteristics of each group are presented in Table 7.15 and Table 7.16.

TABLE 7.15
Age of survey respondents in the Comparison Study.

Age range	Experimental group (n = 20)	Comparison group (n = 25)
20 - 25 years	5	3
26 - 30 years	10	9
31 - 35 years	2	7
36 - 40 years	0	1
not stated	3	5
Total	20	25

TABLE 7.16
Number of children of respondents in the Comparison Study.

Number of children	Experimental group (n = 20)	Comparison group (n = 25)
1	11	5
2	6	10
3	3	8
4+	0	2
Total	20	25

The experimental group mothers had a mean age of 27.1 years and the mean number of children for this group was 1.6. For the comparison group the mean age was 29.3 years and the mean number of children was 2.3. The difference in means was statistically significant for age, [t (40) = 2.346, $p < .05$]; and number of children, [t (43) = 10.67, $p < .05$]. The G.H.Q. 12 was scored using the Likert method as recommended by Banks et al. (1980). The supplementary question was also scored 0 - 3, with a higher value indicating less confidence in parenting ability. The score on each measure was summed to give a single "parental well-being" score for each subject. Group mean scores were calculated, with lower scores indicating greater parental well-being. The mean score for the experimental group was 13.1, (standard deviation 4.39), and 9.92, (standard deviation 4.48) for the comparison group. Analysis of group means suggests that subjects in the comparison group, that is, those who did not have the benefit of Plunket-Karitane family unit intervention, experienced significantly greater parental well-being than those in the experimental group [t (43) = 2.333, $p < .05$].

7.4 Family Unit Staff

The administrative structure of the Plunket Society is presented in Appendix B.

All family units are staffed by one Plunket nurse and two Karitane nurse full-time equivalents. The onus is on the unit Plunket nurse to limit the number of clients attending the unit to a number with which the staff can cope (Director of Nursing Services, personal communication).

The unit Plunket nurse is required to hold a current Annual Practising Certificate for General and Obstetric Nursing, or Comprehensive Nursing, and a Plunket Certificate. Applicants for this position are interviewed and appointed on recommendation of the Regional Nurse Adviser, and the Regional Plunket Councillor, who is an elected, non-professional representative of the voluntary sector of the Society. A job description for the position of "Plunket Nurse in Charge of a Karitane Family Unit Fixed" is included in Appendix B.

The unit Karitane nurses are Plunket Society certified nurses, holding a Karitane Certificate. Prior to 1978 the training took place in Karitane Hospitals, but since the closure of the Hospitals, Karitane

nurses have received one year of practical experience in the family units supplemented by formal training at Polytechnical Institutes. Unit Karitane nurses are selected by the unit Plunket nurse, together with the local Branch President and the Regional Nurse Adviser. The "Karitane Nurse" job description for a fixed family unit is contained in Appendix B.

7.5 Stress Measure Development

Although stress had been identified by the staff as concomitant with working in the family unit, the Nurses' Daily Stress Record yielded very little information about perceived stressors. During the two weeks recording period staff consistently rated their subjective experience of stress as being 0 (very relaxed); 1 (relaxed); or 2 (a little tense). Three subjects did report periods with a stress rating of 3 (tense), and one subject reported a period when stress was rated 4 (very tense). No instances of stress rated as 5 (severe stress) were recorded. Table 7.17 shows the stress rating, major event(s) of the time period, and outcome for those subjects who reported incidences of stress rated as 3 or greater.

TABLE 7.17
Stressful incidents recorded in Nurses' Daily Stress Record.

	Stress rating	Major event(s) of time period (30 minutes)	Stress rating next period (30 minutes)
Subject 1	3	unsettled baby	1
	3	crying babies	1
	3	discussion with committee member*	1
Subject 2	3	waiting to use phone	2
	3	demanding client	2
Subject 3	3	crying baby	2
	4	discussion with committee member*	3
	3	paper work	3
	3	discussion with colleagues	2

*same incident

As can be seen from the data presented, most instances of stress were quickly resolved. However, a discussion between two nurses and a member of the management committee was rated as very stressful by both staff members, and for one, the arousal produced by the incident dissipated slowly, and only following supportive interaction with colleagues.

The initial questionnaire and staff interviews proved to be a much more productive method of obtaining information about the stress experienced by family unit staff, and from the data obtained the 48 questions included in the Job Satisfaction and Work Pressures Questionnaire were generated.

Job Satisfaction and Work Pressures Questionnaire were distributed to the 24 nurses who were at that time working in the family units involved in the study. A 100% response rate was obtained without follow-up prompting.

For each item in the Job Satisfaction and Work Pressures Questionnaire the mean and standard deviation for "relevancy", "frequency", and "intensity" ratings was calculated, and this data is presented in Appendix C. The criterion for selection of questions to be included in the Daily Diary was that an item had to have a mean "relevancy", "frequency", and "intensity" greater than 1.0, and these items are denoted * in Appendix C. Seventeen items met the criterion, but two (23 and 42) were excluded on the grounds of similarity to other items.

7.6 The Stress Study

The Stress Dairy

Three separate sets of stress measures were to be recorded by each of the three groups included in the study. Unfortunately, while complete data was recorded by both comparison groups, the experimental group recorded incomplete data due to the Plunket hierarchy granting the nurses a day off on the 5th day of the final data collection week. Furthermore, only three of the five experimental group nurses recorded data for that week, and only one of these completed all measures fully.

Scoring the various components of the stress measure was done as follows:

a) The G.H.Q. 12 was scored using the Likert method, (0 - 3), as recommended by Banks et al. (1980), with lower scores indicating greater well-being.

b) Satisfaction with the working day was scored 0 - 3, with higher scores indicating greater satisfaction with the day.

c) Frequency of stressful events was a simple daily total of occurrence.

d) Intensity of distress was scored as indicated in the Diary, (i.e. 0 - 3, with higher scores reflecting greater distress), and a daily total score calculated.

The group G.H.Q. 12 score was summed, and a mean G.H.Q. 12 score obtained for each group at measure one, (week one) and measure three, (week five). This information is recorded on Table 7.18.

Although the total number of staff in each family unit involved in the stress study was different, the daily staff establishment for each unit was one Plunket nurse and two Karitane nurses, thus allowing direct comparison between units. Individual daily scores for satisfaction with the day, frequency of stressful events, and intensity of distress were summed, and mean group scores on each dimension calculated for the three groups at measure one, measure two, (week three) and measure three. This information, along with client totals, is also presented on Table 7.18.

TABLE 7.18

Stress measure data for experimental group and comparison groups for each data collection period.

	Measure One (week one)	Measure Two (week three)	Measure Three (week five)
Experimental Group (Palmerston North Family Unit)			
Mean G.H.Q. 12	9.2		no data obtained
Mean Satisfaction	1.833	1.36	"
Mean Frequency	0.2	0.267	"
Mean Intensity	0.133	0.133	"
Parents	17	15	16
Children	21	38	25
Comparison Group One			
Mean G.H.Q. 12	7		8.33
Mean Satisfaction	1.786	1.769	1.933
Mean Frequency	5.143	4.231	5.067
Mean Intensity	7.357	7.923	10.364
Parents	20	14	19
Children	21	19	23
Comparison Group Two			
Mean G.H.Q. 12	11.25 (6.667)*		11.75 (8.667)*
Mean Satisfaction	2.467 (2.357)*	2.417	2.067 (2.077)*
Mean Frequency	2.333 (2.154)*	1.167	1.067 (0.923)*
Mean Intensity	2.667 (2.462)*	1.5	1.0 (1.0)*
Parents	39	34	40
Children	40	35	41

*Brackets indicate smoothed data

In comparison group two an extreme G.H.Q. 12 score (25) was recorded at measure one, and another (21) at measure three. The data for this group was smoothed by extracting the outlier scores and recalculating the group means: these scores are shown in brackets on Table 7.18. It can be readily observed that while smoothing the data resulted in marked changes in the group mean G.H.Q. 12 scores, the mean scores on the other measures were barely changed.

Banks et al. (1980) reported G.H.Q. 12 norms for two groups of employed females as 8.53 and 9.71 respectively. Data obtained in the present study suggests stress experienced by family unit nurses, as indexed by the G.H.Q. 12, was within normal limits for working women. Table 7.19

presents the G.H.Q. 12 means and standard deviations for the relevant groups from the Banks et al. (1980) study, and the present study.

TABLE 7.19

G.H.Q. 12 means and standard deviations for normative groups and present study groups.

	Mean G.H.Q. 12 score	Standard deviation
Banks et al. (1980)		
Sample A (n = 83)	8.53	3.65
Sample B (n = 190)	9.71	5.66
Present study		
Experimental group (n = 5)		
Measure one	9.2	2.04
Measure three	-	-
Comparison group one (n = 3)		
Measure one	7	2.45
Measure three	8.33	3.30
Comparison group two (n = 4)		
Measure one	11.25	8.01
Measure three	11.75	5.89
(n = 3)		
Measure one	(6.67)*	(1.25)*
Measure three	(8.67)*	(2.87)*

*Brackets indicate smoothed data

Stress Diary data from both comparison groups was combined to give one set of comparison group scores on each variable for each data collection period.

Analysis of initial G.H.Q. 12 score means for the experimental group, (9.2) and the combined comparison groups, (9.428) showed no significant difference between groups when total data was included, [t (10) = 0.068, $> .05$]. When the data was smoothed by excluding the extreme score from the comparison group data, the difference between the experimental group mean, (9.2) and the comparison group mean, (6.833) was again non-significant, [t (9) = 0.561, $p > .05$].

Table 7.20 sets out the mean 'Daily Diary' scores for the experimental group and the comparison group, for the three data collection periods.

TABLE 7.20

Mean Daily Diary scores for experimental and comparison groups for each data collection period.

	Experimental Group			Comparison Group		
Measure:	One	Two	Three	One	Two	Three
Satisfaction	1.833	1.36	-	2.103	2.080	2.000
Frequency	0.200	0.267	-	3.689	2.760	3.067
Intensity	0.133	0.133		5.897	4.840	5.292

Visual inspection of the data suggests that while the comparison group reported more frequent and more intense stress provoking incidents they also, as a group, experienced greater job satisfaction than the experimental group.

Goal Clarity Questionnaire

Three items in the questionnaire related to goal specificity, (i.e. goal clarity:

Question 2. My work objectives are very clear and specific; I know exactly what my job is.

Question 4. I think my work objectives are ambiguous and unclear.

Question 7. I understand fully which of my work objectives are more important than others; I have a clear sense of priorities on these goals.

Questions 2 and 7 were positively phrased and scored 'strongly agree' (7) to 'strongly disagree' (1). Question 4 was negatively phrased and scored in reverse order, 'strongly agree' (1) to 'strongly disagree' (7). Table 7.21 shows goal clarity responses for each subject.

TABLE 7.21

Experimental group responses to goal clarity probes in Goal Clarity Questionnaire.

	Question 2	Question 4	Question 7	Total Score
Subject 1	4	4	4	12
2	6	3	6	15
3	7	6	7	20
4	6	7	7	20
5	7	6	6	19

Subject one returned the lowest goal clarity score, recording a score of 4, (neither agree nor disagree) for each goal clarity question. This subject, in fact, answered seven of the nine questions in this manner, suggesting a response bias. However, as the subject was also the most recent addition to the staff, this may indicate overall uncertainty about task-goal attributes. The remaining staff members returned scores suggesting clarity of goals, however, it should be noted that apart from subject one, the responses to questions 2 and 4 are incongruent.

