# **Bond University**

# Australian Journal of Clinical Education

Volume 4 Issue 1

2018

Conflict Coaching in Complex Adaptive Healthcare Systems: Conflict Resolution or Transformation?

Benjamin Freedman
AboutResolution

Follow this and additional works at: <a href="https://ajce.scholasticahq.com/">https://ajce.scholasticahq.com/</a>



This work is licensed under a <u>Creative Commons Attribution-Noncommercial-No Derivative</u> Works 4.0 Licence.

Benjamin Freedman\*

\_

<sup>\*</sup> Founder, 'AboutResolution' – Healthcare Mediation and Negotiation. www.aboutresolution.com.au.

#### Abstract

Coaching has emerged as an important development activity in the clinical education landscape. Simultaneously, dispute resolution practitioners have embraced 'conflict coaching', a one-to-one conflict problem solving process aimed at enhancing the coachee's conflict management capability. This paper examines the differences between popular conflict coaching models and considers their application in the clinical skills development environment within complex adaptive healthcare systems. The ontology and epistemology of five conflict coaching methods are compared to highlight the influence of solutions-focussed and transformative traditions. A case study on the application of coaching in a complex healthcare system (using patient flow between an Emergency Department and an Intensive Care Unit), demonstrates the importance of adopting a coaching technique which is translatable to the coachee's practice environment. Implications for practice and opportunities for further development of transformative conflict coaching methods for complex healthcare environments are discussed.

#### I Introduction

'Conflict Coaching' has emerged as an important field of conflict resolution practice over the past two decades, and involves a coach working with a coachee to improve conflict understanding, strategies and skills. While there have been positively evaluated initiatives to train nurse leaders in conflict coaching (Brinkert, 2011), focused conflict skills development in healthcare usually occurs within broader deliberate practice, simulation, supervision and mentoring activities. Yet the need for healthcare leaders and clinical coaches to have a cohesive approach to conflict skills development is clearly demonstrated in the literature. Workplace conflict in healthcare is a pervasive, complex and multifaceted phenomenon with important consequences for practitioner health and wellbeing, team functioning, and patient safety. Conflict among healthcare teams has been associated with higher levels of emotional exhaustion (Guidroz, Wang, & Perez, 2012), practitioner burnout and turn-over (Glasberg, Norberg, & Söderberg, 2007), reduced job satisfaction (Kaitelidou et al., 2012), increased workplace stress (Stecker & Stecker, 2014), and perhaps most importantly, poorer outcomes for patients (Jones & Jones, 2011).

This paper will explore the key considerations for the healthcare leader or clinical coach adding conflict coaching to their skills development repertoire. It focuses on the selection of a conflict coaching model which translates well to the complexity, unpredictability and function of conflict in interdisciplinary healthcare workplaces. Five existing conflict coaching models from solutions-focused and transformative traditions are evaluated for translation into complex healthcare environments.

## II Background: Conflict Resolution or Transformation?

There is a natural tendency among conflict coaches and coachees to aim for the resolution and elimination of immediate conflict issues, often ignoring enduring or structural aspects of conflict (Mayer, 2009). Indeed, the elimination and prevention of conflict can be an intuitive and effective goal, offering a clearly defined endpoint to which the coach and coachee can align their efforts. However, the extent to which a conflict issue is amenable to resolution or prevention is often dependant on the level of complexity in the environment. Resolution or prevention of conflict is more achievable in an environment where the conflict issue can be isolated from other interpersonal dynamics and events, where the conflict can be sufficiently deconstructed and mapped within the coaching intervention, and where the coachee's environment is such that they can make decisions or actions which have a predictable and lineal effect (Andrade et al., 2008).

Increasingly, healthcare systems are becoming known for the opposite; their complexity, unpredictability, non-lineal interdependent relationships between wards or units, and emergent rather than resultant outcomes. Such organisations are known as 'complex adaptive healthcare systems' (McDaniel et al., 2009). Often, the natural inclination to aim for the elimination of conflict in these complex adaptive systems is problematic if not futile, as conflict is inherent in the complexity of the environment. However, working in complex environments presents both coach and coachee an opportunity to consider alternatives to resolution, such as conflict engagement and conflict transformation (Dickinson, 2011). Orienting a conflict coaching process from one of resolution or elimination to one of management or transformation is reflected in the approach and techniques used by the coach, and the assumptions underpinning the coaching model. This paper will explore the way in which distinct conflict coaching models influence orientation towards resolution or transformation, and whether one model provides a better 'fit' for clinical coaches or health care leaders addressing conflict in complex adaptive healthcare systems.

