Leadership and administrative support for interprofessional collaboration in cancer center

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Conflicts of Interest

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Abstract

Purpose – The interprofessional collaboration is a key policy for providing cancer care. However, the realization of collaboration requires effective leadership and administrative support. In this study, the aim was to analyze healthcare professionals' perceptions of leadership and administrative support (strategic and management) in interprofessional collaboration for developing practices in cancer care.

Design/methodology/approach – A descriptive survey design was used to collect data from healthcare professionals (n=350, response rate 33.3%), including nurses, physicians and other professionals participating in patient care in one Finnish cancer center (out of five) in 05/2018-10/2018. The data were analyzed using descriptive and inferential statistics. The instrument focused on leadership in the work unit and administrative support including organization strategy and organizational management.

Findings – Healthcare professionals perceived leadership in the work unit, organization strategy, and management for the support of interprofessional collaboration as weak. However, the ratings of male respondents and those in leading positions were more positive. The findings indicate that healthcare professionals in the cancer care setting are dissatisfied with the leadership and administrative support.

Research limitations/implications – Interprofessional collaboration, including its leadership, requires systematic and constant evaluation and development.

Originality/value – Healthcare leaders in the cancer care setting can use the results to identify factors that might be in need of attention and development in the field of interprofessional collaboration.

Keywords Administration, Cancer care, Healthcare professionals, Interprofessional collaboration, Leadership, Quantitative methods

Paper type Research paper

Introduction

Leadership and administrative support can facilitate interprofessional collaboration and optimize practices to produce quality in cancer care (Lamb et al., 2011; Soukup et al., 2018). In interprofessional collaboration, professionals from different disciplines work in cooperation for the benefit of patients' care (Denton and Conron, 2016; Petri, 2010) with shared objectives (Petri, 2010). Cancer care is a typical area of interprofessional collaboration including professionals from varying fields, such as physicians, radiologist and nursing professionals (Prades et al., 2015) with different backgrounds and values. Thus, interprofessional collaboration can be complex (Petri, 2010), and leadership is essential for the effective functioning of the professionals' collaboration (Soukup et al., 2018). However, a need to examine further the role of leadership in interprofessional collaboration in cancer care has been recognized (Brewer et al., 2016; Denton and Conron, 2016; Lamb et al., 2011; Laschinger and Smith, 2013) in order to strengthen the interprofessional practices in healthcare setting.

Interprofessional collaboration has been recognized to produce benefits for patients, professionals and organizations, and it can be facilitated by effective leadership and administrative support. Benefits for cancer patients (Chiew et al., 2018; Denton and Conron, 2016; Prades et al., 2015) means improved comprehensiveness (Chiew et al., 2018; Saini et al., 2012) and quality of care (Das et al., 2018; Kedia et al., 2015). For professionals, interprofessional collaboration has improved cooperation, including communication (Prades et al., 2015) and understanding of other professionals' role in cancer care (Laschinger and Smith, 2013). For organizations, benefits are seen through improved coordination (Denton and Conron, 2016; Petri, 2010) and decreased healthcare costs (Das et al., 2018; Petri, 2010).

To achieve these benefits, effective interprofessional collaboration requires commitment on the part of the participating professionals, but also facilitating leadership and administrative support (Denton and Conron, 2016; Lamb et al., 2011; Laschinger and Smith, 2013; Petri,

2010; Prades et al., 2015; Soukup et al., 2018). Leadership refers to the actions of leading people, whereas administrative support refers to the means within the organization to reinforce and enable interprofessional collaboration, including organization strategy and organizational management (Elkhdr, 2019).

Leadership and administrative support can facilitate interprofessional collaboration (Karam et al., 2018; Lamb et al., 2011; Soukup et al., 2018) by promoting shared goals, developing structures for the collaboration, and establishing communication channels and tools (Karam et al., 2018), including appropriate facilities, equipment, logistics, technology (Soukup et al., 2018; Willcocks, 2018), and time for participating in the collaboration (Denton and Conron, 2016; Lamb et al., 2011). Leaders can promote collaboration by allocating and coordinating resources and service delivery for the patient, and their task is to formalize and evaluate the collaboration processes (Karam et al., 2018; Willcocks, 2018).

