

The Role of the Practice Manager in General Practice-Based Research

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Abstract

Research in the general practice setting is essential to ensure the clinical care provided is effective and evidence-based. To facilitate general practice-based research, studies must be designed in ways that accommodate practice routine. Furthermore, intervention studies need to be managed at the practice level to ensure uptake and implementation. The practice manager is central to the administration and oversight of general practice organisation and routine. However, there is a paucity of research evidence about this role, and no current literature on practice managers' contributions to research intervention trial facilitation and implementation in the general practice setting. This study investigated the practice manager's role in facilitating the implementation of an intervention as part of a clinical trial in Australian general practice.

This research was a sub-study of the Australian Chlamydia Control Effectiveness Pilot (ACCEPt). ACCEPt was a randomised controlled trial that measured whether a multifaceted intervention designed to increase annual chlamydia testing reduced the transmission and associated complications of chlamydia among 16 – 29 year-old general practice attendees. Using a qualitative thematic methodology, 23 semi-structured interviews were conducted with practice managers during the ACCEPt intervention phase. "The practice managers' role in facilitating and implementing the ACCEPt intervention was explored, along with the barriers and enablers to the conduct of general practice-based research."

The findings of this study suggest practice managers are key to establishing, facilitating and managing research interventions at the general practice level. The participating practice managers described their central positions within the structure of the organisation as pivotal to directly liaising with GPs on research matters, delegating tasks and maintaining the profile of research in general practices. Managers had the capacity to embed non-clinical tasks into their current workloads, which they saw as crucial to sustaining trials and limiting the impact of research on practice routine.

New perspectives from practice managers suggest the main enabler to research uptake and sustainability in the practice is the practice manager's involvement. They reported daily routine and the rigid scheduling of GPs' appointment times as the main barrier.

This is the first Australian study of the role of the practice manager in facilitating intervention studies in general practice. While this study fills a gap in the literature about practice managers and their contribution to general practice-based research uptake, it also highlights the need for further examination of this role, specifically a broader systematic investigation of practice managers' contribution to managing intervention studies at the practice level. Furthermore, exploration of the training needs of practice managers is required to identify education that would maximise their potential to contribute to research.

Declaration of Originality

This is to certify that:

1. The thesis comprises only my original work towards the Masters of Primary Care by Research except where indicated in the Preface,
2. Due acknowledgement has been made in the text to all other material used,
3. The thesis is less than 40,000 words in length, exclusive of tables, maps, bibliographies and appendices



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Research Outcomes and Output

Research outcomes from this study

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Presentations –Invited speaker

Wood A, Hocking J, Temple Smith M. Is there a role for practice managers in general practice-based research? VicReN meeting December 2016

Wood A, Hocking J, Temple Smith M. Practice managers and their role in research interventions general practice. Australian Association of Practice Management, Melbourne: October 2016

Wood A, Embedding a chlamydia screening intervention in general practice: ACCEPt - Australia Chlamydia Control Effectiveness pilot & ACCEPt-able. Discipline of General Practice, University of Queensland: November 2014

Conference presentations

Wood A, Hocking J, Temple- Smith M. “PMs can run with these programs...” Managing research in general practice: the practice manager’s role. 3rd International Primary Health Care Reform Conference: Brisbane: 14-16 March 2016

Wood A, Hocking J, Temple-Smith M. Are you a GP who wants to do research? Your practice manager can help. Royal College of General Practitioners (RACGP) - GP15 Melbourne: 21-23 September 2015

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Table of Contents

ABSTRACT	I
DECLARATION OF ORIGINALITY	III
ACKNOWLEDGEMENTS.....	IV
RESEARCH OUTCOMES AND OUTPUT.....	V
TABLE OF CONTENTS	XI
LIST OF TABLES.....	XV
LIST OF FIGURES	XVII
LIST OF ABBREVIATIONS	XVIII
1 THESIS OVERVIEW	1
1.1 AIM AND OBJECTIVES	2
1.2 OVERVIEW OF THE THESIS CHAPTERS	2
2 PRACTICE MANAGEMENT IN AUSTRALIA.....	5
2.1 GENERAL PRACTICE.....	5
2.1.1 <i>Funding for general practice</i>	6
2.1.2 <i>Quality improvement in general practice</i>	8
2.2 THE ROLE OF THE GENERAL PRACTICE MANAGER	8
2.2.1 <i>The timeline of practice management</i>	12
2.2.2 <i>Australian Association of Practice Management</i>	13
2.2.3 <i>Practice managers in the UK</i>	16
2.3 GENERAL PRACTICE-BASED RESEARCH IN AUSTRALIA.....	17
2.4 CHAPTER SUMMARY	18
3 THE PRACTICE MANAGER ROLE AND ITS RELEVANCE TO GENERAL PRACTICE- BASED RESEARCH	21
3.1 SUBSEQUENT LITERATURE	29
3.2 CONCLUSION.....	29
4 AUSTRALIA CHLAMYDIA CONTROL EFFECTIVENESS PILOT (ACCEPT).....	31

4.1	ACCEPT OVERVIEW.....	31
4.2	THE MULTIFACETED CHLAMYDIA TESTING INTERVENTION	32
4.3	THEORETICAL FRAMEWORK GUIDING THE IMPLEMENTATION OF THE INTERVENTION	35
4.4	RECRUITMENT OF GENERAL PRACTICES.....	36
4.5	PREVALENCE SURVEY.....	36
4.6	IMPLEMENTATION OF THE INTERVENTION	37
4.7	THE PRACTICE MANAGER ROLE IN ACCEPT.....	37
4.8	CONCLUSION	39
5	RESEARCH METHODS.....	41
5.1	STUDY PARTICIPANTS	41
5.2	RECRUITMENT METHOD AND SAMPLING STRATEGY.....	41
5.2.1	<i>Recruitment procedure</i>	<i>42</i>
5.3	DATA COLLECTION METHODS	42
5.4	DATA PREPARATION AND ANALYSIS	43
5.5	ETHICAL CONSIDERATION	44
5.6	CONCLUSION.....	44
6	RESULTS	45
6.1	DEMOGRAPHIC CHARACTERISTICS	45
6.2	THEMATIC RESULTS.....	51
6.3	VIEWS OF PRACTICE MANAGERS ON RESEARCH	53
6.3.1	<i>Better patient health outcomes.....</i>	<i>54</i>
6.3.2	<i>Providing ongoing education.....</i>	<i>57</i>
6.3.3	<i>Research representing rural general practice</i>	<i>60</i>
6.3.4	<i>Understanding of research</i>	<i>61</i>
6.4	THE ROLE OF PRACTICE MANAGERS IN A RESEARCH INTERVENTION	62
6.4.1	<i>Management</i>	<i>63</i>
6.4.2	<i>Implementing research interventions.....</i>	<i>66</i>
6.4.3	<i>Supporting research.....</i>	<i>67</i>
6.5	THE PRACTICE MANAGER'S ROLE IN INTERVENTION SETUP AND SUSTAINABILITY	68
6.5.1	<i>Establishing interventions in general practice.....</i>	<i>68</i>
6.5.2	<i>Sustaining the research intervention in general practice.....</i>	<i>69</i>

6.6	VIEWS OF PRACTICE MANAGERS OF THE BARRIERS TO THE CONDUCT OF RESEARCH IN GENERAL	
PRACTICE		71
6.6.1	<i>Lack of time.....</i>	71
6.6.2	<i>GPs forgetting the research.....</i>	73
6.6.3	<i>Financial reimbursement.....</i>	74
6.6.4	<i>GP resistance to research</i>	76
6.6.5	<i>Negative previous experience of research.....</i>	77
6.7	VIEWS OF PRACTICE MANAGERS OF THE ENABLERS TO THE CONDUCT OF RESEARCH IN GENERAL	
PRACTICE		78
6.7.1	<i>Use the practice manager</i>	79
6.7.2	<i>A simple research design</i>	80
6.7.3	<i>Regular feedback to GPs.....</i>	82
6.7.4	<i>Reminders and alerts.....</i>	83
6.8	CHAPTER SUMMARY	84
7	DISCUSSION.....	85
7.1	STRENGTHS AND LIMITATIONS.....	86
7.2	OBJECTIVE 1: TO INVESTIGATE THE ROLE OF THE PRACTICE MANAGER IN THE UPTAKE AND IMPLEMENTATION OF A RESEARCH INTERVENTION	86
7.3	OBJECTIVE 2: TO EXPLORE THE VIEWS AND PERCEPTIONS OF PRACTICE MANAGERS ON THE BARRIERS AND ENABLERS TO THE CONDUCT OF GENERAL PRACTICE-BASED RESEARCH	89
7.4	SUMMARY OF FINDINGS FROM THIS STUDY	93
8	CONCLUSION AND RECOMMENDATIONS	95
8.1	RECOMMENDATIONS	95
9	REFERENCES	97
10	APPENDICES.....	105
	APPENDIX 1: PARTICIPANT INVITATION LETTER.....	105
	APPENDIX 2: PLAIN LANGUAGE STATEMENT.....	106
	APPENDIX 3: PARTICIPANT CONSENT FORM	108
	APPENDIX 4: INTERVIEW SCHEDULE	109

List of Tables

TABLE 1: ELIGIBLE PRACTICE MANAGERS BY PRACTICE SIZE, APRIL 2014	42
TABLE 2: PRACTICE MANAGERS INTERVIEWED BY PRACTICE SIZE AND NUMBER.....	46
TABLE 3: PARTICIPANT CHARACTERISTICS.....	47
TABLE 4: HOW PRACTICE MANAGERS REACHED THEIR CURRENT POSITIONS	48
TABLE 5: PRACTICE MANAGERS' DESCRIPTIONS OF HOW THEY GOT THEIR JOBS	50
TABLE 6: THEMES IN THE PRACTICE MANAGERS' VIEWS OF RESEARCH.	53
TABLE 7: IMPROVING THE HEALTH OF PATIENTS	54
TABLE 8 INVESTIGATING THE NEED FOR ADDITIONAL PATIENT SERVICES	55
TABLE 9: INFORMING GOVERNMENT POLICY TO IMPROVE HEALTH	56
TABLE 10: TRAINING OPPORTUNITIES IN GENERAL PRACTICE	58
TABLE 11: FOLLOWING CURRENT CLINICAL GUIDELINES	59
TABLE 12: RESEARCH REPRESENTING RURAL GENERAL PRACTICE.....	60
TABLE 13: UNDERSTANDING RESEARCH.....	61
TABLE 14: THEMES IDENTIFYING PRACTICE MANAGER'S VIEWS ON THEIR ROLE IN RESEARCH	62
TABLE 15: TAKING A LEADERSHIP ROLE.....	63
TABLE 16: DRIVING THE RESEARCH TRIAL.....	64
TABLE 17: GATEKEEPER	65
TABLE 18: COORDINATING STAFF.....	66
TABLE 19: SUPPORTING RESEARCH.....	67
TABLE 20: THEMES IDENTIFYING SETTING UP RESEARCH INTERVENTIONS	68
TABLE 21: ESTABLISHING INTERVENTIONS IN GENERAL PRACTICE	68
TABLE 22: SUSTAINING THE RESEARCH INTERVENTION IN GENERAL PRACTICE	69
TABLE 23: THEMES IDENTIFYING BARRIERS TO IMPLEMENTING RESEARCH.....	71
TABLE 24: TIME-LIMITED CONSULTATIONS.....	72
TABLE 25: GPs FORGETTING THE RESEARCH.....	73
TABLE 26: FINANCIAL REIMBURSEMENT	75
TABLE 27: GPs' RESISTANCE TO RESEARCH	76
TABLE 28: THEMES IDENTIFYING ENABLERS TO RESEARCH UPTAKE	78
TABLE 29: USE THE PRACTICE MANAGER	79
TABLE 30: A SIMPLE RESEARCH DESIGN	80

TABLE 31: BUILD A RELATIONSHIP WITH ALL THE PRACTICE STAFF	81
TABLE 32: REGULAR FEEDBACK TO GPs	82
TABLE 33: REMINDERS AND ALERTS.....	83

List of Figures

FIGURE 1: PRACTICE MANAGERS' PROFESSIONAL BACKGROUNDS.	14
FIGURE 2: PRACTICE MANAGER'S ROLE AND ALLOCATION OF TIME TO TASK OVER A WEEK.....	16
FIGURE 3: ACCEPt EDUCATION AND TRAINING PACKAGES FOR GP AND PNs	34
FIGURE 4: WAITING AND CONSULTING ROOM POSTERS SUPPORTING CHLAMYDIA TESTING.....	34
FIGURE 5: ACCEPt ELECTRONIC ALERT	34
FIGURE 6 ACCEPt POSTCARD SENT TO PRACTICES INTRODUCING THE TRIAL.....	36
FIGURE 7: DIAGRAM OF THE 19 MAIN THEMES IDENTIFIED UNDER EACH OF THE FIVE AREAS.....	52

List of Abbreviations

AAPM	Australian Association of Practice Management Ltd
ACCEPT	Australia Chlamydia Control Effectiveness Pilot
AMA	Australian Medical Association
APHPRI	Australian Primary Health Care Research Institute
CPD	Continuing Professional Development
GP	General Practitioner
IT	Information Technology
NHS	National Health Service (UK)
MBS	Medical Services Benefits
NPT	Normalisation Process Theory
PHCRED	Primary Health Care Research Evaluation and Development
PIP	Practice Incentive Program
PN	Primary Health Care Nurse
PHN	Primary Health Network
RACGP	Royal Australian College of General Practitioners
RCT	Randomised Controlled Trials
QI	Quality Improvement
STI	Sexually Transmitted Infection
UK	United Kingdom
US	United States
VicReN	Victorian Research education Network

1 Thesis overview

Research in general practice is essential to ensure the care provided is evidence-based and delivered effectively (1, 2). However, the amount of research into clinical care and service delivery in general practice remains low compared to other areas of the health system (3, 4). Designing intervention studies that are translational, acceptable and able to be accommodated in general practice routine is a first step in addressing this disparity (5). Unfortunately, a lack of facilitation and management of study interventions at the practice level hinder primary care research. Exploration of who in general practice is most appropriate to manage trials is critical to understanding this barrier. Past trials have focused on championing general practitioners (GP) and primary health care nurses (hereon referred to as PN) to facilitate, at the practice-level, the conduct of research trials (6-8). To date, there has been no research undertaken in Australia investigating the role of practice managers in coordinating and overseeing general practice-based research studies. Practice managers coordinate daily routine, manage staff and oversee organisational governance; therefore, it is logical that they could also play a role in managing research studies. To address this, I undertook research into the role of practice managers in facilitating a general practice-based research intervention and explored their views on the barriers and enablers to the uptake of research.

The Australian Chlamydia Control Effectiveness Pilot (ACCEPt) (9) was a large randomised controlled trial (RCT) of a chlamydia testing intervention in general practice, and provided an ideal opportunity to investigate the contribution of practice managers to the uptake and implementation of the ACCEPt intervention. Throughout the ACCEPt trial, research officers worked with practice managers and supported them to facilitate and implement every phase of ACCEPt in their practices. Over that time, a wide range of management skills, implementation expertise and enthusiasm for research was observed. This led me to question whether there could be a recognised role for practice managers in research study facilitation and implementation, and whether this could lead to greater research uptake and sustainability of intervention studies in primary care.

The research described in this Master thesis was exploratory and conducted using qualitative methods. The results provide insights into what practice managers think of research, their roles in multifaceted research interventions, and their perceptions of the barriers and enablers to the conduct of general practice-based research. The findings from this study increase understanding of the role practice managers could play in Australian general practice-based research implementation.

1.1 Aim and objectives

The aim of this study was to investigate the role of the practice manager in facilitating the implementation of an intervention as part of the conduct of a clinical trial in Australian general practice. My objectives were to:

1. investigate the role of the practice manager in the uptake and implementation of a research intervention; and
2. explore the views and perceptions of practice managers about the barriers and enablers to the conduct of general practice-based research.

1.2 Overview of the thesis chapters

Chapter 2 presents a review of practice management in Australia. This chapter also gives an overview of general practice, focusing on areas of general practice relevant to the practice manager and a brief overview of research in Australian general practice.

Chapter 3 contains a systematic review of literature on the role of the practice manager and its relevance to general practice-based research.

Chapter 4 contains an overview of ACCEPt, focusing on the contribution of the practice manager to the implementation of the intervention. This chapter provides context to this study of practice managers and highlights their role in ACCEPt.

Chapter 5 describes the methodology used for undertaking this study of practice managers.

Chapter 6 presents the results from the analysis of data collected from semi-structured interviews undertaken for this study.

Chapter 7 provides a discussion of the findings from the results of this study, highlighting new findings.

Chapter 8 provides a conclusion and recommendations.

2 Practice Management in Australia

In Australia, academic literature on the role of the practice manager is scarce; therefore, this review includes information from 'grey' literature and the opinions and experiences of Australian experts in the field of practice management. This chapter begins with a description of general practice and practice management in Australia and concludes with a brief overview of general practice-based research in Australia.

2.1 General practice

General practice is the cornerstone of primary care, and for most Australians, the gateway to the broader health care system (10, 11). During 2014, 86% of all Australians attended at least one general practice consultation (12). Easy access and timely treatment is a feature of Australian general practice. Similar primary care systems with general practice at their core operate in New Zealand, Canada and the UK, where publicly funded national health services provide universal access to care (13).

The general practice team is made up of GPs, receptionists, PNs and the practice manager. Although there are other administration roles, such as bookkeepers, and account managers in larger practices, the team is usually composed of these four professions. General practice routine is overseen and coordinated by the practice manager, who is mostly invisible to patients, but central to the business operation of the organisation.

General practice provides initial, continuing and comprehensive medical care, focusing on early diagnosis and health maintenance to prevent escalation of illness or disease, thus reducing the need for referral to hospital (14, 15). Using a biomedical model, GPs deliver care in (usually) single consultations lasting 10 to 15 minutes, although longer consultations are used when the care provided is more complex. The time-limited consultation is the hallmark of general practice care (16) and is core business. Another defining feature of general practice is the GP's role as gatekeeper to the wider health system. GPs authorise referrals to hospitals and secondary health care services such as pathology, radiology and specialists. In Australia, patients can consult GPs at multiple general practices, unlike in the UK, where patients are required to register with one

general practice only (17). Seeking health care across multiple general practices can result in a lack of continuity of treatment and duplication of tests (17).

In 2011 there were 7035 general practices registered in Australia (18), but it is not known how many employed a practice manager. Sole GP practices constituted 35% of all general practices, 44% had two to five GPs, and 21%, six or more GPs (18). Large GP group practices share the costs associated with premises, equipment and the salaries of non-clinical staff. GPs also enjoy the benefits of giving and receiving collegial support, and the opportunity to specialise and broaden the range of services provided. The current private small business model in Australia has been largely built around the medical expertise of GPs, administration support, and more recently the business expertise of practice managers (19). Government-funded community health services operate in areas of economic disadvantage, or in rural and remote areas where privately owned general practices are not financially viable (20, 21). Since 2011 the Federal Government has piloted a super-clinic model, offering a wide range of community health services in one location (19). Nationally, corporate health care companies own less than 1000 general practices (12%). The distribution of general practices across Australia is a reflection of our urban lifestyle: 68% of the population live in major cities and 77% of all GPs work in urban locations (22). This imbalance means fewer general practices and GPs working in rural and remote areas per head of population, requiring patients to travel longer distances to seek medical care (23). Furthermore, the GP shortage reflects the disparity in healthcare outcomes between people living in rural and remote areas and those living in urban locations (24).

2.1.1 Funding for general practice

General practice in Australia is mostly funded by the federal government through Medicare, the national health insurance scheme (25). The cost of services are based on a pre-determined fee-for-service model which employs Medical Services Benefits (MBS) item numbers unique to general practice (26). GP consultations are billed according to the length of time and the complexity of the service provided. For each time-limited consultation, GPs can elect to claim the MBS rebate as a full payment, known as bulk billing, or they can include an additional charge directly to the patient for the consultation, known as an out-of-pocket cost (26). GP consultations produce

the largest portion of general practice income (25), therefore the GP's time is considered the single most valuable asset of a practice. By managing a rigid appointment schedule, practice managers ensure GPs undertake enough consultations to generate funds to cover business expenses and income for the owners (27). By contrast, in the UK and New Zealand, general practice core funding is determined by registered patient numbers and capitation (28).

The fee-for-service model of care is designed to offer episodic care, therefore is limited in its suitability to provide health promotion, preventive health care and the ongoing care required to manage the increasing burden of chronic disease (26). A Practice Incentive Program (PIP) was introduced in 1998 to address the changes in public health need, encourage a more systematic and evidence-based approach to the management of chronic disease, and to drive quality improvement activities. This capitation model has shifted the practice manager's focus from maximising the GP consultation numbers to compliance with RACGP standards to meet PIP requirements (27). PIP is the new important capitation income for Australian general practice and creates a link between government funding, efficiency and patient outcomes, and also allows for greater monitoring and targeting of general practice activity by government (29). However, the complexity of claiming PIP payments, and the lack of business administration expertise in some practices, has resulted in many opting out of some or all of the programs and not offering the associated services (30, 31). In 2007–2008 it was estimated that only 67% of all general practices participated in the PIP program, although 91% were eligible (29).

