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Defining a Process for Segmenting the General Practitioner Market for Rural Practice Recruitment

E. Hemphill
University of South Australia

C. T. Kulik
University of South Australia

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General Practitioner (GP) to patient ratios fall below benchmarks, particularly in rural areas. A marketing solution to this significant social problem might be to develop recruitment strategies differentiating medical practices (brands) and targeting different segments of the GP market. This paper uses data gathered from practice managers, GPs, and recruitment advertisements to develop a taxonomy of attributes considered in GPs' practice choice. The key contribution of this research comes from the possibilities for GP recruitment outcomes from refined implementation of branding principles that includes differentiation between practices with targeted recruitment advertisements instead of the current practice of including a mix of Job, Practice and Family attributes. Adopting the structure of these sets of attributes as a taxonomy offers a new opportunity to examine how these attributes contribute to GP practice selection decisions. This research prescribes a path forward for future research to now determine the relative and absolute value of attributes considered in general practice selection. As a new step towards solving the rural GP shortage this will then lead to development of strategic marketing for GP recruitment. This work is of national and international importance as substantial policy initiatives in government and academic directives have not yet solved this significant social problem. The output from this work is a research instrument designed for GP data collection as a basis for developing improved practice recruitment strategies.

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Defining a Process for Segmenting the General Practitioner Market for Rural Practice Recruitment

Elizabeth Hemphill and Carol T. Kulik, University of South Australia

Abstract

General Practitioner (GP) to patient ratios fall below benchmarks, particularly in rural areas. A marketing solution to this significant social problem might be to develop recruitment strategies differentiating medical practices (brands) and targeting different segments of the GP market. This paper uses data gathered from practice managers, GPs, and recruitment advertisements to develop a taxonomy of attributes considered in GPs' practice choice. The key contribution of this research comes from the possibilities for GP recruitment outcomes from refined implementation of branding principles that includes differentiation between practices with targeted recruitment advertisements instead of the current practice of including a mix of Job, Practice and Family attributes. Adopting the structure of these sets of attributes as a taxonomy offers a new opportunity to examine how these attributes contribute to GP practice selection decisions. This research prescribes a path forward for future research to now determine the relative and absolute value of attributes considered in general practice selection. As a new step towards solving the rural GP shortage this will then lead to development of strategic marketing for GP recruitment. This work is of national and international importance as substantial policy initiatives in government and academic directives have not yet solved this significant social problem. The output from this work is a research instrument designed for GP data collection as a basis for developing improved practice recruitment strategies.

Introduction

The challenge of attracting and retaining medical professionals, especially general practitioners (GPs), to rural areas is an ongoing issue of significant international importance (Campbell 2006; Duplantie, Giagnon, Fortin and Landry 2007; Fleming and Laven 2005; Gabhainn, Murphy and Kelleher 2001; Iverson, Farmer and Hannaford 2002; MacIsaac, Snowdon, Thompson, Crossland and Veitch 2000). Human Resource Management (HRM) literature has taken some steps to identify job attribute preferences (Konrad, Ritchie, Lieb and Corrigall 2000), to understand the role of specific job attributes in attracting and retaining rural health professionals (Pathman, Konrad, Dann and Koch 2004) and to recommend how best to use classified advertisements to attract job candidates (Blackman 2006). Hemphill, Dunn, Barich and Infante (2007) suggested that integrating these HRM findings with a marketing perspective might be a productive avenue for resolving the GP problem. In response, this paper aims to integrate the HRM and marketing literatures to specify a set of attributes for GP recruitment to rural practices. These attributes can then be used to design segmentation studies. The broad research question driving the paper is: What attributes should be used for marketing a rural general practice to GPs for recruitment purposes?

