Collaborative Prescribing Rights for Psychologists: The New Zealand Perspective

John Fitzgerald & Karma Galyer, The Psychology Centre, Hamilton

The circulation in 2007 of a Ministry of Health consultation paper focusing on the extension of collaborative prescribing rights to non-medical professionals has again brought the issue of psychologist prescribing into sharp relief. In the context of mental health workforce shortfalls there has been a slow expansion of psychologists prescribing in America. Closer to home, the Australian Psychological Society has recently completed a survey amongst members and developed a proposal for psychologists to prescribe. In light of these developments, and the Ministry of Health initiated discussion of collaborative prescribing, it seemed pertinent that New Zealand psychologists review their position on this issue. A survey of New Zealand psychologists was undertaken to obtain local perspectives of collaborative prescribing. A small majority of the 571 respondents indicated that they supported the idea of collaborative prescribing, and saw a need for it at least in some areas of health care. Psychologists providing clinical services indicated that collaborative prescribing could be potentially useful in their practice. Several arguments for and against prescribing were considered important, but the impact of collaborative prescribing on the nature of psychology as a profession raised the most concern.

Keywords: psychology, prescribing, medication, collaboration, survey

The issue of non-medical professionals I in New Zealand undertaking prescribing activities has recently became more salient with the Ministry of Health (MoH) circulating a consultation paper entitled, Enabling the Therapeutic Products and Medicines Bill to Allow for the Development of Collaborative Prescribing (Ministry of Health, 2006). This paper invited consideration of the need for collaborative prescribing, potential models/systems, and what skills practitioners might require. These are difficult questions for the New Zealand psychology community to answer as we are somewhat behind our international counterparts in developing a position on collaborative prescribing. Multiple surveys regarding the extension of prescribing privileges

to psychologists have been conducted within the United States over the last three decades (Baird, 2007; Fagan, Ax, Liss, Resnick, & Moody, 2007; Fagan et al., 2004; Grandin & Blackmore, 2006; Sammons, Gorny, Zinner, & Allen, 2000; Walters, 2001). Legislation supporting psychologists prescribing has been introduced in New Mexico and Louisiana, and is under consideration in several other states. The Australian Psychological Society (APS, 2007) has also conducted a survey of its members. Finding that the majority of respondents supported prescribing in principle, the APS is now developing a proposal for the training and registration of prescribing psychologists. The United Kingdom and Canada have yet to canvas the views of their psychology communities, but have at least entered into the debate (e.g., Lavoie & Barone, 2006). Apart from a survey of 36 New Zealand psychologists published in 1995 by the NZ Clinical Psychologist, little attention has been given to the arguments for and against collaborative prescribing in New Zealand.

Meeting mental health needs is a key consideration for all communities currently introducing or considering introducing prescribing psychologists (Lavoie & Barone, 2006; Norfleet, 2002; Price, 2008; Westra, Eastwood, Bouffard, & Gerritsen, 2006). A potential shortage of psychiatry services prompted the APS to investigate the views of their membership on this topic (APS Prescription Rights Working Group, 2007). APS respondents ranked "increased access to prescribing professional, particularly in areas with currently poor access to psychiatrists" as the number one reason for training prescribing psychologists. Second to this was the argument that prescribing psychologists could provide more effective assessment, treatment, and continuity of care than was currently available. As can be seen, the focus was not on increasing the number of prescribers per se, but increasing the number of clinicians with a combination of specialist mental health skills and the ability to prescribe psychoactive medication. The possibility that prescribing psychologists could improve mental health care for certain groups within society is also consistently endorsed by the majority of respondents in surveys of North

American psychologists (Baird, 2007; Fagan et al., 2007; Fagan et al., 2004; Grandin & Blackmore, 2006; Sammons et al., 2000). Evaluation of the work of the single prescribing psychologist working within the Indian Nations in the USA found the work to be both safe and effective (Fox, 2003). Similarly, a US Department of Defence evaluation found that having prescribing psychologists improved mental health services to military personnel and their families during peacetime (Alpert et al., 2000). The impact on prescribing psychologists in more typical mental health setting has yet to be evaluated. Possibly the experiences of prescribing psychologists in New Mexico and Louisiana will eventually be able to provide this information.

