Enfermería Clínica

How does organizational culture influence care coordination in hospitals? A systematic review[☆]

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Abstract

Objective: This research to review the attributes of the organizational culture that may influence care coordination and to identify which organizational culture type that may enhance care coordination.

Methods: We conducted a systematic review published in Science Direct, Proquest and Scopus. The inclusion criteria were quantitative and qualitative studies with respect to organizational culture and care coordination in hospitals, published in the English language between January 2006 and July 2017. PRISMA-P 2015 checklist was utilized to analyze and report this review.

Results: 359 articles generated, 66 articles were reviewed. Our review found that organizational culture generally falls into four categories: hierarchy, clan, adhocracy, and market. Our review, furthermore, indicated that the following organizational culture attributes influenced care coordination: relationships and communication within the team, teamwork, success criteria, conflict management, and the authority and autonomy.

Conclusion: Our review suggested hospital managers adapt clan culture to improve care coordination in their hospitals.

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Introduction

Organizational culture as the personality of an organization has significant impacts not only on the performance and survival of the organization but also on the growth and welfare of its employees.[1] A key element of sustainable creation of care coordination is the prevailing culture and leadership that adheres to a value-oriented on teamwork, collaboration and best performance.[2] Care coordination, an organization of people and management resources are needed to meet the treatment needs of patients and are usually achieved through the exchange of information among the responsible parties for the care of the patients.[3] Despite organizational culture is a key element of the implementation of care coordination, there has been limited evidence that describes a clear link between cultures of the organization with the coordination of care. The objectives of

this review were: to review the attributes of the organizational culture that may influence care, and to identify which organizational culture type that may enhance care coordination.

Method

The systematic review has been conducted. We searched literature indexed in Science Direct and Scopus database. We also searched literature in Proquest. This review was obtained by keywords search related to the organization culture and care coordination. Inclusion criteria were: quantitative and qualitative studies related to organizational culture and care coordination, published in the English language between January 2006 and July 2017. We used Preferred Reporting Items for Systematic review and Meta-Analysis Protocols 2015 (PRISMA-P 2015) to report our review. The results were summarised in a table according to study titles, countries of the study, number of sample, age group, time, and results (Table 1).

Results

The original search yielded 359 articles. Of which, 293 were excluded for their inconsistencies with our study objectives. Thus, only 66 articles met the inclusion criteria and were included in this review. The attributes of organizational culture that positively influence care coordination included: relationships and communication within the team, teamwork, success criteria, conflict management, and the authority and autonomy. Types of organizational culture identified in this review were classified into hierarchy, clan, adhocracy, and market. Organizational culture was classified based on the Competing Value Framework, consisting of the dominant character attributes of the organization, types of leadership, organization and success criteria adhesive.

Care coordination

The Agency for Healthcare Research and Quality (AHRQ) defines the coordination of care as a patient care system that is deliberately created, involving more than two people consisting of patients and a team of health care providers in patient care that aims to facilitate the provision of health services appropriate to the needs of patients.[4] Patients need directions to access their treatment system.[5] Healthcare workers in hospitals affect the perception of uncertainty experienced by the patient regarding any incident related to the condition of the disease.[6] Poor coordination of care may lead to a variety of medical errors.[7,8] Good care coordination can be used to minimize complaints from patients and family about medical errors.[9] Coordination of treatment through intra-professional and inter-professional collaboration contributes to high patient satisfaction, lower intention to transfer patients to other hospital and decrease patient mortality.[10] Good care coordination minimizes the cost of care due to a long hospitalization process.[11,12] The quality care of the hospital is reflected in the way care coordination is implemented.

Inter-professional collaboration on patient care with complex diseases is an effective method to allow stable treatment process, efficient resource utilization, improved service quality, and reduced maintenance costs.[13] Utilization of health services by patients with chronic diseases depended upon patient characteristics, the presence of complications and disease patterns. Patients with complications of chronic disease will be using health facilities more often than patients with chronic illness without complications.[14]

The success of care coordination is influenced by the ease of access to information, continuity of information including the dissemination of information to prevent a repetition of medical procedures, a support system to service providers to access medical records from other profession and involvement and active presence of the service providers is needed.[15] The use of electronic information systems allows coordination of care and management of information that assists in the medical decision-making process and subsequent patient care.[16] Informational barriers can be caused by difficulties coordinating care providers to send and receive patient information electronically, time limitations between providers and employees to communicate, and the flow of complex information provision.[17]

Problems in coordination usually involve medical records or diagnostic workup and miscommunication among health care providers.[18] The cause of the failure of managerial coordination can be caused by Collaboration among service providers that are not effective; the plan to return the patients were not informed clearly and in writing to the patient; follow-up required for monitoring developments of patient's health; administration of drugs, medical procedures and laboratory tests were erroneous; and the absence of review of the treatment patients receive based on the possible risks faced by the patients.[18]

Organizational culture

Organizational culture refers to a system of shared values held by members and a differentiator with other organizations.[19] Organizational readiness for change refers to the joint decision that the organization's members felt the need to make changes and their commitment.[20] The process of change in the organization will fail when individuals, groups, and organizations are described as a passive party and should be subject to behavioral aspects context to be established, without any leeway in choosing which aspects of context that must be implemented in the organization.[21] In the implementation of the strategy expected have to pay attention to conformity with an organizational culture so that the implementation of planned strategy more effective and efficient and have a positive impact to customer satisfaction and cash flow in the company.[22] Organizational culture can inhibit or induce changes in the organization. From the employee's perspectives, organizational culture can give a sense of belonging to them and but may also lead to employees leaving the organization.[23]

A hospital is differentiated by its organizational culture. This hospital-owned culture by Cameron and Quinn[24] can be divided into four types namely: hierarchy, clans, adhocracy, and market. In practice, organizational culture is directly

Table 1 Care coordination and organizational culture.