Background and literature

Traditional research on rural GP shortages has led to recommendations of financial incentives, specialised training, or promotional activities highlighting the benefits of rural practice to lure GPs to rural areas (MacIsaac et al. 2000); specialised medical student internships (Mugford and

Martin 2001); and professional recognition of therapeutic and clinical management skill development for rural practice (Ebbett 2004). Policy initiatives include mechanisms to promote rural general practice to medical students (AMWAC 2005; MacIsaac et al. 2000; Talbot and Ward, 2000) and recruitment of overseas-trained medical practitioners for service in rural areas of need (Birrell 2004). This literature has emphasized training new, and existing, GPs with a view to overcoming GPs' reluctance to pursue or continue in rural general practice (Ebbett 2004; Iverson et al. 2002; Jones, Alford, Russell and Simmons 2003; Wilkinson and Symon 2001). Although growth in GP graduates is likely from these initiatives progress will be slow, small and insufficient (AMWAC 2005). Thus, the challenge remains unresolved (e.g. Ebbett 2004; Gardiner, Sexton, Durbridge and Garrard 2005; Humphreys and Rolley 1998).

One mechanism available to manage distribution of GPs across practices is derived from marketing theory (Hemphill et al. 2007). A market orientation (Kohli and Jaworski 1990) suggests GPs could be considered consumers of general practices (as sellers) in a GP market. Redistribution of GPs should result from consumer (GP) needs satisfaction by sellers. Therefore research should be undertaken to determine the extent to which such a market orientation might alleviate GP shortages by improving general practices' recruitment activities. Information exchanges between GPs and practices could increase ongoing organisational productivity and profitability for general practices through coordinated general practice marketing (Cadogan and Diamantopoulos 1995). Marketing literature finds that a continuous focus on advertising allows sellers to remain in the minds of consumers (i.e. keep the brand salient) (Romaniuk, Peach, Driesener and Sharp 2004; Romaniuk and Sharp 2004). HRM literature similarly suggests applicants, having diverse needs and interests (Ehrhart and Ziegert 2005), seek demonstration by organisations of their "fit" with the organisation (Rafaeli 2006) through persuasive marketing communication (Blackman 2006). Both literatures recognise the importance of advertising for communicating information about the brand/organisation, building a bond between brand/organisation and customer/applicant (Ehrhart and Ziegert 2005; Feldman, Bearden and Hardesty 2006; Jain and Jain 2005; Kennedy and Ehrenberg 2000).

Recruitment advertising provides a means for organisations to compete for applicants through differentiated signals targeting distinct segments of the market (Spence 1976). Market segmentation offers a means of grouping similar customers for market-based strategies (Best 2005, p.133-167). Variables used for segmentation studies in management and HRM include country of origin (Matzler and Renzl 2005) and gender (Konrad et al. 2000); in marketing, segmentation variables include demographic variables such as age, gender, ethnicity, occupation, education and income (Webster 1989). Segmentation studies for rural recruitment suggest "young learner" cohorts might be viable recruiting targets (Benzie 2003), but family aged women are a more challenging cohort because of their need for additional support and education (Wainer 2004). Marketing literature suggests advertising is most effective when signals are brand-specific (Kennedy and Ehrenberg 2000) and HRM literature confirms that applicants are more likely to be attracted to familiar organisations with positive reputations (Ehrhart and Ziegert 2005). As brands exist in customers' minds (Gronroos 2007) identification of attributes of preference should offer points of differentiation to separate practices and build distinguishable 'brands'. The **first research question** is: Is it possible to distinguish practices sufficiently to create 'brands' for GP recruitment?

Many studies have identified attributes considered in recruitment and job selection. Industry publications report attributes of importance in GP practice choice decisions to be community support, spousal work opportunities and career progression or development (AMWAC 2005), without showing how and whether these are traded off to arrive at a decision. In HRM literature, Slaughter, Richard and Martin (2006) describe Konrad et al.'s (2000) work as the

most comprehensive; they added only interesting work and dress code to Konrad et al.'s (2000) attribute list of income, challenging work, opportunity for leadership, work hours, power and authority, easy commute, opportunities for promotion, geographic location, freedom and autonomy, coworkers, prestige and recognition, and supervisor. For rural GPs a large array of attributes emerge from academic works such as Cova (1997), Gabhainn et al. (2001), MacIsaac et al.(2000) and Wainer (2004). Much of this work focuses on attribute measurement across disciplines including psychology (McFall and Treat 1999), marketing (Finn and Kayande 2005; Rossiter 2002) and management (Matzler et al. 2005) with a strong emphasis on Likert-type scale metrics to determine importance. This approach allows researchers to identify the factors that will have the most leverage; those factors that a practice would want to emphasize for recruiting advantages. Measures of importance are common in HRM literature such as importance of a factor in a decision to accept a particular job (O'Reilly and Caldwell 1980); in choosing among competing job offers (Slaughter et al. 2006); of having a job with specific attributes (Manhardt 1972); and in job pursuit intentions (Aiman-Smith, Bauer and Cable 2001). Such measures are used to build scales, reflecting scale development literature that insists on correct identification of attributes prior to scale development or implementation (Rossiter 2002). The **second research question** is: What are the attributes used in recruitment efforts to entice GPs to consider a new practice position?

