

Mediation Effect of Self-Efficacy on the Relationship between Mentoring Function and Career Advancement among Academics in Iran

Bitra Parsa¹, Parisa Parsa² & Nakisa Parsa³

¹ Department Management, Naser Khosro Institute of Higher Education, Saveh, Iran

² Research Centre for Chronic Diseases Care, Department of Mother and Child Health, Hamadan University of Medical Sciences, Hamadan, Iran

³ Alliant International University, California, Department of Counseling, Irvine, USA

Correspondence: Parisa Parsa, Research Centre for Chronic Diseases Care, Department of Mother and Child Health, Hamadan University of Medical Sciences, Hamadan, Iran. Tel: 98-81-3838-0150. E-mail: parsa@umsha.ac.ir; pparsa2003@yahoo.com

Received: November 14, 2015 Accepted: January 12, 2016 Online Published: March 20, 2016

doi:10.5539/gjhs.v8n10p295

URL: <http://dx.doi.org/10.5539/gjhs.v8n10p295>

Abstract

Background: Despite the importance of social organizational factors in career advancement and promotion among academic employees, still some academic employees suffer from low career advancement and consequently low academic performance. Aim of this study was to examine the mediation effect of self-efficacy on relationship between mentoring and career advancement among academic employees in the two public universities in Iran.

Methods: This survey research was done among 307 randomly selected academic employees to determine predictors of their career advancement. Self-administered questionnaires were used to collect data. The Structural Equation Modelling (SEM) methodology was applied to determine the best fitted model to predict career advancement. Analysis of data was performed using the Pearson's correlation analysis and SEM.

Results: The results show that self-efficacy was related to mentoring and career advancement ($p < 0.05$). The effect of mentoring on career advancement was significant ($p < 0.05$). Self-efficacy partially mediated the relationship between mentoring and career advancement ($p < 0.05$).

Conclusion: Academics need to be equipped with appropriate skills such as mentoring and enhance their self-efficacy to improve academic career advancement.

Keywords: academic, career advancement, mentoring, self- efficacy

1. Introduction

With the current expansion of the global economy and the rapid changing in technologies and innovations, universities as key factors in the cultural, social, political and economic play an essential role in the education of human capital (Zamani et al., 2011). Also, academic members as one of the most vital aspects of educational systems play a significant role in society guidance (Altbach, 2009; Airini et al., 2011) and social growth in human societies (Morley & Hosking, 2003; Ismail & Arokiasamy, 2007).

Career advancement is the status a person achieves as a result of the activities to improve one's career (Callanan & Greenhaus, 1999). Weng and Hu (2009) defined career advancement as a respondent's perception on professional ability development, career goal progress, compensation and promotion. According previous studies important determinants of career advancement are the individuals, environment and changes occurring through learning (Apospori et al., 2006; Patton & McMahon, 2006; Parsa et al., 2014). Having mentor and mentoring relationships have reported as factors related to career development and reduce turnover intention (Salami, 2010; Ismail & Arokiasamy, 2007).

In universities, career and professional advancement are based on mutual recognition and fulfilment of needs, such as the role of professional development, including mentoring, support development, providing challenging

assignments, protection from adverse forces, and a positive vision (McGaghie & Webster, 2009; Ismail & Arokiasamy, 2007). Mentoring is a relationship of mutual learning exchange. One important role of supervision is to supervise subordinates in organizational life, learning and development opportunities to prepare them. Willingness to learn is an important task in the monitoring development (Kagan, 1994). In addition, psychosocial roles of mentoring include personal support, friendship, counselling, admissions, and role modelling (Arokiasamy & Ismail, 2008).

Mentoring in higher education in the forms of support and sponsorship was found to contribute to faculty improvement and success in work (Henderson, 1995). In addition, the lack of mentorship network associated to problem to start in one's occupation (Eby et al., 2008; Boice, 1993). In academic world, mentoring encourages senior faculty to help junior faculty to learn the roles and understand the organizational culture. For understanding organizational culture mentoring has been useful in offering motivation to learn for both junior and senior faculty members; and provide a good communication. Mentoring empowers faculty members by supporting professional growth and renewal.

Mentoring in academic medicine and other professions, points to a positive relationship between mentoring and key outcomes like faculty job satisfaction (Sambunjak, Straus, & Marusic, 2006), personal growth (Pololi et al., 2002; Straus, Chatur, & Taylor, 2009), professional productivity (Sambunjak, Straus, & Marusic, 2006), and faculty retention within institutions (Ries et al., 2012; Kosoko-Lasaki, Sonnino, & Voytko, 2006). According to these findings, it is evident that universities willing to invest in and develop their academics should consider impact of faculty management practices such as mentoring programs; those that fail to invest in their academics risk losing them to other universities. Academic medical institutions act to invest in faculty mentoring and development efforts in order to get better positioned to promote faculty satisfaction, retention, and institutional performance (Mervis, 2008).

Each mentoring structure can be tailored to support some management functions or most wanted results. For instance, the supervisory mentoring may progress career functions, while the structure of peer mentoring may progress psychosocial purpose (Allen et al., 2004; Ensher et al., 2001). In addition, an organization that employs various mentors more likely to produce a wide range of mentoring role and enhance the formation of a structure with a mentor (Bland et al., 2005; Baugh & Scandura, 1999; Packard, 2003; De Janasz & Sullivan, 2004). Choice to the traditional model can be vital to maintain under correspond of group in the field of science (Dougherty & Dreher, 2007; Packard, 2003). Thus, to aid in the planning of innovative and effective research, it is important to understanding of the effect of mentoring in different structures and roles associated with supervision.

