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# Medical Psychology in New Zealand

Malcolm W. Stewart[1]

This paper describes medical psychology and health psychology in New Zealand, particularly in relation to psychologists teaching in medical schools, psychologists working in general medical settings, and health psychologists. It identifies a reasonably slow but continuing consolidation of the discipline, particularly from a research perspective, but also with therapeutic initiatives in the public and private health sector. The potential for increased activity in health promotion and increased psychological analysis and influence in the health system is identified.

**KEY WORDS:** health psychology; medical psychology; medical schools; New Zealand.

## INTRODUCTION

This paper presents a view of the current status and practice of medical and health psychology in New Zealand. New Zealand and the New Zealand health system are briefly introduced, then psychology in New Zealand is discussed, followed by a focus on three particular areas related to medical psychology: (a) psychologists teaching in medical schools, (b) psychologists working in general medical (as opposed to mental health) settings, and (c) health psychologists.

## DESCRIPTION OF NEW ZEALAND

New Zealand is an island nation of approximately 268,000 square kilometers situated in the South Pacific Ocean. It has a population of approximately 3.8 million people, of whom 85% live in urban centers. New Zealand has an ethnically diverse population, with 58.5% of the population identifying themselves as New Zealand born people of European descent, 14.5% New Zealand Maori, 13.2% Europeans not born in New Zealand, 4.8% Pacific Islanders, and 4.4% Asians (Statistics New Zealand, 2000). The average life expectancy is 80 years for females and 74 years for males (Statistics New Zealand, 2000). The average life expectancy for Maori and Pacific Island peoples is significantly less than that for the whole nation. The major causes of death are diseases of the circulatory system (329/100,000), malignant neoplasms (204/100,000), and diseases of the respiratory system (78/100,000).

New Zealand has a Westminster style democratic system of government, with elections for representatives in a single house of parliament held every 3 years. The economy is relatively diversified with a strong base of primary production (agriculture, horticulture, and forestry), and diversified industrial and service sectors. The average household size is 2.7 people, and the average household income is approximately $NZ46,000 ($US22,000). New Zealand has a strong tradition of central government provision of health, education, and social welfare service. Education in New Zealand starts at age 5 and is compulsory until 15 years of age.

## THE NEW ZEALAND HEALTH SYSTEM

The New Zealand health system involves a mix of public and private services. The backbone of the New Zealand health system is provided by family doctors (General Practitioners [GPs]) who provide a comprehensive first-line healthcare service and typically act as gatekeepers for access to specialist services (i.e., referral to a medical specialist is usually achieved via

[1]Practitioner Development Unit & Health Psychology, Faculty of Medical and Health Science, University of Auckland, Private Bag 92019, Auckland, New Zealand; e-mail: malcolmst@ahsl.co.nz.



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a GP). GPs are self-employed or employed as part of independent healthcare provision organizations, but receive a substantial proportion of their income in the form of subsidies from the central government on a fee-for-service basis. The level of subsidies varies depending on the client group. For example, consultations with children under six are fully subsidized. Consultations with people with limited incomes or conditions that make them high users of the health system are also subsidized to help make adequate health care affordable.

The public health system offers a comprehensive range of specialist and hospital services that are generally universally available, although resource limitations mean that there may be a delay in gaining access to the services. Users of public services pay a part-charge for these services, with reduced charges for children, people on low incomes, and high service users. In recent years, there has been a significant expansion in private sector provision of health services. Access to private services is dependent on the ability to pay, either out-of-pocket or by health insurance.

Mental health services in New Zealand are provided through a mix of public and private providers, but are primarily funded by central government. Core services are provided through publicly funded community mental health centers and inpatient facilities. The majority of psychiatric services are provided through this system. A substantial proportion of publicly funded clinical psychological mental health services is provided through this system as well. A range of other services, including community support workers, residential providers, respite services, and some therapeutic facilities are provided by private and Non-Government Organization (NGO) providers, often with at least partial public funding. A small but growing number of psychiatrists and a larger number of registered psychologists work at least part-time in private practice.

A mix of public and private providers, principally funded through the central government funding agencies, also undertakes health promotion activities. In the early 1990s, a separate organization, The Public Health Commission, was established to purchase population-based public health services, but this organization was disbanded after a few years, and responsibility for this function was returned to the other health funding authorities. As in many societies, health promotion and illness prevention activities account for a very small percentage of health spending (Bandaranyake, 1994).