# **III Why Orientation Matters in Conflict Coaching**

Deciding whether the goal is conflict resolution, management or transformation is an important part of planning and preparation for coaching, as this decision will have a flow on effect for the coaching style, strategy and tactics. While the choice of resolution versus management appears

in negotiation and mediation literature (Lewicki et al., 2015), such decision making appears less prominently in the conflict coaching literature. This reflects a gap because with only one party present in coaching, selection of orientation depends on a nuanced understanding of the coachee within their context. For clients who operate in complex systems where conflict is enduring, ongoing and not amenable to elimination, an orientation towards engagement or transformation may be more appropriate than resolution. Like mediation, various models of conflict coaching have emerged over the past two decades, each with distinct structures and traditions that influence the coaching process towards either a resolution or a transformative orientation (Spencer and Hardy, 2014).

## IV Analysis of Coaching Models and Orientation

Understanding how a coaching model guides parties in dispute towards resolution or transformation requires an analysis of the philosophy and normative assumptions underpinning that model. Perhaps due to the relatively recent emergence of conflict coaching, a robust comparison of models is absent from the existing literature. This paper will divide five models into two broad approaches- problem solving/solutions-focussed models which are oriented towards conflict resolution, and narrative/post-modern models which are oriented towards conflict engagement or transformation. Problem Solving for One, or PS1, (Tidwell 1997; Tidwell, 2001), Conflict Education Resource Team, or CERT, (Brinkert, 2002), and CINERGY (Noble, 2012) are part of the former group and will be considered first, while Comprehensive Conflict Coaching, or CCC (Jones and Brinkert, 2008) and REAL (Hardy and Alexander, 2012) with narrative traditions will be considered in the second part of this paper.

A systematic comparison of coaching models should consider: the observable characteristics of a coaching process (phenomenology); assumptions about how conflict is understood, analysed, and can be learned about within the model (epistemology); and assumptions about what change is able to be affected, and how the client's world is organised (ontology). The purpose of exploring a coaching model in this way is to illuminate the extent to which a model reflects the complexities of the real-world in which it may be applied, and influences the practitioner's orientation towards resolution, engagement or transformation (Hollnagel, 2014).

The first underlying assumption of each coaching model is the epistemology- the way in which conflict can be learned about and analysed during the coaching process. For a coaching model to be a 'good fit', this should reflect the way in which reality can be learned about or known in the client's context. The Problem Solving for One (PS1), CERT and CINERGY models use a deductive/deconstructive approach to understanding and analysing conflict. Coaches using PS1 aim to deepen a client's understanding and perspective by 'dissecting' a conflict and using conflict mapping techniques to form an accurate, simplified representation of reality. CERT develops knowledge of a real conflict situation by overlaying conflict handling styles and mapping the client's conflict experiences and outcomes to each style. Coaches using the CINERGY model aim to increase knowledge of conflict by deconstructing and naming elements of the conflict, later undertaking a process of reconstruction (Noble, 2012). Each of these processes reflect a shared assumption that complex conflict phenomena can be sufficiently understood through dissection, deconstruction, or the analysis and mapping of component parts. As a method of knowledge acquisition, this reflects modernist traditions and is consistent with almost all traditional scientific methods of enquiry (Louth, 2011).

Another key assumption in conflict coaching models is the way in which changes can be affected- how client agency and self-efficacy is viewed within their context. PS1 draws heavily on the work of Fisher and Ury (2011) for the generation of integrative or interest-based alternatives, then on problem-solving traditions for the costing of each option. The CERT model evaluates alternative future decisions represented by each of the five conflict handling styles. Similar to PS1, CINERGY undertakes a process of exploring possibilities and weighing up risks and opportunities. Within each of these models there is an implicit assumption that a lineal and causal relationship exists between the client, the disputants and their environment, which allows the client sufficient agency to determine and enact a preferred future.

The third assumption implicit in each of the problem-solving conflict coaching model relates to the extent to which the planned changes will reliably lead to the predicted outcome. In this respect, PS1 focuses on the development of a communication strategy and skills to progress to the preferred future. The CERT model assists the client to bring about change through a more reflective and skilful engagement in conflict handling styles. CINERGY undertakes a reconstruction of the conflict which allows the client to test, examine and rehearse the preferred changes. All these models reflect an assumption that within the client's world, there exists a level of predictability which allows future conflict experiences to be modified or even prevented based upon past conflict experience and client-led change.

