

ORIGINAL ARTICLE

Designing and validating protocol for managing polarities in healthcare

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Abstract

Aim: To design and validate protocol for managing polarities in healthcare.

Method: It is a quasi-experimental study. The study subjects consisted of two groups: managers 152 and 40 as jury group. The study was conducted in four hospitals, one is university hospital the other is health insurance Hospital and two private hospitals. Two tools were used for collecting data (one self-administered questionnaires format and two opinionnaires format).

Results: There was a high significant ($p < 0.001$) difference between managers' knowledge about polarity management before and after awareness sessions. Most of the jury members accepted the proposed designed protocol.

Conclusion: Protocol for managing polarities in healthcare was designed and validated.

Key words

Polarity, Polarity management, Polarity thinking, Paradox, Healthcare dilemma

1 Introduction

In this rapidly changing environment and a fiercely competitive landscape force, many organizations frequently position and re-position managers in new roles to keep their organizations competitive, through a combination of experience, intuition, and hard-earned wisdom. Effective managers have developed the ability to look within complex issues to identify opposites in tension and capitalize on that tension. These interdependent opposites are sometimes called dilemmas or paradoxes or polarities. Polarities are about “both/and” thinking, rather than “either/or” thinking, each polarity has an identified upside (values) and downside (fears). Polarity thinking helps to understand another person's point of view. Being “right” is easy, polarity thinking helps to find the “rightness” in the other's point of view. Polarities are usually found at the heart of any form of major or minor organizational change. Polarity management is a leadership tool for managing the harmony of contradictions, this approach developed by Barry Johnson^[1-7].

Polarities are competing values that need each other over time in order to achieve a greater purpose. They are everywhere, within us, between us and within our home and work environments. The essence of life and maximum survival on all levels, depend on polarities. For example, inhaling and exhaling are competing values, over time we need to do both in order to achieve the greater purpose of sustaining “life.” If we over do one and neglect the other, we will die (see

Figure 1) [7, 8]. One of the challenges that managers need to overcome is learning to understand the differences between “problems to solve” and “polarities to manage. Managers' ability to identify and manage polarities helps them to save time and resources; build trust and reduce resistance to change, accelerate and sustain achievement of the greater purpose [2, 3, 7]. Polarity management maintains the secret of dealing with paradox, it is to acknowledge that there is a class of problems that cannot be “solved” permanently, because they require shifting back between two opposing but interdependent states. It can be a very powerful tool when used at the right place and time. It helps in analyzing and managing competing dilemmas in a rapidly changing health care environment. The polarity management approach aims to create a win-win outcome through identifying of strengths and weaknesses of the two poles that exist within the dilemma [1, 2, 5, 9, 10].

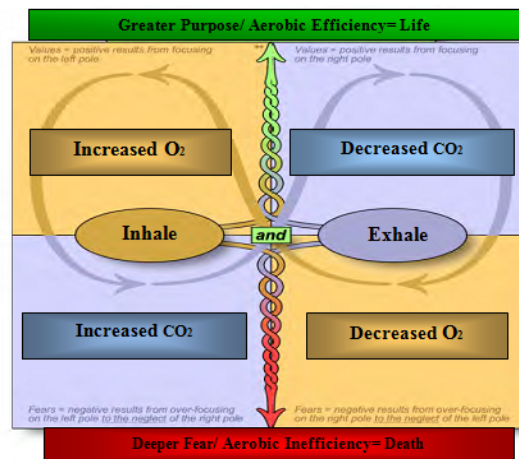


Figure 1. Polarity management map

Health-care industry and health-care providers are facing the challenge of transforming the way they work. They are treating more patients with fewer staff and resources, they must use standardized evidence-based practices while meeting the individual needs of the patient, they are expected to implement new technologies while maintaining the personal touch that is so important to patient care and they are striving to maintain stability in their organizations while embracing the change needed to move forward. Their challenges involve reconciling “polarities” – two seemingly opposing values that can complement each other when applied in a balanced way [11-13].