Goal Setting

Following administration of the Goal Clarity Questionnaire in week four, the staff of the Palmerston North family unit were asked to identify any goals not currently targeted by the programme, prior to a goal setting intervention. The consensus of staff opinion was that all goals suggested by the needs analysis, and personal goals suggested by the stress measures were currently being met, and given appropriate priority. The proposed goal setting intervention was not implemented.

7.7 Needs Analysis

The stated aims and objectives of the Royal New Zealand Plunket Society (Inc.), in "Policy statements and guidelines for Branches" may be briefly summarized as being:

> to promote the responsibilities of motherhood, and particularly the breastfeeding of infants.
>
> to disseminate information relevant to maternal and child health.

to provide Plunket Nurses able to advise and educate the public in preventative health care.

to improve the health and well-being of New Zealand parents and young children.

to promote stable and integrated family life.

Appendix B contains the full statement of the aims and objectives of the Society. No formal statement of the specific aims and objectives of the Plunket-Karitane family unit programme has been developed.

The 22 non-client subjects (see section 6.6 for description), who contributed data in the Needs Analysis were asked:

"What do you consider to be the main aim of the Palmerston North Plunket-Karitane family unit?"

Table 7.22 gives an indication of the responses received from the major groups, as a percentage of total non-client responses.

TABLE 7.22
Main aim of the Palmerston North family unit.

Main aim	Family unit staff (n = 5) %	Referring agencies (n = 12) %	Administration (n = 5) %
Support for parents	18.18	31.82	22.72
Education of parents	4.55	18.18	0
Support for community Plunket nurse	0	4.55	

The majority of respondents, (72.72%) considered the primary function of the unit was to provide support to the parents of infants and pre-school children. All the administration group gave "support" as the main aim, with four of the five unit staff responding similarly.

Non-client subjects were also asked:

"What do you see as being the subsidiary objectives of the family unit?"

Categories of response to this question are shown in Table 7.23 as a percentage of total non-client responses.

TABLE 7.23

Subsidiary objectives of the Palmerston North family unit.

Objectives	Family unit staff (n = 5) %	Referring agencies (n = 12) %	Administration (n = 5) %
Support:			
time-out		18.18	4.55
social	4.55	9.09	0
Education of parents	18.18	22.72	13.64
Liaison with other agencies	0	0	4.55
Support for community Plunket nurse	0	13.64	0

N.B. Some subjects gave more than one response

Parent education, (i.e. mothercraft, preventative health care, parenting skills,) was proposed as a subsidiary objective by more than half the respondents, (54.54%). A further 36.37% suggested support, in the form of parental relief or time-out (22.73%), or providing opportunities for socialization, (13.64%) as programme objectives. Some respondents recognized the role of the family unit in providing an extension of the community Plunket nurse service, and as a liaison with other organizations.

Parental support and parent education were listed by 91% of non-client subjects who contributed data in the Needs Analysis study, as aims or objectives of the programme.

Non-client subjects were also asked to identify categories of problems suitable and unsuitable for family unit referral. A majority of respondents, (86%) considered referral for parent education appropriate, with 50% also suggesting parents needing support as suitable referrals. A variety of types of problems were considered unsuitable for unit referral, including: parents having psychiatric disorders; parents requiring major counselling input; medical problems, especially infections; Court referrals for assessment of parent competence; and serious child behaviour problems. Almost half those surveyed, (45.45%) did not consider any type of case unsuitable for unit referral, although a few of these did suggest that the unit nurses should refer clients on as necessary.

Data obtained from the 55 Replication Study subjects was also utilized in the Needs Analysis. On presentation at the unit, parents had been asked to identify the problem(s) for which they were seeking help. More than two-thirds, (69.09%) identified their need as being education in mothercraft, health care, or parenting. The remainder, (30.91%) reported problems suggesting a need for support, (specifically time-out and/or social contact). Later the unit staff identified the needs of these clients as being education 98.1% and support 61.1%.

Subjects who contributed data to the Follow-up Study were unable to suggest needs not already being met by the family unit programme.

Qualitative data obtained from Follow-up Study clients suggests the Palmerston North Plunket-Karitane family unit has a low public profile. Only one of these mothers had the unit suggested to her as a service for assistance, by a member of the public.

Follow-up Study mothers were unable to suggest other agencies in Palmerston North, where they could have gone for help with their presenting problem(s). This suggests that in Palmerston North City the Plunket-Karitane family unit plays a unique role in the care of young children and their families.

8.0 DISCUSSION

One of the primary aims of the present study was to replicate and extend the Clarkson, Brown, Fraser, Herbison and Geddis (1985) study. It was somewhat surprising to find that despite difference in time, location, and personnel, the Palmerston North Plunket-Karitane family unit was in many respects very similar to the two Dunedin units investigated by Clarkson et al. (1985). However, some important differences were also observed.

In each study a large majority of the referrals to the units were made by community Plunket nurses, with a lesser, but significant number of clients being self-referred. Clarkson et al. (1985) interpreted the low rate of referral from other agencies as suggesting a need for publicity about family unit functions, and this assumption may well be correct. Certainly, data obtained during the present study failed to indicate a duplication of services provided by other organizations, as was suggested in an earlier chapter. The need for more publicity hypothesis was further supported by the finding that less than one-third of clients in the present study gained their initial knowledge of the family unit from non-Plunket sources. Furthermore, referrals were received from only six non-Plunket health care workers, again suggesting a need for publicity about family unit functioning and staff expertise.

An alternative explanation for the low rate of referral from non-Plunket sources was proposed by the present writer. Since most referrals were made informally, there was no check on how many parents were referred, but failed to attend the unit programme. Thus, while health care workers might initiate unit referral, the parent may not follow the recommendation. However, qualitative data obtained during the Needs Analysis did not support this explanation. The number of clients who reported being referred to the unit by agencies not associated with Plunket was congruent with the number of parents those agencies had referred. This finding would also refute any suggestion that clients reporting self-referral, may have actually been referred by professional health workers. Non-Plunket agencies referred very few cases to the family unit.

Another interpretation of the pattern of referrals, offered by the present writer, was that the family unit service was undervalued by other health care workers. Data obtained during the present study supports

this premise. Very few health-care agencies used the family unit services, and those which did, referred cases infrequently.

While most referring agencies had a good appreciation of the functions of the unit, there were indications that liaison with the unit could be improved. Several health workers admitted to having no idea of the efficacy of the family unit intervention for the clients they had referred. Scant outcome evaluation data was obtained from non-Plunket sources due to the small number of cases, and the failure of the referring agency to follow-up the client. This suggests that some agencies may be using the unit as a repository for difficult clients, or for those with trivial problems not warranting follow-up.

There appear to be strong indications that publicity aimed at increasing awareness of the unit and its function would be useful, and that this should be followed by measures aimed at improving liaison between the unit and other health-care agencies. A more widely based system of referrals may also help redress the imbalance in socio-economic status and ethnic group representation found in the present study.

In general terms, the Palmerston North and Dunedin family units appear to serve similar functions for comparable populations. An over-representation of preterm and low birth weight infants found by Clarkson et al. (1985) was taken to indicate that in this respect, at least, the family units were continuing the role previously assumed by the Karitane Hospitals. The present study also found low birth weight infants to be over-represented in the sample of children studied, and the present writer concurs with the Clarkson et al. (1985) interpretation of this trend.

The percentage of children treated in each age group was similar in the two studies, as was the family size. However, although the ranking of presenting problems for children was the same, the percentage of cases in each category varied. Of course this variance may well be an artefact of rater disparity. Parent-related problems differed in that Palmerston North mothers most frequently reported exhaustion, usually associated with a child related problem, whereas for Dunedin mothers the most common need was for support in the form of social contact. An interesting trend noted in the present study was that while from the parent perspective the child was much more likely to be the "identified patient",

the staff more commonly diagnosed the presenting problem as interactional between parent and child. Perhaps this indicates a societal expectation of mother competency, that needs to be addressed in future Plunket publicity literature.

In each study the units employed the same types of problem management intervention. Visits to the unit were the most widely used intervention, with other types of management poorly utilized, particularly in the Palmerston North study. Data obtained by Clarkson et al. (1985) and in the present study indicated that most cases required less than five unit visits. From the data obtained Clarkson et al. (1985) concluded that presenting problems were efficiently managed in terms of the interventions required, and the present study data appeared to support this assumption. However, further analysis of the present study data revealed that for most cases contact with the unit was very brief and input minimal. This would seem to suggest that the majority of clients presented with problems that could be readily solved, and for them, providing a full family unit programme may not be cost-effective, or necessary.

Both studies reported evidence showing that unit nurses were prepared to refer clients on to other agencies when it was considered necessary. This finding was reassuring in view of information obtained during the Needs Analysis, where a number of referring agencies considered any type of case appropriate for unit referral. It must be recognized that the well-being of clients needing more specialized treatment than the family unit can provide, (e.g. mothers with significant post-natal depression), rests solely on the ability of the unit staff to identify, and refer these clients to a more appropriate agency. While the Plunket nurse in charge of a family unit has to be a highly skilled nurse practitioner, the competence of the Karitane nurses is equally important, since they may work more closely with some clients than the Plunket nurse.

The present writer was critical of the basis of the Clarkson et al. (1985) outcome evaluation. In the present study a more reliable outcome evaluation was attempted by employing several different outcome measures. During the Replication Study data collection the unit staff, referring agencies, and clients were asked to rate the "helpfulness" of the family unit intervention. In most cases the unit input was rated as having effected at least some positive change, although as Stipak (1982) would predict, client ratings were more favourable than those of either the

unit staff or the referring agency. Interestingly, when client outcome ratings were separated into face-on or telephone enquiry, telephone response ratings were less favourable and more closely resembled the distribution of staff and referral agency ratings. This finding suggests that a positive bias was introduced when clients were asked face-on by the service provider to evaluate the service given. A response bias may also operate when ratings are sought by the service provider using telephone enquiry, and this would affect both referral agency and client ratings of outcome evaluation. Additionally, the staff outcome evaluations cannot be viewed as bias free ratings.

Aware of these threats to the validity of outcome ratings, the designers of the present study included a count of clients who had discharged themselves from the unit programme against staff advice, as a measure of satisfaction with the intervention. Approximately 7% of Replication Study clients discharged themselves by not keeping subsequent appointments, and when contacted, indicated that they did not wish to continue in the programme. Clients with a legitimate reason for discharge (e.g. moving from the area, problem resolved) were not included in the percentage classified as dissatisfied.

Replication Study data suggests that for about half the clients in the present study, the unit programme was not helpful or only mildly helpful, and for the remainder, was moderately helpful or very helpful. The data suggests that for Palmerston North parents the family unit programme was less beneficial than in the Dunedin study.

In an attempt to further clarify programme outcome evaluation, the Follow-up Study clients were asked to again rate the intervention, this time on two separate occasions. These women were much more positive about the benefits obtained from the unit programme, with almost three-quarters of the sample rating the programme as "very helpful". The validity of this data is enhanced by the fact that it was obtained by telephone, by a person independent of the family unit, and that 100% agreement between the two sets of ratings was recorded. Further support for successful outcome was obtained when all the Follow-up Study clients reported that all measures to alleviate their problem had been taken, and all but one mother would go back to the unit should further problems arise. As noted in the previous chapter, this sample of clients were higher consumers of family unit services than the Replication Study mothers as a whole.

It was hoped that the Comparison Study would yield further evidence of unit intervention utility, but as significant differences were observed between groups of subjects, the results were equivocal. While comparison group mothers were more comfortable in their role as a parent, it seems reasonable to suggest that their apparently greater experience and maturity could out-weigh the benefits of unit intervention obtained by mothers in the experimental group.