Practice managers oversee the administrative tasks associated with claiming for Medicare-funded services. This responsibility requires an understanding of the Medicare fee claiming system and knowledge of the services claimed, in addition to understanding the unique rules applied by Medicare for each category of services. The complexity of Medicare claiming for services provided by general practice is openly discussed among general practice managers and GPs but has not been documented formally.

2.1.2 Quality improvement in general practice

General practice undergoes a rigorous accreditation process every three years; this has been a key aspect of the practice manager's role since 1992, when accreditation was introduced as part of the General Practice Reform Strategy (32). The design of accreditation enables monitoring of quality and safety standards and supports adaptation to changes in healthcare. The focus of accreditation is workforce and teamwork, quality in service delivery, and demonstration of continuous quality improvement. External GPs and practice managers assess whether a general practice is meeting and maintaining predetermined standards in a peer-reviewed audit taking one to two weeks. Accreditation certification is directly linked to eligibility for Medicare rebates for the PIP program of services (33), making accreditation an important business activity. The current accreditation framework emphasises administration processes and not standards of clinical care (25), therefore placing the burden of responsibility for meeting this benchmark on the practice manager.

2.2 The role of the general practice manager

Over the past four decades general practice has increased in size with more GPs, and has become administratively more complex (34, 35). The high level of government regulation and the increasing breadth of health care services provided has necessitated the effective and efficient organisation of general practice routine (14, 19). This has resulted in general practice requiring management expertise beyond the level of most GPs, who rarely have business management training (36). In response to general practice business reforms and the larger clinical workloads of GPs, practice managers began to be appointed in the 1970s, and their role has grown and evolved ever since (25).

The private business arrangements of most general practices in Australia do not require practice managers to have a specific position description. General practice is diverse, demanding a variety of management and leadership styles that can be adapted to suit the organisation's needs (37). Practice managers do not work in isolation but are part of a team, in which their role may vary according to the organisational structure and culture of general practice and the delegation of power. However, across most practices, regardless of size, the practice manager coordinates

and oversees the day-to-day routine and creates the support structures to enable GPs to do clinical work (38). In 1949, Fayol described the role of managers as coordinating and leading an organisation, utilising resources – including personnel – to achieve planned outcomes, a definition with obvious relevance to practice managers. (39). But it is beyond the scope of this thesis to examine the science of small business management.

According to the Australian Association of Practice Management (AAPM), the practice manager role encompasses some or all of the following tasks:

Financial management, human resource management, planning and marketing, information management, risk management, governance and organisational dynamics, business and clinical operations and professional responsibility. (40)

This list of tasks does suggest they contribute to the overall efficiency and delivery of primary healthcare but does not tell us much about their day at work.

The lack of a universal definition of the manager position has been highlighted in literature from the United Kingdom (UK) (41, 42); perhaps partly as a result, there is a lack of academic literature about this role. This is somewhat surprising, given the level of reliance on practice managers to coordinate schedules and manage business and administration so primary care can be adequately delivered in a timely effective way (43). The few publications available – mostly theoretical handbooks published since the 1970s – merely list what practice managers *could* do. These guides are instructional and prescriptive, listing tasks practice managers might undertake based on the requirements at the time of writing (44-47). The only detailed description of practice managers that I could find comes from Pringle et al. (1991), who described two types of practice managers:

- the “true practice manager”, and
- the practice administrator (44).

The “true practice manager” has a business qualification and management experience. This manager is recruited from outside the practice and given full executive responsibility for managing the organisation, and usually work in larger practices of five GPs or more (44). By contrast, the practice administrator with no formal business

qualifications is promoted from the pool of reception staff to oversee the day-to-day coordination of a small practice, while the GP partners retain financial and governance responsibilities (44, 48). Smaller practices employ from within their organisation, extending the scope of the appointee's previous role rather than creating a new, more senior position (44, 49). Laing et al. (1997) suggested that this was in part due to these managers not having the skills to develop the role and no encouragement from GP practice owners to do so (43). Although these reports are nearly 30 years old and refer to practice management in the UK, in-field observation and telephone consultation with four local experts in general practice management suggests these arrangements are relevant to Australian general practice and continue today (50).

It is important to understand the level of authority and autonomy practice managers have and exercise. Laing et al. (1997) described practice managers as "having a perceived level of authority", with tight limitations on the scope of what they can change or develop because they work within a very tightly controlled environment, regulated by fixed GP appointment schedules and government funding linking remuneration of services to regulations and defined targets (19). Given that general practice provides the bulk of Australians' primary healthcare services and the fact that the practice manager has a significant influence on workplace routine and output (25) it is important the role is better understood by members of the wider healthcare community.

The owners of most Australian general practices are GP partners. There is a trend in Australia for general practices to amalgamate and increase in size, and this is consistent with current government policy (23). As mentioned earlier, the level and type of management expertise in a practice directly relates to its size. Larger practices have more GP owner partners and more complex governance structures (19, 49), and tend to employ qualified and more experienced practice managers. In these practices, established management structures and governance responsibilities are shared between the GP partners and the practice manager, and they tend to have clear systems of accountability for both medical and administrative activities (19). King et al. (2012) found these practices performed better in terms of service delivery than smaller, less organised businesses (19). In these circumstances, practice managers are

increasingly recognised as fundamental to the operation of general practice (51). It is anticipated that with the continuing increase in practice size and the demands of health care reforms, the practice manager role will continue to attract professionals with management expertise from outside the practice administration team and increasingly outside the healthcare industry.

In Australia, no records indicate the number of practice managers in the workforce. The position has various titles, including chief executive officer, business manager, executive director, practice administrator or office manager. The professional qualification for this role is a Diploma of Practice Management, and is offered in an external study capacity (40); however, this qualification is not a prerequisite for the job, and many practice managers have no formal qualification (52). Learning is experiential, and the vocational nature of practice management with different levels at which the role is executed, along with a lack of a defined career pathway, are features of the position. This position can also be professionally isolating, with no immediate peer support in the practice and often little or none available at a local level. Divisions of General Practice, and more recently Primary Health Networks (PHN), offer practice managers peer support, but reports and personal discussions with practice managers in the field suggest this was and remains inconsistent in approach, varied across networks and was often poorly attended.

Practice managers' reputation as gatekeepers to GPs is widely recognised by researchers (53) and those working in the pharmaceutical industry, but its origin is unclear. Certainly, the practice manager should protect GPs from unsolicited contacts to ensure uninterrupted consultation schedules and to maximise the use of their time. Access to GPs is tightly regulated and requires a planned approach (53). Although the power of the practice manager to block access to GPs is debatable (54), they can block initial access, usually checking with GPs before arranging any meetings. In practice, the practice manager's power to block access to GPs is limited and in most instances access can be negotiated.

The role of the practice manager relates directly to all other roles within general practice. The practice manager provides the communication link between non-clinical staff and GPs (41), and manages staff flow. The practice manager's level of authority

and autonomy is largely dependent on the professional relationship between GP partners. This relationship is complex, as GPs employ practice managers to manage their businesses and be managed, but they are also their employers (36), suggesting this relationship can determine the scope and execution of the role (49, 55).

In some practices, the practice manager's professional relationship with other staff is unclear. Often organisational hierarchy is vague, with practice managers expected to undertake reception work, and management tasks are sometimes distributed across professions. This is further complicated when PNs are assigned non-clinical tasks and it is not clear whether they are managed by the GPs or the practice manager (56).

2.2.1 The timeline of practice management

There has been a slow but increasing professionalisation of the practice manager's role since the 1970s due to ongoing healthcare reforms, increasing GP workloads, changing technology and additional business administration (43, 57). The restructuring of solo home-based clinics to purpose-built group general practices, beginning in the 1970s, necessitated management and business expertise to oversee practice routine, billing and such tasks as maintenance of premises, equipment, human resources and associated legislation (58, 59).

The Royal Australian College Of General Practitioners' (RACGP) introduction of a paper-based medical records system in the 1970s (60) broadened the scope of general practice administration, as did the advent of Medicare in 1984 and new regulations for claiming GP fees for services (25). By the late 1990s, government funding was made available for computers and clinical software packages for electronic health records and prescribing (61). Practice managers were at the forefront of purchasing and taking responsibility for software, and the ongoing maintenance of computing systems. Some practices managers also trained staff, including GPs, to use the patient medical records software (50, 51).

In 1983, a group of Queensland GPs established the Australian Association of Practice Management (AAPM) as a peak body for practice managers (57). These GPs recognised general practice required more organised and sophisticated management expertise and that practice management should be considered a professional role. Secretarial

and office management up to this time was largely provided by members of GPs' families (59). During this era, the RACGP provided GPs with general practice business education, but such education was not available to their administrative staff (57).

2.2.2 Australian Association of Practice Management

The main aim of the Australian Association of Practice Management (AAPM) is to advocate for its 2735 members as at 2015 (52), of whom 1800 are general practice managers. The remaining 935 of members manage specialist practices, allied health, dental and veterinary practices. The organisation seeks to promote professionalisation of the role through providing mostly online education and updates via their web-based platform or through remote learning modules. AAPM endorses a Diploma of Practice Management offered through a partner private tertiary training organisation (62). The Association also runs an annual five-day conference for its members on relevant aspects of general practice, including Medicare updates and reform, changes in general practice technology, information on human resource management, and legislation relevant to managing health care businesses.

One of the main activities of AAPM since 2005 has been to administer a biannual practice manager survey. The aim of the survey is to obtain data about managers and the practices they work in and provide a manager salary range benchmark for practice principals and owners of health care organisations. The specific objectives of the survey are to determine employment conditions, benefits, qualifications, professional development and core responsibilities. The results are available to AAPM members but are otherwise unpublished.

AAPM Biannual Practice Manager Salary Survey – 2015

The most recent survey available occurred in March 2015; it provided some insight into the demographic description of practice managers in Australia but did not describe what practice managers do beyond the definition on page 6. The survey results are unpublished and are presented here with permission from the authors (52).

A total of 848 AAPM members (31%) participated in the survey in 2015. The results do not separate general practice managers from other practice managers and all results are presented as proportions only. Of those completing the survey questionnaire, 90%

were female; 64.8% of respondents worked in general practice, the remaining 35% worked in dental, specialist, private hospitals and allied health practices and veterinary practices. The largest proportion of participants (40.6%) was aged 46–55 years, 22.2% were 26–35 years of age and 9.3% were over 60 years of age. The largest category of practice managers in terms of career length was ten years or more (28.6%), suggesting this is a stable workforce.

Almost half (46.4%) of survey respondents had a Diploma of Practice Management or equivalent. The varied career backgrounds of practice managers are presented in Figure 1. It shows that nearly a fifth of participants had a background in administration, 12% came from nursing and another 12% from small business management, while fewer than one in 10 had previously worked in healthcare, but no finer detail about these groupings was supplied.

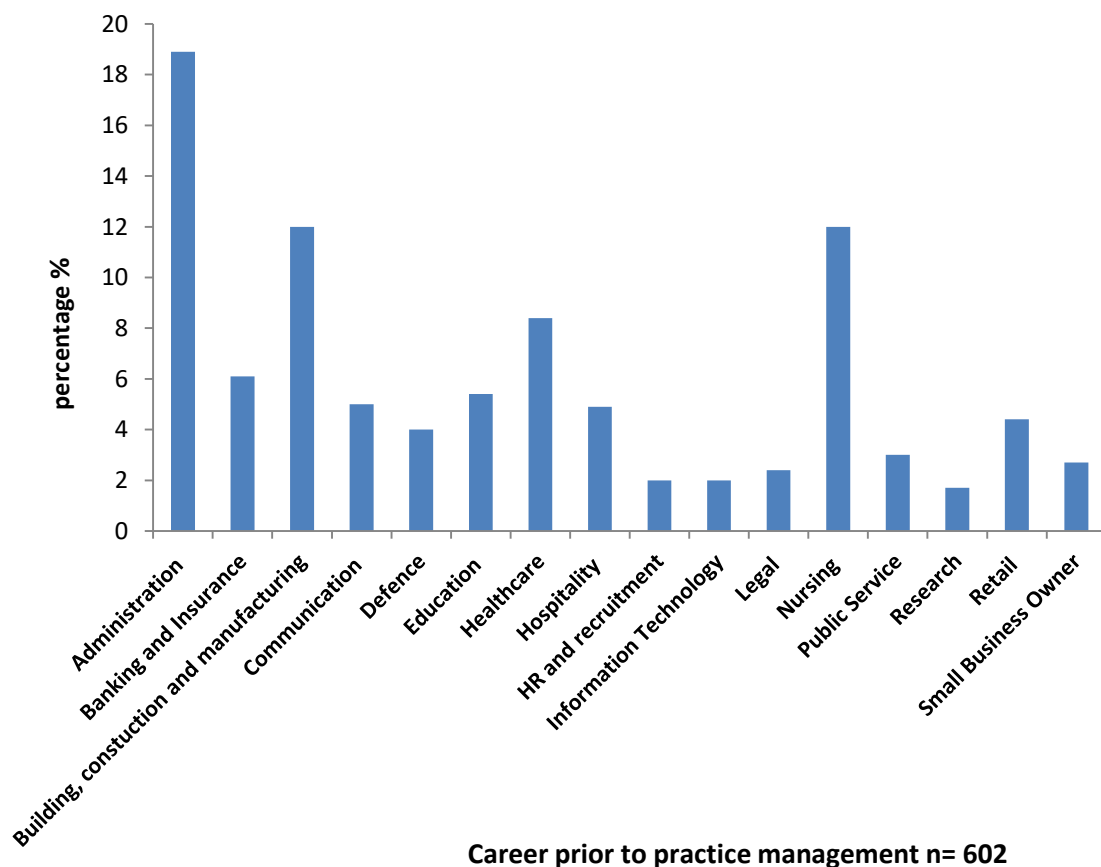


Figure 1: Practice managers' professional backgrounds.

Data source: AAPM National Biannual Practice Manager Salary Survey, 6th Edition, 2015 (52)

Current role

More than a third of participants worked full-time and 81% managed one general practice only; however, 3% managed five or more. Of 625 participants who gave information, 86.7% had a current position description. The mean salary range of practice managers in 2015 was between AUD \$75,000 and AUD \$85,000, with those earning up to AUD \$95,000 per year reporting working in larger practices (more than 300 patients per day) and working 40 hours per week or more. Some practice managers were given performance bonuses (a percentage of business profits) and packages in addition to salary.

Responsibilities of their current role

Practice management core responsibilities are reported in the survey results in nine broad groups, similar to those AAPM listed in their definition of a practice management position. Up to 88% of participants reported doing all or most of these tasks. The hours per week allocated to each task are presented in Figure 2.

Those who reported involvement in business and clinical operation did so for up to 16 hours per week. This task involved developing clinical pathways within the structure of practice routine and implementation of improvement programs to support clinical operations. This suggests some practice managers modify routine to accommodate new programs. They also implement programs and initiatives to support GPs to undertake a broader range of clinical care. An example of this would be establishing a skin clinic or travel vaccine clinic in an area of high need.

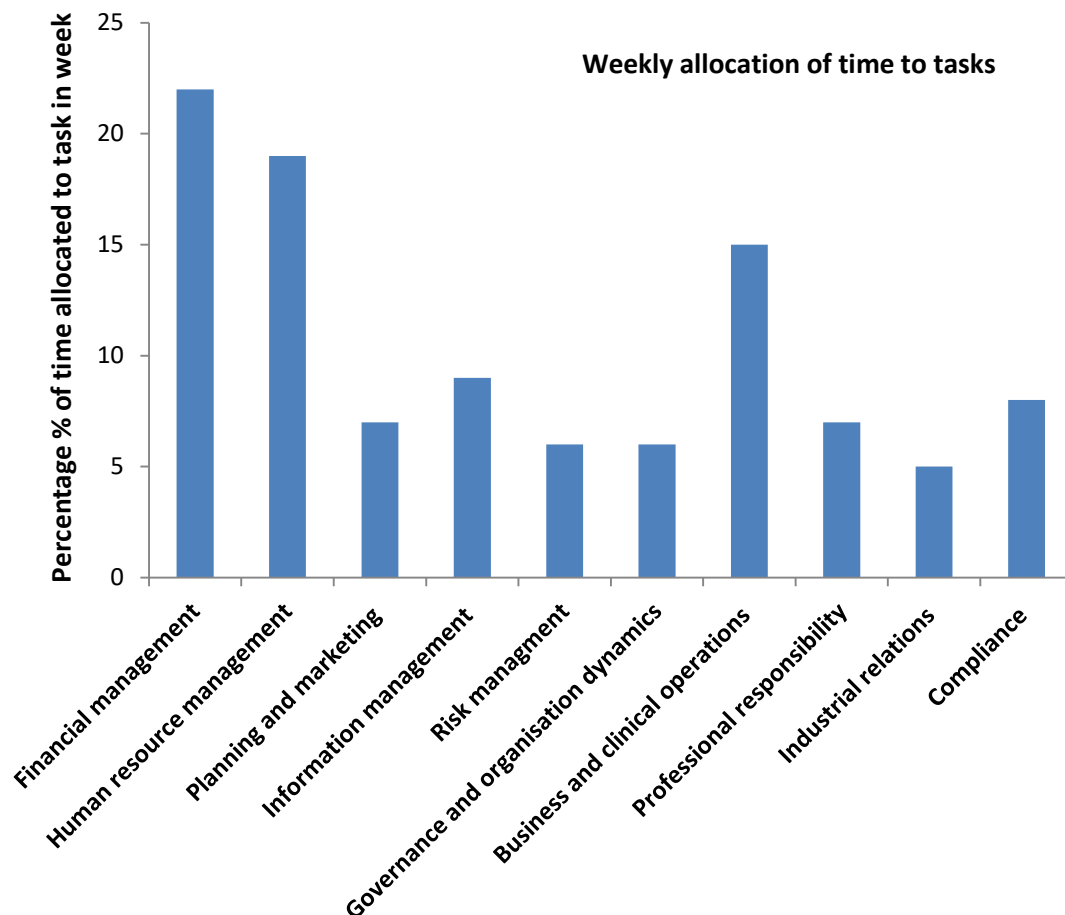


Figure 2: Practice manager's role and allocation of time to task over a week
Data source: AAPM National Biannual Practice Manager Salary Survey, 6th Edition, 2015 (52)

The AAPM National Biannual Practice Managers' salary survey is a useful tool that allows practice managers and their employers to benchmark their role and compare salaries against their contemporaries. The demographic results suggest practice managers are a heterogeneous group in terms of educational qualifications, past employment experience and management qualifications. The results must be viewed within the scope of some methodological limitations; only 31% of questionnaire recipients returned one (either complete or incomplete). Results are presented as proportions and not aggregated; the report contains no description of methods regarding data collection or any description of the data analysis.

2.2.3 Practice managers in the UK

The development of the practice manager role in the UK has been more formalised than in Australia. The introduction of the National Health Service (NHS) in 1948 resulted in a new structure for the delivery of health care services at the primary care

level (63). The initial NHS registration of British citizens created overwhelming demand for services and prompted the reorganisation of GPs from solo to group practices. In 1966, the Family Doctor's Charter provided for the reimbursement of 70% of the costs of employing general practice administration staff to support the work of GPs (58). The uniform service regulations of the NHS were designed to standardise pay and qualifications, using the NHS Whitley pay scale (43, 64). Several NHS reforms have influenced and regulated the financial management of general practice, the main one being the introduction in the 1990s of fund-holding contracts based on registered patient numbers (65). Fund-holding contracts determined the need for a higher level of business expertise from practice managers, as high-performing practices were given funds to manage their businesses and deliver services to their local communities (56). As in Australia, the size of the practice and GP partners' level of business determination dictate the business experience and management expertise of the practice manager employed (66).

Practice managers are supported by several professional organisations, including First Practice Management and the Association of Medical Secretaries, Practice Managers, Administrators and Receptionists. Practice managers can undertake training at a diploma level that is included in the UK National Qualifications Framework (67).

2.3 General practice-based research in Australia

Prior to the 1980s, very little general practice-based research was undertaken in Australia, but by 2000, the number of research studies had increased five-fold (68) and this trend continues (69). Nevertheless, in 2000 the amount of general practice-based research output remained low compared to that produced in other areas of healthcare. For example, there were three publications per 1000 GPs. By comparison, surgeons and public health physicians published at a rate of 60 and 150 publications per 1000 (70).

The Primary Health Care Research Evaluation and Development (PHCRED) Strategy and the Australian Primary Health Care Research Institute (APHCRI) were established in 2000. An aim of PHCRED was to support the coordination and development of local networks of research-active general practices and increase the amount and sustainability of high-quality general practice-based research (32). By 2010, Australian

general practice studies had increased; most of this research was produced by university departments of general practice (71). The earlier investigation undertaken in 2002 by Askew et al (3, 70) and reported in the previous paragraph has not been repeated since, making any comparison impossible to report. Furthermore, in 2015, the PHCRED strategy was defunded (72) despite the impact of the strategy on increasing primary care research output. This loss of funding hinders the work of primary care academics and reduces their reach to general practices. Therefore few general practices have a research-active culture and routinely participate in trials (73).