In recent years, a partial parallel system of distinct Maori general and mental health care provision has developed. This has arisen because the recognition that the poorer general and mental health statistics for Maori people may indicate that the generic system does not meet their needs well, and the belief that Maori health care can most effectively be delivered through a system that is managed and staffed by Maori people and which has Maori cultural norms and practices. Some services, such as *Raukura Hauora o Tainui* (Health Service of the People of Tainui) and *Ngati Porou Hauora* (Health Service of the People of Ngati Porou) strive to offer a comprehensive, culturally appropriate service of primary health care, counseling, community mental health care, and health promotion activities to Maori people in the region of the country that was the traditional area for that tribe. Other services, such as Manawanui Mental Health Service in Auckland City, are separate services within the generic health system that are based on Maori cultural norms and practices and serve Maori clients. In general, secondary services (specialist services and hospital services) are provided through the generic health system. To date registered psychologists have tended to have relatively little input into these Maori services. Assistance from traditional Maori healing methods, which involve a variety of physical, medicinal, psychosocial, and spiritual components of cure and are often delivered by elders or *Tohunga* (identified healers), are also commonly sought by Maori people (Durie, 1994).

In New Zealand, expenditure on health amounts to 7.6% of Gross Domestic Product (GDP), which is at the median for spending in OECD countries. The United States of America spends 14% of GDP on health and the United Kingdom spends 6.7% (1997 figures: Ministry of Health, 1999). Seventy-seven percent of health expenditure in New Zealand comes from public sources and 23% from private sources (1998 figures: Ministry of Health, 1999). Of the 77% of public health expenditure, most comes directly from central government, and 5.3% comes from the Accident Rehabilitation and Compensation Insurance Corporation (ACC), a government-owned agency that funds health care, disability support services, and income support for employed and unemployed people who sustain work-related or non–work-related injuries. The ACC is funded by mandatory contributions from the employer, workers, and from car registration fees.

Public funds are used to purchase services from both public and private service providers. A "service

provider" may vary in scale from an individual health professional, through a substantial private hospital, up to one or more of the 23 geographically defined public health systems (currently called HHSs, Hospital and Health Services). A service provider may also be public, private, or not-for-profit organizations providing health services, social services related to health, or public heath initiatives on a local or national scale. The purchasing process is typically based on a contract for a defined type and amount of a service, offered in a competitive process. Competition has been engendered in some areas of service provision but not others. Competition is sometimes limited by the availability of service providers and by the complexity of health needs. The degree of specificity of outputs defined by contracts varies widely.

Private expenditure on health accounts for approximately 23% of total expenditure. Private household (i.e., "out-of-pocket") expenditure accounts for 16% of total expenditure (1998 figures: Ministry of Health, 1999). Health insurance plays a relatively small role in the New Zealand health system. Although 37% of New Zealanders are covered by health insurance, expenditures by health insurance companies accounts for just over 6% of total expenditures. The proportion with health insurance has decreased slightly in the last few years. Private expenditure on clinical psychological services is primarily out-of-pocket. Private health insurance policies typically offer no provision or a relatively meager provision for treatment by a psychologist.

## PSYCHOLOGISTS IN THE NEW ZEALAND HEALTH SYSTEM

There are approximately 1,042 active registered (licensed) psychologists in New Zealand, equating to approximately one registered psychologist per 3,700 people. New Zealand has one physician per 441 persons (New Zealand Health Information Service, 2000a). Thus, there is approximately one psychologist per eight physicians in New Zealand. In a 1999 Health Workforce Survey of registered psychologists (New Zealand Health Information Services, 2000b: response rate = 59%), 64% of respondents were female, 91% were of European descent (79% New Zealand born, 12% non-New Zealand born), 3.5% were Maori, and 1% were of Chinese descent (New Zealand Health Information Services, 2000b). This indicates that people of European descent are overrepresented, and minority groups are underrepresented among psychologists compared to the general population.

Psychologists working clinically in New Zealand work in the public service, in private practice, and to a smaller extent, in NGOs. In 1999, for registered psychologists offering clinical services, 44% of their work settings were in the public health system and 36% were in private practice. Two percent of their work settings were in voluntary agencies, 4% were in universities or polytechnics, and 13% were in government agencies other than health services. Of all registered psychologists offering clinical psychology, rehabilitation, counseling, or psychotherapy services 31% of their work settings were in the public health system and 46% were in private practice. Nine percent of their work settings were with voluntary agencies. The ACC also funds some psychological services, most notably neuropsychological assessment and rehabilitation, and therapy associated with sexual abuse.