Leadership of interprofessional collaboration requires specific competencies, such as skills to build collaboration, motivate professionals into shared goals, and facilitate open communication (American Organization of Nurse Executives, 2015; Grubaugh and Flynn, 2018; Kainuma et al., 2018; Karam et al., 2018; McGrath et al., 2019). Competence requirements also include skills to build trust and relationships with other professionals and skills to create a respectful environment that appreciates professionals from different disciplines (American Organization of Nurse Executives, 2015; Brewer et al., 2016; Kainuma et al., 2018).

Effective leadership has an opportunity to contribute to the effectiveness, stability (Prades et al., 2015), and quality of interprofessional collaboration (Lamb et al., 2011; Laschinger and Smith, 2013) including improved decision-making among participating professionals (Lamb et al., 2011). It can also promote equality and professional participation in interprofessional

collaboration (Soukup et al., 2018), which can improve professionals' perceptions of interprofessional collaboration (Laschinger and Smith, 2013).

Even though the importance of leadership and administrative support in interprofessional collaboration in cancer care setting has been established, the focus of previous studies has been on the outcomes of interprofessional collaboration in cancer care (Das et al., 2018; Li et al., 2017; Prades et al., 2015), with only a few studies targeting leadership (Laschinger and Smith, 2013; Willcocks, 2018). Thus, the need for further study focusing on leadership and how it can support interprofessional collaboration in cancer care is evident (Denton and Conron, 2016; Lamb et al., 2011; Laschinger and Smith, 2013) in order to strengthen administrative and leadership practices to contribute to the quality of collaboration for the benefit of the patients.

This study aimed to analyze healthcare professionals' perceptions of leadership and administrative support (strategic and management support) in interprofessional collaboration. The ultimate aim is to contribute to the development of leadership and administrative practices in the cancer care setting to be responsive to healthcare professionals' perceptions.

The research questions were:

- What kind of perceptions do healthcare professionals have regarding leadership and administrative support in interprofessional collaboration?
- What differences, if any, are there in healthcare professionals' perceptions according to the background factors?

Methods

Measure

We employed a descriptive survey design. For the measurement of healthcare professionals' perceptions of leadership and administrative support in interprofessional collaboration, a new instrument called *Interprofessional Collaboration and Leadership* (ICL) was developed, based on previous literature (e.g. Bronstein, 2003; Petri, 2010) and in collaboration with cancer care

experts (n=7). Piloting of the instrument focused on evaluation of the format, instructions and usability, and was conducted in the same cancer center as in the actual study (n=30). No modifications were needed for the instrument. The instrument has six dimensional categories with 64 items focusing on 1) leadership in the work unit (13 items), 2) organization strategy (4 items) and 3) organizational management as a support for interprofessional collaboration (5 items), 4) healthcare professionals' competence (4 items), 5) appreciation (13 items) and 6) realization (25 items). A four-point Likert-type scale was used for responses (1 = strongly disagree, 2 = disagree to some extent, 3 = agree to some extent, 4 = strongly agree). The instrument included items focusing on background information, such as age and education (Table 1). In this study, we used three of the dimensional categories of the instrument, which focused on leadership and administration: leadership in the work unit (α 0.93), administrative support via organization strategy (α 0.80), and organizational management (α 0.85), for which total Cronbach's alpha coefficient in this study was 0.95 (Table 2). The results of the other dimensional categories will be reported separately.

Sample

The data was collected from May to October 2018 from one Finnish cancer center consisting of three hospitals, serving a population of nearly 900,000 (total population in Finland 5.5 million), in one health district. We recruited healthcare professionals conducting cancer care (at least on a monthly basis), based on their own estimations. After receiving permissions from the healthcare organizations to carry out the research, the research coordinator sent electronically information about the study with a link to the instrument to all cancer center professionals (N=1,050). Three reminders were sent. Due to the low response rate, the professionals in university hospital, which is the largest in the health district, were offered an opportunity to fill in the instrument on paper (n=50 responses). 875 professionals were contacted (83.3% of all) and 379 (48.3%) responses were returned; out of these, 29 were

excluded due to missing data (n=10) or not conducting cancer care (n=19), resulting in 350 responses for final analysis (total response rate 33.3%, response rate among contacted professionals 40%).

Data analysis

The data was analyzed using IBM SPSS Statistics versions 24 and 25 (IBM Corp., Cary, NC). Cronbach's alpha coefficient was used to assess the internal consistency reliability of the instrument and its sub-parts. Descriptive statistics such as frequencies, means and standard deviations (SD) were used to describe the data. Sum variables were calculated taking the mean of items of the dimensional categories (organization strategy, leadership in the work unit, and organizational management). Pearson's (r_p) correlation coefficients were used to evaluate the correlations between sum-variables and continuous background variables. The associations of categorical background variables with sum-variables were examined using Mann-Whitney U-test. P-values less than 0.05 were considered statistically significant. We report only statistically significant differences and correlations.