Classifying items into manageable clusters, as a logical and necessary step towards scale development (Rossiter 2002), offers pedagogical and applied opportunities to organise information for problem analysis (Humphreys and Rolley 1998) into a taxonomy (Slaughter et al. 2006). One early attempt to develop a framework for rural GP recruitment by Humphreys and Rolley (1998) highlights the importance of matching GP wants with experiences regarding numbers of GPs, locum relief, support for spouse and family, recognition of practice skills, job satisfaction and unimpeded career path. In the HRM literature most recently, researchers have grouped individual attributes into larger conceptual categories such as individual, familial, contextual, professional, organisational, educational and economic attributes (Duplantie et al. 2007) or physician, community and practice/job attributes (Pathman et al. 2004). For further research to contribute to resolving the rural GP shortage 'important' attributes may need to be reorganised into other clusters. **The third research question** is: Can groupings of important attributes offer a useful taxonomy for GP recruitment?

Research Method

The research questions identified in the previous section suggest a need for a holistic approach to gather deep and rich data. We gathered data from three sources using a mixed collection method. Firstly, forty general practice managers were recruited at the Australian Practice Managers Association Conference, November 2007. A questionnaire was administered by interviewers to each participating practice manager with open ended questions addressing each research question developed from the literature review. The average time worked at that practice was 8.3 years; average time worked in this role was 7.3 years; and average time worked in the industry was seventeen years. A second questionnaire was mailed to practice managers to assess the frequency of use of recruitment mechanisms (such as relationships, referrals and advertisement) and attributes included in advertisements and their perceived effectiveness for recruitment outcomes. Secondly, publicly available GP recruitment classified advertisements (on www.seek.com.au) were coded by two researchers to eliminate coding bias to consider current recruitment activities. With duplicates removed, 160 classifieds were examined for evidence of theoretical recruitment attributes. Finally, the views of GPs added depth to the practice management perspective. Discussions were held in Victor Harbour, a rural holiday

town in South Australia situated 80 kilometres south of Adelaide, in a medical partnership of fourteen GPs. All practitioners (eight in total) working on the scheduled day participated. Questions used to guide the discussion followed the research questions of the previous sections. GPs present ranged from two years to twenty seven years of service with that practice with half having over twenty years experience. These practitioners were chosen because they represent a breadth and depth of experience found in both rural and urban practitioners offering rich data for exploration.

Findings

Practice managers told us that their most recent recruitment activities included advertisements such as seek.com, Medical Observer, Rural Doctors Workforce Agency, Divisions of General practice and RACGP publications in up to and including 41 percent of cases. Mechanisms reliant on interpersonal relationships such as traineeships, colleagues or referrals were utilised between 41 and 50 percent of cases. The lower rate of use of advertisements reflects practice managers' perceptions of effectiveness of advertisements for recruitment purposes. On a 5 point scale (where 5 = extremely effective and 1 = extremely ineffective) practice managers rated recruitment advertisement effectiveness on average from 2.8 to 3.1 across advertising sources whilst relationship based recruitment activities were rated on average between 3.5 and 3.8. This research is therefore important so that GP recruitment advertising can more effectively contribute to improved recruitment outcomes.

