Merging paramedic performance and service quality. An empirical test of an integrative model

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ABSTRACT: This article aims to explain a conceptual framework of causality between the variables of job stress, competence, motivation, paramedic performance and health service quality. It represents some concepts and theories of organizational behavior, marketing management, motivation and health services quality, and so this article is expected to contribute to science development, especially in the field of health services.

KEYWORDS: Job stress, competence, motivation, paramedic performance, health service quality

1. INTRODUCTION

Every human being has the right to prosperous life physically and spiritually, own residence, and live in a good and healthy environment and receive medical care. The studies of health service quality in Indonesia have been carried out that some researchers found the quality of health services in Indonesia be very dependent on availability, type, and number of health workers which in turn influenced by public policy. ([1], The finding corresponds to the conditions experienced on Selayar Island. The Ministry of Rural Development in 2014 put Selayar Islands as one of 183 underdeveloped districts in Indonesia. The fact is supported by the Human Development Index (HDI) as a measurement of comparing life ratio expectancy, health, literacy, education and standards of living for all States/Regions in worldwide. Data of HDI in 2009 - 2013 for South Sulawesi province put Selayar Islands at a low position. Challenges faced by organizations engaged in service offerings are to attract new service users and maintain the loyalty of the service users. Some empirical studies indicate that it is more profitable to keep customers than to get new ones. ([3, 4]. Empirical evidence shows the link of job stress, individual competence and individual working motivation to the performance and health service quality of paramedics ([5, 6, 7, 8]).

Research on job stress experienced by paramedics found no significant effect of job stress on job satisfaction ([5]. Similarly, High level of job stress is dominated by men more than women, job stress related negatively and insignificantly to nurses performance ([7]. In addition, there was negative and insignificant relationship between job stress and individual performance ([8]. Inconsistency finding in analyzing the effect of job stress on individual performance that there was a significant effect of job stress to auditor performance. Other factors influencing individual performance is the individual competence. Competence is a characteristic that stands out in the individual being a way to behave and think in all situations, as well well as taking place within a long period of time. Competence refers to a person's performance at work that can be seen from the thoughts, attitudes, and behaviors ([9]. The high level of competence of nurses and the quality of appropriate action is correlated with the frequency of positive action. Nurses who work in the field of psychiatry has a value higher than average competence of nurses on duty in the area of clinical trials. Other nurses who work in the field of psychiatry is the most competent in the act relating to patient care, nurses have the professional competence and commitment to nursing ethics. The factors of age and work experiences have positive relationship with competence ([10].

Empirical evidence demonstrating the effect of competence to individual performance indicated that competence has positive and significant effect on individual performance ([11]. Individual competence in carrying out duties and responsibilities has significantly impact on performance increase ([12, 13]. Another antecedent that forms individual performance is motivation. Motivation as encouragement, stimulus and individual working spirit to work has influence on increasing paramedic performance. Motivation is individual desire that encourage an action to be performed or something to become a base or reason to behave ([14]. Individual work has a positive and significant effect on individual performance ([12, 15].

The work-related attitude is employees’ motivation toward organization which they work for in improving performance ([16]. Performance plays an important role in explaining services, because it serves...
as a symbol of quality and value to consumers. One of the important attributes is the individual performance in interacting with service users in delivering high quality services. This study was conducted to investigate the employee’s performance attributes in hotel environment. The results showed that the employee’s performance in the front desk, housekeeping (employee’s performance) significantly influences quality perception, while performance of the front desk and room service in providing services have significant effect on the perceived value [17]. The application of Scale of Service Quality (SERVQUAL) in the context of society health services in Romania [18]. His research findings provided an evidence that the largest gap value (dissatisfaction toward the quality of health care services) through tangible dimension was followed by responsiveness dimension and the dimension of reliability. The inconsistency of the findings in analyzing the quality of health services quality on the indicators of infrastructure, administrative procedures, safety and social responsibility does not influence significantly patient satisfaction [19]. In other studies conducted in hotel industry provide evidence that employee's performance mirrored by attitude, motivation and behavior of employees have significant and negative effect on the hotel service quality [20]. The explanation above engenders a problem this research states: whether the variables of job stress, competence and working motivation affect significantly the health service quality in mediation of paramedic performance?