A visible synchronicity exists between these three distinct conflict coaching models (PS1, CERT, CINERGY), solutions-focussed and modernist traditions. These models are reflections of a reality based on lineal relationships between disputants, the ability to gain a deep understanding of complex conflict phenomena by deconstruction or reduction, and the ability to predict and plan for a change in future conflict based on the study and modification of past conflict. This theoretical and philosophical constellation, in conjunction with the solutions focussed roots of executive coaching and the disposition of many clients to come to coaching seeking resolution or elimination of conflict, may serve to influence the orientation of coaching towards a resolution or issue focus. But what are the implications of this orientation in the healthcare systems which are complex, non-lineal, unpredictable, and characterised by conflict which is not amenable to analysis by reduction or resolution?

# V The Importance of Complexity in Selecting Orientation and Style

Emerging from Complexity Theory at the beginning of the 21<sup>st</sup> century, the notion that some organisations are Complex Adaptive Systems offers an important critique of these modernist assumptions that conflict behaviour is lineal, predictable and amenable to resolution (Hill, 2011). Complex Adaptive Systems are macrosystems which are made up of a diverse number of agents operating alongside each other, both independently and interdependently.

Large organisations in industries such as healthcare, manufacturing and energy are often cited as examples of complex adaptive systems (Benham-Hutchins et al., 2010; Ellis and Herbert, 2011). The observable characteristics of a complex adaptive system vary between studies, but some core elements are described. The rules which determine how agents *actually* operate and interact are often simple, localised and heuristic. Outcomes of work are emergent rather than resultant, unpredictable, and non-lineal (small changes in one area often lead to large and unforeseen changes in another). A further key characteristic of complex adaptive systems is that they are constantly adapting and co-evolving through a network of feedback loops between agents. This constant and unpredictable change is often not centrally communicated, and this is critical in the emergence and management of conflict in these contexts.

In traditional hierarchal organisations conflict is framed as a perceived incompatibility of goals between two or more parties. In a complex adaptive system, conflict emerges from the unanticipated changes in patterns that constantly occur as agents interact, interpret and adapt their own behaviour. Every routine interaction between agents brings a new cycle of feedback, learning and adaptation, resulting in unanticipated disruptions, further feedback, learning and adaptation. Not only is such 'conflict' in a complex adaptive system constant, it is essential for co-evolution, creativity, spontaneity and innovation (Andrade et al., 2008). Importantly for conflict coaching, much of the conflict experienced in a complex adaptive system is not amenable to analysis by deconstruction, predictability or resolution.

A real-world example of a complex adaptive system often cited in research is healthcare organisations (Kuziemsky, 2016; Zimmerman et al., 1998). A hospital macrosystem may consist of 'microsystems' or local agents, for example: emergency department, medical and surgical wards, pharmacy, pathology, medical imaging, operating theatres, outpatient clinics, security staff, and kitchen staff. These agents function in separate physical spaces at the same time, both

independently (when they are caring for their own patients) and loosely coupled (when referring to other specialists, sharing resources, transferring patients between wards).

The rules which determine how work actually occurs are often less to do with the formal centrally controlled procedures, and more to do with what has worked well in similar situations recently, and what is required to 'get on' with providing good care. Clinicians will tend to engage the formal macrosystem rules only to the extent to which they are perceived to benefit the emergent issue. The following case study highlights some of the challenges to providing solutions-focussed conflict coaching in complex adaptive healthcare systems.

#### VI Case Study

Mary is the head of an Emergency Department (ED). Most days she finds herself engaged in low-level unresolved conflict with Sophie, the NUM of the Intensive Care Unit (ICU). The issue from Mary's perspective is that the movement of critically ill patients from the ED to the ICU is often delayed by Sophie, who cites workload pressures on her ward as the reason for the delay. The daily exchanges escalate over time, and Mary seeks conflict coaching with the goal of resolving and eliminating the ongoing dispute. During coaching, Mary is encouraged to describe and then add detail to her experience of conflict. The conflict issue is mapped, a range of integrative alternatives between Mary and Sophie are brainstormed, evaluated, and incorporated into a stepwise action plan.

