

Full Length Research Paper

Job motivation and organizational commitment among the health professionals: A questionnaire survey

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The objective of this study is to investigate the level of organizational commitment and motivation as well as the relationship between health staff's organizational commitment and motivation within state hospitals. Using the Structural Equation Modeling (SEM), the relationships between the organizational commitment and motivation were examined. Data for this study were obtained through a questionnaire. The questionnaire was applied to health professionals working in state hospitals by using the "Organizational Commitment Questionnaire" and the "Motivation Questionnaire". Within this scope, the organizational commitment levels of the health professionals were analyzed in three dimensions which are emotional commitment, continuance commitment and normative commitment and the motivation levels of the health professionals were examined in two dimensions: intrinsic and extrinsic motivation. The results indicated that intrinsic motivation of health professionals was explained mostly by affective and normative commitment. Also affective and normative commitment impact on intrinsic motivation was more than continuance commitment. The most effective factor on extrinsic motivation was normative commitment. Continuance commitment had effect on extrinsic motivation less than normative commitment. Also it was seen that the affective commitment had the lowest effect on external motivation.

Key words: Health professionals, organizational commitment, work motivation, SEM.

INTRODUCTION

Employees' commitment to the organization is a crucial issue in today's healthcare. Commitment of employees can be an important instrument for improving the performance of the organizations. Researchers conducted on commitment have shown that employees with higher organizational commitment engage in organizational citizen behavior and this, in turn, results in better performance

and higher work motivation that are beneficial to the organization (Chang et al., 2007). So employees' productivity is largely related to their motivation levels and a higher level of organizational commitment.

Therefore, it is important for an organization to examine the relationships between these two variables. Furthermore, the term of "commitment" has been defined, measured and investigated variously and extensively but what is important is to examine the relationships between these two variables (organizational commitment and work motivation). In this study, it was examined that the relationship between the motivation and the organizational commitment in healthcare.

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Abbreviations: SEM, Structural equation modeling; AC, affective component; CC, continuance component; NC, normative component; NM, normative commitment; IM, intrinsic motivation; EM, extrinsic motivation; OCS, organizational commitment scale; CFA, confirmatory factor analysis; LISREL, linear structural relations modelling; RMSEA, root-mean-square error approximation; GFI, goodness-of-fit index.

Organizational commitment

In the past decade, the effect of the organizational commitment has increased significantly in the field of management development (Pool and Pool, 2007,). First

researches on the organizational commitment date back to the 1960s. Several alternative models of commitment were proposed in the 1980s and early 1990s (Wasti, 2004). The model developed by Meyer and Allen (1991) has gained substantial popularity within of these models (Wasti, 2004). According to this model, organizational commitment can be conceptualized as consisting of three components: *affective*, *continuance* and *normative* (Chang et al., 2007). The affective component (AC) means the attachment, identification and involvement in the organization according to Meyer et al. (2004) model (Meyer and Allen, 1991). AC is adoption of organizational goals and commitment to them and to have positive emotions related to identification with it (Wasti, 2004; Erdheim et al., 2006; Cheng and Stockdale, 2003). In emotional commitment, worker shows the active and voluntary participation in line with organizational objectives and desire to be continuous (Movday et al., 1979). As for the continuance component (CC), it means the attachment depending on the accumulation of valued side bets for instance skill transferability, relocation, pension and self-investment co-varying with organizational membership. CC refers to the perceptions of an employee about costs related with the leaving an organization.

