Mentorship in Rural Healthcare Organizations: Challenges and Opportunities

Noelle Rohatinsky, RN, PhD ¹
Linda Ferguson, RN, PhD ²

¹ Assistant Professor, College of Nursing, University of Saskatchewan
noelle.rohatinsky@usask.ca

² Professor, College of Nursing, University of Saskatchewan, linda.ferguson@usask.ca

Abstract

Introduction: Recruitment to and retention of healthcare professionals in rural workplaces are often difficult due to inadequate resources, limited positions, and facility remoteness. Mentorship of employees can serve as a recruitment and retention strategy in rural organizations.

Purpose: The purpose of this study was to explore managers’ perceptions of their roles in creating mentoring cultures, discover the processes in creating a culture of mentoring, and explore the organizational features supporting and inhibiting mentoring cultures. The objectives included: (a) exploring managers’ perceptions of their role in creating a mentoring culture, (b) discovering the processes of creating a culture of mentoring, and (c) exploring the organizational features supporting and inhibiting this process of developing a mentoring culture. The rural-specific findings from the larger study will be discussed.

Sample: Twenty-seven front-line nurse managers working in acute care hospitals, long term care, and integrated facilities from both urban and rural locations were interviewed. Twelve participants managed rural facilities and their opinions surrounding rural mentorship strategies and challenges emerged.
**Method:** Data was analyzed using Glaserian Grounded Theory.

**Findings:** Nurse managers discussed the impact of being in a rural area and highlighted the rural-specific considerations for mentoring. They outlined the strategies, challenges, and opportunities for supporting staff mentoring relationships in rural organizations. Participants stated all employees were responsible for mentoring new individuals, regardless of occupation. Managers believed cross-professional mentoring enabled staff to understand team member roles and established collaborative work environments.

**Conclusions:** In order to successfully recruit and retain healthcare employees in rural areas, innovative mentorship initiatives to ensure quality work environments are encouraged. Interprofessional mentorship can assist with the challenges of socializing new employees to rural workplaces by offering a means to encourage collaborative relationships and ultimately foster positive patient outcomes.

**Keywords:** Mentorship, Rural Organizations, Interprofessional, Healthcare

---

**Mentorship in Rural Healthcare Organizations: Challenges and Opportunities**

It is a continuous struggle to recruit and retain qualified nurses and other healthcare professionals to work in rural and remote areas. Globally, half of the world’s population live in rural areas whereas only 38% of the nursing workforce is employed rurally (World Health Organization [WHO], 2010). More specifically, only 10.8% of the registered nurse (RN) workforce and 17.5% of licensed practical nurses (LPNs) work in rural and remote areas in Canada (Canadian Institute for Health Information [CIHI], 2012). There are numerous barriers to recruitment and retention of nurses in rural facilities including limited resources, decreased
professional development opportunities, and a lack of interpersonal ties to the area (Aylward, Gaudine, & Bennett, 2011). Strategies need to be put in place to ensure individuals in rural communities have access to skilled healthcare professionals. Mentorship can serve as a means for recruitment and retention of healthcare professionals by addressing these barriers. Ultimately, ready access to the qualified individuals can create healthier rural and remote communities. The authors discuss interprofessional mentorship as one of the strategies to utilize when healthcare providers in rural communities are scarce.

**Background**

Mentoring is defined as “…a guided, nonevaluated experience, formal or informal, assigned over a mutually agreed-on period of time that empowers the mentor and mentee to develop personally and professionally within the auspices of a caring, collaborative, and respectful environment” (Grossman, 2007, p. 2). Mentoring relationships are dynamic, mutually beneficial, learning relationships between a more experienced person (a mentor), and a less experienced person (a protégé or mentee) (Johnson & Ridley, 2008; Zachary, 2005).