Ethical considerations

The study protocol was evaluated and approved by the ethical committee of the University of Turku (statement 48/2017) and each hospital gave permission for the data collection. An information letter to the healthcare professionals explained the purpose of the study as well as voluntariness and confidentiality of participation. Respondents gave their consent by voluntarily returning the completed instrument. The research ethical principles of the Declaration of Helsinki (World Medical Association, 2013) were followed in the study.

Results

Respondents

Respondents' mean age was 43.6 years (SD 11.9, range 22–67 years), with 17.4 years (SD 11.9, range 0–44 years) mean experience in healthcare and 13.2 years (SD 10.7, range 0–41

years) in cancer care. Most of the respondents were female (85.0%, n=294) and participated in cancer care on a daily basis (64.0%, n=221). The respondents were registered nurses (54.8%, n=189), medical specialists (6.7%, n=23), radiographers (6.1%, n=21) and other nursing and medical professionals. Most of the participating professionals had no further training or degrees (67.0%, n=235), but had participated in further training related to interprofessional collaboration during the last three years. Seventeen percent of the respondents (n=58) were in a managerial position (e.g. nurse managers or chief physicians). (Table 1).

Table 1. "Healthcare professionals' demographics" somewhere near here

Healthcare professionals' perceptions on leadership and administrative support in cancer care and differences between respondents

Leadership in the work unit was evaluated as moderate (mean 2.60, SD 0.60), as were its sub-categories leadership actions, development of collaboration, and evaluation of collaboration. Leadership actions were considered to promote good work climate, although leaders were not perceived to reward conducting collaboration (mean 2.17, SD 0.80). The development of interprofessional collaboration was acknowledged as one of the aims of the work unit, but the resources were seen as inadequate (mean 2.41, SD 0.80). Evaluation of interprofessional collaboration was rated low and not enough recognition was given (mean 2.41, SD 0.81). (Table 2.)

Organization strategy as support for interprofessional collaboration was perceived to facilitate the realization of interprofessional collaboration (mean 2.90, SD 0.62). Organization strategy was considered to support the interprofessional actions, but not to decrease the hierarchy within organizational culture (mean 2.67, SD 0.70). (Table 2.)

Organizational management as a support for interprofessional collaboration was not considered very strong (mean 2.60, SD 0.65). Interprofessional collaboration was perceived as

part of the organization's core aims, but the allocated resources were insufficient (mean 2.42, SD 0.76). (Table 2.)

Table 2. "Description of interprofessional collaboration on item and sum-variable levels" somewhere near here

Male respondents rated dimensional categories of leadership in the work unit ($p<0.001$) and organizational management as support for interprofessional collaboration ($p=0.009$) higher than female respondents. Respondents in a leadership position rated leadership in the work unit ($p=0.027$) higher than others. (Table 3.) Participation in further education in interprofessional collaboration during the last five years was positively correlated with respondents' perceptions in all dimensional categories (Table 4).

Table 3. "Statistically significant differences according to the background variables" somewhere near here

Table 4. "Statistically significant correlations" somewhere near here

Discussion

The perceptions of healthcare professionals in cancer care regarding leadership and administrative support (strategic and management support) for interprofessional collaboration were versatile and did not clearly support the results of earlier studies (Walsh et al., 2011). However, the results indicate that leadership and administrative support have a role in the realization of interprofessional collaboration; the connection was seen especially on the strategic level. Interprofessional collaboration was seen as a goal, but the realization of the supportive actions and resources needed was not so clear. This gives reason to continue research in the field of cancer care.

There are also some background factors of professionals to be considered. Male respondents and those in leading positions perceived the leadership and administrative support for interprofessional collaboration as higher than others in cancer care setting. Male respondents

may have been in leading position, which can partly explain the differences between genders, but further studies are needed to clarify this in more detail. However, in earlier studies in mental health (Forsyth and Manson, 2017), no differences between health care professionals have been found. Positive perceptions among professionals in a leading position may be dependent on their different responsibilities within the organization, or due to their better access and knowledge of the organization. Leaders´ perceptions may also be result of their blind spots towards their own work, seeing interprofessional collaboration more positively than others. However, it is not possible to analyze these dependencies in this data.