These costs can either be work-related (for example, wasted time and effort acquiring non-transferable skills) or non-work-related (for example, relocation costs) (Wasti, 2004; Erdheim et al., 2006; Cheng and Stockdale, 2003). Employees believe that they will lose material and spiritual satisfaction elements such as their status, salary and authority with the departure of the organization employees' labor, time and effort spent for organization and this belief provides to employees a mandatory organizational commitment (Obeng and Ugboro, 2003). Lastly, the normative component (NC) connotes the attachment based on motivation to conform to social norms regarding attachment. As for NC, it denotes to employee's feelings of obligation to remain with the organization (Wasti, 2004; Erdheim et al., 2006; Cheng and Stockdale, 2003). Employee commitment arises from the belief that correctly and morally is practiced not personal benefit. Normative commitment (NC) has qualification of psychological contract (Meyer and Herscovitch, 2001). According to Meyer and Allen (1991) common view about these three components, commitment is a psychological state characterizing the employee's relation with organization, and it also glances at decision to continue or discontinue membership in organization (Cheng and Stockdale, 2003). The term *commitment* can be explained in many ways. Beginning with Becker (1960), there exists some definitions for organizational commitment describing the concept of commitment as, "*consistent lines of activity.*" Organizational commitment acts as a psychological bond to the organization that influences individuals to act in ways consistent with the organization's interests. Similarly Meyer and Herscovitch (2001) state that commitment is "*a force that binds an*

individual to a course of action of relevance to one or more targets". In addition, devoted individuals believe and accept organizational goals and values. They feel willing to remain within their organizations and willing to provide considerable effort on their behalf. Naturally, different reasons underlie on being commitment of employees for example, they may identify with goals reinforced by the organization, or they may value the job security linkage their membership (Johnson et al., 2010).

Work motivation

Motivation is a psychological process resulting from the arousal, direction and persistency of voluntary action to attain organizational and personal goals (Pool and Pool, 2007). Pinder (1998) states "*Work motivation is set of energetic forces that originates both within as well as beyond an individual's being, to initiate work-related behavior, and to determine its form, direction, intensity and duration*" (Pinder, 1998). The job motivating factors were examined by some researchers (Mottaz, 1985; Wong et al., 1999; Mahaney and Lederer, 2006; Bakay and Huang, 2010), in two variables are, respectively intrinsic and extrinsic variables. According to Wong et al. (1999), the intrinsic variables includes feeling of involvement, supervisor's help with personal problems, interesting work, promotion or career development, supervisor's help with personal problems, and appreciation of a job well done. As for the extrinsic variables, they are job security, good salary, tactful discipline, and good working conditions, respectively (Curtis et al., 2009). Deci defines intrinsic motivation as behaviors that "*a person engages in to feel competent and self-determining*" (1975). For this reason, intrinsic motivation is not ascribed to expectation of any rewards for the individual and so there is no pecuniary or non-pecuniary outcome of the activity but only itself.

Furthermore, activity is only executed by the sake of oneself. "*Activities are ends in themselves rather than means to an end*" (Deci, 1975) clarifies the operational definition of the intrinsic motivation (Bakay and Huang, 2010).

Deci and Ryan (1985) declare motivation is gained through rewards, with rewards either intrinsic or external to the activity and whose procurement is enabled by activity performance (Thakor and Joshi, 2005). Intrinsic rewards include issues related to the job itself such as achievement, autonomy, variety, responsibility and personal and professional growth. The other intrinsic motivation tools contain status, recognition, praise from superiors and co-workers, personal satisfaction and feelings of self esteem (Mahaney and Lederer, 2006).

Thakor and Joshi (2005) indicate that the feeling of accomplishment that arises from successful activity performance is regarded as an intrinsic motivator because it is rewarding psychological state that is directly attained

through successful activity performance. Compensation taken in exchange for the activity performance provides people to acquire to be of value and so is regarded as an extrinsic motivator (Thakor and Joshi, 2005). On the other hand extrinsic motivation tools are comprise such factors as pay, fringe benefits, job security, promotions, private office space and the social climate. Moreover they involve competitive salaries, pay raises, merit bonuses and such indirect forms of payment as vacation and compensatory time off and external to the job itself (Mahaney and Lederer, 2006).