The concept of mentoring has been investigated and published at length in the business and organizational behavior literature. Conversely, mentoring from a nursing perspective continues to be relatively novel and there is a limited empirical literature base on mentoring in nursing (Beecroft, Santner, Lacy, Kunzuman, & Dorey, 2006; Halfer, Graf, & Sullivan, 2008; Jakubik, 2008; Jakubik, Eliades, Gavriloff, & Weese, 2011; Latham, Hogan, & Ringl, 2008; Newhouse, Hoffman, Suflita, & Hairston, 2007; Wolak, McCann, Queen, Madigan, & Letvak, 2009). By contrast, anecdotal and thematic literature on mentoring in nursing abounds (Block, Claffey, Korow, & McCaffrey, 2005; Burr, Stichler, & Poeltler, 2011; Cottingham, DiBartolo, Battistoni, & Brown, 2011; McKinley, 2004; Tourigny & Pulich, 2005; Woodard-Leners, Wilson, Connor,
Areas in mentoring that have been investigated in both the business and nursing environments included outcomes and benefits of mentoring, negative mentoring experiences, characteristics of effective mentors and protégés, the roles and responsibilities of each individual in the mentorship, phases of mentorship, program evaluation, and types of mentoring.

Authors have called for enhanced nursing mentorship in rural areas (Henwood, Eley, Parker, Tuckett, & Hegney, 2009; Kwansah et al., 2012). Research into rural nursing mentorship remains limited. Some researchers have explored mentoring managers into their own rural positions (Waters, Clarke, Ingall, & Dean-Jones, 2003), whereas others have investigated the experience of mentoring nurses in rural areas and the training required (Mills, 2009; Mills, Lennon, & Francis, 2007; Mills, Francis, & Bonner, 2007; Mills, Francis, & Bonner, 2008a,b; Scott & Smith, 2008; Stewart & Wootton, 2005). Crow, Conger, and Knoki-Wilson (2011) developed a program to mentor rural nurses working with culturally diverse populations.

WHO (2010) called for rural and remote mentorship opportunities in order to recruit and retain healthcare professionals to these areas. Rural healthcare professionals were more likely to remain in rural areas if they were connected through peer support networks, had relationships with both urban centers and rural communities, and had means to communicate electronically with others (Conger & Plager, 2008). Rural mentorship can provide these opportunities to create those connections and has the potential to result in employee retention (Curran, Hollett, Hann, & Bradbury, 2008).
Purpose

The purpose of this dissertation study was to explore managers’ perceptions of their roles in creating mentoring cultures. Through this process managers’ strategies in creating a culture of mentoring were discovered. Specific organizational features supporting and inhibiting this mentoring culture became apparent. In this article, we will discuss the rural-specific findings from the larger study.

Methodology

Glaserian grounded theory (Glaser & Strauss, 1967; Glaser, 1978) was used to collect, code, and analyze the data from the main study using constant comparative analysis to develop codes, memos, and theory. The researcher continuously hypothesized about the relationships between concepts and categories and constantly examined these propositions against the data until a core category and theory emerged. A specific category, rural mentorship considerations, emerged from the data and will serve as the basis for this article’s content.

Sample and Setting

Six health regions within one Canadian province were utilized for the study. Each health region consisted of both urban and rural locations. Managers were front-line nurse managers working in acute care hospitals, long term care, and integrated facilities from both urban and rural areas. A rural area was defined as having a population of less than 10,000 individuals (Bollman & Alasia, 2012). First line managers were described as managers who have responsibility for nursing units, where staff nurses report directly to them, and where there is no level of management below them (Laschinger & Wong, 2007). Nursing units and facilities utilized depended upon the managers who volunteered to take part in the study.
Ethical approvals were obtained from the University of Saskatchewan Research Ethics Board (Beh study # 10-262) and the participating health regions prior to study commencement. Recruitment and data collection occurred between January and August 2011. Numerous avenues were pursued to target all managers, including attending facility or health region-wide manager meetings, and sending written letters of invitations and brochures via email or mail. If interested in participating, managers were responsible for contacting the researcher. Written informed consent was obtained and semi-structured interviews were conducted.

Purposive and theoretical sampling was used to recruit participants. Saturation was reached at 27 managers. Twenty-five managers were registered nurses and two were non-nurses. Twenty-five managers were female. Twelve managers worked in rural areas and 15 worked in urban centers. Eleven managers supervised acute care units, seven were in long term care units or facilities, and nine worked in integrated facilities offering a mix of acute care and long term care services. The term “nursing unit” could represent either a single nursing unit or an entire facility, depending on its size. Managers are identified by the term “MON” (manager of nursing).

