

Recruitment and Retention Of Medical Doctors

**The Monieson Centre, Queen's Business School
And
The Prince Edward/Lennox and Addington
Community Futures Development Corporation**

Research Project – 2007/2008

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Executive Summary

The identification of aspects related to recruitment and retention of physicians is an important aspect of the administration of medical practices in Canada. There are many situations that result in the departure of medical practitioners and the resulting negative aspects of providing medical services with an undersupply of necessary medical practitioners. This investigation attempted to identify those aspects that motivate medical practitioners. These motivation aspects were investigated from the perspective of various audiences that provided further perspectives regarding this issue.

The question addressed by this investigation is what motivates medical doctors. Answers to this question will provide input to both recruitment and retention of these individuals.

The results of this investigation documented those aspects that medical doctors identified as important to them regarding their practice. These identified aspects will aid in the identification of plans and policies for both the recruitment and retention of medical doctors.

The findings of this investigation are presented here relative to long term and near term aspects. Long-term aspects have been identified from gleanings of previous research. Recommendations are made about the supply of physicians through medical school admissions and foreign-trained physicians.

Near-term aspects are presented as a result of interviewing 18 participants from various audiences associated with providing health care services. Issues are identified relating to Recruitment, Retention, and Motivation.

The recruitment issues were related to connections with colleagues, community, and family; the desire for a certain life style; the provision of financial incentives; and previous exposure to a specific area.

The retention issues were related to practice; community; and family.

The participants in this investigation identified motivation aspects for physicians. They indicated that they enjoyed the practice of medicine and the variety it offered. They are excited about helping and caring for patients. They prefer a collegial environment working with other physicians who take a similar approach to their practice. The participants also identified that they felt well compensated for their efforts.

Overall, final comments related to finances; work; training; and information technology. There is general agreement that a capitation approach with rostered patients is beneficial. The current method of offering financial incentives must be resolved. The face of medicine is changing with regards to physicians' approach to work. While more physicians need to be trained, there must be a consideration for the culture of the patients. Finally, the adoption of current and common information technology will support an improved interaction with patients.

Description of Counties

Prince Edward County

Prince Edward County is a rural farming/agriculture area mixed with commercial fishing and a strong tourist industry. It covers approximately 1,000 square kilometers and is for the most part, surrounded by Lake Ontario¹. Prince Edward County has a population of 25,500 (2006 census) an increase of 2.4 per cent from 2001, with a labour force participation rate in 2001 of 58.4 per cent. The major centre is the town of Picton, with a population of approximately 4,000.

The average earnings per person in 2000 equaled \$27,356 with the median family income at \$64,168. At the post secondary level, 20.24 per cent of the population graduated from community college and 11.34 per cent earned at least a university undergraduate degree.

There is one healthcare facility in Prince Edward County - Picton Memorial Hospital, which is part of Quinte Healthcare.²

Lennox and Addington County

Lennox and Addington County is largely rural, with significant population clusters in the Loyalist Township (15,906) and the Town of Greater Napanee (16,808). The county hosts a wide array of business types including more than 50 manufacturers. Plans are also underway to construct a \$200 million ethanol plant Loyalist Township.³ Lennox and Addington covers an area of 2,776 square kilometers with rough split of agricultural lands in the south, and forested lands in the north. It has a population of 40,502 (2006 census), an increase of 2.74 per cent from 2001. The labour force participation rate in 2001 was 64.0 per cent.

The average earnings per person in 2000 equaled \$27,340 with the family median income at \$67,345. At the post secondary level, 20.51 per cent of the population in Lennox and Addington County were community college graduates and 8.97 had obtained at least a university undergraduate degree.

There is one healthcare facility; Lennox and Addington county General hospital, which is located in the Town of Greater Napanee.⁴

¹ <http://www.ontariostewardship.org/ontarioStewardship/home/osPESCIndex.asp>

² Eastern Ontario Wardens Caucus, "A Profile of Eastern Ontario (Regional Data Set)". March, 2007

³³ http://www.onteast.com/profile/EN/_Lennox_Addington.html

⁴⁴ Eastern Ontario Wardens Caucus, "A Profile of Eastern Ontario (Regional Data Set)". March, 2007

Medical Profession

A recent triennial survey of more than 20,000 doctors was conducted jointly by the College of Family Physicians of Canada, the Canadian Medical Association, and the Royal College of Physicians and Surgeons of Canada. The results of their survey indicate that the medical profession in general is experiencing a crisis situation regarding the capacity of the medical care system to address patient needs. This situation has arisen for a number of reasons.

