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Effect of Relational Coordination Issues in Health Care System Is Measuring By Hypothesis and Questionnaire Framework

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ABSTRACT— This paper aims to improve Health care system in Indian hospitals by using relational coordination, especially in selected hospitals for better Quality of care and patient perceived. The case study approach was used to consider the relational coordination parameter. Therefore, it studies a specialized hospital in India to improve the service. This specific hospital, highly structured, with more inter departments is selected so that it can be benefited by our project. Selection of parameters for RC from the detailed literature review. Some of the following parameters are identified from the review like shared goals, shared knowledge, mutual respect, and communication. By the identified parameter the questionnaire can be framed for case study. So that it result in better improvement within departments. There is a need to discuss relational coordination parameter. It is also limited because it considers one specialized hospital, thus the result of this research cannot be generalized to other specialized hospitals, but only to this hospital. Thus, this research expands the concept of coordination parameter, particularly to hospitals, and the paper fills this gap in the literature which could be further explored.

KEYWORDS— Relational Coordination, Effective Communication, Patient Perceived.

I. INTRODUCTION

Relational Coordination is a powerful new framework, based on extensive research, that describes how groups of individuals, workgroups or organizations manage their interdependent tasks to work together effectively under conditions of uncertainty, rapidly changing circumstances and time pressure. Relational coordination is a research model proposed by Gittell in 2002. Coordination that occurs through frequent, high quality communication supported by relationships of shared goals, shared knowledge and mutual respect enables organizations to better achieve their desired outcomes (Gittell, 2006). Specifically, .relational coordination is a mutually reinforcing process of interaction between communication and relationships carried out for the purpose of task integration. The author used the model to assess organizational coordination in four airlines in the United States, although it has also been applied to other sectors, such as the health sector. Ten practices constitute the antecedent variables to the model. These are Leadership with credibility and caring, Investing in frontline leadership, Hiring and training for relational competence, using conflicts to build up relationships, Bridging the work / family divide, Creating boundary spanners, Measuring performance broadly, Keeping jobs flexible at the boundaries, Partnering with unions, Building relationships with suppliers. Any organization can manage those practices in order to increase the level of relational coordination between their employees. The core of relational coordination is based on the iterative nature between both relationships and communication in the workplace. The quality of the relationships maintained by the different groups of employees between themselves is based on three variables shared goals, shared knowledge,

shared respect. The quality of their communication is also based on three variables frequency of communication, timing of communication, and problem-solving orientation of the communication.

II. RELATIONAL COORDINATION

Relational coordination is a mutually reinforcing process of interaction between communication and relationships carried out for the purpose of task integration. More simply, relational coordination is coordinating work through relationships of shared goals, shared knowledge and mutual respect, supported by frequent, timely, accurate, problem-solving communication. Together, these communication and relational dynamics provide the basis for coordinated collective action under conditions of task interdependence, uncertainty, and time constraints.

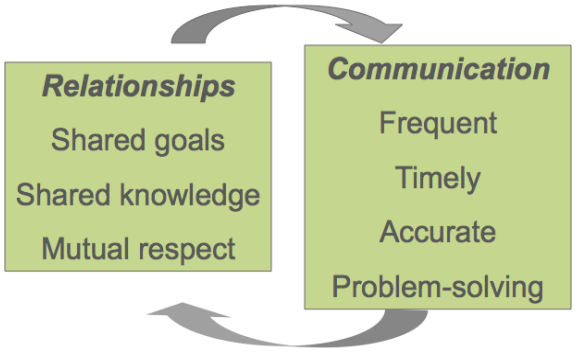

Figure 1. Reinforcing process

Relational coordination is also a validated tool for measuring and analyzing the communication and relationships networks through which work is coordinated across functional and organizational boundaries. This tool can capture coordination among frontline workers (relational coordination), between frontline workers and clients (relational coproduction), and between frontline workers and their leaders (relational leadership).

III. LITERATURE ASSESMENT

[1] Ralph katz and Michael Tushman (1979) , Communication Patterns, Project Performance, and Task Characteristics: An Empirical Evaluation and Integration in an R&D Setting This study examines the impacts of problem-solving and administrative communication patterns on the technical performance of 61 projects in an industrial R&D laboratory. This research reinforces the importance of managing communication patterns in organizations and further supports the importance of boundary spanning individuals. [2] Gerald A. Gladstein (1984) The Historical Roots Of Contemporary Empathy Research. Considerable differences exist in theories and methods in contemporary empathy research in psychology. An analysis is made of the ideas of early theorists in an attempt to identify the roots of these differences. Aesthetic philosopher-psychologists such as Theodor Lip's are compared to sociologists such as G. H. Mead, social psychologists, including Leonard Cottrell and Gordon All port. The development list Jean Piaget, and therapists such as Sigmund Freud and Carl Rogers.