The question of how prescribing might impact on the nature of psychology as a profession also elicits strong and emotive argument, from both those in support and those against (Heiby, 2002; Lavoie & Barone, 2006; Norfleet, 2002; Robiner et al., 2002). Would prescribing medicalize psychology, or vice versa? Levine and Pedhazur Schelkin's (2006) survey found a weak relationship between psychologist's endorsement of a biological component in mental health models and support for prescribing. The authors note that psycho-social models were equally valued by those for and against prescribing, suggesting that medication was seen by the respondents as an additional skill rather than as a replacement of current psychological approaches. Other commonly cited areas of disagreement in the prescribing debate include the relevance of other non-medical prescribers as establishing a precedent for psychology, the impact on training psychologists, the negative impact on collegial relationships, the risks involved for both practitioners and their clients. Substantial arguments have been presented by professionals on both sides (see Heiby, 2002 or Lavoie & Barone, 2006 for review).

The American survey data to date shows that psychologists are divided on whether or not prescribing is desirable for our discipline. However, it appears that opinions on this topic are not static. Boswell and Litwin, (1992) repeated a survey of hospital-affiliated psychologists over a 12 month period. In

the second survey the overall proportion of psychologists for, undecided, and against prescribing was the same as the baseline survey. However 35% of practitioners had changed their opinion over the intervening period. There was no pattern to this with equal numbers moving between the three groupings. Similarly, Fagan et al. (2007) found that the reasons US psychologists give for wanting prescribing rights has changed over time. In their 2004 survey psychologists saw prescribing as meeting a need, providing a better service, and as essential to the economic survival of the profession. In 2007 economic reasons were not raised, and instead the respondents emphasized that prescribing was seen as consistent with other tasks in their routine clinical work and was in keeping with a bio-psychosocial model of health.

Although the majority of psychologists supported prescribing in Walters' (2001) meta-analysis, and several subsequent surveys (Baird, 2007; Fagan et al., 2007; Fagan et al., 2004; Grandin & Blackmore, 2006) the proportion who indicated that they would take up training was considerably smaller. This raises an important question - even if prescribing was found to be a desirable and viable option, would enough psychologists undertake it? Walters found that psychologists in training were more likely to want prescription privileges than senior staff. Fagan and colleagues found that willingness to take up training was related to the respondent's age, job type, degree type, and current level of educational debt (Fagan et al., 2007; Fagan et al., 2004). The survey conducted by VandenBos and Williams (2000) identified that psychologists valued knowledge and skills related to psychoactive drugs, and had already acquired these after post-graduate training. Information was gained via their medical and non-medical colleagues, conferences and other professional meetings, and through reading relevant journal articles and psychopharmalogical texts. Half of the psychologists surveyed had attended formal training such a course or seminar.

The endorsement of arguments for and against prescribing, and who will

or will not train, may be dependant on the current the socio-economic context of individual communities, the current status of their health care services, current training models, and the advancement of our understanding of mental health (Levine & Pedhazur Schelkin, 2006). It would be remiss to assume that the views of the psychology communities described above necessarily coincide with the views of New Zealand's psychologists. The current survey was undertaken with the aim of determining New Zealand psychologists' views on collaborative prescribing. It also aimed to compare the New Zealand perspective with views expressed in the American and Australian surveys on prescribing.

Method

Survey Development

The topic areas and content of the survey items was primarily taken from the APS Prescription Rights Working Group survey (2007) and the questions raised by the New Zealand Collaborative Prescribing consultation document (MoH, 2006). Demographic questions were taken from the Health Workforce Annual Survey information collected as part of the New Zealand Psychologists Board registration process (NZHIS, 2006). This was to determine if the survey respondents were representative of registered psychologists as a whole. The survey consisted of three substantive sections.

Professional perspectives on prescribing. General items asked for the respondents' overall opinion on the desirability of appropriately trained psychologists prescribing, if it was needed in New Zealand, and to what degree our professional organisations should prioritise this issue. Respondents were also asked to consider many of the commonly stated arguments for and against prescribing and indicate how strongly they agreed or disagreed with each one. Qualitative information was requested on any other issues the respondent considered to be relevant to prescribing.

Usefulness of prescribing. More specifically, the perceived usefulness (or not) of being able to prescribe in respondents' own practice was of interest. Psychologists were also asked

to indicate what medications (if any) may be of use them.

