Characteristics of the Nurse Manager's Recognition Behavior and its Relation to Sense of Coherence of Staff Nurses in Japan

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Introduction

At present, many member countries of the Organization for Economic Cooperation and Development (OECD) are facing a severe shortage of nurses, and Japan is no exception. The rate of nurses leaving their profession in Japan remains high (Japanese Nursing Association non-profit organization, 2012). Whilst 1,404,300 nurses are needed in Japan; only 1,348,300 nurses are currently in service. This leaves a shortage of approximately 56,000 nurses. Furthermore, the shortage of nurses will grow to more than one million by 2050 (Ministry of Health, Labor and Welfare, 2010). To provide high-quality medical care to meet the needs of an aging society, a key factor will be keeping nurses in their profession. Accordingly, many studies have recently been conducted that focus on preventing nurses from leaving their profession. These studies revealed that the leadership of nurse managers affects the job satisfaction and retention of staff nurses, as well as the quality of patient care (Manojlovich, 2007; Trus, Razbadauskas, Doran & Suominen, 2012; Duffield, Roche, Blay & Stasa, 2011).

The prevailing leadership of the nurse manager defines the existing work relationship, punishment, motivation, feedback and rewards of those in their working unit (Swansburg & Swansburg, 2002). In particular, the use of feedback and reward as the recognition behavior of nurse managers affect job satisfaction (Blegen, 1993). In addition, appropriate

recognition behavior by the nurse manager is reported to be an extremely important factor for increasing the nursing staff's motivation (Eneh, VehvilÄInen-Julkunen & Kvist, 2012) and the prevention of burnout and the promotion of retention (Lambert, Hogan & Griffin, 2007; Boudrias, Morin & Brodeur, 2012; Bennett, Lowe, Matthews, Dourali & Tattersall, 2001). Therefore, recognition behaviors such as psychological rewards are effective methods to provide psychological support and to prevent nurses from leaving their profession.

The recognition behavior of nurse managers was defined as explaining evaluations regarding performance and ability of nurses, which was presented in a 38-items scale for recognition behavior by nurse managers (Blegen, Goode, Johnson, Maas, McCloskey, & Moorhead, 1992). Goode and Blegen (1993) conducted a survey on the perceptions of staff nurses, focusing on recognition behavior of nurse managers and reported that behaviors to recognize performance, consisting of 27 items, and behaviors to recognize achievements, consisting of eight items, improved job satisfaction and prevented nurses from leaving their profession.

However, little research has been conducted to identify recognition behavior most valued by nurses themselves in Japan. Related to the study by Blegen et al. (1992), Ozaki (2003) translated the scale into Japanese and modified it to correspond to nursing staff scenarios

in Japan. As a result of the factor analysis, the five factors of reporting/announcing results, supervising and supporting staff nurses, assigning jobs with responsibility, reporting evaluations from patients, and respect of desired working hours correlated with job satisfaction. Ogimoto (2010) created a 64-item questionnaire based on the analysis of interviews with a focus group and conducted a survey of 555 nurses. They extracted four nurse manager recognition behaviors: close communication, pleasant remarks, affirmative job evaluation, and consultation and advice. They claimed that delegating duties with responsibility was more often recognized as recognition behavior than transferring results of the nursing manager onto a notice board or to other people. Muya, Katsuyama, and Aoyama (2009) reported that the primary component of job satisfaction for staff nurses was the recognition of their behaviors received from the job itself and from other people, in particular respecting individual staff members and support from superiors and being given responsibility and transfer of authority. Based on these findings, staff nurses think that they are accepted as professionals by being entrusted with work or by being given responsibilities.