[3] Joanne Yates Wanda J. Orlikowski (1992) Drawing on rhetorical theory and structuration, this article proposes genres of organizational communication as a concept useful for studying communication as embedded in social process rather than as the result of isolated rational actions. These genres evolve over time in reciprocal interaction between institutionalized practices and individual human actions. They are distinct from communication media, though media may play a role in genre form, and the introduction of new media may occasion genre evolution. [4] Karl E.Weick (1993) Collapse of Sense Making in Organizations: The Mann Gulch Disaster, Weick's sense-making. Theory suggests that collective mind, or shared understanding of the work process by those who are participants in it, can connect participants from these distinct thought worlds and thereby enhance coordination. [5] K.Crowston E.E.Kammerer (1998), the purpose of this study was to understand how the group process of teams of software requirements analysts led to problems and to suggest possible solutions. Requirements definition is important to establish the frame work for a development project. The collective mind perspective complements these suggestions by explaining how individuals come to the work of the group. This perspective suggests that deficiencies in actors representation of the process and subordination to collective goals limit the value of their contributions. [6] Ingrid Hage Enhaug (2000), "patient participation requires a change of attitude in health care". A patient experiences a combination of helplessness, lack of technical competence and emotional disturbance that make him or her peculiarly difficult. What happens is that he or she hands over the power to somebody else. There is no longer a balance of power between those giving and receiving health care and there is no real partnership between patients and health professionals in the traditional system of care. [7] Maureen chorlebois, cormax, David,leonara, lorruine, bonnie, Flavian pinto (2001)."Leader ship in health care service, primary care physicians' communication preference". Health care organizations faced with the ever-increasing challenge of balancing utilization, technology and client need within our health care delivery systems. Healthcare providers need to ensure that timely, effective and efficient care delivery processes and operating systems are in place. Therefore, helath care providers need to be able to access and utilize appropriate and accurate patient health information across the whole continuum of care. According to the CEO of the Ontario health services restructuring commission, the lack of access to health information means that physicians and other health care providers cannot provide effective and efficient coordinated care. [8] Daniel Z. Levin, Rob Cross (2004)," The Strength of Weak Ties You Can Trust: The Mediating Role of Trust in Effective Knowledge Transfer". Research has demonstrated that relationships are critical to knowledge creation and transfer, yet findings have been mixed regarding the importance of relational and structural characteristics of social capital for the receipt of tacit and explicit knowledge. We

propose and test a model of two-party (dyadic) knowledge exchange, with strong support in each of the three companies surveyed. First, the link between strong ties and receipt of useful knowledge (as reported by the knowledge seeker) was mediated by competence- and benevolence-based trust. Second, once we controlled for these two trustworthiness dimensions, the structural benefit of *weak* ties emerged. This finding is consistent with prior research suggesting that weak ties provide access to no redundant information. Third, competence-based trust was especially important for the receipt of tacit knowledge. [9] Anders Melin and Jan-A ke Granath(2004)," Patient focused healthcare: an important concept for provision and management of space and services to the healthcare sector". How will the relationship between patients, the service level and the geographic conditions in healthcare develop in the future? The task will be of great impact for location of new properties and the use of existing healthcare buildings. In order to improve healthcare space requirements, it is important to understand the expression "horizontal integrated care". Defining terms will enhance the communication between providers, companies and individuals. The research also looks into the phenomenon of "local hospital". The first step is to analyze these terms and describe the definitions from collected material obtained by a Questionnaire, interviews and searches on the Web. The main issue is to give the conception a broad validity. [10] Robert Kraut, Susan Fussell , F. Lerch , A. Espinosa (2005)," Coordination in Teams: Evidence from a Simulated Management Game". Most research examining the influence of coordination on team performance has not distinguished between *coordinating* (the processes by which teams attempt to manage interdependencies among individuals) and the resultant state of *coordination* (the degree to which interdependencies are managed well). Similarly, most research has not distinguished between the state of coordination and the performance outcomes that are often influenced by coordination. We demonstrate the usefulness of these distinctions in a study of 50 teams engaged in a realistic 14-week management simulation. Results using a panel design show that two processes for coordinating (use of shared cognition about the distribution of expertise within the team, and working together for a longer time period) improved coordination. Shared cognition seemed to compensate for low levels of communication and lack of working together. The resulting coordination, in turn, directly influenced teams' financial performance and external evaluations. All effects of the coordination processes, however, were indirect, and operated by helping the teams achieve a more coordinated state. [11] Vikki Ann Entwistle , Oliver Quick(2006)," Trust in the context of patient safety problems". An increased awareness of the scale of harm associated with "errors" in health care delivery, a new emphasis within health service policy and management activities on issues relating to patient safety, and significant changes to health care that are being wrought in order to reduce iatrogenic harm raise a number of issues in relation to trust. They challenge some previous assumptions, both popular and academic, about the nature and implications of patients' trust in health care providers. They also raise questions about the less often considered issues of health care providers' trust in patients. [13] Jody Hoffer Gittell(2008)," Relationships and Resilience: Care Provider Responses to Pressures From Managed Care". Organizations in the health care industry and beyond face pressures to lower their costs while maintaining quality, resulting in high levels of stress for their workers. In a nine hospital study, this article explores the role that relationships play in enabling resilient responses to external pressures and the organizational practices that enable workers to respond in a resilient way when organizational change is required. The article argues that relational coordination—communicating and relating for the purpose of task integration—is a resilient response to external threats that require a coordinated collective response across multiple functions or roles. Findings suggest that workers engage in higher levels of relational coordination when they perceive this type of threat but that the presence of a particular type of high performance work system—a relational work system—greatly strengthens this resilient response.