II. JOB STRESS

Stress is generally defined as a condition threatening, hitting, and not fun for individuals. More specifically, stress is a physical and psychological reactions to changes individual experiences. The forms of physical reactions are, the heart beats faster, blood pressure increases, and psikosomatis like peptic ulcers arises. Psychic reaction could be the attitude of withdrawal and the formation of ego defense mechanism. Those changes constitute one form of individual adaptation to interact with environment [21]. Stress at work is almost every day experienced by paramedic. Paramedic in performing profession is very vulnerable to stress. This condition is triggered due to demands of organization and its interaction with the jobs that often bring conflict over what was done. The workload frequently done by paramedic is physical in nature such as lifting patients, pushing health equipment, making up the bed of the patients, pushing the stretcher, and the mental in nature is the job complexity e.g. skill, responsibility to recovery, taking care of family, and establishing communication with patients[22]. Stress at work is becoming a serious issue for hospitals and other health services as it can degrades the performance of paramedic [23]. The concept of stress is very complex. The condition is caused by various reactions and feelings to stress [24].

III. PARAMEDIC COMPETENCE

Competency as a trait or characteristic needed by a functionary in order to carry out the office properly, or it can also mean the characteristics/traits of someone who is easily visible, including the knowledge, expertise, and behavior that allow him to perform [25]. Competence consists of unique traits of each individual expressed in the process of interaction with others in a social context, so it is not just limited to the specific knowledge and skill or the standard of performance expected and the behavior exhibited. So, competence covers attitudes, emotions and emphasizes the personal interaction and social factors [26].

IV. MOTIVATION

Motivation is a willingness to make every effort towards organizational objectives. Individual needs of the three elements of this definition are attempt, objective of organization and needs. So, motivation is an effort that exists within one's self to meet his needs in order to achieve organizational goals [27]. The most efficient way to do repetitive work and motivate employees is the intensification of wage system. The more the employees produce the more rewards they will get. This model too simplified in nature, because it assumes that employees’ motivation focuses on one factor: money. Thus, it can be concluded that the purpose of awarding the motivation is to push someone to be able to perform the job optimally in accordance with the intended purpose [28].

V. PARAMEDIC PERFORMANCE

Assessment of employees’ performance within an organization to develop human resources is an activity of improving manager’s decisions and providing feedback to employees of their activities. Performance is often referred to result, which means to what individual employee produces [29]. Employee’s performance is quality and quantity of job achievement committed by individuals, groups, or organization. Individual performance as the level of degree to which an individual performs his job is called level of performance [30, 31].
VI. HEALTH SERVICE QUALITY

Quality paradigm has changed nowadays that experts agree the idea of quality be defined by consumer. Quality management is a group of practices defined by the theorists of quality and practitioners. The theorists of quality generate a comprehensive philosophy about quality and the practitioners are now implementing the details of “the how”. The term quality is increasingly in need of understanding or a comprehensive process within organization so the term is implemented. Service quality is defined as assessment or global attitude with regard to service superiority, the difference between reality and expectation of its customers over the services they receive or earn [32]. Hope is the customers’ desire of the service provided by the company. Service quality can be identified by comparing the customer's perception of the service they receive or get with a service they expect and want. If the fact is greater than the expected, then it can be said the service is in good quality. Whereas if the fact less than the expected, the service is not good in quality. If the fact is the same with expectations, the service is said in satisfactory [33]. The concept of service quality is generally defined as the difference between the expected services and the received service [32]. Conceptualization of service quality is rooted in the theory of disconfirmation of expectations, that evaluation of service quality result of perception between the received service and the expected service [34]. The concept of service quality can be represented in different way depending on the aspects and methods of approach. Health service can be divided into two dimensions of quality: technical quality and functional quality. Technical quality in health sector is defined based on the technical accuracy of medical diagnoses and procedures, or the conformance with professional specifications. Functional quality refers to the way in which the health service is delivered to patients [19].