On the other hand, work-related mental health is primarily obtained through the increase of workplace satisfaction and the mitigation of work-related stress. Among nurses, specific environmental stressors have been identified. These include unpredictable

staffing and scheduling, lack of role clarity, low involvement in decision-making, poor status, and poor support (Williams, Michie & Pattani, 1988). Previous studies on stress management were highly oriented towards preventive problem solving, stress recognition and factors of individual coping, the amount of work discretion given, and the usefulness of stress buffers such as mentoring (Andrews & Dziegielewski, 2005). These studies are usually conducted to develop measures to reduce quantity and quality of work stress or to improve accomplishment by work, although there are usually limitations to adopt the suggested corrective measures in the work place. Future macro studies are needed that go beyond issue of job-related stress and pursue a salutogenic model from the perspective of health psychology. Therefore, it is also important to focus on internal factors of workers, such as recognizing one's style of dealing with occupational stress (Dewe, 1993). Among internal factors that may affect worker's mental health, a sense of coherence (SOC) is an important concept from the view of the salutogenic theory and stress recognition style. Antonovsky (1987) gave the following definition of SOC: The sense of coherence is a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that i) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable; ii) the resources are available to one to meet the demands posed by these stimuli; and iii) these

demands are challenges, worthy of investment and engagement (pp. 23).

In addition, According to Antonovsky (1987), the stress buffering effects of SOC may be due to its influence on the choice of coping strategies. While SOC is not a coping strategy by itself, individuals with a high SOC may be more likely to flexibly adopt adaptive strategies, appropriate to the needs of the specific situation. SOC consists of three components; comprehensibility, manageability and meaningfulness. Antonovsky (1987) reported that individuals with a strong SOC have the ability to define life events as being less stressful (comprehensibility), to mobilize resources to deal with encountered stressors (manageability), and to possess the motivation, desire, and commitment to cope (meaningfulness). Antonovsky (1987) developed two kinds of SOC scales; a 29-item version (SOC-29) and a 13-item shorter version (SOC-13). The 13 items in SOC-13 are selected from SOC-29 (Table 1).

Insert Table 1 about here

The comprehensibility consists of four items, the manageability also consists of four items and the meaningfulness consists of three items. Items were randomly ordered in the questionnaire. Scores in each item were ranged from one (weak SOC) to seven (strong SOC). A scale score was calculated by summing the raw scores. In a systematic review, the SOC questionnaire has been used in at least 33 languages in 32 countries with at least

15 different versions of the questionnaire. In 124 studies using SOC-29 the Cronbach's a ranged from 0.70 to 0.95. The values in 127 studies using SOC-13 ranged from 0.70 to 0.92 (Erikson & Lindstrom, 2005). Several studies showed that stronger SOC is associated with higher job satisfaction (Van der Colff & Rothmann, 2009), and can prevent nurse's burnout (Mochizuki, 2011). Thus, increasing SOC can be effective to prevent nurses to leave their profession. Cross-sectional studies have shown the relationships between SOC and job demands, job decision authority, and meaning at work for female workers (Albertsen, Nielsen & Borg, 2001). Togari and Yamazaki (2012) suggested that to improve SOC in young adults, work managers or industrial health professionals should attempt to improve their psychosocial work environment. Antonovsky (1993) reported that individual SOC increased in relation to recognition behavior, in particular being entrusted jobs with responsibility induced a heightened sense of being able to deal with stress. However, little is known about relationship between these nurse manager's recognition behaviors and nurse's SOC. Therefore, we hypothesized that the recognition behavior by nurse managers can help or strengthen SOC. Thus, the purpose of this study was to investigate how staff nurses perceive recognition behaviors of the nurse manager and to determine the relation of between these recognition behaviors and the staff nurses' SOC.

Methods

Participants

The study was conducted in 10 hospitals with 100 beds or more in the Kanto, Kansai, and Kyushu regions of Japan. Following the agreement of the involved organizations, a meeting was held so that the researchers could explain the project and procedures to all of the unit nurse managers. Individuals were informed that their participants and responders would be treated anonymously and confidentially.

Measures

The survey tool was divided into three parts. Part one consisted of participant demographic information including gender, marital status, age, overall work experience, position (nurse manager, staff), academic background (associate degree, diploma in nursing, junior college graduate, or university/graduate university) and mental and physical health conditions. Part two had 35-items from the Japanese version recognition behavior scale (Ozaki, 2003). The recognition behavior scale developed by Blegen (1992), then the scale was translated by Ozaki (2003) and was converted to a revised. Staff nurses were asked to describe the level of a variety of recognition behaviors of the nurse manager

on a 4-point scale (4, fully agree; 3, partly agree; 2, partly disagree; 1, fully disagree). Staff nurses were also asked, “Do you receive these recognition behaviors by your nurse manager?” Nurse managers were asked, “Do you give these recognition behavior to staff nurses?” Part three had 13-items from the Japanese version SOC scale (Yamazaki, 1999). This scale was designed to measure the personality characteristics that promote stress resistance (Yamazaki, 1999). Responses were provided on a seven-point Likert scale (1, very often the worst possible position; and 7, never, the best possible position) (Cronbach’s alpha=0.85) (Togari, Yamazaki, Nakayama, Kimura, & Takayama, 2008). The sum of these scores ranges from 13 to 91, with higher scores indicating a stronger SOC.

