The relationship between critical thinking disposition and job satisfaction in health team in North-Khorasan province, Iran

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Abstract

The study was conducted with the aim to examine the relationship between critical thinking dispositions and job satisfaction. In this descriptive cross-sectional study 271 member of health teams (doctors, midwives, social workers, …) selected by simple random stratified cluster sampling. Data were collected using California standard critical thinking disposition and job satisfaction questionnaires. Data were analyzed with SPSS software using statistical indices. The overall job satisfaction mean was 72.16±20.32 and overall critical thinking disposition mean was 293.76±22.02, and correlation between them was r=0.12. There was a correlation between job satisfaction and critical thinking sub-groups, except self-confidence. Action must be taken to increase various skills of critical thinking disposition in the health team. Lack of a correlation between overall job satisfaction mean and critical thinking disposition could be due to low scores in both groups.

Keywords: Health, Job Satisfaction, Thinking

Introduction

Critical thinking means evaluation or judgment about what is right or wrong, and it is different from negativity or reproach [1]. Negative outcomes of not having critical thinking include suppression of independence and thinking power, anxiety in the face of unfamiliar situations, increased failures of treatment team, and risk of the side effects in the society [2].

Job satisfaction means a person's attitude toward his job, and positive dispositions and feelings that people have for their jobs [3]. Having job satisfaction leads to increased productivity, organizational commitment, physical and mental health, and enhanced performance of the person, and its lack will decrease staff morale, resulting in confusion, absenteeism, tardiness, turnover, and early retirement [4]. Measuring job satisfaction and factors affecting it, helps provide better services and improve productivity, and it

will benefit everyone in the society [5].

Because of the rarity of relevant documents to the subject of the present study, results of similar studies were used. These studies included researches by Gharib et al. and Barkhordari et al. According to Gharib et al., 58.3% of management students in Faculty of Paramedicine, Tehran University of Medical Sciences had positive and strong critical thinking disposition [6] According to these results, none of the above groups had a strong or stable critical thinking disposition. Studies in other parts of the world reveal, according to Wangensteen study, 80% of nursing graduates had positive critical thinking dispositions [7]. Also, results of a study by Mc Groth in Canada on nursing students showed that overall score of critical thinking disposition was favorable [8]. In a study by Miller on pharmacology students, overall score of critical thinking disposition was favorable and positive [9]. In a study in the USA conducted on family and general practitioners, level of job dissatisfaction was found 17 and 20%, respectively [10]. While, in a study in Lithuania, physicians' job satisfaction was low in primary health care [11]. Thus, improvement in job satisfaction among health care staff is highly important. A method of enhancing job satisfaction is job enrichment [4]. An important prerequisite for job enrichment is critical thinking. Based on motivational theories, when the job is challenging and compels the person to think about his work and this thinking leads to better results, it is possible that it will affect self-confidence and job satisfaction of the person. The researcher's investigations indicate that so far, no study on the relationship between critical thinking and job satisfaction has been conducted in Iran. Thus, present study was conducted with the aim to determine the relationship between job satisfaction and critical thinking in health team in North Khorasan province in 2010.

Method

In this cross-sectional study, statistical population consisted of 271 health team members comprising doctors, midwives, social workers, and other personnel (health technicians, etc). the sample were selected in cluster, stratified, and simple random sampling.

Two questionnaires were used to collecte data: 1. Job satisfaction questionnaire [12] whose face validity was confirmed through content validity and its reliability was assessed by test-retest method (r=0.72). This questionnaire contains 37 items with Likert scale (poor job satisfaction=1, high job satisfaction=5, with minimum score 37 and maximum 185 points). In this questionnaire, scores of less than 87 meant low job satisfaction, from 87 to 135 indicated moderate job satisfaction, and scores over 135 showed high job satisfaction. 2. Standard critical thinking disposition questionnaire (California Critical Thinking Disposition Inventory-CCTDI). Validity of Persian version of the critical thinking disposition questionnaire was confirmed in Barkhordari et al. study, and Cronbach's alpha coefficient was found 90% for its reliability [2]. This questionnaire contains 75 questions in the Likert scale (totally agree=1 to totally disagree=6, with minimum score 75 and maximum score 450). It includes 7 sub-categories of: truth-seeking (12 items), open-mindedness (12 items), analyticity (11 items), systematicity (11 items), self-confidence (9 items), maturity (10 items), and inquisitiveness (10 items). Each questionnaire's score is between 75 and 450. Scores higher than 350 indicate strong and consistent critical thinking disposition, 280 to 350 shows positive critical thinking disposition, 211 to 279 shows unstable critical thinking disposition, and less than 210 indicate negative critical thinking disposition. In each sub-group, scores higher than 50 show strong and stable disposition, 40 to 50 show positive disposition, 31 to 39 mean unstable disposition, and less than 30 mean negative disposition. To collect data, questionnaires were presented to the subjects in person and collected after completion. Data were analyzed in SPSS-11.5 software using statistical indices of frequency, percentage mean, and standard deviation, as well as Pearson's correlation test.