One issue that has existed for some time is the underfunding of the health care system.

Another issue is the under supply of physicians. For some time, medical schools have not been able to graduate sufficient numbers of doctors.

The health care system itself is an inefficient bureaucracy. Physicians are burdened with a significant amount of paperwork. Very few doctors have adopted the use of technology to address this issue.

Doctors as a group are aging. They are either retiring or reducing the amount of time spent practicing. The numbers of doctors coming into the profession are not replacing those who are leaving or cutting back on their workloads.

In a related issue, patients in general are living longer and requiring more medical services.

These issues must be dealt with. However, their resolution will take some time. In the mean time, local areas must address an immediate issue of providing an appropriate level of service regarding access to medical doctors. This report presents the results of an investigation into addressing this issue.

One approach to immediately addressing this issue is to provide recruitment incentives. Direct financial incentives may include signing bonuses, subsidized housing, and reimbursement of relocation costs.

Prior Investigations

Previous investigations into the supply and availability of medical doctors have generated themes related to medical school programs, recruitment and retention, retention (by itself), satisfaction, and motivation.

Medical School Programs

Krupa and Chan (2005) investigated rural family medicine programs in Canada. They determined that most medical schools now include rural training opportunities.

Another Canadian study by Curran and Rourke (2004) investigated the role of medical education in the recruitment and retention of rural physicians. They suggest that strategies for medical schools to promote physicians working in rural communities would include:

- Rural student recruitment
- Rural-oriented medical curriculum
- Rural residencies
- Faculty values and attitudes

Wilson et al (1998) reviewed a number of programs established in Alberta to support rural physicians. Medical school programs included rural rotations, rural experience training, special rural practice skills training, and student loan repayment schemes. Programs for practicing rural physicians included continuing education, enrichment programs, rural locums, and rural community assistance. It was concluded that without these programs, the number of rural doctors over the study period would have declined rather than remaining at the same level.

In the United States Rabinowitz et al (1999) and Rabinowitz et al (2001) reviewed a program at a medical school in the Philadelphia area that promoted physicians taking on rural practices. The focus of the investigation was on a long-term review of a specific program, the Physician Shortage Area Program (PSAP). They determined that background and career plans at time of admission were important factors for doctors taking up a rural practice. Further, graduates of the PSAP program were 25% more likely to take up a rural practice.

Recruitment and Retention

A number of studies investigated both recruitment and retention.

Sargeant et al (2004) investigated the effect of the use of telemedicine in continuing medical education on the practice by physicians in rural Nova Scotia. While the use of the technology was considered important, other more important factors relating to recruitment and retention were identified. These other factors included professional relationships, workload, and community factors.

Yang (2003) investigated groups of both urban and rural physicians about factors influencing their decisions to locate in rural British Columbia. Those who practice in a rural community responded that factors affecting their original decision included an opportunity to acquire diverse medical experience, their previous exposure to rural medicine, and the desire to help underserved communities. In general, concerns were identified relating to spousal employment and the

quality of children's education. It was noted that financial incentives alone played a limited role in influencing the choice of practice locations.

Brooks et al (2002) investigated factors associated with recruitment and retention of physicians in rural practice. Their review included a number of studies conducted in the United States. They determined that recruitment was mainly affected by rural upbringing and a preference for an appropriate specialty. Further, retention in a rural community was mostly affected by a rural oriented curriculum at medical school and rural residency programs. However, they did note that preference for rural practice was more related to personal characteristics than any aspect of education.

O'Reilly (1997) reported on a novel approach to recruitment in the Marathon, Ontario area. For some time, the town of 5,500 residents had been underserved. At the insistence of one of the young doctors, a three pronged plan was developed including issues related to quality of life, finances, and professional support. First, the provincial government was lobbied successfully to increase the town's complement to five physicians. Second, the issues in the plan were addressed, mainly through the development of the concept of a group practice. Indeed, it was the original young doctor who became a champion of the plan. Other doctors were attracted because of the reputation of the young doctor and his approach to practicing medicine.