In summary then, referral source data in the present study parallels that recorded by Clarkson et al. (1985), with few referrals being received from non-Plunket health-care workers. As was suggested by Clarkson et al. (1985), this probably indicates a need for publicity about the unit and its functions. It may also indicate that health-care workers undervalue the programme, and do not refer appropriate cases to the unit. There were indications that liaison between referral agencies and the family unit should be improved, so that clients receive more comprehensive and better co-ordinated care. (Recommendations pertinent to these issues will be discussed in the final chapter of this work.)

Data obtained in the present study showed that for some families the Palmerston North Plunket-Karitane family unit fulfilled the role, previously assumed by Karitane Hospitals, in the care of low birth weight infants. For others, brief contact and minimal input was all that was required to deal with relatively simple problems; while for a third group the unit served as an assessment and referral agency. A small number of clients had problems requiring more intense and prolonged intervention, and data obtained suggested that for this group the unit programme was the most beneficial.

Superficially, the Clarkson et al. (1985) study and the present study recorded similar data, but indepth analysis of present study data has revealed important differences, particularly in respect of intervention duration, and outcome evaluation.

A second aim of the present study was to investigate the sources and intensity of stress experienced by family unit staff, with a subsidiary objective being the development of a stress measure specific to this occupational group.

Palmerston North family unit staff reported few stressful incidents during initial attempts to elicit stress related information. This finding was unexpected because earlier a staff member had resigned when the job became too stressful, and another resignation, during the data collection period, was attributed to the effects of stress. It was hypothesized that unit staff may equate experiencing stress with not coping, and they might therefore be reluctant to openly admit being stressed at work. For this reason all subsequent stress data was contributed anonymously. Unfortunately, a latent effect of this was that repeated stress measures could not be correlated at individual level. To reduce response bias the word "stress" was avoided on questionnaires and during interviews.

McGrath (1976) postulated six potential sources of stress which arise from interaction between the person, the physical environment, and the social milieu, in occupational settings. Examples of role stressors, person stressors, task stressors, physical environment stressors, social environment stressors, and behaviour setting stressors were all present in incidents reported by nurses during the stress measure data collection. Items meeting the inclusion criteria for the Daily Diary also represented the full range of the McGrath (1976) sources of stress. This suggests that the job stress experienced by family unit nurses has similar origins to that found in other workers.

In particular, stress for family unit nurses arose from incidents related to work overload (task-based, role-based, and behaviour setting sources), noise (physical environment sources), lack of assertion skills (intra-personal and social environment sources), and lack of peer support (social environment sources). Targeting these areas for goal setting was discussed with Palmerston North family unit nurses, who rejected all suggestions, maintaining that for them such goals would be inappropriate. The low scores for frequency and intensity of Daily Dairy items for the experimental group support their contention that these goals were currently being met.

Literature cited in an earlier chapter (section 4.1) reported role-based stress, particularly from role conflict, as being common among nurses. Goal Clarity Questionnaire scores did not support role conflict as being a source of stress for the Palmerston North family unit nurses. However, as noted previously (see section 7.5) the validity of scores is suspect.

Perhaps again this indicates a reluctance on the part of some of the family unit nurses to acknowledge negative aspects of their job when the information is not given anonymously. This premise gains credibility with the knowledge that while Plunket nurses may readily obtain employment in other fields of nursing, Karitane nurses have a qualification which is not widely recognized, and for them alternative employment is more difficult to procure.

The intensity of stress experienced by Plunket-Karitane family unit nurses was measured using the G.H.Q. 12, a standardized measure, widely used in studies investigating job stress. Data obtained suggests that the Palmerston North family unit nurses currently experience stress levels which are normal, both in terms of the Banks et al. (1980) norms for working women, and those recorded by the staff of other Plunket-Karitane family units.

Fletcher and Payne (1980) maintained that the techniques used to ensure the validity and reliability of standardized instruments may destroy their ability to detect small changes in specific populations. It was therefore disappointing that the stress study data was incomplete, thereby precluding validation of the specific stress measure through correlation with G.H.Q. 12 data trends. However, as previously suggested, the preliminary data collection provided valuable insights to the sources of job stress among Plunket-Karitane family unit nurses.

The third and final aim of the present study was to systematically evaluate the process and outcome of the Palmerston North Plunket-Karitane family unit programme.

Williamson, Prost and George (1978) developed a simple model of evaluation appropriate for use in small scale, community based programmes. The model employs six consecutive procedures, with information being fed back into the system to modify and improve programme operation at each stage. The initial stage of establishing general effectiveness is followed by assessment of means-ends analysis, internal validity, goal-outcome congruence, external validity, and finally construct validity.

Quay (1977), however maintains that before the adequacy of research design and measurement of outcome can be assessed, the integrity of the intervention has to be established. This "third face of evaluation",

(Quay, 1977) concerns the "what" of evaluation : how the treatment was conceptualized, the programme duration and intensity, personnel numbers and expertise, and the matching of the treated to the treater and the treatment.

The Quay (1977) concept of programme integrity complements the Williamson et al. (1978) model, (see section 2.5), and together they provide a useful framework for the present evaluation.

The clarity with which the treatment can be conceptualized is crucial to programme integrity. The issue of treatment characteristics and empirical bases provokes several questions. What is the treatment, how precisely can it be described, and how can it be measured? The treatment intervention used in the Palmerston North Plunket-Karitane family unit is based on nursing process, which like Goal Attainment Scaling, specifies treatment goals and the means of attaining those goals. Following assessment of the clients problem(s) the Plunket nurse, in collaboration with the client identifies appropriate goals, and discusses the recommended treatment(s). These are recorded on the clients treatment card and are available to all nursing staff. Progress toward treatment goals is not quantified and treatment outcome not operationally defined. Thus measurement of individual treatment outcome is confined to subjective nominal measurement.

A further set of questions relates to the empirical bases of treatment: on what theoretical premise is treatment based, and is it related to empirical findings? The treatments employed at the family unit vary with the type of problem. All interventions are based on well established infant care procedures, which are open to peer, and superior staff scrutiny.

The second dimension of programme integrity is monitoring programme elements, and the duration and intensity of the intervention. Questions posed here are: what actually happened during the intervention, and was it continued for sufficient time to achieve its objectives? The drop-in nature of the family unit approach, and the diversity of problems within the main categories makes this aspect of programme integrity difficult to assess. Parents were free to attend the unit as often, and for as many hours during the day, as was considered necessary to alleviate their problem. This put the responsibility of obtaining sufficient input on

the parents, and left them to decide when the treatment goals had been reached. Only a small number of clients withdrew from treatment against staff recommendations, and so it would seem reasonable to assume that provided their problem was appropriate for unit intervention the service provided for clients was adequate.

Quay (1977) was also concerned that programme personnel should have the degree of expertise and training required for the intervention to be provided, and that they should receive adequate supervision. The family unit staff not only held the qualifications required for their respective positions, (as detailed in the job descriptions in Appendix B), they possessed expertise far beyond the minimum requirements. The Plunket nurse was, in addition to being a Registered General and Obstetric Nurse holding a Plunket Certificate, a Registered Midwife, and had obtained a post-graduate Advanced Diploma of Nursing. She had five years post basic nursing experience with an additional two years Plunket nursing experience. The Karitane nurses all held Karitane certificates, obtained when training was done in Karitane Hospitals, and between them had a phenomenal 75 years of Karitane nursing experience: two had 30 years, one 10 years, and one 5 years. In-service training, in the form of four study days annually, was provided for the Karitane nurses. While this educational input was small, for staff of this calibre it was adequate. Additionally, the Plunket nurse was committed to informal education of the nurses as the need arose in the unit.

The supervisory position of Regional Nurse Adviser which had been vacant for some time, had recently been filled. Help and guidance was available to unit staff from this senior nurse, and also from peers working in community Plunket clinics.

The fourth aspect of programme integrity has been identified by Quay (1977) as the match between treater, treatment, and treated. The degree of agreement among referral agencies as to the suitability of clients; the flexibility of treatment approaches; the high level of staff expertise; and the readiness of unit staff to refer inappropriate cases on to other agencies; all help to ensure matching between staff/treatments, and clients who present at the family unit. Unfortunately, the programme appears to be less attractive to parents from lower socio-economic groups, and to parents of polynesian origin, than to the middle class parents who dominate the family unit clientele.

Social differences between staff and clients are minimized by the staff wearing casual clothes, but there are no non-European staff members. While a more widely based referral system may help redress the socio-economic status and ethnic group imbalance, the underlying causes of the imbalance should be investigated. Suggestions as to how this might be done will be made in the final chapter.

Overall the programme offered by the Palmerston North family unit meets the Quay (1977) requirements for the establishment of programme integrity, despite evidence on some dimensions being weak. Shortcomings in empirical validation of treatment conceptualization and delivery are well compensated for by the quality of staff providing the service. However, these are areas that will be addressed in the final chapter of this thesis, when recommendations for programme modification and improvement are made.

Now that at least a minimal level of programme integrity has been demonstrated, the evaluation research can proceed to considering the Palmerston North family unit programme in terms of the Williamson et al. (1978) model.

General effectiveness simply considers whether or not the programme intervention has effected any change in the clients it seeks to serve. The general effectiveness of the family unit programme was established with the finding that a large majority of clients were rated by the referring agency, the unit staff, and the clients themselves as having received some benefit from the unit intervention.

Means-ends analysis considers the relationship between programme objectives and the allocation of programme resources, and is therefore related to the Quay (1977) dimensions of adequacy of service delivered, and programme personnel as discussed under the heading of programme integrity. The Plunket Society has not formulated a statement of goals specific to the family unit programme. The present study Needs Analysis however, identified the primary goals of the Palmerston North family unit as being the provision of support, and education for the parents of young children. Needs analysis data suggested that subsidiary objectives for the programme might be: to improve liaison with referral agencies; to educate other health-care workers on unit functions and areas of staff expertise; and to increase public awareness of the unit. Unit staff

maintained that these goals were currently targeted and receiving appropriate priority. The suggestion that formal goal setting would be useful was rejected and this explains why more precise goals were not formulated. In evaluation research overcoming resistance to change is a slow process.

Data obtained during the Replication Study indicated that the most frequently used intervention was unit visits, which afforded the opportunity for problem solving and parental education, along with support in the form of time-out from a child, or social contact. Unit visits were available for approximately six hours daily, five days per week, and the major resource of the unit, the staff, was totally accessible to clients during this time. Outside these hours staff were not available to clients. If parents needed urgent advice on infant care they were advised to consult other agencies. Another unit resource, the Plunket car was provided to transport clients to the family unit, thus ensuring that parents needing help were not penalized by a lack of transport.

Means-ends analysis in the present study was satisfactory. The programme objectives of providing support and education in child management for parents were allocated almost all the programme resources, including the facilities of the unit, the availability of the staff five days per week, and a means of getting to the unit. However the analysis was impaired by the informal nature of the treatment goals. The present writer maintains that the goals should be precisely stated, preferably in the form of operational definitions so that staff and clients alike will know when goals have been achieved. This point will be taken up again in the recommendations section of the next chapter.

Internal validity involves assessment of the degree to which programme outcome can be reliably attributed to the treatment intervention. Threats to internal validity arise from the failure to include control groups, failure to randomly assign individuals to treatment conditions, and biased sampling of the target population. Wortman (1975) noted that in applied research, criteria for internal and external validity are the most difficult to satisfy. While the present study suffers several threats to internal validity and these confounding variables must be openly acknowledged, every attempt was made to minimize their effects. The unit clients used in each study were a self-selected sample of the

target population : a situation not unusual in applied research studies. However, internal validity was maximized by the use of multiple indices of outcome, some with reliability checks included in the measures.