All data sources suggest that branding is currently underutilised but has potential to differentiate general practices. Firstly, practice managers suggest that it is entirely possible that general practices could be branded to emphasize their unique attributes. Only 10 % of participating practice managers indicated that their practice could **not** be distinguished from other practices either now or in the future. Thus, a real possibility exists for implementation of differentiation strategies through distinguishing 'brands' of general practices for recruitment purposes. Secondly, suggestions offered by GPs and practice managers for the purposes of differentiating individual practices include: *Affiliation with a University; Christians; Pre-retirement holiday town; Flexibility of hours and holiday; As a family practice we're prepared to work after hours; We go the extra mile; Move somewhere you'll feel comfortable in your own community; We all came as registrars …I'm waiting to deliver the child of somebody I have delivered.* These all would need further exploration to determine their viability for marketing communications. Thirdly, our analysis of classified advertisements reveals opportunities to expand GP recruitment to place a greater emphasis on branded communications. 96% of advertisements contained branding elements (i.e., a logo, symbol, or name of the recruiting practice/organisation and elements of brand size position and presence). Practices would appear to be seeking yo distinguish themselves with branding theory from marketing. Implementation ranges from 21% of advertisements containing only one branding element, 33% containing all elements and 46 % containing three elements. Therefore, further investigations are warranted to develop improved processes for strategic use of branding principles in GP recruitment advertising for improved recruitment outcomes.

For the second research question, many attributes were identified to be '**important**' in GPs' new practice decisions (35 in advertisements and 34 by practice managers). These are included in Appendix 1, expanding significantly on previous research efforts. Very few of the attributes appearing in recruitment advertisements are worded the same as the views expressed by practice managers. Whilst only three attributes (location, lifestyle and flexibility of the job) are described similarly several overlapping themes emerged. As discussed in the preceding

literature review many models exist for clustering attributes into taxonomies for theory and management development purposes. We used the three themes that emerged from attributes stated to be **most important** in our data to develop a set of standardised items for future study. These themes reflect Pathman et al.'s (2004) articulation of the ***job***, Rafaeli's (2006) emphasis on the ***organisation*** and an application of Humphries and Rolley's (1998) outcomes of community support for ***family***. In our study the organisation is the general practice. We sought confirmation from GPs to ensure plausibility of themes for development of relevant standardised attributes for development of future research work.

Job attributes confirmed in discussions with GPs include *having our own hospital* and *having good rapport/engagement with peers in practice, interesting work, opportunities for skill development/practise*. We sought to capture these and other job related themes from the extensive list from practice managers and advertisements in four standardised items including: The amount of disposable income the job would offer; The opportunities offered by the job to further practice skills; The amount of challenge created by the content of work; and The support and friendliness of the people you would work with at the practice. **Practice** attributes confirmed in discussions with GPs include aspects such as *nature of client/patient to match GP skill breadth and preferences, the range of practice opportunities and structure of practice (including opportunity to buy into partnership).* We sought to capture these and other job related themes from the extensive list from practice managers and advertisements in five practice related standardised items including: The practice's billing philosophy (e.g bulk or gap billing); The opportunity the job provides to give care to the sorts of people you most want to help; The requirement or opportunity to buy in the practice/building/asset; and Opportunities offered by the employer to move locations within the same practice ownership. **Family** attributes confirmed from discussions with GPs include *travel time to other important places, remoteness, isolation, holiday destination, spouse/family job opportunities, lifestyle, flexibility (including leave relief and workload choice for freedom to spend additional time, work part-time, work-life balance, etc).* We sought to capture these and other job related themes from the extensive list from practice managers and advertisements in eight family related standardised items to reflect the emphases contained in existing literature including: The flexibility of the hours you'd be working; The availability of your preferred lifestyle/leisure activities at the job's location; The jobs physical location in relation to family and friends; The opportunities to take the length and type of paid leave convenient for you and your family; The quality of children's education available at the job's location; The work opportunities available at the job's location for your spouse or partner; The availability and affordability of housing at the job's location; and The education opportunities available at the job's location for your spouse or partner.

For the third research question, this same three factor taxonomy is evident in current recruitment advertisements (Table 1). All advertisements included at least one attribute, most including more than one and some including up to 11 attributes. It would appear therefore that practices adopt a broad relatively unfocussed recruiting strategy across attribute sets.

Table 1: Attributes present in classified advertisements

Attributes present in classified advertisements	Min	Max	Mode	Freq Min	Freq Max	Mean	Stddev	Total responses from 157 advertisements
Job	0	3	0	34%	3%	1.0	.87	521
Practice	0	6	4	28%	2%	1.7	1.54	241
Family	0	5	0	33%	1 %	1.3	1.26	552

Combined	1	11	5	3%	1%	4.0	2.20	

The key contribution of this research comes from the possibilities for GP recruitment outcomes from refined implementation of branding principles that includes differentiation between practices with targeted recruitment advertisements instead of the current practice of including a mix of Job, Practice and Family attributes. Adopting the structure of these *sets* of attributes as a taxonomy offers a new opportunity to examine GP practice selection decisions.