Most study on behaviours pointed out the strategies that employees use to gain career advancement (Aryee et al., 1996; Ballout, 2007). Abele and Spurk (2009) stated the impact of self-efficacy on career advancement. They have found that at career entry self-efficacy had a constructive impact on salary and seven years later a positive impact on career satisfaction and salary change (Abele & Spurk, 2009). Studies have indicated that having high self-efficacy beliefs in the related work domain, high self-esteem, being aspired in career development directly correlated with employees' performance and career advancement (Callanan, 2003; Riordan, 2007). Self-efficacy provides clear guidelines on how to expand and improve the quality of human performance such as inspiration and goals (Bandura, 1995). Self-efficacy has been known as important character that related to a personal learning and career development in the supervisory mentoring program (Pan et al., 2011; Parsa et al., 2014).

Occupational self-efficacy refers to judgment/belief of an individual ability to successfully complete a career, network effectively with specialized in a field of interest (Bandura, 1986, 2001; Solberg et al., 1998). Solberg (1998) found that the career self-efficacy mediates the relationship between the sources of self-efficacy and career outcome (Solberg et al., 1998). It may be due to impact of environmental factors on career outcome taking place through the mediating effect of self-efficacy (Bandura, 2001; Betz & Hackett, 2006). Therefore, the aim of this study was to find out the relationship of mentoring, self-efficacy and career advancement. The findings of this study would clarify the significance of individual and organizational factors in determining career advancement in academics.

Academics in health services, researches and teaching seek for opportunities to promote their career development. Achievement in work depends on the personnel stimulation and career advancement that conducted by their directors (mentors) responsibility, advancement and improvement (Herzberg, 1966) as well as the administration quality and policy. Therefore, comprehensive higher education plan should be continuously evaluated. Specifically, in public universities need to assess their strategic plans of which one includes career advancement of their human resources. Above all, earlier researches have failed to assess the implications of

individual and structural factors on career outcomes for organizational career advancement.

According to the Social Cognitive Theory developed by Bandura (1986, 1997), which was modified by Lent et al. (1994; 2000), the human function is explained by a triadic reciprocity in which personal, environment and behaviour factors have bi-directional effect on each other. The Social Cognitive Career Theory premises the significance of individuals' self-efficacy from the viewpoint of an individual choosing a particular career based on previous learning experiences acquired from the environment. Furthermore, according to the learning organization model developed by Marsick and Watkins (2003), a learning organization can increase learning experiences through systems to capture and share learning, inquiry and dialogue, continuous learning opportunities, collaboration and team learning, provide strategic leadership for learning, empower people toward a collective vision, and finally connect the organization to its environment, (Marsick, 2013).

A lot of emphasis has been given to the significance of the learning organization and social organizational factors in career advancement among academic employees. However, low career advancement and an apparent low academic performance are still evident among academic staff in Iran. Previous studies found that employees in health care centres of Hamadan University of Medical Sciences had the high amount of job stress (87.7%), dissatisfaction (59.9%) (Hamidi et al., 2011) and low communication skills (Hamidi et al., 2012). The nature of self-efficacy as a mediator implied that career advancement of academic employees can be improved if there is a belief in self abilities at the workplace.

Studies have shown the relationship between career advancement with organizational factors such as mentoring (Higgins & Kram, 2001; Scandura & Williams, 2001; Lankau & Scandura, 2002; Godshalk & Sosik, 2003; Simmonds & Zammit, 2010; Lease, 2004; De Janasz & Sullivan, 2004; Kasprisin et al., 2003; Packard, 2003; Bozionelos, 2006; Gardiner et al., 2007; Arokiasamy & Ismail, 2008). In the literature, researchers have investigated the relationship between self-efficacy with mentoring (Allen et al., 2004; Chan & Ho, 2008; Beveridge, et al., 2002; Sambunjak, Straus, & Marusic, 2006). Furthermore, there are studies that have illustrated the relationship between self-efficacy and career advancement (Duffy et al., 2006; Schyns & von Collani, 2002; Day & Allen, 2004; Valcour & Ladge, 2008). Therefore, there is a gap for understanding the relationships of mentoring, self-efficacy and career advancement in a model. Thus, current study investigated to what extent mentoring and self-efficacy influenced academic career advancement.

Most of these studies support the direct effect argument between career advancement and mentoring (Scandura & Williams, 2001; Lankau & Scandura, 2002). The examination of self-efficacy as the mediating variable through mentoring affect career advancement is still scarce. Very few scholars have empirically examined the mediation variables in the relationship between mentoring and career advancement (Swanson & Gore, 2000; Appelbaum & Hare, 1996). This study hoped fills the gap in the literature in this area among academic employees. Overall, this study aimed to determine how independent variables (mentoring and self-efficacy) contribute to career advancement and how self-efficacy mediates the relationship between mentoring with career advancement in academic employees in two Hamadan universities.

2. Methods

A survey study was done in two Hamadan public universities (University of Medial Sciences and BualiSina University) in the year 2013. A structured questionnaire based on information of 307 randomly selected academic employees collected the data. Participants were identified by random probability proportional to size sampling. Questionnaire including background characteristics, three dimensions of mentoring, self-efficacy and four dimensions of career advancement. Respondents requested to determine the extent to which each of the questions reflects their perceived organization in the following aspects.

2.1 Perception on Mentoring

The mentorship section of the survey used the Scandura and Ragins (1993) questionnaire and the modified scale MFQ-9 include 9-item multidimensional mentoring measure. It is a 5-point Likert scale instrument where participants were asked to indicate their agreements from response categories ranging from strongly disagree=1, to strongly agree=5. These items included statements about three mentoring relationship functions: 1) vocational support e.g. "My mentor took personal interest in my career"; 2) psycho-social support e.g. "I considered my mentor to be a friend." and 3) role modelling e.g. "I try to model my behaviour after my mentor" (Pellegrini & Scandura, 2005). The tool to be highly reliable with a Chronbach's alpha and valid for content validity. The Cronbach's alpha coefficients for the whole scale, vocational support, psychosocial support, and role modeling were .86, .84, .77, .80 respectively (Hu, 2008). In the current study, the Cronbach's alpha coefficients for the whole scale, career support, psychosocial support, and role modelling were .877, .902 .849, .787, respectively.