Data analysis

All statistical analyses were performed using Statistical Package for Social Science 20.0J (SPSS Japan Inc., Tokyo, Japan) for Windows. The categorical data were described using frequencies and percentages. The median values and interquartile range (IQR) were used to describe continuous data. Recognition behavior was analyzed by the principal factor analysis and Promax rotation. The evaluations of implementation of the three extracted factors were compared using the Mann-Whitney U test. Staff nurse SOC was scored using

the Kruskal-Wallis test, and a multiple comparison was performed using a multiple analysis of variance (ANOVA) followed by the Bonfferoni test. Regarding SOC scores, a logistic regression analysis was performed, and the odds ratio and a 95% confidence interval (CI) ware calculated.

Ethical approval

The study was approved by Ethics Committee of Kyoto University Graduate School and Faculty of Medicine. Additionally, research permission was given by the Chief nursing directors of all 10 hospitals. The questionnaires included the researchers' contact details, and collected information was voluntary and anonymous.

Results

Demographic characteristics

A total of 1,425 nurses participated in this study. Of those, 94% (*n*=1333) were women, and 63% (*n*=892) were single. The mean age was 35 years (range 21-68 years). Regarding professional work experience, 28% (*n*=396) had 10-19 years of nursing experience, and 27% (*n*=391) had over 20 years of nursing experience (range less than one year-42years). Most were staff nurses (*n*=1248; 88%). Their academic backgrounds included associate

degree (*n*=231; 16%), diploma in nursing (*n*=803; 56%), junior college graduate (*n*=124; 9%), and university or graduate school education (*n*=267; 19%). Nearly half (*n*=730; 51%) were working in the ward that they wanted to work in. Sixty-seven percent (*n*=955) had good physical health, and 72% (*n*=1029) had good mental health (Table 2).

Insert Table 2 about here

Recognition behavior

We analyzed 35 questions on nurse manager recognition behaviors using principal factor analysis and Promax rotation. We found 24 significant items. We then classified the 24 items into three factors (Table 3). Eleven items such as “work is recognized and talked about with surrounding people” and “praise in front of nurse colleagues” were excluded from the 35 items due to low factor loadings (0.4 or less). Factor one, “evaluation presentation and report,” included eight assessment items that had high factor loadings for notice and report. Factor two, “individual value and transfer of authority,” had high factor loading for the individual’s respect and the transfer of authority. Factor two included nine items that were related to input on the desired duty roster, patient care, and ward decision-making. Factor three, “professional development,” had high factor loadings for improvement of professional competence and included seven items related

to attending meetings and participating in occupational activities.

Insert Table 3 about here

Position differences on practical evaluation of recognition behavior

The median score for practical evaluation for recognition behaviors by nurse managers was 60 (IQR; 52-67). We compared the perception of recognition behavior by nurse managers between staff nurses and nurse managers themselves and found a significant difference in all factors (Table 4). We found a discrepancy between the nursing staff's perception of the recognition behavior and the nurse manager's self-evaluation.

Insert Table 4 about here

Differences of demographic characteristics in SOC

The median score on the SOC-13 was 50 (IQR; 45-55). Significant differences in SOC scores were found in marital status ($p < 0.001$), age ($p < 0.05$), years of experience ($p < 0.05$; $p < 0.001$), mental health condition ($p < 0.001$), and physical health condition ($p < 0.001$) (Table 5).