Retention

Misra-Hebert et al (2004) investigated retention from the perspective of physician turnover. They determined that turnover was affected by such issues as: alignment of physician and organization philosophy; physician's participation in policy-making; professional autonomy; and personal factors relating to family, location, and economic issues. They propose that fostering communication about expectations will contribute to organizational commitment. While personal and financial issues may evolve, a focus on organizational commitment will facilitate long-term retention.

Pathman et al (2004) investigated rural physician shortages and concluded that retention was not the major issue. Indeed, they determined that retention rates were similar between urban and rural practices. Their results suggest that retention is related to relationships and satisfaction at work, and their family situation. They conclude that the shortage is simply because too few physicians are recruited.

Thommasen et al (2000) investigated retention in British Columbia. They suggest that exposure to a rural community, either through growing up in one or through medical training rotations, will contribute to a physician being attracted to a community. Physicians will tend not to stay if there is an excessive workload, too much on-call responsibility, and not enough personal time.

Cutchin (1997a and 1997b) investigated the trend of declining rural physician availability through the theoretical perspective of "experiential place integration". This perspective constitutes factors related to security (stability and confidence), freedom (to act upon chosen activities), and identity (relationship with other groups). Thus, the fewer problems a physician encounters with the above factors, the more they become integrated with the location of their

practice. A common theme determined among the physicians investigated by Cutchin (1997) was their interest in challenges and diversity.

Satisfaction

Bogue et al (2006) investigated physician stress and burnout by surveying highly satisfied physicians.

Factors that made physicians more satisfied included:

- Relationships with patients
- Relationships with colleagues
- Family issues
- Personal growth
- Freedom to provide quality care
- Availability of office and hospital resources
- Prestige for role as physician

Factors that made physicians less satisfied included:

- Cost containment efforts by the hospital
- Amount and quality of personal time
- Opportunities for research and teaching
- Approaches to utilization review by the hospital
- Autonomy over non-medical decisions
- Income
- Administrative responsibilities
- Organizational climate/culture of the hospital
- Workload
- Autonomy over medical decisions

The above lists indicate that satisfaction increases with the opportunity to deliver quality care, while satisfaction decreases in relation to administrative bureaucracy.

Hueston (2006) reports on his own feelings of dissatisfaction as a physician. He suggests that he does not have enough time to maintain valued interpersonal relationships with patients and colleagues; and independence to practice their profession.

Lavanchy et al (2004) investigated physicians in British Columbia and their satisfaction with both work and life. The highest scores for work related satisfaction were connected to feeling needed by the community and meeting patient needs. The lowest scores for work related satisfaction occurred for on-call shift work and time for reading.

Motivation

Rooke et al (2004) introduce the concept of motivation regarding physicians' deliberations about patient treatment. The issue is discussed through an analogy without reaching a specific conclusion.

Alvanzo et al (2003) investigated motivation in relation to physician behaviour. They found very few studies conducted regarding physician behaviour. They determined that physicians are motivated to provide high quality health care to their patients. The provision of feedback on performance was moderately successful on improving motivation. They also determined that financial incentives within the healthcare system negatively impacted motivation because these incentives tended to be related to reducing costs rather than improving care.

Approach to Investigation

A great deal of theoretical and applied investigations has been conducted into the recruitment and retention of physicians. Further, as discussed in the section on prior investigations, a number of studies have addressed the issue of physician satisfaction and dissatisfaction. However, there have been relatively few studies conducted into what motivates a physician. For this reason, the investigation carried out here has taken a novel approach to investigating physician motivation. While the available literature has identified a number of issues, it was felt that there may still be some underlying issues yet to be identified. Thus, a qualitative approach was adopted for this investigation along with a proven interview technique that supports the adopted approach.

Personal Construct Theory, outlined in Attachment C, suggests that individuals form opinions about a subject based upon their previous experience with the subject. Thus, they develop what is known as a system of constructs. For this investigation, this means that individuals form opinions about what motivates physicians based upon their experience working with physicians.