According the respondents of this study, the leaders could support interprofessional collaboration by ensuring the resources for it, including personnel, time and education of professionals. The leaders' recognition with both positive and constructive feedback to professionals could also support collaborative practices and their development. However, more research is needed to elaborate professionals' perceptions to identify key practices to support interprofessional collaboration and its management.

Critical perceptions of leadership and administrative support for interprofessional collaboration highlight the question of leaders' competence and education for facilitating interprofessional collaboration. Leaders might benefit from interprofessional collaboration with professionals from different disciplines, but also with other leaders (Vestergaard and Nørgaard, 2018) different levels of the organization. The need to examine competence of leadership in interprofessional collaboration has been acknowledged in a previous study (Brewer et al., 2016). Leaders' competence in the field of interprofessional collaboration also includes self-reflection and critical thinking skills (McGrath et al., 2019) targeted not only at the examination of professionals' collaboration but also at their own competence and education. Leading and managing professionals from varying disciplines with limited resources can be complicated and result in a sense of being overwhelmed (Reeves et al., 2010).

However, interprofessional leaders have traditionally had only little education or administrative support for the development of their competence. Current professional education and socialization have been claimed to be exclusive, focusing only one discipline, and preventing leaders from developing skills to create a common language and shared goals with other fields. (Reeves et al., 2010.) Healthcare leaders' education could also include development of interprofessional competence with communication skills and understanding of other healthcare disciplines. Ensuring leaders' competence is a shared responsibility for individual leaders and organizations.

Leaders need support from the organizations in order to facilitate and reinforce professionals in their interprofessional collaboration. The role of organization is to ensure that leaders have both commitment, motivation, and education to lead and manage interprofessional collaboration (Pihlainen et al., 2019). Collaborative practices can be supported by acknowledging interprofessional collaboration throughout the organization and its strategic guidelines, structures and all levels of administration (Grubaugh and Flynn, 2018). However, administrative support of interprofessional collaboration requires further attention from the healthcare organizations and research. One way of supporting leadership would be to renegotiate supervisors' and managers' roles and responsibilities in enabling interprofessional collaboration (Valentine, 2018).

Development and support of interprofessional collaboration requires constant evaluation from the perspective of both leaders and professionals. Evaluation could be conducted, for example, using regular, validated surveys (Peltonen et al., 2019), observations or some participatory methods (Hyytinen et al., 2019). All these methods should produce systematic, evidence-based knowledge about interprofessional collaboration for the organizations.

Limitations of the study

There are some limitations to take into consideration when interpreting the results. The first one has to do with the instrument, which was used for the first time in this study. The consistency of the instrument seems satisfactory. Some modifications, however, are needed on the item level. The convenience sample consisted mainly of professional in the fields of nursing and medicine, which can indicate on response bias. However, the sample is representative relating to the ratio of registered nurses to physicians in Finland (OECD, 2017). We included professionals and leaders to the sample, to gain an overall view of the leadership and administrative support in interprofessional collaboration and to examine whether their perceptions differed. This can have biased the results, since leaders have evaluated their own work. The sample size is relatively small, limiting the generalizability of the findings, despite our efforts to strengthen it, for example by offering an option to respond in paper form. This option was provided for professionals in largest hospital of the district covering large proportion of the target group. Nevertheless, the results can demonstrate the healthcare professionals´ conceptions of leadership and administrative support in interprofessional collaboration and future development needs.

Conclusion

Healthcare professionals' perceptions of leadership and administrative support for interprofessional collaboration in cancer care were versatile. Interprofessional collaboration is included among the goals in organizations, but the results indicate that there is a need for more supportive actions and resources. The findings of our study can help leaders to identify different aspects of leadership and management influencing interprofessional collaboration, so that these can be taken into consideration when assessing and developing practices.