2.2 Perception of Self-Efficacy

This study used an occupational self-efficacy scale (Schyns and Von Collani, 2002) which includes 8 items were rated on a five point Likert-type scale: “not at all true=1” to “exactly true=6”. Sample items on the questionnaire include “*I can remain calm when facing difficulties in my job because I can rely on my abilities*” and “*If I am in trouble at work, I can usually think of something to do*”. Total scores equal the sum of the scores from all 8 items, and these scores range from 8 to 48. Higher scores indicated higher levels of perceived occupational self-efficacy. Reliability of the scale has been demonstrated in previous studies (Schyns and Von Collani 2002; Chen et al., 2004). The short version of the scale has been reported to have internal consistency of the items was Cronbach alpha=.850 (Schyns and Von Collani 2002). In present study the reliability was at desirable level (Cronbach alpha=.899).

2.3 Perception of Career Advancement

The career advancement scale was developed by Weng and Hu (2009) including 15 questions in four subscales. Examples of career advancement subscales are: Career goal progress e.g., “*My present job moves me closer to my career goals*”; Professional ability development e.g., “*My present job encourages me to continuously gain new and job-related skills*”; Promotion speed e.g., “*The probability of being promoted in my present organization is high*”; and remuneration growth e.g. “*My salary is growing quickly in my present organization*”. Weng et al. (2010) study showed this scale had appropriate reliability. Coefficient alphas for career goal progress, professional ability development, promotion speed and remuneration growth were .85, .86, .86, .80, and .78, respectively. In present study, the reliability of total scale was good (Cronbach’s alpha=.890). The coefficient alphas for career goal progress, professional ability development, promotion speed and remuneration growth were at desirable level as: .782, .849, .746 and .923, respectively.

2.4 Structural Equation Modelling Analysis

Prior to evaluate the overall measurement model, confirmatory factor analysis (CFA) was separately used to estimate validity and reliability and test the hypothesis measurement model for all latent variables. The measurement models as an important part of SEM were tested to find out whether or not the observed variables adequately represented their related latent variables.

In order to test if the model fit the data in current study, two types of fit indices were used: absolute indices and incremental indices (Hair et al., 2010). The ratio of χ^2 to the degree of freedom (CMIN/DF), goodness of fit index (GFI), the root mean square residual (RMR) and the root mean squared error of approximation (RMSEA) were some examples of absolute indices. Incremental fit index (IFI), the comparative fit index (CFI), and the goodness of fit index (GFI) were some of incremental fit indices. Item parcelling involves use of summated (aggregated) scores from a set of indicators (Byrne, 2010). In current study item parcelling was used for three dimensions of mentoring and four dimensions of career advancement. Table 1 shows the acceptable values of fit indices.

Table 1. Global fit indices

| Goodness-of-Fit Indices | Abbreviation | Recommended values |
|---|--------------|-------------------------------|
| Related Chi-Square | χ^2/df | <5.0 (at $\alpha=0.05$ level) |
| Goodness-of-Fit Index | GFI | >0.90 |
| Root Mean Square Residual | RMR | <0.05 |
| Root Mean Square Error of Approximation | RMSEA | <0.08 |
| Tucker-Lewis Index | TLI | >0.90 |
| Comparative Fit Index | CFI | >0.90 |

Sources: Ho (2006); Byren (2010); Hair et al (2010).

Table 2, reveals fit indices of the measurement models of mentoring, self-efficacy and career advancement. Corresponding standardized factor loading indicated acceptable relationship strengths for all items. In addition, a review of evaluation of fit indices showed a good fit model to the data. The factor loading (above 0.50) for mentoring and self-efficacy were kept for data analysis. However, one item from the first dimension of career advancement was dropped because its factor loading was below 0.50. Therefore, 14 items were kept for data analysis.

Table 2. The summary of the measurement models fit indices

| Measurement Model | CMIN/DF | CFI | IFI | NFI | IFI | GFI | RMR | RMSEA |
|--------------------|---------|------|------|------|------|------|------|-------|
| Mentoring | 2.531 | .977 | .977 | .962 | .977 | .961 | .041 | .071 |
| Self-efficacy | 2.839 | .972 | .972 | .958 | .972 | .959 | .038 | .078 |
| Career advancement | 2.218 | .963 | .963 | .935 | .963 | .933 | .059 | .063 |

2.5 Evaluating of Mediation Effect of Self-efficacy

In order to investigate the mediation effect of self-efficacy, the producers were applied based on Baron and Kenny (1986). According to this model, the first step was to show how mentoring effected on to the dependent variable (career advancement) in direct model (path C). After this, investigated how the independent variable effected on the mediator as self-efficacy (path A). The next step was to assess the effects of the mediator variable on the dependent variable (path B). If self-efficacy completely mediated the mentoring-career advancement relationship, the effect of mentoring on career advancement controlling for mediator (path c') should be zero. If the relationship between independent variable and dependent variable controlling for mediator in indirect model was decreased (path C'), the partial mediation was achieved. The effect of demographic variables such as work experience, age, gender was controlled in the model.

3. Results

The respondents' age ranged between 26 to 46 with mean 39.67 (SD=7.4) years. Slightly more than half of respondents were males (55.4%). The majority (83.4%) of them were married. About 70% o f respondents had Ph.D. degree.

The minimum mentoring score was 10 and maximum was 44. Findings showed that 5.9% of employees had low level of mentoring, 59.3% had a moderate level and 34.9% had a high level of mentoring in their universities based on categorizing the data into equal interval width (low≤2.33), (2.34≤moderate≤3.66), and (3.67≤high≤5.00).

The perception of self-efficacy score ranged between 18-46. Results showed that 15.6% had low, 60.6% had a moderate and 23.8% had a high level of self-efficacy in the university based on categorizing the data into equal interval width (low≤2.66), (2.67≤moderate≤4.33), and (4.34≤high≤6).