Data Analysis

Once interviews were transcribed, they were reviewed for errors and notations on emotions, behaviours, and environmental factors by comparing the original audio-recordings and the interviewer’s field notes. The researcher simultaneously collected, coded, and analyzed data using constant comparative analysis (CCA) to develop coding and theoretical memos, and to develop the theory. Using CCA, the researcher constantly compared data against itself, other data, and the emerging concepts and theory at all times during the grounded theory process (Boychuk-Duchscher & Cowin, 2004; Glaser & Strauss, 1967; Schreiber, 2001). CCA directed theoretical sampling and ensured that the emerging theory would not be merely descriptive and
lack conceptual depth (McCann & Clark, 2003). Thus, CCA enhanced the theoretical sensitivity and assisted the researcher in creating a theory that was grounded in the data. Data continued to be collected, coded, and analyzed until no new categories emerged and existing categories were saturated, thus reaching theoretical saturation (Glaser & Strauss, 1967). Saturation was confirmed at 27 participants and 33 interviews. After nineteen interviews, saturation of most categories was noted and the researcher began to revise the interview questions to further substantiate, expand, and refine properties of categories, concepts, and relationships between concepts, as Wuest (2007) suggested. The interview questions became more specific to the phenomenon under study as the theory developed. After 27 interviews, second interviews were completed with managers to further clarify and validate the emerging theory, as well as to discuss proposed relationships between concepts. NVIVO 9 software was used to manage and organize the data collected.

**Trustworthiness**

Lincoln and Guba’s (1985) trustworthiness criterion for establishing rigor within a qualitative framework included the categories of credibility, transferability, dependability, and confirmability. Lincoln and Guba (1985) described credibility as whether the reality of the participants was correctly represented by the researcher. Strategies used to maximize credibility in this study included peer debriefing and member checks (Lincoln & Guba, 1985). In order to allow for exploration of areas that may remain implicit or unexplored and to test emerging hypotheses, peer debriefing with the researcher’s supervisor was performed. Member checks were used to clarify and validate the emerging theory with participants. During secondary interviews, the researcher described the emerging theory to participants and asked them to share
their thoughts on the theory. In addition, participants’ own language was utilized to code, categorize, and develop the theory in order to strengthen credibility.

Transferability referred to the generalizability of findings by providing a substantial description of the context and experience in order to allow others to visualize applying the theory in their contexts (Lincoln & Guba, 1985). Dependability was described as leaving an audit trail so that others could follow the researcher’s thought and decision making progression throughout the research process, and was evident in researcher memos. In this study, memoing was included during data collection, coding, and analysis by using written and audio digital theoretical memos. Memoing aided the researcher to hypothesize and identify the relationships among concepts and the emerging theory, and assisted the researcher to conduct subsequent data collection with the emerging theory in mind. Finally, confirmability referred to the ongoing documentation of the research process including memoing, verbatim transcription of interviews, and field note documentation (Lincoln & Guba, 1985), and these components were included in the study. The researcher considered and included credibility, transferability, dependability, and confirmability to ensure trustworthiness in this study.

**Findings**

Twelve managers oversaw rural facilities and their opinions surrounding rural mentorship strategies and challenges arose. The category, rural mentorship considerations, emerged from the data provided by the 12 rural managers and will be described. Rural managers discussed the importance of properly mentoring new nursing staff because these individuals would typically be in charge of the whole facility, especially on night shifts. “You’re in charge of the patients, the residents, the staff and the building. It’s a huge, huge commitment to come out to work in rural” (MON J). Within rural emergency facilities, there was an unpredictability of the nursing
workload and a wide range of patients coming to the emergency department. New nursing staff needed to feel comfortable dealing with the unknown and unexpected. Managers mentioned several challenges of supporting employee mentorship in rural areas and they discussed many strategies they used to encourage and support mentoring despite the perceived obstacles.

**Challenges in Supporting Employee Mentoring**

Rural nurse managers discussed the influence of being in a rural workplace on recruitment and mentorship of new staff. Being in a rural environment was particularly challenging for managers, because they believed they had inadequate resources, limited staff, and difficulties recruiting and retaining new nurses. Some rural managers saw mentoring as a tool for recruitment and retention in the rural area. “*There’s so many opportunities and in rural particularly, we’re not really given a pool of applicants and so if we don’t put processes in place to support these people, they’ll leave*” (MON N).

