An investigation of emotional intelligence factors among health care professionals dealing with COVID 19 pandemic for effective relationship management by means of factor analysis

Kasturi R Naik
DES's NMITD, University of Mumbai, India

Keywords
Emotional intelligence, health care professionals, COVID 19, relationship management, resilience

Abstract
Recently there was headline in Wall street journal, 2018 stating close to 400 healthcare professionals a year are committing suicide. This headline is alarming and should get the immediate attention understanding the reasons for the suicides and then by means of creating support interventions to help healthcare professionals. It has been proved by research that following are 3 top reasons affecting mental and thus physical health of health care professionals: burnout, pressure and underdeveloped emotional intelligence. The burnout has an impact on around 40 percent of health care professionals in oncology field; pressure has impact on 31 percent of healthcare professionals in oncology field and 23 percent of health care professionals approximately are facing issues due to underdeveloped emotional intelligence. This research paper focuses on investigating the Emotional intelligence factors among Health Care Professionals dealing with COVID 19 pandemic for effective relationship management by means of using multivariate statistical tool factor analysis. Relationship management means being self-aware, manage self, being aware of the situations and people in those situations so that cordial productive relationships are maintained for longer term which is one of the core competencies required by health care professionals (Vanessa and Steven, 2001; Brindan et.al, 2013).

For the purpose of primary data collection questionnaire (Daniel Goleman) was circulated to 100 health care professionals from Mumbai using convenience sampling technique. The findings suggest that self-awareness, self-management, perspective taking, seeking feedback, caring, trustworthiness, conflict handling, building relationships, learning agility and organizational understanding are the important emotional intelligence factors among health care Professionals Dealing with COVID 19 pandemic for effective relationship management (Adams et.al, 2020)

Introduction
There is a global epidemic. Recently there was headline in Wall street journal, 2018 stating close to 400 healthcare professionals a year are committing suicide. This headline is alarming and should get the immediate attention understanding the reasons for the suicides and then by means of creating support interventions to help healthcare professionals. It has been proved by research that following are 3 top reasons affecting mental and thus physical health of health care professionals: burnout, pressure and underdeveloped emotional intelligence. The burnout has an impact on around 40 percent of health care professionals in oncology field; pressure has impact on 31 percent of healthcare professionals in oncology field and 23 percent of health care professionals approximately are facing issues due to underdeveloped emotional intelligence.

Health care professionals must be able to grasp the fundamental dynamics and gradations within an organization and between its people; hence effective relationship management is one of the core competencies of the health care professionals. They should be able to act as influential advocates for their activities with fellow teammates inside the company and be proficient at maintaining interaction with a growing array of external stakeholders through several networks including personal, conferences and social media especially in current context of COVID 19 (Brindan et.al, 2013; Howe et.al, 2012).

This research paper focuses on investigating the Emotional intelligence factors among Health Care Professionals Dealing with COVID 19 pandemic for effective relationship management by means of using multivariate statistical tool factor analysis. Relationship management means being self-aware, manage
self, being aware of the situations and people in those situations so that cordial productive relationships are maintained for longer term which is one of the core competencies required by health care professionals.

For the purpose of primary data collection questionnaire was circulated to 100 health care professionals from Mumbai using convenience sampling technique. The findings suggest that self-awareness, self-management, perspective taking, seeking feedback, caring, trustworthiness, conflict handling, building relationships, learning agility and organizational understanding are the important emotional intelligence factors among Health care Professionals Dealing with COVID 19 for effective relationship management which after factor analysis are integrated into 3 skills namely Social and learning skills, Self-regulation and rapport building skills and Inventory taking and Assessment skills.

**Literature review**

There is in-depth research carried out in the domain of emotional intelligence importance among healthcare professionals and on its multifarious aspects, but limited researches are targeted on investigation of Emotional intelligence factors among health care Professionals Dealing with COVID 19 pandemic for effective relationship management.

