

Empirical Validation of the Health Care Team Challenge™
in Promoting Role Clarification

Hudson, C. C.¹, Gauvin, S.², Tabanfar, R.³, Poffenroth, A. M.⁴,
Lee, J. S.⁵, & O’Riordan, A. L.⁶

¹Correspondence concerning this article should be addressed to Chloe Hudson MSc, PhD student in Clinical Psychology, Department of Psychology, Queen’s University, 62 Arch Street, Kingston ON K7L 3N6, Canada. E-mail: c.hudson@queensu.ca, Phone: (613) 533-6003, Fax: (613) 533-2499.

²MSc student in Clinical Psychology, Department of Psychology, Queen’s University, 62 Arch Street, Kingston ON K7L 3N6, Canada. E-mail: 12sg78@queensu.ca, Phone: (613) 329-5682

³Medical student, School of Medicine, Queen’s University, 15 Arch Street, Kingston,

ON K7L 3N6, Canada. E-mail: rtabanfar@qmed.ca, Phone: (587) 968-3027

⁴BNSc Student, School of Nursing, Queen's University, 92 Barrie Street Kingston, ON K7L 3N6, Canada. E-mail: 9ap61@queensu.ca, Phone: (613) 929-5617

⁵Occupational Therapy student, School of Rehabilitation Sciences, 31 George Street, Queen's University, Kingston, ON K7L 3N6 Canada. E-mail: joshua.lee@queensu.ca, Phone: (647) 404-1195

⁶Clinical Educator, Office of Interprofessional Education and Practice, Queen's University, 82-84 Barrie Street Kingston, ON K7L 3J8, Canada. E-mail: ao3@queensu.ca, Phone: (613) 533-3182.

Promotion of Role Clarification in the Health Care Team Challenge™

Abstract

Interprofessional collaboration has consistently been associated with positive client-care outcomes. Role clarification is one facet of interprofessional collaboration that is thought to be crucial for effective interprofessional team functioning. Given the positive outcomes associated with interprofessional collaboration, educators have begun to integrate formal interprofessional education events into health care curricula. The Health Care Team Challenge™ (HCTC) is a collaborative competition designed to promote interprofessional competencies among students in healthcare fields. The current study empirically investigated whether this event promoted role clarification among participants. Sixteen participants in five healthcare professions (occupational therapy, physiotherapy, clinical psychology, nursing and medicine) completed two questionnaires to assess role clarification before and after participating in this event. Results indicate that participants' understanding of their own and other professions' roles improved after participating in this team activity. These results suggest that the HCTC is effective in promoting role clarification and collaboration among healthcare students.

Key words: Interprofessional collaboration, Interprofessional education, Teamwork, Role Clarity; Survey

Introduction

Interprofessional collaboration occurs when professionals from different disciplines work together in an integrated approach to client care. The importance of interprofessional collaboration is undeniable; healthcare professionals who work in a team provide clients better access to care, reduced hospital stays, and reduced harm to clients (e.g. Piterman, Newton, & Canny, 2010).

While all aspects of interprofessional collaboration are important, health professionals report that role clarification—understanding one’s own professional work roles, as well as the roles of those in other professions—is a key aspect of effective team functioning (Canadian Interprofessional Health Collaborative, 2010; Suter et al., 2009). While most other interprofessional competencies are transferable from other team environments (e.g., communication, conflict resolution), role clarification requires experience with other professions, which may make gaining proficiency in this area particularly difficult.

In order to promote interprofessional competencies, interprofessional topics have become integrated into curricula (Frank, 2007). This integration has occurred in both formal classroom education as well as extracurricular events. In particular, events that facilitate longitudinal interprofessional collaboration, such as the Health Care Team Challenge™ (HCTC; Richardson, Gersh, & Potter, 2012), may provide the setting for students to build interprofessional relationships that foster role clarification.