Significance of the study

Holding two opposing ideas in mind will be even more important in the future. The dilemmas of the future will be more grating, more gnawing, and more likely to induce feelings of hopelessness. Managers must be able to flip dilemmas over and find the hidden opportunities. The more successful healthcare organizations are those that manage polarities well. Poorly managed polarities lead organizations and individuals to create the future they fear, while, well managed polarities help them create the future they desire. So, healthy managers are those who have the ability to balance polarities like task focus and people relationships, stability and change, assertiveness and care, control and empowerment, their work and life, activity and rest, confidence and humbleness etc [7, 14-16].

Aim of the Study

The present study aims to design and validate protocol for managing polarities in healthcare through:

- Assess managers' knowledge about polarity management in selected hospitals.
- Increase managers' awareness about polarity management.
- Design protocol for managing polarities in healthcare.

- d. Examine validity of the designed protocol.

Research hypotheses

It was hypothesized that most of managers will lack knowledge about polarity management. There is no protocol for managing polarities in the selected hospitals.

2 Subjects and methods

2.1 Research design

It is a quasi- experimental study.

2.2 Study setting

The study was conducted in one University hospital (El-Demerdash Hospital), also in one Health Insurance hospital (El-Nasr Hospital, which affiliated to health insurance sector in Helwan governorate) and two private hospitals (El-Salam International Hospital and El-Nozha International Hospital).

2.3 Subjects

The study subjects consisted of two groups:

1st group: This group consisted of three levels of management: top management, middle and functional management (1st line manager). All available managers either nursing or medical managers with at least two years experience were included in the study. Accordingly, 28 managers were chosen from El-Nozha International hospital, 44 from El-Salam International hospital, 23 from El-Nasr hospital, and 57 from El-Demerdash hospital (see Table 1).

Table 1. Distribution of management levels according to hospitals

Hospital	Management Levels (n=152)					
	Top		Middle		First line Managers	
	No.	%	No.	%	No.	%
University						
El-Demerdash	10	6.58	8	5.26	39	25.66
Health Insurance						
El-Nasr	6	3.94	4	2.6	13	8.55
Private						
El-Salam International	14	9.2	9	5.9	21	13.8
El-Nozha International	8	5.26	6	3.9	14	9.2

2nd group: This group served as jury (40). 28 of Them were professors and assistant professors from faculty of nursing in Helwan, Ain Shams and Cairo universities and also from American University in Egypt (AUC); also, 12 of them were experts in polarity management from Cleopatra hospital, El-Galaa Military hospital and Ain Shams Specialized University hospital, they were randomly selected.

2.4 Tools of data collection

2.4.1 Managers' knowledge about polarity management questionnaire format

This tool was designed by the researcher after reviewing relevant literature. It is self-administered questionnaire, which was used to assess the selected managers' knowledge about polarity management. It included questions as definition of polarity and polarity management, the difference between problem and polarity, what prevents managers from using

polarity management?, benefits of polarity management, critical skills required to use polarity management and common examples of polarities faced by leaders and organizations. The Cronbach Alpha coefficient of the instrument was 0.85 for the study sample. The instrument had high construct validity (with a part-whole correlation of 0.91) (Kerlinger, 1986).

2.4.2 Opinionnaire format

two Opinionnaires were designed by the researcher. One of those tools was used to elicit expert managers' opinions regarding suggested polarity management protocol. Meanwhile, the other was to identify faculty members' opinions regarding the designed protocol. Two types of validity were ascertained: face and content.

2.5 Pilot study

The aim of the pilot study was to test the practicability, and to estimate the time needed to complete tools. The researcher randomly selected 12 managers from El-Nozha International hospital and 23 from El-Salam International hospital, 9 from El-Nasr hospital and 18 managers from El-Demerdash hospital. Those managers were from different management levels. The time needed to fulfill the self administered questionnaire format ranged between 20-35 minutes. Collecting pilot study data lasts for one month. All of these subjects were included in the main study sample.