The outcome of coaching is that Mary arranges a meeting with Sophie, where the pair discuss their perspectives for the first time. Mary discovers that ICU staff are often frustrated that patients arrive from the ED without the appropriate x-rays, blood tests, intravenous fluids, and other basic interventions. This adds to the workload for ICU staff and a perceived sense of unfairness. Mary had not considered this, and agrees that it is reasonable to collaboratively develop a guideline about the expectations of what care would occur prior to transferring a patient, as well as agreed reasonable timeframes. This results in an improved efficiency and patient flow between the ED and ICU, and resolution and elimination of future conflict between Mary and Sophie.

However, with the increased efficiency in patient flow from the ED, the ICU now operates closer to capacity. This means more high-risk surgical procedures are cancelled at the last minute because there is no space in ICU to undertake recovery. This results in greater pressure on all surgical wards, but in particular on the cardiac ward which most often utilises the ICU for post-operative recovery. Meanwhile, Mary in ED is noticing that while she is now having no trouble admitting patients to the ICU she is frequently experiencing conflict with colleagues on the cardiac ward, and is considering seeking further conflict coaching as this effectively resolved the tension with ICU.

What is notable here is that the multiple agents in Mary's organisation shared non-lineal interdependencies- a small change in the way she engaged with ICU led to bigger, unforeseeable changes 'down the line' in operating theatres, surgical and cardiac wards. This meant that the outcomes of her changed behaviour were emergent rather than resultant, and not predictable. The immediate conflict issue of transferring patients from the ED to ICU was eliminated, but the broader complex issue of hospital patient flow simply adapted and evolved in ways which were not amenable to prediction or analysis. Mary entered coaching with the goal of resolution. The solutions-focussed coaching model influenced the orientation of coaching towards an issue-focus. The challenge for the contemporary conflict specialist is to employ a coaching model which is responsive to the complexity of the conflict, can facilitate an appropriate orientation, yet remain client centred in process.

#### VII From Issue-Focused to Transformative

An eloquent response to the management of conflict which is not amenable to resolution or elimination was first described by Baruch-Bush and Folger (1994; 2005). Their transformative mediation approach viewed conflict as a crisis of relationships more than a crisis of issues. The

crisis is primarily driven by two factors: self-perceived weakness and self-absorption. The feeling of weakness is that of feeling unsettled, confused, fearful, disorganised or unsure. In conflict situations, this can manifest in aggression or withdrawal (fight or flight response to a perceived threat or uncertainty). Self-absorption is reflected in self-protectiveness, defensiveness and suspiciousness (Brenner et al., 2000). According to Baruch-Bush (1994), the aim of transformative intervention (they described mediation but it is equally salient to coaching), is to facilitate the client's journey from weakness to strength, and from self-absorption to responsiveness. This personal transformation may occur independently of changes to the substantive conflict issue but may also lead to a more meaningful and sustainable change to the issue. This shift in orientation away from conflict resolution or elimination is particularly relevant to coaching, where only one party is present. This allows for a more developmental and empowering client-centred journey, as opposed to a multi-party process where achieving a negotiated or mediated outcome is often comparatively more important (Hermann, 2012).

Using the current case example, a narrative-influenced transformative coaching approach would avoid a direct focus on changing the outcome of future conflict through problem-solving or brainstorming new actions that Mary could take, as there would be an underlying assumption that Mary's environment is too complex or unpredictable to aim for meaningful substantive change. Instead, Mary would describe her narrative, with the coach assisting to identify the descriptions or phrases which might illuminate self-perceived weakness (aggression, withdrawal) or self-absorption (defensiveness, protectiveness). These elements of the conflict would become the focal point of the coaching sessions, the aim being that with increased insight and reflection, Mary would be able to move from weakness to self-perceived strength and self-absorption to responsiveness, activating a more mindful, adaptable and creative engagement in future conflict with Sophie, in a manner that is also more responsive to the 'unknowns' of a complex system and not dependent on the elimination of the issue.