IV.PROBLEM DESCRIPTION

In recent years, effective supply chain management has emerged as a significant competitive advantage for companies and various engineering industries. Our area of research in SCM are identified as, relational coordination in Indian health care service. Through the literature survey, we found the gap in relational coordination in Indian health care service. In this relational coordination issues solved by implementing some relational coordination, variables in supply chain activities, which may result in improvement of some performance measures. So that our research is to enhance relational coordination in healthcare service using questionnaires' survey in some selected hospitals.

V.HYPOTHESIS FRAMING

H1a: Strength of Cross functional team work positively predicts quality outcomes

H1b: Association between Cross functional team work and quality outcomes is fully mediated by relational coordination among employers

H1c: Strength of Cross functional team work positively predicts efficiency outcomes

H1d: Association between Cross functional team work and efficiency outcomes is fully mediated by relational coordination among employers

H2a: Strength of Cross functional rewards positively predicts quality outcomes

H2b: Association between Cross functional rewards and quality outcomes is fully mediated by relational coordination among employers

H2c: Strength of Cross functional rewards positively predicts efficiency outcomes

H2d: Association between Cross functional rewards and efficiency outcomes is fully mediated by relational coordination among employers

H3a: Strength of Cross functional conflict resolution positively predicts quality outcomes
H3b: Association between Cross functional conflict resolution and quality outcomes is fully mediated by relational coordination among employers
H3c: Strength of Cross functional conflict resolution positively predicts efficiency outcomes
H3d: Association between Cross functional conflict resloution and efficiency outcomes is fully mediated by relational coordination among employers

H4a: Strength of Cross functional team meetings positively predicts quality outcomes
H4b: Association between Cross functional team meetings and quality outcomes is fully mediated by relational coordination among employers
H4c: Strength of Cross functional team meetings positively predicts efficiency outcomes
H4d: Association between Cross functional team meetings and efficiency outcomes is fully mediated by relational coordination among employers.

H5a: Strength of Cross functional performance measurement positively predicts quality outcomes
H5b: Association between Cross functional performance measurement and quality outcomes is fully mediated by relational coordination among employers
H5c: Strength of Cross functional performance measurement positively predicts efficiency outcomes
H5d: Association between Cross functional performance measurement and efficiency outcomes is fully mediated by relational coordination among employers

V. QUESTIONNAIRE DESIGN PROCESS

The questionnaire design process starts with the formulation of survey objectives and information requirements and continues with the following steps:

1. Knowledge of the respondents
2. Reviewing previous questionnaires
3. Draft the questionnaire
4. Validate the questionnaire
5. Review & revise questionnaire
6. Finalise questionnaire.

Validating a Questionanire (Cronbach's alpha)

Cronbach's α (alpha) is a coefficient of internal consistency. It is commonly used as an estimate of the reliability of a psychometric test for a sample of examinees. It was first named alpha by Lee Cronbach in 1951, as he had intended to continue with further coefficients. The measure can be viewed as an extension of the Kuder–Richardson Formula .It is given by,

$$\alpha = \frac{K}{K-1}\left(1 - \frac{\sum_{i=1}^{K} \sigma_{Y_i}^2}{\sigma_X^2}\right)$$

K-No of questions

σ_X^2 the variance of the observed total test scores,

$\sigma_{Y_i}^2$ the variance of component *i* for the current sample of persons.