The HCTC is an interprofessional educational event that promotes collaborative teamwork among students in health-related professions. At Queen's University, Ontario, Canada, the HCTC teams include students training to be occupational therapists (OTs), physiotherapists (PTs), clinical psychologists (CPs), nurses (RNs) and physicians (MDs). Three teams work together over a period of four weeks to create a case conceptualization and collaborative treatment plan on an authentic patient case created by a local interprofessional team. This event culminates in a friendly competition where each team presents and defends their treatment plan to a team of judges. As a final task, teams are given five minutes to prepare their answer to a newly revealed question that requires them to reflect on their experience of interprofessional collaboration. The winning team selected by the judges is eligible to advance to the national HCTC competition. Preliminary research suggests that the HCTC promotes attitudes and readiness for interprofessional collaboration (Netwton et al., 2015; Richardson et al., 2012); however, to our knowledge, research has not yet empirically investigated whether the HCTC promotes the competency of role clarification, a critical component of interprofessional collaboration (Suter et al., 2009).

The current study examined whether participation in the HCTC facilitates the development of role clarification among students training to be OTs, PTs, CPs, RNs and MDs. We hypothesized that participants would report greater role

understanding after participating in the HCTC. We also explored role understanding of each profession before and after participating in the HCTC.

Method

This study employed a non-experimental pretest-posttest survey design used to assess the impact of HCTC on role clarification. Convenience sampling was used from participants who registered for the HCTC

Participants

Twenty students who were selected to participate in the HCTC took part in the current study. Four participants did not complete the pre- or post-study questionnaires and were excluded from analyses, resulting in a final sample of 16 healthcare students (3 OT, 5 PT, 2 CP, 4 RN, 2 MD) at various stages of their training. Demographic questions (e.g., age, gender) were not collected to ensure the anonymity of responses.

Measures

Readiness for Interprofessional Learning Scale – RIPLS (McFadyen et al., 2005). The roles and responsibilities subscale of the RIPLS was used to assess overall role clarification. This subscale includes three questions rated on a five-point scale, ranging from “strongly disagree” to “strongly agree.” Participants’ scores on these questions were summed to create a total scaled score, with higher scores indicating greater role clarification.

HCTC Survey. Participants answered six questions that assessed their understanding of each professional represented in the HCTC: their own profession, OTs, PTs, CPs, RNs and MDs (e.g., “How would you rate your understanding of the role of your own profession within the healthcare team?”). Participants rated each item on a five-point scale ranging from “limited” to “strong.” Scores on these scales were used as individual items and summed to assess overall role understanding. Higher scores indicate better understanding of each professions’ role.

Data collection

Before beginning the HCTC orientation, participants received an envelope that included questionnaires and a letter of information. If participants did not wish to complete the questionnaires, they returned them blank. Participants received the same package of questionnaires after competing in the final competition, but before receiving feedback on which team had won the competition. In total, 20 participants completed either the pre- or post-HCTC questionnaires, with 16 participants completing both.

Data analysis

De-identification was used during data collection, entry, and analysis to anonymize participants’ responses. SPSS Version 22.0 was used for data analysis. Within-group differences were analyzed with paired sample *t*-test.

Ethical considerations

This study was granted clearance by Queen's University according to the recommended principles of Canadian ethics guidelines and University policies.

Results

Descriptive statistics for all variables of interest can be found in Table 1. Two paired sample *t*-tests were conducted to examine changes in role understanding after participating in the HCTC. Participating in the HCTC was associated with an increased score in the role understanding subscale on the RIPLS, $t(15) = 3.30, p = .005, d = .58$, and on the total score of the HCTC survey, $t(15) = 5.93, p < .001, d = 1.77$.

INSERT TABLES 1 AND 2 ABOUT HERE

To further explore how well participants' understood the role of each profession, paired sample *t*-tests were conducted on each individual item of the HCTC survey. See Table 2 for the results of these analyses. Results indicated that participating in the HCTC improved participants' understanding of their own profession, OTs, PTs, CPs, RNs, and MDs.

Discussion

Understanding of one's own professional work role and the role of other healthcare professionals has been highlighted as an integral aspect of interprofessional collaboration. This study is the first to investigate whether the HCTC—an interprofessional education event—promotes role clarification. Consistent with our

hypotheses, our findings suggest that the HCTC is an effective tool for developing role clarification among students in the allied health professions. Exploratory analyses suggest that participants better understood the role of each profession that participated in the HCTC.