Referring to career advancement, the overall mean was 37.88 with a standard deviation of 9.87. A small standard deviation value shows that the ratings given by the respondents were similar or homogenous. The majority of the respondents perceived that they moderately advanced with their career (62.2%), 27.0% of academic employees had low level of perceived career advancement and 10.8% had a high level of perceived career advancement in the universities based on categorizing the data into equal interval width (low≤2.33), (2.34≤moderate≤3.66), and (3.67≤high≤5).

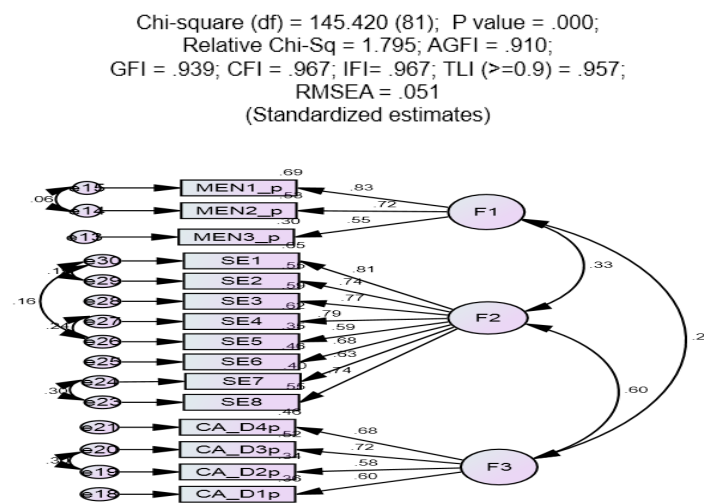


Figure 1. The measurement model of research

Figure 1 shows the measurement model on relationship between mentoring (F1), self-efficacy (F2) and career advancement (F3) components. This model fits the data (Relative Chi-square=1.795, AGFI=.910, GFI=.939, IFI=.967, TLI=.957, RMSEA=.05). As shown in this model there is a significant relationship between career advancement with self-efficacy ($r=.60$), between self-efficacy and mentoring ($r=.33$) and between career advancement and mentoring ($r=.24$).

Table 3 and Figure 2 show the results of direct and mediating analysis. The path between mentoring and career advancement based on direct model (patch C) showed that there was a significant relationship between mentoring and career advancement ($\beta=.177$, $p<.050$). In addition, as present in the mediation model (A path), there was a significant relationship between mentoring and self-efficacy ($\beta=.290$, $p<.001$), and also there was significant relationship between self-efficacy and career advancement (B patch) ($\beta=.185$, $p<.001$). In addition, there was also a significant relationship between mentoring and career advancement after controlling the effect of self-efficacy (patch c') ($\beta=.121$, $p<.050$). Thus, based on Baron and Kenny's (1986) approach, it can be concluded that self-efficacy significantly and partially mediated the relationship between mentoring and career advancement.

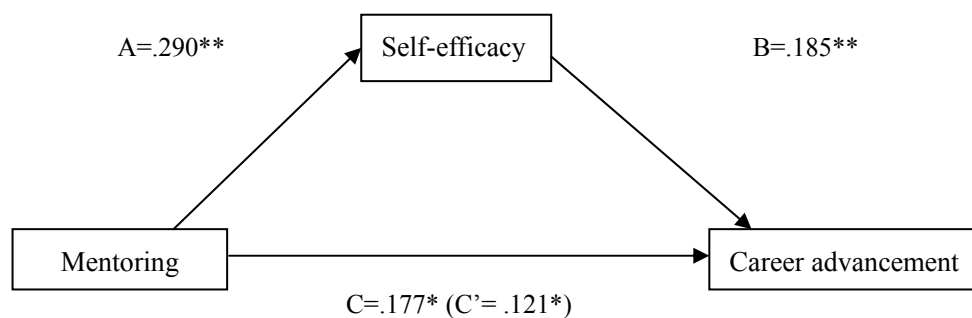


Figure 2. Mediation path diagram relationship between mentoring, self-efficacy and career advancement

Note. ** $p<.01$, * $p<.05$.

Table 3. Mediation effect of self-efficacy on the relationship between mentoring and career advancement

| Hypothesized patch | b | SE | Beta | CR | p |
|------------------------------------|------|------|------|-------|------|
| Direct model | | | | | |
| Mentoring → Career advancement | .224 | .078 | .177 | 2.891 | .004 |
| Mediation model | | | | | |
| Mentoring → Self-efficacy | .173 | .039 | .290 | 4.418 | .000 |
| Self-efficacy → Career advancement | .400 | .151 | .185 | 2.648 | .008 |
| Mentoring → Career advancement | .156 | .079 | .121 | 1.967 | .049 |

4. Discussion

The present study showed the relationship between mentoring function, occupational self-efficacy and academic's career advancement in two Iranian universities. The proposed fitted structural model was able to describe how independent (exogenous) variables contribute to career advancement and how self-efficacy mediated the relationship between mentoring with career advancement. Based on the proposed structural model, mentoring and self-efficacy were good predictors of career advancement. It can be concluded that these predictors can enhance career advancement in Iranian academic employees.

The findings supported this idea that higher mentoring function lead to higher career advancement. In similar, Gardiner (2007) and Bland (2005), found that mentoring in higher education support faculty career success. Mentoring has been useful, offering professional stimulation to faculty members and provided formal and informal networks of communication (Gardiner et al., 2007). Similarly, Beveridge et al. (2002), Drenzo et al. (2010) highlighted, much of the research on mentoring looks directly to career outcomes and the expectancy that mentoring will produce certain outcomes for protégés. The importance of having a mentor in career development has found by many researches in variety of context. For example, employees without a mentor were found to

have few promotions, less incomes and work satisfaction (Arokiasamy & Ismail, 2008; Ragins et al., 2000; Baugh & Scandura, 1999). In addition, studies showed higher job performance among employees with mentoring practices (Lentz, 2009; Levenson et al., 2006). In academic world, for learning the ropes mentoring have assisted junior and senior faculty members (Bland et al., 2005; Scandura, 1992; De Janasz & Sullivan, 2004).