2.6 Field work

The field work of this study was executed in one and half year. Data collection started in June first 2012 till January last 2014. The researcher started to assess managers' knowledge about polarity management in the selected hospitals using questionnaire format, this was lasted for six months. The time needed to fulfill the questionnaire format was 20-35 minutes. Then, the protocol for managing polarity protocol in healthcare was designed. It was designed by the researcher after reviewing recent relevant literature. It was designed in two months. Then, the first opinionnaire format was used to elicit expert managers' opinions regarding suggested steps for polarity management protocol. Finally, the proposed protocol was distributed to faculty members to elicit their opinion regarding protocol items (face validity) and its contents (content validity). After the researcher received the proposed protocol, It was finalized accordingly. Then awareness sessions for managers in the designed hospitals about the developed protocol were conducted. Awareness sessions lasts for six months (they were interrupted in between). Then, the protocol was started to be applied in the selected hospitals from the second half of December 2013.

2.7 Limitations of the study

The political and safety situation in Egypt were some times inhibit the researcher to reach the desired hospitals to conduct the study and in other times inhibit managers to be available for the study (because the hospital is announcing emergency situation).

2.8 Administrative and ethical aspects

To carry out the study in the predetermined hospitals, letters containing the aim of the study were directed to each hospital' director and nursing directors to obtain their permission and help to conduct the study in their facility. The researcher then met the hospitals' directors and the nursing directors to explain to them purposes and methods of data collection for the study. The researcher also obtained study subjects' approval orally after explaining the purpose and method of data collection for them. Confidentiality, anonymity and the right to withdraw from the study at any time were guaranteed.

2.9 Statistical analysis

SPSS 14.0 statistical software package was used for data analysis. The probability of error at 0.05 was considered significant, while at 0.01 and 0.001 was considered highly significant.

Table 2. Managers' knowledge about polarity management *before* and *after* awareness sessions

Items	Hospitals (<i>Before</i> awareness sessions)								Hospitals (<i>After</i> awareness sessions)								P-value	
	El-Demerdash (n= 57)		El-Nasr (n= 23)		El-Salam International Hospital (n= 44)		El-Nozha International Hospital (n= 28)		El-Demerdash (n= 57)		El-Nasr (n= 23)		El-Salam International Hospital (n= 44)		El-Nozha International Hospital (n= 28)			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Definition of polarity																		
Complete definition	0	0	0	0	0	0	0	0	0	48	84.21	18	78.26	40	90.91	23	82.14	<0.001
Wrong definition	0	0	0	0	0	0	0	0	0	9	15.79	5	21.74	4	9.09	5	17.86	<0.001
Do not Know	57	100	23	100	44	100	28	100	0	0.00	0	0	0	0	0	0	0	<0.001
Definition of polarity management																		
Complete definition	0	0	0	0	0	0	0	0	0	53	92.98	20	86.96	41	93.18	26	92.86	<0.001
Wrong definition	0	0	0	0	0	0	0	0	0	4	7.02	3	13.04	3	6.82	2	7.14	<0.001
Do not Know	57	100	23	100	44	100	28	100	0	0	0	0	0	0	0	0	0	<0.001
What is the different between problem & polarity?																		
Complete	0	0	0	0	0	0	0	0	0	44	77.19	19	82.61	37	84.09	26	92.86	<0.001
Incomplete	0	0	0	0	0	0	0	0	0	13	22.81	4	17.39	7	15.91	2	7.14	<0.001
Do not Know	57	100	23	100	44	100	28	100	0	0	0	0	0	0	0	0	0	<0.001
What Prevents Managers from Using Polarity Management?																		
Complete	0	0	0	0	0	0	0	0	0	50	87.72	19	82.61	40	90.91	21	75.00	<0.001
Incomplete	0	0	0	0	0	0	0	0	0	7	12.28	4	17.39	4	9.09	7	25.00	<0.001
Do not Know	57	100	23	100	44	100	28	100	0	0	0	0	0	0	0	0	0	<0.001
Benefits of polarity management																		
Complete	0	0	0	0	0	0	0	0	0	53	92.98	20	86.96	42	95.45	23	82.14	<0.001
Incomplete	0	0	0	0	0	0	0	0	0	4	7.02	3	13.04	2	4.55	5	17.86	<0.001
Do not Know	57	100	23	100	44	100	28	100	0	0	0	0	0	0	0	0	0	<0.001
Critical skills required to use polarity management																		
Complete	0	0	0	0	0	0	0	0	0	55	96.49	18	78.26	44	100	21	75.00	<0.001
Incomplete	0	0	0	0	0	0	0	0	0	2	3.51	5	21.74	0		7	25.00	<0.001
Do not Know	57	100	23	100	44	100	28	100	0	0	0	0	0	0	0	0	0	<0.001
Common examples of polarities faced by managers & organizations in healthcare																		
Complete	0	0	0	0	0	0	0	0	0	53	92.98	20	86.96	41	93.18	25	89.29	<0.001
Incomplete	0	0	0	0	0	0	0	0	0	4	7.02	3	13.04	3	6.82	3	10.71	<0.001
Do not Know	57	100	23	100	44	100	28	100	0	0	0	0	0	0	0	0	0	<0.001