Although a random sample control group could not be used in the Comparison Study every effort was made to find the most appropriate comparison group, and measures were included so that confounding variables could be quantified. It could be argued that the nurses selecting subjects for the comparison sample used different selection criteria, and this may be so. However, the nurses were given a standard instruction: "select clients that you would refer to a family unit if one was available in this area", and all selected clients agreed to participate in the study. Moreover, the nurses were not told the variables on which clients were to be measured, thus reducing selection bias. Matching of experimental group and comparison group subjects was not attempted for two reasons. Firstly, adequate matching is rarely achieved in applied studies, and secondly, the small number of subjects available in the present study would make matching impossible.

Unfortunately significant differences existed between the two groups in the Comparison Study, making the drawing of conclusions about programme effects from this data speculative. However, the present writer is confident that the outcome data, obtained from the other measures employed in the present evaluation, is both useful and has high internal validity.

Goal-outcome congruence is achieved when outcome measures parallel the achievement of programme goals. In the present study analysis of this dimension of programme evaluation was difficult because programme goals were not operationally defined. The programme aims already stated were to support and educate the parents of young children. Individual treatment goals were targeted to achieve these aims for each client. Outcome evaluation by referral agencies, programme staff, and clients shows that for a large number of participants treatment goals were met to some degree.

Criteria for external validity are met when it can be reliably shown that programme achievements can be generalized to other populations and settings. The external validity of the family unit programme is upheld by the findings of the Replication Study, in which it was demonstrated that despite differences in location, time, and personnel the data obtained

in the present study was in many ways similar to that recorded by Clarkson et al. (1985). The differences noted between the two Studies arises largely from the way in which the data is interpreted, rather than from any outstanding differences in the information presented. It should be noted again, however, that in the present study some sections of the target population were under-represented. An increase in public awareness of unit functions may well result in a more representative cross-section of the target population taking advantage of the unit services.

The final stage of the Williamson et al. (1978) model is construct validity, in which programme rationale is examined and related to programme goals, treatment characteristics, and intervention outcome. The rationale for the family unit programme is that in urban centres, nuclear families may be living in isolation from relatives who could offer support and knowledge of child management to the parents of infants and young children. The family unit programme aims to fulfil the role of an extended family by providing experienced health-care professionals to support and educate parents and thus promote the aims and objectives of the Plunket Society (see Appendix B). The programme goals, treatment, and outcomes already discussed are in accord with the programme rationale and so construct validity has been satisfied.

Now that the Palmerston North Plunket-Karitane family unit programme has been examined along the six dimensions of the Williamson, Prost and George (1978) model, discussion of a final, but crucial aspect of the model is called for. The overall organizing theme of the model is the feedback of information, gained at each stage, into the system to facilitate programme modification and development in the direction of programme aims and objectives. Throughout the present study the researcher has maintained a collaborative approach by sharing information with the unit staff. An early example of the operation of the information feedback loop was the observation that non-European parents were not represented in the unit clientele. Later the unit staff initiated a programme of visiting patients in the local maternity units to acquaint all mothers with the unit functions. At another time it was suggested that noting treatment goals on client records might be useful, but this was not instituted until a new staff member, familiar with the concept of nursing process began recording goals. Other observations made by the researcher have included: the need for staff to meet and discuss cases;

the need for staff to have time-out from the unit during the day; and noting the relationship between client numbers, noise, and stress. Some changes were made following the sharing of these observations with unit staff. This ongoing and gradual modification of the programme is the essence of process evaluation.

Evaluation of process and outcome using the conceptual frameworks of Williamson et al. (1978) and Quay (1977) facilitated a systematic evaluation of the Palmerston North Plunket-Karitane family unit. Many of the issues discussed are of a formative nature, especially in the area of programme integrity, where there is a paucity of quantitative data. The information obtained suggests that the programme achieves its aims and objectives, although these are poorly defined at this stage. The data shows that most clients obtained some benefit from the programme, with those having greater needs rating the intervention outcome most positively.

9.0 CONCLUSIONS AND RECOMMENDATIONS

The object of this, the final chapter, is to draw together some of the material presented and formulate conclusions about the Palmerston North Plunket-Karitane family unit: its functioning, the staff who provide the service, the parents it seeks to serve, and the general effectiveness of the service provided. On the basis of these conclusions, general recommendations will be made as to how the programme might be modified to provide a better service to clients, and a more satisfying place for nurses to work. Finally, some comments will be offered about the utilization of evaluation research results, the adequacy of the conceptual framework used in the present study, and evaluation research in general.

The first question to be answered is whether the programme intervention was implemented as was intended by the programme designers? The answer to this is not straightforward. Because each family unit is given the autonomy to develop in the direction of the needs of the community it serves, the goals for each unit are left to the discretion of the unit staff. Moreover, treatment goals are specific to each client, within the general guidelines of accepted nursing practice. However, after carefully examining the programme using the Quay (1977) criteria for programme integrity, and the relevant dimensions of the Williamson, Prost and George (1978) model, the present writer concluded that the treatment process of the family unit intervention was sound, while recognizing that some modifications and improvements could be made.

A second question concerns the unit clients. Does the intervention reach all sections of the target population? Quite clearly the conclusion here is no; ethnic minority groups, and lower socio-economic-status groups were under-represented in the client sample studied. Factors which might contribute to the biased target population sample could be a lack of public awareness of the unit and its functions, poor liaison with health-care workers, and the location of the unit. While acknowledging the generous transport arrangements provided for parents, the present writer suggests that for a large number of potential clients, the "drop in" nature of the unit is destroyed by its location.

The third question to be answered is does the programme do what it was intended to do? or put more formally, the question is whether or not the programme achieves its stated aims and objectives. In the present

study it has been reliably demonstrated that the family unit achieves its perceived aims and objectives. (As has already been noted, no formal statement of the aims and objectives of the family unit programme has been prepared by the Plunket Society.) However, the primary aims of providing support, and education in child management were differentially achieved for parents requiring brief input, and those in need of a more intensive intervention. Parents with easily solved problems, rated intervention outcome less favourably than those who were higher consumers of family unit services. This suggests that the family unit caters for two quite different categories of client, and to deal with each in the same manner may not be appropriate, or cost-effective.

The final question to be addressed in this section is that of staff stress. The data obtained from the Palmerston North family unit staff indicated that they were experiencing normal stress levels at the time the measures were taken, and the present writer must conclude that currently stress is not a problem for the unit nurses. However, historical anecdotal evidence, and that obtained from family unit staff in other areas suggests that stress levels fluctuate and are particularly influenced by staff changes, increased workload, and the type of problems with which clients present. Thus, it would seem appropriate that unit staff should learn some stress management strategies even though stress is not currently a problem.

In view of the foregoing conclusions the following recommendations are offered.

1. ... that the Plunket Society urgently prepare a statement of aims and objectives specific to the family unit programme.

2. ... that the Plunket Society investigates the cost-effectiveness of the family unit programme, with a view to separating the social support functions from parental support and education services. It should be noted here that research cited earlier (see section 4.3) found no evidence of a relationship between social support and stress reduction. Perhaps social support services could be undertaken by Karitane nurses, leaving the Plunket nurse to intervene where parental support and education is required. The Plunket nurse may be able to extend the service by working with clients in their own homes, and initiating more group education in place of individual treatment.

3. ... that family unit staff be commended for the use of goal setting for individual clients and be urged to describe the goals more precisely as operational definitions. To monitor progress toward treatment goals, intermediate steps to goal attainment should also be described.

4. ... that efforts be made to redress the imbalance in socio-economic status and ethnic group representation. Suggestions already alluded to include increasing public awareness of the unit and its functions, and improving liaison with other health-care agencies. To attract parents from ethnic minorities to the unit, some voluntary input to unit services by these communities might be appropriate. This could ultimately benefit clients from all sections of the target population. The Plunket Society might also study the feasibility of locating the unit more centrally.

5. ... that the Plunket Society endeavours to continue to employ highly skilled Plunket and Karitane nurses in the family unit. To increase job satisfaction efforts should be made to increase the status of Karitane nurses by recognizing high levels of competence and wide experience with an appropriate title such as "senior Karitane nurse", and increased responsibility. While some research (see section 4.2) suggests that for some occupations part-time work may be more satisfying than full-time work, ideally the Plunket nurse in charge should be a full-time employee.

Having completed an evaluation the researcher is concerned that the findings be utilized. Several writers cited earlier (see section 1.7) have made suggestions to improve the likelihood of evaluation results being used. The most relevant to the present study is the provision of feedback during the evaluation. The present writer has attempted to follow this recommendation, as well as others which include presenting evaluation results in clear and simple language, and responding to criticism of the research openly and non-defensively. It is hoped that the findings of the present study will be used to improve the functioning of the Palmerston North Plunket-Karitane family unit, to the benefit of clients and staff alike.

The conceptual framework provided by the amalgamation of Quay (1977) and Williamson, Prost and George (1978) proved to be an ideal model for developing a systematic approach to the evaluation of a small community based service such as the Plunket-Karitane family unit. However, for a study with limited resources and strict time constraints one aspect of the Williamson et al. (1978) model was not practical. The authors of the model suggest that as changes are made as a result of the evaluation, the programme should be re-evaluated, beginning again with the general effectiveness procedure. Although the rationale for the procedure is obvious, this evaluation and re-evaluation was not carried out in the present study.

Evaluation research has been described as a political decision-making tool, and as such it presents a unique set of problems. The staff may be suspicious of the motives for the evaluation and in some cases be reluctant to provide data which they see as threatening to their position in the organization. This may leave the researcher with incomplete data, with the resultant difficulty of having to draw definitive conclusions from the data. However, evaluation research is also challenging and dynamic, and has the potential to produce worthwhile changes within organizations such as the Palmerston North Plunket-Karitane family unit.

APPENDIX A: Supplement to the Methods section

A.1 Replication Study

A.1

Client Code Number:.....

PLUNKET-KARITANE FAMILY UNIT RESEARCH PROJECT

CLIENT IDENTIFICATION SHEET

(to be completed and retained by
Unit Plunket Nurse)

Client's Name: .....
(First Name) (Surname)

Child's Name: .....

Address: .....

.....

.....

Phone: .....

N.B. Detach this sheet when client data recording completed (i.e. following outcome opinion recording)

Client Identification Sheet to be retained in Unit records.

Client Data Sheet to be handed to researcher.

PLUNKET-KARITANE FAMILY UNIT RESEARCH PROJECT

CLIENT DATA SHEET

(To be completed by Unit Plunket Nurse)

Date of first contact: .....

Date of last contact: .....

Was client discharged by staff? Yes/No (delete not applicable)
If 'No' give reason for termination (e.g. left district)

.....

Consent form: Signed/Not signed (delete not applicable)

How did client first hear about the Family Unit (e.g. neighbour, doctor, etc

.....

Referred by: ..... (e.g. self, G.P., Plunket Nurse, etc)

Presenting problem(s): .....

CHILD DATA

Present age: .....

Birth weight: .....

Siblings:
1. ..... (ages only)
2. .....
3. .....
4. .....
5. .....

To which ethnic group does the client consider the child belongs?

New Zealand Maori ..... (tick)

New Zealand European .....

Other (specify) .....

CLIENT DATA

Relationship to child: ..... (e.g. mother)

Present age of client: .....

