

Revista de cercetare și intervenție socială

ISSN: 1583-3410 (print), ISSN: 1584-5397 (electronic) Selected by coverage in Social Sciences Citation Index, ISI databases

SOCIAL IMPACT OF PUBLIC HEALTH CARE IN RISK MANAGEMENT IMPLEMENTATION

Daniela DRUGUS, Angela Repanovici, Daniela POPA, Elena TIRZIMAN, Nadinne ROMAN, Liliana ROGOZEA, Roxana MICLAUS

Revista de cercetare și intervenție socială, 2017, vol. 56, pp. 79-87

The online version of this article can be found at: www.rcis.ro, www.doaj.org and www.scopus.com

> Published by: Expert Projects Publishing House



On behalf of: "Alexandru Ioan Cuza" University, Department of Sociology and Social Work and Holt Romania Foundation REVISTA DE CERCETARE SI INTERVENTIE SOCIALA

is indexed by ISI Thomson Reuters - Social Sciences Citation Index (Sociology and Social Work Domains)



Social Impact of Public Health Care in Risk Management Implementation

Daniela DRUGUS¹, Angela Repanovici², Daniela POPA³, Elena TIRZIMAN⁴, Nadinne ROMAN⁵, Liliana ROGOZEA⁶, Roxana MICLAUS⁷

Abstract

Risk management is a major point of interest in the recent years. The current study aims to investigate the associations between motivation factors of employees, satisfaction, stress and risk management practice. Another aim is to assess the most significant predictors for risk management practice in health care system. The background of this study is based on our previous research on necessity of implementing risk management in the Romanian health care system, considering the health care societal impact nationwide. A number of 242 nurses and physicians from different cities were recruited. Results indicated that there are strong correlations between the investigated variables. The research model explains 93% of the variance for Risk Management Practice variable.

Keywords: health care system, risk management practice, motivational factors, stress, work performance, job satisfaction.

¹ University of Medicine and Pharmacy Grigore T. Popa, Iasi, ROMANIA. E-mail: drugus_daniela@yahoo.com

² Transilvania University of Brasov, ROMANIA. E-mail: arepanovici@unitbv.ro (corresponding author)

³ Transilvania University of Brasov, ROMANIA. E-mail: danabradeapopa@gmail.com

⁴ University of Bucharest, ROMANIA. E-mail: elena.tirziman@litere.unibuc.ro

⁵ Transilvania University of Brasov, ROMANIA. E-mail: nadinneroman@gmail.com

⁶ Transilvania University of Brasov, ROMANIA. E-mail: r_liliana@yahoo.com

⁷ Transilvania University of Brasov, ROMANIA. E-mail: roxileta@unitbv.ro

Introduction

Research background

Risk management is a major point of interest for academics, practitioners and business community, despite its evident lack of success in the recent years (Huber & Scheytt, 2013) The concern about speculative risk and risk management practice in all activity areas, increased not only in academic field but also in the practitioner field, indicating that risk management has now become a universal practice (Hood et. al., 2004; Power, 2004). Risk management is defined as a systematic methodology that combines strategy, individuals, technology, processes and knowledge with the aim of evaluating and reducing the risk that an organization encounters (Dabari & Saidin, 2014)

Health care risk management started as a preoccupation since the malpractice crisis of the mid - 1970s, when health - care units experienced rapid rises in claim costs, and "subsequently insurance premiums, and witnessed the exit of several major medical professional liability insurers from the market" (Carroll, 2009). Risk management procedures in the health system are designed to facilitate a systematic approach for the human resource management activities and for the patient's safety. A critical feature of a systematic approach of human resource management is the interdependence of various procedures that compose the system (Dimitrios, 2012). Health - care Risk Management performs four functions: risk identification, evaluation loss prevention, patient safety and education (Amori, 2006). Risk protection in medical area should cover different kinds of challenges: the working environment, hospitalization conditions, and cares during hospitalization (for example, ensuring asepsis conditions, rigorous verification to see if the associate and contracted staff has the necessary specialty knowledge etc.) and of course those derived from the interaction with the patients or with the caregivers.

The main objective of any health - care system is reaching sustainability dened as maintaining quality and service coverage at an affordable cost (Lega, Prenestini, & Spurgeon, 2013). This perspective focuses on achieving quality in leading, strategic planning, stakeholder participation, human resource management, job analysis, knowledge management, service and outcome (Prachak, & Ngang, 2013). Human resource management is a key aspect that influences work performance. The motivational aspect, the work satisfaction, the payment, the work conditions, the work safety, the level of perceived stress and the agglomeration of professional tasks are recognized as providing supports for quality development and risk management. Organizational factors such as safety climate and morale, work environment factors such as staffing levels and managerial support, team factors such as teamwork and supervision, and staff factors such as overconfidence and being overly self-assured strongly influence clinical practice (Sexton *et al.*, 2006). Strategically planned and transparent policies as well as adequate budget are required in order to achieve the goals of risk management. According to Wynand & Van de ven (2000), human resource aspects correlated with practices of risk adjustment can contribute to both efficiency and equity in competitive health plan markets.