Results

Of the total 271 participants, 28% (76 persons) were male and 72% (195 persons) were female, with mean and standard deviation of age 27.41±5.82 years, youngest person with 22.3

years and the oldest 57.6 years. 29.9% (81 persons) of subjects served in urban centers and 64.6% (175 persons) worked in rural centers, and 5.5% (15 persons) served in urban-rural centers. Overall mean and standard deviation of work history in health team personnel of the province was 80.01±74.02 months. In the occupational groups of physician, midwife, social worker, and others this value was 31.50±32.90, 56.43±24.42, 149.17±77.40, and 55.71±61.35 months, respectively. Mean and standard deviation of overall job satisfaction score in occupational groups: physician, midwife, social worker, others and in total staff was (67.40±23.54), 70.32±18.74), (73.81±21.17), (76.81±16.22), and (72.16±20.32), respectively. Mean and standard deviation of the overall score of critical thinking in these groups were (286.96±21.82), (291.33±20.86), (299.20±22.53), (293.62±21.15), and (293.76±22.02), respectively. The highest and the lowest critical thinking dispositions and its components were found in social worker and physician groups (table 1). Also, the most correlation between job satisfaction and critical thinking disposition was observed in social worker group (Table 2). This result was also confirmed in Gharib et al. [6] and Wangensteen et al. [7] studies. In all occupational groups (except social workers) and in all components of critical thinking (except systematicity and maturity) the scores were positive, but scores in systematicity and maturity components were unstable. Wangensteen et al. [7] in a similar study reached the same results. However, score of components in Gharib et al. study [6] were negative, and the scores of components in jalalmanesh et al. [14] divided in different levels (negative, positive, or unstable). Given that in the present study, population consisted of health team in North Khorasan, the difference in scores could be related to the differences in population and environment of the study. Truth seeking means desire to ask questions, challenge and seek reasons and evidence. Truth seeking people often ask difficult questions and do not overlook details. Conversely, others tend to overlook reasons and related details, so that they avoid facing difficult choices [15]. There is a weak relationship between truth seeking and job satisfaction in the midwifery group (r=0.296) and other personnel (r=-0.266). This relationship in midwifery group was direct but it was indirect in other personnel and it was statistically insignificant. This relationship did not exist or was very weak in other groups.

The component of analyticity means prediction, consciousness about real and potential problems, and being aware of when to use logic and evidence to solve existing problems. Analytical people are inclined to predict situations, choices, and plans [15]. There was a direct and weak relationship between this component and level of job satisfaction in midwifery group (r=0.277), and this relationship was statistically insignificant. In other groups and overall personnel, this relationship almost does not exist. Open-minded people are prepared to receive and tolerate opposite views and opinion, and conversely, close-minded people cannot tolerate opposite views to theirs [15]. There was a weak and direct relationship between open-mindedness and job satisfaction among physicians (r=0.381), which is statistically significant. This relationship is not observed in other occupational groups.

Disciplined people are used to regular or systematic problem solving and following specific strategies or special patterns for solving problems, so irregular patterns are signs of undisciplined people [15]. There was a weak and inverse relationship between systematicity and level of job satisfaction which was statistically insignificant. People with self-confidence, by trusting their own judgment, use confidence to solve problems [15]. There is a weak relationship between this component and job satisfaction in physicians (r=0.362) and social workers (r=0.328), and this relationship was significant. The positive and significant relationship between job satisfaction and self-confidence in social workers could be associated with their higher experience compared to other groups and it is related to the higher level of education in physicians. Inquisitive people are those who desire to know everything and eager to acquire new knowledge and issues that have no obvious use at present time, and are the opposite of indifferent people [15]. There is almost no relationship between inquisitiveness and level of job satisfaction in all subjects and different occupational groups. This