Not Significant $p > 0.05$ Significant $p < 0.05$ Highly significant $p < 0.01$

3 Results

Table 2 illustrates study sample's knowledge about polarity management before and after awareness sessions. It was noticed that all of the studied sample (100%) before awareness sessions lack knowledge about all items of polarity

management "definitions, what prevents managers from using polarity management?, benefits, difference between problem and polarity and required skills for polarity management". Meanwhile post awareness sessions the majority (84.21%, 78.26%, 90.91% & 82.14%; 92.98%, 86.96%, 93.18% & 92.86%; 77.19%, 82.61%, 84.09% & 92.86%; 87.72%, 82.61%, 90.91% & 75%; 92.98%, 86.96%, 95.45% & 82.14%; 96.49%, 78.26%, 100% & 75%; 92.98%, 86.96%, 93.18% & 89.29%) of them respectively became completely aware of the mentioned items and listed four reasons which inhibit managers from using polarity management, as the following: lack of confidence in their skills, knowledge and experience; fear about how it will be received by others, there is no enough time to apply it and their voice is seldom heard in matters important to their practice. There was a high significant ($p < 0.001$) difference between managers' knowledge about polarity management before and after awareness sessions.

Table 3. Agreement of managers on suggested steps of managing polarities in healthcare protocol

Steps	Hospitals								P-value
	El-Demerdash (n= 57)		El-Nasr (n=23)		El-Salam International Hospital (n= 44)		El-Nozha International Hospital (n= 28)		
	No.	%	No.	%	No.	%	No.	%	
Identify the situation / polarity	56	98.25	23	100	44	100	28	100	>0.05
Build the polarity map.	57	100	21	91.3	43	97.7	28	100	>0.05
Understand the dynamics of polarities.	57	100	23	100	43	97.7	28	100	>0.05
Create action plans for both poles.	57	100	23	100	44	100	25	89.28	>0.05
Identify early warning signs.	57	100	22	95.65	42	95.45	28	100	>0.05
Monitor the polarity.	55	96.49	23	100	44	100	23	82.14	>0.05

Not Significant $p > 0.05$ Significant $p < 0.05$ Highly significant $p < 0.01$

Table 4. Face and relevancy validity of the designed polarity management protocol as reported by jury members

Items	No = 40	%
Designed format clarifies its designed purpose		
Steps of the polarity management protocol:		
Identify the situation/polarity you.	40	100
Build the polarity map	39	97.5
Understand the dynamics of polarities	39	97.5
Create action plans for both poles	37	92.5
Identify early warning signs	38	95
g. Monitor the polarity	40	100
The linguistic style used in the protocol:		
Clear	40	100
Understandable	39	97.5
Comprehensive and	40	100
Applicable	37	92.5
The protocol could be used for orienting the newly appointed managers.	38	95
The format could be used for guiding the already appointed managers.	39	97.5
The format items could be used as criteria for performance evaluation for managers.	38	95
The designed protocol can be used for staff development.	40	100

Table 3 describes agreement of managers on suggested steps for the protocol of managing polarities in healthcare. It was noticed that most (100%) of the study sample accepted the suggested steps for the protocol of managing polarities in

healthcare. There was a no significant ($p < 0.05$) difference between all of the studied hospitals either private or health insurance or university hospitals.