Personal Construct Theory employs a technique for eliciting and documenting an individual's construct system, known as the Repertory Grid. This technique is described in more detail in Attachment C. The important aspect of the Repertory Grid for this investigation is grounding the discussion relative to specific physicians and then the elicitation of constructs relating to the participant's interpretation of what motivates a physician.

One-on-one confidential interviews were conducted over a four-week period in early 2008. An Informed consent Form (See Attachment A) was reviewed with each participant before and at the start of each interview. The approach taken in each interview was to follow an Interview Protocol (see Attachment B). Eighteen participants were interviewed. They represent the following groups:

- Family physician – 5
- Specialist – 3
- Local Government – 5
- Administrator – 5

Because of the extremely busy schedule of all participants, especially the physicians, the interviews were limited to 30 minutes. Based upon the interview transcripts, emerging themes were identified which were subsequently used to develop the recommendations included later in this document.

Findings

This section is organized into two major sub-sections. First, long term aspects are reviewed. While these aspects are not within the scope of this current investigation, never the less, a brief discussion of these aspects will provide a contextual overview for the discussion of the aspects identified in the current investigation. Second, near term aspects are discussed based upon the results of the current investigation.

LONG TERM ASPECTS

The brief comments in this sub-section are based upon the gleanings from a review of prior investigations, presented earlier in this document.

Obviously, demand for health care services will continue to grow in the foreseeable future. The overall population of Canada will grow through a net positive birth rate and programs that stimulate migration.

Also, Canada's population is aging. As "baby boomers", one of the largest cohorts in Canada, reach retirement age and beyond, demand for health care services for the aged population will increase significantly.

Further, demand for health care services will increase as the result of employing current technologies. Technology affects the delivery of health care services in many ways. Two perspectives are presented here. One perspective is presented from within the profession and the other from the patient's perspective. First, within the profession, information technology supports the administration of health care services through the automation of medical records. Technology in general has created the ability to provide many more medical analysis techniques. Second, technology has affected the patient's perspective. There are many anecdotal stories of patients arriving at physician's offices with a myriad of medical information gathered through computer-based searches of the Internet. These perspectives have contributed to the overall increase in demand placed upon the health care delivery system.

The increased demand described above must be met with a necessary increase in supply. Long-term supply of physicians may be addressed through medical school admissions or the certification of foreign trained physicians.

The issue of the recent history of medical school admissions has been investigated elsewhere. It is generally agreed among other investigators that medical schools should be graduating more physicians. Also, medical school programs that promote the practice of family medicine and consideration for rural practice should be further promoted. The demographic profile of students admitted to medical school suggests those individuals with rural backgrounds will be more inclined to consider practicing there.

Another supply issue relates to foreign trained physicians. The concern for skill level must be resolved along with an efficient certification process.

RECOMMENDATION

The supply of physicians should be addressed through

- Medical School admissions
 - Increase enrolments
 - Focus on Family Medicine
 - Promote rural/underserviced area
- Foreign trained physicians
 - Ensure appropriate skill level
 - Medical
 - Cultural
 - Devise an efficient certification process

NEAR TERM ASPECTS

The discussion included in this sub-section is based upon the interviews conducted for the current investigation. The comments are organized by themes related to the issues of Recruitment, Retention, and Motivation. Also, at the end of each interview the participants were asked if they wanted to make a final statement about issues involving recruitment and retention. These comments are included at the end of this sub-section.

RECRUITMENT

The themes which emerged from the interviews that relate to the issue of Recruitment include connections, life style, finances and incentives, and exposure.

Connections

Recruitment of physicians may be facilitated through connections of various kinds. First, connections with colleagues are very important. Physicians may rely upon colleagues professionally for support or to provide complimentary variety. Support may be provided within a medical specialization in the form of advice regarding a specific issue or the ability to provide back-up or release time. Complimentary variety may exist where the services provided by one physician are related to the services of another. This relationship may be based upon the chronological age of patients, or a symptom/disease life cycle.

Another connection relates to community. The physician must realize, and be comfortable with the fact that he or she will get to know almost everyone in the community. Also, the physician must be comfortable with the obverse in that everyone will get to know the physician.