Managers recognized budgetary constraints and limited access to mentorship resources. They expected the organization to allocate funding for the development of mentorship programs and various mentoring education activities for staff. “*...you absolutely need senior leadership because if there's no money for it, you don't do it at the end of the day*” (MON Y). Lack of finances and resources for mentorship inhibited managers’ abilities to establish mentorship programs for employees. In many rural facilities, staff members frequently worked their shifts in isolation or with minimal staff of different disciplines. As a result, these factors made it challenging for managers to pair up two employees of the same discipline for mentorship.

Most rural managers indicated their frustrations with hiring nurses under time-limited contracts, because these nurses typically left after the contract expired. Managers identified that more work needed to be done in order for the issues of recruitment and retention of staff in rural
areas to be addressed. They discussed the need for providing full-time permanent positions, finding permanent housing, developing relationships with other staff members, and establishing community networks to encourage new staff to be retained.

Managers mentioned that offering mentoring programs only in larger centers as opposed to smaller centers was a concern. Managers identified experienced staffs’ hesitancy to drive into the larger centers to attend the mentoring workshops. Reasons were: being uncomfortable driving on the highway; driving in the larger center; attending the workshop alone; lacking funds to pay for mileage, hotel accommodations, or meals; or finding replacement staff to work the shifts while the potential mentor attended the workshop.

**Strategies to Support Employee Mentoring**

Rural managers identified several strategies used to support new nursing staff in their roles and to support mentorship amongst employees. One of the advantages of being in a rural environment mentioned by the managers was that a smaller staff allowed new employees to get to know their colleagues and develop relationships more quickly. Managers saw mentoring as a way to support the new staff, especially if they were new graduate nurses or new to the rural environment. “I think that’s really important that they feel supported and they know where to go if there is a problem” (MON N). Mentors were seen as a source of knowledge to let new staff know who to call when a problem of any nature arose.

Managers believed the lack of physicians in rural environments had the potential for new nurse feelings of isolation and increased responsibility. In order to combat those feelings, managers ensured there were experienced staff members on shift with the novices. In the rural areas, these experienced staff members could be from the same or different discipline. Managers paired new nurses with experienced staff members of the same discipline until they indicated
they were comfortable. If new nurses were working alone, the manager arranged to have experienced nurses on call to act as resources. Managers offered their contact information after hours in case new nurses had questions.

Several rural managers talked about mentoring new staff to become acquainted with the greater community as well, especially if new nurses were unfamiliar with rural environments. Managers believed it was important for mentors and other staff members to socialize new staff members into the community, because if new nurses did not have roots in the area, they tended to move to a bigger center after a period of time. Socialization included introducing new staff to community activities, providing information on school options for those with children, and inviting them to community events. Managers indicated that trust needed to be established between the new individual, the employees, and the community members.

Many rural facilities hired internationally educated nurses (IENs) and their socialization into the community was seen as important. Because of cultural differences, the newcomers had to be welcomed to both the facility and community. This welcoming even included finding them housing and linking them with other IENs in nearby towns so they could develop their own support group.

Managers suggested offering mentoring workshops in rural areas either by videoconference or in person with the facilitator coming to the rural facility. They suggested that some nurses from the other rural facilities would be more likely to drive to another rural facility given their hesitancy with driving to larger centers. Managers also mentioned that by having employees stay in rural areas for mentorship workshops allowed for it to be financially feasible for more individuals to attend because time off and coverage for driving, staying overnight, and for workshop attendance was not needed.
Discussion

The emergent category, rural mentorship considerations, was described by the participants. Rural nurse managers discussed the challenges of providing mentoring and professional development opportunities in their areas due to limited resources, opportunities, and staff. Lynds and van der Walt (2011) highlighted the common challenges to successful mentorship in rural areas including lack of rewards or incentives for volunteering, health care professionals’ broad scope of practice in a rural area, and the lack of formal mentoring programs. With limited staff in a rural area, mentor volunteering and selection often became challenging, because of a lack of voluntary mentors to engage in mentorships (Lynds & van der Walt, 2011). McCoy (2009) also identified these concerns stating that nursing in a rural setting was unique and special considerations needed to be made when new nurses were entering into the rural environment. For example, McCoy (2009) and Aylward et al. (2011) mentioned the limited resources for professional development and orientation in smaller hospitals. Other considerations included lack of nursing staff to cover shifts, extra travel time and distance to locations where programs were offered, and additional expenses incurred for mentoring or other continuing education initiatives, which were all seen as challenges to ongoing staff education (McCoy, 2009). McCoy suggested partnering rural nurses with urban hospitals and mentors to allow for collaboration to occur between the areas.