To which ethnic group does client consider s/he belongs?

New Zealand Maori ..... (tick)

New Zealand European .....

Other (specify) .....

Education: ..... years secondary school

School Certificate ..... (tick)

University Entrance .....

Tertiary qualifications .....

Occupation: Present ..... Previous .....

Residential location ..... (street only)

..... (town/city)

PARTNER DATA

Present age: .....

To which ethnic group does partner consider s/he belongs?

New Zealand Maori ..... (tick)

New Zealand European .....

Other (specify) .....

Education: ..... years secondary school

School Certificate ..... (tick)

University Entrance .....

Tertiary qualifications .....

Occupation: Present ..... Previous .....

PROBLEM AND MANAGEMENT

Problem(s) identified by Unit Staff: (tick as applicable)

Child related: Mothercraft .....
Feeding .....
Excessive crying .....
Behaviour .....

Client related: Social isolation .....
Exhaustion .....
Depression .....
Other ..... (specify

Problem Management: (number of times used

Visits to Unit .....
Creche .....
Coffee mornings/Play group .....
Positive parenting class .....
Individual Counselling session .....
Telephone contact .....
Home visit .....
Other ..... (specify)

On discharge this client was referred to: (tick as applicable)

No referral made .....
Plunket Nurse .....
Public Health Nurse .....
G.P. .....
Paediatrician .....
Psychiatrist .....
Manawaroa Child and Family Unit .....
Department of Social Welfare .....
Church Social Service Agency .....
Children's Day Care .....
Budget Advice Service .....
Women's Refuge .....
Marriage Guidance .....
Family Health Counselling .....
Other ..... (speci

OUTCOME

Staff opinion of outcome:

(to be recorded within one week of discharge/termination, and to be recorded BEFORE client's opinion of outcome is sought)

We consider the intervention in this client's/child's problem(s) has:

been very helpful	.....	(tick one)
been moderately helpful	.....	
been mildly helpful	.....	
made no difference	.....	
made things worse	.....	
Date opinion recorded	.....	

Client's opinion of outcome:

(to be asked by Plunket Nurse on discharge, or contact by telephone within one week of termination)

For your/your child's problem(s), do you consider the Unit has:

been very helpful	.....	(tick one)
been moderately helpful	.....	
been mildly helpful	.....	
made no difference	.....	
made things worse	.....	
Date opinion recorded	.....	

Client asked: face-to-face/by telephone (delete not applicable)

Referring agency's opinion of outcome:

(to be asked by Plunket Nurse within two weeks of discharge/termination - where possible)

For this client do you consider that Unit has:

been very helpful	.....	(tick one)
been moderately helpful	.....	
been mildly helpful	.....	
made no difference	.....	
made things worse	.....	
Date opinion recorded	.....	

A.2 Follow-up Study

A.2

PLUNKET-KARITANE FAMILY UNIT RESEARCH PROJECT

A study conducted by a research team

from the Department of Psychology, Massey University

CLIENT INFORMATION

The Family Unit needs to keep up with the changing needs of Palmerston North families. We are looking at ways to provide you, the parent with a better service. We would like to know what you think of the Unit programme, and if there are any additional services you think the staff should provide. Once you have finished attending the Unit, we would like to contact you for your comments.

Any information you may give will remain strictly confidential, and will not be seen by Plunket staff.
You will not be contacted without your consent.

Would you like to be included in the study?
If you would, please fill in and sign the consent form.

Thank you

GAIL RUSSELL
(Researcher)

(To be retained by Client)

A.2

PLUNKET-KARITANE FAMILY UNIT RESEARCH PROJECT

CONSENT FORM

Client's name: .....
(First Name) (Surname)

Child's Name: .....

Home Address: .....

.....

.....

Telephone Number: .....

I would like to take part in the Plunket-Karitane Family Unit Research Project. I agree to the above information being given to the researcher so that I may be contacted for my comments about the services provided at the Palmerston North Plunket-Karitane Family Unit.

Signed: .....

Date: .....

Nurse: .....

A.2 **PLUNKET-KARITANE FAMILY UNIT RESEARCH PROJECT**

CLIENT FOLLOW-UP

Client's Name: .....
(First Name) (Surname)

Child's Name: .....

Address: .....

.....

.....

Phone: .....

Client's opinion of outcome:

(to be asked by researcher - telephone or face-to-face - within one week of termination of Unit contact.)

For your/your child's problem(s) do you consider the Unit has:

been very helpful ..... (tick one)

been moderately helpful .....

been mildly helpful .....

made no difference .....

made things worse .....

Date of discharge/termination .....

Date opinion recorded .....

Client asked face-to-face / by telephone (delete not applicable)

CLIENT RE-CONTACT

(to be completed by researcher - telephone or face-to-face - two weeks after termination of Unit contact)

Date of re-contact: .....

Client interviewed: face-to-face / by telephone (delete not applicable)

Client's opinion of outcome (re-evaluation)

For your/your child's problem(s), do you consider the Unit has:

been very helpful ..... (tick one)

been moderately helpful .....

been mildly helpful .....

made no difference .....

made things worse .....

Are you willing to tell me what the problem was?

Yes/No (delete not applicable)

What was the problem? .....

.....

.....

What sort of help were you seeking? .....

.....

.....

Before you attended the Family Unit did you seek help anywhere else?

.....

.....

.....

.....

Did they suggest you go to the Family Unit for help?

Yes/No (delete not applicable)

What sort of help did you expect from the Family Unit staff?

.....

.....

.....

What did the Family Unit staff do to help you with the problem?

.....

.....

.....

Was there anything else you thought they should do?

.....

.....

.....

Would you go back to the Family Unit for help again?

Yes/No (delete not applicable)

If there was no Family Unit in Palmerston North where else could you have gone for help?

.....

.....

.....

Are there any other services you think should be available at the Family Unit?

.....

.....

.....

4.

Which Family Unit services have you used?

Visits to Unit .....

Creche .....

Coffee mornings/Play group .....

Positive parenting class .....

Individual counselling sessions.....

Telephone contact .....

Home visits .....

Which did you find the most helpful? .....

Which was the least helpful? .....

Do you have any comments you would like to make?

.....

.....

.....

.....

.....

.....

A.3 Comparison Study

A.3

PLUNKET-KARITANE FAMILY UNIT RESEARCH PROJECT

A study conducted by a research team

from the Department of Psychology, Massey University

SURVEY INFORMATION

We are looking at the well-being of families with young children and would like to include you in the study. Participation involves completing and returning (anonymously) a short questionnaire which will be mailed to you.

If you consent, a researcher will telephone you to confirm your willingness to participate, and to answer any questions you may have about the survey.

Any information you may give will remain strictly confidential, and will not be seen by Plunket staff.

You will not be contacted without your consent.

Would you like to be included in the study?

If you would, please fill in and sign the consent form.

Thank you

GAIL RUSSELL
(Researcher)

(To be retained by Client)

A.3 PLUNKET-KARITANE FAMILY UNIT RESEARCH PROJECT

A Study conducted by a research team

from the Department of Psychology, Massey University

General Health Questionnaire

Thank you for consenting to take part in the research project.

We are collecting information on the well-being of parents with young children. We would like you to complete this questionnaire and return it as soon as possible, in the envelope provided, to:

Gail Russell
Department of Psychology
Massey University
PALMERSTON NORTH

The questionnaire is anonymous, so there is no need to include your name, but for statistical purposes we do require the following details:

When were you born? .....

Your sex? .....

Town in which you live .....
(or nearest town)

The information you give will be treated as strictly confidential.

Thank you for your co-operation.

Gail Russell
Researcher.

We would like to know how your general health has been over the past few weeks. Please answer each question by circling the answer that best describes how you have been recently.

1. Have you recently been able to concentrate on whatever you're doing?

Better than usual	Same as usual	Less than usual	Much less than usual

2. Have you recently lost much sleep over worry?

Not at all	No more than usual	Rather more than usual	Much more than usual

3. Have you recently felt that you are playing a useful part in things?

More so than usual	Same as usual	Less useful than usual	Much less useful

4. Have you recently felt capable of making decisions about things?

More so than usual	Same as usual	Less so than usual	Much less capable

5. Have you recently felt constantly under strain?

Not at all	No more than usual	Rather more than usual	Much more than usual

6. Have you recently felt that you couldn't overcome your difficulties?

Not at all	No more than usual	Rather more than usual	Much more than usual

7. Have you recently been able to enjoy your normal day-to-day activities?

More so than usual	Same as usual	Less so than usual	Much less than usual

8. Have you recently been able to face up to your problems?

More so than usual	Same as usual	Less able than usual	Much less able

9. Have you recently been feeling unhappy and depressed?

Not at all	No more than usual	Rather more than usual	Much more than usual

10. Have you recently been losing confidence in yourself?

Not at all	No more than usual	Rather more than usual	Much more than usual

11. Have you recently been thinking of yourself as a worthless person?

Not at all	No more than usual	Rather more than usual	Much more than usual

12. Have you recently been feeling reasonably happy, all things considered?

More so than usual	About same as usual	Less so than usual	Much less happy

We would like to know:

a) How confident do you feel in your role as a parent?

able to handle most situations	need advice from time to time	often feel unsure of what to do	constantly feel anxious about caring for your child.

b) How many children do you have?

one	two	three	four or more.

A.4 Stress Measure Development

A.4 PLUNKET-KARITANE FAMILY UNIT RESEARCH PROJECT

A study conducted by a research team

from the Department of Psychology, Massey University

Please complete a separate "Nurses' Daily Stress Record" each day you work in the Family Unit.

Stress rating scale

0	very relaxed
1	relaxed
2	a little tense
3	tense
4	very tense
5	severely stressed

Physical complaints - severity scale

1	mild discomfort
2	moderate discomfort
3	painful
4	very painful
5	extremely painful
6	unbearably painful

NURSES' DAILY STRESS RECORD

URSE: DAY: DATE:

ime	Major event/s of time period	Stress Level	Number of Cigarettes	Cups of Coffee
.30 am				
.00 am				
.30 am				
.00 am				
.30 am				
.00 am				
.30 am				
.00 md.				
.30 pm				
.00 pm				
.30 pm				
.00 pm				
.30 pm				
.00 pm				
.30 pm				
.00 pm				
.30 pm				
.00 pm				
.30 pm				
.00 pm				

YSICAL COMPLAINTS:

me	Complaint	Severity	Time Resolved	How

A.4 Initial Questionnaire

PLUNKET-KARITANE FAMILY UNIT RESEARCH PROJECT

A Study conducted by a research team

from the Department of Psychology, Massey University

The purpose of this questionnaire is to collect information about working in a Plunket-Karitane Family Unit.

Although your job is undoubtably very rewarding, I am interested in your ideas of how it might be altered to make work a more satisfying experience for you personally.

All information will be treated as strictly confidential, so I hope you will feel free to express your ideas openly. Your name is not required on the questionnaire.

Please provide responses to as many of the items as possible. When completed, please return the questionnaire in the envelope provided to:-

Gail Russell

Psychology Department

Massey University

PALMERSTON NORTH

Thank you for your help.

What are the most dissatisfying things about your job?

Think of a time when you were under pressure at work, and describe those things that caused the pressure:-

What sort of things cause pressure for other nurses working in the Unit?