Method

The current study aims to investigate the associations between motivation factors of employees, satisfaction, stress and risk management practice. Another aim is to assess the most significant predictors for risk management practice in health - care system. The background of this study is our previous research on necessity of implementing risk management in the Romanian health system.

Participants

The sample consisted of 242 persons, with the area of residence in different cities from Romania, as Bucharest (25.1%), Iasi (23.5%), Brasov (18.3%), Cluj (16.7%), Timisoara (12.4%) and Sibiu (4.0%). The study population is characterized by a homogenous distribution according to the gender variable, as it comprises 128 women, namely 53% from the total number of respondents, and 114 men, namely 47% from the total. The participants were 60.3% nurses and 39.7% physicians from several hospital units: Emergency, Pediatrics, Orthopedics, Neurology and Oncology units.

Measures

Risk management practice questionnaire was designed to investigate the following aspects: the structure that support the process of risk management, the system procedures that regulate risk identification, monitoring and documenting, risk assessment and documentation when important decisions are made (launch of new projects, drawing up strategic plans, etc.), professional development seen as a facilitating instrument in improving risk knowledge, emergency plans, instruments of transfer or risk sharing and risk reassessment process after implementing measures. All the items make specific reference to risk management implementation in the Romanian health - care system. The 10 items were evaluated on a 5point Likert scale, ranging from 1 (never) to 5 (very often). The value of the Alpha Cronbach coefficient is 0.678, an average acceptable for a new instrument. The Questionnaire that investigates the motivational factors for achieving performance at the workplace included aspects related to: The satisfaction derived from the work done, Physical environment/working conditions, Competitiveness at the workplace, Collective / relationships with colleagues, with superiors. The wages received in return for work performed, Willingness to learn new things, Continuity of employment, The possibility of advancement, The prestige achieved, Gratitude from superiors, Gratitude from patients. The 11 items were evaluated on a 5-point Likert scale, ranging from 1 (never) to 5 (very often). The internal consistency reliability estimates (Alpha Cronbach) is 0.834. The instrument is based on the researches: Judge & Ilies (2002), Dieleman *et al.* (2003), Mathauer & Imhoff (2006).

Another instrument used in this research is the Level of Burnout and Congestion Degree of Professional Duties Assessing Scale. The 10 items were evaluated on a 5-point Likert scale, ranging from 1 (never) to 5 (very often). The internal consistency reliability estimates (Alpha Cronbach) is 0.82, a very good value for the coefficient. The scales' items are derived from the following studies: Cohen, Kamarck, & Mermelstein (1983), Spector, & Jex (1998), Lesage, Berjot, & Deschamps (1997). Furthermore, it was considered appropriate to investigate the level of job satisfaction. The scale has been evaluated by 5 items based on the following studies: Macdonald, & MacIntyre, (1997); Spector (1985; 1997). Demographic variables were collected at the end of the questionnaires that covered gender, age, occupation, hospital unit, work experience.

Procedure

The questionnaires were applied on-line through Survey Monkey and completely anonymous. The respondents were informed about the research aims, and about their rights to withdraw from participating at any point during the completion of the questionnaire. Respondents were notified that the completion of the questionnaires represents their informed consent to participate to this research.



Figure 1. Research model

This figure shows the correlations between variables and covariance between the independent variables. Above the RMP dependent variable can be observed the R square coefficient of determination for Risk Management Practice which explains 93% of the variance for Risk Management Practice variable.

Results

A comparison between groups was made in order to test for a possible bias. An analysis of variance (One-way ANOVA) was made to compare respondents from different cities. The results showed no significant differences on the investigated variables. The first aim of this study was to investigate the associations between motivation factors of employees, satisfaction, stress and risk management practice.

Risk Management Practice		Risk Management Practice	Motivation	Satisfaction	Agglomeration	Burnout
Motivation	Pearson	,490**				
	Correlation					
	Sig. (2-tailed)	,000				
Satisfaction	Pearson	,485**	,994**			
	Correlation					
	Sig. (2-tailed)	,000	,000			
Agglomeration	Pearson	-,963**	-,505**	-,505**		
	Correlation					
	Sig. (2-tailed)	,000	,000	,000		
Burnout	Pearson	-,778 ^{**}	-,382**	-,397**	,801**	1
	Correlation					
	Sig. (2-tailed)	,000	,000	,000	,000	
**. Correlation is significant at the 0.01 level (2-tailed).						