The potential for robust general practice-based research has been enhanced over the years with the widespread computerisation of medical records (74). Also, 89% of adults report seeing the same GP for all their healthcare (75), suggesting large volumes of longitudinal data would be available to investigate. Practice managers often oversee information technology (IT) in general practice, and therefore can participate in the onsite management of data extraction for research purposes. However, this is yet to be reported in the literature.

The barriers to clinical research participation often cited by GPs are time constraints, the burden of the associated administration, and the lack of remuneration (76-78). As participation in primary care research in Australia is mostly altruistic and not conducive to the business model of private general practice, researchers must find alternative ways of accommodating studies in general practice routine. Findings suggest GPs and practice staff are enthusiastic about simple studies with clear aims and objectives, relevant to medical conditions encountered daily, and findings they can potentially implement (79, 80). Investigating ways to accommodate research in general practice is important if health care is to be evidence-based, effective and delivered efficiently (81, 82).

2.4 Chapter summary

This chapter has provided an overview of general practice and practice management in Australia. The data presented was sourced from meetings with experts in the field and grey literature; no peer-reviewed publications from Australia describe the practice manager's role or their role in research. Experts in the field confirmed that reform of the healthcare system in the 1960s and 1970s led to restructuring of the delivery of

primary care, leading to larger general practices and the introduction of the practice manager role. In recent times, practice managers have come to be regarded as fundamental to the functioning of general practice and their role is becoming more important due to healthcare reforms and the increasing complexity of private medical business management. These factors, and the need to examine ways research can be accommodated and facilitated in general practice, prompted me to undertake an investigation of the practice manager role and its value in research in general practice. A systematic review of the international literature on this topic is presented in Chapter 3.

3 The practice manager role and its relevance to general practice-based research

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The practice manager role and relevance to general practice-based research: a review of the literature

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Abstract. Research based in Australian general practice is essential to ensure that health care provided in this setting is evidenced-based and delivered effectively. Research designed for general practice must be feasible and acceptable to general practitioners (GPs) and practice managers (PMs), who are responsible for coordinating practice activities. However, little is known about the PM role and their contribution to research undertaken in general practice. The aim of this systematic review is to examine this role and its relevance to the conduct of general practice-based research. Databases searched (Medline, PubMed, CINAHL and Scopus) identified six relevant studies. One study investigated the role of the PM in general practice-based research and five examined aspects of the PM role. Data about study design, number and type of participants and findings was extracted and managed using a matrix framework. The limited findings suggested PMs are interested in managing research at the practice level. The PM is central to practice communication and coordination but the role varies depending on qualifications, size of practice and expectations of the GPs. This paper highlights the paucity of evidence about the PM role and their contribution to the conduct of research undertaken in general practice. Further investigation is required to gain insights into establishing and managing future research in Australian general practice.

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Background

General practice provides 83% of health care in Australia (Britt *et al.* 2008) and general practice-based research is essential to ensure that the health care provided is evidence-based and delivered effectively (Askew *et al.* 2001; Brown and McIntyre 2012). Prior to the 1980s, very little general practice-based research was undertaken. Between 1990 and 1999, research increased five-fold and this trend continues today (Yen *et al.* 2010). Nevertheless, the amount of general practice-based research remains low compared with other areas of the health service (McAvoy 2005; Zwar *et al.* 2006; Askew *et al.* 2008). Undertaking research successfully in general practice requires an understanding of the complexity of general practice organisations and the roles within, and must consider the unique characteristics of this setting (Askew *et al.* 2008). For example, research interventions being trialled must be designed in ways that are feasible in the general practice context, that are acceptable and meaningful to general practice staff, and that fit within the organisational culture (May *et al.* 2009; Ling *et al.* 2012).

Over the last decade, the trend towards the formation of larger multidisciplinary general practices has resulted in an increased demand for qualified general practice managers (PMs). While the role of the PM can vary between practices, they are responsible for the day-to-day coordination of staff, thereby

facilitating the provision of health care delivered by the GPs and practice nurses (PNs) within the practice. Previous research has found that having a PM in general practice was associated with strategic development in the practice (Baker and Thompson 1995); therefore, it is likely that the PM will also be an important factor in determining the success of any research conducted in general practice. We conducted a systematic review to investigate the role of the PM and its relevance to general practice-based research with the aim of understanding how research can best be established and implemented in general practice.

Methods

Search strategy

This systematic review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Moher *et al.* 2009). A search of the following electronic databases was undertaken to identify papers published up to February 2015: Medline, PubMed (Health), CINAHL and Scopus. A number of search terms were used after investigating the terms used to refer to PMs in countries with comparable healthcare systems. Each term was enclosed in brackets and by inverted commas to ensure that the phase was selected. The search terms used were: ('practice manager') or ('medical practice manager') or ('practice office manager').

What is known about the topic?

- The PM is central to the communication and coordination of general practice activities; however, there is little knowledge of the PM's role in Australian general practice-based research.

What does this paper add?

- This review confirms the lack of investigation into the PM's role in research and highlights the need for examination of this role to inform general practice-based research design and sustainability.

Duplicates were removed and all search results were initially reviewed for relevance to the aim of the review based on the title. Additional papers were identified through a search of grey literature and the reference sections of selected papers. The papers were independently checked by two authors (AW and MTS) to determine their relevance and categorised to identify the PM role and their role in general practice-based research.

Inclusion and exclusion criteria

Papers were eligible for inclusion if they were peer reviewed; investigated the role of the general practice manager; and were written in English and undertaken in Australia, New Zealand, Canada or the United Kingdom (UK) – countries in which the general practice setting is comparable. Papers were excluded if they were studies conducted outside the general practice setting, such as dental or veterinary practices, or in hospitals, or were discussion papers or book reviews.

Data extraction and analysis

Data were collated using a Microsoft Excel (Microsoft Corporation, Redmond, WA, USA) spreadsheet. The data was summarised in a matrix framework and included study design, aims, study population and main findings. The data were compared and contrasted using thematic analysis (Fereday and Muir-Cochrane 2008) then categorised to present evidence about PM role in general practice and their role in the conduct of general practice-based research. The overall aims and quality of the studies varied, limiting the scope of the results presented. Studies reporting quantitative results did so both in tables and descriptively. To combine results from all studies and present common themes, we took a qualitative narrative approach (Popay *et al.* 2006) to reporting findings. The results were reviewed under the following subgroups inductively derived from common themes arising in the papers: the PM role; general practice size; management structure; GPs' and PMs' perceptions; PMs' roles in, and opinions of, research.

We undertook an assessment of study bias for observational studies using the evaluation criteria adopted by Sanderson *et al.* (2007) in their systematic review of tools used to assess bias in observational studies. We assessed each paper for evidence of selection bias, sample size justification analysis of confounding and whether or not the paper discussed any methodological limitations (Sanderson *et al.* 2007).

Results*Identified studies*

The initial search identified 1125 papers. Duplicates were removed and the remaining 548 papers were screened for eligibility based on the title; 42 full papers or abstracts were read. Papers were excluded if they were discussion papers ($n=22$), book reviews ($n=2$), studies undertaken outside general practice ($n=5$) or studies that did not aim to investigate the role of PM in general practice ($n=7$). Two additional papers were found when hand-searching references and grey literature, leaving six studies that met the criteria for inclusion in the review (Fig. 1).

Study characteristics

All six studies were observational and included four cross-sectional questionnaire-based studies (three postal surveys and one onsite survey (Nelson 1976; Grimshaw and Youngs 1994; Newton *et al.* 1996; Graffy and Stubbs 2005)), one qualitative study using semi-structured interviews (Westland *et al.* 1996) and one study combining qualitative semi-structured interview results with a review of field notes and general practice documents (Checkland 2004).

One paper specifically investigated the role of the PM in undertaking general practice-based research (Graffy and Stubbs 2005) and five investigated the role of the PM in general practice (Nelson 1976; Grimshaw and Youngs 1994; Newton *et al.* 1996; Westland *et al.* 1996; Checkland 2004). All six studies originated from the UK and were published between 1976 and 2006 in UK-based journals.

The sample size varied in the quantitative studies, ranging from 148 to 477 participants (PMs and GPs), with response rates ranging from 45% (Graffy and Stubbs 2005) to 63.6% (Newton *et al.* 1996) and 73% (Grimshaw and Youngs 1994). The onsite survey, undertaken at a Royal College of General Practitioners' UK (RCGP) education day, recruited 148 participants (Nelson 1976). One of the qualitative studies (Checkland 2004) interviewed 24 participants who were GPs, PMs, PNs or receptionist staff from three practices. No sample size information was provided for the other qualitative study, where the participants were PMs and GP practice partners (GP practice owners) from eight general practices (Westland *et al.* 1996).

The five studies undertaken between 1976 and 2004 investigating the PM role are considered together (Nelson 1976; Grimshaw and Youngs 1994; Newton *et al.* 1996; Westland *et al.* 1996; Checkland 2004). The papers found in this systematic review do not answer the initial research question; however, the results do provide some insight into the role of the PM and highlight the need for future research. The only study investigating the role of the PM in primary care research (Graffy and Stubbs 2005) is reported separately.

The role of the PM

The PM role was reported in all studies as extensive and varied, reflecting the unique needs of individual practices. The role of the PM was central to the day-to-day functioning of the general practice (Westland *et al.* 1996). In studies published after 1994, duties included financial management, human resource management (HRM), information communication technology (ICT), governance and communication, and engagement with

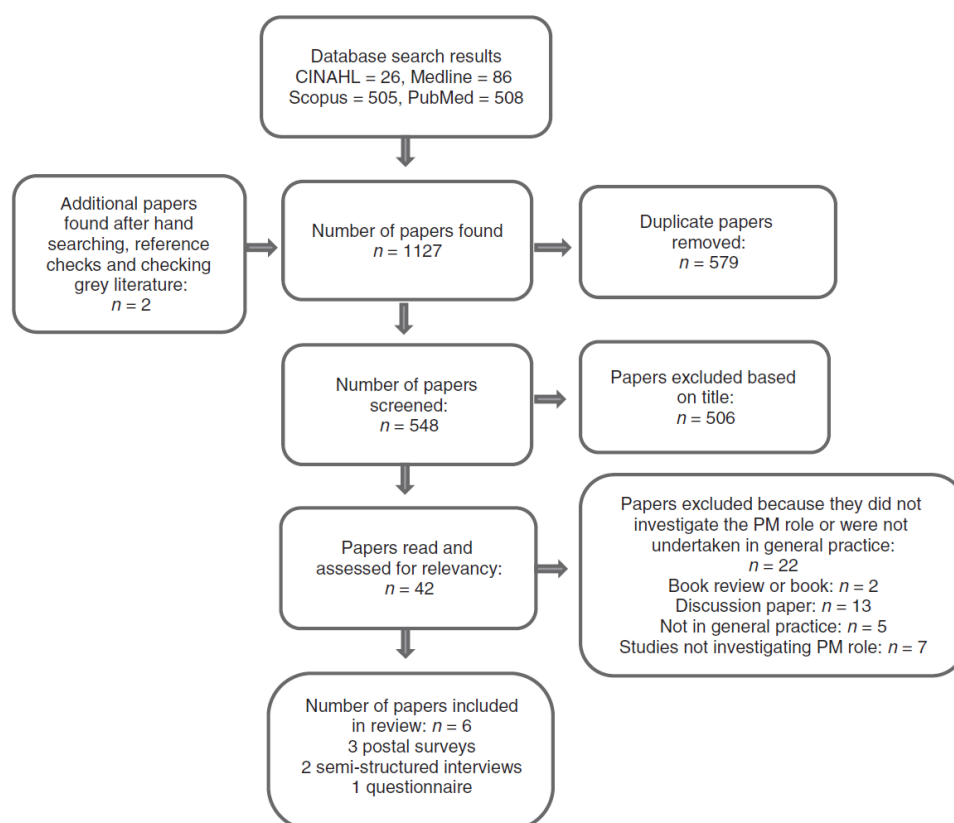


Fig. 1. Flow diagram of study selection process.

internal and external stakeholders. However, PMs reported that they continued to undertake administrative tasks such as reception work in addition to their practice management role (Newton *et al.* 1996; Westland *et al.* 1996; Checkland 2004).

The role of PM in relation to general practice size

All studies reported that the PM's role was determined by the practice size (as measured by the number of GP partners). Smaller practices (1–4 GPs) employed a PM whose role was office administration. These PMs oversaw the day-to-day running of the practice but had limited autonomy to make decisions at management level. In these practices, strategic and governance decisions were made by the GP partners (the GPs who own the practice). The PMs who worked in larger practices (five or more GPs) with defined management structures had an executive role that included delegating tasks and advising the GP partners on business matters. They were more likely to make decisions based on policy and procedure guidelines than those managing smaller, more informal workplaces (Newton *et al.* 1996). These PMs were generally employed from outside the health profession, and had both professional qualifications and experience in planning and business development. It was part of their role to

undertake business assessments and implement change to develop the business (Newton *et al.* 1996; Westland *et al.* 1996). In smaller practices the position of the PM was often not clearly defined with administration and reception staff undertaking practice management tasks (Newton *et al.* 1996; Westland *et al.* 1996).

Management structures in general practice

In addition to practice size, other individual characteristics – such as staffing arrangements and GP partners – determined the level of management responsibility and autonomy held by the PM (Grimshaw and Youngs 1994; Checkland 2004). Additional management tiers, such as assistant PM, business manager and office manager, were more common in larger practices, in which management structures were formalised (Grimshaw and Youngs 1994; Newton *et al.* 1996). PMs managing larger practices were seen as the link between the GPs and non-clinical employees, such as administration and reception staff (Westland *et al.* 1996). Checkland (2004) found that although PMs were employed as managers, all practice staff believed that the GP partners held overall responsibility for practice management. Grimshaw and Youngs (1994) reported that where practices had management

Table 1. Summary of papers reviewed
PM, practice manager; GP, general practitioner; HRM, human resource management

Reference	Country of study	Aim of the study	Participants and sample size	Study design	Main findings
Graffy and Stubbs (2005)	England	To determine the role of PMs in research, and investigate their opinions of research and training needs	$n = 232$ PMs	Cross-sectional postal survey	145 PMs (62%) had been involved in research 35–40% of PMs had a positive attitude to research 45 (19%) PMs had some research training 114 (49%) PMs wanted research training Response rate = 45% GPs confused about PM role GPs unsure of how to manage a PM GP partners unwilling to relinquish management control Previous experience and qualifications determined professional status
Checkland (2004)	England	To increase the understanding of the role of the PM and implications for general medical services contracts (General Medical Service; National Health Service financial contracts).	$n = 24$ GPs, PMs and reception staff from 3 general practices	Case studies, semi-structured interviews, field notes	PM role was central to the day-to-day management of all non-clinical aspects of the practice Increased recognition of the importance of PM role The main determinant of the PM role was practice size The PM was influential in development of practice policy Larger practices were more likely to employ an executive manager from a business background
Westland <i>et al.</i> (1996)	Scotland	To describe the PM role, staff relationships and involvement in policy development	PMs and GPs from 8 general practices (no reported sample size)	Semi-structured interviews	The larger the practice, the greater the likelihood that the PM had autonomous decision making authority and could independently deal with HRM issues; this decreased in relation to practice size PMs working in larger practices had been recruited from external management positions Tiers of management established in larger practices Response rate = 63.6%
Newton <i>et al.</i> (1996)	England	To determine decision making about HRM responsibility in general practice	$n = 447$ PMs or representatives	Cross-sectional postal survey	

Grimshaw and Youngs (1994)	Scotland	To determine the role and responsibilities of the PM and the characteristics of general practices	<i>n</i> = 404 PMs	Cross-sectional postal survey	PMs had wide range of roles and responsibilities 50% of PMs did reception work in addition to own job 75% of PMs attended PM course in past 3 years 47% of PMs had been in role for less than 3 years 66% of PMs attended management meetings. Generally, the PM had an administrative role but no executive responsibility Response rate = 73% PMs had wide range of roles and responsibilities Size of general practice determined whether there was a perceived need for a PM PMs had more progressive views about their role than their GP employers and wanted more managerial responsibilities Response rate = 100%
Nelson (1976)	England	To determine the role of the PM as seen by GP and ancillary staff in general practice	<i>n</i> = 97 ancillary staff and 51 GPs	Questionnaire administered at workshop	

meetings, only 66% of PMs attended. The PM managed non-clinical staff; however, there was confusion about whether the GPs or the PM managed the nurses (Checkland 2004).

GPs' perceptions of the PM role

GPs' perceptions of the PM role varied within and between practices. Even when GP partners employed a PM at an executive level, some GPs were confused about what the role entailed (Westland *et al.* 1996). In practices with clear and defined job descriptions, there was still confusion about the level of autonomy held by the PM and their role in strategic planning. Some GPs saw the role as operational but without any capacity for determining clinical policy (Westland *et al.* 1996; Checkland 2004). Some GPs felt that general practice management was the province of the GP partners, regardless of practice size (Nelson 1976; Checkland 2004).

PMs' perceptions of their role

Despite the evolving professional status of practice management, PMs reported feeling undervalued professionally and financially (Westland *et al.* 1996). They expressed frustration with the lack of clarity regarding their role and their limited authority in terms of management (Newton *et al.* 1996). Non-executive PMs wanted greater responsibility, and more opportunity to develop the practice and to be involved in higher level planning (Westland *et al.* 1996; Checkland 2004). PMs identified professional qualifications specific to the role as important for both professional development and status (Westland *et al.* 1996; Graffy and Stubbs 2005). The earliest study, Nelson (1976), reported that PMs saw their role as working to achieve the aims, objectives and interests of GP partners.

PMs' roles in research

In the only study examining the role of PMs in primary care research (Graffy and Stubbs 2005), 62% (145 of 232) of PMs had a role in research either while employed as a PM or in previous positions. Over two-thirds (160 of 232) of participants worked in practices that were involved in research, either undertaking their own research or participating in research managed by an external organisation. Of these 160 PMs, two-thirds thought that research participation did not increase workload demands on staff; the other third felt that research was 'quite disruptive'.

PMs were confused about the difference between audit and research, however almost all PMs had assisted GPs with clinical audits and had audited their own work (Graffy and Stubbs 2005).

PMs' opinions of research

PMs were positive about research and reported research to be 'interesting' and 'something managers should do'. PMs (49%) wanted research training; only 19% had undertaken any training as part of academic studies (Graffy and Stubbs 2005). The majority of PMs identified training needs focussed on managing research projects, designing questionnaires, analysing qualitative data, and utilising and applying statistics.

PMs identified research-worthy topics, including: patient access, patient's expectations of general practice, HRM issues, the delivery of effective health care and the changing role of

practice management. Most PMs considered research to be a rewarding aspect of their role and one that could be easily accommodated in the general practice routine (Graffy and Stubbs 2005).

Assessment of the quality of the studies

All four quantitative surveys described how the sample was selected and reported response rates; however, no study included sample size calculations. Statistics provided were mainly descriptive, with only one study (Grimshaw and Youngs 1994) comparing proportions between groups. There was no assessment of confounding; however, three of the six studies discussed strengths and limitations (Newton *et al.* 1996; Checkland 2004; Graffy and Stubbs 2005).

Discussion

This review found that there has been little research investigating the role of the PM and even less examining the role in general practice-based research. This lack of evidence has prevented us from determining the PMs role in the conduct of research based in general practice; however, we believe our review has value in highlighting the gaps in the literature and the need for future research. We identified only five papers investigating the role of the PM and one paper specifically investigating the role of the PM in research based in general practice. It is surprising that the PM role in research has not been investigated, given research and audit activities have been highlighted as a priority for primary care since the 1990s in Australia. PMs assist GPs with data collection for audit and research (Graffy and Stubbs 2005); however, their potential to contribute further has been overlooked.

In 1990, the Australian Government sought to increase general practice-based research by funding the General Practice Evaluation Program. There has also been considerable development in primary care research activities underpinned by university academic general practice departments across major Australian universities (Gunn 2002). The introduction of the Primary Health Care Research, Evaluation and Development (PHCRED) Strategy in 2000 offered a coordinated approach to increasing the amount and sustainability of research in general practice (Yallop *et al.* 2006). However, despite these major developments to increase research output, the role of the PM in research has been largely ignored. Graffy and Stubbs (2005) reported that PMs' participation in the Primary Care Research Network (PCRN) in the UK has been limited, and suggested that this was because PCRN have seen research as the domain of clinicians and there is a lack of clarity of the PM role.

While it is evident from all studies that the PM role is central to the coordination of general practice, a lack of standardisation in position descriptions and qualifications was identified, as was a lack of clarity in the level of autonomy to manage. The role of the PM varied according to the size of the practice and the expectation of the GPs. Laing *et al.* (1997) suggested that the relationship between the GPs and the PM was crucial to both the role of the PM and the strategic development of the practice.