The results support that there was a positive and significant relationship between self-efficacy and career advancement. Self-efficacy emerges as the strong predictor of career advancement. Similarly, Abele & Spurk (2009) in a longitudinal stated the impact of employees' self-efficacy on career advancement. They found occupational self-efficacy had a positive relation with salary and career status at three year and with career satisfaction seven years later. Individuals with high self-efficacy are susceptible to actively participated in development and learning activities, thus they are more likely to achieve career advancement (Day & Allen, 2004; Pan et al., 2011). To successfully produce outcomes a person must have the belief they can successfully take the necessary actions or perform the appropriate behaviours to achieve the outcome.

Furthermore, the results support that there was a significant and positive relationship between mentoring and self-efficacy. The findings of the current study were in consistent with previous researchers who believed that mentoring was an important element in self efficacy. Self-efficacy and mentoring are also very closely tied. Sources of self-efficacy, such as vicarious experience and verbal persuasion, are significant pieces of the mentoring function (Byrne, 2008). The increased effectiveness of the mentoring relationship facilitates learning transformation, as well as personal (psycho-social) and professional (career) development, in the work of both the mentor and mentee (Dougherty & Dreher, 2007; Allen et al., 2004; Chan & Ho, 2008).

This study enlightened the Social Cognitive Career Theory (SCCT), by determine the mediating effect of self-efficacy in the interaction between the mentoring variables and career advancement measures. This study also examined the career advancement using a professionally employed population, i.e., academic employee and given attention to instrumental organizational condition such as mentoring as organizational socialization in explaining employees' career advancement. This is also address to Lent et al. (2000) claim, presented a study of employees' career advancement from the perspective of Iranian as non-western context. As a whole, SCCT was found to be relatively comprehensive in explaining the employees' career advancement.

As limitation of this study, we should note that the result was based on participant's self-reported questionnaire that may have been influenced by participants' feeling and recall of events at the time they completed the questionnaire. In addition, the findings of this study in Iran as a Middle East country may not generalize to other cultures. However, as the questionnaire of this study was developed through a literature review approach and validity and reliability of scales were similar with previous studies in other countries, it is more likely to be general and less culture specific (Schyns & Collani, 2002; Hu, 2008; Weng et al., 2010). The framework of self-efficacy and its relation to outcome expectancies provides a theoretical base from which to explore possible mediators. The research structural model has provided a practical organizational model that could be utilized to predict and assess factors that influence an organization such as university.

In the literature some issues regarding the impact of mentoring remain unexamined. First, published researches have not distinguish the differential impacts of informal mentoring and formal mentoring programs which may have unlike effects on outcome measures, such as faculty career advancement, job satisfaction and retention. Second, need to assess faculty members' perceived quality of mentoring. Previous research suggested that satisfaction with mentoring has a greater impact on outcome measures than does participation in itself (Ragins, Cotton, & Miller, 2000). Finally, future studies need to determine the role of selection bias, academic members who join mentoring programs may be different demographic characteristics from faculty who do not join, and may have higher productivity, job satisfaction and retention as a result of individuality.

5. Conclusion

The current study showed that mentoring had positive and significant relationship with self-efficacy. Therefore, this study supported the idea that good mentoring function is important factor to predict academic employees' belief about their capabilities to produce effect in organizations. In addition, the results of the current study showed that mentoring had positive and significant relationship with career advancement. It is indicated that in today's organizations, intangible assets such as mentoring is important in career advancement. Human capital systems to strengthen the value of mentoring to the institution will help to restate mentor support to department chairs and other faculty and will assist the success of the program.

The mediation analysis supported the idea that individuals with higher self-efficacy make appropriate interpersonal relationship; improve social capital recourses such as mentoring and networking to make better

opportunity and upward mobility for promotion in their work. In addition, mentoring was important to encourage employees about their capabilities and their performance to achieve career advancement. Thus, strong individualities and frequent mentoring need to become as important to one's plan for career advancement as they related significantly to individual's career advancement. The outcome of this research recommends individual factor such as self-efficacy, need to be addressed simultaneously in order to achieve career advancement among academic employees.

Acknowledgments

This article was extracted from a research proposal in Hamadan University of Medical Sciences. Authors would like to express utmost acknowledgments to the faculty members in Hamadan University of Medical Sciences and Bouali Sina University for participating in this research.

Conflict of Interest

The authors declare that there is no conflict of interests regarding the publication of this paper.