The relationship between work motivation and organizational commitment

In organizational psychology, the commitment and motivation literatures have usually evolved independently to a certain extent (Meyer et al., 2004). On the contrary, Meyer et al. (2004) remarked that commitment is one component of motivation and, is important that they gain a better understanding of two processes themselves and of workplace behavior by integrating theories of commitment and motivation. Latterly, commitment scholars have also begun to become more concerned with motivation-based variables since they report that commitment is a motivational phenomenon (Johnson et al., 2010). In addition, researchers suppose that committed workers make a contribution to the organization in terms of motivation (Eby et al., 1999; De Silva and Yamao, 2006; Pool and Pool, 2007; Johnson et al., 2010). Also companies that paid attention high commitment to improve the employees' job satisfaction, motivation and morale may recognize long-term benefits of corporate success, loyalty, productivity, and employee retention (Kim et al., 2005).

In other words retention, attendance, motivation and job productivity are the consequences of organizational commitment (Mowday et al., 1979; Kim et al., 2005; Eby et al., 1999; De Silva and Yamao, 2006; Meyer et al., 2004; McCabe and Garavan, 2008). Likewise, some researchers emphasize that commitment levels (High or low organizational commitment) are in relation to such many criteria as performance (Shaw et al., 2003; Chong and Eggleton, 2007; Wong and Law, 2002) satisfaction (Mathieu and Zajac, 1990; Pool and Pool, 2007; Yang and Chang, 2008), and work motivation (Meyer et al., 2004; Johnson et al., 2010; Curtis et al., 2009; Eby et al., 1999).

For instance, according to Wong and Law (2002), what determines and changes the employees' performance of emotional work is their organizational commitment. It is also stated by De Silva and Yamao (2006) that organizational commitment improves the motivation, creativity of the employees. Meyer et al. (2004) are of the opinion that commitment is considered as one of several energizing forces for motivated behavior. Higher

supervisor evaluation and supervisor perceptions which have a key role in motivation result in a greater commitment (De Silva and Yamao, 2006). As a consequence, organizational commitment has a critical role in order to be able to create a business environment that will promote motivation at the workplace (Pool and Pool, 2007). So motivation and commitment are both important issues within health institutions, too. Especially it is more important in critical implementation fields in health care. Organizational commitment of health professionals plays a role in determining outcome variables such as motivation in their work. In this study, we aimed to investigate the level of organizational commitment and motivation as well as the relationship between health staff's organizational commitment and motivation within state hospitals.

Objective of the study

Certainly, the issues of employee motivation and organizational commitment have so far drawn attention within the scope of the healthcare literature, but now, there is no single available report study that has presented the health workers' motivations and organizational commitment relationships. Thus, this article addresses this information deficit with the hope that effective management strategies can be developed so as to produce higher motivation levels and organizational commitments of health employees.

METHODOLOGY

Research participants

In this study, pretest was used to enhance the reliability and validity. Besides, amendments were made as recommended. In the next step, we applied our questionnaire to the health professionals of four state hospitals in one of the province in Turkey. The total number of the questionnaires that returned to us was 204 (approximately 74% returned) and due to missing values, we ended up with 185 usable observations a 61% response rate.

Survey measures

As method, we designed self-administrative questionnaires to measure motivation level and organizational commitment. In this study, pretest was applied to enhance reliability and validity. When the corrected item total correlation was <0.45 , and if deleting the item would increase Cronbach's α , the item was deleted. Then we applied our questionnaire to the health professionals of state hospitals. A five-point Likert type scale (1 = "Strongly Disagree" and 5 = "Strongly Agree") was used. *Motivation questionnaire (scale)* items were developed based on Mottaz (1985), Brislin et al. (2005), and Mahaney and Lederer's (2006) motivation works. It included 16 items containing two dimensions and was adapted to the Turkish by Dündar et al. (2007), and it was adapted to service sector by Ertan (2008), and it covers the health sector in our study. *Intrinsic motivation (IM)* was measured by 8 items. The sample items for intrinsic motivation were "I do have responsibilities related to work" and "I see myself as an important employee of the hospitals". *Extrinsic*

motivation (EM) was measured by 8 items. The sample items for extrinsic motivation were "I have promotion prospects" and "I think the feel is enough to get from my work".