In larger practices in which an executive manager was employed, GP partners were prepared to hand over management of their businesses to someone with suitable qualifications. However, not all GPs considered that the PM had the capacity to

make clinical policy decisions, regardless of practice size and the PM's qualifications.

Two distinct PM roles identified 20 years ago (Dornan and Pringle 1991) were the 'office administrator' and 'executive practice manager'. These roles, determined by practice size, were confirmed by Grimshaw and Youngs (1994) and Westland *et al.* (1996). Current observations of general practice suggest that these roles still exist.

Since 1996, the Australian Association of Practice Management (AAPM), the peak body for practice management, has developed a professional pathway for PMs with an Advanced Diploma of Professional Practice Leadership and a generic PM position description to guide definition and give clarity to the role (AAPM 2015). Despite this, there is no requirement for a PM to have a professional qualification and there is no record of the number of practices employing a PM.

The single study (Graffy and Stubbs 2005) investigating the PM's role in research found that PMs supported research, wanted appropriate education and training to support their involvement in research, and would like to be actively involved in managing projects. This suggests that investment could potentially lead to the development of a research culture in general practice, and the capacity of the PM to manage and oversee research at the practice level. There has been no investigation into who, at the practice level, is qualified to undertake a risk assessment, investigate the ethical considerations of undertaking research or examine the impact on the practice. PNs often champion research; however, it is unclear who within the practice manages the PNs and whether they are suitably qualified to screen research projects. Involving PMs in research networks and exploring their training needs could be an important first step to increasing research output in general practice.

There is a small body of early theoretical literature from the UK describing practice management as an emerging role (Mulroy 1974; Reedy and Nelson 1974; Dornan and Pringle 1991; Hasler 1992; Baker and Thompson 1995) and a large volume of practice management handbooks written since the 1970s (Owen 1975; Reske 1980; Drury *et al.* 1990); however, few studies examine what PMs actually do. The studies in this review did not explore the priorities of or pressures on general practice or the need for good communication and engagement with the PM when undertaking research in this setting. Further, no investigation of the barriers and enablers perceived by PMs to participating in research were considered, or who in the practice carries out the required tasks when GPs agree to participate.

Limitations

The six studies in this review varied in their aims, methodology and reporting of data; therefore, the results could not be combined to draw meaningful conclusions. The quantitative studies lacked sample size calculations and response rates varied. The single study investigating the PM role in research reported a 45% response rate, suggesting that participants with a research interest may have been more likely to participate and therefore not be representative of all PMs (Graffy and Stubbs 2005). The other limitations of this review include the small number of studies and the fact that all originated from the UK

and were conducted over three decades (the earliest in 1974). Limited relevance can be placed today on the findings of the studies undertaken before the millennium because the tasks associated with the PM role have evolved as general practice has become an increasingly more complex organisation. At the time of writing, there were no empirical studies from Australia investigating the PM role or PM involvement in general practice-based research.

Conclusion

This review has highlighted the paucity of available research evidence of the role of PM in general practice, including general practice-based research. The small number of studies identified suggests that this subject has not been a research priority to date. If we are to improve the quality of general practice-based research in Australia, we need to investigate PMs' knowledge of research and elucidate their role in supporting research in this setting.

Conflicts of interest

None declared.

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3.1 Subsequent Literature

My review, presented on the previous pages, was published in January 2016. An additional study was sent to me in July 2017. This study, undertaken in the UK, was:

Gosling J (2004). Researching what managers do: the practice manager in English general practice. In J Chandler & J Barry (eds.), *Dilemmas facing the public sector: issues for professionals, managers and users*. University of East London, London

In this qualitative study (42), Gosling highlighted the lack of information about what general practice managers do on a daily basis, stressing that the role is poorly defined and descriptions are limited to lists of tasks (Chapter 2 of this thesis highlights similar findings). Gosling found, practice managers undertook all the tasks associated with management I described in Chapter 2, as well as jobs other members of the team could not do or lacked time to do. The range of tasks included mending doors, fixing electrical plugs and computers, and shopping for the practice. Gosling put a face to the practice manager and presented a more domestic view of general practice and the role of the manager. These findings chime with my own experience of meeting practice managers while they fix shelves, move furniture or install software on computers, rarely sitting down and always multi-tasking.

3.2 Conclusion

My systematic review revealed very little scientific literature about the role of the practice manager. I found only one investigation of the role of the practice manager as it relates to primary care research (83), published in 2005. This, and my review of other literature presented in Chapter 2, suggests this subject is has not been considered a research priority. Practice managers have been over looked both in the literature and in planning the implementation of general practice-based research.

I sought to investigate the contribution of practice managers to the implementation and uptake of the ACCEPt intervention. The next chapter outlines the ACCEPt trial, describes the practice manager's role in it, and provides context to my study of practice managers.

4 Australia Chlamydia Control Effectiveness Pilot (ACCEPt)

Chlamydia trachomatis (chlamydia) is one of the most common bacterial sexually transmitted infections (STIs) worldwide (84). Chlamydia is a significant public health issue for young sexually active people, with notification rates increasing over the past 10 years. In 2014 there were over 86,000 chlamydia notifications (367 per 100,000) in Australia this is a six-fold increase in the preceding decade (85). This rise in chlamydia notifications precipitated the Government to fund ACCEPt in 2007 (9).

ACCEPt provided the ideal opportunity to investigate the contribution of practice managers to the recruitment and implementation of a multifaceted research intervention in general practice. This chapter provides an overview of the ACCEPt trial, focusing on the ACCEPt intervention and the role undertaken by the practice manager

4.1 ACCEPt overview

ACCEPt (9) was a cluster RCT designed to investigate the effectiveness of a general practice-based intervention of opportunistic annual chlamydia testing over three to four years. ACCEPt aimed to measure whether an intensive multifaceted intervention designed to increase annual chlamydia testing rates reduced the transmission and associated complications of chlamydia among 16–29-year-old male and female general practice attendees. The setting for ACCEPt was rural general practices identified and recruited by postcode. Each postcode was a cluster, and the unit of randomisation. Randomisation was undertaken at the clustered/postcode level because chlamydia is infectious and is spread through sexual networks. The rural-based design aimed to deliver a chlamydia intervention to all young people within the same geographical area and sexual network. In Australia, people are not required to register with one general practice; therefore, they can seek their health care across multiple sites (17). All clusters were more than a 30-minute drive time apart, reducing the likelihood of people attending a general practice outside their postcode and not in the trial or in another cluster.

Each cluster was randomly allocated to either a control group to continue usual care or an intervention group and be administered a multifaceted intervention to increase chlamydia testing among eligible young people.

ACCEPt commenced in 2010 with general practice recruitment followed by a progressive process made up of three main stages:

- a pre-randomisation chlamydia prevalence survey lasting 3–4 weeks;
- an intervention phase of 3–4 years with multiple rounds of annual testing; and
- a repeat prevalence survey.

The primary outcome measured was chlamydia prevalence.

ACCEPt had RACGP ethics approval and was registered with the Australian Clinical Trial Registrar (number ACTRN12610000297022).

4.2 The multifaceted chlamydia testing intervention

General practices randomised to the intervention group of ACCEPt were administered an evidence-based multifaceted organised intervention designed to support increased chlamydia testing. GPs were requested to offer chlamydia testing opportunistically to all sexually active patients aged 16–29 years in a consultation regardless of the reason for presentation. The design of the intervention package enabled delivery using a whole-of-practice approach to increasing, managing and embedding annual chlamydia testing into routine.

The components of the intervention were:

- incentive payments to GPs for each test done (\$AU 5–\$AU 8 per test), calculated by the proportion of eligible patients tested. Incentives payments were paid quarterly (86);
- individual quarterly feedback reports for GPs and a summary of testing activity for each practice (87);
- a feedback meeting every three months with ACCEPt researchers highlighting strategies to increase chlamydia testing (87);

- a chlamydia and pelvic inflammatory disease education package for GPs and other staff (88);
- a chlamydia education and training programme designed to support PNs to participate in chlamydia testing and management on behalf of GPs, as shown in Figure 3;
- practice posters, patient information and resources to highlight annual chlamydia testing (89) , as in Figure 4;
- a computer alert to support GPs to remember to discuss chlamydia testing with patients (90), as represented in Figure 5;
- partner notification information and resources to support the management of positive results (91);
- support to establish a patient reminder system to recall patients for repeat testing or remind patients to be tested annually; and
- a regular newsletter updating practice staff about the trial.



Figure 3: ACCEPt education and training packages for GP and PNs

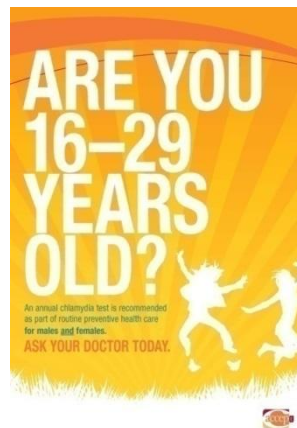


Figure 4: Waiting and consulting room posters supporting chlamydia testing



Figure 5: ACCEPt electronic alert

4.3 Theoretical framework guiding the implementation of the intervention

The conceptual framework guiding the ACCEPt intervention was Normalisation Process Theory (NPT). NPT is a sociological theory designed to guide the implementation and integration of complex interventions in organisations such as general practices (92). NPT is considered an Action Theory (93), and was chosen because of its practical focus on what people do. The NPT model explains how new activities are embedded into routine by observing how people adopt and integrate a task into their daily activities (94). By examining and identifying inhibiting factors, researchers can design interventions addressing some of the barriers to adopting new activities.

The framework of NPT is set out in four constructs (93) representative of what people do to process new activities and adopt them. The process is not linear; the constructs are presented below in the order in which each is likely to be adopted, and how they were interpreted as a tool to guide an ACCEPt intervention in general practice is explained. The four constructs are:

- Coherence – The general practice team understands the importance of annual chlamydia testing and each member believes in the purpose and benefits of the intervention and understands it is different to their current practice.
- Cognitive participation – Each member of the team is committed to their role in the intervention and understands the roles of others in the team. Each member understands the barriers and enablers to chlamydia uptake and supports GPs and PNs to offer tests. For practice managers this may be developing strategies for reception staff to support GPs in testing, or altering the PNs' routine to see patients on behalf of GPs to discuss testing.
- Collective action – The team undertakes tasks designed to increase chlamydia testing; this may involve modifying the environment and changing routine by adopting the best strategies for their general practice. GPs need to actively choose whether to offer a chlamydia test or not in a consultation. The role of the team may be to remind the GP and provide the appropriate resources to enable this to be done efficiently and effectively.

- Reflexive monitoring – The team reflects on their testing rates and examines what activities can be modified to achieve the planned outcome. The team examines their testing rates at quarterly feedback meetings and discusses whether they need to develop new strategies to support increased testing.

ACCEPt research officers could observe this process evolving within a practice, or if not, take action to support any stage. The practical application of NPT also allowed the user to reflect on each stage and use the associated evaluation tool (93) to examine whether the implementation was progressing or not.

4.4 Recruitment of general practices

ACCEPt recruited GPs and PNs from 54 rural postcodes/clusters (95) in New South Wales, Queensland, South Australia and Victoria. A recruitment rate of 90% was achieved by using an evidence-based approach (96). The first contact made with practices was by a postcard highlighting ACCEPt and the opportunity to participate (Figure 6). Postcards were followed with letters to GPs and practice managers. Practice managers were contacted by telephone to outline the trial, including the aims, features and benefits of participation. A formal meeting was arranged with GPs, practice managers and PNs to explain the trial and gauge enthusiasm. At this meeting, recruitment and enrolment of GPs and PNs was undertaken.



Figure 6 ACCEPt postcard sent to practices introducing the trial

4.5 Prevalence survey

ACCEPt staff conducted a 3–4 week prevalence survey, supported by practice staff from each participating practice. Consecutive male and female patients aged 16–29 years attending the general practice in the chosen period were invited to participate, and if willing were administered a questionnaire, asked to consent to and undergo a chlamydia test. The test results were managed by the practice and collected by

ACCEPt. These results informed the baseline chlamydia prevalence in each postcode. Practice managers supported these prevalence surveys by providing research assistants with a consulting room to recruit eligible patients and assisted the trial by reporting de-identified testing results to ACCEPt.

Following completion of the prevalence survey, practices in a cluster were randomised as into either a control or intervention group.

4.6 Implementation of the intervention

Research officers were assigned to each general practice to administer the intervention. Each practice received a tailored intervention package to suit their individual needs. This was determined through consultation with GPs and the practice manager. A comprehensive education program was administered to PNs, but was available also to registrars, medical students and practice managers. Quarterly practice visits with GPs were conducted throughout the intervention phase. At these meetings GPs received quarterly individual chlamydia testing feedback reports designed to facilitate discussion about chlamydia testing and management. Arrangements were made for practice managers to invoice for chlamydia tests done. The multiple key components of the evidence-based intervention package are listed in section 4.2.

4.7 The practice manager role in ACCEPt

There was no defined role for the practice manager in the design or planning of ACCEPt, but an earlier pilot study suggested that implementation of complex multifaceted interventions requiring modification of practice routine was more sustainable in practices where there was a manager (97). Initially there was regular contact with practice managers to arrange access to GPs, along with managing the complexities of establishing ACCEPt in the practice. The tasks to establish and set up ACCEPt were non-clinical, and included installing an online data collection tool and individual alerts on medical software and negotiating an available room to accommodate a research assistant during the prevalence survey. A feature of the ACCEPt design was the minimal administration required of participating GPs; research officers met with practice managers to discuss the non-clinical tasks associated with ACCEPt and how they could be managed.

The design of ACCEPt meant that practice managers were the most appropriate people to take a leadership role in managing the ACCEPt intervention in each practice. Many ACCEPt tasks fell to practice managers because they were within the scope of the managers' current roles, and managers had the autonomy to make decisions about the non-clinical aspects of administering the trial. The tasks undertaken by the practice managers to support the ACCEPt intervention are listed below:

- managing all IT components of the trial including the data extraction tool;
- confirming meetings with research officers and GPs;
- dissemination of ACCEPt information emails and newsletters from research officers;
- reporting changes to ACCEPt staff and recruiting new GPs and registrars;
- invoicing quarterly GP incentive payments;
- creating opportunities for PNs to participate in chlamydia testing on behalf of GPs;
- coordinating resources for patients in waiting areas; and
- setting up a chlamydia recall and reminder system on practice software.

While practice managers did not have a clinical role in increasing chlamydia testing at the consultation level, they contributed to the facilitation of increased testing, for example, by installing alerts for GPs on computers and adding chlamydia retesting to established recall and reminder systems. Practice managers also influenced the acceptability of testing by raising patient awareness through displaying posters in waiting areas and toilets, and attempting to promote a youth-friendly environment. Some practice managers also contributed to supporting GPs to increase testing by setting up strategies in which reception staff identified patients and handed out resources to remind GPs of a patient's eligibility.

Practice managers supported PNs to participate in the chlamydia education and training program offered through the trial. Some practice managers attended training to increase their clinical knowledge of chlamydia and explore ways the PNs' routine

could be modified to incorporate seeing patients to discuss screening and collect tests following GP consultations.

4.8 Conclusion

ACCEPt did not seek to investigate the practice manager's contribution to supporting ACCEPt (recruitment, prevalence survey and intervention). However, this large RCT in general practice did provide the opportunity to investigate the role of the practice manager in the uptake and implementation of a research intervention and explore their views and insights on the barriers and enablers to research implementation in general practice. This study of practice managers was administered within the framework of the ACCEPt intervention.

5 Research methods

This chapter describes the methods employed to conduct this study. This study involved qualitative research. Qualitative approaches are often used to explore topics about which little is known (54, 98). This approach is also consistent with improving the understanding of process and relationships, therefore is popular in the general practice setting (99, 100). Some of the important questions in health care concern the people participating in the delivery of care and the culture of the services (101). Yet an understanding of this is limited in relation to practice managers. Qualitative methodologies are interpretive (102) and provide the researcher with a deeper understanding of people and their lives, allowing for exploration of the relationship between belief and behaviour (103). In this study, undertaken in the general practice setting and investigating administrative and organisational culture – an area in which little research has been undertaken – a qualitative approach was highly appropriate.

5.1 Study participants

The participants for this study were practice managers working in general practices participating in the ACCEPt trial and randomised to the intervention group.

5.2 Recruitment method and sampling strategy

All practice managers eligible to participate in this study were organised and stratified by the size of their general practice (determined by the number of GPs in that practice). At the time of recruitment, all intervention practices employed a practice manager. A table was designed to select and identify the practice managers in each group determined by practice size. The size of an organisation determines the formality of the management structures and responsibilities (37); identifying potential participants using this method aimed to capture the views and perceptions of practice managers from a variety of professional backgrounds, with different levels of autonomy in their roles, and to represent all eligible practice managers. Table 1 presents the number and size (as determined by the number of GPs and registrars in each practice) of general practice in the intervention group and where eligible practice managers worked.

Table 1: Eligible practice managers by practice size, April 2014

General practice size (no. of GPs and registrars)	Number of practices by size n (%)
1	13 (19)
2–5	30 (45)
6–10	15 (22)
> 10	9 (14)

A purposive recruitment method was employed (103) to identify participants from each general practice group in Table 1. A sample size calculation was not necessary because in qualitative research the sample size is ultimately determined by saturation, the point at which no new themes emerge (104).

5.2.1 Recruitment procedure

To recruit participants, an email containing a cover letter (See Appendix 1) inviting practice managers to participate in an interview at a time and place of their convenience was sent to a small sample of practice managers in April 2014. Attached to the email was a Plain Language Statement (PLS) (See Appendix 2) outlining the study, including background, aims and objectives, information about ethics, confidentiality and privacy. A consent form (See Appendix 3) was also attached to the email for the participant to download, sign, scan and return by email. If there was no response within five working days, I followed up with a telephone call.

5.3 Data collection methods

I employed semi-structured interviews (See Appendix 4) to collect data for this study. Interviews are the most common way of collecting data in qualitative research and have a high degree of acceptability among researchers and participants (104). I undertook the majority of interviews. A trained interviewer who worked as a research officer for ACCEPt interviewed a small number of practice managers with whom I had worked during the ACCEPt trial and therefore knew well, so it was inappropriate for me to interview these participants.

All participants were asked the same questions, but the semi-structured design was flexible in allowing participants to express their ideas and views on general practice-based research. In keeping with this style of interviewing, the questions were phased to allow the participants to express their ideas and views and tell their stories (105). To

elicit more information and clarify statements, interviewing techniques such as prompts and probing were used. The probing was inductive and based on key responses. However, there was a focused agenda to ensure the data collected was relevant to the study objectives.

All interviews were undertaken by telephone. There was no payment or reimbursement for participation, as clearly outlined in the PLS. There is debate about whether payment to research participants is coercive or compensation for their time and effort, but there is limited evidence to determine best practice (106).

5.4 Data preparation and analysis

All interviews were audio-recorded, transcribed verbatim by a transcribing company, and returned in a Microsoft Word format. All identifying details, for example, names of people and general practices, were removed from the transcripts. All the transcripts were labelled with the identifying number assigned to each participant. I listened to the audio-recordings and read transcripts multiple times. All data was stored according to the ethics guidelines. A sample number of transcripts were discussed with a supervisor (MTS) to determine themes and data saturation. MTS also reviewed the coding and data analysis.

A qualitative data software package, DedooseTM 6.1.18 (107), was used initially to manage and organise these data. In DedooseTM, data was organised using five main areas of inquiry (main headings) initially identified as relevant to the objectives of the study.

A content analysis approach was used to examine the data. Major themes were found based on the strength of their representation in the data (108). Within each major theme, the data was further examined to find sub-themes (109). The data were then exported to Microsoft Excel (Redmond, Washington: Microsoft, 2010 Computer Software) and rechecked, some data were relevant to sub-themes across several broad categories. The results are presented in quotes, often as part of more than one theme, as every effort was made to present the results in a context representative of participants' ideas and views.

5.5 Ethical consideration

An ethics application was made to the Human Ethics Advisory Group at the University of Melbourne in July 2013. The application for this study of practice managers working in general practice met the criterion of “minimal risk”. This study was deemed to be of minimal risk to participants. Participation was voluntary and anonymity protected by de-identifying transcripts and removing names. Participation in this study would no impact on participation in the ACCEPt trial or its outcomes. The University of Melbourne Human Research Ethics Committee granted approval in August 2013 (application ID. HREC No. 1340680).

5.6 Conclusion

The qualitative methods used in this study were identified to be the most suitable for investigating the views of practice managers on research and for exploring their perceptions of the barriers and enablers to research uptake and implementation in general practice. The use of semi-structured interviews to collect data meant new knowledge was generated that may not have been revealed if another method of data collection was employed. Practice managers were given an opportunity to voice their opinions and for these to be recorded.

6 Results

This chapter contains the findings of analysis of data collected during 23 interviews with practice managers, of which I undertook 18. The practice managers were all working in general practices participating in ACCEPt and in the intervention group. ACCEPt provided the ideal opportunity to explore the practice managers' views of research, their contribution to the uptake and implementation of a large multifaceted intervention, and their perceptions of the barriers and enablers to the conduct of general practice-based research.