**Health care professionals and need of emotional intelligence**

There is a global epidemic. Recently there was headline in Wall street journal, 2018 stating close to 400 healthcare professionals a year are committing suicide. This headline is alarming and should get the immediate attention understanding the reasons for the suicides and then by means of creating support interventions to help healthcare professionals. It has been proved by research that following are 3 top reasons affecting mental and thus physical health of health care professionals: burnout, pressure and underdeveloped emotional intelligence.

Burnout: on an average 40 percent among the oncologist be it medical, surgical or radiation. According to National Academy of Medicine health care professionals exhibited signs of burnout, a syndrome marked by “a high degree of emotional exhaustion...and a low sense of personal accomplishment.”

Pressure: Health care professionals are making life and death decisions all day long. There is lot of stress where vital decisions have to made in the moment. A mistake can mean death. In most professions, a mistake doesn’t have these severe consequences. Health care professionals have to deal with different stakeholders throughout their job profile like regulatory authorities, doctors their own team members, agents, pandemic and many more. Effective and accurate communication with these individuals is also one of the major factors leading to stress among health care professionals.

Underdeveloped EI: To get into good school and then esteemed college, students have to focus on their cognitive development, such as memorizing, studying causes and effects, and building associative skills and are surrounded by books and laboratory test and clinical trials. There isn’t also the time or focus on emotional development such as self-awareness, knowing their own patterns and triggers, emotional regulation, managing difficult conversations and building their empathy. And suddenly health care professionals have to deal with different stakeholders throughout their job profile like regulatory authorities, doctors their own team members, agents, pandemic and many more. Effective and accurate communication with these individuals is also one of the major factors leading to stress among health care professionals.

Emotional Intelligence training and coaching can help physicians address these areas with focus on self-emotional appraisals.

There are many models and definitions for Emotional Intelligence. However, in a simple language “Emotional Intelligence is to think, feel and behave intelligently when one is emotional”

“Emotional Intelligence Sets Apart Good and Effective healthcare professionals”. A study of 2,800 physician “star performers” showed that 75 percent of a high-achiever’s success is a function of emotional intelligence; only 25 percent of success reflects technical competency (El-Aswad, Nadler, Ghossoub, 2017).

Salovey and Mayer coined the term "emotional intelligence" in 1990 (Salovey and Mayer, 1990). They were cognizant of the preceding studies on non-cognitive parameters of intelligence and they described emotional intelligence as "a form of social intelligence that involves the ability to monitor one's
own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and action" (Salovey and Mayer, 1990). Emotional intelligence can be seen to be a prerequisite for cultural intelligence.

**Emotional intelligence has 4 important dimensions (Goleman, 1998)**

Self-awareness: Self-awareness includes awareness of the individual with regards to his/her strengths, weakness, opportunities and challenges. Self-awareness means knowing self, being aware, it takes practice to observe ourselves and once we recognize our emotional state, we can bring about changes to suit situations.

Self-management: Once an individual becomes aware of the emotions, its essential to check the impact of these emotions on mental and physical health. Then individual can streamline negative emotions into productive manner for benefit of self and others. This is self-management that is how one deals with the emotions – acknowledge, express gratitude for positive emotions and express and vent out the negative emotions in a guilt free manner. Self-management deals with appreciating positive emotions and managing negative emotions (Staw, 1994; Salovey, 1990; Gorman et.al, 2005, Anderson, 2000).

Social awareness: Social awareness is awareness that an individual's behavior has influence on surrounding situation, individuals and the climate. It includes awareness of the other individuals, teams with recognition and respect of their emotions and feelings.

Relationship management: Relationship management means being self-aware, manage self, being aware of the situations and people in those situations so that cordial productive relationships are maintained for longer term (Hudak et.al, 2000, Arora et.al, 2010). Once an individual practices self-awareness, self-management, social awareness, relationship management (Naik, 2018) becomes easier to practice which is an essential aspect for achievement of goals and objectives of the organization leading to increase profitability.