Table 1. Correlations between research's variables

As we can see in *Table 1* Correlations between research's variables, Risk Management Practice (RMP) correlates highly and positively with Motivation variable (r (242) = 0.490, p = 0.00), with Satisfaction variable (r (242) = 0.485, p = 0.00). This indicates that as a medical unit has more concerns for managing the Risk Management Practice the more increases employee motivation. It can be observed that Risk Management Practice correlates negatively with Agglomeration variable (r (242) = -0.963, p = 0.00) and with Burnout variable (r (242) = -0.778, p = 0.00). Therefore, it can be considered that as the risk management practices are less well represented in the medical unit the greater the level of agglomeration of duties that the employee has consequently the burnout syndrome manifesting itself more prominent. The Agglomeration and Burnout variables correlate highly with Risk Management Practice (RMP), but the correlational values are negative. We can also observe very high values between Motivation

and Satisfaction (r (242) = 0.994, p = 0.00), and between Agglomeration and Burnout variable (r (242) = 0.801, p = 0.00).

The correlational values between Motivation and Agglomeration (242) = -0.505, p = 0.00), and between Satisfaction and Agglomeration (242) = -0.505, p = 0.00) are medium. The lowest correlational values can be observed between Motivation and Burnout variable (r (242) = -0.382, p = 0.00), and between Satisfaction and Burnout variable (r (242) = -0.397, p = 0.00).

The second aim of the research is to assess the most significant predictors for risk management practice in health - care system. To verify the efficiency of the explanatory model of Risk Management Practice based on the Motivation, Burnout, Agglomeration, and Satisfaction variables the hierarchical multiple linear regression method was applied. The results show that the tested model best explains the level of implementation of Risk Management Practice.

The findings indicate that the model has a high adjusted coefficient of determination (0, 928). Thereby the second model (*Table 2*) explains 93% of the variance for Risk Management Practice variable.

Table 2. Results of regression analysis regarding multiple R correlation coefficients, R square coefficients of determination for Risk Management Practice

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	,964 ^ª	,929	,928	,33655		
a. Predictors: (Constant), Motivation, Burnout, Agglomeration, Satisfaction						

As it can be observed in *Table 3*, the regression model is significant (p=0,000) which represents that the prediction based on the calculated model is better than the random prediction.

Table 3. ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.	
	Regression	350,500	4	87,625	773,607	,000 ^b	
1	Residual	26,845	237	,113			
	Total	377,345	241				
a. Dependent Variable: Risk Management Practice (RMP)							
b. Predictors: (Constant), Motivation, Burnout, Agglomeration, Satisfaction							

In Table 4, Results of hierarchical regression analysis aimed at explaining Risk Management Practice, can be observed that the effect size indicators for Satisfaction variable is r(sp) = -,058, p=0,186, which is not statistically significant, for Agglomeration variable r(sp) = -,973, p=0,00 for Burnout variable r(sp) = -,184, p=0,008 and for Motivation variable r(sp) = ,168, p=0,008, which are statistically significant. It can be observed that the coefficient predictor that contributes most is Agglomeration, Motivation and Burnout.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		В	Std. Error	Beta	1		
1	(Constant)	10,720	,139		77,323	,000	
	Satisfaction	-,058	,044	-,040	-1,325	,186	
	Agglomeration	-,973	,033	-,929	-29,492	,000	
	Burnout	-,184	,069	-,444	-2,678	,008	
	Motivation	,168	,063	,446	2,690	,008	
a. Dependent Variable: Risk Management Practice (RMP)							

Table 4. Results of hierarchical regression analysis aimed at explaining Risk Management Practice

Regression analysis supports *hypothesis 2* according to which the most significant predictors for risk management practice in health - care system are Agglomeration, Motivation and Burnout.

Conclusions

The results showed that the questionnaires used in this research: Risk management practice questionnaire, The Questionnaire that investigates the motivational factors for achieving performance at the workplace, Level of Burnout and Congestion Degree of Professional Duties Assessing Scale and job satisfaction are a valid measure for the assessment of the research variables. Construct validity and reliability proved that the questionnaires used are fit and effective instruments.

Research's first aim has been verified obtaining associations between motivation factors of employees, satisfaction, stress and risk management practice. Also, our second aim for this research revealed the most significant predictors for risk management practice in health - care system: Agglomeration, Motivation and Burnout. The results show that the tested model best explains 93% of the variance for Risk Management Practice variable the level.