The research's focus on rural GP recruitment continues to be of national and international interest. One of Australia's national priority goals is to promote and maintain good health and environmental sustainability, as rural communities experience diminishing structural support and suffer from increased isolation without adequate health care. Future research will assist in the identification of practice attributes that attract the 'right' people to rural practice to improve efficiency of health practitioner recruitment and minimise cost to policy developers and the general community. Australian discrimination legislation prohibits job recruitment advertisement and candidate selection on the basis of demographic variables traditionally used for segmentation studies in marketing such as age, gender and ethnicity. Instead, practices will need to identify attribute preferences to segment the GP market for marketing purposes. We have suggested that recruitment advertisements lack targeting (Table 1). For this reason, this paper makes an important contribution to theory and practitioners with the suggestion of heterogeneous sets of attributes for use in GP recruitment. To empirically determine cohorts of GPs for segmented marketing communication we recommend adopting two data collection approaches to examine GP practice choices including a traditional approach evaluating the attractiveness of a new practice position offering consistency with prior research (e.g. Manhardt 1972; O'Reilly & Caldwell 1980; Slaughter et al. 2006) and a newer approach, recommended by Flynn, Louviere, Peters and Coast (2007), offering a trade-off analysis for small sets of attributes such as those incorporated in our Job, Practice and Family sets. Researchers should now investigate how the final 16 attributes can be used to improve recruitment outcomes by determining the value of these attributes in GPs' decisions to join rural practice and explore how these attributes can be bundled for leveraging in the GP market across cohorts differentiated by their attribute preferences.

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Table 2: Classification of attributes (Job, Practice and Family) used in classified recruitment advertisements (Practice managers vs Classified advertisements).

Practice Managers		**Classified advertisements**		**% of ADS**
Flexibility outside hours	F	Flexible work hours/days	F	82
Flexibility/choice of hours	F	Distance from nearest city/attractions	F	52
Spousal opportunities	F	Friendly community	F	52
Lifestyle - holiday destination	F	Lifestyle leisure activities	F	33
Isolation	F	Local attractions	F	26
Community opportunities	F	Opportunities for family	F	11
Family support	F	Opportunities for government grants	J	7
Fit with family commitments	F	Friendly/supportive staff	J	78
Fit with relationship commitments	F	Work load specified (Part time)	J	78
Relief conditions/ availability	F	Support available (eg. Nurses)	J	52
Skill development	J	Challenging/variety of tasks	J	26
Internal travel	J	Desired skills	J	22
Overseas trained	J	Personal skills	J	19
Personal background	J	Opportunities for hospital work	J	19
Reputation training/specialist	J	Position benefits (leave etc)	J	19
Links with public hospital	J	Provision of training	J	19
GP support availability	J	Duties/responsibilities included	J	19
Requirement to serve that extra mile	J	Opportunities for career growth	J	15
Billing (as a income control)	P	Experience/qualifications	J	11
Practice structure	P	Other expenses paid (eg. travel)	J	11
Registrar reputation	P	Computerised/modern facilities	P	85
Suit Clientele	P	Practice name	P	74
Choice to spend time with patients	P	Established/stable/growing practice	P	59
Succession planning	P	Billing type	P	52
Facilities	P	Positive environment (friendly)	P	52
English speaking	P	Choice of location	P	44
Clinical opportunities	P	Urban/Rural	P	37
Rural background	P	Performance expectation specified (patient numbers/hours)	P	30
Clinical educators	P	Salary range or precise level	P	22
Subsidised housing	P/F	Confidentiality of enquiry	P	19
Location	J/F	Patient type (public/private)	P	19
Responsibility	P/J	Good rapport with patients	P	19
Conditions of practice/hours	F/J	Practice symbol or logo	P	11
Good set of values	F/J/P	Opportunities for change of location	P	7
		Lifestyle compared with city	P/F	26