No	Title	Author/year	Country	N	Age group	Time	Finding
1.	I'm Just a Patient: Fear and Uncertainty as Drivers of Emergency Department Use in Patients With Chronic Disease	Rising KL, Hudgins A, Reigle M, Hollander JE, Carr BG/2016	US	40	Adult		Patients identified uncertainty about the significance of their symptoms and fear as a result of this uncertainty as primary drivers for their ED visit. Their primary expectation about the visit was receiving a diagnosis and reassurance. The most prominent postdischarge need was answers about the cause of their symptoms and what to expect. Patients were concerned about ability to access follow-up services because of lack of time to navigate the system, transportation, and priority scheduling needs. Suggestions for improvement focused on contacting patients (physically or virtually) once they were home and offering them expedited outpatient evaluations. Primary limitations included enrollment of patients within a single health system and only those with certain chronic conditions, both potentially limiting generalizability
2.	Uncertainty and the Treatment Experience of Individuals With Chronic Hepatitis C.	Humberto Reinoso/2016		134	Adult		Those unique resources available to the individual in the form of their social network and health care authority figure have the greatest influence on their perception of uncertainty surrounding illness events
3.	Relationship Between Perceived Healthcare Quality And Patient Safety	Hincapie Echeverri, Ana Lucia/2013	US, Australia, Canada, France, Germany, Netherlands, New Zealand, Norway, Sweden Switzerland	19,738	Adult & older	March–June 2010	An increase in peoples' perceptions of coordination of care decreased the likelihood of self-reporting medical errors (OR = 0.605, 95% CI: 0.569–0.653), medication errors (OR = 0.754, 95% CI: 0.691–0.830), and laboratory errors (OR = 0.615, 95% CI: 0.555–0.681)
4.	Organizational predictors of coordination in inpatient medicine	McIntosh N[1], Meterko M, Burgess JF Jr, Restuccia JD, Kartha A, Kaboli P, Charns M.		36	Adult	June 2010 and September 2011	Organizational factors that were common across models and associated with better provider ratings of OCIM included provider perceptions that the goals of senior leadership are aligned with those of the inpatient service and that the facility is committed to the highest quality of patient care, having resources and staff that enable clinicians to do their jobs, and use of strategies that enhance interactions and communication among and between nurses and physicians

Table 1 (*Continued*)

No	Title	Author/year	Country	N	Age group	Time	Finding
5.	Enhanced registered nurse care coordination with sensor technology: Impact on length of stay and cost in aging in place housing	Rantz M, Lane K, Phillips LJ, Despins LA, Galambos C, Alexander GL, et al./2015	Columbia	133	Older adults	4.8 years	Residents living with sensors were able to reside at TigerPlace 1.7 years longer than residents living without sensors, suggesting that proactive use of health alerts facilitates successful aging in place. Health alerts, generated by automated algorithms interpreting environmentally embedded sensor data, may enable care coordinators to assess and intervene on health status changes earlier than is possible in the absence of sensor-generated alerts. Comparison of LOS without sensors TigerPlace (2.6 years) with the national median in residential senior housing (1.8 years) may be attributable to the RN care coordination model at TigerPlace. Cost estimates comparing cost of living at TigerPlace with the sensor technology vs. nursing home reveal potential saving of about $30,000 per person. Potential cost savings to Medicaid funded nursing home (assuming the technology and care coordination were reimbursed) are estimated to be about $87,000 per person
6.	Strategies to Reduce Hospitalizations of Children With Medical Complexity Through Complex Care: Expert Perspectives	Coller, Ryan J. Nelson, Bergen B. Klitzner, Thomas S. Saenz, Adrianna A. Shekelle, Paul G. Lerner, Carlos F. Chung, Paul J./2016	US	180	Children adult	In 2003	Intervention strategies focused on expanding access to familiar providers, enhancing general or technical caregiver knowledge and skill, creating specific and proactive crisis or contingency plans, as well as improving transitions between hospital and home. Activities aimed to facilitate family-centered, flexible implementation and consideration of all of the child's environments, including school and while traveling. Tailored activities and special attention to the highest utilizing subset of CMC were also critical for these interventions
7.	Competing health care systems and complex patients: An inter-professional collaboration to improve outcomes and reduce health care costs	Hardin L, Kilian A, Spykerman K/2017	US		Adult	12 months	A decrease in average ED visits by 28%, IP admissions by 50%, LOS by 49%, and CT scans by 67%. Of note, the population of 19 patients had 396 hospital visits (ED/IP/OP) in the 12 months prior to intervention. CT scans are specifically called-out in the results section as the risk for over-testing in the population is high due to frequent healthcare access

Table 1 (*Continued*)