Training and supervision for prescribing. A section on training and supervision was included, particularly for those respondents who supported prescribing. The aim was to determine what training areas New Zealand psychologists thought were important, and how long they would anticipate it would take to acquire those skills. Consequently participants were asked to put their own ideas forward rather than commenting on overseas models. Psychologists were also asked what they might expect in terms of supervision and ongoing training for prescribing.

Both pen/paper and on-line versions of the survey were constructed. Each version was trialled by clinical staff at The Psychology Centre, Hamilton to ensure it could be easy read and understood. The answer format of the on-line version was adjusted in accordance with the options available for formatting the survey. The online administration of the survey was hosted by Survey Monkey (www. surveymonkey.com).

Data Collection

All members of the New Zealand Psychological Society (n=1,030), and the New Zealand College of Clinical Psychologists (n=603) were mailed an information letter and survey. Respondents were asked to either mail the survey back to The Psychology Centre in a freepost envelope, or to complete the on-line version by following the Survey Monkey address given. An attempt was also made to include psychologists who were not members of these professional groups. Psychology Advisors for District Health Boards were asked to forward an email to their staff with options to download a paper version of the survey or to complete it online. The Head of Psychology for all University departments in New Zealand was also contacted with a request to forward the survey information on to their staff. The number of psychologists who received these emails is unknown.

Results

Response Rate

In total 1,633 surveys were sent out

to members of NZPsS and NZCCP, of these 535 (33%) were returned. A further 36 were returned by non-members or respondents who did not answer the question regarding membership of a professional organisation, giving a total of 571 surveys for analysis. As the number of non-member psychologists who received the invitation to participate is unknown, the return rate from this group cannot be calculated. Nineteen surveys were returned unopened with unknown or incorrect address. Ten were received after the closing date, and were not included. Twenty percent of respondents completed their survey online, and eighty percent were returned in the mail. Ten respondents did not complete all of the required sections on the desirability of prescribing, and arguments for/against. What information they did give has been included in the analysis.

Respondent Demographics

The distribution of age, gender, and ethnicity of the survey respondents is consistent with the 2006 NZHIS workforce survey, the most recent date for which figures are available. There were equal numbers of respondents in each 5-year incremental age bracket between 30 and 60+. In contrast, there were substantially fewer respondents in the youngest age bracket (9.5% of the total sample). Sixty-six percent of respondents were female and thirtyone percent were male. The majority of respondents (81%) were NZ European. Four percent identified as Māori, and less than 1% identified as a Pacific people. "Other" ethnicities (11%) were mainly European, South African, Indian, and Asian.

Ninety-seven percent of respondents were registered, of these 19% were solely in the general scope, 62% were in clinical scope, 3% in educational scope. Trainee and intern psychologists made up the rest of the respondents. Those who were not registered included people in managerial roles, academic roles, and retired psychologists.

There were respondents from all of the 21 District Health Board areas. The highest number of respondents in any one region was Auckland (30%), then Canterbury (12%), Waikato (11%), and Capital & Coast (10%). The proportion of respondents in most employment settings was consistent with the 2006 NZHIS survey. Forty-eight percent worked in a private practice setting, 41% in a District Health Board setting, and 16% in university/polytechnic. Group Special Education employees (4%) were under represented compared with the NZHIS survey.

Forty-eight percent of respondents indicated three or more areas of practice. The most common area was clinical work (75%). Counselling (20%), research (17%), child youth and family psychology (18%), training activities (16%), neuro-psychology (15%), and forensic (15%), were the next most common areas of work. There were fewer respondents working in addictions than would have been expected given the results of the NZHIS survey. Eighty-five percent of respondents were providing health services to people. Most indicated they work with a range of difficulties (66% indicated 3 or more). The most common areas of difficulties for clients were mood disorders (82%), anxiety disorders (81%), and personality disorders (44%).

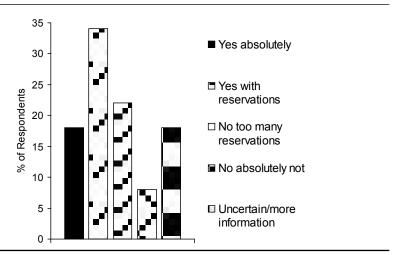
Professional Perspectives on Prescribing

In your opinion, is it desirable that New Zealand psychologists with appropriate training and supervision be permitted to prescribe psycho-active medications? Half of the respondents indicated support for psychologists prescribing (see Figure 1), although the majority of this group had reservations. Twenty-two percent had too many reservations to support prescribing at this time. A minority (8%) were absolutely opposed to psychologist gaining prescribing rights.