An understanding to customers’ perceptions in health service becomes a necessity. Service quality factor operated through the dimensions of patient confidence, business competence, maintenance quality, supporting services, physical appearance, waiting time and empathy [35]. Some other researchers developed framework and instruments for measuring the concept of hospital service quality. Measurement scale of hospital service quality from the view of patients found a direct evidence, medical responsiveness, assurance, nursing quality and personal beliefs and values become the quality dimensions of hospital service [36]. Research in Thailand and found that the dimensions of communication, responsiveness, courtesy, cleanliness and cost are the main dimensions of hospital service quality [37]. Service quality in hospital and patient intention to buy service quality is operated by using the dimensions of communication, direct evidence, empathy of nurses, reassurance, response of administration staff, security and doctor response [38]. Study of hospital services in the United States, found the process of acceptance, doctor treatment, nursing treatment, compassion of family and friends, pleasure surrounding become the key dimensions of service quality [39].

VII. CONCEPTUAL FRAMEWORK

A study of job stress on 389 employees in the public sector in 389 Istanbul, Turkey, consisting of 184 females and 205 males with the average age level of 38.12 years and the average working time of 11.96 years. It was to test the relationship between job stress and performance through emotional intelligence as moderate variable. The results of the Hierarchical regression analysis provide evidence that job stress has negative and insignificant link to the employee performance [7]. Study on 320 customers in Telecommunication service company with the intention of examining the factors that relate to the work affecting employees performance, customer service and customer evaluation. The results indicated that job stress has a significant link to customer desires to make a repurchase due to high service quality provided to customers [40]. The empirical research has shown the link between the self-directed readiness and nursing competence. The design of this research used descriptive correlation and 519 Bachelor of nursing from three universities were established as samples from the convenience sampling. The research results provide evidence that the average value of self-directed readiness was at medium-span as for competence was at a high rate average, that the self-directed readiness has a positive and significant link with nursing competence, and the conclusion was that the self-directed readiness is the predictor of nursing competence [41].

The link between human capital in organization be referred to as a work competence with organizational performance. The study was done on 256 company managers in Taiwan. The study found that organizational performance can be enhanced through knowledge sharing. In the meantime, knowledge sharing in an organization has also a positive impact on human capital. The human capital within an organization is defined in this study as worker competence denoting an effective impact on the work performance. Meanwhile, knowledge sharing within an organization is said to have an effective impact to human resources development [42].
This criterion involves transferring knowledge from one person to another or different work groups that ultimately improve performance. A study on 215 patients who got treatment at the Government-owned hospital in Australia with intention of analyzing the patient's satisfaction on the services provided. The analysis results provided proof that competences provide a significant influence on the service quality [43]. The relationship between motivation and performance is positive, because employees who have high motivation will show high performance. It means that the higher the motivation the higher the employees performance [44]. Empirical evidence shows that motivation affects performance as shown on 60 employees working for Bank Muamalat in Central Java. The purpose of this study was to analyze and prove that the implementation of leadership and organizational culture affect the motivation and work performance of the employee in Islamic perspective. The result of Partial Least Square (PLS) provided evidence that working motivation owned by employees, in implementation, can improve the employees performance [15].

Working motivation, in addition to the effect on performance, can improve the service quality, the problems in delivering services become more complex and diverse, proactive behavior becomes more important as a determinant of the success of organization. This study analyzes the role of mediation of social support reflected with the intrinsic motivation in explaining the influence of services climate and proactive actions towards the service quality shown by 205 airline stewardesses in Taiwan. The hypothesis testing is done by using hierarchical regression and indicates that low service climate shows insignificant impact to provided service quality, the emergence of high intrinsic motivation of the stewardesses shows a positive and significant influence to the service quality [45]. Empirical evidence showing the causality between individual performance and the health service quality, that employee's service is individually the most important part in creating a process of well perceived service. This research was conducted at the forth-star hotel in South Florida USA using 184 employees. The result of confirmatory factor analysis provided evidence that the employee's performance was mirrored by the attitude, motivation and behavior of employees and denoted significant and negative effect on the hotel service quality [20].