No	Title	Author/year	Country	*N*	Age group	Time	Finding
8.	Health care utilization of patients with multiple chronic diseases in the Netherlands	Hopman P, Heins MJ, Korevaar JC, Rijken M, Schellevis FG/2016	Netherlands	54,051	Adult	2010–2015	Multimorbid patients (37% of all patients) had more GP contacts, prescribed medications, and hospital admissions (all $p < .0001$) than patients with a single chronic disease. The largest cluster of multimorbid patients (57%) had a relatively low level of health care utilization, a smaller cluster (36%) had higher levels of health care utilization, and 7.6% of patients were heavy health care users ($p < .0001$ for all variables). The latter were older, more often female, had a lower income, lived in a smaller household, had more chronic diseases, and more often had specific chronic diseases such as COPD, diabetes and heart failure
9.	Unlocking information for coordination of care in Australia: a qualitative study of information continuity in four primary health care models	Banfield M, Gardner K, McRae I, Gillespie J, Wells R, Yen L./2013	Australia	17 participants	Adult		The overall picture that emerged across all four cases was that whilst accessibility and continuity of information underpin effective care, they are not sufficient for coordination of care for complex conditions. Shared information reduced unnecessary repetition and provided health professionals with the opportunity to access records of care from other providers, but participants described their role in coordination in terms of the active involvement of a person in care rather than the passive availability of information. Complex issues regarding data ownership and confidentiality often hampered information sharing. Successful coordination in each case was associated with responsiveness to local rather than system level factors
10.	Are electronic medical records helpful for care coordination? Experiences of physician practices	O'Malley AS, Grossman JM, Cohen GR, Kemper NM, Pham HH/2010		80 participants	Adult		Six major themes emerged: (1) EMRs facilitate within-office care coordination, chiefly by providing access to data during patient encounters and through electronic messaging; (2) EMRs are less able to support coordination between clinicians and settings, in part due to their design and a lack of standardization of key data elements required for information exchange; (3) managing information overflow from EMRs is a challenge for clinicians; (4) clinicians believe current EMRs cannot adequately capture the medical decision-making process and future care plans to support coordination; (5) realizing EMRs' potential for facilitating coordination requires evolution of practice operational processes; (6) current fee-for-service reimbursement encourages EMR use for documentation of billable events (office visits, procedures) and not of care coordination
11.	Meaningful use care coordination criteria: Perceived barriers and benefits among primary care providers	Cohen GR, Adler-Milstein J/2016	US	328	Adult	October 2013–March 2014	The top three barriers, as identified by >65% of the primary care providers surveyed, were difficulty sending and receiving patient information electronically, a lack of provider and practice staff time, and the complex workflow changes required. Despite these barriers, primary care providers expressed strong agreement that meeting the proposed Stage 3 care coordination criteria would improve their patients' treatment and ensure they know about their patients' visits to other providers

Table 1 (*Continued*)

No	Title	Author/year	Country	N	Age group	Time	Finding
12.	The Influence of Corporate Culture on Employee Commitment to the Organization	Nongo ES, Ikyanyon DN/2012	Nigeria	134	Adult		The result of the Pearson correlation between independent variables (involvement, consistency, adaptability, and mission) and the dependent variable (employee commitment) presented in table 1 shows a significant and positive relationship between involvement and commitment ($r = .179$, $p < .05$). The relationship between consistency and commitment was however not significant but positive ($r = .050$, $p > .05$). There was a significant and positive relationship between adaptability and commitment ($r = .233$, $p < .01$), while the relationship between mission and commitment was not significant and negative ($r = -050$, $p > .05$)
13.	Burnout, engagement, and organizational culture: Differences between physicians and nurses	Mijakoski D, Karadzinska-Bislimovska J, Basarovska V, Montgomery A, Panagopoulou E, Stoleski S, et al./2015	Macedonia	286	Adult	November–December 2011	Higher scores of dedication, hierarchy OC, and organizational work demands were found in physicians. Nurses demonstrated higher scores of clan OC. Burnout negatively correlated with clan and market OC in physicians and nurses. Job engagement positively correlated with clan and market OC in nurses. Different work demands were related to different dimensions of burnout and/or job engagement
14.	Competing Values Framework: A useful tool to define the predominant culture in a maternity setting in Australia	Adams C, Dawson A, Foureur M/2016	Australia	120	Adult	4-week	Of the 120 surveys distributed 31 were returned (25.8%). Four of the 20 Obstetricians (20%) responded and 27 of the midwives (27%). The largest group of participants were clinical midwives (71%). The majority of the participants had been working within the organisation for 1–5 years (42%) and were aged between 40 and 50 years. The survey respondents described the predominant culture of their organisation as one of Hierarchy with a focus on Market (Fig. 2). They identified that the prevalence of teamwork and collaboration was low and of even less prevalence was a culture that encouraged innovation and flexibility. Respondents expressed their preference for a culture that was different to the current one, with a preference for a Clan culture and an increase in Adhocracy with less control, regulation and less focus on outputs
15.	Relationship between Organizational Culture and Workplace Bullying among Korean Nurses	An Y, Kang J/2016	South Korea	298 hospital	Adult	July 1 through August 15, 2014	Most participants considered their organizational culture as hierarchy-oriented (45.5%), followed by relation-oriented (36.0%), innovation-oriented (10.4%), and task-oriented (8.1%). According to the operational bullying criteria, the prevalence of workplace bullying was 15.8%. A multivariate logistic regression analysis revealed that the odds of being a victim of bullying were 2.58 times as high among nurses in a hierarchy-oriented culture as among nurses in a relation-oriented culture [95% confidence interval (1.12, 5.94)]

Table 1 (*Continued*)