The development of a risk management system in health – care represents a new management approach at health units' level, starting from the necessity to establish clear. Even though the study was conducted on medical staff in Romania, overloading medical staff and the Burnout syndrome are reflected in the medical professionals, with an important societal impact, decreasing efficiency and their ability to provide quality health care services so that the individual and society can no longer benefit from appropriate medical staff and patients. Although medical staff, as well as patients are reluctant to the importance of including standards to solving problems addressing emerging risks in the health system, our study shows that implementing a system for determining the risk and reduce the negative influence of factors which it requires, is in fact addressed at the institutional level.

The existence of risks in the medical field correlates often with malpractice, especially given that the perception of risk is the first step in reducing its influence. With the increase of its own experience in implementing risk management, quality development cores, but also the change of the defining and risk assessment can generate substantial changes in health systems in increasing the quality of health care.

References

- Amori, G. (2006). *Risk Management: Pearls on Disclosure of Adverse Events.* Chicago: American Society for Healthcare Risk Management.
- Carroll, R. (2009). *Risk management handbook for health care organizations*. San Francisco: Jossey-Bass, vol. 3.
- Cohen, S., Kamarck, T., & Mermelstein, R.(1983). A global measure of perceived stress. Journal of Health and Social Behavior 24, 385-396.
- Dabari, I.J., Saidin, S.Z.A. (2014). Theoretical Framework on the Level of Risk Management Implementation in the Nigerian Banking Sector: The Moderating Effect of Top Management Support. *Procedia-Social and Behavioral Sciences*, 164, 627-634.
- Dieleman, M., Cuong, P.V., Anh, L.V., & Martineau, T. (2003). Identifying factors for job motivation of rural health workers in North Viet Nam. *Human Resources for Health*, 1,10.
- Dimitrios, K. (2012). Comparative approach at the European level of the human resources management of the health system. *Procedia-Social and Behavioral Sciences*, *46*, 5274-5279.
- Hood, C., James, O., Peters, B.G., Scott, C. (2004). *Controlling Modern Governmen*. Northampton Massachusetts: Edward Elgar Publishing Limited.
- Huber, C., & Scheytt, T. (2013). The dispositif of risk management: Reconstructing risk management after the financial crisis. *Management Accounting Research*, 24(2), 88-99.
- Judge, T.A., & Ilies, R. (2002). Relationship of personality to performance motivation: a meta-analytic review. *Journal of Applied Psychology*, 87(4), 797-807.
- Lega, F., Prenestini, A., & Spurgeon, P. (2013). Is management essential to improving the performance and sustainability of health care systems and organizations? A systematic review and a roadmap for future studies. *Value in Health*, 16(1), S46-S51.
- Lesage, F.X., Berjot, S., & Deschamps, F. (2012). Psychometric properties of the French versions of the Perceived Stress Scale. *International Journal of Occupational Medicine and Environmental Health*, 25(2), 178-184.
- Macdonald, S., & MacIntyre, P. (1997). The generic job satisfaction scale: Scale development and its correlates. *Employee Assistance Quarterly*, 13(2), 1-16.
- Mathauer, I., & Imhoff, I. (2006). Health worker motivation in Africa: the role of nonfinancial incentives and human resource management tools. *Human Resources for Health*, 4(1), 4-24.

- Power, M. (2004). The risk management of everything: rethinking the politics of *uncertainty*. London: Demos.
- Prachak, B., & Ngang, T.K. (2013). Risk management by the heads of health centres in public health region 12. Procedia-Social and Behavioral Sciences, 93, 1301-1305.
- Sexton, J., Helmreich, R., Neilands, T., Rowan, K., Vella, K., Boyden, J., Roberts, P.R., & Thomas, E. (2006). The Safety Attitudes Questionnaire: psychometric properties, benchmarking data, and emerging research. *BMC Health Services Research*, 6(1), 44.
- Spector, P. E. (1985). Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey. American Journal of Community Psychology, 13, 693-713.
- Spector, P.E. (1997). Job satisfaction: Application, assessment, causes, and consequences. Thousand Oaks: Sage Publications.
- Spector, P.E., & Jex, S.M. (1998). Development of four self-report measures of job stressors and strain: Interpersonal Conflict at Work Scale, Organizational Constraints Scale, Quantitative Workload Inventory, and Physical Symptoms Inventory. *Journal of Occupational Health Psychology*, 3(4), 356-367.
- Wynand, P.M.M., & Van de ven R.P.E. (2000). Risk adjustment in competitive health plan markets. In Culyer, A.J. & Newhouse, J.P. (Eds.) *Handbook of Health Economics*. Amsterdam: *Elsevier*.