A mean score was determined for the items matching the two dimensions of the motivations scale. The resulting Cronbach alpha values of the main study were 0.79 for IM, .54 for EM and .90 for motivation (the aggregate dimension of motivation). *Organizational commitment* was measured with the modified form of Meyer and Allen's (1997) organizational commitment scale (OCS). The original instrument was designed to measure the extent to which employees are committed to the employing organization and it was adapted to Turkish by Wasti (1999). The scale measures three distinct dimensions of commitment which are AC, CC and NC. There were reverse scored items in the OCS such as "I do not feel like "part of the family" at my organization." These items were reverse coded during the entry of the data. AC was measured by 8 items. A sample item for affective commitment was "I do have a strong sense of belonging to my organization." CC was measured by 5 items. A sample item for continuance commitment was "If I had not already put so much of myself into this organization, I might consider working elsewhere". NC was measured by 5 items. A sample item for NC was "I would feel guilty if I leave my organization now."

Method

SEM is a comprehensive statistical method used in testing hypotheses about causal relationships among observed and unobserved (latent) variables and has proved useful in solving the problems in formulating theoretical constructions (Reisinger and Turner, 1999). Its function has found to be better than other multivariate statistics techniques which include multiple regression, path analysis and factor analysis. Other statistics techniques could not take them into consideration due to the interaction effects among depend and independent variables. Therefore, a method that can examine a series of dependence relationships simultaneously helps to address complicated managerial and behavioural issues. SEM also can expand the explanatory ability and statistical efficiency for model testing with a single comprehensive method (Pang, 1996; Yilmaz, 2004). SEM is a method for representing, estimating and testing a theoretical network of linear relations between variables (Rigdon, 1998). The structural model is that component of general model that prescribes relations between latent variables and observed variables that are not indicators of latent variables.

The multiple regression model is a structural model without structural variables and limited to a single outcome (Hoyle, 1995). Bollen (1989) describes three main components in the historical course of structural equation modeling: (1) path analysis, (2) the conceptual synthesis of structural model and measurement model and (3) overall forecasting processes. Causal models were developed in a historical order; these models are; Regression Analyze, Path Analyze, Confirmatory Factor Analysis (CFA), Structural Equation Modeling (Schumaker and Lomax, 2004; Yilmaz and Celik 2009). Modern SEM originally is known as JKM model (Jöreskog - Keesling - Wiley) (Bentler, 1980). But later in 1973, it is referred as "Linear Structural Relations Modelling (LISREL)" with the development of first ready LISREL software (Yilmaz and Celik, 2009). There are many kinds of goodness of fit indexes and the statistical functions to put a good use of the model fit. The most common of them are (χ^2), RMSEA (Root-mean-square error approximation) and GFI (Goodness-of-fit index) (Jöreskog and Sorbom, 2001). As Hayduk (1987) stated if the RMSA is equal or smaller than 0.05, it shows a perfect fit. If it is between 0.08 and 0.10 then it means that there is an acceptable fit, but if it is greater than 0.10 then it corresponds to a bad fit.

FINDINGS

As a result of the EFA, 3 and 2 factors are occurred, respectively about organizational commitment (X) and motivation (Y). The total variance explaining ratios of these factors are 64.812 and 66.236%, respectively. The dimensions about organizational commitment are named as; XA: AC, XB: CCt, and XC: NC. The variance explaining ratios of these dimensions are 25.031, 19.521 and 21.684%, respectively. The dimensions about motivation are named as; YA: IM, and YB: EM. The variance explaining ratios of these dimensions are, 37.226 and 27.586%, respectively. Table 1 provides the EFA results and reliability analysis results for the variables about organizational commitment. In factor AC (XA), the item that has maximum loading is XA4: This organization has a great deal of personal meaning for me (0.825). In factor CC (XB), the item that has maximum loading is XB4: It would be hard for me to get used a new workplace (0.809). In factor NC (XC), the item that has maximum loading is XC3: I would feel guilty if I leave my organization now. Table 2 provides the EFA results and reliability analysis results for the variables about motivation. In factor IM (YA), the item that has maximum loading is YA1: I have responsibilities related to work (0.827). In factor EM (YB), the item that has maximum loading is YB5: I get extra pay for high performance. (0.936).