Eighteen percent of respondents indicated they were uncertain or that they needed more information. The most frequent need was for information about what the training to become a prescribing psychologist would entail. Other areas of information noted as desirable were any conditions that would be applied to prescribing, including any limitations to particular scopes of practice. To a lesser extent, evidence supporting the pros and cons of prescribing, and possible risks was mentioned.

In response to the question, "At this time do you think there is a need for New

Figure 1. Is it desirable for New Zealand psychologists to gain prescribing rights?



Zealand psychologists to gain privileges to prescribe psychoactive medications?" 19% said yes, and 34% said yes, but in some areas only. Thirty-three percent did not think there was a need, and twelve percent were unsure. Respondents were also asked the degree of priority our professional organisations should place on undertaking an advocacy role in support of prescribing. High priority was endorsed by 23%, medium priority by 30%, and low priority by 37%. A few respondents qualified their answer by saying that because prescribing was undesirable, it should not be given any attention by psychology's professional organisations.

Specific Arguments Against Prescribing

Table 1 shows all of the arguments against prescribing that were presented within the survey. They are listed in the rank order of their endorsement by respondents, from strongest to weakest support. The first two arguments "insurance costs for psychology would rise" and "prescribing would change the nature of the psychology as a profession" were the most frequently endorsed concerns. Twenty percent of psychologists "strongly agreed" with each of these statements. For all other items the proportion of respondents who "strongly agreed" was between 2% and 9%. Most arguments against prescribing

had a higher proportion of respondents who disagreed than agreed, ranging between 51% and 72% of the group across items.

For the group of psychologists who indicated that prescribing was not desirable, the strongest argument against was that "prescribing would change the nature of the psychology as a profession". Qualitative answers gave some indication as to how these respondents thought that the profession would change. The most common concern expressed was that psychology would become "medicalized", thus losing its unique identity and core strengths. Prescribing psychologists were predicted to start working within a medical model, not consider systemic issues in assessments, locate causal factors in psychological disorders within the biology of the individual, and prefer medical treatments over psychological therapies due to the ease of prescribing. These concerns extended to research undertaken by psychologists where it was expected that there would be a reduction in efforts to develop better psychological therapies in favour of medical options. Prescribing psychologists were also likely to be perceived differently by other health professions. For example, it was envisaged that psychologists would become an alternative or "cheap" psychiatrist, thus turning a

Table 1 The number of respondents who agreed vs disagreed with arguments against prescribing.

Argument	Agree	Unsure	Disagree
Insurance costs for psychology practice would rise	67%	27%	4.8%
Allowing psychologists to prescribe changes the fundamental nature of psychology as a profession	43%	10%	46%
Psychologists would not gain adequate training to prescribe	28%	20%	51%
Training psychologists would unnecessarily duplicate current services	27%	14%	58%
Psychologists are more likely to mis-prescribe, increasing risk to clients	16%	20%	64%
Prescribing psychologists would reduce consumer choices of treatment modalities	16%	11%	72%
Non-prescribing psychologists would be 'phased out'	15%	24%	60%
Psychologists would favour prescription over psychotherapy	15%	14%	71%
Training psychologists to prescribe would be too expensive for taxpayers	10%	26%	64%

Notes

- 1) Some rows do not sum to 100% due to missing answers for that item.
- 2) For ease of presentation the Strongly Agree and Agree categories have been combined, as have the Strongly Disagree and Disagree categories.

potentially collaborative relationship into a conflictual and competitive one. Psychologists would be under pressure to prescribe from many quarters (e.g., colleagues, pharmaceutical companies and the clients themselves); pressures which those arguing against prescribing did not think would be well managed.

Some respondents who put forward their own arguments against prescribing said that the costs of training psychologists to prescribe outweighed the benefits that could be derived from it. The time and cost of adequate training to prescribe was considered an unacceptable addition the already high demands that current training placed on the individual psychologist. Those arguing against prescribing hypothesised that this would result in a reduction in the psychology training components, particularly in psychological therapies. Adequate training was considered to be a duplicate of psychiatrist training. Because this service is already provided, this was regarded as a wasted resource. The current deficits in the medical system were noted, but with the caveat that having psychologist prescribe would

not solve the problems such as access to specialists, limited supervision for psychiatric registrars, and lack of mental health training for General Practitioners. Instead improved collaboration between medical and psychology staff was seen as a better direction to focus on than psychologists gaining prescribing rights.