The conflict coaching models attributed to solutions-focussed traditions earlier in this paper are three of five models described in the literature. The other two models, Comprehensive Conflict Coaching, or CCC (Jones and Brinkert, 2008) and REAL (Hardy and Alexander, 2012; Spencer and Hardy 2015) are more aligned with narrative and post-modern traditions in the way they explore the client's issues. To the extent that they focus on constructed meanings and relationships rather than issues, they may allow a more transformative/personal development orientation when employed in complex environments like healthcare. The CCC model adopts a different approach to conflict analysis than solutions focussed models. In CCC the conflict issue is explored through the lenses of identity, emotion, and power. In the REAL conflict coaching model, the analysis once again occurs through an inductive exploration of meaning- with the coach listening to the coachee's narrative and encouraging reflection on the aspects which appear important to the coachee, but which the coachee may have accepted uncritically. These methods of inductive exploration maintain the assumption that the client has agency to change themselves and their relationship with conflict but makes no assumption that the substantive issue or the environment can be understood by deconstruction or reduction, or that the client has agency to change other parties' behaviour or outcomes. This is a subtle yet important shift in approach from solutions-focused models. It leads the coach and coachee away from an epistemological assumption that conflict is an object to be deconstructed and understood, towards an inductive assumption that conflict is a subject to be explored with critical reflection. This then opens a different path for the process- to explore a preferred future based on a changed relationship or engagement with the issue, rather than a change in the substantive issue. This reflects an orientation shift from resolution or issue-focus towards a transformative or relationship focus.

# VIII What Might a Transformative Coaching Look Like?

Without an existing transformative model, the challenge exists to describe a phenomenology, or the observable characteristics, of transformative conflict coaching. Baruch-Bush and Folger (1994) described 'ten hallmarks of a transformative mediator' which may provide a sound starting point for a coaching model. Client-led goal setting in a transformative process may reflect a shift

in the conflict issue, but would certainly reflect an intrapersonal shift towards empowerment and recognition. Once the client has presented their narrative, the coach would facilitate reflection around the client's words (being mindful not to change them) highlighting the areas of self-perceived weakness and self-absorption, and this would form the main basis of exploration of the client's experience. Information gathering about the conflict would be exploratory and inductive, rather than deconstructive and deductive. Rather than striving to form an accurate picture of the detail through analysis, reflection during coaching would populate a picture of the complexity of the context. While remaining client-led, coaching around enduring or ongoing conflict may build a preferred future based on constructive engagement, reduction of avoidance, and capacity for mindfulness and emotional intelligence. The ultimate aim, a shift towards empowerment, may be measured in terms of the client's capacity to engage constructively in the conflict issue, rather than achieve a substantive change in the issue.

# IX Implications for Practice

Reflecting on the emergence of different conflict coaching models, some can be seen to focus on resolving or eliminating the substantive conflict issues (a 'solutions-focus'), while others focus more on the meanings and interpretations or lenses used by the coachee (a 'narrative' or 'postmodern' focus). A direct focus on the substantive conflict issue may be highly appropriate, effective, and efficient in many, if not all, conflict environments. However, in certain contexts which are characterised by complexity, unpredictability, and emergent rather than resultant outcomes, enduring conflict can be systemic and require a more nuanced approach to conflict engagement. In these contexts, a transformative orientation, aimed at moving from self-perceived weakness and self-absorption to strength and responsiveness, can facilitate a spontaneity, innovation and growth where a client's reality cannot be sufficiently analysed or understood. If the potential of transformative coaching is to be fully realised, further work is needed to translate the core concepts of empowerment and recognition into a coaching model. A cohesive transformative coaching model is yet to be described and must delineate between coaching and counselling when exploring intrapersonal dynamics. Until the development of a specific coaching approach, transformative orientation can be achieved when both the coach and client possess the awareness to focus on the meaning of the conflict, through the lenses of self-perceived weakness and self-absorption, rather than seeking a resolution of conflict issues.

#### **REFERENCES**

Andrade, L., Plowman, D. A., & Duchon, D. (2008). Getting past conflict resolution: A complexity view of conflict. *Emergence: Complexity and Organization, 10*(1), 23.

Benham-Hutchins, M., & Clancy, T. R. (2010). Social networks as embedded complex adaptive systems. *JONA: The Journal of Nursing Administration, 40*(9), 352-356. doi:10.1097/NNA.0b013e3181ee42bc

Brenner, M., Segal, S., & Serventy, N. (2000). What is "transformative" mediation? *Australasian Dispute Resolution Journal*, 11(3), 155.

Brinkert, R. (2011). Conflict coaching training for nurse managers: a case study of a two hospital health system: Conflict coaching training for nurse managers. *Journal of Nursing Management*, 19(1), 80-91.