Several other interprofessional education events have been found to promote role clarification (e.g., Barnett, Hoang, Cross, & Bridgman, 2015; Joyal, Kats, Harder, & Dean, 2015). Each of these events occurred over a significant period of time (i.e., 5+ hours), which may have facilitated the development of strong interprofessional relationships. Similarly, the four-week timeframe of the HCTC provides ample time for team members to foster trust in other professionals' expertise. Pullon (2008), for example, suggests that success in interprofessional teams begins with understanding others professional working roles, which leads to mutual respect and trust. In the HCTC, the trust students develop may foster an environment where students to feel less threatened by areas of overlap, allowing students to focus on client-centered care rather than interprofessional competition. Future research should investigate the role of interprofessional respect and trust among students participating in the HCTC.

Although as a whole there was an increase in understanding for all professions, participants indicated the greatest increase in understanding for the health professions of OT and CP (see Table 2 for percent increase). It remains unknown why the greatest change was observed in these two professions. It is possible that

participants had lower pre-HCTC exposure to these two professions in comparison to the other professions, and as such particularly benefited from exposure to these two professions during the HCTC. It is also possible that perceived familiarity with other professions (PT, RN, MD) resulted in participants overestimating their understanding of these professions before participating in the HCTC, resulting in less change in understanding after participating in the event.

There are a number of limitations within our study. The small sample size, 16 participants, limited our ability to investigate the attitudes of students within each profession. Also, the HCTC survey has not yet been validated, and the RIPLS has been criticized for having poor psychometric properties (Mahler, Berger, & Reeves, 2015). Furthermore, it is reasonable to assume that participants who chose to engage in the HCTC are positively inclined towards interprofessional collaboration, which will have resulted in selection bias. Future studies are encouraged to replicate these findings with a larger sample size, well-validated measures, a control group, and recruit students with a broader range of interprofessional attitudes to determine whether the results of this study are generalizable to the wider student body.

Acknowledgements

The authors thank Queen's Health Interprofessional and the Office of Interprofessional Education and Practice at Queen's University for their role in facilitating this research and organizing the HCTC event.

Declaration of Interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

References

- Barnet, T., Hoang, H., Cross, M., & Bridgman, H. (2015). Interprofessional practice and learning in a youth mental health service: A case study using network analysis. *Journal of Interprofessional Care*, 29(5), 512-514. doi: 10.3109/13561820.2015.1004042
- Canadian Interprofessional Health Collaborative. (2010). *A National Interprofessional Competency Framework*. Retrieved from: http://www.cihc.ca/files/CIHC_IPCompetencies_Feb1210.pdf
- Frank, J. R. (2007). *Medical leadership and effective interprofessional health care teams: A competency-based approach*. Retrieved from: http://ambulance.nsw.gov.au/amwac/amwac/pdf/10_frank.pdf
- Mahler, C., Bergr, S., & Reeves, S. (2015). The Readiness for Interprofessional Learning Scale (RIPLS): A problematic evaluative scale for the interprofessional field. *Journal of Interprofessional Care*, 29(4), 289-291. doi: 10.3109/13561820.2015.1059652
- McFadyen, A. K., Webster, V., Strachan, K., Figgins, E., Brown, H., & McKechnie, J. (2005). The readiness for interprofessional learning scale: A possible more stable sub-scale model for the original version of RIPLS. *Journal of Interprofessional Care*, 19(6), 595-603. doi: 10.1080/13561820500430157
- Newton, C., Bainbridge, L., Ball, V., Baum, K. D., Bontje, P., Boyce, R. A., . . . Wood, V. (2015). The Health Care Team Challenge™: Developing an international interprofessional education research collaboration. *Nurse Education Today*, 35, 4-8. doi: 10.1016/j.nedt.2014.07.010
- Piterman, L., Newton, J. M., & Canny, B. J. (2010). Interprofessional education for interprofessional practice: Does it make a difference? *Medical Journal of Australia*, 193(2), 92-93.
- Pullon, S. (2008). Competence, respect and trust: Key features of successful interprofessional nurse-doctor relationships. *Journal of Interprofessional Care*, 22(2), 133-147. doi: 10.1080/13561820701795069
- Richardson, B., Gersh, M., & Potter, N. (2012). Health Care Team Challenge: A versatile model for interprofessional education. *MedEdPORTAL*. Retrieved from: www.mededportal.org/publication/9287

Suter, E., Arndt, J., Arthur, N., Parboosingh, J., Taylor, E., & Deutschlander, S. (2009). Role understanding and effective communication as core competencies for collaborative practice. *Journal of Interprofessional Care*, 23(1), 41-51. doi: 10.1080/13561820802338579