The demographic characteristics of participants are presented first, followed by the thematic results.

6.1 Demographic characteristics

In total, 23 participants from a group of 67 practice managers took part in semi-structured interviews between April 2014 and October 2014. All participants worked in rural general practices in four States of Australia (Victoria, Queensland, New South Wales and Victoria). Overall, 25 emails were sent to purposively selected practice managers and from these, 23 practice managers participated in a 30-minute telephone interview. The two participants who declined to participate did so due to "pending annual leave" and "significant personal issues".

The practice managers interviewed were representative of those working in all general practices participating in ACCEPt. Participants worked in solo practices (n=3), practices employing between two and five GPs and or registrars (n=8), in practices employing six to nine GPs and or registrars (n=6) and practices employing ten or more GPs and or registrars (n=6) (See Table 2).

Table 2: Practice managers interviewed by practice size and number

General practice size (no. of GPs and registrars)	Number of practices, n (%)	Number of practice managers interviewed, n (%)
1	13 (19)	3 (14)
2–5	30 (45)	8 (34)
6–10	15 (22)	6 (26)
> 10	9 (14)	6 (26)
Totals	67 (100)	23 (100)

Of the 23 participants interviewed, 19 were female and almost half (n=11) were aged between 45 and 59 years. The four male participants worked in the largest practices, and three came from business backgrounds and had management qualifications. Nearly half of all participants (n=11) had worked in their current role for more than 10 years. Two-thirds had either a practice management or other business management qualification. Almost half (n=12) had prior business management experience. Less than a third (n=7) were promoted to practice manager from an administrative/receptionist role, and fewer than half had completed the Diploma of Practice Management (n=8). Not all those with administrative career backgrounds worked in smaller practices: two managed general practices of 6–10 GPs. Only four of the participants had a medical qualification (nursing). Almost all practice managers interviewed had no research training (n=21) and only four had experience working on research trials prior to ACCEPt. The type of research experience reported was assisting in some way with data collection or hosting research trials in their practice; however, they reported having little or no direct involvement. Some participants did report collecting data for auditing purposes. The participants interviewed for this study were a heterogeneous group in relation to educational qualifications, length of work experience as a practice manager, and career pathway. These demographic findings are consistent with those reported by AAPM in their Biannual Salary Survey of Practice Managers (reported in Chapter 2). Participants' demographic characteristics are presented in Table 3.

Table 3: Participant characteristics

Participant characteristics	n= 23 (%)
Gender	
Female	19 (83)
Male	4 (17)
Age group (years)	
30–44	7 (30)
45–59	11 (48)
>60	5 (22)
Expertise	
Healthcare	4 (17)
Clerical	7 (30)
Business	12 (53)
Tertiary qualification	
Yes	16 (69)
No	7 (30)
Diploma of Practice Management	
Yes	8 (35)
No	7 (30)
Other (Diploma of Business Management)	8 (35)
Years in current role (practice manager)	
< 5	7 (30)
5-10	5 (22)
10 >	11 (48)
Years working in general practice	
< 5	4 (17)
5–10	5 (22)
10–20	8 (35)
20 >	6 (26)
Research training	
Yes	2 (9)
No	21 (91)
Research experience in general practice prior to ACCEPt	
Yes	4 (17)
No	19 (83)

To increase understanding of the broad scope of the practice management role, participants were asked to describe how they reached their current positions. Responses were categorised into five groups and are listed in Table 4. Example quotes describing how practice managers reached their current positions are presented in Table 5.

Table 4: How practice managers reached their current positions

Groups identified	No
Receptionist promoted to the practice manager position	7
Offered the practice manager position	8
Married to the Principal GP	2
Formally applied for the practice manager position	5
General practice owner	1

Receptionist promoted to the practice manager position

These seven participants were generally comfortable with the transition from receptionist to practice manager. Most had worked at the practice for many years as the senior receptionist and were performing tasks associated with management when they transitioned to their current position. Utilising the skills of a senior receptionist in a practice manager role is in keeping with earlier reports, and managers often continue to undertake receptionist work, confirming previous reports of an unclear boundary between both roles.

The informal process of becoming a practice manager is common in small, privately owned general practices. In rural Australian towns, where the applicant pool is likely to be small, the role is more likely to be filled by an internal applicant or by a suitable applicant known to the GP partners.

Offered the practice manager position

One participant with a business qualification described being approached by a GP partner and offered the role after being retrenched from a banking position. Although this participant did not have a Diploma of Practice Management, he held a business qualification and was identified by the GP partners as having the appropriate qualifications to manage their business. The type of business experience identified by participants varied widely, ranging from managing small businesses such as trade services, some family-owned, or experience in banking and accounting organisations.

Married to the Principal GP

Two participants managed general practices established by their spouses. These practices varied in size. Their responsibilities were full time, overseeing all business aspects of the practice.

Formally applied for the practice manager position

One participant, who was asked to cover for an employee's leave, was formally invited to apply for the position when it became vacant. The formal approach of advertising and employing practice managers is a more recent development adopted mostly by large practices. Only one participant applied for the job through an agency. All those applying for their current position had professional or tertiary qualifications.

General practice owner

One participant was the owner of the practice. This business situation is reasonably unusual. However, this manager had medical management and accounting qualifications. The explanation of how this participant got their current position is not included in this thesis to protect their identity.

Table 5: Practice managers' descriptions of how they got their jobs

Receptionist promoted to the practice manager position
<i>I was already employed here at the clinic as a receptionist and our office manager resigned so I sort of took her position and then the practice manager position evolved ... so I just sort of slotted into that role and then became the practice manager. PM 2 (F)</i>
<i>I started here as a receptionist and just over time worked my way through different roles. The practice got big enough to warrant a practice manager as well as a business manager so I just sort of gradually stepped up and up and up until I became the practice manager. PM 10 (F)</i>
<i>Probably just assumed the role. I started just as a receptionist and then, yeah, just as time went on. The original practice manager was the doctor's wife. She became ill so I took more of her role on, until she was too ill to do the job. So I just assumed it ... I sort of didn't actually get appointed, I just fell into it pretty much. PM 16 (F)</i>
<i>I was a manager at a pharmacy, and a job come up for a receptionist and I just wanted a bit of a sea change, so I applied for that. I was only employed here for probably two months under the receptionist position and I got asked to be the practice manager. PM 19 (F)</i>
Offered the practice manager position
<i>I was retrenched from banking back in 1997, and was approached by this practice to take over the role of practice manager. They hadn't had one, and at forty-five [years of age] it was a good fit. PM 12 (M)</i>
<i>An opportunity arose through a relative who was working in a medical centre. PM 3 (M)</i>
<i>Well, I used to work with the doctor, when her last practice closed. She approached me to help her open a new one. PM 22 (F)</i>
Married to the Principal GP
<i>I married the Doctor ... I was nursing prior to that, I was his theatre nurse and we got married and I just took over as we opened up a private practice and I started from there. PM 5 (F)</i>
Formally applied for the practice manager position
<i>I think, I am very much a systems thinker and very focused on quality and outcomes for clients. So I think I naturally moved towards it because I could see that someone needed to take charge to some degree and put systems and processes in place to make things happen, because they weren't going to happen on an ad hoc basis ... The CEO just asked me ... the other person didn't come back. I continued in an acting role, and then they decided to advertise it. PM 17 (F)</i>
<i>I just applied for the position, I realised that it was available ... they were looking for a practice manager because the previous one had been given his marching orders and they employed a professional organisation to find one. PM 14 (M)</i>

6.2 Thematic results

Results are presented in five separate areas.

1. practice managers' views of research;
2. the role of the practice manager in a research intervention;
3. the views of practice managers on the intervention set up and sustainability;
4. the perceptions of practice managers of the barriers to the conduct of general practice-based research; and
5. the perceptions of practice manager of enablers to the conduct of general practice based-research.

In each of these areas, both themes and sub-themes were identified from the interviews. Figure 7 on page 52 provides the overview of the five areas and their themes, more detailed results are provided in the following pages. Quotes from participant interviews exemplifying the sub-themes are presented in tables after the relevant text.

To further guide the reader, tables are colour coded linking them to each of the five areas of enquiry and related themes and sub-themes.

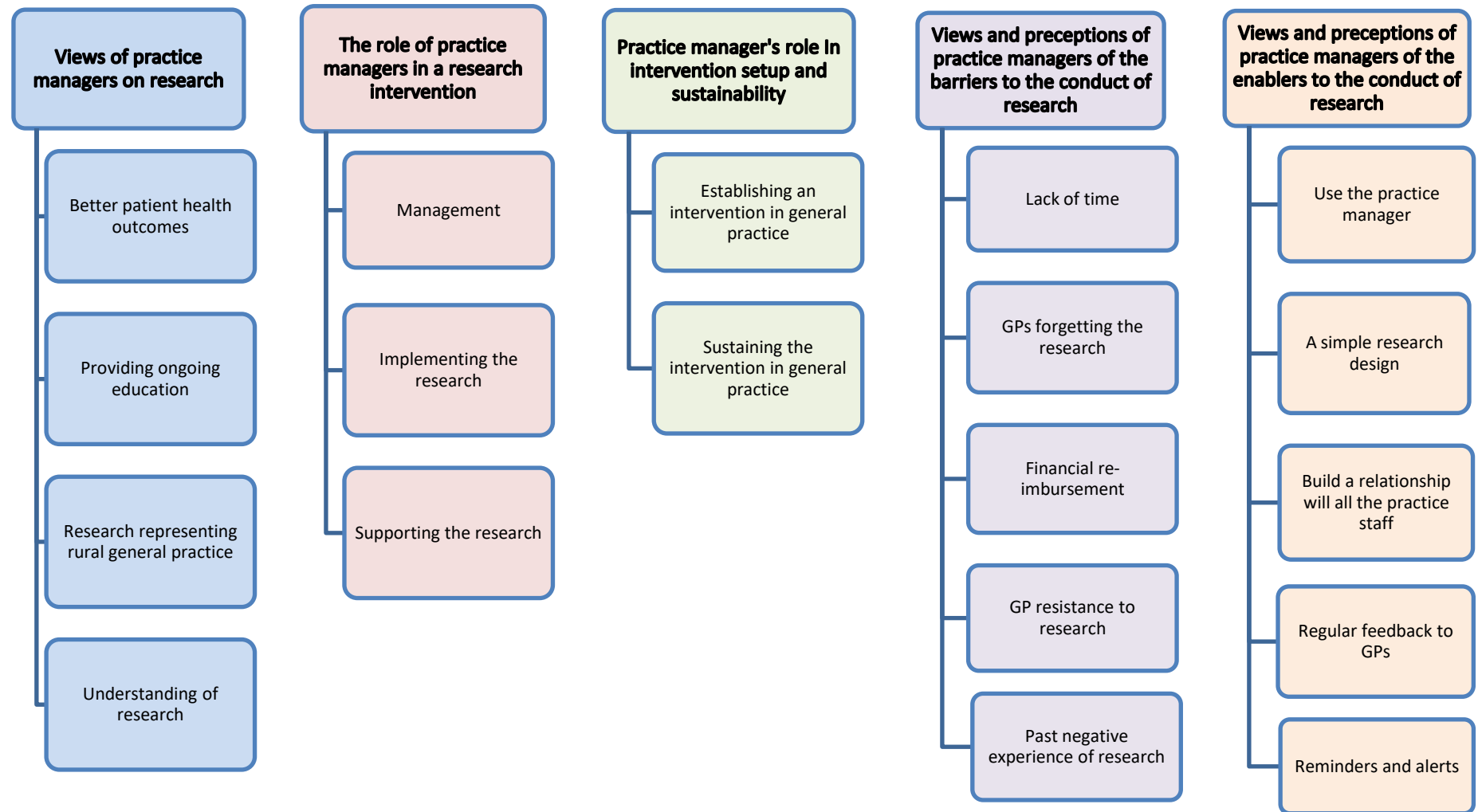


Figure 7: Diagram of the 19 main themes identified under each of the five areas

6.3 Views of practice managers on research

All participants agreed research was important for general practice and should be undertaken in this setting and incorporated into general practice routine. Participants understood research in three ways. Research was viewed as a quality improvement activity for general practice, and as such was important for better patient health outcomes, and provided general practice staff with ongoing education. Participants also identified research as a way of representing rural communities in government policy.

Six sub-themes were identified from these three themes, and are listed in Table 6. Quotes exemplifying the themes and sub-themes are shown in Tables 7-12, quotes exemplifying the theme of understanding research are presented in Table 13.

Table 6: Themes in the practice managers' views of research.

Theme	Sub-theme
Better patient health outcomes	Improving patients' health outcomes
	Investigating the need for additional patient services
	Informing government policy to improve health
Providing ongoing education	Training opportunities in general practice
	Following current clinical guidelines
Research representing rural general practice	Collecting data reflecting rural general practice
Understanding of research	

6.3.1 Better patient health outcomes

Improving the health of patients

Overall participants valued the opportunity to participate in ACCEPt, believing it would contribute to better patient health outcomes. Participants were enthusiastic about research because they observed the positive impact of the intervention administered to patients and believed that research created an environment that raised awareness about preventative health education. Some participants thought the whole community benefited from the general practice participating in research. Participants also liked feeling as if they were making a difference to patient health outcomes through creating awareness and education. Table 7 contains additional quotes representative of this theme.

“...because you would feel like you were making a difference and contributing to progress in patient care...” PM 7 (F)

Table 7: Improving the health of patients

<i>Well, for the outcomes, to get better health care for our community.</i> PM 2 (F)
<i>Improving people’s health.</i> PM 10 (F)
<i>We get to know more about certain things, treatments change and for that reason, it is very important ... Just to improve care and improve the outcomes.</i> PM 22 (F)
<i>If the patient outcomes are better it is certainly worth doing</i> PM 8 (F)
<i>Better outcome for the patients ... benefit to the patient’s outcome and the patient’s welfare.</i> PM 13 (F)
<i>I guess it is really the health outcomes for our patients ... I think too if it is something that involves testing it just reminds everybody to be more vigilant about testing for certain conditions which can make a big difference in people’s lives.</i> PM 11 (F)
<i>Really interesting because you would feel like you were making a difference and contributing to progress in patient care ... I just think general continuity of care for the younger ones and the education that is around ... awareness definitely, and I also think it is necessary yes.</i> PM 7 (F)

Investigating the need for additional patient services

Participants understood that research in general practice was a way to investigate the health needs of their communities, and more specifically those of patient groups. Some believed the knowledge gained from research participation could then be usefully applied to assessing the clinical services offered by the practice and to validate whether the community required a service.

Participants identified the benefits of research participation on patients and for the practice as a health care service. Clinical trials were viewed as opportunities to review and refine current services. Participants thought ACCEPt provided an opportunity for patients to receive a service the general practice did not routinely offer. For example, patients aged 16 to 29 years were able to participate in a chlamydia testing prevalence survey and receive both a chlamydia test free and sexual health education. One participant thought ACCEPt highlighted the prevalence of chlamydia infection in the community, and believed the GPs in the practice had not been aware of it previously. Table 8 presents the quotes from participants' representative of this theme.

Table 8 Investigating the need for additional patient services

<i>Yes I do, it is good you know, you get the outcomes of research projects and see what is needed ... it is good idea to see where we are lacking in something, what we can do better. PM 8 (F)</i>
<i>I think it certainly has a role because obviously we hope to gain some knowledge from it ... I would hope that we would be able to refine our practices and do things better. PM 16 (F)</i>
<i>Research is when you are gathering data on a patient that you see regularly. And even though it may be for research you are actually getting data that you otherwise would not have got on that patient which may be useful in other areas ... heart disease research or something and you were actually asking patients questions that you normally wouldn't ask in a general practice setting that are perhaps very useful ... We have the opportunity to do it better than what we are doing it now. PM 1 (F)</i>
<i>Because it is how we influence ... you know medicine, nursing, unless you have got some validation that actually what you are doing is making a difference, then really we are flying blind. PM 17 (F)</i>
<i>Just so that we can get on the same page and have general practice go in a particular direction...that may depend upon the research results that are found out. PM 15 (M)</i>
<i>I think it brings a lot to practice management, you need to know what sort of diseases are out there to be looked after and ... we can improve our treatments of them. PM 7 (F)</i>

Informing Government policy to improve health

For some participants, research was important in the broader health care context of informing government policy.

Participants understood general practice was the main provider of health care to the community, and that research could inform policy and planning by collecting data on patient health and health care needs.

“...this is where the majority of people come for their healthcare ... if they (Government) want correct data about what is actually happening at a GP level.”
PM 15 (M)

Although many participants understood the value of research for better patient health outcomes and increasing knowledge and the findings and results to be representative of the community, many struggled to explain why. More quotes exemplifying this theme are presented in Table 9.

Table 9: Informing government policy to improve health

<i>I hope that the benefits for research ... would aid in policy decisions by governments ... about whatever the research project was. PM 14 (M)</i>
<i>Because this is where the majority of people come for their healthcare ... so if you are not gathering data from people passing through here you are really not seeing the bigger picture. If they [government] want correct data about what is actually happening at a GP level. PM 10 (F)</i>
<i>Very important, I think if they want correct data and what is actually happening at a GP level, it is the first point of call for a patient. PM 15 (M)</i>
<i>Yes, I think it is important. It is where probably the coalface of all your patients are that are going to give you the data that you need by just the sheer numbers of patients seen in general practice. PM 3 (M)</i>
<i>I think it is extremely important when you are doing clinical work ... it is a little bit different if you talk about research as far as researching Medicare item numbers and that sort of thing...yes I think research is important. PM 4 (F)</i>
<i>I think it is a good place to do research and yes I think it is important because of the broad nature of people we have coming through our clinics especially one like this then it gives access to broader scope for the researcher. PM 12 (M)</i>
<i>Because it is how we influence ... you know medicine, nursing ... you have got some validation of what you are doing is making a difference, or then really we are flying blind ... I guess it's around providing strategic and operational leadership to services and it's holistic in its approach ... thinking about the service system and working collaboratively with the elements of that system; being doctors, nurses and other providers. In addition, to look at what the needs of the community are and how we can best meet those needs using what we have to work with. PM 17 (F)</i>

6.3.2 Providing ongoing education

In addition to better patient health outcomes, practice managers saw research as an opportunity for staff to increase their knowledge through education provided by the research team.

Training opportunities in general practice

Many participants saw research interventions as a vehicle to support the ongoing education of GPs. This is consistent with the strong culture of vocational training in general practice. Participants were also keen to support research trials that offered nurses, registrars and medical students additional experience. Fostering a culture of learning was important for some participants, while one participant thought medical students could have a greater role in research if they participated in data collection as part of their clinical placement.

“The interns and the students have a list of things that they can do within their consultation ... they have the ability to collect data ...” PM 1 (F)

Participants also identified that research participation allowed the education to be undertaken in the practice, making it easier for staff to attend. Additionally, research participation gave non-clinical staff a broader and more interesting work experience. The quotes in Table 10 exemplify the views voiced by participants.

Table 10: Training opportunities in general practice

<i>We can get on the same page and have you know general practice go in a particular direction that may you know depending upon the research results that are found out ... Hopefully the benefits from research, you would end up with informed GPs. PM 14 (M)</i>
<i>We are in a learning practice so we have registrars, interns, medical students, nursing students, one of the strategic directions that I have been trying to nurture over the last fourteen years is really to develop that learning culture within the practice, and that learning never stops. PM 7 (F)</i>
<i>It is an education tool and you know it identifies areas of need. PM 4 (F)</i>
<i>Using our students and interns more instead of involving the GP. We have students in the practice and they are actually allocated to the practice for the academic year ... giving them some sort of community project, so that every person that they saw they gathered some research data on instead of perhaps having the GP doing it ... you would probably get more quality data ... The interns and the students have a list of things that they can do within their consultation because they have very long allocations for their appointment ... They have the ability to collect data and we get them to do all those extra things ... they can then flag that, the interns can refer. PM 1 (F)</i>
<i>I think it is something that our GPs and our nurses being so far away from where a lot of seminars are held ... I think our GPs and nurses can be involved in research ... at the moment with this diabetes one, our nurses learnt so much from this and it is something that you don't learn when you are in the country. PM 19 (F)</i>
<i>I think it is always interesting for a practice to take part in a research study of some sort ... I think it just broadens the experience for everybody. PM 18 (F)</i>

Following current clinical guidelines

Overall, participants were enthusiastic about GPs being involved in research as a way to receive clinical updates. Research participation was identified as a way of raising the awareness of all GPs about practising evidence-based care. For other participants, research provided the opportunity to remind GPs of their obligations to follow up on tests results.

“Inform GPs about particular problems ... getting the GPs to actually follow up on outcomes and actually getting them to do something about it.” PM 14 (M)

In general practices where practice managers went to clinical meetings, there was an awareness of GP guidelines to support evidence-based care. The responses in Table 11 suggest practice managers are invested in ongoing GP education to support better patient outcomes and improve the quality of care in general practice.