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Table 1. Healthcare Professionals' Demographics

	n	**(%)**
Gender	345	
Female	294	(85.0)
Male	51	(15.0)
Participation in cancer care	347	
Daily	221	(64.0)
Weekly	76	(22.0)
Monthly	33	(10.0)
Less than monthly	17	(5.0)
Title	347	
Registered nurse	189	(54.8)
Medical specialist	23	(6.7)
Radiographer	21	(6.1)
Practical nurse	20	(5.8)
Head nurse	20	(5.8)
Staff nurse	14	(4.1)
Senior physician or assistant senior physician	14	(4.1)
Midwife	8	(2.3)
Dietician	7	(2.0)
Other professions	29	(8.4)
Further training or degrees	350	
Yes	115	(33.0)
No	235	(67.0)
Further education in IC	264	
Last year	132	(50.0)
Last 2-3 years	69	(26.0)
Last 5 years	23	(9.0)
Over 5 years ago	40	(15.0)
Managerial position (e.g. administrative/unit based leadership)	341	
Yes	58	(17.0)
No	283	(83.0)

Table 2. Description of Leadership in Interprofessional Collaboration (IC) in cancer care on Item and Sum-Variable Levels

	n	M	Mdn	SD	min	max
Leadership in the work unit	347	2.60	2.58	0.60	1.00	4.00
In my work unit…						
Leadership actions	346	2.70		0.61	1.00	4.00
…IC promotes good work climate		3.32	3.00	0.66	1.00	4.00
…leaders encourage IC education		2.87	3.00	0.89	1.00	4.00
…leaders take IC into consideration in performance appraisals		2.44	2.00	0.87	1.00	4.00
…leaders give rewards for IC		2.17	2.00	0.80	1.00	4.00
Development of collaboration	346	2.64		0.65	1.00	4.00
…development of IC is a core aim		2.80	3.00	0.85	1.00	4.00
…leaders of different disciplines make joint decisions		2.69	3.00	0.77	1.00	4.00
…leaders of different disciplines have shared education		2.64	3.00	0.81	1.00	4.00
…leaders allocate resources for the development of IC		2.41	2.00	0.80	1.00	4.00
Evaluation of collaboration	346	2.45		0.70	1.00	4.00
…IC is an evaluation criteria of the work unit results		2.48	2.00	0.80	1.00	4.00
…leaders expect participation in evaluation of IC		2.48	2.50	0.82	1.00	4.00
…leaders equally highlight the results of different professions		2.44	2.00	0.79	1.00	4.00
…recognition for IC is given		2.41	2.00	0.81	1.00	4.00
Organization strategy as support for IC	347	2.90	3.00	0.62	1.00	4.00
In my work unit…						
…organization strategy supports IC		3.06	3.00	0.67	1.00	4.00
…aims for IC are determined		2.73	3.00	0.71	1.00	4.00
…organization strategy decreases hierarchy in organizational culture		2.67	3.00	0.70	1.00	4.00
Organizational management as support for IC	345	2.60	2.75	0.65	1.00	4.00
In my organization (e.g hospital)…						
…development of IC is a core aim		2.78	3.00	0.77	1.00	4.00
…databases support realization of IC between work units		2.65	3.00	0.77	1.00	4.00
…development of IC between different units is supported		2.55	3.00	0.82	1.00	4.00
…resources are allocated for development of IC		2.42	2.00	0.76	1.00	4.00

[i]Likert-type 1–4 scale: 1 = strongly disagree, 2 = disagree to some extent, 3 = agree to some extent, 4 = strongly agree

Table 3. Statistically Significant Differences According to the Background Variables

Background variable(n)	**Leadership in the work unit**				**Organization strategy as support for IC**				**Organizational management as support for IC**			
	M	**SD**	**Mdn**	**p[i]**	**M**	**Mdn**	**SD**	**p[i]**	**M**	**Mdn**	**SD**	**p[i]**
Gender												
Female (n=290-294)	2.55	0.59	2.58	0.000	2.88	3	0.61	ns	2.57	3.00	0.64	0.009
Male (n=49)	2.91	0.53	3.00		2.99	3	0.70		2.82	3.00	0.64	
In a leading position												
Yes (n=58)	2.76	0.58	2.75	0.027	2.97	3	0.71	ns	2.60	2.75	0.71	ns
No (n=277-281)	2.56	0.59	2.58		2.90	3	0.60		2.60	2.75	0.63	

[i]ns = not significant

Table 4. Statistically Significant Associations

Participated in IC education	Leadership in the work unit			Organization strategy as support for IC			Organizational management as support for IC		
	M	Mdn	p	M	Mdn	p	M	Mdn	p
during the last 5 years	2.69	2.67	<0.001	2.96	3.00	0.009	2.75	2.67	0.003
over 5 years ago	2.29	2.25		2.65	3.00		2.25	2.34	

IC=interprofessional collaboration