Title:
Examination of the Effects of Interprofessional Collaboration on Healthcare Provider and Team Productivity

Kelly A. Lackie, PhD
Registered Nurses Professional Development Centre, Halifax, NS, Canada
Gail G. Tomblin Murphy, PhD
School of Nursing, Dalhousie University, Halifax, NS, Canada

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Interprofessional Collaborations in the Clinical Setting
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4:15 PM

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References:
Bazeley, P. (2009). Editorial: integrating data analyses in mixed methods research. Journal of Mixed Methods Research, 3 (3), 203-207. Birch, S., Kephart, G., Tomblin Murphy, G., O'Brien-Pallas, L., Alder, R., & MacKenzie, A. (2007). Human resources planning and the production of health: A needs-based analytical framework. Canadian Public Policy, 33 (Suppl), S1-16. Curran, V.R., Casimiro, L., Banfield, V., Hall, P., Lackie, K., Simmons, B., Tremblay, M., Wagner, S.J., & Oandasan, I. (2011). Development and validation of the Interprofessional Collaborator Assessment Rubric (ICAR). Journal of Interprofessional Care, 25 (5), 339-344. World Health Organization. (2010). Framework for action on interprofessional education & collaborative practice. Geneva, Switzerland: Author.

Abstract Summary:
To share research findings from a study that examined whether self-assessment for the competencies associated with interprofessional collaboration changed health care providers' understanding of interprofessional collaboration and their perceived level of efficiency and effectiveness when working with their primary health care team.
Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to determine whether self-assessment for the competencies associated with interprofessional collaboration ((IPC) changed health care providers' definition of collaboration.	Presentation of research study findings and discussion of same with conference participants
The learner will be able to examine whether health care providers' perceived level of productivity was affected by self-assessment for interprofessional collaborator competencies.	presentation of research study findings and discussion of same with conference participants.

Abstract Text:

Background:

A global health human resources (HHR) crisis has been forecasted based, to some extent, on predicted shortages in all health care provider (HCP) groups and, as a result, health systems performance is expected to suffer. This HHR crisis is not only impacted by the numbers of HCPs available to deliver services, it is also compounded by how they use their individual and complementary knowledge and skills to work together. HHR planning is about having the right number and skill mix of HCPs in the right place at the right time (Birch et al., 2007) and must be based on more than the forecasted size or demographic mix of the population. Rather, the requirements for HCPs should be dependent upon the needs of the population served, the level of commitment to resource provision, the range of available health care services, and the methods of health care program delivery (Tomblin Murphy & O'Brien-Pallas, 2002). Therefore, when undertaking the needs-based HHR planning approach it is equally important to consider *how* HCPs work together and the impact team delivered care has on workforce productivity. What if a better understanding of the composition and distribution of the workforce, and HCP behaviour, were known? Would effective interventions be created to improve workforce performance? Interprofessional collaboration (IPC) has been promoted as a means to create HHR efficiencies and enhance the quality of care. It is defined as occurring "when two or more individuals from different backgrounds with complementary skills interact to create a shared understanding that none had previously possessed or could have come to on their own" (World Health Organization (WHO), 2010, p. 36). Therefore, when planning for HHR it is reasonable to not only establish *if* IPC occurs in health teams but also the extent to which it occurs and how it affects productivity, for these factors may greatly influence health systems performance. Yet, no research could be found that linked the knowledge, skills, and attitudes associated with IPC to productivity measurement. Specifically, there were no studies that examined whether the adoption of IPC competencies would impact HCP productivity as assessed by HCPs themselves.

Objectives**:**

The purpose of this embedded mixed-methods intervention study was to discover HCPs' understandings about IPC and their perceived level of efficiency and effectiveness when working with their primary health care team; to determine the extent to which HCPs demonstrate the competencies that are related to IPC; and, to explore whether self-assessment of the IPC competencies changed HCPs' sense of being efficient and effective. The research questions (RQ) which guided this study are: RQ 1: How do health care providers define interprofessional collaboration? What are health care providers' perceived levels of personal and team productivity when working in a team environment? RQ 2: To what extent do health care providers demonstrate performance of interprofessional collaboration competencies, as assessed using the Interprofessional Collaborator Assessment Rubric (ICAR) (Curran et al., 2011)? RQ 3: How did the interprofessional collaboration competency self-assessments change health care providers' definitions of interprofessional collaboration? What are health care providers' perceptions of personal and team productivity after completing the self-assessments?

Methods:

Mixed-methods research has been described as the combination of the fundamentals of both qualitative and quantitative research and is predicated on a pragmatic worldview, where the main issue is to determine what data and analyses are considered necessary to answer the research questions (Bazeley, 2009). The embedded design in this study is interactive, with priority placed on the qualitative strands; data collection and analysis of each strand occurred sequentially. There are two outcome (dependent) variables in this study: health care providers' definitions of interprofessional collaboration and their perceived levels of productivity; the intervention/explanatory (independent) variable is the self-assessment of the extent to which health care providers demonstrate performance of the interprofessional collaborator competencies. Fifteen (n=15) participants completed all components of the study: two interviews and a self-assessment. Research ethics approval was obtained from all District Health Authorities in Nova Scotia, where applicable.

Qualitative strands (RQ 1 & 3): Data was collected via semi-structured interviews. Maximum variation sampling was used owing to the diversity of participants. Applied thematic analysis was undertaken in the analysis of the interview data.

Quantitative strand (RQ 2): Participants were asked to assess themselves for demonstration of IPC competencies using the ICAR tool (Curran et al., 2011). Bivariate analysis of ICAR data was performed. Comparative analysis of participant's interviews in conjunction with their ICAR scores was completed to determine whether there was a relationship between what participants said and what they did in relation to IPC and productivity.

Findings:

The intent of this embedded design was to use findings from one strand to complement findings from the other strand, with an overall goal of mixing the findings into a coherent representation of IPC and productivity, while looking for convergence and divergence of findings. IPC definition themes included: understanding/valuing/using team expertise, communication, team member availability, and belongingness. IPC competency relevance, deeper understanding/heightened awareness, and differences between knowing and doing emerged as post-ICAR IPC definition themes. Contributing to/achieving patient outcomes were the hallmark of personal productivity, alongside the ability to complete the 'to-do' list and manage changing priorities. Post-ICAR personal productivity themes included: status quo work environments do not support collaboration/productivity and productivity could be defined differently. Team productivity was depicted as the right person with the right skills and team productivity enhanced collaboration. Post-ICAR team productivity themes included: the importance of role modeling IPC and leaving the team if unable to collaborate. Participants acknowledged similar barriers to productivity and IPC as preservation of the medical model, hierarchy, turf protection, inconsistent funding/remuneration, and scope of practice restrictions. Quantitative analysis indicated that participants believed themselves to be demonstrating the IPC competencies at *'above expected'* levels. The amount of variance of the competencies was quite low. Correlation analyses shed light on the content validity of this limited data set, particularly when they were considered alongside the qualitative analyses. The trueness of the conclusions drawn from the quantitative observations is demonstrated by the consistency of the qualitative observations and supported by relevant literature.

Conclusions:

It is anticipated that through this research a full description of IPC and its affect on productivity will be presented, which will assist in understanding whether HCPs do what they say they could/would do in relation to IPC and productivity. The findings also provide contextual understanding of IPC and productivity in the primary health care setting that will be useful to HHR planners and the health care providers who work in collaborative teams.