References

- Abele, A. E., & Spurk, D. (2009). How does objective and subjective career success interrelate over time? *Journal of Occupational and Organizational Psychology*, 82, 803-824. <http://dx.doi.org/10.1348/096317909X470924>
- Abele, A. E., & Spurk, D. (2009). The longitudinal impact of self-efficacy and career goals on objective and subjective career success. *Journal of Vocational Behavior*, 74, 53-62. <http://dx.doi.org/10.1016/j.jvb.2008.10.005>
- Airini, Collings, S., Conner, L., McPherson, K., Midson, B., & Wilson, C. (2011). Learning to be leaders in higher education: What helps or hinders women's advancement as leaders in universities. *Educational Management Administration & Leadership*, 39(1), 44-62. <http://dx.doi.org/10.1177/1741143210383896>
- Allen, T. D., Eby, L. T., Poteet, M. L., Lentz, E., & Lima, L. (2004). Career benefits associated with mentoring for protégés: A meta-analysis. *Journal of Applied Psychology*, 89, 127-136. <http://dx.doi.org/10.1037/0021-9010.89.1.127>
- Altbach, P. G. (2009). Peripheries and centres: Research universities in developing countries. *Asia Pacific Education Reviews*, 10, 15-27. <http://dx.doi.org/10.1007/s12564-009-9000-9>
- Altbach, P. G., & Knight, J. (2007). The internationalization of higher education. *Journal of Studies in International Education*, 11(3), 290-305. <http://dx.doi.org/10.1177/1028315307303542>
- Apospori, E., Nikandrou, I., & Panayopoulou, L. (2006). Mentoring and women's career advancement in Greece. *Human Resource Development International*, 9(4), 506-527. <http://dx.doi.org/10.1080/13678860601032627>
- Appelbaum, S. H., & Hare, A. (1996). Self-Efficacy as a mediator of goal setting and performance: Some human resource applications. *Journal of Managerial Psychology*, 11(3), 33-47. <http://dx.doi.org/10.1108/02683949610113584>
- Arokiasamy, L., & Ismail, M. (2008). Exploring mentoring as a tool for career advancement of academics in private higher education institutions in Malaysia. *European Journal of Social Sciences*, 5(4), 21-9.
- Aryee, S., Chay, Y. W., & Chew, J. (1996). The motivation to mentor among managerial employees in the maintenance career stage: An interactionist's perspective. *Group & Organization Management*, 21, 261-277. <http://dx.doi.org/10.1177/1059601196213002>
- Ballout, H. (2007). Career success the effects of human capital, person-environment fit and organizational support. *Journal of Managerial Psychology*, 22(8), 761-765. <http://dx.doi.org/10.1108/02683940710837705>
- Bandura, A. (1983). Self-efficacy determinants of anticipated fears and calamities. *Journal of Personality and Social Psychology*, 45, 464-469. <http://dx.doi.org/10.1037/0022-3514.45.2.464>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1991). Self-regulation of motivation through anticipatory and self-regulatory mechanisms. In R. A. Dienstbier (Eds.), *Nebraska Symposium on Motivation* (pp. 69-164). University of Nebraska Press, Lincoln.
- Bandura, A. (1997). Self-efficacy. *The exercise of control*. New York: Freeman.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 55, 1-26.

- <http://dx.doi.org/10.1146/annurev.psych.52.1.1>
- Bandura, A. (Ed.) (1995). *Self-efficacy in changing societies*. New York: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511527692>
- Baron, R. M., & Kenny, D. A. (1986). Moderator-mediator variables distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-82. <http://dx.doi.org/10.1037/0022-3514.51.6.1173>
- Baugh, S. G., & Scandura, T. A. (1999). The effect of multiple mentors on protégé attitudes toward the work setting. *Journal of Social Behavior and Personality*, 14(4), 503-521.
- Betz, N. E., & Hackett, G. (2006). Career self-efficacy theory: Back to the future. *Journal of Career Assessment*, 14, 3-11. <http://dx.doi.org/10.1177/1069072705281347>
- Beveridge, S., Craddock, S., & Liesener, J. (2002). INCOME: A framework for conceptualizing the career development of persons with disabilities. *Rehabilitation Counseling Bulletin*, 45(4), 195-206. <http://dx.doi.org/10.1177/00343552020450040201>
- Bland, C. J., Center, B. A., Finstad, D. A., Risbey, K. R., & Staples, J. G. (2005). A theoretical, practical, predictive model of faculty and department research productivity. *Academic Medicine*, 80(3), 225-237. <http://dx.doi.org/10.1097/00001888-200503000-00006>
- Boice, R. (1992). Lessons learned about mentoring. In M. D. Sorcinelli, & A. E. Austin (Eds.), *In Developing New and Junior Faculty* (pp. 51-62). San Francisco, CA: Jossey-Bass. <http://dx.doi.org/10.1002/tl.37219925007>
- Boice, R. (1993). Early turning points in professional careers of women and minorities. *New Directions for Teaching and Learning*, 53, 71-9. <http://dx.doi.org/10.1002/tl.37219935309>
- Bozionelos, N. (2006). Mentoring and expressive network resources: Their relationship with career success and emotional exhaustion among Hellenes employees involved in emotion work. *The International Journal of Human Resource Management*, 17(2), 362-78. <http://dx.doi.org/10.1080/09585190500405009>
- Byrne, B. M. (2008). Testing for multigroup equivalence of a measuring instrument: A walk through the process. *Psicothema*, 20(4), 872-882.
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd ed.). New York: Taylor and Francis Group.
- Callanan, G. A. (2003). What price career success? *Career Development International*, 8, 126-133. <http://dx.doi.org/10.1108/13620430310471032>
- Callanan, G. A., & Greenhaus, J. H. (1999). Personal and career development: the best and worst of times. In A. I. Kraut, & A. K. Korman (Eds.), *Changing Concepts and Practices for Human Resources Management*. San Francisco, Jossey-Bass.
- Castro, S. L., & Scandura, T. A. (2004). *The tale of two measures: Evaluation and comparison of Scandura's (1992) and Ragins and McFarlin's (1990) mentoring measures*. Paper presented at the Southern Management Association Meeting. San Antonio, TX.
- Chan, C. C., & Ho, W. C. (2008). An ecological framework for evaluating relationship functional aspects of youth mentoring. *Journal of Applied Social Psychology*, 38, 837-867. <http://dx.doi.org/10.1111/j.1559-1816.2008.00329.x>
- Chen, G., Gully, S. M., & Eden, D. (2004). General self-efficacy and self-esteem: Toward theoretical and empirical distinction between correlated self-evaluations. *Journal of Organizational Behavior*, 25, 375-395. <http://dx.doi.org/10.1002/job.251>
- Day, R., & Allen, T. D. (2004). The relationship between career motivation and self-efficacy with protégé career success. *Journal of Vocational Behavior*, 64, 72-91. [http://dx.doi.org/10.1016/S0001-8791\(03\)00036-8](http://dx.doi.org/10.1016/S0001-8791(03)00036-8)
- De Janasz, S. C., & Sullivan, S. E. (2004). Multiple mentoring in academe: Developing the professional network. *Journal of Vocational Behavior*, 62, 263-83. <http://dx.doi.org/10.1016/j.jvb.2002.07.001>
- Direnzo, M. S., Linnehan, F., Shao, P., & Rosenberg, W. L. (2010). A moderated mediation model of e-mentoring. *Journal of Vocational Behavior*, 76, 292-305. <http://dx.doi.org/10.1016/j.jvb.2009.10.003>
- Dougherty, T. W., & Dreher, G. F. (2007). Mentoring and career outcomes: Substitutes for career mentoring: Promoting equal opportunity through career management and assessment systems. *Journal of Vocational*