Table 11: Following current clinical guidelines

<i>From a doctor's point of view, they have to keep up with things to ensure that their knowledge is current ... from well-respected, trusted, and valid sources ... It is not possible for me as a practice manager to understand all of the research out there, but I do expect my doctors to keep up with things. PM 21 (F)</i>
<i>Prevention is always better ... I think it keeps us up with the knowledge of what's going on. PM 23 (F)</i>
<i>Inform GPs about particular problems ... getting the GPs to actually follow-up on outcomes and actually getting them to do something about it. PM 14 (M)</i>
<i>I think it is a good place to do research ... the information comes back to our clinicians; it encourages them to think about the way they prescribe or deal with people. It creates awareness. PM 12 (M)</i>
<i>It makes doctors more aware of their clinical judgements, what they are doing and the tests they are ordering...everybody has got to be on the same page ... everybody in general practice must be doing the same thing consistently. PM 5 (F)</i>

6.3.3 Research representing rural general practice

Participants said research was important to expose the needs of rural general practice and for research results to be representative of this setting and the wider community. Several participants thought rural general practice did not get many opportunities to participate in research. One participant said researchers rarely went to rural locations, favouring urban sites. Others thought rural general practices should have representation in research findings because they believed rural communities were different to those in urban locations. Quotes representing these views are in Table 12.

Table 12: Research representing rural general practice

I think it is ... it always opens up interest within the certain areas depending on what you are actually researching as well. Like usually the country, areas don't get the opportunity to have access to things like that ... I think it is always interesting for a practice to take part in a research study of some sort. PM 18 (F)

I think this is perhaps where the most data can be collected ... in general practice and particularly because we are rural practice. I think you have access to a community that you [the researcher] perhaps wouldn't normally ... fairly rare contact with a rural community. PM 1 (F)

I think it is a good place to do research and yes I think it is important because of the broad nature of people we have coming through our clinics especially one ... And it is a country environment which is different to our metropolitan environment. PM 12 (M)

6.3.4 Understanding of research

Participants understood research included data collection; however, there was some confusion between research and other forms of data investigation, including auditing. This confusion is unsurprising, given most of the participants interviewed had no research training; however, many did have experience with auditing and data collection for Medicare and PHN purposes. They also supported GPs to search clinical software databases for auditing purposes. General practice auditing outcome goals are often based on better delivery of care, improving documentation and adherence to procedural guidelines. Participants' understanding of the benefits of research can be attributed to their understanding of these quality improvement outcomes. Table 13 contains quotes exemplifying this theme.

Table 13: Understanding research

I have had no formal training in research, but obviously there is always something within the practice that basically goes back in to researching, whether it is researching our database.
PM 13 (F)

I believe that most of the things that they will ask for, a lot of their numbers, a lot of their costing, and things all of that they can actually track down out of Medicare. If they can research things that are actually practical things that will encourage doctors and practices to participate in things that will be good for your patient ... they should be doing this not just crunching numbers ... the government has so much of that. PM 6 (F)

6.4 The role of practice managers in a research intervention

All participants believed their role was to manage and oversee research interventions at the general practice level. However, this could only be achieved within the scope of their current position description. Although there was unanimous support for managing research, some participants did not have the authority or autonomy to change practice routine and make decisions about research implementation. In these circumstances, the role was supportive. Those interviewed, who coordinated the day-to-day routine but did not modify it – and had little authority beyond managing reception staff – adopted a supporting role in research implementation.

Not all of the participants who had authority to change daily routine worked in larger practices. Some participants, from smaller practices had begun work as receptionists and subsequently assumed management responsibilities. Often this authority was determined by the relationship the manager had with the GP partners. These practice managers had autonomy to accommodate research and establish systems to support GPs to undertake the associated clinical tasks.

The vast and various scope of the practice manager role was identified by many and highlighted in the following comment.

“I guess different managers have got different roles within practice management. If you spoke to ten at different clinics they would probably all describe their positions differently.” PM 7 (F)

From the three themes identified under this heading, five sub-themes emerged. All themes and sub-themes are listed in Table 14. Quotes exemplifying the themes and sub-themes are presented in Table 15-19.

Table 14: Themes identifying practice manager's views on their role in research

Theme	Sub-theme
Management	Taking a leadership role
	Driving the research trial
	Gatekeeper
Implementing the research	Coordinating staff
Supporting the research	Supporting the research

6.4.1 Management

Taking a leadership role

One participant thought their medical knowledge and clinical background was important for managing and implementing research, and that GPs respected this clinical knowledge.

“I take a leadership role ... and am respected for my clinical knowledge and I think that enables me to easily lead or keep people focused, on track and enthused ... I can make decisions, I can present arguments” PM17

Other participants thought the additional non-clinical tasks associated with research were in the scope of their current roles. They believed they were ideally suited to undertake these tasks, in addition to having unprotected time when they could undertake a variety of unscheduled jobs and the authority to manage staff and modify routine. Quotes exemplifying this theme are presented in Table 15.

Table 15: Taking a leadership role

<i>I take a leadership role. I have got a clinical background and a strong rapport with all GPs and am respected for my clinical knowledge and I think that enables me to easily lead or keep people on focused on track and enthused ... I think having a clinical background makes management very easy. I can make decisions, I can present arguments. I have got that level of clinical respect with the team that you know it is not trying to tell someone how to do something with no clinical or expertise behind what we are doing. PM 17 (F)</i>
<i>I would pretty much manage it within the practice, yes that would be part of my scope of what to do within the practice. PM 2 (F)</i>
<i>Ensure that a project keeps moving forward ... work with staff ... manage the process. PM 20 (F)</i>
<i>They have to have a very pro-active role ... instigating and implementing and controlling most of it ...if the practice wishes to participate then it is the practice manager that would have the give instruction to the rest of the staff. ... Mainly I would facilitate to drive numbers, to try and assist in getting the numbers up for the month ... I would ensure that the paperwork that we have, the information brochures we have, is available and ensure that staff are allocated some time to spend with the patient to test them. PM 15 (M)</i>

Driving the research trial

Some practice managers viewed research as a “program”. Most managers were familiar with programs implemented by PHNs or directly by Medicare. Those who chose to manage ACCEPt in a similar way did so by encouraging GPs to participate. One participant viewed research trials as a business matter and the responsibility of the practice manager; therefore, they considered themselves responsible for delivering the agreed outcomes. Quotes reflecting ideas of driving research are presented in Table 16.

“It is just like any other business matter, once we decided to be part of the program, you are involved and you make it work ... Practice managers can run with these programs.” PM 3 (M)

Table 16: Driving the research trial

I think the practice manager has to be the driver and I think if it hasn't got the practice manager on board you are really not going to get anything done. The practice manager will create some enthusiasm around it and just keeping at them [GPs] ... just pushing them along a bit further ... It has got to have someone driving it. PM 1 (F)

Yeah and make sure it runs properly or runs smoothly, ... you have to continue using practice managers because they are often at the centre of the functioning of a practice ... It is just like any other business matter, once we decided to be part of the program, you are involved and you make it work ... PMs can run with these programs. PM 3 (M)

Gatekeeper

Practice managers performed the gatekeeper role in two ways: they blocked access to GPs and chose the research the practice might undertake. Up to 20% of participants described blocking access to GPs when researchers called or when there were unsolicited contacts. Two participants had the authority to decide whether researchers could meet with GPs to present the research as exemplified in the quotes in Table 17. This level of authority is interesting, as 19 of the 23 participants did not have a medical background and only two had research training. It was unclear whether the GPs gave practice managers authority to filter the research options they were presented with, or the manager assumed this authority.

Participants described having the authority to choose research suitable to their general practice. One participant was interested in ACCEPt due to their personal circumstances. Gatekeepers took on leadership roles in the conduct of ACCEPt, in keeping with their level of authority and autonomy in the practice. It is not surprising that these participants took a lot of interest in the trial and ensured their staff supported increased chlamydia testing.

Table 17: Gatekeeper

<i>The practice manager is pivotal to this sort of thing and to getting access to clinics and look, I will be honest, the practice manager is the gatekeeper ... And this wouldn't have got to where it got to if I hadn't sort of thought, "Hey this is a good idea." Because it is easy for me to meet with anybody coming through the door and they try to sell you all sorts of stuff and ninety-five, ninety-eight per cent of it is walked out the door again, because we just do not want to pick it up. But, if it is a project that I think or a practice manager thinks is worthy, and they have got autonomy ... It is up to them whether they really pick it up and run with it or not ... Yeah I think the project really needs to convince the practice managers and some will be easily convinced and some won't be so easily convinced. I think if you can get practice managers on side and then get them to get partners or owners on side then I think it will work and does work. PM 12 (M)</i>
<i>To assist with finding the right studies that are relevant to general practice. This is part of the reason why we were very keen to be part of the ACCEPt program, because it was so relevant to young people in our community and there was a real need for it. ... And I was probably swayed too because I am a mother of adolescents ... I would pretty much manage it within the practice, yes that would be part of my scope of what to do within the practice. PM 2 (F)</i>

6.4.2 Implementing research interventions

The theme of implementing research was mentioned by most interviewees. Practice managers implemented many of the tasks associated with research; the breadth of this implementation was based on their authority and their capacity, as they were usually the only staff member with unprotected time.

“Practice managers out of the group probably have the most amount of time ... doctors are always with patients. Receptionists are always at the front, nurses helping doctors ... your practice managers are the ones that can implement it.”

PM 15 (M)

Coordinating staff

Participants coordinated staff to support GPs to undertake the research. Many participants said they coordinated ACCEPt by organising the practice throughout the three phases of the trial. This involved modifying routine to make a room available during the prevalence survey, or supporting GPs to offer testing by delegating tasks to other staff and implementing strategies to remind GPs about chlamydia testing. Quotes exemplifying this theme are presented in Table 18.

Table 18: Coordinating staff

<i>Just coordination of everybody yes, I just have to coordinate the rooms, the patients and the doctors. PM 9 (F)</i>
<i>Their [the practice manager's] whole role is to make sure that the practice nurse and the doctor participates in [the research] and makes sure that there is a true account of what is happening in the practice ... Overall coordinator, making sure that it all comes together ... yes that is the role I see of the practice manager. PM 6 (F)</i>
<i>More of a coordinator of it, than an active part ... prompting and reminding them [GPs]; “You know that we are part of these studies” and to be continually doing what is required of them. PM 10 (F)</i>

6.4.3 Supporting research

Practice managers who had no autonomy and limited authority to coordinate non-clinical staff did support ACCEPt in limited ways. These participants could organise some aspects of ACCEPt administration, such as invoicing and arranging meetings with research officers and GPs. They did not facilitate the research in any proactive way at the practice level or develop strategies to support research, although they put ACCEPt on practice meeting agendas to remind GPs. Quotes highlighting participants views are listed in Table 19.

Table 19: Supporting research

<i>Therefore, for me it is about helping with the patient data ... just supply that to the researcher and help with follow-up contacts and that sort of thing and feedback from the patients. PM 7 (F)</i>
<i>I think just encouraging it and supporting it ...PM 22 (F)</i>
<i>I bring it up at the meetings, any correspondence is distributed prior to the meetings, but it is also brought up again at the meetings just so everyone knows that we aren't forgetting the program. PM 23 (F)</i>

6.5 The practice manager's role in intervention setup and sustainability

Participants shared their experience of setting up and establishing ACCEPt in their practices. The themes are presented in Table 20. Quotes exemplifying these themes are presented in Tables 21 and 22.

Table 20: Themes identifying setting up research interventions

Theme
Establishing interventions in general practice
Sustaining the research intervention in general practice

6.5.1 Establishing interventions in general practice

The ACCEPt research officers worked with the practice managers to plan the implementation of the trial in the general practice. It was the responsibility of ACCEPt research officers to work with the contact person (the practice manager) at the practice to ensure the research implemented was undertaken in line with the study protocol. Practice managers were receptive to this and keen to learn. Again, most treated the trial like other programs that they were familiar implementing. The views of many are summed up by the chosen quotes in Table 21. Only one participant (PM 11 F) believed it was their role to check for ethics approval.

Table 21: Establishing interventions in general practice

<i>I would be your first point of call to contact me and then obviously to organise the meetings with the doctors, get the information to the doctors and try and work out the nuts and bolts of it before it gets to the doctors, and how we could possibly implement it ... Our role is to implement it into the clinic ... Yeah and make sure it runs properly and runs smoothly. PM 8 (F)</i>
<i>Ensuring what the research project is and that it is something that has gone through ethics and it is going to be well conducted and there is a good basis for why it is happening...I gather the information, talk to the practice owners, who are all GPs ... I am sort of the conduit to getting it to happen. PM 11 (F)</i>
<i>I initiate the whole program in extracting the data ... that is where it all starts because without that first lot of data we don't know the size of the group [patients] we are looking at. ... I think it all starts with the practice manager doing that basic data research before it then goes onto the clinical team to then put it into action ... You know it is the importance of taking the time to do the research to get these things up and going. Otherwise, it just ends up on the back burner and it just does not happen ... Yes, you need that background planning and I think that is an important role for the practice manager to get going. PM 13 (F)</i>

6.5.2 Sustaining the research intervention in general practice

Participants unanimously agreed that practice managers were in the best position to manage research in general practice if it was to be sustained. They argued that research required a “champion” within the practice to keep the intervention on the practice agenda. Quotes describing participants views are presented in Table 22.

Some participants said that to achieve research sustainability, all the practice staff needed to be aware of the study, understand it, be collectively involved and worked toward the same agreed outcome. Many participants described ways they worked towards achieving this. This finding is in line with NPT (see Chapter 4), the theoretical framework underpinning the ACCEPt intervention.

Table 22: Sustaining the research intervention in general practice

<i>When we began the research our staff were very interested in this ... it was just that it was something new happening in the practice. And we were flagging patients who fell into that age group so they were involved ... you know, pick out the people coming through so that the people [receptionists] were here facilitating the first initial stage of the project. So they felt involved in it I think and that created interest. PM 1 (F)</i>
<i>Yes, also with the reception staff if they are aware of an age-appropriate person coming in and we can hand them out the form and ask them to have a little chat to the nurse about it and then get a sample taken. So yeah it is a team effort I guess, it is you know the receptionist is the key she can start by identifying those that are potential candidates and then it is really time for the nurse if she has got it available or they have got it available to do it. PM 15 (M)</i>
<i>Yeah, I will basically have a look down the list, if I can see that the nurse is not busy and I can see that there is someone there that could possibly benefit, I would give the nurse a call and just say, “You have an ACCEPt candidate in the waiting room,” and she would go and do what she needs to do. But basically just provide like the little esky, when we did it awhile back we had a little esky in the toilet so that people didn’t have to be embarrassed coming out with a sample because I found that there is a lot of embarrassment carrying your little urine bottle around. So we put the esky in the toilet and you know people were just popping the sample in there. Yeah, just remove the barriers, so embarrassment is one of the big factors so if we can get rid of that and yeah I found it goes a lot better. PM 21(F)</i>
<i>I think in the case of the ACCEPt program we sort of worked out the best way we could inform our doctors and so we have come up with a stamp that we put on their e-sheet and it is out there, the doctors see it straight away. It triggers, “Oh this patient is in the right age demographic.” That came about from feedback from one of our doctors actually, the staff as well, we have sort of looked ahead at our bookings to see, “Oh yeah there is patients in the right age group we will flag them.” So little things like that to try to draw the attention to the doctor, there might be an opportunity for them to raise the research project in the consultation. Yeah definitely the staff, our front desk staff are fantastic and they are the first point of call for the patient so they are often the best to get advice from as well ... Yeah, um look we thought about it long and hard how can we make this work? And, eventually we came up with the stamp ... Our e-sheet, our doctor picks that up to call the patient. We</i>

wanted something that was not out there, so that everyone in the waiting room could see. We wanted something that was sort of discreet ... We have regular staff meetings, not weekly, six weekly ... We discuss it then and see if the stamp is still being used ... are they still flagging patients on the appointment system when we have time. PM 8 (F)

When we started the ACCEPt program the staff all got involved right from the very beginning. Not only did the doctors have the reminders on their desktops we also prompted them. We got the receptionists to get involved and they actually then flagged that particular age group we were targeting and so it became a research thing for the whole practice not just the practice manager and the clinical team. We usually we have a monthly staff meeting ... we discuss both clinical and administration stuff at the meeting, a lot of the research stuff does come up in those meetings especially when it is a reminder from myself to the clinical staff. If we find that our activity levels are low ... if the last report from ACCEPt comes through ... that doesn't seem right. "We have to push this a bit more." So all staff are kind of involved in that, but then I suppose it really comes from the clinical side of it. PM 13 (F)

Well, what we have done to try to identify the patients ... we are trying to stamp our patient arrival sheets out the front. So that when doctors are given the sheet by the patients they are already identified as an ACCEPt potential ... What we have found is that again with staff that dies off too, but if we can talk about the program at a staff meeting, talk about what is happening or what the statistics are, that picks up the staff interest too. So, even though staff have no clinically involvement they are still interested once they are being told and brought in. PM 3 (M)

6.6 Views of practice managers of the barriers to the conduct of research in general practice

Participants described the barriers to the conduct of research based on their experience of managing ACCEPt. Under this heading or area of investigation, the five themes identified are presented in the order of strength they were represented in the data. The themes relating to the barriers to research uptake and implementation are listed in Table 23. Quotes exemplifying the themes are presented in Tables 24-28.

Table 23: Themes identifying barriers to implementing research

Theme
Lack of time
GPs forgetting the research
Financial reimbursement
GPs resistance to research
Negative previous experience of research trials

6.6.1 Lack of time

A major theme running through all 23 interviews was the lack of GP time. On closer examination of the data, lack of time was directly associated with the time-limited consultation and the structure of the GP consultation/appointment schedule.

Time-limited consultations within a structured schedule

The time-limited consultation is an element of the structured routine of general practice. Participants described pressure in their practices to keep to scheduled appointment times, therefore opportunities to discuss research with patients were foregone in favour of saving time and not getting behind schedule. (See quotes in Table 24). General practices are small private for-profit businesses, and allocate GP and PN time to revenue generating tasks, and adhering to the time-based appointment schedule, whereas participation in research is largely altruistic and generates little or no revenue.

Table 24: Time-limited consultations

<i>I honestly think it is the GP time, that is the biggest thing ... They are rolling along and then all of a sudden, the next two are waiting outside the door, and it is just like ACCEPt, I haven't got time I will do it next time. ... They [patient] come in with two or three issues. ... Normally, leave the last one and probably the most important until they are just about ready to go and then on top of it you are going to have to ask them a research question ... you have got this ten or fifteen-minute allocation of time. ... It probably does take more than just a couple of minutes and when you have got a ten-minute consultation and you do everything else and you are trying to find another couple of minutes and if you are seeing fourteen people a session and you know ten of those are in that age group, you are starting to run really late. PM 1 (F)</i>
<i>Well I think the barriers are the time and when you are looking at making a choice ... Do you increase the length of a consultation so that you have time to gather this data? PM 4 (F)</i>
<i>If only people realised that most of the time you don't have a lot of time to do any of this ... Well every ten minutes is an added onto the end of the day. And it is a bit like when we have medical reps coming in, "Oh but could I just see the doctor?" But, that fifteen minutes or twenty minutes they take is added to the end of the day. And, the end of the day in country practice is a very long time, you know. PM 6 (F)</i>
<i>Doctors sometimes are difficult to work with as I said mainly around time constraints really. PM 10 (F)</i>
<i>In a fifteen -minute appointment, to actually bring that round into the conversation is very difficult for some of the practitioners. I am finding that the younger doctors in the practice are better at offering ACCEPt than the older doctors. PM 2 (F)</i>

6.6.2 GPs forgetting the research

Many participants stated that rural GPs had full and diverse workloads. In rural locations, GPs often work at local hospitals, and practise other areas of medicine such as anaesthetics, obstetrics and aged care. Practice managers juggled GPs' schedules to accommodate these commitments and unexpected demands arising outside of general practice. This was also relevant to themes related to lack of time, but in the context of the interviews participants saw the GPs' extended roles in the community as being related to having too many things to remember.

The strategies implemented by the practice managers to support GPs in opportunistically offering chlamydia tests to eligible patients involved input from reception staff and focused on reminding GPs about the ACCEPt trial. Where possible, practice managers deployed nurses to support testing, but this was not always an option when the PN was engaged in other activities or the established routine was inflexible. The quotes related to this theme of forgetting the research are presented in Table 25.