Another commonly raised objection was that clients would not benefit from a prescribing psychologist. For example, it was suggested that clients get better service when at least two professionals are working together on their case, which was not predicted to happen if a psychologist prescribed. Some respondents did not think that clients benefited from medications whoever was prescribing them, and thus did not see the use in psychologists taking up this task

Possible risk to clients, and to the psychologist themselves if a prescribing error occurred, were raised but this issue was not in the top half of arguments against prescribing. The most commonly raised risk was that a psychologist could not conduct the physical assessments necessary to determine if there were contraindications to the type of medication they were considering prescribing. From the qualitative comments made it appeared that risk could be somewhat mitigated by "appropriate" training.

Specific Arguments For Prescribing

Table 2 shows all of the arguments put forward in support of prescribing in order of those with the strongest to weakest support from respondents. For all items there were more respondents who agreed than disagreed, but the items with the highest proportion who "strongly agreed" were "psychologists have extensive biopsychosocial training" (29% strongly agreed), "psychologists often provide monitoring of medication prescribed elsewhere" (28%), and "increased collaboration between psychologist and doctors" (26%). The items predicting increased quality of care as an outcome of prescribing received "strongly agree" endorsements from approximately 20% of respondents.

Table 2 The number of respondents who agreed vs disagreed with arguments supporting prescribing.

Argument	Agree	Unsure	Disagree
Psychologists often provide monitoring of effectiveness and side-effects of medications prescribed elsewhere	84%	10%	5%
Psychologists have extensive training in biopsychosocial assessment and treatment of psychological disorders	76%	9%	14%
Knowledge of psychoactive medications would increase collaboration between psychologists and doctors	74%	12%	13%
Prescribing psychologists will increase public access to professionals able to prescribe psychoactive medications, particularly in areas with limited access	71%	12%	14%
Psychologists could work more consistently with the client on adherence to medications	70%	11%	17%
Psychologists would be able to reduce or stop medications to the benefit of the client	64%	26%	8%
Psychologists have more time to explain effects and side-effects, and to gain informed consent from the client	62%	12%	24%
Psychologists could provide more effective assessment and prescription than GPs	60%	22%	16%
Allowing psychologists to prescribe would increase the quality of treatment from psychologists by increasing their options and providing greater continuity of care Many other professions are able to prescribe with little or no psychopharmacological	59%	14%	26%
training	45%	37%	16%
Many non-psychiatric professions (especially GPs) are currently prescribing psychoactive medications and prefer to refer to psychologists for advice	45% 32%	28% 62%	25% 5%
Psychologists are already prescribing safely and effectively in other countries	32%	02%	3%

Notes

- 1) Some rows do not sum to 100% due to missing answers for that item.
- 2) For ease of presentation the Strongly Agree and Agree categories have been combined, as have the Strongly Disagree and Disagree categories.

The arguments that respondents were the most uncertain about were those pertaining to prescribing in other professions and other countries. The qualitative responses suggest that many respondents were unaware that this was happening. The fact that other professions prescribed was not considered to be an adequate indication that psychologists could safely prescribe by those arguing against prescribing. Common concerns were that other nonmedical professions who prescribe have more basic training in physiology than psychologists, less complex medications, and less complex clients. Prescribing in these professions was also not thought to have been adequately monitored and reviewed.

Similar to respondents arguing against prescribing, proponents of prescribing saw training as pivotal. The key differences between the two groups was that those arguing for prescribing saw psychologists as able to complete any necessary training, and that adequate standardisation, monitoring and evaluation within the profession is possible. Evidence cited to support this view was that psychologists already have good academic standards, emphasis on evidence-based approaches, as well as the use of supervision and reflective practice.

Those who generally supported the extension of prescribing privileges to psychologists described ways in which the profession would be enhanced by this, rather than changed for the worse. For example, they noted there was no evidence that prescribing psychologists in other countries have changed their approach to psychological assessment and treatment. This group predicted that with prescribing knowledge, psychologists would be more influential in team decisions about whether medication, therapy, or both were an appropriate choice for clients. There was a keen emphasis on medication being part of a holistic approach that is intrinsic to psychological models of care. Overall those in support of prescribing felt that psychological principles could positively influence the use of medication, rather than psychology becoming corrupted by "medicalization". In both the groups for and against prescribing there were

respondents that quoted the "holistic" model of mental health as supporting their perspective. To some, being holistic meant giving consideration to all of the relevant aspects of care, including biology. To others, being holistic meant considering dimensions of health other than biological or medical perspectives.