- Behavior*, 51, 110-124.
- Duffy, J. A., Fox, S., Punnett, B. J., Gregory, A., Lituchy, T., Monserrat, S. I., ... Miller, J. (2006). Successful women of the Americas: The same or different? *Management Research News*, 29(9), 552-572. <http://dx.doi.org/10.1108/01409170610708998>
- Eby, L. T., Durley, J. R., Evans, S. C., & Ragins, B. R. (2008). Mentors perceptions of negative mentoring experiences: Scale development and nomological validation. *Journal of Applied Psychology*, 93, 358-373. <http://dx.doi.org/10.1037/0021-9010.93.2.358>
- Ensher, E. A., Thomas, C., & Murphy, S. E. (2001). Comparison of traditional, step-ahead, and peer mentoring on protégés' support, satisfaction, and perceptions of career success: A social exchange perspective. *Journal of Business and Psychology*, 15, 419-438. <http://dx.doi.org/10.1023/A:1007870600459>
- Gardiner, M., Tiggemann, M., Kearns, H., & Marshall, K. (2007). Show me the money! An empirical analysis of mentoring outcomes for women. *Human Resource Management Review*, 9(4), 479-493. <http://dx.doi.org/10.1080/07294360701658633>
- Godshalk, V. M., & Sosik, J. J. (2003). Aiming for career success: The role of learning goal orientation in mentoring relationship. *Journal of Vocational Behavior*, 63, 417-437. [http://dx.doi.org/10.1016/S0001-8791\(02\)00038-6](http://dx.doi.org/10.1016/S0001-8791(02)00038-6)
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7th ed.). New Jersey: Prentice Hall.
- Hamidi, Y., & Barati, M. (2011). Communication skills of head of departments: Verbal, listening, and feedback skills. *Journal of Research in Health Sciences*, 11(2), 91-96.
- Hamidi, Y., Mehri, M., Zamanparvar, A., & Imani, B., (2012). Relationship between managerial skills and employees job stress in health centers. *Journal of Research in Health Sciences*, 12(2), 122-126.
- Henderson, C. (1995). *College freshmen with disabilities: A statistical profile*. Washington, D C: HEATH.
- Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH: World Publishing Company.
- Higgins, M., & Kram, K. (2001). Reconceptualizing mentoring at work: A developmental network perspective. *Academy of Management Review*, 26(2), 264-288.
- Hu, C. (2008). Analyses of measurement equivalence across gender in the Mentoring Functions Questionnaire (MFQ-9). *Personality and Individual Differences*, 45(3), 199-205. <http://dx.doi.org/10.1016/j.paid.2008.03.016>
- Ismail, M., & Arokiasamy, L. (2007). Exploring mentoring as a tool for career advancement of academics in private higher education institutions in Malaysia. *The Journal of International Social Research*, 1(1), 135-148.
- Kagan, S. L. (1994). Leadership: Rethinking it-making it happen. *Young Children*, 49(5), 50-54.
- Kasprisin, C. A., Boyle Single, P., Single, R. M., & Muller, C. B. (2003). Building a better bridge: Testing e-training to improve e-mentoring programs for diversity in higher education. *Mentoring & Tutoring*, 11(1), 67-78. <http://dx.doi.org/10.1080/1361126032000054817>
- Kirchmeyer, C. (2005). The effects of mentoring on academic careers over time: Testing performance and political perspectives. *Human Relations*, 58(5), 637-660. <http://dx.doi.org/10.1177/0018726705055966>
- Kosoko-Lasaki, O., Sonnino, R. E., & Voytko, M. L. (2006). Mentoring for women and underrepresented minority faculty and students. *J Natl Med Assoc*, 98(9), 1449-1459.
- Lankau, M. J., & Scandura, T. A. (2002). An investigation of personal learning in mentoring relationship: Content, antecedents, and consequences. *Academy of Management Journal*, 45, 779-90. <http://dx.doi.org/10.2307/3069311>
- Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual support and barriers to career choice: A social cognitive analysis. *Journal of Counseling Psychology*, 47, 36-49. <http://dx.doi.org/10.1037/0022-0167.47.1.36>
- Lentz, E., & Allen, T. D. (2009). The role of mentoring others in the career plateauing phenomenon. *Group & Organizational Management*, 34(3), 358-384. <http://dx.doi.org/10.1177/1059601109334027>
- Levenson, A. R., Van der Stede, W. A., & Cohen, S. G. (2006). Measuring the relationship between managerial