Recruitment may also be facilitated through family connections. Thus, physicians may return to an area where they grew up in order to be close to parents, siblings, or other relatives. Another consideration here relates to physicians' own immediate family. Not only should the physician find the area an acceptable place to live, but so should the spouse or significant other, as well as

any children. There must be other appropriate work opportunities and an acceptable level of educational opportunities.

Further, Recruitment may be facilitated through “word-of-mouth”. Physicians who are currently working in the area and who are very satisfied with their situation may be excellent ambassadors for attracting other physicians.

RECOMMENDATION

When recruiting physicians emphasize connections with

- Colleagues
- Community
- Family
- Word-of-mouth

Life Style

Many of the physicians involved in this investigation commented upon their life style. Some related their enjoyment for outdoor activities on many kinds. Others appreciated the lack of traffic associated with a smaller community. Specifically, within the context of PELA many physicians commented upon the relative proximity to larger centres such as Toronto, Ottawa, and Montreal.

RECOMMENDATION

When recruiting physicians be sure to describe the life style opportunities available in the area.

Finances and Incentives

Currently, many counties in Ontario are providing financial incentives to recruit physicians. Indeed’ this is a very contentious issue, especially with those counties that cannot provide the incentive. Where incentives are employed, they are tied to a certain term of service. Unfortunately, post service period retention rates have been less than satisfactory.

RECOMMENDATION

When recruiting physicians, care must be taken regarding the provision of financial incentives and should be included in a recruitment program along with the other aspects presented here.

Exposure

During residency programs or other rotations, exposure to a specific area may increase the likelihood of a physician deciding to return to the area. Also, later exposure through a locum may result in a recruitment opportunity.

RECOMMENDATION

When recruiting physicians' be sure to give consideration to previous exposure to similar areas.

In all of the above aspects, it is important to ensure a fit between the expectations of the physician and those of the clinic/hospital.

RETENTION

The themes that emerged from the interviews that relate to the issue of Retention include Practice aspects, Community, and Family.

Practice

Physician attitudes towards the practice of medicine have changed over the past few years. They are no longer prepared to spend most of their waking hours responding to patient needs. They do remain committed to good quality care. However, they prefer a "reasonable" workload that will allow time for other non-medical related pursuits. It is important that expectations regarding what is a reasonable workload are made clear among the physicians.

Also, within the practice of medicine, physicians involved in this investigation want to work with colleagues who share their philosophy of practice. Some physicians enjoy challenging cases, while others simply wish to work with the "routine" whole patient.

RECOMMENDATION

Physician retention will be facilitated by

- "Reasonable" work loads
- Shared practice philosophy

Community

As presented above in the recruitment section, community is an important consideration for retention of physicians. Some physicians prefer a small town where they know everyone and they feel a part of the community. The preference for living in a small town relates to an individual's desire for such a life style.

RECOMMENDATION

Identify physicians with an inclination for the life style provided by the community.

Family

Further, as presented above in the recruitment section, family plays a large part in retention of physicians. There must be a place for a spouse or significant other, and children. Also, over time as the family dynamics evolve, family needs will change.

RECOMMENDATION

Ensure evolving family needs are identified and addressed.

MOTIVATION

One of the main queries posed during this investigation was what motivates a physician. The responses varied across themes relating to variety, patients, colleagues, and pay.

Variety

Many physicians noted their enjoyment of practicing medicine and the variety of situations they encountered. They liked their work and some enjoyed the thrill of uncertainty. They were keen to be challenged and were gratified at solving a problem.

Patients

The physicians involved in this investigation invariably stated their commitment to their patients. They were excited about helping and caring for their patients; indeed, they found saving a life very gratifying.

Colleagues

The physicians prefer to practice with like-minded physicians in a collegial environment. Fitting in with a group of colleagues contributed to an enjoyable work atmosphere.

Pay

Finally, pay was also mentioned as a motivator. Here physicians indicated they felt they were well compensated. Some thought they could even earn more but seemed fully satisfied with their pay relative to their workload and desired life style.

COMMENTS

At the end of each interview, the participants were asked if they had any final comments. The themes that emerged are related to financial, work, training, and information technology.

Financial

Capitation involving rostered patients is popular amongst many of the physicians involved in this investigation. This approach means there is a fee per patient rather than a fee for service. This allows physicians to focus more upon individual patients and to more effectively manage their workloads.