I know it is going to be a bad day at work when:-

I feel really frustrated at work when I cannot:-

The thing I like least about my job is:-

In my job it really makes me angry when:-

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

The things I would really like to change about my job are:-

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

Other comments:-

A.4

PLUNKET-KARITANE FAMILY UNIT RESEARCH PROJECT

A study conducted by a research team

from the Department of Psychology, Massey University

Job Satisfaction and Work Pressure Questionnaire

The statemnts in this questionnaire have been compiled from information supplied by Family Unit nurses, and relate to factors influencing job satifaction and work pressure.

You are asked to rate each statement for:

1. relevancy to working in a Family Unit
2. frequency of occurrence and the intensity of the distress it causes.

We need your ratings, so please complete the questionnaire individually. Do not spend too much time on each question, and try to use the full range of the scale.

All information will be treated as confidential and will not be seen by Plunket staff.

Your name is not required on the questionnaire.

2

Please rate each statement for relevancy to working in a Family Unit using the rating scale below.

0 - not relevant
1 - slightly relevant
2 - quite relevant
3 - very relevant

		Please Circle One			
1.	Not enough time to share information with other staff	0	1	2	3
2.	Not consulted about decisons affecting you	0	1	2	3
3.	Feeling clients misuse the service	0	1	2	3
4.	Having to make decisions beyond your level of knowledge	0	1	2	3
5.	Asked to do unnecessary tasks	0	1	2	3
6.	Staff not working together as a team	0	1	2	3
7.	Feeling that parents have sabotaged your treatment efforts	0	1	2	3
8.	Not sure of what is expected of you	0	1	2	3
9.	Feeling everyone wants your attention at the same time	0	1	2	3
10.	Having too many interuptions	0	1	2	3
11.	Feeling that you do not get the respect your position deserves	0	1	2	3
12.	Feeling uninformed about work related matters	0	1	2	3
13.	Having too little to do	0	1	2	3
14.	Feeling misunderstood by colleagues	0	1	2	3
15.	Feeling unsure of what you should be doing	0	1	2	3
16.	Too busy to spend enough time with a client	0	1	2	3
17.	People make conflicting demands of you	0	1	2	3

0 - not relevant
1 - slightly relevant
2 - quite relevant
3 - very relevant

		Please Circle one			
18.	No recognition of your efforts	0	1	2	3
19.	Feeling that others have used you	0	1	2	3
20.	Taking an unequal share of the workload	0	1	2	3
21.	Working with staff who are not competent	0	1	2	3
22.	Having to deal with situations for which you have not been trained	0	1	2	3
23.	Having too much to do	0	1	2	3
24.	Feeling misunderstood by clients	0	1	2	3
25.	Feeling "put down" by other staff members	0	1	2	3
26.	Unit too noisy	0	1	2	3
27.	Having to deal with difficult clients	0	1	2	3
28.	Your areas of responsibility not clearly defined	0	1	2	3
29.	Feeling others do not appreciate your efforts	0	1	2	3
30.	Staff expect too much of you	0	1	2	3
31.	Not being given enough information about clients	0	1	2	3
32.	Feeling you should be more assertive	0	1	2	3
33.	Feeling inadequate for your work role	0	1	2	3
34.	Clients making unreasonable demands	0	1	2	3

0 - not relevant
1 - slightly relevant
2 - quite relevant
3 - very relevant

		Please Circle one			
35.	Inadequate resources available	0	1	2	3
36.	Feeling exhausted at the end of the day	0	1	2	3
37.	Feeling your knowledge and training are not fully utilized	0	1	2	3
38.	Annoyed by clients gossiping about other clients	0	1	2	3
39.	Clients ignore your suggestions	0	1	2	3
40.	Feeling disorganised	0	1	2	3
41.	Feeling distressed because you are unable to help a client	0	1	2	3
42.	Needing to have sometime away from people	0	1	2	3
43.	Disagreeing with decisions made by other staff	0	1	2	3
44.	No break away from the Unit during the day	0	1	2	3
45.	Inadequate support for emotional reactions to work events	0	1	2	3
46.	Feeling tense	0	1	2	3
47.	Forgetting to pass on messages	0	1	2	3
48.	Lack of support from other health professionals.	0	1	2	3

5

You are now asked to rate the statments for frequency of occurrence by indicating how many times the event happens to you during the working week, and how it affects you using the following scale:

0 - no distress
1 - slight distress
2 - quite distressing
3 - very distressing

	Number of times per week	How it affects you Please Circle one
1. Not enough time to share information with other staff		0 1 2 3
2. Not consulted about decisons affecting you		0 1 2 3
3. Feeling clients misuse the service		0 1 2 3
4. Having to make decisions beyond your level of knowledge		0 1 2 3
5. Asked to do unnecessary tasks		0 1 2 3
6. Staff not working together as a team		0 1 2 3
7. Feeling that parents have sabotaged your treatment efforts		0 1 2 3
8. Not sure of what is expected of you		0 1 2 3
9. Feeling everyone wants your attention at the same time		0 1 2 3
10. Having too many interuptions		0 1 2 3
11. Feeling that you do not get the respect your position deserves		0 1 2 3
12. Feeling uninformed about work related matters		0 1 2 3
13. Having too little to do		0 1 2 3
14. Feeling misunderstood by colleagues		0 1 2 3

0 - no distress
1 - slight distress
2 - quite distressing
3 - very distressing

	Number of times per week	How it affects you Please Circle one
15. Feeling unsure at what you should be doing		0 1 2 3
16. Too busy to spend enough time with a client		0 1 2 3
17. People make conflicting demands of your		0 1 2 3
18. No recognition of your efforts		0 1 2 3
19. Feeling that others have used you		0 1 2 3
20. Taking an unequal share of the workload		0 1 2 3
21. Working with staff who are not competent		0 1 2 3
22. Having to deal with situations for which you have not been trained		0 1 2 3
23. Having too much to do		0 1 2 3
24. Feeling misunderstood by clients		0 1 2 3
25. Feeling "put down" by other staff members		0 1 2 3
26. Unit too noisy		0 1 2 3
27. Having to deal with difficult clients		0 1 2 3
28. Your areas of responsibility not clearly defined		0 1 2 3
29. Feeling others do not appreciate your efforts		0 1 2 3

0 - no distress
1 - slight distress
2 - quite distressing
3 - very distressing

	Number of times per week	How it affects you Please Circle one
30. Staff expect too much of you		0 1 2 3
31. Not being given enough information about clients		0 1 2 3
32. Feeling you should be more assertive		0 1 2 3
33. Feeling inadequate for your work role		0 1 2 3
34. Clients making unreasonable demands		0 1 2 3
35. Inadequate resources available		0 1 2 3
36. Feeling exhausted at the end of the day		0 1 2 3
37. Feeling your knowledge and training are not fully utilized		0 1 2 3
38. Annoyed by clients gossiping about other clients		0 1 2 3
39. Clients ignore your suggestions		0 1 2 3
40. Feeling disorganised		0 1 2 3
41. Feeling distressed because you are unable to help a client		0 1 2 3
42. Needing to have sometime away from people		0 1 2 3
43. Disagreeing with decisions made by other staff		0 1 2 3

0 - no distress
1 - slight distress
2 - quite distressing
3 - very distressing

	Number of times per week	How it affects you Please Circle one
44. No break away from the Unit during the day		0 1 2 3
45. Inadequate support for emotional reactions to work events		0 1 2 3
46. Feeling tense		0 1 2 3
47. Forgetting to pass on messages		0 1 2 3
48. Lack of support from other health professionals.		0 1 2 3

How many days per week do you work in the Family Unit? _____

Thank you for your help.

GAIL RUSSELL
(Researcher).

A.5 Stress Study

A.5 Stress Diary Booklet

PLUNKET-KARITANE FAMILY UNIT RESEARCH PROJECT

A study conducted by a research team

from the Department of Psychology, Massey University

Please complete the General Health Questionnaire, (if included in booklet), on Monday of the week _____ and a Daily Diary for each day you work in the Unit during that week.

The General Health Questionnaire is a standardized measure of general well-being, and should be answered by circling the answer which best describes how you have been in the past few weeks. Please answer all questions.

The Daily Diary contains the most significant items from the Job Satisfaction and Work Pressure Questionnaire, completed recently by Family Units' staff. You are asked to indicate which events occur each day, and how they affect you.

Again, you are asked to answer all questions.

N.B. A Daily Diary page for each day of the week is included, but you need only fill in those days you work in the Unit, and leave the others blank.

The information you give will be absolutely confidential and will not be seen by Plunket staff.

Your name is not required on the questionnaire.

Thank you for your co-operation.

Gail Russell.

General Health Questionnaire Date: _____

We would like to know if you have had any medical complaints, and how your health has been in general, over the past few weeks. Please answer all questions below simply by circling the answer which you think most nearly applies to you. Remember, we want to know about present or recent complaints, not those you had in the past.

1. Have you recently been able to concentrate on whatever you're doing?

Better than usual	Same as usual	Less than usual	Much less than usual

2. Have you recently lost much sleep over worry?

Not at all	No more than usual	Rather more than usual	Much more than usual

3. Have you recently felt that you are playing a useful part in things?

More so than usual	Same as usual	Less useful than usual	Much less useful

4. Have you recently felt capable at making decisions about things?

More so than usual	Same as usual	Less so than usual	Much less capable

5. Have you recently felt constantly under stain?

Not at all	No more than usual	Rather more than usual	Much more than usual

6. Have you recently felt that you couldn't overcome your difficulties?

Not at all	No more than usual	Rather more than usual	Much more than usual

7. Have you recently been able to enjoy your normal day-to-day activities?

More so than usual	Same as usual	Less so than usual	Much less than usual

8. Have you recently been able to face up to your problems?

More so than usual	Same as usual	Less able than usual	Much less able

9. Have you recently been feeling unhappy or depressed?

Not at all	No more than usual	Rather more than usual	Much more than usual

10. Have you recently been losing confidence in yourself?

Not at all	No more than usual	Rather more than usual	Much more than usual

11. Have you recently been thinking of yourself as a worthless person?

Not at all	No more than usual	Rather more than usual	Much more than usual

12. Have you recently been feeling reasonably happy, all things considered

More so than usual	About same as usual	Less so than usual	Much less happy

Daily Diary for _____ Date: _____

Please indicate which events occurred **today**, and how much distress you experienced as a result of the event.

0 - no distress
1 - slight distress
2 - moderate distress
3 - severe distress

Today I felt	Please circle appropriate response	How if affected you Please circle one
1..too busy to spend enough time with a client	No Yes	0 1 2 3
2..exhausted at the end of the day	No Yes	0 1 2 3
3..that some clients had misused the service	No Yes	0 1 2 3
4..the Unit was too noisy	No Yes	0 1 2 3
5..that everyone wanted my attention at the same time	No Yes	0 1 2 3
6..there was an occasion when I should have been more assertive	No Yes	0 1 2 3
7..that a client made unreasonable demands of me	No Yes	0 1 2 3
8..there was not enough time to share information with other staff	No Yes	0 1 2 3
9..a client I had to deal with was difficult	No Yes	0 1 2 3
10.I was interrupted too many times	No Yes	0 1 2 3
11.I needed a break away from the Unit during the day	No Yes	0 1 2 3
12.I did not get the respect my position deserves	No Yes	0 1 2 3
13.tense	No Yes	0 1 2 3
14.a client ignored my suggestions	No Yes	0 1 2 3
15.I needed more support for emotional reactions to work events	No Yes	0 1 2 3

16. Please rate your satisfaction with your working day today (circle one)

very satisfying moderately satisfying slightly satisfying not satisfyi

Daily Diary for _____ Date: _____

Please indicate which events occurred today, and how much distress you experienced as a result of the event.