No	Title	Author/year	Country	N	Age group	Time	Finding
16.	Competing Values Framework and its impact on the intellectual capital dimensions: evidence from different Portuguese organizational sectors	Ferreira AI./2014	Portugal	401	Adult	March–October 2011	Competing Values Framework dimensions (clan, adhocracy, hierarchy and market cultures) are correlated with the three IC dimensions studied (customer, structural and human capital). Our results also show that the culture explained variance varies across organizational sectors. The current study provides an initial contribution to the investigation of the correlation between perceived organizational culture and IC measures
17.	Quality from the patient's perspective: A one-year trial	L. J/2012	Sweden	138	Adult	36 months	The study group showed an increased satisfaction with information from nurses ($p = 0.001$) but not physicians. However, patients tended to put greater emphasis on socio-cultural issues than information and cooperation seemed to represent high quality from the patient's perspective
18.	Significance Of Organizational Culture In Perceived Project And Business Performance	Yazici HJ/2011	US	400	Adult		Clan or group culture in improving performance as measured by project time, budget targets, and customer expectations. Clan culture was also found to significantly contribute to an organization's business performance. Cost savings, sales growth, and increased competitiveness were found to be associated with Clan or group culture
19.	Antecedents and consequences of psychological contracts: Does organizational culture really matter?	Richard OC, McMillan-Capehart A, Bhuian SN, Taylor EC/2009	US	200	Adult		Clan cultures positively impact relational contracts and are negatively associated with transactional contracts, hierarchical cultures have the reverse effect. In addition, psychological contract types mediate the two culture types' relationship to both organizational commitment and employee yearly earnings. In sum, clan cultures relate to more positive organizational outcomes than hierarchical cultures
20.	Transformational Leadership, Organizational Clan Culture, Organizational Affective Commitment, and Organizational Citizenship Behavior: A Case of South Korea's Public Sector	Kim H/2014	South Korea	202	Adult	8 weeks	The results of this study indicate a positive relationship between transformational leadership and clan culture as well as between transformational leadership and affective commitment; no significant relationship between clan culture and organizational citizenship behavior as well as between transformational leadership and organizational citizenship behavior; and a significant positive relationship between affective commitment and organizational citizenship behavior as well as between clan culture and affective commitment. Thus, the results clearly show that affective commitment fully mediates the relationship between clan culture and organizational citizenship behavior and that clan culture partially mediates the relationship between transformational leadership and affective commitment. Theoretical and practical implications of these findings as well as interesting avenues for future research are discussed

Table 1 (*Continued*)

No	Title	Author/year	Country	N	Age group	Time	Finding
21.	Perceptions of organizational culture, leadership effectiveness and personal effectiveness across six countries	Kwantes CT, Boglarsky CA/2007	Canada, Hong Kong, New Zealand, South Africa, the United Kingdom, and the United States	3275	Adult		Organizational culture was strongly perceived as being related to both leadership effectiveness (explaining 40% of the variance) and personal effectiveness (24% of the variance). Aspects of organizational culture that promote employee fulfillment and satisfaction were uniformly viewed as positively related to leadership and personal effectiveness. The perceived relationship across samples was stronger between organizational culture and leadership effectiveness than between organizational culture and personal effectiveness
22.	The influence of organic organizational cultures, market responsiveness, and product strategy on firm performance in an emerging market	Wei Y (Susan), Samiee S, Lee RP/2014	China	3960	Adult	2 years	Our results support the proposed model and demonstrate that organic cultures impact market responsiveness, while confirming the critical roles of market responsiveness and product strategy change in producing superior performance
23.	Effect of organizational culture on delay in construction	Arditi D, Nayak S, Damci A/2014	US & India	400	Adult		The results of this study show that construction organizations in the U.S. are dominated by ''clan'' culture whereas those in India are dominated by ''market'' culture
24.	Improving Employees' Interpersonal Communication Competencies: A Qualitative Study	Hynes GE/2012	US	238	Adult	2 years	Three apparent implications of this research are relevant to business communication professionals: (a) analysis of real business examples is a valuable classroom activity, (2) students need to recognize the role of daily workplace interactions in productivity and job satisfaction, and (3) companies benefit from the consulting services of subject matter experts in business communication
25.	The relationship between organizational culture of nursing staff and quality of care for residents with dementia: Questionnaire surveys and systematic observations in nursing homes	van Beek APA, Gerritsen DL/2010	Dutch nursing	248	Adult	November 2006–January 2007	Organizational culture was related to both perceived and observed quality of careon the units. Units that are characterized by a clan culture provide better quality of care, both in the eyes of the nursing staff as in the eyes of outsiders. Market culture, compared to clan culture, is negatively related to quality of care in this sample

Table 1 (*Continued*)