Along with the capitation approach, there exist bonus and incentive programs that provide extra fees above a minimum number of certain services, and a bonus for providing patients with access to the physician.

In another financially related aspect some of the local government participants who were interviewed provided negative comments regarding recruiting payments. It was suggested that these recruiting incentives would certainly get the attention of a physician. Indeed, some physicians were openly negotiating payments as a start to the recruiting process. The local government participants expressed concern for the potential of long-term commitment by these physicians.

The local government participants suggested that a province wide policy should be developed in response to this form of, as they expressed it, "bribery". They felt it is important to create a level playing field for all counties with regards to financial recruiting incentives for physicians.

Work

The face of medicine has changed. One aspect is that physicians now see themselves in a broader scope beyond just their practice of medicine. They are more likely to consider their own life style issues. As a consequence, physicians are working fewer hours. Thus, it was suggested, with the current physicians' approach to work, five new physicians will be required to replace three old physicians.

Training

With the above approach to work, medical schools must train more physicians. It was also suggested by participants in this investigation that it is important that individuals who are trained must thoroughly understand the culture in which they will practice. This not only relates to understanding the Canadian culture, but also those differences within this vast country.

A further suggestion related to physicians receiving more management training. While it was recognized that required components of medical training programs leave little room for more subjects, it was felt that the development of an appreciation for the management aspects of health care would be helpful.

Information Technology

A final comment emerged regarding the use of information technology. Currently, within the province of Ontario there are very many officially recognized automated administrative information systems. This plethora of systems creates much inefficiency. A proposal was suggested that one province wide system, similar to the single integrated system employed by pharmacists, would provide a consistent user interface and consequently much better patient information.

Conclusions

This investigation identified aspects related to the recruitment and retention of medical doctors. An interview method was adopted which documented participant's interpretations of what motivated medical doctors in their practice. Eighteen individuals participated in the one-on-one interviews representing various audiences in health care services.

In the area of recruitment, the emphasis should be upon ensuring that a potential physician is aware of the community in which they will practice. This community relates to colleagues, patients, and family.

The community and family are also important consideration for retention of physicians. Practice considerations relate to work load and colleagues.

It is interesting to note that while financial aspects were mentioned by some of the participants, there were other motivating aspects that tended to be mentioned before the issue of pay.

There are no easy answers to the issues surrounding recruitment and retention of medical doctors. Hopefully, the comments included in this document provide some ideas about how to approach these issues.

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Attachments

- a. Informed Consent Form
- b. Interview Protocol
- c. Personal Construct Theory and the Repertory Grid

Informed Consent Form

Research Project Title: Recruitment and Retention of Medical Doctors

Investigators: M. Gordon Hunter, The University of Lethbridge
Yolande E. Chan, Queen's University⁵

This consent form, a copy of which has been given to you, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something that is included here, or information not included here, please ask. Please take the time to read this form carefully, and to understand any accompanying information.

The purpose of this research is to investigate factors involved in what motivates medical doctors. This investigation will endeavor to delve into those issues associated with recruitment and retention of medical doctors.

Your participation is very important, as it will provide valuable information about this investigation. **The results of the interviews will aid in the identification of plans and policies for the recruitment and retention of medical doctors.** There are no right answers to the questions, and the most valuable information for this research is your personal opinions and experiences.

Your responses in the interview (**which should take about 1 hour**) will be treated as *confidential*. **Neither your name nor your company's name will appear on any publications. All material related to this research will be retained in the offices of the researchers for five years, after which time it will be destroyed. Only the researchers will have access to this material.** You may choose not to answer any or all of the questions, and your cooperation is completely voluntary. Should you decide to withdraw from the study the material gathered about you and your company will be destroyed. **There are no risks associated with your participation and you should not feel any discomfort throughout the interview process.**

Your signature on this form indicates that you understand to your satisfaction the information regarding your participation in my research project and agree to participate. In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. This research is being carried out in accordance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, and the University of Lethbridge's policies. You are free to withdraw from the study at any time with no consequences. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

⁵ Support for this project is provided by The Monieson Centre at Queen's University and the Prince Edward/Lennox & Addington Community Futures Development Corporation.