The high-performance work systems (HPWSs) that is increasing every time, particularly the research that examines the effects of HPWSs on the performance level of manufacturing company. Distinguishing management and employees in the perspective of HPWSs that examined about how is the performance management and individual performance towards service. The data were collected in three phases from a variety of sources involving 292 managers, 830 employees and 1,772 customers from 91 bank branches indicating a significant difference between management performance and employee performance that employee performance based on the perspective of HPWSs has positive relationship with the individual performance of public service through the intercession of the employee capital and organizational support perceived. It was associated positively with individual service performance (knowledge and intensive) that comprehensively has significant effect to customer satisfaction and the quality of banking services [46].

Based on the previous researches, it can be described in a conceptual framework, as follow.

![Conceptual framework showing the correlational links.](www.ijbmi.org)
skills, self-concept, and working motivation (intrinsic and extrinsic motivation) toward medical services quality (tangibles, empathy, reliability, responsiveness, and assurance) through paramedic performance (work quantity, work quality, punctuality at work). Empirical phenomenon underlies causality between the variables in this research. Research on job stress proved that there is still a gap in findings of some previous researches. Job stress has insignificant effect to individual performance [5, 7, 8]. The research result is inconsistent, there is significant effect between job stress and individual performance [6].

The findings of previous researches indicating a gap analyzing the effect of competence on paramedic performance were that nurse competence was categorized in good level or very good level and increased with increasing of age and work experience that denoted a significant effect on their performance as a paramedic worker [10, 13, 41, 42]. The finding contrasted with the research which stated that the employee competence has not significant effect on the increase of employee performance, because skills, knowledge and attitude of the employees cannot improve their performance at work [47]. Motivation is a driver or trigger to nurses at work. Empirical evidence suggests that the higher motivation the higher the employees performance [15, 44]. Managing the stress is not only depending on the personality, but also their work environment. Nurses have a high competence in controlling stress that enable them to provide real influence of service quality to the patient [22]. Job stress has significant response to customers’ desire to make a repurchase due to the high service quality they received [40]. The findings contradicted to job stress has negative effect on the service quality [48].

Working competence of nurse can increase the quality of health services. The high level of nurse competence and appropriate action correlated with frequency of action, age and work experience correlated positively with competence, and high competence of nurse based on practice can improve the quality of nursing service [10]. High working motivation of paramedic (individual) can provide the expected service quality. The statement is in accordance that intrinsic motivation becomes a trigger for the provided-high service quality [45]. High performance of paramedic provides impact on the high quality of health services. Employee performance based on the perspective of HPWSs has positive relationship with the performance of individual public service and employee performance mirrored by employee attitude, motivation, and behavior has negative but significant effect on service quality [20, 46].

VIII. DISCUSSION

This study was conducted on paramedic workers (nurses and midwives) because nurses and midwives are very important in public health services. The advances in science and technology in all areas, including health, improvement of public economic status, increased attention to implementation of human rights, public awareness of needs of health resulted in society be more aware of the importance of living a healthy life and expressed the demands of a high quality health service. The shift of the phenomenon has changed the nature of nursing service from vocational service (a service based only on the skill) to professional service (a service that rests on the science and technology mastery of specialization and nursing). So, nurses and midwives at work are required to be able to minimize the stress at work by stifling emotions, be friendly and cooperative and others. Nurses and Midwives are also required to have competence in working with high motivation to work so as to improve their performance in a work which in turn affect the high quality of health care services rendered to the community. Referring to the mentioned phenomena and empirical studies, the study of working stress, competence and working motivation in hospitals and clinics by placing paramedic performance as a mediating variable to explain the relationship of job stress, competence, and motivation with medical service quality is interesting to carry out. So far research using paramedic performance as a mediating variable in the context of health service is still limited. The use of paramedic as a unit of analysis in the research of health service quality is likely to be conducted in testing the conceptual framework presented in this article.

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