Table 1 *The level of critical thinking disposition and its components in various occupational groups*

Critical thinking components		Physicians				Midwives				Social workers				Other personnel				Total groups			
		Strong and stable	Positive	Unstable	Negative	Strong and stable	Positive	Unstable	Negative	Strong and stable	Positive	Unstable	Negative	Strong and stable	Positive	Unstable	Negative	Strong and stable	Positive	Unstable	Negative
Truth-seeking	N	3	25	19	0	3	33	1	0	5	68	10	0	1	35	6	1	12	161	44	1
	%	6.4	53.2	40.4	0	6.7	73.3	20	0	6.0	81.9	12.0	0	2.3	81.4	14.0	2.3	5.5	73.9	20.2	0.5
Analyticity	N	1	38	5	0	1	32	9	1	6	49	22	0	1	33	4	0	9	152	40	1
	%	2.3	86.4	11.4	0	2.3	74.4	20.9	2.3	8.7	63.6	28.6	0	2.6	86.8	10.5	0	4.5	75.2	19.8	0.5
Open-mindedness	N	3	32	16	0	2	30	8	0	4	57	14	00	2	36	9	0	11	155	47	0
	%	5.9	62.7	31.4	0	5	75	20	0	5.3	7.6	18.7	0	4.3	76.6	19.1	0	5.2	72.8	22.1	0
Systematicity	N	1	13	34	0	2	15	26	1	3	41	32	2	0	14	28	0	6	83	120	3
	%	2.1	27.1	70.8	0	4.5	34.1	59.1	2.3	3.8	52.6	41	2.6	0	33.3	66.7	0	2.8	39.2	56.6	1.4
Self-confidence	N	10	36	7	0	16	30	5	0	15	61	7	1	10	36	3	0	51	163	22	1
	%	18.9	67.9	13.2	0	31.4	58.8	9.8	0	17.9	72.6	8.3	1.2	20.4	73.5	6.1	0	21.5	68.8	9.3	0.4
Inquisitiveness	N	5	36	5	0	4	36	6	0	7	58	13	0	2	28	10	0	18	158	34	0
	%	10.9	78.3	10.9	0	8.7	78.3	13	0	9	74.4	16.7	0	5	70	25	0	8.6	75.2	16.2	0
Maturity	N	0	8	30	11	0	9	22	12	5	21	36	10	1	6	23	11	6	44	111	44
	%	0	16.3	61.2	22.4	0	20.9	51.2	27.9	6.9	29.2	50	13.9	2.4	14.6	56.1	26.8	2.9	21.5	54.1	21.5
Total score	N	1	20	11	0	1	20	8	0	1	45	8	0	0	24	9	0	3	109	36	0
	%	3.1	62.5	34.4	0	3.4	69	27.6	0	1.9	83.3	14.8	0	0	72.7	27.3	0	2	73.6	24.3	0

Table 2 *relationship between the score of job satisfaction and critical thinking disposition and its components in various occupational groups*

Critical thinking	Physicians		Midwives		Social workers		Other personnel		Total subjects	
	number	Correlation coefficient	number	Correlation coefficient	number	Correlation coefficient	number	Correlation coefficient	number	Correlation coefficient
Truth-seeking	30	0.06	34	0.29	51	0.11	31	-0.26	146	0.07
Analyticity	32	0.01	35	0.22	51	0.19	31	-0.14	149	0.10
Open-mindedness	33	*0.38	34	-0.02	48	0.07	33	-0.19	148	0.09
Systematicity	33	0.01	35	-0.08	48	0.14	33	-0.31	149	-0.01
Self-confidence	33	*0.36	36	-0.03	50	*0.32	32	0.06	151	0.20
Inquisitiveness	32	0.05	36	0.17	49	-0.02	31	-0.16	148	-0.01
Maturity	33	-0.18	32	0.03	48	0.05	30	-0.14	143	-0.02
Total critical thinking disposition score	23	0.13	25	0.09	35	0.23	25	-0.10	108	0.12

* Correlation coefficient is significant (<0.05)

lack of relationship between inquisitiveness and job satisfaction could be due to the systematic and administrative bureaucracy and strict compliance with directives in the health system, where people are only encouraged to do the job without asking questions. Peter Sange believes people that work in learning organizations rather seek reasons of the nature of the job and investigate its relationship with other organizational components. In the long run, this accelerates organizational progress and leads to being superior to its competitors.