Table 4 displays face and relevance validity of the designed protocol for managing polarity as reported by jury members. As evident in the table that all of the jury (100%) agreed upon the designed protocol.

Based on the results of the study, protocol for managing polarities in healthcare was designed and tested for its validity to act as a tangible written form that provides directions and guidance to managers for effective operation and quality in their work place.

4 Discussion

Polarities and polarity management are a vital part of management today. The ability to properly recognize the pitfalls of, and maintain a balance between the different poles of a polarity is a very important skill required in each manger. However, the present study revealed that all of the study samples before awareness sessions were lack of knowledge about definition of polarity^[2]. These findings were inconsistent with^[3, 14] who emphasized that polarities are often called paradoxes, or dilemmas. polarity is a situation in which a balance must be struck between two different goals, ignoring either one completely would lead to unacceptable consequences, however both issues can not be solved by one single action. This was supported by^[16] who asserted that polarity is a situation in which the only solution is a compromise to reach the win –win outcome. This also agreed by^[8, 17] who added that polarities are competing values that need each other over time in order to achieve a greater purpose. Meanwhile, regarding polarity management, all of the study samples before awareness sessions were also lack of knowledge about it. These results were in contrast with^[13] who asserted that it is a problem solving technique that can be used in managing paradox because it points out the possibility of a “both/and” approach, and the necessity of continuously asking, “Are we focusing on the right thing for this moment?”. This was supported by^[19] who added that polarity management helps a community live creatively with tension in ways that are energizing and transformative. While from the researcher’s point of view, that we cannot always breathe in or always breathe out; so, cannot always focus on people or always focus on technology; cannot always focus on process redesign, or always focus on systems thinking. But, putting the focus on either pole has advantages and disadvantages each pole of the paradox has an upside and a downside.

Polarity is not an either/or problem: a problem where a choice must be made between one alternative and another. It is also not a problem where the correct answer or course of action must be found. As noticed in the present study that the entire studied sample was not aware about the different between problem and polarity. This result was inconsistent with^[2, 9] who emphasized that problems to solve are not ongoing and it has an end point, while, polarities to manage are on-going and it has no endpoint. On the same line^[10, 12] stated that problems has independent alternatives which can stand alone, while polarities have interdependent alternatives which cannot stand alone. These findings were supported by^[4, 8, 13, 17] who asserted that problems often contain mutually exclusive opposites, while polarities always contain mutually inclusive opposites. Furthermore, from the researcher’s point of view, regardless of our culture, a high percentage of our education “problems” have a single right answer. Accordingly, we all tend to respond to difficulties at work and home from an either/or problem solving orientation. So, we look automatically for the “right answer”. Honestly it has been and will continue to be an invaluable resource for work and life.

It is interesting from all of the above that it is intended to appreciate how important either/or thinking is and how strong is the tendency to use it. The above is also intended to make absolutely clear the enthusiasm for polarity management. polarity management is a supplement to either/or thinking not a replacement. As regard to the main reasons which prevent managers from using polarity management. Managers mentioned many reasons as mentioned before. These findings were consistent with^[1, 2] who found the same results in their studies.