Insert Table 5 about here

The relationship between SOC and six variables

We performed a multiple logistic regression analysis using six variables. Among these variables, age was adjusted for the analysis, and the other five dependent variables were extracted because of their significant correlation with SOC by the multiple analysis of variance. We divided nurses into two groups according to their level of SOC using a cutoff of 55 for SOC-13 based on the mean SOC of the Japanese population (Yamazaki et al 2008). The data were analyzed by assigning 1 to the higher SOC score group and 0 to the lower SOC score group. Mental and physical health conditions were divided into two groups, “very good” and “good” as the good group, and “very bad” and “bad” as the bad group. In terms of recognition behavior, we divided nurses into two groups based on the median score (60). The result of the multiple logistic regression analysis indicated that good mental health condition, good physical health condition, and recognition behaviors by the nurse manager were associated with stronger SOC (Table 6).

Insert Table 6 about here

Discussion

Factor analysis revealed concepts in common with those in the study by Blegen et al. (1992) and Ozaki (2003): verbal evaluation or feedback, emotional behavior such as

consideration for individual staff members, and career development as a specialist of these common concepts. However, in our study, the items “The nurse manager brags about the performance of unit staff nurse” (factor loading < 0.362) and “congratulates in front of peers” (factor loading < 0.237) were not included. These findings are not surprising, as Japanese culture traditionally does not tend to praise individuals. Furthermore, though Japanese people want to be recognized by others, they are not good at expressing themselves (Ota, 2011). It is important to take into account the cultural background and subject characteristics to understand recognition behaviors in Japan. Factor one, “evaluation presentation and report,” indicates that staff nurses assume that their daily work is recognized by the nurse manager. The evaluation of this factor resulted in significantly higher values for nurse managers, and it is reported that nurse managers have room for improvement with regard to recognizing behavior.

Atwater, Brett, and Charles (2007) suggested that positive feedback encourages nurses to become confident and autonomous, keeping the individuals who perform well motivated. The actions of people are driven by a desire to fulfill their needs or motivations. Each person’s work-related motivation and volition is produced from his or her desire to contribute to society. Therefore, it is important to express a constant interest in the actions of each staff member, to support their growth and development, to have expectations for

each individual, and to give individuals positive feedback.

Factor two includes “individual value and transfer of responsibility” and “consideration for staff nurses” and is related to job satisfaction of staff nurses. Garret and McDaniel (2001) explored interpersonal relationships and burnout, and found that a supportive workplace were important in preventing job dissatisfaction. Kovner, Hendrickson, Knickman, and Finkler (1994) also found that good communication was essential to building a cohesive work unit. These results indicate that nurse managers should acknowledge the importance of communication with each staff nurse. Nurses’ perceptions of organizational support can be facilitated by allowing participation in decision making, providing growth opportunities, and ensuring a fair distribution of reward (Allen, Shore & Griffeth, 2003). It is important for the nurse manager to ask their opinions on patient care in addition to give orders to staff nurses. In addition to one-way communication such as listening to thoughts or opinions, participation in the decision-making process regarding nursing care and ward administration should be considered. Furthermore, nurse managers also stated the need for giving reliable feedback on staff evaluations, as well as allowing staff nurses to communicate their own plans and to participate in the decision-making process instead of one-way communication such as simply listening to the staff nurse’s ideas or opinions (Tsukamoto, Yuki, Funaki, Tanaka & Yamagichi, 2009).

Factor-three, “professional development,” is also important. Nurses’ professional development relates to skills and knowledge that are acquired for career advancement. The nursing work environment is rapidly changing and nurses must constantly update their skill to practice effectively. Moreover, nursing leadership has a function to appraise and assist in the planning and identification of the training needs of nurses (Pencheon, 2002). Nurse managers can make the workplace interesting, empowering nurses to put in extra effort and improve performance. In Japan, only a few ranks are available for nurse advancement such as senior manager, nurse manager, and director of a nursing department. Thus, the opportunity for promotion or advancement is limited. Nurses maintain the same position for a long period of time, which can decrease motivation in the mid- to later years of employment. Furthermore, the rotation of staff every few years changes the workplace and can inhibit the development of an individual’s career. This phenomenon in turn leads to difficult professional development. Thus, it is difficult to devise a career plan. Important elements supporting the career development process of middle-aged nurses include recognition, acknowledgement and support by others (Morimoto, Suzuki & Nagi, 2003). Having a next step for career advancement is clearly effective for maintaining motivation. Training should be encouraged to promote career advancement or to promote programs that emphasize paying attention to duties in the

workplace. Pencheon (2002) suggested that job satisfaction is high when the work engages the strongest aspects of nurse's personality, culture of work environment and the leadership of the unit. Organizational improvements such as clarifying promotion or advancement stages, abolishing pointless rotations and establishing a system to obtain additional qualifications should be made.