Common reservations from those in support of prescribing were that adequate administration, training and supervision would be essential for safe practice. Also, that the option to take up training to prescribe should be restricted, with access granted based on the psychologist's area of practice. Several respondents proposed that prescribing privileges be restricted to those with training in clinical psychology, and/or those employed in a workplace or with a particular client group that had an identified need for prescribing. Further evidence for the potential benefits of prescribing was also considered necessary.

What Kinds Of Medication Would Psychologists Find Useful?

In response to the question "How useful would it be to prescribe in your practice?" 20% said "very useful", 35% said "somewhat useful", and 6% were unsure. Medication was not considered to be useful in the practice of 36% of respondents.

Fifty-two percent (n=298) of respondents listed at least one medication that would be of assistance. The most frequently noted group of medications were for mood disorders with 91%

(*n*=272) of respondents to this question saying antidepressants and/or mood stabilisers would be useful. Medication for anxiety was thought to be useful by 61% (*n*=183). Although anti-psychotic medications had the most caveats noted, this group was still thought to be useful by 27% (*n*=81). Medications for sleep were the next most frequently reported group (24%). Methylphenidate was specifically noted by 19% of the group. Other medications mentioned were those used in specialist areas of physical health and addictions services.

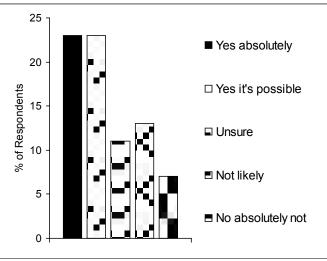
What Training Is Important To Become a Prescribing Psychologist?

The questions for training were optional for those people who did not think prescribing was desirable, and consequently were competed by 75% (*n*=431) of the total sample. The following analysis applies to this group of respondents only. A frequent qualitative response noted in this section was that training should be consistent with the content, timing and standards of other prescribing professionals (e.g., overseas prescribing psychologist, GP's, and Nurse Practitioners). This also applied to ongoing education/training and supervision.

As Figure 2 shows, 59% of participants who answered these questions indicated they would possibly take up training (46% of the whole survey). Twenty-percent indicated that they would not, and eleven-percent had yet to decide.

The most common reasons endorsed by those who were unlikely to take up

Figure 2. Would you be likely to undertake additional training to become a prescribing psychologist?



training (n=135) were "I do not believe it would be relevant to my work as a psychologist" (50%) and "I am not interested in including medications as part of the treatment option I can offer" (46%). Of those that would not train, 37% still noted that it was desirable for psychologists to have prescribing rights.

Respondents indicated multiple psychology streams as being possible pre-requisites for prescribing training, of which clinical psychology (97%) was the most frequently endorsed. Also considered important was clinical neuropsychology (63%) and health psychology (43%). The minimum level of qualification to be achieved before starting prescribing training was a Masters or higher for the majority of respondents. A postgraduate diploma was endorsed by 48%, and a DClinPsy or PhD by 21%. The majority (66%) also opted for a required minimum number of years of professional practice before training (m = 4 years, SD = 1.8).

Specific training areas for prescribing were put forward by many respondents. The most common area was pharmacology skills. This included knowledge of drug types, mechanisms of action, common uses and guidelines, expected effects, side effects over short and long term, effects of discontinuation, contraindications, indications of toxicity and/or allergy, and possible interactions with other prescription and non-prescription drugs. Areas of learning to support pharmacology were also recommended. These included physiology/anatomy, biology, neurology, and the biological basis for behaviour.

As well as pharmacology, respondents noted several other assessment and treatment skill sets that were desirable in a prescribing psychologist. Overall these skills were aimed at ensuring safe and effective practice. For example, a good prescribing psychologist would recognise the limitations of his/her ability and know when to consult with a medical professional. They would have the ability to work collaboratively with a team or a specific doctor. They would know how to stay up to date with developments in medications. Important clinical skills included physical health

checks (e.g., blood pressure) to screen for contraindications and monitor side effects. Recognition of addiction and drug seeking behaviour was another initial assessment skill. The need for psychologist to understand the treatment outcome studies for medications was emphasised by several respondents. This included having an awareness of the pros and cons of combining medication and psychotherapy, and preferable alternatives to medication. Finally, respondents noted process issues in the broader context of health care that a prescribing psychologist would need to be cognizant of. These included the ethics, legalities, and cross-cultural issues related to prescribing. The influence of pharmaceutical companies on research and practice was of particular concern to some.