Until approximately 10 years ago, psychologists in the public health system tended to be based in psychology departments and provide services from that department. However, the dominant model of service delivery now is the multidisciplinary team, and most psychologists in the public health system tend to work within such teams, either in mental health or in general health settings. This has probably improved the integration of psychological components with other components of service (Stewart, Shea, & Woodward, 1999). It has left the potential for loss of a sense of professional identity for clinical psychologists in the public health system. Partly in response to this, many of the HHSs have appointed psychologists to act as Psychology Advisor or Professional Leader-Psychology. The Psychology Advisors often provide opportunities for intradisciplinary contact and integration, develop processes for professional development and standards, and provide psychological input into management processes.

Apart from the provision of clinical services, the role of psychologists within multidisciplinary teams varies widely. Some psychologists take formal leadership roles, such as service manager, team leader, or membership on a clinical management committee. Psychologists are often involved in the clinical supervision of members of other disciplines. Psychologists also assume a range of informal leadership roles within teams. It has been notable that psychologists working clinically in the public health system in New Zealand have, in general, not also worked at "a system level" by applying their training in research skills and analysis to advocate and facilitate improvements to the organizations they work in and broader community groups.

The relationship of psychologists and other health disciplines varies widely, depending on particular clinicians and teams. A survey of the nonpsychologist colleagues of psychologists in the public health system (including mental health) in South Auckland (Stewart & Trenberth, 1993) indicated that 90% of the colleagues regarded the therapeutic effectiveness of psychologists as good or very good. Areas of psychologist activity that were frequently rated as very useful were therapeutic activity, neuropsychological testing, liaison activities, training other professions, service evaluation, and administrative activities. Colleagues commonly wanted to see increased provision of many aspects of psychological service, but particularly requested more training of other disciplines, providing group and family therapy, joint therapy with other workers, provision of supervision, and the development of therapeutic programs. Similarly, favorable results were obtained with a similar survey in the Waikato region (Stewart, 1995). These results indicate substantial respect for the contribution psychologists make and an acceptance of psychologists being involved in a range of activities including training and supervising other staff.

In many health services, the medical model remains the dominant paradigm, although often informed and modified by psychosocial inputs from disciplines such as psychology, occupational therapy, and social work. Psychologists report varying amounts of ease or unease about working within settings with a dominant medical paradigm. As psychologists work somewhat outside the dominant paradigm, they often enjoy both the costs and the benefits of being partly "outsiders." This may be particularly the case outside of mental health, where there is a shorter history of involvement of psychologists and thus fewer entrenched ideas about their role and status. Although some evidence indicates that a relatively flat disciplinary hierarchy assists service success in mental health centers (Stewart et al., 1999), the hierarchical nature of teams varies widely.

Psychologists do not currently have any medication prescribing rights. Limited prescribing rights are accorded to some other New Zealand health professions, for example, midwives and dentists. Some discussion about prescribing rights for psychologists has been held within the profession, but it is unlikely that decisions or action by the government will occur on this matter in the near future.

A significant issue for psychologists working in the New Zealand health system is how psychologists can meet the needs of the indigenous Maori population. The document often considered the founding document of modern New Zealand, the Treaty of Waitangi, which was signed in 1840 between representatives of Maori and representatives of the British Queen, guarantees Maori autonomy and self-determination in the context of partnership. This guarantee places on the government and people of New Zealand the responsibility to support autonomy by enabling access to health-related resources and by supporting Maori initiatives in health (Love & Whittaker, 1997). Maori health statistics are broadly worse than the population average for New Zealand, and many believe this is at least partially because of the health services in New Zealand not being responsive to the cultural framework, optimal delivery style, and health needs of Maori (Te Puni Kokiri, 1994). Similar issues are evident for other cultural groups, such as people from the Pacific Islands who make up 4.8% of the population. It behooves psychologists to be responsive to this need, but as with other nonwestern cultures, some argue that western-oriented methods of psychological practice are not appropriate for Maori people (Hirini, 1997). Research by Abbott and Durie (1987) indicated that professional psychology training was lagging behind disciplines such as social work and medicine in adopting a bicultural perspective. McCreanor (1993), as part of an important series of articles on bicultural issues in New Zealand (Cram & Nairn, 1993), discussed processes that contributed to psychology's slow response to the need for biculturalism. Maori are currently underrepresented in the psychological workforce by a factor of 4 (New Zealand Health Information Service, 2000b), but efforts are underway to address these concerns (e.g., Herbert, 1998) and the number of Maori students in clinical psychology training programs has risen markedly in recent years.