A discrepancy in recognition was found between staff nurses and nurse managers in the evaluations of the recognition behaviors of nurse managers. We believe that nurse managers should keep in mind the perspective of staff nurses.

Staff nurse's SOC was significantly lower than the average SOC (55) among Japanese citizens (Yamazaki, Togori & Sakano, 2008). Low staff nurse's SOC indicates that they felt that their situation was more difficult to manage and that they had fewer resources to help their situation as a nurse. They also perceived their work as being less meaningful. Therefore, nurse managers can help staff nurses by using their recognition behaviors to identify the negative experiences of staff nurses and by helping the staff nurses cope with these negative experiences. A significant difference was observed between SOC and marital status, age and years of nursing experience. This indicated that growth as a member of society, clinical experiences, and mental and physical health conditions affected the SOC score. This difference supports the theory of earlier studies (Antonovsky,

1987; Takayama et al. 1999), which indicate that SOC is promoted by one's role and socioeconomic status. In multiple logistic regression analysis, we found relation between SOC and "Overall work experience," "good physical health status," "good mental health status," and "recognition behavior." The odds ratio between SOC and recognition behavior was only 1.02. It is possible that this variable was statistically significant because of our large sample size. Thus, recognition behaviors of nurse managers were effective in improving the SOC of staff nurses. This result supports Antonovsky's (1987) hypothesis that work environment leads to the formation of SOC in adulthood. SOC can improve staff performance, and staff nurses with a high SOC can support those with a low SOC, increasing the overall SOC of the workplace through mutual interaction. Kageyama (2003) reported that rather than being evaluated by patients, it is important to be recognized by colleagues such as nurse managers and senior nursing director, which can be entrusting responsibility and increasing work discretion lead to improved SOC of staff nurses. Specific recognition behaviors by nurse managers improve staff nurse SOC and provide mental health support for staff nurses.

Conclusions

This study revealed that recognition behaviors of nurse managers were effective in

improving the SOC of staff nurses. Thus, recognition behaviors of nurse manager are an effective step towards improving nurses' ability to cope with stress and, in turn, support self-realization. The ability to cope with stress can be assisted by nurse managers who can employ appropriate recognition behavior, as requested by staff nurses. This goal can be accomplished by taking into account individual staff members, career development as a specialist and reviewing nurse manager's duties.

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Table 1 Demoraphic characteristics of nurses (n = 1425)

Demoraphic variable	*n*	*%*
Gender		
Male	92	6
Female	1333	94
Marital status		
Single	892	63
Married	533	37
Age range, years, mean (±SD)	35.5 (±9.9)	
Under 29	516	41
30-39	391	31
40-49	260	21
Over 50	81	7
Overall work experience, years, mean (±SD	12.8 (±9.5)	
Under 3	292	21
4～9	346	24
10～19	396	28
Over 20	391	27
Position		
Staff	1248	88
Nurse manager	177	12
Academic background		
Associate degree	231	16
Diploma in nursing	803	56
Junior college graduate	124	9
University or graduate university	267	19
I hoped to work in current unit		
Yes	730	51
No opinion	344	24
No	351	25
Mental health condition		
Very good	74	5
Good	955	67
Bad	367	26
Very bad	29	2
Physical health condition		
Very good	84	6
Good	1029	72
Bad	305	21
Very bad	7	1

Table 2 Recognition Behavior analized using an exploratory factor with Promax Rotation