The time anticipated to complete training for prescribing varied greatly. Fifty-nine percent of those who specified a time period indicated that 12 months or less would be enough time, 25% thought up to 2 years, and 11% thought up to three years. Both full time and part time training options were desirable. The ongoing training/ education arrangement preferred by the majority of respondents (76%) was a set number of hours of professional development. Respondents were asked to indicate a desirable number of hours of professional development. Answers ranged from 1 to 60 hours per year (m = 15 hours, SD = 12).

Participants were asked to indicate their preferred supervision arrangements. Seventy-four percent preferred a psychiatrist, 33% another prescribing psychologist, 19% any physician. Some people specifically identified GP's and pharmacists as possible supervisors for prescribing. Forty-one percent of participants identified more than one professional group. A psychiatrist and prescribing psychologist was the most frequent combined response for preferred supervisor. Similarly, many people (42%) identified more than one suitable supervision style. The most commonly rated style was an individual supervision arrangement (48%), typically for an hour each week. Seeking consultation with a medical professional regarding the treatment plan for each client was also considered desirable by 48%. An internship was thought appropriate by 42%, group supervision by 21%, and a set time for each client by 14%.

Prescribing Opinions and Demographic Characteristics of Respondents.

Whether or not prescribing was considered desirable was not significantly related to respondents' age, gender, ethnicity, geographical place of work, or employer. Because some of the qualitative responses put forward by respondents suggested that psychologists working in the area of clinical psychology would have a different perspective from other groups a comparison between clinical and nonclinical participants was undertaken. No differences in responses to the questions regarding desirability, need, training, and prioritisation of advocacy were found. The only significant difference was that a higher proportion of clinical psychologists indicated collaborative prescribing would be useful in their work than was found for non-clinical psychologists ($\chi^2 = 34.12$, df = 4, *p*<0.001).

Discussion

The good response rate and often lengthy qualitative information provided by the participants for this survey indicate that New Zealand psychologists appear to have considerable interest in the debate about prescribing. Overall there were more psychologists than not who indicated that prescribing was desirable, that there was a need for it, and that it would be useful in their day to day work. This is consistent with both the Australian and North American findings. Compared to the APS survey, the New Zealand respondents included more psychologists who had reservations or were uncertain about prescribing, and more respondents who did not see prescribing as a priority for professional organisations.

Arguments For And Against Prescribing.

Australian and New Zealand respondents had different reasons for supporting prescribing. The most salient arguments for the Australian group were primarily client based, including increased access to prescribing

professionals, increased quality of care with more effective assessment and treatment than what General Practitioners currently provide. New Zealand participants also strongly endorsed these, but gave more weight to items about psychologists' skill sets, including working from a biopsychosocial model and monitoring medications currently. The New Zealand view found here is more consistent with that found in the survey conducted in America by Fagan et al. (2007), who also found a shift from the client needs-based perspective endorsed by the APS group to the professional-based perspective endorsed by the New Zealand respondents.

Qualms about prescribing were similar across North American, APS and New Zealand respondents. Forced choice items and qualitative answers highlighted issues to do with the impact on psychology as a profession, particularly the question of medicalization. No respondent in this survey indicated a preference for medical intervention or medical models of health over a psychological approach. Some insight as to how psychology and prescribing might combine in practice comes from a survey of American psychologists who are also qualified nursing staff, meaning they could prescribe if they wished. Wiggins and Wedding (2004) did not find a preference for a medical approach over a psychological approach in this sample. Only 5% of respondents were using their prescription privileges in their psychological practice, primarily to treat anxiety and mood difficulties.

The APS found that respondents were concerned that prescribing would result in a deterioration in relationships with their medical colleagues, whereas the majority of the New Zealand respondents, and those in the Fagan et al. (2007) survey anticipated the opposite. The relationship between psychologists and doctors is paramount as the type of prescribing under consideration in the MOH document is limited and dependant, meaning doctors have a pivotal role. The majority of New Zealand respondents saw doctors, particularly psychiatrists, as providing the bulk of regular supervision. As yet there is no information on the opinions of New Zealand's medical professionals about having a prescribing psychology workforce. It would be particularly pertinent to ascertain the views of GP's as they current do the bulk of mental health prescribing in New Zealand.