**Research Objectives**

The primary objective of this research paper is to examine the literature related to health care professionals and emotional intelligence. The next objective is to investigate the emotional intelligence factors among health care professionals dealing with COVID 19 pandemic for effective relationship management (Donavan et.al, 2004; Berry et.al, 2007).

**Research Methodology**

The research design focuses on quantitative research study by means of using statistical analysis tool factor analysis to determine important emotional intelligence factors among health care Professionals Dealing with COVID 19 for effective relationship management. (Creswell, 1994). In this study use is made of questionnaire and informal interviews, for gathering the primary data and secondary data is gathered by means of published and unpublished paper and electronic sources like journals, newspaper, articles etc (Naik et.al, 2017). For the purpose of primary data collection questionnaire was circulated to 100 health care professionals from Mumbai using convenience sampling technique. For the research under study the tool used for data analysis was factor analysis. The cronbach α value is within permissible limits to carry factor analysis.

$H_0$: There is no internal consistency and reliability among the variables selected in the study for conducting factor analysis focusing on important emotional intelligence factors among health care Professionals Dealing with COVID 19 pandemic for effective relationship management.

$H_1$: There is an internal consistency and reliability among the variables selected in the study for conducting factor analysis focusing on important emotional intelligence factors among health care Professionals Dealing with COVID 19 pandemic for effective relationship management.

After discussion with the health care professionals and the literature review, following parameters are considered as important with respect to emotional intelligence for effective relationship management:

- Self-awareness
- Self-management
- Perspective taking
- Seeking feedback
Data Analysis

Multivariate statistical analysis tool factor analysis is used to determine emotional intelligence factors (Brindan et al, 2013).

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>3.841</td>
<td>38.408</td>
</tr>
<tr>
<td>2</td>
<td>2.043</td>
<td>20.427</td>
</tr>
<tr>
<td>3</td>
<td>1.248</td>
<td>12.480</td>
</tr>
<tr>
<td>4</td>
<td>.780</td>
<td>7.797</td>
</tr>
<tr>
<td>5</td>
<td>.681</td>
<td>6.812</td>
</tr>
<tr>
<td>6</td>
<td>.580</td>
<td>5.801</td>
</tr>
<tr>
<td>7</td>
<td>.364</td>
<td>3.637</td>
</tr>
<tr>
<td>8</td>
<td>.199</td>
<td>1.987</td>
</tr>
<tr>
<td>9</td>
<td>.150</td>
<td>1.502</td>
</tr>
<tr>
<td>10</td>
<td>.115</td>
<td>1.149</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

Table 1. Total Variance Explained

Based on the table 2, the following graph which is called as Scree Plot is plotted to know the number of factors which is available in the analysis.
Graph 1. Scree Plot

From the above graph of Scree plot 1, it can be concluded that the factors having the Eigen values more than 1 have to be considered. This study determines 3 factors.

Interpretation (From Table 2)

From the Table 2 of Component Matrix, it can be seen that the following factors can be classified as follows:

Factor 1
Conflict handling
Building relationships
Learning agility
Organizational understanding
Factor 1 can be renamed as Social and learning skills

Factor 2
Self-management
Seeking feedback
Caring
Trustworthiness
Factor 2 can be renamed as Self-regulation and rapport building skills

Factor 3
Self-awareness
Perspective taking
Factor 3 can be renamed as Inventory taking and Assessment skills

With the results of the statistical analysis, coupled with the formal and informal online discussions with the health care professionals from Mumbai it is concluded that Social and learning skills comprising of conflict handling, building relationships, learning agility and organizational understanding; Self-regulation and rapport building skills comprising of self-management, seeking feedback, caring, trustworthiness and Inventory taking and Assessment skills comprising of self-awareness, and perspective taking are the important emotional intelligence factors among health care Professionals Dealing with COVID 19 pandemic for effective relationship management. Health care professionals especially at present dealing with COVID 19 pandemic need effective emotional resilience skills so that they can manage their own emotional and physical health. The major part of their job also involves handling the emotional responses of these stakeholders like anger, fear, depression and so it is essential that they get a training in self-emotional appraisals with regards to the above mentioned emotional intelligence factors (Scott, 2002; Budhwar et.al, 2009; Hubert, 2016).