No	Title	Author/year	Country	N	Age group	Time	Finding
26.	Strengthening the Coordination of Pediatric Mental Health and Medical Care: Piloting a Collaborative Model for Freestanding Practices	Greene CA, Ford JD, Ward-Zimmerman B, Honigfeld L, Pidano AE/2016		96	Adult		Participating practitioners' survey and interview responses indicate that the quantity and quality of communication between pediatric mental and medical health care providers increased post-project, as did satisfaction with overall collaboration
27.	Promoting patient care: Work engagement as a mediator between ward service climate and patient-centred care	Abdelhadi N, Drach-Zahavy A/2012	Israel.	158	Adult	2009	The findings supported our model: service climate proved a link to nurses' work engagement and patient-centred care behaviours. Nurses' work engagement mediated the service-climate patient-centred care behaviours
28.	Relational coordination among nurses and other providers: Impact on the quality of patient care	Havens DS, Vasey J, Gittell JH, Lin WT/2010		747	Adult		In all analyses, relational coordination between nurses and other providers was significantly related to overall quality, in the expected directions. As relational coordination increased, nurses reported decreases in adverse events such as hospital-acquired infections and medication errors
29.	knowledge of the professional role of others: A key interprofessional competency	MacDonald MB, Bally JM, Ferguson LM, Lee Murray B, Fowler-Kerry SE, Anonson JMS/2010					Six key competencies of interprofessional collaborative practice for patient-centred care: communication; strength in one's professional role; knowledge of professional role of others; leadership; team function; and negotiation for conflict resolution
30.	Interdisciplinary communication and collaboration among physicians, nurses, and unlicensed assistive personnel	Lancaster G, Kolakowsky-Hayner S, Kovacich J, Greer-Williams N/2015					The study suggests that most of the time physicians, nurses, and UAPs operate as separate healthcare providers who barely speak to each other. Physicians see themselves as the primary patient care decision makers. Many physicians acknowledge the importance of nurses' knowledge and expertise. On the other hand, the study indicates a hierarchical, subservient relationship among nurses and UAPs. Physicians and nurses tend to work together or consult each other at times, but UAPs are rarely included in any type of meaningful patient discussion

Table 1 (*Continued*)

No	Title	Author/year	Country	N	Age group	Time	Finding
31.	Patient-Centered Cancer Communication and Care Coordination Research in the Cancer Communication Research Center (45)	Mazor K/2013			Four years		Patients, clinicians and clinical leaders have all expressed support for nurse navigators in oncology care efforts to improve communication and care coordination, acknowledging the importance of communication in cancer care
32.	Interprofessional conflict and medical errors: results of a national multi-specialty survey of hospital residents in the US	Baldwin DC, Daugherty SR/2008	US	6106	Adult	1999	Just over 20% (*n* = 722) reported ''rious conflict'' ith another staff member. Ten percent involved another resident, 8.3% supervisory faculty, and 8.9% nursing staff. Of the 2813 residents reporting no conflict with other professional colleagues, 669, or 23.8%, recorded having made an SME, with 3.4% APOs. By contrast, the 523 residents who reported conflict with at least one other professional had 36.4% SMEs and 8.3% APOs. For the 187 reporting conflict with two or more other professionals, the SME rate was 51%, with 16% APOs. The empirical association between interprofessional conflict and medical errors is both alarming and intriguing, although the exact nature of this relationship cannot currently be determined from these data
33.	Model of awareness to enhance our understanding of interprofessional collaborative care delivery and health information system design to support it	Kuziemsky CE, Varpio L/2011		30	Adult		Many of the macro-level activities (e.g. morning rounds, shift change) were constituted by micro-level activities that involved different types of awareness. We identified four primary types of ICC awareness: patient, team member, decision making, and environment. Each type of awareness is discussed and supported by study data. We also discuss implication of our findings for enhanced design of existing HISs as well as providing insight on how HISs could be better designed to support ICC awareness
34.	Predicting Caregiver Satisfaction with Provider Communication from Care Coordination	Buzenski JM/2015		149 Health Adminis-tration, 3329 patients	Adult	2011–2012,	Intrateam communication and patient-provider communication were independently associated with patients' satisfaction with their PCPs. Patient-provider communication mediated 56% of the association between intrateam communication and patient satisfaction. Better intrateam communication combined with better patient-provider communication predicted high satisfaction (81%), compared with poor intrateam communication and poor patient-provider communication (22%)
35.	Role of care pathways in interprofessional teamwork	Scaria MK/2016					This article explores the role of care pathways in improving interprofessional teamwork. Care pathways enhance teamwork by promoting coordination, collaboration, communication and decision making to achieve optimal healthcare outcomes. They result in improved staff knowledge, communication, documentation and interprofessional relations. Care pathways also contribute to patient-centred care and increase patient satisfaction

Table 1 (*Continued*)

No	Title	Author/year	Country	N	Age group	Time	Finding
36.	The importance of multidisciplinary teamwork and team climate for relational coordination among teams delivering care to older patients	Hartgerink JM, Cramm JM, Bakker TJEM, Van Eijsden AM, Mackenbach JP, Nieboer AP/2014		192	Adult	2010	Correlation analysis revealed a positive relationship among being female, being a nurse and relational coordination; medical specialists showed a negative relationship. The number of disciplines represented during multidisciplinary team meetings and team climate were positively related with relational coordination. The multilevel analysis showed a positive relationship between the number of disciplines represented during multidisciplinary team meetings and team climate with relational coordination
37.	Understanding interprofessional collaboration in the context of chronic disease management for older adults living in communities: A concept analysis	Bookey-Bassett S, Markle-Reid M, Mckey CA, Akhtar-Danesh N/2016					Attributes included: an evolving interpersonal process; shared goals, decision-making and care planning; interdependence; effective and frequent communication; evaluation of team processes; involving older adults and family members in the team; and diverse and flexible team membership. Antecedents comprised: role awareness; interprofessional education; trust between team members; belief that interprofessional collaboration improves care; and organizational support. Consequences included impacts on team composition and function, care planning processes and providers' knowledge, confidence and job satisfaction
38.	Ten principles of good interdisciplinary team work	Nancarrow S, Booth A, Ariss S, Smith T, Enderby P, Roots A/2013	UK	253	Adult		Ten characteristics underpinning effective interdisciplinary team work were identified: positive leadership and management attributes; communication strategies and structures; personal rewards, training and development; appropriate resources and procedures; appropriate skill mix; supportive team climate; individual characteristics that support interdisciplinary team work; clarity of vision; quality and outcomes of care; and respecting and understanding roles
39.	How personal and standardized coordination impact implementation of integrated care	Benzer JK, Cramer IE, Burgess JF, Mohr DC, Sullivan JL, Charns MP/2015		30 clinic leaders and 35 front-line staff	Adult	August 2009	Interviews identified antecedents of organizational coordination processes, and highlighted how these antecedents can impact the implementation of integrated care. Overall, implementing new workflow practices were reported to create conflicts with pre-existing standardized coordination processes. Personal coordination (i.e., interpersonal communication processes) between primary care leaders and staff was reported to be effective in overcoming these barriers both by working around standardized coordination barriers and modifying standardized procedures