A question only asked of the New Zealand psychologists was whether prescribing would be useful, and if so, what medications would be relevant to their work? Over half of the New Zealand sample indicated that prescribing would be useful, and this seemed to apply particularly to the anti-depressant group of medications. Unfortunately the survey did not ask why respondents would find prescribing particular medications useful. Tasks such as psychologistphysician collaboration, recommending medication, providing drug-related information for clients, monitoring ongoing adherence with drug regime, monitoring effects and side-effects are all examples of clinical issues that psychologists report managing in their routine clinical work (VandenBos & Williams, 2000). In Sammons et al.'s (2000) survey of US psychologists in Maryland, respondents highlighted common problems they encountered with the prescribing of medical practitioners. Sixty-two percent indicated that their client's drug regime was insufficiently monitored by prescribers, and 46% indicated that their clients had been over-prescribed medication. It may be those psychologists see themselves as able to take more control of medicationrelated clinical tasks with prescribing rights.

Individual Differences In Prescribing Opinions.

Levine and Pedhazur Schelkin (2006) noted that prescribing opinions are likely to be influenced by individual differences such as a respondent's socioeconomic context, health care context, and the dominant training model at the time. This survey did not find any particular pattern of responses across demographic groups. It could be argued (and some did) that prescribing is only viewed positively by those working in the area of clinical psychology; however this was not the case. The only difference between clinical and non-clinical psychologists was that more of the clinical group reported that they would find being able to prescribe useful. This is likely to be because the mental health difficulties that this group address, for example, mood disorders, often include medications as part of the treatment.

What Potential Models Of Collaborative Prescribing Could Work And What Skills Might Practitioners Require?

The Ministry of Health's collaborative prescribing consultation document (MoH, 2006) requested consideration of potential models of how such prescribing could work. Ideas for education, training and supervision put forward by New Zealand psychologists were not inconsistent with other proposed and currently operational models overseas. Both New Zealand and APS psychologists endorsed specialised post graduate training in pharmacology. These components are also part of the proposed training schemes for American states currently considering psychologists prescribing, and the current training scheme in New Mexico. The current training scheme in Louisiana does not have the same clinical practicum component. The American course work is set at 300 hours, and clinical training at 100 cases with two hour supervision sessions each week. Half of the APS respondents approved this as a suitable training scheme. There was no particular trend on what needed to change to satisfy those who did not, but only 9% wanted less training than the North American models.

Current prescribing practice in New Mexico and Louisiana is based on close and ongoing collaboration with a medical professional. The supervisor in these schemes is usually a psychiatrist, but can be another medical practitioner (i.e., general practioner), which is consistent with the majority of New Zealand respondent's preferred supervisory arrangements. Broadening collaboration beyond psychiatry as suggested by many of the New Zealand survey respondents could potentially make the model of collaborative prescribing more applicable to primary care. Ongoing education was considered to be important by APS and New Zealand psychologists. who both preferred to have a set number of hours of professional development for this. The APS also had a wide range of hours proposed. Many of the suggestions are consistent with how psychologists informally develop their knowledge and

skills in psychoactive medications at present (Sammons et al., 2000) Despite the uncertainty of what training would entail, approximately half of the New Zealand survey respondents would at least consider undertaking it. This is more than found in North America, but less than APS survey participants.

At present there is still much that needs to occur before a formal decision about extending prescribing rights to psychologists could possibly be made. In particular, there is the need to review evidence relating to one of the big questions in the prescribing debate: Is there is a need for prescribing psychologists in New Zealand? If this is the case, do we as a profession want this, and what do our potential "collaborators" in the medical professions think? Whatever our personal views may be we owe it to our community to consider their changing needs, and weigh these against any additional risk/demands that may accrue. We also need to bear in mind that the margins of our discipline are not cast in stone. While most issues that challenge our professional boundaries are either ignored until they ebb away, or are passively managed, the issue of prescribing for psychologists may be an issue that we want to manage more actively.

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Address correspondence to:

Dr John Fitzgerald
The Psychology Centre
PO Box 4423
Hamilton 3247
Email: john@tpc.org.nz