Table 25: GPs forgetting the research

<i>After they [GPs] have done their day's general practice work they have to go up to the hospital. I mean it is different for different styles of practice I suppose. But, when you have got a practice, especially in rural areas where they are dealing with not only their own private general practice, but also the hospital, the nursing homes and the rehabilitation centre etc. PM 14 (M)</i>
<i>I must admit it is really hard for the country GPs to keep their mind on the target areas for research. PM 13 (M)</i>
<i>Lots of things going on in a doctor's mind when a patient comes in for a consultation and they tend to deal with the issues that are current at the time. PM 12 (M)</i>
<i>Generally, GPs, unless it is pushed on them and they are reminded about it every day it is sort of something that is not on their forefront [minds] ... so I think, they have got so many things pushed at them all the time it is hard for them. PM 15 (M)</i>
<i>It probably is another thing that they have to remember to do ... I think that is general practice, as it is you know it is broad. You deal with a lot of different things and it is kind of just another thing to think about, but I guess if we can do it in a systematic way and think, we are really at that point now ... we are just talking about well we need to set up a system how are we going to actually make sure that we get those people back. PM 17 (F)</i>

6.6.3 Financial reimbursement

Many practice managers (n=15) saw the lack of funding for research as one of the main barriers to general practice participation. Related directly to ACCEPt, many participants thought incentive payments directly influenced chlamydia testing.

“Unless it is funded people are not going to do it because they get paid on seeing patients not for doing research project.” PM 4 (F)

The opinions of others about whether research should be funded were divided: some thought the practice should be remunerated and some believed the GP should be. Managers thought younger GPs would be more likely to be motivated by the incentive payments attached to chlamydia testing and that this had significant impact on their testing rates.

However, two participants thought GPs should not be paid for participating in trials. Some practice managers also thought some GPs would participate regardless of GP incentives. One participant considered Continuing Professional Development (CPD) points to be an important incentive for GPs to participate in research. The quotes related to this theme are presented in Table 26.

Table 26: Financial reimbursement

<i>If you are going to use the GPs as the person collecting your data ... that it's not financially viable ... from a business point of view, research is not an income generator for a practice ... I think you are then looking at loss of income. PM 1 (F)</i>
<i>The other thing is it is not funded. Unless it is funded people are not going to do it because they get paid on seeing patients not for doing research projects. PM 4 (F)</i>
<i>The reality is [money is] very important, that helps tremendously, particularly with the younger doctors, who are very income-focused, more so than the older doctors. PM 2 (F)</i>
<i>Um, I don't know, would there be an incentive even for the young ones [GPs]? If there was some sort of financial incentive for them to be actually part in it. That is probably where you are going to get them bringing it up [chlamydia testing]. PM 7 (F)</i>
<i>The other thing I really dislike too is they think a monetary incentive will be a way of you doing a thing. Well I find that offensive as well, really but anyway that is my opinion ... I don't see that you need an extra incentive to get someone, to make sure your patient is being cared for. I don't see that if you are getting a consultation fee why you would want to be getting extra unless you were doing the test yourself. PM 6 (F)</i>
<i>Well with the doctors there has got to be an incentive ... Because they are all pushed so hard anyway so if there is no incentive to actually to put in the extra work then it ultimately goes by the by ... Points would certainly be a drawcard for them- an incentive because they all struggle with that ... So I think if they can be involved to a point and it is certainly interesting and it is something different to what they do every day, but if they can have points [QI & CPD points] out of it then there is an incentive to take an interest and make an effort. PM 7 (F)</i>

6.6.4 GP resistance to research

Several participants reported lack of GP interest in the research topic as a major barrier. Sexual health of young people was not an area of interest for some GPs, and this was reflected in their chlamydia testing rates. Those who devised strategies to assist GPs to participate in ACCEPt expressed frustration and disappointment when they were ignored or overlooked. Research-active participants introduced strategies to remind GPs and assist them in collecting chlamydia tests; however, they could not stop GPs ignoring alerts to testing in a consultation. (See PM 3 quote in Table 27).

Another participant asserted that the way GPs practised determined their level of participation. This is a concerning finding, as this participant highlighted an area for quality improvement.

“Some practitioners will delve further and others will just fix the problem that the patient is presenting for. The ones that delve further are the ones that are interested in better outcomes for people.” PM12 (M)

The quotes related to this theme are presented in Table 27.

Table 27: GPs’ resistance to research

<i>You can lead a horse to water but you can’t make it drink and if the flag is ignored, there is not a lot you can do from any outside level because at that point it is the doctor and the patient. PM 3 (M)</i>
<i>The GPs clearly have got interest in research but to do it they need a coordinator ... They need a good reason as to how it is going to change their practice, so they need to believe in what you are doing. PM 4 (F)</i>
<i>It depends on the practitioner also, some practitioners will delve further and others will just fix the problem that the patient is presenting for. The ones that delve further are the ones that are interested in better outcomes for people ... I think just reluctance of GPs to actually have to do another task [is the reason for not testing for chlamydia]. PM 12 (M)</i>
<i>Definitely, staff willingness is one thing and I think that extends to some doctors. I do not know whether it is just they are not prepared to do it. PM 10 (F)</i>

6.6.5 Negative previous experience of research

One participant reported their practice was reluctant to participate in ACCEPt, based on a negative past experience with research.

“We have had bad experiences with research programs or programs deemed to be research. It put us off for a long time ever doing anymore, and that was possibly the hard thing in getting this one [ACCEPt] over the line.” PM 12 (M)

6.7 Views of practice managers of the enablers to the conduct of research in general practice

Participants expressed their enthusiasm for research to be undertaken in their general practice. In doing so, they provided ideas about what would make research studies more acceptable to general practice and easier to implement and sustain. Some participants incorporated these enablers into strategies and implemented them to support ACCEPt. Under this heading, participants identified five themes; they are presented in descending order of their representation in the data in Table 29. Quotes exemplifying the themes are presented in Tables 29-33.

Table 28: Themes identifying enablers to research uptake

Theme
Use the practice manager
A simple research design
Build a relationship with all the practice staff
Regular feedback to GPs
Reminders and alerts

6.7.1 Use the practice manager

The main enabler identified by the participants was practice managers themselves. The theme runs through the interviews and is evident in other themes describing management, facilitation and coordination. Participants believed that trial management at the practice level was within the scope of their role. Incorporating the non-clinical tasks associated with implementing an intervention was acceptable to all participants.

“Yeah and make sure it runs properly or runs smoothly ... you have to continue using practice managers because they are often at the centre of the functioning of a practice” PM3 (M)

The practice manager is the only staff member with unprotected time and the authority to delegate research activities into other non-clinical staff workloads without disrupting workflow. This theme runs through the interviews. The participants saw research facilitation and coordination as a natural fit for their position in the practice. The quotes in Table 29 exemplify the theme of using practice managers to oversee and facilitate research studies in general practice.

Table 29: Use the practice manager

<i>You have to continue using practice managers because they are often at the centre of the functioning of a practice ... It is no good just going straight to the clinician and bypassing the practice manager because you are still going to find the program is not going to work as effectively ... Yeah, I mean Medicare are slowly changing ... in the past they would say, “No, no we can only speak to the doctor.” But they [Medicare] are finding if they want things to happen they need to involve the practice manager to get their programs working. PM 3 (M)</i>
<i>They have to have a very proactive role ... instigating and implementing and controlling most of it ... I mean practice managers out of the group probably have the most amount of time even though it probably not looks like that but doctors are always with patients. Receptionists are always at the front, nurses are always bowing to doctor’s needs. So, your managers are the ones that can implement it if possible. PM 15 (M)</i>
<i>Coordinate the whole daily process ... whether you do the nursing side of things, whether you do the administrative side of things. Make it run smoothly and make it so that we don’t miss anything, we don’t want to subject yourself to any liability so you have really just got to make sure the whole thing runs really smoothly and the patients are cared for and that you follow up on all those clinical situations. PM 6 (F)</i>
<i>I would pretty much manage it within the practice, yes that would be part of my scope of what I do within the practice. PM 2 (F)</i>

6.7.2 A simple research design

Participants favoured simple research designs. Interventions that did not require the GPs to undertake administration were easier to implement and considered acceptable. An intervention that did not cause disruption to the routine of general practice and did not hold up the appointment schedule was also easier to implement and more likely to be sustained, if the GPs were invested in the aims of the trial. One participant also mentioned research trials required external ongoing support from the research team. Quotes describing this theme are presented in Table 30.

Table 30: A simple research design

<i>It needs to be local, it needs to come to them [GPs], and it needs to be really quite simplified. And, the chlamydia one was perfect because that was really simple, they really didn't have to do anything except write a pathology form and speak to the patients. PM 4 (F)</i>
<i>They are pretty proactive and accepting on the whole program ... it is not a difficult ... you don't have to do half a dozen things. Do you know what I mean? It is not a difficult project to be involved with. PM 18 (F)</i>
<i>I think you have got to take the pressure off the practice, not to expect a lot to be done from the practice ... Again, I can only speak from our practice, so yeah if there are others with lots more time or resources or whatever well that is fine but here at the moment if there is a workload put on staff then really you can probably forget it. PM 7 (F)</i>
<i>To impress upon them how important it is and to find ways that it is not an interruption to their day-to-day management. I think the program is run very effectively and I don't think that we can really improve on it at all. It is really up to the practitioners to make the most of it, it is all there, the opportunity is there. It is just a matter of getting them on board and them having the time to do what needs to be done ... Well, I think the model that ACCEPt has got is very good and that is what I would be basing any future agreement to be involved in studies that it was a format such as that. In that, you have good project management support. PM 2 (F)</i>

Build a relationship with all the practice staff

Most participants saw relationships between general practice staff and research officers as an important aspect of setting up and implementation of research trials. The initial relationship with the practice manager was vital for gaining access to the GPs, but ongoing relationships with all the staff was seen as important to the sustainability of the intervention.

“You have got to be able to build a good relationship with whoever is approaching you pretty quickly...if the chemistry doesn’t work in the first interview it is never going to work.” PM 12 (M)

One participant said the entire practice was involved in the intervention and believed participation created a more interesting working environment.

Staff all got involved right from the very beginning ... we got the receptionists to get involved...so it became a research thing for the whole practice. PM 13 (F)

Table 32 presents quotes exemplifying the theme of relationship building with practice staff.

Table 31: Build a relationship with all the practice staff

<i>You have got to be able to build a good relationship with whoever is approaching you pretty quickly ... If the chemistry doesn’t work in the first interview, it is never going to work and I think that is where this one, [ACCEPT] was to me a standout. The people that came originally and spoke to me and then spoke to the partners ... it gained a fair bit of credibility. PM 12 (M)</i>
<i>I think they need to develop a relationship with all the practice and the people who make the decisions in the practice ... like if you are in a corporate or a private or a solo practice and engaging with your administration staff to help support the practitioners in doing the research, in providing the information for the research. PM 2 (F)</i>
<i>Staff all got involved right from the very beginning ... we got the receptionists to get involved ... so it became a research thing for the whole practice not just the practice manager and the clinical team. PM 13 (F)</i>
<i>I think involving our nurses in it and even some of our reception staff ... involving the nurses, they are clinically trained people and they speak the language, they understand the problem, they had no problem with it at all. PM 12 (M)</i>
<i>Absolutely, and if anything, that makes the job at hand fun or exciting or different or important, anything that makes the staff feel like they are making a difference that is a big thing. As I said if for me if it was exciting, breakthrough, or something important considered important society-wise it will help the community that it is in. Sometimes just the satisfaction of being helpful is all that is required. PM 15 (M)</i>

6.7.3 Regular feedback to GPs

Many participants (n=19) thought the three-monthly feedback reports and meetings with research officers were important ways to sustain enthusiasm for ACCEPt and maintain interest in the trial. Quarterly feedback reports were one of the main components of ACCEPt, and were designed for GPs to track their chlamydia testing rates over the time of the intervention. Practice managers liked the GP chlamydia testing feedback reports too, and used them as a tool to increase enthusiasm among all staff. In addition to reports for GPs, all practice managers thought the educational resources for GPs and PNs and those specifically for patients were an important component of the research. Related quotes are presented in Table 32.

Table 32: Regular feedback to GPs

I think that feedback is essential because what we seem to do is when we get that feedback there will be a spike in interest. And then, that will wane over time and then the next time we get more feedback it will pick up again. So yeah, that feedback is essential for the program to be continuing otherwise everyone just forgets about the program and other things become more important ... And what we have found is that again, with staff that dies off to, but if we can talk about the program at a staff meeting, talk about what is happening or what the statistics are that picks up the staff interest too. So even though staff have no clinical involvement, they are still interested once they are told and brought in. PM 3 (M)

ACCEPt come to the quarterly meetings ... information is then passed onto the doctors ... I think they are really important, it just helps to put things back in people's minds and it works well ... I think quarterly feedback is good. PM 2 (F)

Look I think it is important to the extent of keeping your face in front of the doctor and saying, "Well we are here and we are doing this and we are genuine about it." It doesn't need to be a long thing, it could be done at one of our clinical meetings or come and try to catch them in between consultations ... I think it is worth doing just to keep the awareness, whether it is quarterly or every four months whether three a year. PM 12 (M)

6.7.4 Reminders and alerts

Most practice managers (n=17) thought alerts and reminders for GPs were an important aspect of sustaining research. Most strategies independently introduced to encourage GPs to participate were based on reminding them of the research. Many practice managers (74%) thought the ACCEPt electronic alert was a very important tool in overcoming this barrier (however, in reality many ACCEPt practices did not have an alert due to incompatible medical software).

In these sites, managers devised ways to remind GPs of patients' ACCEPt eligibility. When reception staff remembered to implement paper-based systems, practice managers thought they worked well; however, conflicting demands often prevented receptionists from creating the reminder.

"Alerts, yes I think that is essential, that is the only way that you can grab the doctor's attention when that patient comes into their consulting room." PM 2 (F)

If GPs disliked the design of the computer alert, some participants developed a business card or reminder poster within the practice. In addition, participants (n=22) thought recall systems that flagged patients to return for testing were important to research study uptake and sustainability. Additional quotes describing this theme are presented in Table 34.

Table 33: Reminders and alerts

<i>I think perhaps the alert on the computer that comes up that is separate to our current alert system would be a really good way of reminding them because you know a lot of people are having pathology done anyway so just add it to the pathology. PM 4 (F)</i>
<i>Alerts, yes I think that is essential, that is the only way that you can grab the doctor's attention when that patient comes into their consulting room. The level of sophisticated IT is the thing that makes it successful because it is easier to do in that way. PM 2 (F)</i>
<i>They have got a little sticky laminated little sheet ... stuck to their computers as a prompting tool. PM 18 (F)</i>
<i>We actually made invitations and it said on the front, "Are you between 16 and 29? If so here is your invitation," and then it was, a glossy brochure that people would open up. PM 21 (F)</i>
<i>And we were flagging patients who fell into that age group so they were involved ... you know pick out the people coming through so that the people [receptionists] were here facilitating the first initial stage of the project ... So they felt involved in it I think and that created interest. PM 1 (F)</i>

6.8 Chapter summary

In this chapter, I presented the findings from semi-structured interviews with practice managers. Their demographic details demonstrate they are a heterogeneous group of professionals and a stable workforce within general practice.

Interviews revealed participants' high level of commitment to making the ACCEPt trial a success in their general practice. A commitment to research uptake and implementation was identified, as well as enthusiasm for facilitating research interventions at the practice level by managing the associated non-clinical tasks. Participants also saw research participation as an investment in quality improvement within their practices, through education for GPs and PNs.

Participants expressed their enthusiasm for general practice-based research and understood practice participation as a way of improving the health outcomes of a target patient group and the wider community. This was expressed by their desire for rural communities to be represented in research outcomes that would determine government policy. The barriers and enablers identified demonstrated practice managers' commitment to ACCEPt and research in general practice more broadly. Participants identified factors identified that enabled research facilitation, implementation and sustainability, derived from their experience as managers and several years of exposure to the multifaceted ACCEPt intervention. Participants, regardless of their management style and practice size, believed simple trials with minimal GP administration and electronic data collection were most suitable to general practice routine and staff time allocation.

Chapter 7 presents an analysis and discussion of these findings.

7 Discussion

This is the first Australian study of the role of the practice manager in facilitating the implementation of an intervention within the conduct of a clinical trial in general practice. The study arose from the opportunity provided by ACCEPt, a large RCT undertaken in general practice in several Australian states, in which practice managers took a lead role, supported by ACCEPt research officers to implement the trial at the practice level. The ACCEPt multifaceted intervention design required a sustained approach to opportunistic annual chlamydia testing of 16–29-year-old patients over a 2–3 year period.

The paucity of literature on the practice manager and their role in research was highlighted in Chapters 2 and 3. Only one published study (83) of the role of the practice manager in primary care research was found. There has been a reliance on grey literature and the views of experts in the field to describe practice management in Australia. This gap in the literature provides a rationale for the research described in this thesis, and underlines the need for further investigation.

My study revealed practice managers are a heterogeneous workforce, with varying educational attainments and work experience. The semi-structured interviews generated a wealth of information about the views of Australian practice managers about research, their understanding of general practice-based research, and their perceptions of the barriers and enablers to implementing and incorporating intervention research trials in general practice.

The strengths and limitations of this research project are discussed first, followed by the key findings, which are presented under the two study objectives:

- to investigate the role of the practice manager in the uptake and implementation of a research intervention; and
- to explore the views and perceptions of practice managers on the barriers and enablers to the conduct of general practice-based research.

7.1 Strengths and limitations

A major strength of this study was that practice managers were exposed to the ACCEPt trial for up to four years prior to participating in interviews. During that time they supported and coordinated practice recruitment; accommodated an intensive 3–4 week cross-sectional prevalence survey; and facilitated a 2–3 year multifaceted intervention. This level of exposure to a complex RCT enabled them to reflect on the capacity of general practice to participate in research and to gain a broader understanding of their own role in general practice-based research implementation.

All participants were working in a general practice in which the ACCEPt intervention was administered, and therefore may have had views differing from those of practice managers who were not exposed to the trial. However, as ACCEPt had a recruitment rate of 90% (9), this is a very minor limitation; the sample exposed to the trial was likely to be representative of Australian practice managers. The group of practice managers interviewed was a heterogeneous sample, identified from a larger group of practice managers stratified by practice size in order to recruit participants with various levels of training, experience and expertise in management. From these groups we purposively identified a sample of participants to ensure a wide range of views and perspectives on general practice-based research.

Participants were employed in rural general practices. Although there is evidence to suggest rural GPs differ from their urban contemporaries, both in the number of hours worked and increased levels of job satisfaction (110), there is no evidence to suggest rural practice managers are different from their urban-based counterparts.

7.2 Objective 1: To investigate the role of the practice manager in the uptake and implementation of a research intervention

My research found practice managers could play a vital role in establishing, facilitating and managing research interventions at the general practice level. Managers identified themselves as crucial to the uptake and implementation of all phases of ACCEPt into practice routine. Their authority and central positions within the structure of the organisation were pivotal for directly liaising with GPs on research matters, delegating tasks and keeping ACCEPt on general practice agendas. All practice managers, regardless of their level of authority, could manage the non-clinical tasks (IT

management, invoicing, managing patient resources, arranging meetings with GPs and recruiting new GPs) associated with research implementation, and these tasks were absorbed into their current workloads. Graffy and Stubbs (2005), the only previous authors to investigate the role of practice managers in research, found managers in the UK were supportive of general practice-based research and reported they could include research management in their current practice management roles (83).

An exploration of practice managers' views on research revealed they understood research as a quality improvement activity undertaken to benefit patient health outcomes, inform government policy and provide up-to-date and ongoing GP and staff education. Participating in research provided an opportunity to improve the health outcomes of patients, and in doing so, contribute to better health outcomes for the community. This belief was also associated with strongly held views on advocating for the health care needs of rural communities by informing government policy. Practice managers saw the education and training associated with trials as an important general practice quality improvement initiative and a way of fostering a culture of education consistent with the vocational style of learning, familiar to general practice. They enthusiastically supported the PN training program provided as an adjunct to the ACCEPt intervention, delivered as an outreach educational training session for PNs and including the practice managers. Given the enthusiasm practice managers have for general practice-based education, exploration of training that would increase their ability to facilitate research at the practice level would be advantageous for increasing primary care research implementation and sustainability.

Practice managers believed research needed to be facilitated and managed for it to be taken up by practice staff. My study found, that when the practice manager could engage all the staff in the research activity and everyone collectively understood and agreed it was worth investing time and effort to achieve the agreed aims. These findings are consistent with NPT, the sociological framework underpinning the ACCEPt intervention (explained in Chapter 4), and used widely as a guide to implementing and evaluating interventions for general practice (93). However, it is not known at the time of reporting whether the intervention has been sustained beyond the trial period.

Practice managers' unprotected time gave them capacity to undertake the extra tasks associated with the trial. ACCEPt research officers took advantage of this unprotected time, encouraging practice managers to assist with additional tasks such as distributing and collecting GP and PN surveys and disseminating newsletters and research information. More significantly, and regardless of practice size, managers reported that they utilised their management positions to remind staff of the trial and directly liaise with GPs when research officers requested they do so.

Practice managers with the autonomy to modify general practice routine could delegate research tasks to staff, including PNs, in addition to setting up systems to remind GPs of the intervention. While there was still a clear distinction between clinical and administrative roles, some managers reported input to clinical policy decisions (19). This was exhibited in their direct encouragement of research participation and output from GPs, PNs and registrars. Having a health care related qualification further enhanced the practice manager's capacity to implement the research and directly impacted on research uptake. Practice managers saw their medical qualification as advantageous in encouraging greater participation from GPs.