## THE TRAINING OF PSYCHOLOGISTS IN NEW ZEALAND

Students who enter university have typically had 13 years of education prior to entry. The typical progression of university qualifications is a 3–4-year bachelor's degree, often followed by an honors year, then a master's taking a minimum of 2 years, and then a doctoral degree. A master's degree typically involves course work and a thesis reporting on a piece of original research. The doctoral degree is based on the English model, typically consisting of no coursework, but a substantial thesis reporting a larger body of original research. Approximately 13% of registered

psychologists in New Zealand hold doctoral degrees, and the majority of the rest have master's degrees with additional clinical training as described in the following paragraph.

All the eight major universities in New Zealand are public institutions. Six universities have psychology departments offering postgraduate training in clinical psychology. Clinical psychology evolved as a separate area of teaching in the late 1950s and developed increasing momentum throughout the 1960s (Shouksmith, 1997). Consistent with this time, most programs developed a strong focus on the scientist–practitioner model and adopted behavior therapy, and later cognitive behavior therapy, as the basic training model. The University of Auckland program tends to have a more systems therapy approach, with an emphasis on narrative therapy. All courses tend to offer a broad-based general training, with the expectation that people will specialize after graduation with their clinical qualification.

The main qualification in clinical psychology in New Zealand has been the Post-Graduate Diploma in Clinical Psychology (P.G.Dip.Clin.Psych.), which involves at least 3 years of study after the bachelor's degree and is done either concurrently or subsequent to completion of a master's or doctoral degree. A typical model for the P.G.Dip.Clin.Psych. course is extensive coursework with increasing clinical contact in the first 2 years, and a third year that consists of a near-full-time clinical internship with some final coursework. However, there is some variation in this pattern between different programs. The P.G.Dip.Clin.Psych. cannot be awarded until the academic degree (master's or Ph.D.) is completed. In early 2000, the establishment of a doctoral degree in Clinical Psychology was approved for one university (University of Auckland), and other universities may follow this lead.

A range of other postgraduate training programs that may prepare psychologists to work in health settings also exist in New Zealand. Massey University and the University of Auckland both offer master's degrees in Health Psychology. Graduates of these programs have primarily gone into research, academic, and health promotion activities. The University of Auckland is developing a postgraduate diploma in health psychology to prepare health psychologists to work in more clinical settings. Several universities offer masters-level programs in counseling or psychotherapy, typically through departments other than psychology (e.g., the Education department). One university (University of Waikato, Hamilton) offers a Diploma of Community Psychology, from which some graduates work in health promotion, healthcare system analysis, and other health-related activities (Robertson, Thomas, Dehar, & Blaxall, 1989).

Continuing education for psychologists has not been formerly assessed or mandated in the past, but efforts are currently underway to develop an accreditation system for continuing education activities and possibly to set minimum requirements of continuing educational activities for practicing psychologists. Participation in ongoing clinical supervision is widely recognized as essential for practicing psychologists, and involvement in regular supervision is mandated for membership in the New Zealand College of Clinical Psychologists, and may be required by the new Clinical Institute of the New Zealand Psychological Society.

## LICENSING OF PSYCHOLOGISTS

In New Zealand, the use of the term "psychologist" is not protected, but the term "registered psychologist" is protected by law, and registration is generally considered the principal benchmark criteria for employment as a psychologist in publicly funded clinical and health services, and for representing oneself as a psychologist working in a clinical area in private practice. Registration is controlled by the Psychologists Registration Board, which acts under the auspices of the Ministry of Health of the central government. To be eligible for registration, a psychologist must have one of the following New Zealand qualifications: (a) a postgraduate diploma (which is undertaken concurrently or subsequent to a master's or Ph.D. degree) in psychology, or a master's degree (Applied) in clinical or community psychology; (b) a master's degree or doctorate in psychology and at least 1 year full-time practice of psychology under supervision approved by the Registration Board; (c) a bachelor's with honors degree in psychology and years of full-time practice (Psychologists Act, 1981). The Psychologists Registration Board also evaluates the qualifications and experience of overseas-trained psychologists who wish to practice in New Zealand, and may choose to directly register them, or register them with conditions such as further supervision (Psychologists Act, 1981).