The results of reliability analyses (Cronbach's Alpha) are also given in Tables 1 and 2. When the alpha values are examined, it can be seen that all the reliability coefficients of the dimensions are high enough. Figure 1 is examined, it is seen that the most effective items on effective commitment (XA) are those: "XA4: This organization has a great deal of personal meaning for me (0.90)." and "XA3: I do not feel "emotionally attached" to this organization (0.84)." Likewise, the most effective items on continuance commitment (XB) are those: "XB5: I feel that it is more difficult leaving this hospital over time (0.84).", "XB1: It would be very hard for me to leave my organization right now, even if I wanted to (0.78)." and "XB4: It would be hard for me to get used a new workplace. (0.78)." Similarly the most effective items on NC (XC) are those: "XC5: I think it is necessary to show loyalty to the hospital (0.85)." and "XC4: It would not be right to break my personal relationships, leaving from this hospital. (0.78)."

The effective of affective commitment on IM is positive (0 and 20). It is an expected result that AC has a positive effect on IM, based on some works (Reilly and Chatman, 1986; Eby et al., 1999; Low et al., 2001; Gagne and Deci, 2005; Meyer et al., 2004; Karatepe and Uludağ, 2007). Eby et al. (1999)'s research demonstrates that IM was positively related to affective organizational commitment. The other researches also indicate that there is a significant positive correlation between the two constructs (Low et al., 2001; Karatepe and Uludağ, 2007). NC has the positive effect on IM (0.32).

Table 1. EFA results and Cronbach's α value for the X variables.

Factor/item	Factor loading	Eigen value	Explained variance (%)	A
XA Affective commitment		8.825	.	0.907
XA1. I really feel as if this organization's problems are my own	0.744			
XA2. I do not feel a strong sense of belonging to my organization	0.739			
XA3. I do not feel "emotionally attached" to this organization	0.800			
XA4. This organization has a great deal of personal meaning for me	0.825			
XA5. I do not feel like "part of the family" at my organization	0.737			
XA6. I feel my job in this hospital like my own specific job	0.678			
XA7. I think that it is proud to be employees of this hospital	0.592			
XA8. I adopt the objectives of this hospital	0.424			
XB Continuance commitment		1.295	19,521	0.858
XB1. It would be very hard for me to leave my organization right now, even if I wanted to	0.680			
XB2. Too much of my life would be disrupted if I decided I wanted to leave my organization right now	0.745			
XB3. If I had not already put so much of myself into this organization, I might consider working elsewhere	0.643			
XB4. It would be hard for me to get used a new workplace	0.809			
XB5. I feel that it is more difficult leaving this hospital over time	0.688			
XC Normative commitment		1.803	21.684	0.889
XC1. I would not leave my organization right now because I have a sense of obligation to the people in it	0.563			
XC2. This organization deserves my loyalty	0.680			
XC3. I would feel guilty if I left my organization now	0.829			
XC4. It would not be right to break my personal relationships, leaving from this hospital	0.739			
XC5. I think it is necessary to show loyalty to the hospital	0.778			

In according to Gagne et al. (2008) NC is likely to be related positively with IM albeit less strongly. Results of this study seem to support this view. In addition, it was determined that continuance commitment has a negative impact on IM (-0.28). Effective latent variables except related factors on IM was examined, it is observed that YA3 variable ("I believe that I have full authority to do my job") that is the greatest impact (0.81). Figure 2 is examined, it is seen that the most effective items on AC (XA) are those: "XA4: This organization has a great deal of personal meaning for me (0.90)."