Table 1 (*Continued*)

No	Title	Author/year	Country	N	Age group	Time	Finding
40.	Collaboration processes and perceived effectiveness of integrated care projects in primary care: a longitudinal mixed-methods study	Valentijn PP, Ruwaard D, Vrijhoef HJM, de Bont A, Arends RY, Bruijnzeels MA/2015	Netherlands	42	Adult		The ICPs were classified into three subgroups with: 'United Integration Perspectives (UIP)', 'Disunited Integration Perspectives (DIP)' and 'Professional-oriented Integration Perspectives (PIP)'. ICPs within the UIP subgroup made the strongest increase in trust-based (mutual gains and relationship dynamics) as well as control-based (organisational dynamics and process management) collaboration processes and had the highest overall effectiveness rates. On the other hand, ICPs with the DIP subgroup decreased on collaboration processes and had the lowest overall effectiveness rates. ICPs within the PIP subgroup increased in control-based collaboration processes (organisational dynamics and process management) and had the highest effectiveness rates at the professional level
41.	Prevalence and Factors of Intensive Care Unit Conflicts: The Conflicus Study	Smith BJ, Rajput VK/2011		7498	Adult	One-day	Over 70% of ICU workers reported perceived conflicts, which were often considered severe and were significantly associated with job strain. Workload, inadequate communication, and end-of-life care emerged as important potential targets for improvement
42.	Primary care managers' perceptions of their capability in providing care planning to patients with complex needs	Larsson LG, Bäck-Pettersson S, Kylén S, Marklund B, Carlström E/2017	Sweden	18	Adult		Results reveal that the managers' approach to care planning was dominated by non-cooperation and separation. The managers were permeated by uncertainty about the meaning of the task of care planning as such. They did not seem to be familiar with the national legislation stipulating that every healthcare provider must meet patients' need for care interventions and participate in the care planning

related to the survival of the hospital organization. Research shows that burnout does not happen to nurses and doctors who work in organizations with clan culture and market, otherwise positively correlated with the involvement of nurses and doctors in their work.[25] Treatment unit which has a dominant culture focused on regulatory hierarchy and less focus on innovation, flexibility, and teamwork.[26] True understanding of the culture of the organization will assist in the implementation of the strategy.

Competing framework value that developed by Cameron and Quinn has two dimensions.[24] The first dimension distinguishes a focus on flexibility, authority and dynamic focus on stability, command, and control. The second dimension differentiates focus on internal orientation, integration, and unity of focus on external orientation, product differentiation and competition. Both of these dimensions are then translated into four quadrants culture that describes the type of culture and difference indicator of the effectiveness of every type of culture.[24]

Hierarchical culture

In hierarchical culture, the workplace is formal and structured. There are standard procedures that define how work should be performed. Organization leader appeared as coordinator and expert organization that promotes the effectiveness and keep the rhythm of work in the organization running smoothly. The success of the cultural perspective hierarchy that is if the organization can produce the goods/services that are reliable, routine work smoothly and low cost. The safety of employees is also highly considered in this cultural form and predictability. The leader acts as the coordinator who monitors and manage the organization. The driving value in the organization is efficiency, timeliness, consistency, and uniformity.[24] A study conducted involving 298 nurses in Busan, South Korea contrary to the opinion of Cameron and Quinn,[24] states that in hierarchical culture, the security for the employees is concerned. This studies found that nurses working in a hierarchical culture are likely to be victims of bullying 2.58 times higher than nurses working in a relationship-oriented culture [CI 95%].[27] In health sector, the cultural capital of the hierarchy and the customer shows a positive correlation [$\beta = 0.397$, $P < 0.01$].[28] Formal rules and policies in the hospital are reflected from various guidelines that must be implemented for the safety of the patients.[29] The patients' perspective also has become a focus in determining the quality of care with the aim to measure patient satisfaction.[30]

Clan culture

Clan culture is a form of organizational culture that creates a comfortable work area, the people within the organization are comfortable sharing patient's essential information, the leader is seen as a mentor that is often associated as a parent. Organizations are focusing on long-term benefits from the development of employees in the organization and maintain cohesion and morale in the organization. The organization is a success based on sensitivity and concern for the needs of customers and employees. In this type of culture, the main concern lies priority on teamwork, participation, and consensus of all parties together.[24] Clan culture creates a work environment that is high-performing teams and cohesive.[31] Clan culture positively affects relational contracts and negatively associated with the transactional contract, hierarchical culture has the opposite effect.[32] Transformational leadership has a positive relationship with the culture clan culture has no relationship with organizational citizenship behavior.[33] A perceived stronger relationship between organizational culture and leadership effectiveness than between organizational culture and personal effectiveness.[34] Clan culture can make the company more responsive.[35] Delay project implementation is also relatively lower in the company which is dominated by the clan culture.[36] Clan culture in the health sector, including one type of culture that has a relationship with the customer capital [$\beta = 0.241$, $P < 0.05$].[29] Patient safety culture built on mutual respect and support, teamwork, open communication.[37] The ward characterized by clan culture provides a better quality of care, both in the eyes of nurses and patients.[38]