If you have further questions concerning matters related to this research, please contact me, Gordon Hunter, at (403) 329-2672. **Questions regarding your rights as a participant in this research** may be addressed to the Office of Research Services, University of Lethbridge at (403) 329-2747.

Signature of Participant

Date (Day/Month/Year)

A copy of this consent form has been given to you to keep for your records and reference.

Would you like to be sent a copy of the aggregated study results when they are available?

Yes _____ No _____ (please check the appropriate line).

If you responded **YES**, please provide your likely mailing address for six months from now:

Thank you for your participation. Please do not hesitate to contact me if you require further information or have questions:

M. Gordon Hunter
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Recruitment and Retention of Medical Doctors

Interview Protocol

OVERVIEW

I want to obtain your comments about what you think motivates medical doctors

Confidential

Taping

PERSONAL

Name

Position Title

Where employed

How long

Experience with incentives/motivators for recruitment and retention

ELICITATION

Think of three doctors with whom you have sufficient experience to form an opinion about their work

List the names

“From your experience working with these three doctors and with regards to their motivation at work, how are two the same yet different from the third?”

Explain Motivation: the extent to which persistent effort is directed toward a goal

FOR DOCTORS

What motivates you when you think about your practice?

FINAL COMMENT

Do you have any other comments you would like to add?

Personal Construct Theory and the Repertory Grid

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Introduction

George Kelly (1955 and 1970) suggests that individuals use their own personal constructs to understand and interpret events that occur around them and that these constructs are tempered by the individual's experiences. Thus, individuals come to understand the world in which they live by developing a personally organized system of interpretation based on their experiences. The function of a personal construct system is to interpret the current situation and to anticipate future events. Further, individuals can share and appreciate to varying degrees the personal construct systems of others. Indeed, Kelly argues that the extent of similarity of psychological processes between two persons depends upon the similarity of their personal construct systems. Furthermore, Kelly contends that personal constructs are bi-polar in nature.

The technique used to determine personal construct systems is the RepGrid. The RepGrid contains three major components – elements, constructs, and links (Easterby-Smith, 1980):

1. Elements are the subject within the domain of investigation. They define the entities upon which the administration of the RepGrid is based.
2. Constructs represent the research participant's interpretations of the elements. Further understanding of these interpretations may be gained by eliciting contrasts resulting in bi-polar labels.
3. Links are ways of relating the elements and constructs. The links show how the research participants interpret each element relative to each construct. Further, the links reveal the research participant's interpretations of the similarities and differences between the elements and constructs.

In general, elements are the objects of the research participant's interpretations while constructs are labels attributed to these interpretations. Constructs are bi-polar, indicating how elements are interpreted as similar or different from others. Various methods may be employed to link elements and constructs.

RepGrid Design Decisions

Researchers must choose between design alternatives before beginning their use of the RepGrid.

Element Selection

The elements represent aspects considered important within a specific domain of discourse. Elements may be people, such as systems analysts (Hunter, 1997), or activities, such as systems development projects (Moynihan, 1996). There are two basic ways of selecting elements. One way is for the researcher to provide the elements (commonly referred to as supplied elements). The other way is to ask the research participant to provide them (elicited elements).

Several reasons have been proposed that support the researcher supplying the elements (Reger, 1990). Firstly, researchers may choose to provide the elements if they are interested in learning

more about a given set of elements from various research participants. Secondly, researchers may wish to let an existing theory guide element choice. Finally, researchers may also be interested in comparing responses of a number of respondents given a standard set of elements. This reason is especially important if the researcher desires to compare the results within a homogeneous group of individuals or across different groups.

Alternatively, researchers may choose to request the participant to provide his/her own elements to ensure that the elements are relevant to the participant. This can be done in a variety of ways (Easterby-Smith, 1980):

- Researcher can provide role or situation descriptions – for example, specifying roles of people in the organization or types of experiences in the organization. Participants are then asked to provide his/her own specific examples to fit these general categories.
- Researcher can define a “pool” – for example, participants are asked to “name five subordinates”, to “name three effective and three ineffective managers” or to “list six leisure activities that you have indulged in”.
- Researcher can elicit through discussion – in this case, the investigator and participant discuss the topic of interest and a list of elements is drawn up jointly.