and "XA3: I do not feel "emotionally attached" to this organization (0.87)." Likewise, the most effective items on CC (XB) are those: "XB5: I feel that it is more difficult leaving this hospital over time (0.84).", and "XB4: It would be hard for me to get used a new workplace. (0.78)." Similarly the most effective items on NC (XC) are those: "XC5: I think it is necessary to show loyalty to the hospital (0.82)." and "XC4: It would not be right to break my personal relationships, leaving from this hospital. (0.80)." These results are also similar with the results of IM but some coefficients are

different from it. Effectives of items in commitment factors in Figure 2 have been given before in Figure 1. Figure 2 examined, it is observed that XB (CC) factor has negative impact on EM (-0,21). In contrast to this result, Gagne et al. (2008) found the positive effect of CC on EM.

The researchers express that EM associated with CC (Meyer et al., 2004). So we expected in this study that CC has positive effect on EM but it is not. NC has a positive impact on extrinsic motivation (0.63). Vuuren (2006) indicates that normative commitment is a form of extrinsic motivation.

Table 2. EFA results and Cronbach's α values for the Y variables.

Factors/items	Factor loading	Eigen value	Explained variance (%)	α
YA Intrinsic motivation		6.472	37.226	0.920
YA1. I have responsibilities related to work	0.773			
YA2. My colleagues appreciate me for what I did for my work				
YA3. I believe that I have full authority to do my job	0.818			
YA4. I believe that work which I've done is a respectable job	0.789			
YA5. I see myself as an important employee of the hospital	0.784			
YA6. I have the right to decide in a subject related to my work	0.698			
YB Extrinsic motivation		3.250	27.586	0.883
YB1. It is suitable physical conditions in the environment of work	0.658			
YB2. Hospital equipment and supplies are sufficient	0.728			
YB3. There is not an opportunity to promote in my work	0.616			
YB4. My managers help me to solve disagreement with my colleague and patients	0.652			
YB5. I get extra pay for high performance	0.936			
YB6. I am not awarded due to high performance	0.923			
YB7. My colleagues are always with me in solving personal and familial problems	0.636			
YB8. I believe that I'll be retiring from this hospital	0.840			
YB9. I think that it is enough fees that I get from my work	0.849			

So, they should have the positive relation with each other and positive effect of normative commitment on extrinsic motivation is an expected result. Similarly, Meyer et al. (2004) noted that NC will have positive effect on EM. It is observed that AC has a positive but lower impact on EM (0.16) than the others. AC, as mentioned before, refers to employees' emotional attachment to and involvement in the organization (Meyer and Allen, 1991).

In emotional commitment, worker shows the active and voluntary participation in line with organizational objectives and desire to be continuous (Movday et al., 1979). Whereas, in EM activities that are not interesting or are not intrinsically motivating require EM (Gagne and Deci, 2005). As shown in Table 3, the relationship between factors

which form of organizational commitment and IM and EM was examined by structural equation analysis and emerged model as a result of structural equation analysis is seen to be statistically acceptable. RMSA value which is one of the most effective criteria on the eligibility of the model was within acceptable limits for each of the established two models. Other criteria is confirmed this result.

DISCUSSION

According to the results of exploratory factor analysis for IM, while YA4 variable's factor loading was the second largest burden, it was observed that this effect has decreased even further in result of structural equation analysis. It can be

said that variable XB which negatively affect IM causes to this decrease. In this study, IM of health professionals was explained mostly by AC and NC. In addition, it was determined that CC affects IM in weak and negative way.