An ongoing issue in New Zealand has been the need perceived by some for a "two-tiered" registration system, where registration also specifies the area of psychology in which the individual is qualified to practice (e.g., clinical psychology,

educational psychology). Although the new government has indicated that review of occupational legislation such as the Psychologists Act is a priority (Psychologists Board, 2000), recent governments have shown little interest in reviewing the acts, and such review may not lead to two-tiered registration.

The Psychologists Registration Board runs complaints and disciplinary processes and has the power to revoke registration and fine offenders (Psychologists Act, 1981). All registered psychologists are bound by the code of ethics originally developed by the New Zealand Psychological Society (NZPS), and currently being revised by the NZPS and the New Zealand College of Clinical Psychologists (NZCCP). The NZPS and NZCCP also operate complaints and disciplinary processes. Complaints against psychologists can also be made to the Health and Disability Commissioner, who may make a separate investigation.

## REPRESENTATION OF PSYCHOLOGISTS

Psychologists in New Zealand are represented by a variety of organizations. The NZPS, established in 1947, has a broad base of academic and clinical membership and carries out activities including holding annual conferences, production of journals and news bulletins, lobbying government, public profile activities, and development of policy for psychologists, including ethics codes. The NZCCP, whose membership is restricted to people with a recognized qualification in clinical psychology, carries out a similar range of activities. The NZCCP was established in the early 1990s, following concerns from some clinicians as to the extent to which the NZPS was responsive to the issues facing clinicians and dissatisfaction with the clinical division of the NZPS. Since that time there have been talks aimed at getting the organizations working together. However, to date, little headway has been made, and the recent establishment of the Institute of Clinical Psychology within the NZPS may solidify the division.

Many psychologists would identify their major source of professional support and contact as being with other more specialist groups, such as the New Zealand Pain Society, the Head Injury Society, or groups associated with particular forms of therapy.

## PSYCHOLOGY IN MEDICAL SCHOOLS

Two universities (the University of Auckland and the University of Otago) have medical schools. Undergraduate medical training is undertaken on the home campuses of these universities in Auckland and Dunedin. Advanced training is also undertaken on campuses in Hamilton (for the University of Auckland), and in Wellington and Christchurch (for the University of Otago). Behavioral sciences have been taught by psychologists in these medical schools since the 1970s (Winefield, 1977). In the mid-1970s, students at the Auckland School of Medicine received 324 hours of behavioral sciences teaching in preclinical years. The number of behavioral sciences contact hours has dropped over the years, but the teaching of behavioral sciences is still a strong presence, with teaching in psychology, communication skills, health psychology, drug and alcohol studies, and professional issues being frequent components of psychological input with student doctors.

Preliminary results from a survey undertaken for this paper indicated that there are approximately 24 psychologists working in New Zealand medical schools. Most of these psychologists hold Ph.D.'s, approximately 50% hold Clinical Diplomas, and approximately 50% are registered. Most are involved in teaching and research, but only 30% were involved in substantial clinical work. There was a trend for a small increase in the numbers of psychologists working in medical schools in New Zealand over the last few years. Approximately 50% of these psychologists considered themselves to be health psychologists. Medical psychology and health psychology-related topics were common amongst the research interests of these psychologists, including topics such as illness perception (e.g., Moss-Morris & Petrie, 1997), psychoneuroimmunology (e.g., Petrie, Booth, Elder, & Cameron, 1999), neuropsychology (e.g., Ivory, Knight, Longmore, & Caradoc-Davies, 1999; Peace, Orme, Padayatty, Godfrey, & Belchetz, 1998), chronic illness (e.g., Kendall, 1999), cancer management (Beaver et al., 1996), violence prevention (e.g., Fanslow, Norton, Robinson, & Spinola, 1998), injury prevention (Chalmers & Langley, 1999; Langlois, Norton, Campbell, & Leveille, 1999), and health promotion (e.g., Raeburn & Rootman, 1997).

## PSYCHOLOGISTS WORKING IN GENERAL MEDICAL SETTINGS

The biopsychosocial model widely utilized within medicine provides a strong rationale for the involvement of psychological therapy in medical settings, and the success of psychological interventions for

various problems should encourage service managers to enlist the services of psychologists. To assess the extent to which this was occurring, a survey of the Psychology Advisors of a representative sample of HHSs (the public health system) was undertaken to study their utilization of psychologists. A low response rate means the results should be considered tentative, but preliminary results indicated that 79% of these psychologists held clinical diplomas, and all were either registered or seeking registration. Approximately 20% of psychologists working in HHSs worked in general medical settings. The most common areas for these psychologists to be deployed were pediatrics/child development, neurology/neuropsychology, medical rehabilitation, pain management clinic, cardiology, and services for women. There was a wide variability (0%–30%) between different HHSs in the percentage of psychologists) in general medical settings. No explanation for this variability was evident from the data at hand. There had been a 51% increase over the last 5 years in psychologist input in the HHS. Although there had been some increase in psychologist input in general medical areas, the rate of increase (21%) was substantially slower than that for psychologists in the mental health sector. Areas of most growth were pediatrics, neuropsychology, pain, and cardiology. Very few of the psychologists (<4%) were actively involved in research related to medical or health psychology.