Adhocracy culture

Adhocracy culture is characterized by a dynamic workplace, entrepreneurship and creative. The staff are have to courage responsible and willing to take risks. The focus of the organization long-term emphasis on growth and the search for new organizational resources. Leaders of the organization role as an innovator, entrepreneur and visionary. The driving value in the organization that produces innovative products and services as well as the process of transformation and sustainable change. The organization is said to be effective if it has the innovation, vision and new resources that make the organization more effective. The strategy used to improve quality is to create new standards, see the needs of the market, make improvements on an ongoing basis to find creative solutions.[26]

Market culture

A market culture characterized by a results orientation, the main concern lies in how to complete the task. People in the organization are competing for degan orientation of each target. Leaders in the organization act as a driver of the men in the team achieve a pleasant, productive and competitive. The leaders are very firm and demanding. Adhesives in the organization, namely the desire to win the competition. The primary concern is the culture in competitive action and achieve the objectives and targets set. The success of an organization is defined by section and made market penetration with resultant reflected competitive price and the organization's position as a market leader. The style of this organizational culture in competitive and the demands for the people in it to excel. The strategy used is to measure the quality of the customer desires, promote productivity, build partnerships with external parties, creating a sense of competition and involving customers and suppliers to participate in the organization.[26]

Relations with organizational culture care coordination

An effort to build relationships and communication within the patient care team is the foundation which supports the creation of effective coordination of care.[39] Ward care services have a significant effect on the behavior of nurses in implementing patient-centered care and positive motivation to perform their job at best.[40] The relationship created between nurses and other health care providers is significantly related to the quality of patient care as a decrease in the incidence of unexpected and one drug.[41] To create a good inter-professional relationship, each care service provider is expected to show behavior that understanding the role of each profession in the team.[42] Inter-professional relations assist in communication between professions when carrying out coordination of care that benefits patients and the care team. Most of the time doctors and nurses used to work as separate health care providers who barely spoke to one another; even doctors still see themselves as the primary decision makers of patient care.[43] Patient-centered communication determines the quality of patient care.[44] Continuous communication between the caregiver and participation in clinical decision making (intra-professional and inter-professional), is required to ensure that patients receive care from the right person at the right time and to avoid gaps in care and duplication of procedures.[45] Most of the information about the patient's condition, treatment plan, treatment objectives and decision-making related to patient care informally documented, causing disruption and difficulties of communication.[46] Communication enables ease of access to the patient's personal health data to help improve patient involvement and understanding of health care providers about the condition of the patient so that the patient can get a better experience of care.[47] For families with children who suffer from chronic diseases who are involved in care, coordination predicted 87% feel more satisfied in terms of communication with the service provider than those not involved in the coordination of care.[48]

Deneckere et al defines a team working in the hospital as a dynamic process, involving two or more health professionals with different backgrounds and skills, have a common goal and together assess, plan and evaluate the condition of the patients.[49] Working in teams must involve an element of respect, trust, shared decision making, and working as a partner.[50] Teamwork consisting of a number of health professions has a positive relationship with the work climate and coordination of care.[51] The main characteristics that must be owned by the treatment team in carrying out inter-professional collaboration is willingness to build interpersonal relationships within the team, having the same vision and common goals that bind, mutual need between members of the team, evaluation on team performance, involvement of the patient's family within the team as well as the presence of diverse and flexible team members.[52] Moreover, to achieve effective collaborative care, similar mindset and the same perspective on the integration of treatment of all members of the team involved in the care of patients are required.[53] The underlying characteristics of an effective interdisciplinary team work is positive leadership and management elements; strategy and communication structures; awards, training and personal development; resources and the proper procedures; the right skills; supportive team climate; supporting individual characteristics; interdisciplinary team work; clarity of vision; quality of care and patient's outcomes; and respect and understanding on the role of each team member.[54]

Strong nursing leadership, proactive attitude, and utilization of broad perspective does not change the form of coordination of care but ensure coordination of care in the design, styled, replicated and can be measured.[55] According to Bower[55] several measures should be conducted in implementing a leadership role for nurse care coordinators, namely: (1) Describe the purpose and meaning of the coordination of ongoing care to all members of the team; (2) Identify the characteristics and priority element of care coordination for patients in order to obtain the best possible care in accordance with the ability of the hospital. (3) Coordinate effective and sustainable care which requires active participation from all the service providers, processes, and tools to meet the needs of patients and families are diverse and in accordance with organizational goals. (4) Establish a design that accommodates a coordination of care on every shift guard or visiting patients.