In EM, it was observed that CC effects EM very weak and negative way despite NC affects EM higher and positive way. To the researchers (Meyer at al., 2004), this findings is quite different result because CC is form commitment that is expected to be the largest effect on EM. Also it was seen that the AC had the lowest effect on external motivation. As known motivation and commitment are both important issues within health institutions. Health staff motivated by IM and EM and deeply committed struggles to make best of their job done. Especially it is important in

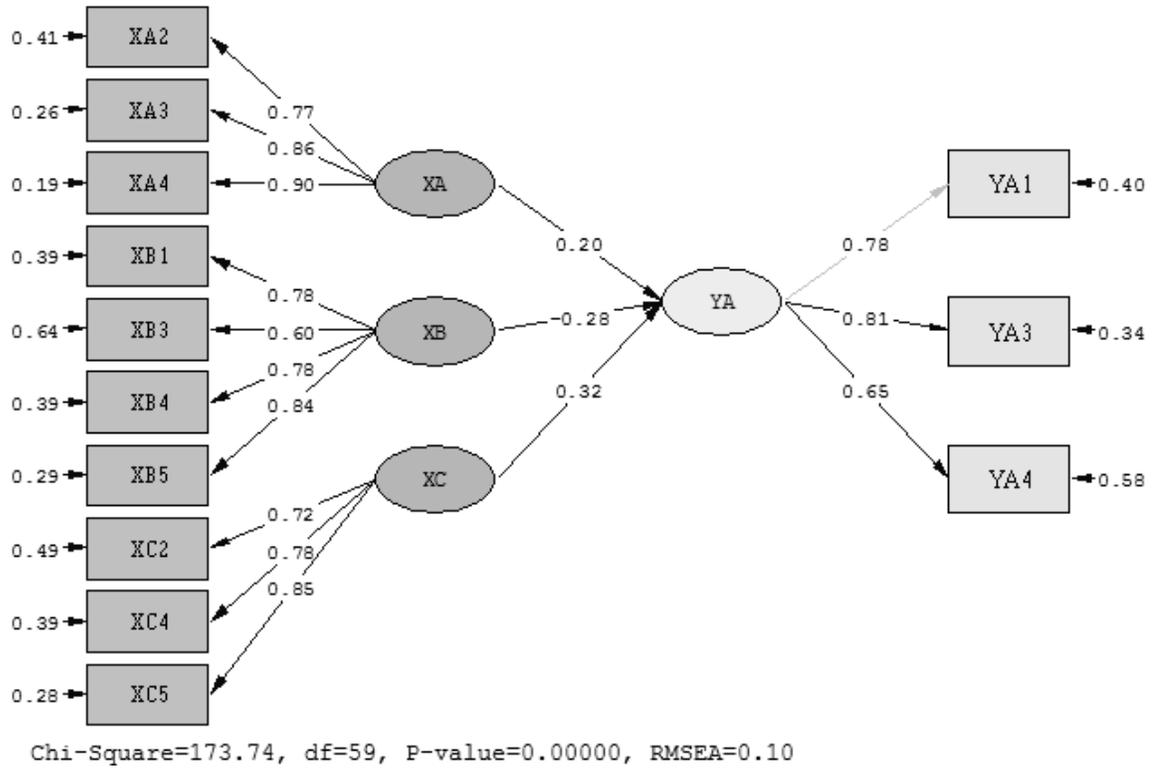


Figure 1. Structural model for intrinsic motivation.