Managers in this study discussed the limited opportunities for providing new employees with full-time permanent positions. They identified that this had the potential to inhibit recruitment and retention. Aylward et al. (2011) also found that lack of full-time positions were considered barriers to recruitment and retention of staff. Staff were less likely to move to rural areas if they did not have the security of a permanent full-time position.
Mills, Lennon, and Francis (2007) saw mentoring as a retention strategy for rural nurse managers to use in their workplaces. Education for potential mentors was viewed as an essential component to the success of the relationship in rural areas, because knowledge of mentoring, mentoring skills, and confidence in the role increased if training was taken (Mills et al., 2007). Ensuring that mentoring education was provided for nurses in rural areas would contribute to the success of mentorship initiatives. Additional educational support and professional networking using such strategies as telehealth and video-conferencing are important and inexpensive methods to provide training and education by linking the urban and rural communities.

Mills, Francis, and Bonner (2007) discussed rural nurses’ experiences with mentoring, and they found that mentoring did not occur solely in the clinical environment. Considerations were also made for living and working in the same small community. The results found in this research were similar to these findings. For example, socialization was needed in both the rural facility and the rural community (Crow et al., 2011; Mills et al., 2007). In a rural community, nurses may often be seen as part of the community, and the mentors’ role was to explain the culture of the rural community to the new staff members by explaining the local practice or methods of communication used between colleagues or community members and the new nurses. Special considerations need to be made to socialize new nurses to their communities as well, in order to increase the likelihood that new employees will develop relationships and be more willing to stay. Managers in this study felt that a lack of connection with community contributed to nurses’ migration. The study findings were similar to those results found by Aylward et al. (2011) where managers believed a lack of familial ties, social activities and services, and feelings of isolation were barriers to recruitment and retention and that having a social network and a sense of community belonging were facilitating factors. Therefore,
relationship development within the community is an important factor to consider in order to improve retention rates in rural areas.

From the discussions with rural managers, the authors contend that greater assistance needs to be put in place to support mentoring of new nurses in rural areas. The WHO (2010) called for innovative and accessible education and professional development programs for staff in rural areas. Strategies could include e-learning opportunities where mentoring workshops are video-conferenced into rural areas and mentors and protégés connect via electronic means like email, discussion boards, and texting (Hamilton & Scandura, 2003). These electronic means would allow mentoring information to be disseminated broadly, allow a greater number of people to be involved in mentorships, and individuals would be able to be mentored in their own communities irrespective of their geographical location. With electronic mentoring, a more diverse pool of mentors could be attained because there would be no limitations regarding regional boundaries (Hamilton & Scandura, 2003).

Mentors assisting multiple protégés could be another solution to limited staffing. A further suggestion could be having mentors from rural facilities pairing with protégés from a different facility. Most rural managers, in this study, ensured that new employees were supported when working alone, by having supports available if needed, such as having other staff on-call to answer questions. This strategy was important to ensure that new staff had resources available to them as needed. Lynds and ven der Walt (2011) called for rural facilities and healthcare organizations to collaborate to establish locally adapted mentoring programs that reflected the unique rural environment. This suggestion was a novel idea to better support and reflect the unique nature, challenges, and opportunities of a rural setting.
Opportunities for Inter-professional Mentorship

Nurse managers described informal inter-professional mentorship as one of the strategies to integrate new employees into work environments. Managers’ believed each employee was responsible for mentoring new individuals, regardless of the position they held. “I think everybody has a part to play, everything we need to learn isn’t always all clinical and so it definitely needs everybody’s support as far as teaching and what value we’re adding to that individual’s experience at work” (MON AA). MON R further added to this perspective by stating, “I think everyone has a responsibility to mentor like I mentioned – housekeeping, laundry, kitchen, people that work together on a certain part of the team, have a responsibility – a moral responsibility – to help out their teammates, right?”.