Leaders want to give guidance and directions in a clear cut, right and wrong fashion. Managing a polarity is not that simple; there is no apparent answer and no definitive path. To manage a polarity well involves appreciating and giving quality focus and resources to both poles so the positive results from each pole can be experienced on an on-going basis and the greater purpose can be achieved. Moreover, all of the entire studied sample was not aware about benefits of polarity management before awareness sessions^[4, 26]. These results were in contrast with^[10, 16] who asserted that the ability to manage polarities (whether intentionally or intuitively) will impact long-term success or failure. This was supported by^[12] who found that managing polarities helps to sustains achievement of the greater purpose. These results were consistent with^[17] who emphasized that polarity management increases in value as the system or issue increases in complexity, diversity, speed of change and resistance to change. On the same line^[6, 18] stated that polarity management can help simplify the complexity without being simplistic, capitalize on diversity without alienating the diverse groups, provide predictability and stability amidst accelerating change and convert resistance to change to a resource for sustainable, ongoing change-ability.

It was noticed that the present study revealed that all of the study sample before awareness sessions were not aware of the critical required skills for using polarity management. These results were in contrast with^[9, 19, 21] who found that communication skills generally and active listening skills particularly are essential skills for managers to use polarity management. This was supported by^[6, 18] who mentioned that decision making and negotiation skills are supportive for using polarity management. These findings were consistent with^[2, 17] who emphasized that persuasion and dialogue skills were the core for polarity management. On the same line^[12, 22] advocated that teamwork and stress management are vital.

Polarities exist all around us. Effective manager requires proficiency in seeing and integrating multiple interdependent perspectives through “both/and” thinking, as well as proficient problem solving with “either/or” thinking. Polarity management framework and principles provide powerful resources for meeting this challenge. In health care organizations as in many other endeavors there are unknown numbers of polarities. Again the present study revealed that all of the entire studied sample was not aware about common examples of polarities faced by managers & organizations in healthcare. These results were contradicted with^[3, 10] who mentioned that healthcare leaders today are facing many issues which are a combination of problems to be solved and polarities to be managed such as stability and change, process and outcome, individual and team, quality and cost. This was supported by^[12, 23, 24] who added that there are many polarities in healthcare now a days which need to be determined and managed by healthcare managers as staff satisfaction and patient satisfaction, directive decisions and participative decisions, hospital interest and staff interest. On the same line^[6, 17, 18] stated that patient safety and staff safety/freedom, recruitment and retention, centralization and decentralization, standardized care and individual care are great examples of important polarities in healthcare.

Working within safety culture is of vital important specially in healthcare organizations. Managers feel that they are committed to safety, while employees believe that management is more committed to production. When not handled in a constructive manner, paradoxes can defeat safety efforts at the first misstep. Conversely, when managers are prepared to manage polarities, a misstep can become an opportunity to build credibility and trust^[8, 22]. The results of this study revealed that the majority of the jury members agreed upon all of the suggested steps of managing polarities in healthcare protocol. These findings were supported by^[5, 19] who found that polarity thinking helps to understand another person’s point of view. This was supported by^[3, 6, 18] who asserted that polarity management map has the ability to convert what is complex and hard to simple, which will in turn raise awareness to a deeper level.

5 Conclusion

According to the study findings, it was concluded that there was a high significant ($p < 0.001$) difference between managers' knowledge about polarity management before and after awareness sessions. Also, there was a no significant ($p < 0.05$) difference between all of the studied hospitals either private or health insurance or university hospitals. It was noticed that

most of the jury members accepted the suggested steps for proposed protocol and finally, the protocol was designed. The proposed protocol for managing polarities in healthcare is valid both in structure and content.

Recommendations

Based on the findings the following could be recommended:

- 1) Help managers in all of the studied hospitals to apply the developed polarity management protocol, by being available to them.
- 2) Polarity management components should be included in the orientation programs for the newly appointed and actually presented managers.
- 3) Involve polarity management in performance evaluation for managers.
- 4) Revise the curriculum of nursing administration course in faculties of nursing in Egypt to add polarity management components.
- 5) Foster organizational culture that supports using of polarity management.
- 6) Further studies need to be conducted in different healthcare settings to generalize the concept and usage of polarity management.

Conflict of interest

The author declared no conflict of interest.

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