Those practice managers who described their authority to block access to GPs, did so to protect consultation time. They assumed this as their role in managing routine. The gatekeeper role was usually sanctioned by GPs to protect them from unprompted contacts (53, 54). Whether GPs were aware some managers blocked research opportunities was not clear. Moreover, it was unclear why some practice managers had the authority to choose the research in which the practice would participate. However, the practices managers' knowledge of and enthusiasm for the trial proved advantageous for ACCEPt research officers, who were able to gain access to GPs at short notice and overcome barriers reported in the literature (53, 111).

My work also identified that not all practice managers with authority to change routine and influence research worked in large general practices and had "executive management status," as described by Pringle et al. (1991). This finding suggests the professional relationship between the practice manager and the GPs is influential in achieving change if the GPs allow the manager to lead.

Most practice managers had no research training or research experience prior to ACCEPt. Therefore, managers often conceptualised research trials as “programs” requiring management from a business perspective, and coordinated on a day-to-day basis and often with no long-term application. This suggests that when a trial intervention phase is completed, tasks can be forgotten, overlooked or foregone in favour of new projects and therefore not embedded into routine. With training in research facilitation, practice managers may view intervention and implementation studies differently. An important outcome of the Graffy and Stubbs (2005) study was the development of a training manual to support and guide practice managers to manage research projects at the primary care level (112, 113).

7.3 Objective 2: To explore the views and perceptions of practice managers on the barriers and enablers to the conduct of general practice-based research

The barriers to the conduct of research identified by practice managers were broadly those that directly related to the GPs’ capacity to participate effectively in the trial.

Lack of GP time

Interviews with practice managers showed that the main barrier to research implementation was the lack of GP time, due to the enforced restriction of the time-limited patient consultation and the rigid structure of general practice routine (both designed to maximise the GPs and PNs’ capacity to see patients and generate income). Lack of time in a consultation is frequently reported as a barrier for GPs for authorising a chlamydia test (114-116). More broadly, lack of time is associated with needing to see patients and be remunerated for that, therefore research that does not or inadequately remunerates GPs for their time is considered a luxury (70, 80, 117). There have long been calls to protect GP time for research and adequately remunerate research participation (76, 118). More recently, the Australian Medical Association (AMA) has recommended a PIP payment to facilitate increased research uptake and GP participation in general practice-based trials (119).

Lack of financial reimbursement

As alluded to in the previous section, Australian general practices participate in research largely for altruistic reasons, and in many cases, this is not financially viable within the current small practice business model. Allocated research time is not a

feature of general practice; this has been cited as the reason for the general lack of active participation (78), and as contributing to the poor sustainability of interventions (111). Practice managers believed directing payments to general practice rather than individual GPs was appropriate when a whole-of-practice approach was required to implement the research over a long period. Practice managers believed CPD points for GPs were popular incentives and contributed to quality improvement in their practices. This is consistent with findings from other research involving GPs (81).

GPs forgetting the research

GPs forgetting to actualise their participation in research was mainly understood as a symptom of an overwhelming workload; this was highlighted by practice managers as a significant issue for rural GPs (70). On average, GPs in rural locations work five hours per week more than their urban counterparts (120). They also juggle conflicting responsibilities of managing rural hospital admissions and emergencies and participate in on-call rosters (110).

Practice managers saw value in computer alerts to remind GPs of the research during a consultation with an eligible patient. They saw them as easy to install and overcoming the need for other prompting. A study of the use of a computer alert for chlamydia testing found a 27% greater increase in testing over the intervention period (90). Managers reported GPs often overlooked or dismissed standard medical software reminders, but clear, bold prompts, centrally located on the screen, reminded GPs of tasks effectively, and supported GPs in introducing preventive health topics to patients in consultations.

GPs' resistance to research

The literature suggests the research uptake of GPs is related to whether the research is relevant to their work and interests (80, 121); resistance to participation reflected lack of interest in the topic, not a lack of interest in research generally. Practice managers were aware some GPs were not interested in chlamydia testing and management, considering chlamydia testing a low priority. In these instances, managers focused their attention on registrars and female GPs to increase chlamydia testing rates. They reported younger female GPs were more comfortable having discussions with patients

about sexual health, confirming Yeung et al' (2014) previous findings from ACCEPt (122).

Past negative experience of research participation

A concerning finding from this study was the report of a practice reluctant to participate in ACCEPt due to a past negative experience with research. ACCEPt adopted an evidence-based approach to recruitment and trial implementation as reported in previous studies (53, 81, 123). This maximised recruitment and retention of practices over the duration of the trial (117), resulting in only two control group practices withdrawing over the five-year period.

Enablers to the conduct of general practice-based research

The enablers to research identified by the practice managers looked at what staff could do within the scope of their role to support and sustain the ACCEPt intervention and overcome identified barriers. Suggestions were based on practice managers' lived experience of implementing ACCEPt and also Medicare and PHN programs they had implemented in the past. Other researchers argue the design of intervention trials need to address some of the known organisational and economic barriers to research uptake in general practice (76, 119, 124). My study differs from previous enquiry in that practice managers revealed new enablers to support research participation by general practice, as explained below.

The practice manager as an enabler

The most significant enabler reported was the practice managers themselves. Their central position in the practice and link to all staff enhanced their capacity to lead and manage the ACCEPt trial during all phases. They saw research management as being within the scope of their current role, and could utilise unprotected time to develop and implement strategies to support research. However, their determination to oversee, coordinate and implement strategies to manage an intervention was defined by the scope of their current management position. Temple-Smith et al. (2012), found general practices employing a manager had greater capacity to alter routine and make provision for research activities than those without one (97).

A simple research design

General practitioners prefer trials with clear aims, a simple design easily conducted in consultations, and that facilitate patient care, with results likely to inform policy change (80, 111). Feedback from practice managers was in line with these findings, but included organisational factors such as not disrupting workflow schedules and inclusion of electronic data collection capacity, removing the need for data extraction by practice staff. ACCEPt was designed to cause minimal disruption to workflow and practice routine. As this was the first trial to which most participating practice managers had been exposed, they were unable to make comparisons, but they did report ACCEPt to be easy to incorporate into general practice routine.

Relationships with practice staff

Practice managers thought researchers should establish relationships with general practice staff and this was a vital component of research set-up, implementation and sustainability. Relationship building was important at all levels of general practice hierarchy. Other studies confirm the need to build a relationship with non-clinical general practice staff, as often they are relied upon to undertake extra research-related duties, but have the least influence on the decision to participation (81, 117). Practice managers who aimed to foster a research and learning culture within their practice and engage non-clinical staff such as receptionists in ACCEPt, believing their positions were enhanced by research activity.

Feedback to GPs

The majority of practice managers highlighted the benefits of the quarterly feedback reports for GPs. Yeung et al. (2014) reported GPs thought this feedback was the single most significant driver of chlamydia testing (122). Practice managers believed regular meetings simulated enthusiasm for ACCEPt, increased chlamydia testing and was supportive of sustaining interest in the intervention. This is consistent with the results of other studies, which reported a positive affect from regular audit and feedback when related to ordering tests and undertaking prevention activities (117, 125).

7.4 Summary of findings from this study

The practice manager

- Practice managers identified a role for themselves in facilitating and implementing research at the general practice level.
- Practice managers' unprotected time and management skills enabled them to undertake the non-clinical tasks associated with trial interventions to reduce the impact of research participation on practice routine.
- Practice managers' central position in the practice enables them to promote research and delegate tasks to other staff to support GPs in the uptake of research activities.
- The relationship practice managers had with GP partners was a major contributing factor to their level of authority and autonomy to modify schedules, institute change and incorporate research into practice routine.
- Practice managers' experience of implementing and managing programs provides some experience for managing research interventions, but lack of conceptual understanding of research inhibits their capacity to embed activities into routine and risks them not being sustained after the trial has finished.
- Practice managers were enthusiastic about intervention research, as it provided their practices with quality improvement opportunities such as staff education and services the practice did not offer.

Barriers to general practice -based research

- Practice managers identified the main barrier to research as the limitations imposed on GPs by a structured schedule of rigid time-limited consultations designed to maximise patient throughput.
- The lack of funding of general practice for research participation prevented any modification to routine to free up GP time; this, linked with an overwhelming workload, reduced the capacity of GPs to undertake research activities.

Enablers to general practice-based research

- Practice managers were able to implement strategies within their practice to increase research uptake and – with research officer support – set themselves up to facilitate an intervention.
- Practice managers confirmed that simple trials involving minimal GP administration – and interventions that provide the practice with a service they lack – maximise general practice participation.
- General practice staff are supportive of research designed to maximise engagement with general practices by fostering partnerships through ongoing education and regular feedback of results.

8 Conclusion and recommendations

This study filled a gap in the literature about practice managers and their role in implementing research interventions at the general practice level. The findings highlight the contribution of practice managers to facilitating the implementation of research and their potential to increase research uptake and successful implementation. My research revealed the perceptions of Australian practice managers about research, and provided a new perspective on the barriers and enablers to the conduct of general practice-based research. To date, the practice manager has been largely overlooked in the planning of intervention studies for Australian general practice. This study of practice managers found practice managers saw a role for themselves in facilitating and implementing the ACCEPt intervention at the practice level. The findings suggest practice managers' enthusiasm and management skills can be harnessed to increase research uptake in general practice.

The lack of academic literature about practice managers and their role in general practice-based research was highlighted. The results suggest a need for a larger systematic investigation to understand this role and the contribution practice managers could make to research facilitation and implementation. There is also a need to investigate suitable and acceptable training that would increase practice managers' conceptual knowledge of research and the management of studies if their involvement is to be realised.

8.1 Recommendations

Researchers and practitioners in this field should:

1. undertake a large-scale Australia-wide investigation of the role of the practice manager, especially in facilitating and managing research at the practice level;
2. explore training opportunities acceptable to practice managers that would enhance their ability to facilitate and manage research in general practice;
3. include practice managers in primary research networks (such as the Victorian Research Education Network (VicReN) and other local practice-based research

networks) to foster a culture of inclusion and increase the research participation of general practice; and

4. collaborate with RACGP, AMA, AAPM and University Departments of General Practice to raise the awareness of practice managers as facilitators and managers of research studies at the practice level.

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10 Appendices

Appendix 1: Participant invitation letter



Practice Manager contact letter

Participant identifier:

Project Title: What role does a practice manager play in the success of a research intervention in general practice?

Study Investigators

Anna Wood¹

Associate Professor Meredith Temple-Smith²

Associate Professor Jane Hocking¹

¹Melbourne School of Population and Global Health, University of Melbourne, Victoria, Australia;

²Department of General Practice and Primary Health Care Academic Centre, University of Melbourne, Victoria, Australia;

Re: Request to interview you for a study

I am writing to invite you to participate in an interview to gather information for a research study I am undertaking as part of my Masters of Primary Care by research.

My research is investigating the role of the practice manager in the implementation and success of a research intervention in general practice. The study is being conducted as a sub-study of the Australia Chlamydia Control Effectiveness Trial (ACCEPt). It is a separate study from ACCEPt and should in no way impact on the outcomes of that study.

I would like to arrange a face to face or telephone interview at a time convenient to you. Interviews will be approximately 20-30 minutes in duration. All of the information will be confidential and results will be de identified. Participation in this research is entirely voluntary. This is an opportunity for you to share your ideas and experience with researchers about the barriers and facilitators to undertaking research interventions in general practice.

My supervisors are Assoc. Prof Meredith Temple-Smith, Director of Research Training in the Department of General Practice and Assoc. Prof Jane Hocking Chief Investigator on the ACCEPt study. I have ethics approval from the Human Research Ethics Committee, University of Melbourne to undertake this research.

If you are interested in participating I would be happy to discuss any aspects of the research with you. I have attached some information for you to read outlining the study.

If you have any questions about the study, please do not hesitate to contact me,

Yours sincerely

Anna Wood
Masters Student
Department of General practice
The University of Melbourne
200 Berkeley St
Carlton 3053
0457 228 981.

Appendix 2: Plain Language Statement



Plain Language Statement

Project Title:

What role does the practice manager play in the success of a research intervention in general practice?

Study Investigators:

Anna Wood

Associate Professor Meredith Temple-Smith²

Associate Professor Jane Hocking¹

¹Melbourne School of Population and Global Health, University of Melbourne, Victoria, Australia; ²Department of General Practice and Primary Health Care Academic Centre, University of Melbourne, Victoria, Australia;

Introduction

You are invited to participate in this research study being conducted by the General Practice and Primary Health Care Academic Centre, The University of Melbourne. This study is being conducted as part of Anna Wood's Masters of Primary Care at the University of Melbourne. Please read this sheet carefully and only agree to participate if you are confident that you understand its contents. If you have any questions about the project, please do not hesitate to contact Anna Wood telephone 0457 228 981 or Assoc. Prof Meredith Temple-Smith at the General Practice and Primary Health Care Academic Centre on telephone 03 8344 3371

Why is this research project being conducted?

This research aims to investigate the role of the practice manager (PM) in implementing a research intervention in general practice. The research will look at the level of influence a practice manager may have in promoting a research intervention in general practice. It is important for researchers of primary care to understand what level of engagement is necessary from the PM to maximise the successful uptake of an intervention in general practice.

Why have you been approached?

You have been selected for participation in this study because you are a practice manager at a practice that is participating in the Australian Chlamydia Control Effectiveness Pilot (ACCEPt trial). This is a sub-study of ACCEPt and the findings from this research will in no way impact on the outcomes of ACCEPt, or your general practices involvement in ACCEPt.

If I agree to participate, what will I be required to do?

We will make a time at your convenience for a face to face or telephone interview with you. The interview will be conducted as an informal discussion and should be about 30 minutes duration. The interview will be audio-recorded. We would like your feedback on research in general practices. How interventions are set up in a practice and how the practice manager creates capacity for the general practice to successfully undertake research. The interview is totally voluntary, and all data will be de-identified (ie. you will not be identified in any way).

What are the risks associated with participation?

The risk of participation in this study is very low. It is important that you understand that what you say to us in your interview will be kept confidential – that is, nothing you tell us will be available to your employers or reported back to them. At the end of the project, results will be reported in such a way to minimise any risk of identifying individual participants and practices. In order to minimise the chance of you being identified, results may be presented



in a grouped way, where details will be drawn from more than one example or interview. If you need more information or have any queries at any time about your participation, please feel free to contact Meredith Temple-Smith at the General Practice and Primary Health Care Academic Centre on 03 8344 3371 for queries on the research project.

What are the benefits associated with participation?

While there is unlikely to be any direct benefit to you from participating in this research, we plan to use the information we gather information to assist researchers in designing research interventions in general practice. We will also highlight areas for future research.

What will happen to the information I provide?

The findings will be published in a medical journal and presented at conferences. You will not be identified in any reports or publications, but due to the small sample size you may be able to identify yourself. All information collected will be destroyed five years after publication.

What are my rights as a participant?

At any time you have the right to

- ✓ withdraw your participation up until the interviews have been analysed, no questions asked
- ✓ have any questions answered

This project has received Ethics approval from the Human Research Ethics Committee at the University of Melbourne.

If you have any concerns or complaints, please contact the Executive Officer, Human Research Ethics, The University of Melbourne ph 03 8344 2073, or via fax 03 9347 6739.

Who should I contact if I have any questions?

You can contact Assoc. Prof. Meredith Temple-Smith director of Research Training in the Department of General Practice on 03 8344 3371 or Anna Wood Masters Student in the Department of General Practice on 0457 228 981

Appendix 3: Participant consent form



Practice Manager Consent Form

Participant identifier:

Project Title: What role does a practice manager play in the success of a research intervention in general practice?

Study Investigators

Anna Wood¹

Associate Professor Meredith Temple-Smith²

Associate Professor Jane Hocking¹

¹Melbourne School of Population and Global Health, University of Melbourne, Victoria, Australia; ²Department of General Practice and Primary Health Care Academic Centre, University of Melbourne, Victoria, Australia;

Name of Practice: _____

Name of Practice Manager: _____

- ☐ I voluntarily consent to participate in the study named above.
- ☐ The details of the study have been explained to me to my satisfaction.
- ☐ I understand that my participation will involve one audio-taped interview that will last up to 30 minutes and be conducted at a time and place suitable to myself. This interview will be face to face or by telephone.
- ☐ I understand that the content of this interview will be confidential.
- ☐ I understand due to the small sample size I may be able to identify myself in reports or publications to reduce this risk all data is aggregated.
- ☐ I have read and understood the Plain Language Statement regarding this research study.
- ☐ I understand that my involvement in this research in no way impacts on my involvement and that of my general practice in ACCEPt.
- ☐ I have been informed that I am free to withdraw from the project at any time without explanation or prejudice and to withdraw any unprocessed, identifiable data previously supplied.
- ☐ I understand that the data collected is for the purpose of research.
- ☐ This signed consent form will be held by the researchers.

Signature _____

Date _____

Appendix 4: Interview schedule



Practice Manager Interview Schedule

Participant identifier:

Interviewer identifier:

Note for interviewer: The interview guide contains a series of topics with an introductory comment followed by questions. The questions may contain **probes** which are points that require a response from the participant and **prompts** which are to help clarify the nature of the question and the possible responses.

Thank you for agreeing to speak to me today. My name is xxxx and I am employed by the University of Melbourne. The purpose of the interview is to find out as much as we can about the role of the practice manager and their participation in research studies in general practice. This will help us understand and design better ways to undertake research in general practice.

Your name and contact details will not be recorded on the questionnaire. You will be identified only by a study number. The first set of questions is related to your role as a practice manager. The second part is about research in general practice and the last set of questions is about ACCEPt more specifically. The interview will take about 20-30 minutes. The first set of questions is about you and your role at the practice, this will enable me to describe the people we are interviewing.

Please complete this section prior to recording and take notes

Participant characteristics

- Sex: ☐ Male ☐ Female
- What age group do you belong to:
☐ <30 years ☐ 30-44 years ☐ 45-59 years ☐ 60+ years
- What is your position at the practice: _____
- How long have you worked in this role? _____
- What best describes your main expertise? Business ☐ Medical ☐ Clerical ☐
- Do you have any tertiary qualifications? _____
- If yes please detail: _____
- Have you had any research training? ☐ No ☐ Yes
- If yes, please detail: _____
- How long have you worked at this practice? _____ years or _____ months
- How many hours do you work per week at this practice? _____

- Are you a partner in this practice? _____
- Which option best describes this practice? Privately owned GP partnership ☐
Corporate ownership ☐ Privately owned practice with multiple sites ☐ Other (please
explain) _____

Record from now

1. How did you become a practice manager?

Probe: what about a PD, working within the scope of the PD?

2. Tell me about the main tasks you do in this position

Probe: finance, HR, reception, staffing/timetabling, ordering/buying,

Prompt: Decision making on behalf of the owners/partners. Making changes and decisions autonomously on behalf of the practice? What type of changes? In what areas?

2a. Do you have input in to clinical policy decisions?

Now I would like to ask some questions about research.

3. Could you tell me about any training you have had in research?

Probe: public health research, other RCTs, prevalence surveys, through Medicare Locals in other jobs?

4. Have you been involved in research projects in the past? And if so what was your involvement?

Probe: other research trials in general practice, research in other jobs, RA roles.

Prompt: was it well managed? What was your impression of the research study?

5. Do you think research in general practice important?

Probe: Why? Why not?

Prompt: What are the benefits in doing research in general practice?

What are the disadvantages?

6. What do you see as the practice manager's role in research studies?

Probe: co coordinating the set-up, delegation of tasks, IT,

When you or your practice is approached to undertake research what is it that convinces you to consider the study as something worth undertaking or let them meet the GPs?

7. What are the things that help to make research in YOUR practice successful and sustainable?

Probes: barriers and facilitators

Prompts: engagement of staff in the design of the research, incentives, regular feedback

We would like to know your views on ACCEPt, the about the impact and acceptability of the trial within your practice.

New question:

What did you know about chlamydia before ACCEPt? Do you think this is an important health issue?

8. Do you think there is any need for a routine program based in general practice for annual chlamydia testing of people aged between 16- 29 years?

Prompt: this could be through Medicare?

9. What are the things in the practice that make it difficult to undertake a research trial such as ACCEPt?

Probe: time, staffing, other demands, level of staff interest in research, interest in young people's health

9a. What do you think is the level of staff interest in research in your practice?

10. What aspects of the ACCEPt study do you manage?

Probe: invoicing, recall and reminder, keeping ACCEPt on the meeting agenda, arranging meetings with researchers and GPs, chasing up new GP recruitment forms, organising the GP incentive payments, liaising with ACCEPt staff around software and IT issues.

11. What are some of the things that impact on the capacity of the practice to undertake ACCEPt?

Probe: time constraints, billing issues, inadequate resources, staff interest/motivation

11a. How easy is it to incorporate research like ACCEPt into day to day work?

12. In terms of your contribution to supporting a chlamydia testing program in general practice, what is your opinion of each of the following:

- Computer alerts to remind GPs or other health care providers to offer a test
- Financial incentives for testing