0 - no distress
1 - slight distress
2 - moderate distress
3 - severe distress

	Please circle appropriate response	How if affecte you Please circle one
Today I felt		
1..too busy to spend enough time with a client	No Yes	0 1 2 3
2..exhausted at the end of the day	No Yes	0 1 2 3
3..that some clients had misused the service	No Yes	0 1 2 3
4..the Unit was too noisy	No Yes	0 1 2 3
5..that everyone wanted my attention at the same time	No Yes	0 1 2 3
6..there was an occasion when I should have been more assertive	No Yes	0 1 2 3
7..that a client made unreasonable demands of me	No Yes	0 1 2 3
8..there was not enough time to share information with other staff	No Yes	0 1 2
9..a client I had to deal with was difficult	No Yes	0 1 2
10.I was interrupted too many times	No Yes	0 1 2
11.I needed a break away from the Unit during the day	No Yes	0 1 2
12.I did not get the respect my position deserves	No Yes	0 1 2
13.tense	No Yes	0 1 2
14.a client ignored my suggestions	No Yes	0 1 2
15.I needed more support for emotional reactions to work events	No Yes	0 1 2

16. Please rate your satisfaction with your working day today (circle one)

very satisfying moderately satisfying slightly satisfying not satisfy

Daily Diary for _____ Date: _____

Please indicate which events occurred **today**, and how much distress you experienced as a result of the event.

0 - no distress
1 - slight distress
2 - moderate distress
3 - severe distress

Today I felt	Please circle appropriate response	How if affected you Please circle one
1..too busy to spend enough time with a client	No Yes	0 1 2 3
2..exhausted at the end of the day	No Yes	0 1 2 3
3..that some clients had misused the service	No Yes	0 1 2 3
4..the Unit was too noisy	No Yes	0 1 2 3
5..that everyone wanted my attention at the same time	No Yes	0 1 2 3
6..there was an occasion when I should have been more assertive	No Yes	0 1 2 3
7..that a client made unreasonable demands of me	No Yes	0 1 2 3
8..there was not enough time to share information with other staff	No Yes	0 1 2 3
9..a client I had to deal with was difficult	No Yes	0 1 2 3
10.I was interrupted too many times	No Yes	0 1 2 3
11.I needed a break away from the Unit during the day	No Yes	0 1 2 3
12.I did not get the respect my position deserves	No Yes	0 1 2 3
13.tense	No Yes	0 1 2 3
14.a client ignored my suggestions	No Yes	0 1 2 3
15.I needed more support for emotional reactions to work events	No Yes	0 1 2 3

16. Please rate your satisfaction with your working day today (circle one)

very satisfying moderately satisfying slightly satisfying not satisfyin

Daily Diary for _____ Date: _____

Please indicate which events occurred today, and how much distress you experienced as a result of the event.

0 - no distress
1 - slight distress
2 - moderate distress
3 - severe distress

Today I felt	Please circle appropriate response	How if affected you Please circle one
1..too busy to spend enough time with a client	No Yes	0 1 2 3
2..exhausted at the end of the day	No Yes	0 1 2 3
3..that some clients had misused the service	No Yes	0 1 2 3
4..the Unit was too noisy	No Yes	0 1 2 3
5..that everyone wanted my attention at the same time	No Yes	0 1 2 3
6..there was an occasion when I should have been more assertive	No Yes	0 1 2 3
7..that a client made unreasonable demands of me	No Yes	0 1 2 3
8..there was not enough time to share information with other staff	No Yes	0 1 2 3
9..a client I had to deal with was difficult	No Yes	0 1 2 3
10.I was interrupted too many times	No Yes	0 1 2 3
11.I needed a break away from the Unit during the day	No Yes	0 1 2 3
12.I did not get the respect my position deserves	No Yes	0 1 2 3
13.tense	No Yes	0 1 2 3
14.a client ignored my suggestions	No Yes	0 1 2 3
15.I needed more support for emotional reactions to work events	No Yes	0 1 2

16. Please rate your satisfaction with your working day today (circle one)

very satisfying moderately satisfying slightly satisfying not satisfyi

Daily Diary for _____ Date: _____

Please indicate which events occurred **today**, and how much distress you experienced as a result of the event.

0 - no distress
1 - slight distress
2 - moderate distress
3 - severe distress

	Please circle appropriate response	How if affected you Please circle one
Today I felt		
1..too busy to spend enough time with a client	No Yes	0 1 2 3
2..exhausted at the end of the day	No Yes	0 1 2 3
3..that some clients had misused the service	No Yes	0 1 2 3
4..the Unit was too noisy	No Yes	0 1 2 3
5..that everyone wanted my attention at the same time	No Yes	0 1 2 3
6..there was an occasion when I should have been more assertive	No Yes	0 1 2 3
7..that a client made unreasonable demands of me	No Yes	0 1 2 3
8..there was not enough time to share information with other staff	No Yes	0 1 2 3
9..a client I had to deal with was difficult	No Yes	0 1 2 3
10.I was interrupted too many times	No Yes	0 1 2 3
11.I needed a break away from the Unit during the day	No Yes	0 1 2 3
12.I did not get the respect my position deserves	No Yes	0 1 2
13.tense	No Yes	0 1 2
14.a client ignored my suggestions	No Yes	0 1 2
15.I needed more support for emotional reactions to work events	No Yes	0 1 2

16. Please rate your satisfaction with your working day today (circle one)

very satisfying moderately satisfying slightly satisfying not satisfy

PLUNKET-KARITANE FAMILY UNIT RESEARCH PROJECT

Name:_____ Date:_____

Instructions.

Listed below are some statements which may or may not describe your own job objectives toward which you are presently working. Please read each statement carefully and then circle the alternative which best describes your degree of agreement or disagreement with the statement. **Please answer all questions.**

1. My boss seldom lets me know how well I am doing on my work toward my work objectives.

strongly agree | moderately agree | slightly agree | neither agree nor disagree | slightly disagree | moderately disagree | strongly disagree

2. My work objectives are very clear and specific; I know exactly what my job is.

strongly agree | moderately agree | slightly agree | neither agree nor disagree | slightly disagree | moderately disagree | strongly disagree

3. I really have litle voice in the formulation of my work objectives.

strongly agree | moderately agree | slightly agree | neither agree nor disagree | slightly disagree | moderately disagree | strongly disagree

4. I think my work objectives are ambiguous and unclear.

strongly agree | moderately agree | slightly agree | neither agree nor disagree | slightly disagree | moderately disagree | strongly disagree

5. I am provided with a great deal of feedback and guidance on the quality of my work.

strongly agree | moderately agree | slightly agree | neither agree nor disagree | slightly disagree | moderately disagree | strongly disagree

6. My work objectives are quite difficult to attain

strongly agree | moderately agree | slightly agree | neither agree nor disagree | slightly disagree | moderately disagree | strongly disagree

7. I understand fully which of my work objectives are more important than others; I have a clear sense of priorities on these goals.

strongly agree	moderately agree	slightly agree	neither agree nor disagree	slightly disagree	moderately disagree	strongly disagree

8. The setting of my work goals is pretty much under my own control.

strongly agree	moderately agree	slightly agree	neither agree nor disagree	slightly disagree	moderately disagree	strongly disagree

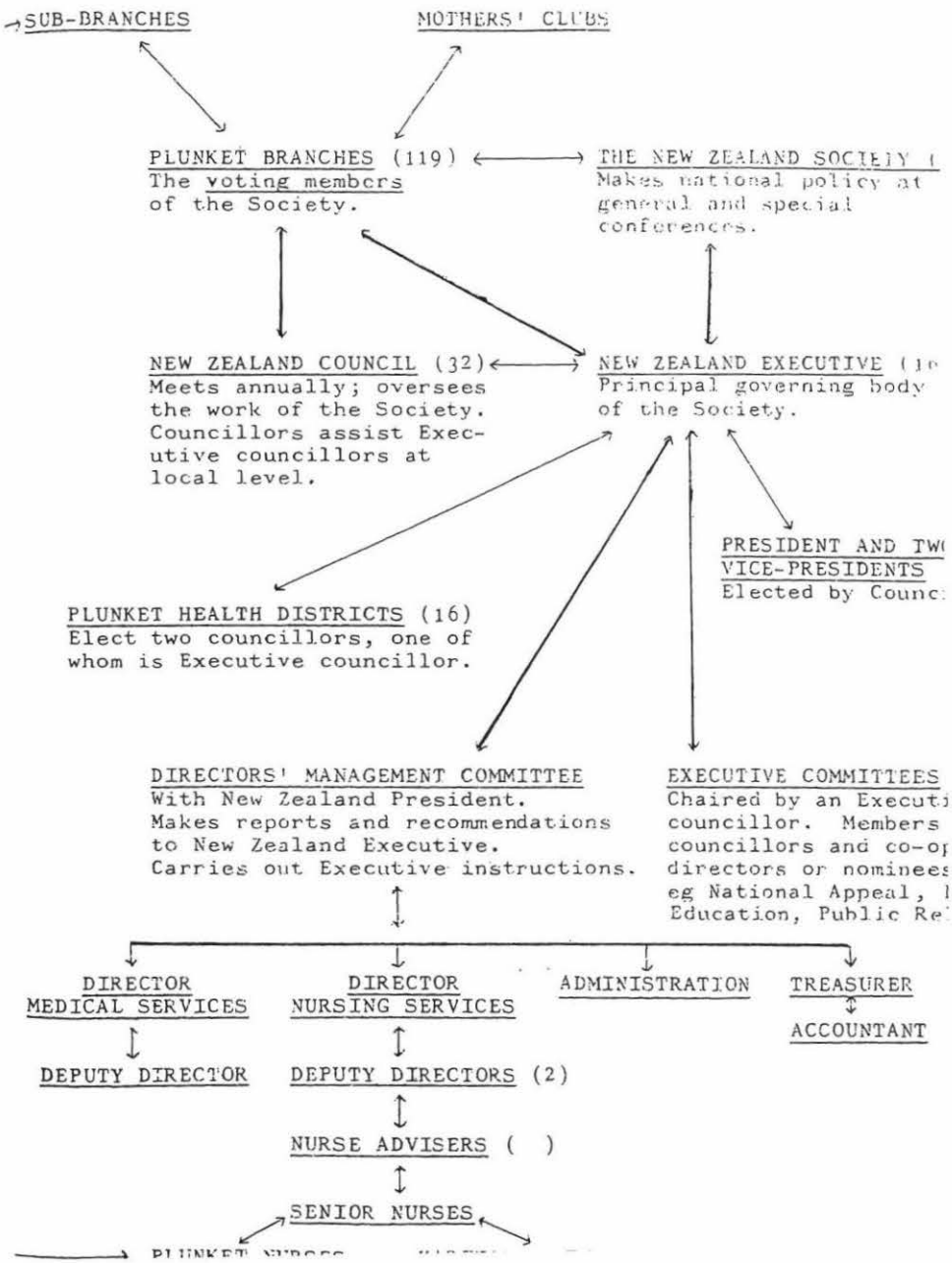
9. I should not have too much difficulty in reaching my work objectives; they appear to be fairly easy.

strongly agree	moderately agree	slightly agree	neither agree nor disagree	slightly disagree	moderately disagree	strongly disagree

APPENDIX B: Supplement to the Results section. I.

B.1 ROYAL NEW ZEALAND PLUNKET SOCIETY

ADMINISTRATIVE STRUCTURE - 1981



Royal New Zealand Plunket Society
INCORPORATED

Telephone 770-110
Telegrams 'Babycare' } Dunedin
472 George Street,

New Zealand Headquarters
P.O. Box 6042,
Dunedin North

B.2 JOB DESCRIPTION

PLUNKET NURSE IN CHARGE OF A KARITANE FAMILY UNIT FIXED

RESPONSIBLE TO: The Regional Nurse Adviser

RESPONSIBLE FOR: The functioning of the Unit in helping parents care for their children.