- competencies and performance. *Journal of Management*, 32(3), 360-380. <http://dx.doi.org/10.1177/0149206305280789>
- Marsick, V. J. (2013). The Dimensions of a Learning Organization Questionnaire (DLOQ) introduction to the special issue examining DLOQ use over a decade. *Advances in Developing Human Resources*, 15(2), 127-132. <http://dx.doi.org/10.1177/1523422313475984>
- Marsick, V. J., & Watkins, K. E. (2003). Demonstrating the value of an organization's learning culture: The dimensions of the learning organization questionnaire. *Advances in Developing Human Resources*, 5(2), 132-151. <http://dx.doi.org/10.1177/1523422303005002002>
- McGaghie, W. C., & Webster, A. (2009). Scholarship, publication and career advancement in health professions education. *Medical Teacher*, 31(7), 574-590. <http://dx.doi.org/10.1080/01421590903050366>
- Mervis, J. (2008). And then there was one. *Science*, 321, 1622-1628. <http://dx.doi.org/10.1126/science.321.5896.1622>
- Morley, I., & Hosking, D. (2003). In N. Bennett, & L. Anderson (Eds.), *Leadership, learning, and negotiation in a social psychology of organizing* (pp. 43-59). Rethinking Educational Leadership. London: SAGE, 43-59.
- Packard, B. W. (2003). Web-based mentoring: Challenging traditional models to increase outcomes: The dual moderating effect of self-efficacy. *Journal of Vocational Behavior*, 78, 264-273. <http://dx.doi.org/10.1016/j.jvb.2010.05.001>
- Pan, W., Sun, L., & Chow, I. H. (2011). The impact of supervisory mentoring on personal learning and career outcomes: The dual moderating effect of self-efficacy. *Journal of Vocational Behavior*, 78, 264-273.
- Parsa, B., Khairudin, I., Bahaman, S., NorWahiza A. W., & Parsa, P. (2014). Relationship between quality of work life and career advancement among Iranian academics. *Procedia-Social and Behavioral Sciences*, 152, 108-111. <http://dx.doi.org/10.1016/j.sbspro.2014.09.164>
- Parsa, B., Khairudin, I., Bahaman, S., NorWahiza, A. W., Parsa, P., & Parsa, N. (n. d.). The mediating effect of self-efficacy on the relationships between learning organization and career advancement among academic employees in Hamadan, Iran. *Life Science Journal*, 11(11), 218-222.
- Patton, W., & McMahon, M. (2006). *Career Development and Systems Theory: Connecting Theory and Practice* (2nd ed.). Sense Publishers, Rotterdam.
- Pellegrini, E. K., & Scandura, T. A. (2005). Construct equivalence across groups: An unexplored issue in mentoring research. *Educational and Psychological Measurement*, 65(2), 323-335. <http://dx.doi.org/10.1177/0013164404268665>
- Pololi, L. H., Knight, S. M., Dennis, K., & Frankel, R. M. (2002). Helping medical school faculty realize their dreams: An innovative, collaborative mentoring program. *Acad Med*, 77, 377-384. <http://dx.doi.org/10.1097/00001888-200205000-00005>
- Ragins, B. R., Cotton J. L., & Miller, J. S. (2000). Marginal mentoring: The effects of type of mentor, quality of relationship, and program design on work and career attitudes. *Academy of Management Journal*, 43(6), 1177-1192. <http://dx.doi.org/10.2307/1556344>
- Ries, A., Wingard, D., Gamst, A., Larsen, C., Farrell, E., & Reznik, V. (2012). Measuring faculty retention and success in academic medicine. *Acad Med*, 87(8), 1046-1051. <http://dx.doi.org/10.1097/ACM.0b013e31825d0d31>
- Riordan, S. (2007). *Career psychology factors as antecedents of career success of women academics in South Africa*. Doctoral dissertation. University of Cape Town, South Africa.
- Sambunjak, D., Straus, S. E., & Marusic, A. (2006). Mentoring in academic medicine. *A systematic review. JAMA*, 296, 1103. <http://dx.doi.org/10.1001/jama.296.9.1103>
- Scandura, T. A. (1992). Mentorship and career mobility: An empirical investigation. *Journal of Organizational Behavior*, 13, 169-174. <http://dx.doi.org/10.1002/job.4030130206>
- Scandura, T. A., & Williams, E. A. (2001). An investigation of the moderating effects of gender on the relationships between mentorship initiation and protégé perceptions of mentoring functions. *Journal of Vocational Behavior*, 59, 342-363. <http://dx.doi.org/10.1006/jvbe.2001.1809>
- Schyns, B., & von Collani, G. (2002). A new occupational self-efficacy scale and its relation to personality constructs and organizational variables. *European Journal of Work and Organizational Psychology*, 11,

- 219-241. <http://dx.doi.org/10.1080/13594320244000148>
- Simmonds, D., & ZammitLupi, A. M. (2010). The matching process in e-mentoring: A case study in luxury hotels. *Journal of European Industrial Training*, 34(4), 300-316. <http://dx.doi.org/10.1108/03090591011039063>
- Solberg, S. V. (1998). Assessing career search self-efficacy: Construct evidence and developmental antecedents. *Journal of Career Assessment*, 6, 181-193. <http://dx.doi.org/10.1177/106907279800600205>
- Straus, S. E., Straus, C., & Tzanetos, K. (2006). Career choice in academic medicine: Systematic review. *J Gen Intern Med*, 21, 1222-1229. <http://dx.doi.org/10.1111/j.1525-1497.2006.00599.x>
- Swanson, J. L., & Gore, P. A. (2000). Advances in vocational psychology theory and research. In S. D. Brown, & R. W. Lent (Eds.), *Handbook of Counseling Psychology* (pp. 233-269). New York: John Wiley and Sons.
- Valcour, M., & Ladge, J. J. (2008). Family and career path characteristics as predictors of women's objective and subjective career success: Integrating traditional and protean career explanations. *Journal of Vocational Behavior*, 73, 300-309. <http://dx.doi.org/10.1016/j.jvb.2008.06.002>
- Van Emmerik, I. J. H. (2008). It is not only mentoring: The combined influences of individual-level and team-level support on job performance. *Career Development International*, 13(7), 575-593. <http://dx.doi.org/10.1108/13620430810911065>
- Weng, Q., & Hu, B. (2009). The structure of career growth and its impact on employees' turnover intention. *Industrial Engineering and Management*, 14(1), 14-21.
- Weng, Q., McElroy, J. C., Morrow, P. C., & Liu, R. (2010). The relationship between career growth and organizational commitment. *Journal of Vocational Behavior*, 77, 391-400. <http://dx.doi.org/10.1016/j.jvb.2010.05.003>
- Zamini, S., Zamini, S., & Barzegary, L. (2011). The relationship between organizational culture and job burnout among the professors and employees in the University of Tabriz. *Procedia Social and Behavioral Sciences*, 30, 1964-1968. <http://dx.doi.org/10.1016/j.sbspro.2011.10.381>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).