Managers believed each individual had a role in mentoring new staff. They listed several individuals who were responsible for mentoring new nurses including managers, clinical educators, clinical coordinators, RN staff, LPN staff, special care aides, housekeeping, dietary, laundry, maintenance, therapists, and physicians. Managers believed it was the whole unit or facility that mentored the new employee. Each employee provided new nurses with a different perspective to enable them to see the whole picture and to provide the best possible care for their clients. Furthermore, managers indicated the importance for each professional to know how their colleagues’ jobs fit together in order to provide the best care for their client population. Cross-discipline mentoring enabled new staff to know the roles of each of their healthcare team members.

Morrow (2009) believed that every nurse should be responsible for welcoming the new nurse to the unit, answering any questions, and providing guidance as needed. Furthermore, managers mentioned that all employees were responsible for mentoring new nurses regardless of
their positions. Inter-professional teamwork in rural facilities plays a significant factor in recruitment and retention and positive patient outcomes (Aylward et al., 2011). Inter-professional mentorship of employees has been relatively unexplored in the literature, but several managers in the study discussed its presence and importance. Marshall and Gordon (2010) described the goal of inter-professional mentorship as learning about and from other professions in order to provide quality care to clients.

Ralph and Shaw (2011) observed that no matter what the discipline, common goals and beliefs must be established for the mentorship to work. Healthcare professionals commonly train in isolation of one another and this lack of interaction has the potential for a lack of understanding of professionals’ values, cultures, and knowledge bases. They further maintained that this lack of understanding could in turn lead to ineffective inter-professional mentoring experiences. Ralph and Shaw (2011) proposed that inter-professional education should precede inter-professional practice, and that this strategy must be incorporated into educational programs in order to strengthen inter-professional mentorship in clinical areas. Likewise, Lait, Suter, Arthur, and Deutschlander (2011) found that students involved in inter-professional mentoring learned about different professions and how to work as a team to care for patients. Lynds and van der Walt (2011) recommended inter-professional mentorship as a means to assist with the limited number of staff and the unique nature of rural health care environments. They maintained that by involving several different healthcare professionals in the mentorship process, mentoring cultures could be established, and quality environments where staff work harmoniously together would be attained.
Limitations

The researcher requested volunteer participants and those who volunteered may have had strong opinions regarding the topic or may have been more interested in the study. The researcher did not examine perceptions of the managers who did not volunteer. When managers chose not to participate in the study, their reason for not participating was not examined as only those managers interested contacted the researcher. Evaluation of the effectiveness of any formal or informal mentoring programs currently or previously implemented was not addressed as that investigation was beyond the scope of this study.

The researcher acknowledges that mentoring may have occurred for all staff on the nursing unit, but only how the nurse manager created a mentoring environment for registered nurses was investigated. The researcher did not study registered nurses’ and greater organizations’ perspectives on how the nurse manager attempted to or did not attempt to create a mentoring environment. Therefore, the authentication of statements made by the managers did not occur. Not all health regions in the province were selected to be part of the study, so the researcher did not study differences in manager perceptions from other health regions. This study was limited to one province in Canada and may not be representative of mentoring occurrences in other provinces or countries.

Because the researcher could not approach managers directly due to ethical protocols, reliance was often needed on administrative assistants or chief nursing officers to forward the study letter of invitation, brochures, and follow-up reminders to potential participants. This arrangement posed some risk that the study information would not be received by the potential nurse managers, due to the busyness of the individuals sending out the information on the
researcher’s behalf. Thus, all potential participants may not have been included in this study opportunity.

**Future research**

Researchers need to further investigate mentorship in rural areas, particularly from the employees’ perspectives, in an effort to better recruit and retain healthcare professionals to rural facilities. Research in the area of inter-professional mentorship is also required. Topics for examination could include contributing and facilitating factors, barriers, and outcomes of inter-professional mentorship.

**Conclusion**

Rural healthcare facilities have unique needs that need to be considered when arranging mentorship opportunities for staff. Managers in this study identified several challenges in rural environments that make mentoring more difficult such as limited staffing, working in isolation, and inadequate financial resources. However, they also mentioned strategies they used to foster mentoring relationships like establishing colleague and community relationships, formally pairing up staff, and offering mentorship workshops locally.

In order to successfully recruit and retain healthcare employees in rural areas, innovative mentorship initiatives to ensure quality work environments are encouraged. Inter-professional mentorship can assist with the challenges of socializing new employees to rural workplaces by offering a means to encourage collaborative relationships and ultimately foster positive patient outcomes.
References