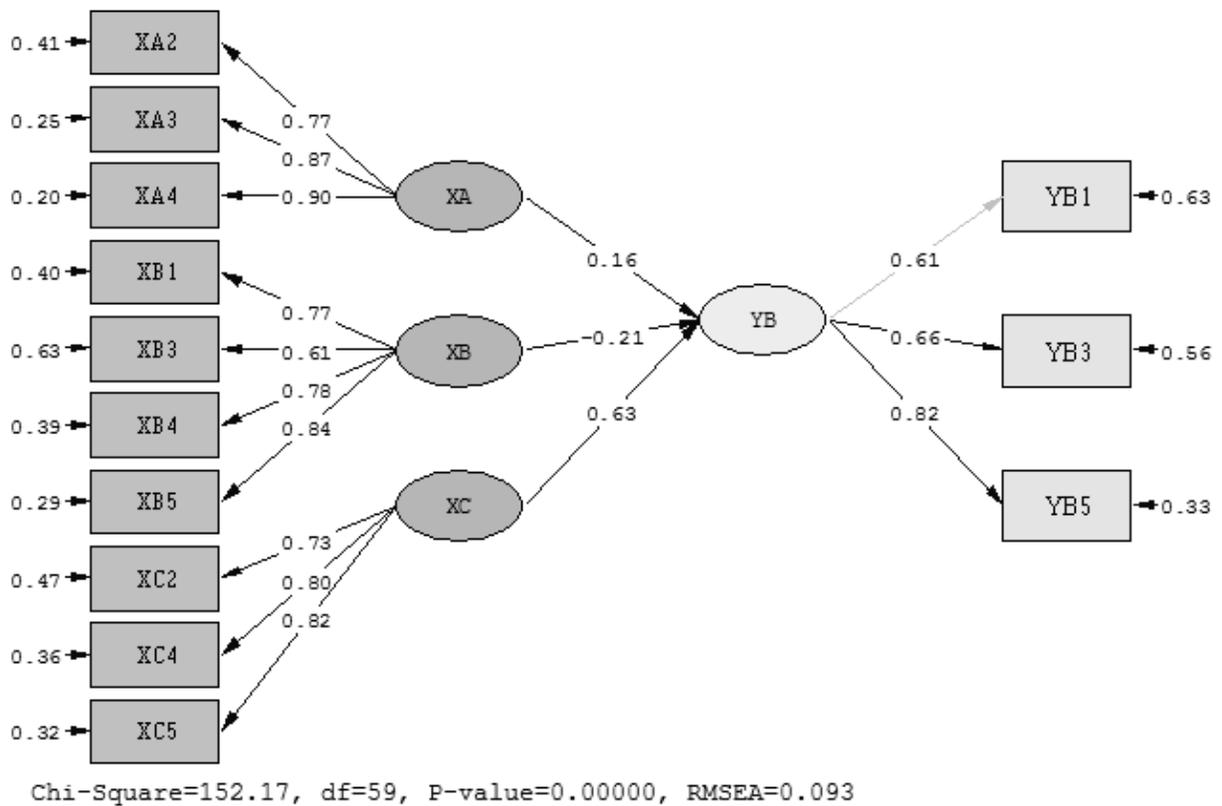


Figure 2. Structural model for extrinsic motivation.

Table 3. Limits and the results of the structural model. (Resource: Schermelleh-Engel and Moosbrugger, 2003).

Fitness criterion	Perfect fitness	Acceptable fitness	CCB(YA) / CCB (YB)
RMSEA	$0 < \text{RMSEA} < 0.05$	$0.05 \leq \text{RMSEA} \leq 0.10$	0.10 / 0.093
NFI	$0.95 \leq \text{NFI} \leq 1$	$0.90 \leq \text{NFI} \leq 0.95$	0.90 / 0.94
CFI	$0.97 \leq \text{CFI} \leq 1$	$0.95 \leq \text{CFI} \leq 0.97$	0.94 / 0.96
GFI	$0.95 \leq \text{GFI} \leq 1$	$0.90 \leq \text{GFI} \leq 0.95$	0.87 / 0.89

critical implementation fields in health care.

The findings support the argument that organizational commitment of health professionals plays a role in determining outcome variables such as motivation in their work. However, this research has some limitations. First, health professionals work hardly, and they have time pressure. It has not reached many health professionals but this is part of the reality of doing research in health-care. Nevertheless, given the constraints of this research, the measures deliver interesting findings. Secondly, the data here are cross-sectional, which prevents us from making full causal claims. However, this could be a first step in developing further research to test the causal hypotheses with longitudinal data that can shed more light on the various dimensions of health professionals' motivation. Despite these limitations, these results should encourage academics and practitioners to take into account the effects of different types of commitment on IM and EM. A diverse approach about motivation and commitment could only prove beneficial for both the organization and the employees.

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