Findings and Discussions

This research paper investigated that Social and learning skills comprising of conflict handling, building relationships, learning agility and organizational understanding; Self-regulation and rapport building skills comprising of self-management, seeking feedback, caring, trustworthiness and Inventory
taking and Assessment skills comprising of self-awareness, and perspective taking are the important emotional intelligence factors among health care Professionals Dealing with COVID 19 (Maunder et.al, 2003) for effective relationship management.

Self-awareness means knowing self, being aware, it takes practice to observe ourselves and once we recognize our emotional state, we can bring about changes to suit situations. Self-management deals with regulating the emotions for effective decision making. Perspective taking is where team members see each other make efforts to grapple with perspective leading to building an environment of trust among the team. Seeking feedback involves learning the art of taking and giving feedback to all the stakeholders in a constructive manner (Petrides, 2007; Kanwar et.al, 2009; Cherniss, 200). Caring includes providing emotional support to team, if genuinely required volunteering for help, let members know they are valued and such other acts. Trustworthiness includes take time away from group tasks to develop emotional bonds with each other leading to creation of environment of trust. Conflict handling includes using playful devices and ground rules to correct errant behavior. Building relationships focuses on appreciating a team member in front of all and telling the mistake in isolation with a plan to improve (Vanesse and Steven, 2001). Learning agility includes the ability to keep on learning and infer accurately from what the individual already knows. Organizational understanding includes being able to create networks and relations along with awareness of the entire commercialization process and wider marketplace dynamics (Brindan et.al, 2013) so that health care professionals can deal with other business leaders on an identical footing. So, these 10 factors are integrated by means of factor analysis into 3 important components:

Social and learning skills: focusing on relationship management and knowledge and learning values of the respondents

Self-regulation and rapport building skills: focusing on creating a collaborative environment within self as well with others for the respondents

Inventory taking and assessment skills: essential for knowledge of self and others for the respondents

So, these 3 components can be seen to be interlinked and essential for holistic relationship management of health care professionals with self and others so that they can deal with the challenging situation like COVID 19

Limitations

The current study is limited as generalization of the result is difficult as data is collected only from health care professionals from Mumbai. The confidentiality with respect to names of hospitals selected and respondents from whom data is obtained is also a limitation as the hospitals and respondents requested for the confidentiality.

Scope of the Research

The scope of the future research is to devise a proposed training model integrating the all the emotional intelligence factors which are essential for effective relationship management and test the same by means of appropriate statistical tool. The longitudinal time series studies can also be conducted to check the practical implementation of the training model in other health care professions also (Anderson, 2000; Conte, 2005).

Conclusion

Emotional intelligence in the health care space is important for the effective relationship management with various stakeholders. Health care professionals especially in COVID 19 situation do not only relate to stakeholders like their own team, physicians and pandemic at professional level. The major part of their job also involves handling the emotional responses of these stakeholders like anger, fear, depression and so it is essential that they get a training in self-emotional appraisals. With the results of the statistical analysis, coupled with the formal and informal discussions with the health care professionals from Mumbai it is concluded that Social and learning skills comprising of conflict handling, building relationships, learning agility and organizational understanding ; Self-regulation and rapport building skills comprising of self-management, seeking feedback, caring, trustworthiness and Inventory taking and Assessment skills comprising of self-awareness, and perspective taking are the important emotional intelligence factors among health care professionals dealing with COVID 19 (Salovey & Mayer, 1990; Goleman, 1998). These factors will enable the health care professionals to regulate self-first, understand
the importance of effective relationship maintenance and then can attract others into a compelling vision of a common future by being able to manage relationships with them in a productive manner.

References
R. Anderson et al.,2000 “Program Directors’ Recommendations for Transforming Health Services Management Education,” Journal of Health Administration Education Vol.18