OUTLINE OF DUTIES AND RESPONSIBILITIES

PARENT SUPPORT

Admitting parents with young children for daily assistance at the Unit.

Assessing and planning to meet the needs of families at the Unit including information on parentcraft, health education, simple nutrition.

Delegation of nursing actions related to level of expertise.

Referring to other agencies as required
e.g. Budget Advisory Service
Marriage Guidance Council
Family Planning Association

Preparing, supervising the preparation of; light meals including cookery demonstrations as needed.

Answering telephone queries on parentcraft.

Organising social mornings and planning open days to publicise the work of the Unit as and when required.

Arranging follow-up home visits when appropriate.

...2

Job description Plunket Nurse in charge of a Plunket Karitane Family Unit Fixed.

SUPERVISION

Supervising Karitanes caring for children and assisting parents in the Unit.

Promoting voluntary assistance within the Unit including rosters for transporting families to the Unit.

Supervising and conducting playgroups.

Ensuring safe practices in the Unit including children under the supervision of parent or Karitane at all times.

Ensuring general maintenance of the Unit, e.g. Cleaning, lawn, garden, equipment in good repair.

Facilitate learning experience for students.

COMMUNICATION AND RECORDS

Meeting regularly with local Plunket Nurses to maintain liais in nursing care planning.

In consultation with Nurse Adviser, convene monthly meetings of local Plunket Nurses with visiting specialist paediatricia

Meet regularly with the Unit Committee.

Informing the Unit committee of safety requirements to be met e.g. screen, fencing.

Maintaining concise records of families helped at the Unit

a. Age of parent
b. Number and ages of children
c. Referred by
d. Reasons for admission
e. Duration of stay
f. Outcome

A monthly report on the work of the Unit to Director of Nursi Services. Include in the monthly report those unable to be helped and why.

Copies to: Unit Management Committee
Regional Nurse Adviser

Annual report to 31 March to Director of Nursing Services by the end of April each year.

Anne Cressey
DIRECTOR OF NURSING SERVICES

Royal New Zealand Plunket Society
INCORPORATED

B.3 JOB DESCRIPTION — KARITANE NURSE

FIXED FAMILY UNIT

RESPONSIBLE TO: The Plunket Nurse in charge of the Unit.

RESPONSIBLE FOR: Helping mothers to care for their children and teaching mothers who need help with -

Basic child care routines and related activities.

Preparing milk mixtures.

Sterilizing bottles and teats.

Supervising play activities for toddlers and pre-school children in the Unit.

Sharing the care of children to enable the mother to get "relief" by resting.

Attending to children's nutritional needs:

- Observing feeding patterns
- Preparing milk mixtures and simple meals
- Help with feeding young children and supervising at meal times

Generally attending to older children so that mothers have more time with their babies.

Teaching simple mothercraft by example.

Undertaking tasks as directed by the Plunket Nurse in charge.

Referring to the Plunket Nurse, any situation or problem which is beyond the scope of the Karitane's training and experience.

Contribute to maintenance of confidentiality within the Unit.

Anne Cressey
Director of Nursing Services

B.4 AIMS AND OBJECTS OF THE SOCIETY

To uphold the sacredness of the body and the duty of health; to inculcate a lofty view of the responsibilities of maternity and the duty of every mother to fit herself for the perfect fulfilment of the natural calls of motherhood, both before and after childbirth; and especially to advocate and promote the breast-feeding of infants.

To acquire accurate information and knowledge on matters affecting the health of women and children, and to disseminate such knowledge through the agency of its members, nurses and others by means of the natural handing-on from one recipient or beneficiary to another, and the use of such agencies as periodical meetings at members' houses or elsewhere, demonstrations, lectures, correspondence, newspaper articles, radio talks, pamphlets, books and otherwise.

To employ qualified nurses to be called Plunket Nurses, whose duty it will be to give sound, reliable instructions, advice and assistance gratis to any member of the community desiring such services on matters affecting the health and well-being of their children, and also to endeavour to educate and help parents and others in a practical way in domestic hygiene in general, all these things being done with a view to conserving the health and strength of the rising generation, and rendering both mother and off-spring hardy, healthy and resistive to disease.

To improve the health and well-being of New Zealand parents and their children, with special reference to mothers, both before and after childbirth, and to children up to school age.

To promote the qualities of stable and integrated family life.

(Source: Policy Statements on Guidelines for Branches.
Royal N.Z. Plunket Society (Inc.))

APPENDIX C: Supplement to the Results section. II

1. Rationale for the choice of statistical procedures.

2. Means and standard deviations of ratings on the three dimensions of the Job Satisfaction and Work Pressures Questionnaire.

C.1 Rationale for the choice of statistical procedures

Most of the data obtained in the present study was descriptive and therefore percentages, means and standard deviations were considered the most appropriate way to present the information in a clear and economical manner.

Some results were analysed using t-test for independent samples. t-tests were indicated as the most appropriate level of analysis because the small sample size precluded more sophisticated analysis of variance.

C.2. Means and (standard deviations) of ratings on the three dimensions of the Job Satisfaction and Work Pressures Questionnaire. (n = 24)

Relevancy	Frequency	Intensity
*1. Not enough time to share information with other staff		
1.1667 (1.1426)	1.2941 (1.225)	1.4167 (0.9345)
2. Not consulted about decisions affecting you		
0.9583 (1.0985)	1.0000 (1.3693)	1.0417 (1.1358)
*3. Feeling clients misuse the service		
1.125 (0.8323)	1.0625 (0.9662)	1.0435 (0.9079)
4. Having to make decisions beyond your level of knowledge		
0.7083 (1.1357)	0.4286 (0.4949)	0.5833 (0.8122)
5. Asked to do unnecessary tasks		
0.6250 (0.8569)	0.9333 (1.3400)	0.5833 (0.9091)
6. Staff not working together as a team		
0.9583 (1.1719)	1.0000 (1.7974)	0.7917 (1.0793)
7. Feeling that parents have sabotaged your treatment efforts		
1.2174 (0.8318)	1.3571 (1.4446)	0.9545 (0.9282)
8. Not sure what is expected of you		
0.8333 (0.9860)	0.3571 (0.6103)	0.7500 (0.9242)
*9. Feeling everyone wants your attention at the same time		
1.5000 (1.0408)	3.2000 (4.8881)	1.3913 (0.9203)
*10. Having too many interuptions		
1.5000 (1.1547)	4.0000 (4.6369)	1.5000 (1.1180)
*11. Feeling that you do not get the respect your position deserves		
1.1304 (1.2267)	1.9231 (2.1290)	1.0417 (1.1719)
12. Feeling uninformed about work related matters		
0.9583 (0.9780)	0.7500 (0.7500)	1.0000 (1.0000)
13. Having too little to do		
0.2917 (0.5384)	0.3571 (0.6103)	0.2500 (0.6614)
14. Feeling misunderstood by colleagues		
0.4167 (0.7592)	0.5333 (0.8844)	0.5833 (0.7592)
15. Feeling unsure of what you should be doing		
0.4167 (0.6400)	0.5000 (1.0522)	0.7917 (1.0400)
*16. Too busy to spend enough time with a client		
1.6667 (1.0672)	2.4706 (1.4600)	1.6667 (0.8498)
17. People make conflicting demands of you		
1.0417 (1.0198)	0.7692 (0.7994)	1.0000 (1.0408)
18. No recognition of your efforts		
0.8750 (1.0129)	1.6923 (2.0897)	0.7500 (0.8780)
19. Feeling that others have used you		
0.8750 (0.8809)	0.7143 (0.6999)	0.8333 (0.7993)
20. Taking an unequal share of the workload		
0.6522 (1.0878)	0.2500 (0.5915)	0.5417 (0.8154)
21. Working with staff who are not competent		
0.6956 (1.0398)	1.0769 (1.4916)	0.8750 (1.0920)
22. Having to deal with situations for which you have not been trained		
1.0000 (1.1547)	0.8667 (1.3098)	0.9167 (0.9966)
*23. Having too much to do		
1.2083 (1.1895)	1.7333 (1.8427)	1.5417 (1.1540)

24. Feeling misunderstood by clients
0.9167 (0.9965) 0.8667 (0.8055) 0.8696 (0.6792)

25. Feeling "put down" by other staff members
0.6250 (1.0729) 0.3333 (0.6236) 0.667 (1.0672)

*26. Unit too noisy
1.1667 (1.0672) 2.3846 (2.6758) 1.1304 (1.0756)

*27. Having to deal with difficult clients
1.7917 (0.9565) 1.4615 (0.8427) 1.7083 (0.9781)

28. Your areas of responsibility not clearly defined
1.0417 (1.2741) 0.2308 (0.5756) 0.5833 (0.9538)

29. Feeling others do not appreciate your efforts
0.8333 (0.9860) 1.0833 (1.6562) 0.6667 (0.7994)

30. Staff expect too much of you
0.7083 (1.0598) 1.0770 (1.4391) 0.7273 (0.7497)

31. Not being given enough information about clients
0.8750 (1.0921) 1.2308 (1.6245) 1.0870 (1.0597)

*32. Feeling you should be more assertive
1.2500 (1.0104) 1.6000 (1.4048) 1.0833 (0.8620)

33. Feeling inadequate for your work role
0.3750 (0.6333) 0.5455 (0.7820) 0.4583 (0.7626)

*34. Clients making unreasonable demands
1.1667 (0.9428) 1.3333 (1.2996) 1.0436 (0.6902)

35. Inadequate resources available
0.9167 (0.9965) 1.4286 (1.8790) 0.7917 (0.9119)

*36. Feeling exhausted at the end of the day
1.9583 (0.9345) 1.8667 (1.3098) 1.8750 (0.8323)

37. Feeling your knowledge and training are not fully utilized
1.1250 (0.9709) 1.0667 (1.1235) 0.9130 (0.9284)

38. Annoyed by clients gossiping about other clients
1.2917 (1.1358) 0.8571 (1.0595) 1.0000 (0.8847)

*39. Clients ignore your suggestions
1.3333 (1.0672) 2.7143 (2.5475) 1.3043 (0.8041)

40. Feeling disorganised
0.5417 (0.8154) 1.0769 (0.8285) 0.7391 (0.7922)

41. Feeling distressed because you are unable to help a client
1.2917 (1.0198) 0.9286 (0.7035) 1.4348 (0.8761)

*42. Needing to have some time away from people
2.0870 (0.8804) 2.7143 (1.9060) 1.3478 (0.8134)

43. Disagreeing with decisions made by other staff
0.9583 (0.9345) 1.3333 (1.3123) 0.9565 (1.0417)

*44. No break away from the Unit during the day
1.5417 (1.1895) 2.3125 (1.7930) 1.4167 (1.0375)

*45. Inadequate support for emotional reactions to work events
1.4167 (1.2555) 1.1429 (1.7670) 1.2500 (1.2332)

*46. Feeling tense
1.4167 (1.0769) 1.8125 (0.7262) 1.5000 (0.8660)

47. Forgetting to pass on messages
1.0000 (1.0408) 0.8182 (0.5750) 0.7083 (0.7895)

48. Lack of support from other health professionals
0.8750 (1.1296) 0.1000 (0.3000) 0.5833 (0.8122)

* denotes items meeting inclusion criteria for Daily Diary

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