Recognition Behaviors	Factors		
	1	2	3
Factor One - Evaluation presentation and report			
Achievements of nurses are posted on the bulluten board.	**.830**	.019	-.115
Achievements are announced in hospital newsletter.	**.829**	-.025	-.125
The nurse manager accepts the work which was excellent in the staff, and tells out of a ward.	**.810**	.023	-.101
Senior nursing management receives a letter from the nurse manager regarding the staff nurse's performance.	**.746**	-.039	-.031
Certification in an area of specialty nursing is acknowledged by a pay raise.	**.731**	-.009	.033
The nurse manager evaluates the staff by work.	**.660**	.010	.054
The staff nurse is recommended by the nurse manager as an expert speaker.	**.590**	-.112	.209
Senior nursing management receives regarding the staff nurse's performance.	**.577**	.038	.237
Factor Two - Individual value and transfer of responsibility			
The hope of an attendance sheet is accepted.	-.156	**.818**	-.037
Helps the staff's job, when busy.	-.036	**.727**	-.084
How to use the time under service to the staff.	.030	**.715**	-.103
Preference for selection of hours is given to the nurse.	-.075	**.604**	.048
Nurse manager meets with the staff nursee to discuss patient care and career goals.	.009	**.601**	.145
The nurse manager consults with the staff nurse on important decisions.	.131	**.549**	.021
The nurse manager provides on-the-job feedback for care given.	.034	**.520**	.097
Time and support are given to develop booklet describing the services the nures provide on the unit.	.283	**.481**	-.031
Patient evaluations that compliment individual nurses on the unit are posted on the bulluten board.	.028	**.480**	.220
Factor Three - Professional development			
Staff nurses are asked to repesent the unit at hospital meeting.	-.147	.047	**.816**
Staff nurses are selected as presepters for new employees.	-.041	-.116	**.815**
Staff nurses encouraged to participate in proessional activities at local and national level.	.052	-.023	**.759**
The nurse manager asks the staff nurse to participate in plannning for the unit.	.038	-.030	**.724**
A day off with pay is given to attend a workshop.	-.128	.150	**.684**
The contribution from a patient to the staff sent to Senior Nursing Dorector.	.225	.074	**.566**
A copy of comlimentary patient evaluations sent to Senior Nursing Dorector.	.212	.105	**.532**
Internal Consistency(Alpha)	.869	.847	.752
Correlation between factors	-	.513	.626
		-	.684
			-

n=1248

Factor lodings > .40 are boldface

Table 3 Comparison of recognition behaviors performed by staff nurse and nurse managers

	Nurse Managers (n=177)		Staff nurses (n=1248)		
	Median	**IQR**	**Median**	**IQR**	**p**
Factor One	21	19-23	17	16-20	<0.001
Factor Two	27	25-27	24	21-27	<0.001
Factor Three	21	20-24	19	16-21	<0.001
All Factors	69	65-76	60	52-67	<0.001

Table 4 Demographic comparison based on SOC scale score

	Median	IQR	p
ALL	50	45-55	
Gender			
Male	50	44-55	0.982
Female	50	45-55	
Marital status			
Single	49[a]	44-54	0.001
Married	52[a]	46-57	
Age range, years			
Under 29	49[b]	44-54	
30-39	51	45-56	0.001
40-49	52[b]	46-57	
Over 50	51	45-59	
Overall work experience, years			
Under 3	48[abc]	43-56	
4～9	50[b]	45-54	0.001
10～19	51[a]	44-57	
Over 20	52[c]	45-58	
Academic background			
Associate degree	50	44-56	
Diploma in nursing	50	45-56	0.254
Junior collage graduate	49	44-55	
University or graduate university	50	45-54	
I hoped to work in current unit			
Yes	50	45-56	0.764
No	50	45-56	
No opinion	50	44-54	
Mental condition			
Very good	55[adf]	49-61	
Good	52[ae]	47-57	0.001
Bad	46[cd]	41-50	
Very bad	36[cef]	30-43	
Physical condition			
Very good	53[ae]	48-61	
Good	51[cd]	46-56	0.001
Bad	46[ac]	41-51	
Very bad	36[de]	31-41	

n=1248; a,c,d,e,f ;p<0.001 , b;p<0.05

Kruskal-wallis test, and multiple comparison test were performed using a multiple analysis of variance.

Table 5 Multiple logistic regression analysis for higher SOC (n=1248)

Variables	OR(95%CI)	p
Recognition behavior	1.02 (1.01 - 1.04)	0.006
Marital status	1.21 (0.87 - 1.66)	0.253
Overall work experience, years	1.05 (1.04 -1.07)	< 0.001
Mental health condition	4.07 (2.53 - 6.53)	< 0.001
Physical health condition	1.08 (1.09 - 2.89)	< 0.001

CI, confidence interval. Higher SOC score group was assinged as 1 and the lower group as 0. All variables were adjusted for age.