Cronbach's alpha is the most common measure of internal consistency ("reliability"). It is most commonly used when we have multiple Likert questions in a survey/questionnaire that form a scale, and we wish to determine if the scale is reliable. The acceptable alpha values are,

Alpha Value	Internal Consistency
α ≥ 0.9	Excellent
0.7 ≤ α < 0.9	Good
0.6 ≤ α < 0.7	Acceptable
0.5 ≤ α < 0.6	Poor

Cross Functional team work

1. How far team work criterion supports health care?
2. To what extent you think the information available in previous health records supports health care team to do their jobs well?
3. To what extent team experience will be helpful to fix problems if something is so serious.
4. How far does the work you carried out as a team member influences quality outcomes?
5. From your experience how likely you think the workload distribution in a team is fair enough to the individual team member

Cross Functional Team rewards

6. How often do you get reward for your work based on individual performance?
7. How often do you get reward for your work based on
8. The rewards match my work and satisfaction
9. There may be situation from your experience you might have realized that rewards varies depending upon team's performance
10. Do you believe the person who suggested the new idea gets rewarded in your organization?

Cross functional Team Meetings

11. How often have you participated in the cross functional team meetings conducted by the management?
12. The cross functional team meetings conducted are effective and helps to achieve our objectives
13. How often have you participated in the cross functional team meetings conducted by other providers?
14. The team meetings are conducted as per plan and in a planned duration
15. Have you got knowledge enhancement in the cross functional team meetings?

Cross Functional Conflict Resolution Process

16. When problem arose, I have access to formal Conflict resolution process?
17. Team Members help each other during care of the patients
18. There exists a conflict between care providers inside or outside the department

19. Cross functional conflict do occur in our organization because of vague communication from top level management to bottom level management.
20. To what extent do you think cross functional conflict will affect the service provided by the care providers?

Cross Functional Performance Measurement

21. What kind of relationship cross functional approach has with patient's length of stay?
22. To what extent problem solving approach improves patient's length of stay
23. How far does the cross functional team meeting carried out influences patient's length of stay?
24. How far does the cross functional rewards to the providers influences patient's length of stay?
25. How far does the cross functional conflict resolution influences patient's length of stay?
26. How far does the cross functional team work among provider's influences patient's length of stay?
27. What kind of relationship cross functional approach has with service quality?
28. To what extent problem solving approach improves service quality?
29. How far does the cross functional team meeting
30. How far does the cross functional rewards to the
31. How far does the cross functional conflict resolution influences service quality?
32. How far does the cross functional team work among providers influences service quality?

Relational Coordination

33. How frequently do you communicate with care providers within your department about the patients?
34. How frequently do you communicate with care providers outside your department about the patients?
35. Do the care providers within your department communicate with you in a timely way about the patients?
36. Do the care providers outside your department communicate with you in a timely way about the patients?
37. Do the care providers within your department communicate with you accurately about the patients?
38. Do the care providers outside your department communicate with you accurately about the patients?
39. When problems arose regarding the care of the patients, do the care providers within your department work with you to solve the problem?
40. When problems arose regarding the care of the patients, do the care providers outside your department work with you to solve the problem?
41. How much do these care providers within your department respect your role in caring for the patients?
42. How much do these care providers outside your department respect your role in caring for the patients?
43. How much do these care providers within your department share your goals for the care of the patients?
44. How much do these care providers outside your
45. How much do the care providers within your department know about your role in caring for the patients?
46. How much do the care providers outside your department know about your role in caring for the patients?

VI. CONCLUSION AND FUTURE WORK

This special issue presents a collection of papers that explore the coordination of supply chain management in health services**.** Clearly, much research work needs to be done. We have framed hypothesis for relational coordination model. The questionnaire also framed and the survey work is in progress for selected hospital around our region. All authors in this special issue emphasize the fact that supply chain management in a health care setting is characterized by some unique features, which make it difficult to transfer knowledge from the industrial sector to a health care sector in a direct way. At the same time however, it can be concluded that existing concepts, models and supply chain practices can be extended to supply chain management in health services and existing research underpins the assumption that the health sector can benefit from the lessons learned in the industrial sector. First of all, it seems to be important to further explore the role of coordination parameter can play in supporting the management and control of supply chain practices. Additionally, more research seems to be necessary to address the enablers and barriers when implementing information technology in a health service context. In the various coordination parameters used to conduct the questionnaires in the various hospitals. The complexity of the questions as well as the multidimensional scope of the problems requires knowledge from different disciplines. Hopefully, this special issue is going to be a small step towards gaining a more thorough understanding of supply chain management in health care services. Our future work is survey will be finished by using SPSS software our results will be validated

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