Brinkert, R. (2002). Conflict management in higher education report available at http://www.campus-adr.org/CMHER/ReportArticles/Edition2\_2a.html accessed 16 June 2018

Bush, R. A. B., & Folger, J. P. (1994). *The promise of mediation: responding to conflict through empowerment and recognition* (1st ed.). San Francisco, CA: Jossey-Bass.

Bush, R. A. B., & Folger, J. P. (2005). *The promise of mediation: the transformative approach to conflict* (Rev. ed.). San Francisco, Calif: Jossey-Bass.

Dickinson, M. (2011). The importance of transformative mediation to the internal workplace mediation program. *Australasian Dispute Resolution Journal*, 22(2), 95.

Fisher, R., & Ury, W. (2012). *Getting to yes: negotiating an agreement without giving in.* London: Random House.

Glasberg, A., Norberg, A., & Söderberg, A. (2007). Sources of burnout among healthcare employees as perceived by managers. *Journal of Advanced Nursing*, 60(1), 10-19. doi:10.1111/j.1365-2648.2007.04370.x

Guidroz, A. M., Wang, M., & Perez, L. M. (2012). Developing a model of source-specific interpersonal conflict in health care: conflict source and emotional exhaustion. *Stress and Health*, 28(1), 69-79. doi:10.1002/smi.1405

Hardy, S., & Alexander, N. (2016) *REAL conflict coaching fundamentals*. Conflict Coaching International.

Hill, P. S. (2011). Understanding global health governance as a complex adaptive system. *Global Public Health*, *6*(6), 593-605. doi:10.1080/17441691003762108.

Herrmann, J. (2012). A comparison of conflict coaching and mediation as conflict resolution processes in the workplace. *Australasian Dispute Resolution Journal*, 23(1), 43.

Hollnagel, E. (2014). *Safety-I and safety-II: The past and future of safety management*. Surrey: Ashgate Publishing Company.

Jones, A., & Jones, D. (2011). Improving teamwork, trust and safety: an ethnographic study of an interprofessional initiative. *Journal of Interprofessional Care, 25*(3), 175-181. doi:10.3109/13561820.2010.520248.

Jones, T., and Brinkert, R. (2008) Conflict coaching: conflict management strategies and skills for the individual. Los Angeles: Sage.

Kaitelidou, D., Kontogianni, A., Galanis, P., Siskou, O., Mallidou, A., Pavlakis, A., .Liaropoulos, L. (2012). Conflict management and job satisfaction in paediatric hospitals in Greece. *Journal of Nursing Management*, *20*(4), 571-578. doi:10.1111/j.13652834.2011.01196.x.

Kuziemsky, C. (2016). *Decision-making in healthcare as a complex adaptive system*. Los Angeles, CA: SAGE Publications. doi:10.1177/0840470415614842.

Lewicki, R. J., Barry, B., & Saunders, D. M. (2016). *Essentials of negotiation* (Sixth ed.). New York: McGraw-Hill Education.

Louth, J. (2011). Complexity and philosophy: from newton to newtonianism: reductionism and the development of the social sciences. *Emergence: Complexity and Organization, 13*(4), 63.

Mayer, B. S. (2009). Staying with conflict: A strategic approach to ongoing disputes. San Francisco, CA: Jossey-Bass.

McDaniel, J., Reuben R, Lanham, H. J., & Anderson, R. A. (2009). Implications of complex adaptive systems theory for the design of research on health care organizations. *Health Care Management Review*, 34(2), 191.

Noble, C. (2012). Conflict management coaching: the Cinergy model. Cinergy Publishing.

Spencer, D., & Hardy, S. (2014). *Dispute resolution in Australia: Cases, commentary and materials* Sydney: Thomson Reuters.

Stecker, M., & Stecker, M. M. (2014). Disruptive staff interactions: a serious source of interprovider conflict and stress in health care settings. *Issues in mental health nursing*, *35*(7), 533-541. doi:10.3109/01612840.2014.891678.

Tidwell, A. (2001). A preliminary evaluation of problem solving for one. *Conflict Resolution Quarterly*, 18(3), 249-257. doi:10.1002/crq.3890180305.

Tidwell, A. (1997). Problem solving for one. *Mediation Quarterly*, *14*(4), 309-317. doi:10.1002/crq.3900140405.

Zimmermann, B., Lindberg, C., & Plserk, P. (2008). *Edgeware: lessons from complexity science for health care leaders* Texas: VHA Publishing Inc.