The involvement of all team members in the coordination of care requires leadership skills so that value can be adopted, and care coordination would be directed to achieve the treatment goal.[56] Obstacles in the coordination of care can be handled with personal coordination between team leaders and members.[57] The ability to achieve maximum treatment result most likely to be achieved if it is perceived to create collaboration among caregivers of patients.[58] The presence of basic data (metadata) needed to dig other important information in the treatment team has a significant impact on the perception of the effectiveness of the process share knowledge within a team.[59]

The interprofessional team can be a source of conflict in the hospital due to high personal stress, lack of sleep, working hours, and the perception of inadequate supervision.[45] In a survey of 7498 Intensive Care Unit (ICU) staff, the most common conflict arising is the nurse-doctor conflicts (32.6%), followed by conflicts among nurses (27.3%) and conflicts between employees – patient or family (26.6%). The conflict adversely affects team dynamics (92%), relationship with the patient's family (75%), negative impact on the quality of care (70%), patient's outcome (44%), and finally patient's and employee's satisfaction.[60] The conflict affects patient's perception, potentially increases emotional distress of the family and also increases maintenance costs.[61]

To address the conflict, one needs to understand the cycle of conflicts, which determine the type of conflict resolution strategy will be used. The type of conflict resolution that can be used to resolve the conflict, namely: avoidance/denial, reconciliation, competition and accommodation.[62] According to Ruble and Thomas, one of the inter-professional behavioral models can be used for conflict resolution is the one that promotes collaboration with cooperative and assertive nature.[63] A sense of respect and mutual trust among the team members increased when the entire profession of care providers understands the roles and responsibilities based on cultural and moral values in the workplace.[64] The approach used by managers in planning

treatment still largely non-collaborative and apart, the condition is caused by the uncertainty of the job description in planning patient care.[65]

Discussions

Aggregation paper

Relationships and communication within the team
Review results indicate efforts to build relationships and communication within the patient care team is a strong base that supports the creation of effective care coordination. In order to create a good relationship and communication, a positive work climate is required. The service provider also needs to understand the role of each profession within the team as well as the available patterns of patient-centered communication. Care coordination in the implementation of the transition requires changes in patterns of care. Patient care with a physician-centered culture which is influenced by a strong subculture of doctors is expected to be converted into a more patient-centered care.

Team work coordination
Treatment involves two or more health professionals with different backgrounds and skills. Results of the review showed that team work consisting of a number of different health professions have a positive relationship with the work climate and coordination of care.[51] Team work can be created using a multidisciplinary approach if there is a common purpose, to work as a team that involve an element of respect, trust, shared decision making, and attitude to work as partners. The main characteristics that must be owned by the treatment team in carrying out cooperation inter-professional that their efforts to build interpersonal relationships within the team, to have the same vision and common goals, mutual interests among the team members, evaluation process of team performance, involvement the patient's family within the team as well as the presence of team members who are diverse and flexible, with positive leadership, supportive climate in the team (supporting individual characteristics).

Criteria for success
Success care coordination can be achieved when all team members involved and contributed. In this process, leadership skills are required to embed the value of coordination of care and direct and motivate team member to achieve treatment goals. Care coordination team is successful when it creates continuity of patient care and availability of patient's data development in accordance with patient's health progress.

Based on a review of conflict management
It was found that source of conflict in the hospital is usually caused by high personal stress, lack of sleep, long working hours, and the perception of inadequate supervision. In a survey of 7498 members of Intensive care unit (ICU) staff, the most common conflict found is the conflict between the nurse – the doctor (32.6%), followed by conflicts among nurses (27.3%) and the conflict between employees – the patient or family (26.6%). The conflict adversely affected the dynamics of the team (92%), the relationship with the patient's family (75%), have a negative impact on the quality of care (70%). A good understanding of the cycle of conflicts can address the conflict and determine the type of conflict resolution strategy that will be used. According to Ruble and Thomas (1976), one of the models of behavior inter-professional to perform conflict resolution is the one that promotes the collaboration with cooperative and assertive nature.[64] Cooperative and assertive nature can serve cultural value so that it can act as the glue when coordinating a multidisciplinary care team.

Authority and autonomy
Each patient-care team members require authority and autonomy. A sense of respect for authority and autonomy and mutual trust among the team members increased when the entire profession of care providers understand the roles and responsibilities of each based on cultural and moral values in the workplace. A separate non-collaborative approach used by managers of care in treatment planning is largely due to the uncertainty of the job description. Based on the results of the review, the type of organizational culture clan is in accordance with the implementation of effective care coordination. Clan culture is one form of organizational culture that creates a comfortable work area, the profession within the organization can share patient's personal information, the leader is seen as a mentor that is often associated as a parent. Organizations bound by a sense of loyalty that made the tradition that gave birth to the high sense of commitment to the organization. Organizations are focusing on long-term benefits from the development of employees in the organization and maintain cohesion and morale in the organization. Organization's success is measured based on its responsiveness and concern for the needs of customers and employees. In this type of culture, the main concern lies priority on teamwork, participation, and consensus of all parties together.[26] Clan culture creates high-performing teams and cohesive work environment.[31] Transformational leadership has a positive relationship with the clan culture.[33] Patient safety culture can be built based on mutual respect, teamwork, open communication and mutual support.[37] In addition, the treatment unit characterized by clan culture provides a better quality of care, both in the eyes of the employees of nursing as an outsider.[38]

Relationships and communication within the team, team work, success criteria, conflict management as well as the authority and autonomy of care coordination are attributes that are influenced by the culture of the organization. In order to maximize the effectiveness of coordination of care, organizational culture is required. The type the organizational culture that supports the implementation of care coordination is clan culture. Hospital managers need to build the organizational culture that may enhance the relationships and communication among their staffs, improve teamwork, determine success criteria, implement conflict management, and provide clear authority and autonomy for their organizational members. In addition, our review suggested hospital managers to consider adapting clan culture for enhancing care coordination in their organization.

Conflict of interests

The authors declare no conflict of interest.

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