The maturity component means ability to judge, which leads to understanding complexity of problems and careful decision making. These people examine the problem in its entirety and not as black and white, and make timely decisions [15]. There is almost no relationship between maturity and job satisfaction in all subjects and different occupational groups. Lack of relationship could be related to decision making at higher levels, and that health team staff are more like executers than decision makers.

Incomplete response to questionnaires and contractual employment of family doctors, and fearing managers could explain unreal job satisfaction. Also, due to smallness of the university and deprivation of this province in terms of development, generalization of results of this study to the whole country must be done with care, and in relation to problems of the health team further studies seem necessary.

Conclusion

Provision of education and workshop to increase critical thinking disposition skills are recommended. Also, lack of a relationship between total mean job satisfaction and critical thinking disposition could be due to the influence of other factors on level of job satisfaction, and action must be taken to improve job satisfaction among different occupational groups of the health team.

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Contributions

Study design: HE

Data collection and analysis: HN
Manuscript preparation: KB, AVN

Conflict of interest

"The authors declare that they have no competing interests."

References

1- Yousefi-Saeedabadi R , Yazdanpanah-Nozari A, Ghasemi A. Critical thinking of faculty members of Mazandaran University of Medical Sciences in 2007-2008. *Educational Administration Research Quarterly*2009; 1(1), 89-112. [In Persian]
2- Barkhordary M, Jalalmanesh S, Mahmodi M. The relationship between critical thinking disposition and self esteem in third and forth year bachelor nursing students. *Iranian Journal of Medical Education*2009; 9 (1) :13-9. [In Persian]
3- Jahany F, Farazi A, Jadidi R, Anbari Z. Job satisfaction and associated factors among hospital staff in Arak2009. *The Journal of Arak University of Medical Sciences*2010; 13 (1): 32-9. [In Persian]
4- Yazdi SM, Jafari S, Effect between job stress and job satisfaction of managers. Psychological Studies, School of Education and Psychology- Alzahra University2010; 6 (2). [In Persian]
5- Bidokhti AA , Saleh Poor M. Relationship with job satisfaction and organizational commitment in staff education. *Scientific Journal - Shahed University*2007; 14 (26): 31-8. [In Persian]
6- Gharib M, Rabieian M, Salsali M, Hadjizadeh E, Sabouri Kashani A, Khalkhali H. Critical thinking skills and critical thinking dispositions in freshmen and senior students of health care management. *Iranian Journal of Medical Education*2009; 9 (2) :125-35. [In Persian]
7- Wangensteen S, Johansson IS, Bjorestroom ME Nordstrom G .Critical thinking dispositions among newly graduated nurses. *J Adv Nurs*2010; 66(10): 2170-81.
8- McGrath PJ, The relationship of critical thinking skills and critical thinking dispositions of baccalaureate nursing students. *J Adv Nurs*2003; 43(6): 569-77.
9- Miller DR, Longitudinal assessment of critical thinking in pharmacy students. *Am Pharm Educ*2003; 67(4):120.
10- Devoe J, Fryer GE., Hargraves. J, Phillips RL, Green LA. Does career dissatisfaction affect the ability of family physicians to deliver high-quality patient care? *Family Practice*2002, March 2002; 51(3): 223-28.
11- Buciuniene I , Blazeviciene AA, Bliudziute E, Health care reform and job satisfaction of primary health care physicians in Lithuania. *BMC Family Practice*2005; 6(10).
12- Martin GJ, Management: managing for results: boston. *Allyn & Bacon*1988.
13- Ismail MM, Pour shirvani N, Ashrafiyan AH, Kabir M, Shabestani MA, Nahvi A. Satisfaction of family physicians, family doctors, and insurance plan factors affecting rural, University of Medical Sciences. *Guilan University of Medical Sciences*2010; 19(76): 48- 55. [In Persian]
14- Jalal Manesh S, Mahmoudi M, Barkhordari M. Compared to critical thinking dispositions nursing students of Islamic Azad university and medical sciences and health services, Yazd. *Journal of Medical Education*2008; 11: 1-7. [In Persian]
15- Begbie F, Critical Thinking disposition – counts and matters in post-registration SCPH Nurse Education. The higher health education sciences academy and practice, september 2007.