There are a number of rules for selecting supplied or elicited elements. Firstly, elements must be discrete (Stewart and Stewart, 1981). For example, commonly used elements in organizational research are people, objects, events, and activities – in other words, nouns and verbs.

Researchers need to be very precise when selecting elements – specific nouns and specific verbs – for example, systems development projects (Moynihan, 1996) and customer enquiries (Phythian and King, 1992). Secondly, elements must be homogeneous (Easterby-Smith, 1980). That is, elements should be drawn from the same sample. For example, people and objects must not be mixed. The reason for this is that constructs that are generated from elements in one category are not likely to be applicable to those in another category. Thirdly, elements must not be evaluative (Stewart and Stewart, 1981). For example, evaluative words like motivation, leadership, knowledge, and communication can be often mistakenly used in order to elicit the qualities of successful managers. Instead, perhaps names of different managers should be used. Finally, elements should be representative of the area to be investigated (Beail, 1985; Easterby-Smith, 1980). Researchers must ensure that all research participants can relate to the selected elements. Further, it is important that research participants select a range of elements. If elements are selected that the research participant would consider being either positive or negative, a much richer set of constructs and interpretations can be elicited.

Construct Elicitation

The RepGrid technique allows for several different methods of eliciting constructs. In some of these methods, researchers can apply minor variations and combinations (Beail, 1985; Easterby-Smith, 1980; Reger, 1990).

First, the researcher can provide the constructs (supplied constructs). By supplying constructs, the researcher can compare individual RepGrids in a statistical manner.

Second, the constructs may be elicited from triads (minimum context form). This method is considered the classical approach to generating constructs and is known as the triadic sort method. The minimum context form involves the random selection of three elements (triads) at a

time from the repertory of elements for each elicitation. The participant is asked to identify (and label) some way in which two elements are similar yet different from the third relative to the domain of discourse. The researcher may leave the issue of similarities and differences open-ended, allowing the research participant to choose any labels that are relevant to him or her. Alternatively, researchers may provide contextual cues that focus the research participant's attention on a specific research issue. The process of identifying similarities and differences is intended to produce contrasting poles for the construct (i.e., the bi-polar nature of constructs discussed in the previous section). The elicitation process is then repeated until the researcher is satisfied that all relevant constructs have been identified.

The third elicitation technique is known as the "full context form". It involves presenting the full repertory of elements and requesting the research participant to sort the repertory into any number of discrete piles based on whatever similarity criteria the research participant chooses to apply.

The final alternative approach is group construct elicitation (Stewart and Stewart, 1981). In this method, all research participants involved in the study are gathered together with the researcher facilitating the group "workshop".

A process known as "laddering" may also be employed in conjunction with all of the above elicitation techniques. Laddering permits the research participant to further elaborate on the elicited construct. A series of general probing questions (i.e. How and Why) may be employed. In effect, the researcher is drilling down into the construct in order to determine the research participant's underlying assumptions and interpretations of the label associated with the construct. For example, Phythian and King (1992) and Hunter (1997) used laddering to obtain the meanings behind the constructs elicited through the minimum context form. Laddering is further elaborated elsewhere (Reynolds and Gutman, 1988).

Linking Elements to Constructs

There are three methods of linking elements to constructs – dichotomizing, ranking, and rating. In dichotomizing, a tick is placed against the element closest to the left pole of the construct. If it is closest to the right pole, a cross is placed. Ranking involves placing the elements in an order between the two contrasting poles of the construct. The method most often employed to link elements and constructs is rating (Hunter, 1997; Latta and Swigger, 1992). This method allows the research participant greater freedom when sorting the elements and does not force the research participant to make discriminations that do not exist.

Sample Size

The intensive nature of the RepGrid technique often means a relatively small sample size. A sample size of fifteen to twenty five within a population will frequently generate sufficient constructs to approximate the "universe of meaning" regarding a given domain of discourse (Dunn, et al., 1986; Ginsberg, 1989). That is, no new constructs are normally added even if the sample size is increased. In addition, studies using the RepGrid with a small sample size can be used to develop items for larger sample instruments such as questionnaires.

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