In addition to psychologists working clinically in general medical settings, the activity of educators and research psychologists in these settings was of interest in this paper. Preliminary data from a survey of University Psychology departments indicated a reasonably high level of teaching and research related to medical psychology and health psychology. Neuropsychology was widely taught at both undergraduate and postgraduate levels. Health psychology tended to be taught in the latter years of the undergraduate program or in postgraduate courses. Approximately 20% of academic staff were reported as having active research interests related to medical psychology or health psychology. However, this figure may have been inflated as the nonresponders in this survey were the universities with a lower profile in health psychology. The areas in which most research activity was reported were neuropsychology, rehabilitation, women's health, HIV/AIDS, and cardiology. There had been about a 15% growth in academic staff in the last 5 years, and almost half of this growth was for new positions related to medical or health psychology.

These results suggest that there is substantial and growing activity from psychologists in medical settings. There is also a growing diversity in the settings in which psychologists are being deployed. For example, psychologists have become established in areas such as genetic counseling. There continues to be some growth in some of the more traditional areas that psychologists have been involved in, such as neuropsychological testing and pain management.

## HEALTH PSYCHOLOGY IN NEW ZEALAND

There has been a substantial growth in interest in health psychology in the last 10 years. Fox (1990) described the state of health psychology in New Zealand in 1990 as "unintegrated" and "underdeveloped," but indicated that there was substantial interest in this area. By 1993, a survey of health psychology and behavioral medicine activities was suggestive of significant activity in this area (Carlson, Smith, & Sheppard, 1993). Carlson et al. (1993) sampled 678 psychologists in New Zealand, requesting responses from psychologists who regarded themselves as actively involved in the area of behavioral medicine or health psychology. Their response rate of 18% indicated that at least that percentage of psychologists perceived themselves to be active in this area. Of these respondents, approximately 48% were in private practice, 16% were in University Psychology departments, and 12% worked in general hospitals. Approximately 5% reported working in community mental health centers, and another 5% reported working in psychiatric hospitals. The most common research interests in this sample were children, stress, and pain. The sample reported an average of 2.6 publications in the behavioral medicine/health psychology area, with wide variability of rates (from 0 to 38). These figures were, in general, comparable with a survey undertaken in Australia at about the same time (Carlson et al., 1993).

The development of health psychology as a distinct entity has been slow but steady since then. The first national health psychology conference was convened in 1994 and has been held annually since. The New Zealand Health Psychology Society was established in 1996 and now has approximately 60 members (Spicer, 1999). Substantial research activity in health psychology is evident in New Zealand. Chamberlain (1998) reported that 25 Health Psychology Ph.D. projects were under way in four New Zealand universities in 1998. New graduates in health psychology are tending to go into academic, health promotion,

and treatment activities, but there is considerable potential for health psychologists to work in the health systems analysis and health policy area (Blampied, 1999).

Surveys of HHSs and University Psychology departments indicated that about 10% of each group considered themselves to be health psychologists. Health psychology in New Zealand appears to be progressing with the development of further research activity and advanced training opportunities in this area. However, the lack of an established career path and professional qualification tends to limit its development (Spicer, 1999). A number of psychologists working in the private sector also identify themselves as health psychologists and may have developed a specialty in clinical health psychology (Carlson et al., 1993; Reid, 1991).

## CONCLUSION

In the last 10 years, there has been steady although not spectacular growth in medical and health psychology in New Zealand. The establishment of formal master's programs and the development of a clinical diploma geared toward registration should help to further build momentum within the subdiscipline. However, with increasing pressure on the health system dollar and the developing demands for practice to be evidence-based, medical and health psychology will need to continue to develop demonstrably efficacious and cost-effective interventions. However, in addition to research, there are other directions that medical and health psychology could usefully focus on, namely health promotion and population-based primary prevention strategies, and an involvement in health systems analysis to ensure that the health system is able to function optimally.

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